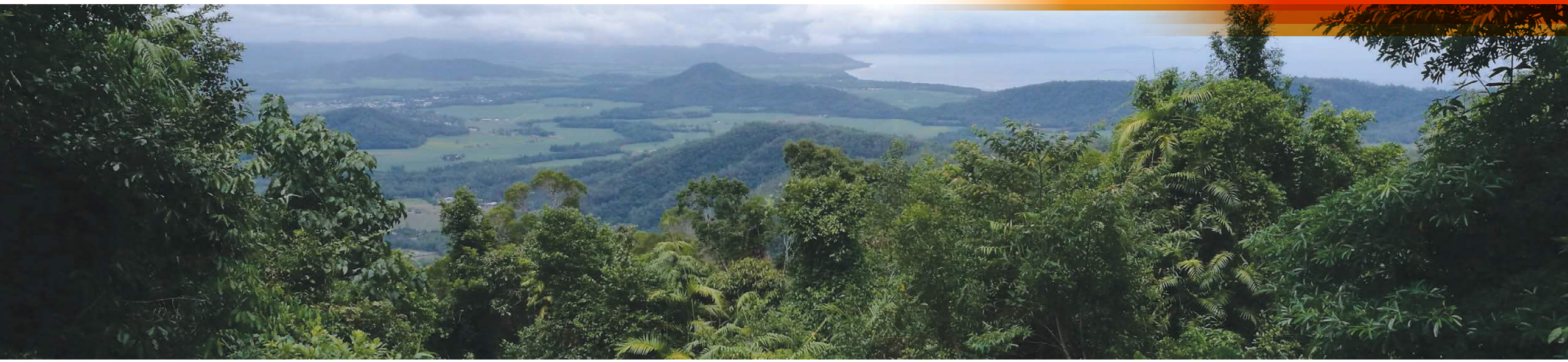
Protecting Queensland from Invasive Species

Priorities for the next Queensland Government.

NOVEMBER 2024

invasive species council



Australia's iconic far north Queensland tropical rainforest is at risk from Invasive Species

Document Details

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About the Invasive Species Council

The Invasive Species Council is an independent donor-funded organisation that safeguards the Australian environment from invasive pests, weeds and diseases.

Formed in 2002, we have been at the forefront of efforts to strengthen biosecurity in Australia to better safeguard our land and seas from invasive species. We strive for a future in which invasive species are no longer a major cause of environmental decline and extinction.

Acknowledgements

We acknowledge the First Australians and pay our respects to their Elders past and present. Effective biosecurity and invasive species management must harness the deep knowledge and land and sea management skills of Indigenous Australians and facilitate their meaningful involvement in decision making.

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Cover Images: Top to bottom, left to right. Inspecting riverbank weeds and fire ants with Landcare at Cedar Grove. Red deer impacting water bodies in Qld. Image: Darren Mundt. Amazon Frogbit infestation Barron River Qld. Image: Paul Fisk. Fire ants take bait on northern Gold Coast farm.

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Queensland needs a better plan for invasive species.

Nature in Queensland is a precious asset that must be protected. Queensland's environment is a well-being and lifestyle boon underpinning an agriculture sector worth $23.67 billion and a tourism sector worth $22 billion annually.

Queensland is home to 85 percent of Australia's native mammals, 72 percent of native birds and more than 11,000 plant species. An increasing number of these are identified as threatened.

Queensland's 2020 State of the Environment report states ***invasive non-native fauna and flora species place significant pressure on Queensland's native biodiversity***.

Despite this - there is a lack of policies and programs to mitigate this significant pressure and protect nature,

The next Queensland government must set an ambitious agenda to tackle the range of invasive species threats confronting our state.

A winning biosecurity strategy will protect biodiversity and restore precious protected areas.

1. Plan and fund regional environmental invasive threat management

- Establish a threat abatement program to systematically identify, prioritise and abate major environmental threats from invasive species.
- Incorporate Queensland's park-level pest plans into comprehensive regional invasive response plans.
- Employ 65 Queensland Parks and Wildlife Service rangers dedicated to invasive plant and animal management
- Provide $40.1 million through regional NRM groups for 56 jobs to deliver 11 key invasive species response projects.
- Develop a Queensland Invasive Species Workforce plan in 2025.
- Dedicate $5 million annual grant funding to respond to invasive species threats impacting Queensland's protected area estate and offshore island habitats.

2. Empower First Nations leadership in invasive species management

- Appoint a Queensland Indigenous Commissioner for Country to advise on the management of invasive species and their impact on indigenous culture and country.
- Allocate dedicated positions and/or set a minimum proportion target for indigenous employment when recruiting and contracting for invasive species management.

3. Eradicate fire ants

- Establish a new independent fire ant eradication authority
- Commit to fund fire ant eradication program work beyond 2027
- Expand fire ant suppression taskforce free bait program and local government support across the fire ant biosecurity zone
- Support implementation of findings from the 2024 Senate inquiry

4. Improve weed prevention and management

- Amend the Biosecurity Act to enable a permitted list approach.
- Support a strong national escaped Garden Plants Threat Abatement Plan
- Develop a strategy to identify and mitigate the risks of potential invasive plant species present (but not yet established) in Queensland.
- Fund staffing places for four additional research scientists and two additional technicians at the Tropical Weed Research Centre in Charters Towers.
- Develop a priority list for Queensland biocontrol research for Queensland.
- Fund a public engagement program to promote the removal of high-risk species from gardens tailored for different communities, including for people from various cultural backgrounds.

5. Support local Yellow Crazy Ant eradication

- Commit from 2026 to $3 million per year over ten years in ongoing funding for the Cairns Yellow Crazy Ant eradication project.
- Commit $925,000 over five years to the ongoing Whitsundays Regional Council Yellow Crazy Ant eradication project.
- Provide $2 million over four years for local government invasive ant management responses

6. Strengthen feral deer management

- Develop, fund and implement a south east Queensland deer management strategy across the local government areas of Brisbane, Moreton Bay, Logan, Ipswich, Redlands, Scenic Rim, Somerset Lockyer Valley Region, Gold Coast, Sunshine Coast, Toowoomba, Noosa.
- Employ state deer coordinators to lead cross-agency and landholder efforts and implement regional and statewide environmental and agricultural deer control priorities.
- Commission a comprehensive economic study on the costs of deer impacts in Queensland.
- Conduct a comprehensive feral deer population estimate.
- Form an impacted stakeholder feral deer roundtable including representation from agriculture, automotive, NRM and environment advocacy bodies.
- Commence a public engagement campaign to promote feral deer reporting.

7. Support feral and roaming cat control

- Develop a Queensland Feral Cat Management Plan and support a strong national feral cat Threat Abatement Plan.
- Provide $4 million over four years of dedicated funding for local governments to enforce pet cat containment, desexing and pet registration.
- Conduct a statewide responsible pet ownership campaign.

8. Prevent invasive freshwater fish

- Develop and implement a freshwater invasive fish action plan including measures to engage the aquarium trade, community outreach and training and data collection support for Land and Sea rangers.

9. Overhaul Queensland's biosecurity system

- Commence a parliamentary inquiry to provide recommendations for legislative, regulatory and institutional changes that improve Queensland's biosecurity system.
- Commit to incorporating the recommendations from the Parliamentary Biosecurity Inquiry into an updated *Biosecurity Act 2014*
- Fund 22 research and technical staff positions for the Biosecurity Queensland Invasive Plant and Animal program to restore capacity at the Ecosciences Precinct, Pest Animal Research Centre and Tropical Weeds Research Centres
- Indexation and continuation of the Queensland Feral Pest Initiative beyond the current $10 million over four years.

Wallum sedge frog. Image: James Bennet.

Running Koala at ground level. Image: Koala Clancy Foundation

1. Plan and fund regional environmental invasive threat management

Current situation

Invasive species have been a primary driver for about three-quarters of extinctions in Australia. Over 100 plant and animal species have been assessed as facing a significant extinction risk. Invasive species are a significant threat to almost three-quarters of these predicted extinctions often in combination with other threats.

In Queensland, invasive species responses are delivered through Biosecurity Queensland with an agriculture focus. Environmental invasive species responses are often ad hoc.

The Queensland Parks and Wildlife Service (QPWS) has responsibility for invasive management in many of Queensland's most environmentally sensitive protected areas. In 2022 approximately 700 field staff were deployed to manage over 10 million hectares. This protected area has grown by almost 600,000 hectares in 2023-24. Resource limitations mean the management of invasive species in Queensland's conservation areas has not met community expectations

Regional Natural Resource Management (NRM) groups play a role in managing invasive species in Queensland. This role is not supported by consistent funding and regulatory authority.

Community and volunteer groups have undertaken bush regeneration, invasive management and control work - including in protected areas. These groups do not have access to reliable funding and support.

Opportunity

State government leadership, coordination, and funding are needed to protect Queensland's environment from the impacts of introduced species. A systematic approach is required to prioritise and abate major environmental threats from invasive species.

As a primary driver of extinctions, environmental invasive species responses require greater state and regional coordination. Regional invasive species response plans with regulatory authority would focus the available resources where they could have the greatest impact - for example at a catchment or landscape basis. NRM groups have identified 11 key invasive species response and mitigation projects that can serve as a foundation for this process.

A dedicated funding stream for community-supported mitigation actions would enable the implementation of response plans on an impact assessment basis.

Invasive response planning must extend to environmental assets including national parks, Indigenous protected areas and Indigenous ranger projects, private protected areas, Queensland's offshore islands, nature reserves and world heritage listed locations.

Upper Mary Valley Weed Vine project

Hinterland Bush Links, established in 2011, aims to connect, restore and protect native habitat in the Sunshine Coast Hinterland in South-East Queensland. The region is a biodiversity hotspot with high-quality native vegetation which has become fragmented due to land clearing. Weed vines, particularly Cat's claw creeper, Madeira Vine, and Dutchman's pipe, threaten remaining habitats, including the Critically Endangered Lowland Rainforest of Subtropical Australia and many threatened species.

In 2012, Hinterland Bush Links launched a key project to eradicate these invasive vines from the Upper Mary Catchment between the Blackall and Conondale Ranges. Cat's claw creeper and Madeira vine smother native vegetation and cause stream banks to collapse, severely impacting riparian and in-stream health, contributing to sedimentation in the Great Barrier Reef, which the Mary River flows into. Dutchman's pipe, toxic to the larvae of the vulnerable Richmond Birdwing Butterfly, further complicates conservation efforts.

The project employs a strategic approach, working from the upper catchment downstream, using repeated manual and chemical controls over up to ten years to prevent reinfestation. This model, ideally adopted by other organisations, has shown good progress but faces significant funding challenges. Sustaining the necessary annual treatments, monitoring and reporting requires continuous funding, which has usually been sourced from multiple organisations, with short-term funding cycles. This funding model threatens project progress and the effectiveness of treatments, as annual repeat treatments are critical to eradicate weed vine infestations.

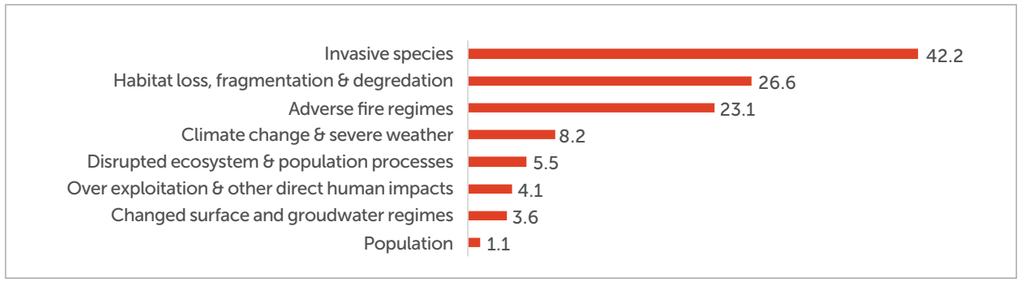
More information about Hinterland Bush Links' Upper Mary Valley Weed Vine project is here: https://www.hinterlandbushlinks.org/upper-mary-valley-weed-vine-project/

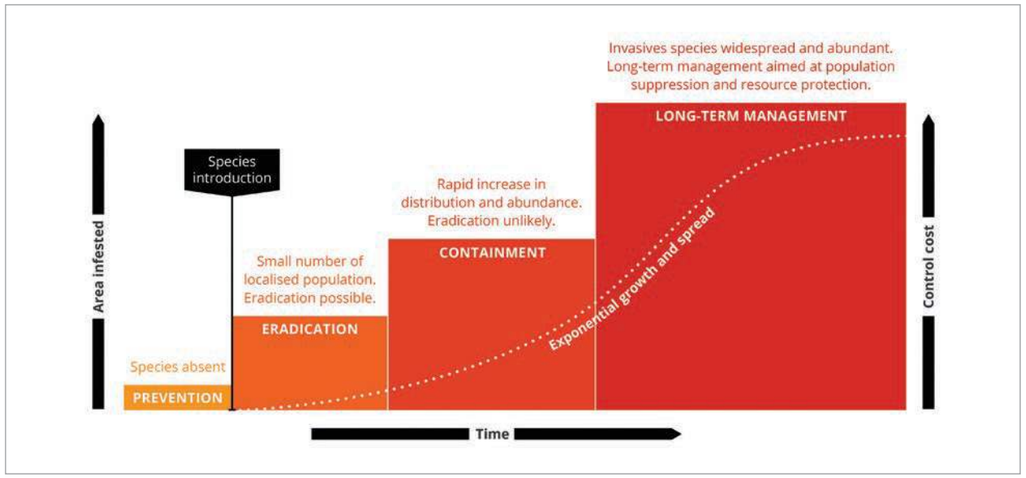
Actions needed

The Qld Government should:

- Establish a threat abatement program to systematically identify, prioritise and abate major environmental threats from invasive species.
- Incorporate Queensland's park-level pest plans into comprehensive regional invasive response plans.
- Employ 65 Queensland Parks and Wildlife Service rangers dedicated to invasive plant and animal management
- Provide $40.1 million through regional NRM groups for 56 jobs to deliver 11 key invasive species response projects.
- Develop a Queensland Invasive Species Workforce plan in 2025.
- Dedicate $5 million annual grant funding to respond to invasive species threats impacting Queensland's protected area estate and offshore island habitats.

Figure 1. The percentage of threatened taxa impacted to a high or medium degree by each major threat category





Invasion curve – the stages of the invasion process and the four response strategies

2. Empower First Nations leadership in invasive species management

Current situation

The impact of invasive species on Australia's environment is a direct threat to First Nations' cultural heritage and connection to Country. Weeds and feral animals lead to the destruction of sacred sites, the loss of native wildlife and the extinction of Indigenous totem species. They reduce the availability of native food sources, prevent the regeneration of degraded landscapes and alter the characteristics of local ecosystems.

Invasive species have deep and long-lasting impacts on First Nations communities' culture and connection to Country.

It should be unthinkable to continue to allow the collapse of culture through the destruction of Country and further extinctions caused by invasive species.

Opportunity

Australia's Indigenous people have a deep knowledge and understanding of the management of Country and a strong desire to be more involved. The role of First Nations people, knowledge and culture is central to our conservation challenges and providing opportunities for leadership, employment and knowledge sharing is vital if we are to tackle the deadly threat of invasive species.

Establishing a Queensland Indigenous Commissioner for Country would be an important step in increasing First Nations leadership in invasive species management. It will need to be adequately resourced, staffed and empowered to engage with Indigenous people and the wider public and provide independent advice to government and the parliament on all natural resources issues, including invasive species.

Actions needed

The Qld Government should:

- Appoint a Queensland Indigenous Commissioner for Country to advise on the management of invasive species and their impact on indigenous culture and country.
- Allocate dedicated positions and/or set a minimum proportion target for indigenous employment when recruiting and contracting for invasive species management.

Richard Swain ISC Indigenous Ambassador in Kuranda for the Protect Your Patch festival.

As an Aboriginal nation it is our culture to care for Country and the species that evolved here over millennia.

We envisage a Country with flourishing sacred sites and an abundance of totem animals, our lands regenerated after being liberated from a 230 year siege of feral pests, weeds and exotic diseases. Successful breeding programs for native endangered animals are underway in protected areas where native plants thrive, creating shelter and food for wildlife.

With the hands of Indigenous people, and the hearts and minds of modern Australian communities, people care for our Country, together.

Richard Swain, indigenous river guide and Invasive Species Council Ambassador

3. Eradicate fire ants

Current situation

Fire ants threaten our health, economy and environment. If they are not eradicated they will spread to most of Australia. Since 2001 fire ant eradication has been the goal but only containment and suppression have been achieved.

Underfunding and limited resources have led to fire ants breaching containment and spreading south to New South Wales, west to Toowoomba, east onto Minjerribah and Moreton Bay Islands and north to the Sunshine Coast.

New funding for the National Fire Ant Eradication program has opened a window of opportunity to achieve eradication. Fire ant eradication will save billions per year in perpetual costs. Resources for eradication are guaranteed until 2027 and resources for suppression are guaranteed until 2026.

Long-term funding, proactive fire ant suppression and stronger containment are crucial to successful fire ant eradication.

Opportunity

Fire ant eradication is possible over the coming decade. An early commitment to ongoing funding will provide planning certainty and avoid the funding lapse that led to severe outbreaks and fire ant population surge experienced in 2023.

An independent commission should be created to manage the long-term eradication response and surveillance. An independent structure would have greater transparency and accountability and circumvent any institutional hurdles to fire ant eradication.

While eradication work is ongoing an expanded role for local governments will help suppress fire ants inside the eradication zone. Local governments are already treating their land but should be funded to play a role in proactive community engagement and free bait distribution through their facilities.

Finally - the 2024 fire ants in Australia senate inquiry made 10 recommendations to give Australia the best chance in the fight against fire ants. These findings must be implemented as a priority.

Actions needed

The Qld Government should:

- Establish a new independent fire ant eradication authority
- Commit to fund fire ant eradication program work beyond 2027
- Expand fire ant suppression taskforce free bait program and local government support across the fire ant biosecurity zone
- Support implementation of findings from the 2024 Senate inquiry

Above: Fire ants attacking grasshopper. Inset: Fire antson eggs. Image: NFAEP

Horse that has been stung by fire ants.

A field in Logan with high fire ant nest densities.

4. Improve weed prevention and management

Current situation

Weeds are estimated to be a $600 million annual cost to Queensland. They impact agriculture, nature, and human health.

A recent compilation of plant introductions since 1770 recorded 34,650 alien species in Australia – about 1.5 times the number of Australian native species, and almost 9% of the world's known flora. In Queensland, growing and trading any plant species is permitted other than the 90 prohibited or restricted species under the Biosecurity Act 2014. The vast majority of future invasive weeds are probably already in Australia, and there are no legal impediments to their introduction to Queensland. Many high-risk plant species are sold and traded legally and once they escape from the garden or aquarium they become invasive weeds that choke catchments, rivers and national parks.

Opportunity

Regulatory changes are required to end the proliferation of invasive weeds in Queensland. We must turn off the tap to clean up the mess. The example of Amazon Frogbit illustrates the shortfalls of a prohibited list approach - many weed threats can take years to be prohibited and in that time become prolific. A legislative and regulatory change from a prohibited list to a permitted species list will provide regulatory certainty to consumers and businesses and protect Queensland's environment from unplanned introductions of invasive weeds in other parts of Australia.

A rigorous analysis of environmental priorities for weed management is needed to inform research and management funding particularly related to invasive grasses management and biocontrol research.

Community engagement and awareness is essential to slow the proliferation of high risk and prohibited species.

Amazon Frogbit: an escaped garden weed

Amazon frogbit (*Limnobium laevigatum*) is an invasive floating aquatic plant that has been distributed across the world in the aquarium trade. It has become established in waterways and wetlands and is now a major weed in Queensland and New South Wales. Control work is ongoing in the Barron River catchment but it will become much harder to limit its impacts if frogbit enters the Mitchell River catchment.

Frogbit spreads rapidly creating an impenetrable layer on the surface of water. This causes a choking effect impacting aquatic and bird life degrading water quality from decomposing weed matter. Tourism and recreation are also affected along with irrigation, power and transport infrastructure.

Frogbit was first found in Queensland in 2010 and has since been found in New South Wales. The sale and trade of frogbit is prohibited under New South Wales law and in some Queensland local government areas. It is not prohibited by Queensland government regulations. This undermines control efforts and increases the risk of the spread of this aquatic weed. Legislative and regulatory change from a prohibited list to a permitted species list process is required to end the proliferation of invasive weeds, like frogbit, in Queensland.

Actions needed

The Qld Government should:

- Amend the Biosecurity Act to enable a permitted list approach.
- Support a strong national escaped Garden Plants Threat Abatement Plan
- Develop a strategy to identify and mitigate the risks of potential invasive plant species present (but not yet established) in Queensland.
- Fund staffing places for four additional research scientists and two additional technicians at the Tropical Weed Research Centre in Charters Towers.
- Develop a priority list for Queensland biocontrol research for Queensland.
- Fund a public engagement program to promote the removal of high-risk species from gardens tailored for different communities, including for people from various cultural backgrounds.

Amazon frogbit. Image: Paul Fisk.

Koster's curse infiltrating rainforest in far north Qld.

5. Support local Yellow Crazy Ant eradication

Current situation

Yellow Crazy Ants threaten Queensland's environment by forming dense supercolonies that attack bird and insect life and turn forests silent.

Yellow Crazy Ant eradication led by the Wet Tropics Management Authority in and around Cairns is on track to achieve local eradication. Approximately 450 hectares of environmentally sensitive rainforest, agricultural and residential areas are now free of infestation. A much larger area is under clearance surveillance.

Responses on invasive Yellow Crazy Ants are also underway for infestations at Townsville, Brisbane and the Whitsundays led by local governments. These responses are building on and utilsiing essential resources, experience and expertise established in the Cairns Yellow Crazy Ant program.

Opportunity

Local government-led and wet tropics authority responses are building an extensive Yellow Crazy Ant control effort in many areas of Queensland.

The local responses have arisen from decisions to protect environmental values. These projects are building local invasive species response and management capacity. A program of state and federal support will support and build on this local work ensuring ongoing resourcing for the management of invasive insect species.

The Cairns Yellow Crazy Ant eradication project funding expires in 2026. A further 10 years of funding is required from the Queensland and Australian governments to complete the project at $3 million per year each.

A dedicated fund for local governments to respond to invasive ants will build on emerging invasive ant response projects.

Actions needed

The Qld Government should:

- Commit from 2026 to $3 million per year over ten years in ongoing funding for the Cairns Yellow Crazy Ant eradication project.
- Commit $925,000 over five years to the ongoing Whitsundays Regional Council Yellow Crazy Ant eradication project.
- Provide $2 million over four years for local government invasive ant management responses

Yellow Crazy Ants thrive in rainforest and dry tropics.

Yellow Crazy Ants can invade urban and farm environment.s

Tree frog with acid burns. Image: Ian Chatterton.

6. Strengthen feral deer management

Current situation

Feral deer are among the worst emerging invasive species in the country. In Queensland feral deer are listed as a pest under the Biosecurity Act. It is the responsibility of landholders to control them.

Queensland's current deer management strategy is high-level and unfunded. In other states, regional NRM groups play a key role in responding to feral deer while in Queensland this role falls to local councils. This creates a gap for regional deer management planning.

Lack of regional deer management planning has led to a patchwork response. The Sunshine Coast, Brisbane, and Moreton Bay Councils are feral deer response leaders in Queensland.

Good seasonal conditions over several years have led to community reports of a surge in deer numbers. The extent of feral deer numbers and movements in Queensland is poorly understood, making a comprehensive population study urgently needed.

State leadership to create a framework for regional coordination and funding is needed to get feral deer populations under control.

Opportunity

Building on the work of Brisbane, Moreton Bay and Sunshine Coast councils, the state government must develop and fund a coordinated south east Queensland deer strategy.

This strategy should incorporate:

1. Appointment of local feral deer response coordinators
2. an impacted stakeholder roundtable
3. a comprehensive population estimate
4. a comprehensive economic study of feral deer impacts

A successful deer response can be a model for responses to other invasive vertebrates.

Actions needed

The Qld Government should:

- Develop, fund and implement a south east Queensland deer management strategy across the local government areas of Brisbane, Moreton Bay, Logan, Ipswich, Redlands, Scenic Rim, Somerset Lockyer Valley Region, Gold Coast, Sunshine Coast, Toowoomba, Noosa.
- Employ state deer coordinators to lead cross-agency and landholder efforts and implement regional and statewide environmental and agricultural deer control priorities.
- Commission a comprehensive economic study on the costs of deer impacts in Queensland.
- Conduct a comprehensive feral deer population estimate.
- Form an impacted stakeholder feral deer roundtable including representation from agriculture, automotive, NRM and environment advocacy bodies.
- Commence a public engagement campaign to promote feral deer reporting.

Top, Sambar deer in wallow. Bottom, Chital deer under fence. Image: Luke Woodford.

7. Support feral and roaming cat control

Current situation

Feral cats directly contributed to the extinction of more than 25 Australian mammals and put direct pressure on at least 124 Australian species endangered with extinction.

Roaming pet cats can also have significant environmental impacts. In Queensland, local councils can enforce 24/7 cat containment, pet cat microchipping and have access to a range of cat control tools. Because there is no Queensland feral cat management plan, local government responses to roaming cats vary widely. Weak responses in some areas undermine strong efforts on cat management in others.

Opportunity

Leadership and coordination are needed to strengthen Queensland's response to feral and roaming cats. A Queensland feral cat management plan can be the framework for local councils to participate in a coordinated cat response. The response plan can be a means to deliver targeted funding support for council microchipping, containment enforcement and desexing campaigns.

Actions needed

The Qld Government should:

- Develop a Queensland Feral Cat Management Plan and support a strong national feral cat Threat Abatement Plan.
- Provide $4 million over four years of dedicated funding for local governments to enforce pet cat containment, desexing and pet registration.
- Conduct a statewide responsible pet ownership campaign.

Every year cats in Australia kill ...

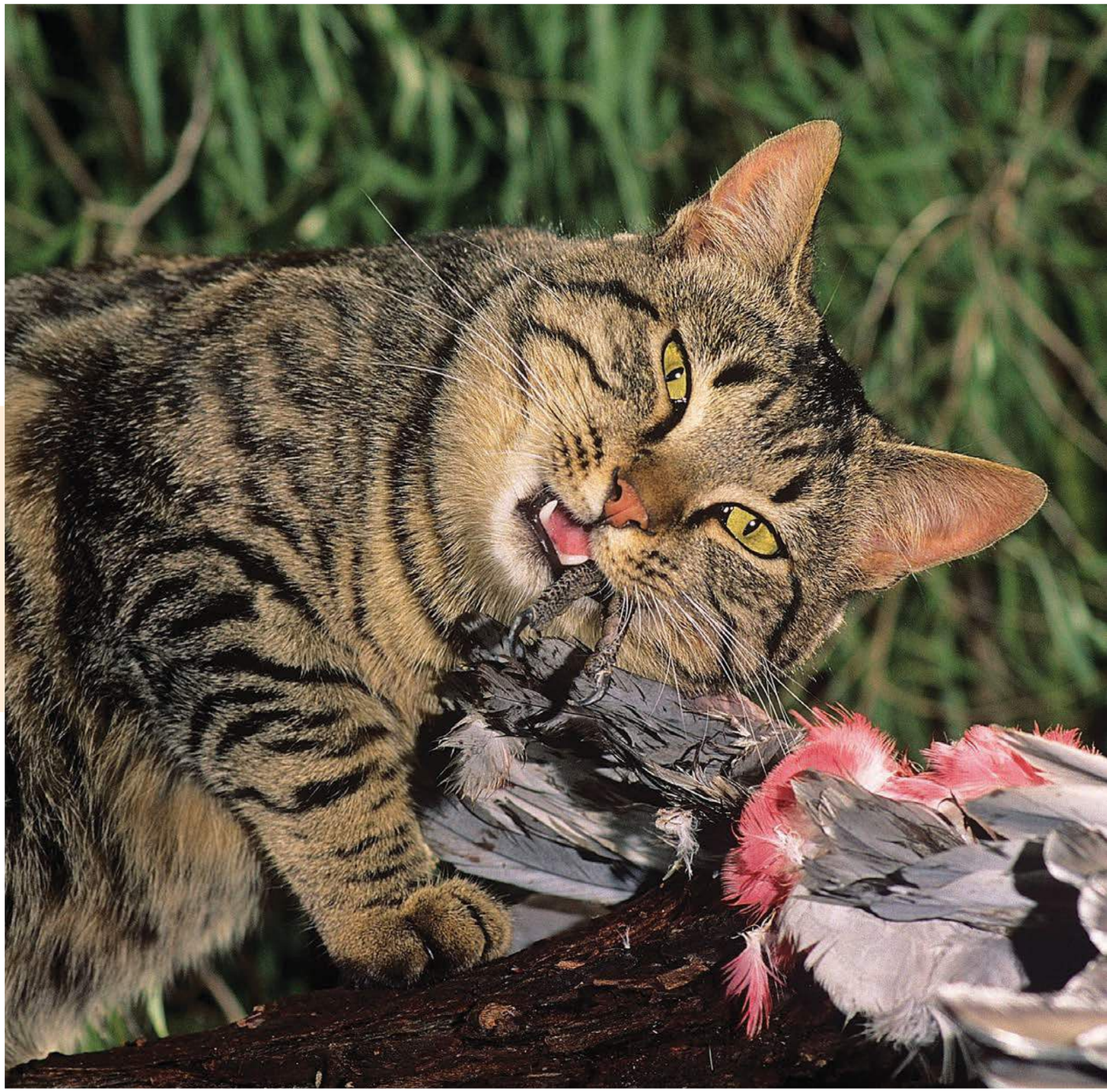
1,067,000,000 mammals

399,000,000 birds

609,000,000 reptiles

92,000,000 frogs

Images from left to right: Helenabella / Wikimedia Commons. CC BY-SA 3.0
Steve Murphy / Flinders University. Josef Schofield. JJ Harrison. CC BY-SA 3.0



8. Prevent invasive freshwater fish

Current situation

Introduced freshwater fish species are one of the major threats to aquatic biodiversity. Invasive freshwater fish species known to occur in Papua New Guinea have been transported and are now present in north Queensland. The spread of invasive fish species adds to existing mainland species like tilapia, jaguar cichlid, redfish perch, guppies and native fish translocations.

Opportunity

Coordination of actions on freshwater invasive fish includes engagement with the aquarium trade, northern Queensland public community outreach, and support for Land and Sea Rangers to identify and prevent their spread. This opportunity can be delivered as part of an invasive species training and data collection regime.

Actions needed

The Qld Government should:

- Develop and implement a freshwater invasive fish action plan including measures to engage the aquarium trade, community outreach and training and data collection support for Land and Sea rangers.

Invasive tilapia (above) are a threat to Queensland species like the Australian Lungfish (right) and Mary River Cod.

Images: Above, Vijay Anand Ismavel. Inset, Gavin Goodyear

9. Overhaul Queensland's biosecurity system

Current situation

Queensland's biosecurity regulatory framework is not optimised to build public confidence or protect our environment from the threat of invasive species. The July 2023 Queensland Audit Office report Managing Invasive Species provided eight key recommendations for system changes.

The report found leadership, transparency, strategy and public engagement failures in the government's response to and management of invasive species threats. Feral cats, fire ants and weed management were case studies for biosecurity system failures.

Biosecurity Queensland's agriculture focus has narrowed its effectiveness in responding to environmental invasive species threats. For example - 70% of Feral Pest Initiative Funding between 2016 and 2021 was allocated to wild dog cluster fencing ($29 million). There are no dedicated environmental invasive species funding streams.

Total expenditure by Queensland's state and local governments on managing invasive species is not reported. Project success criteria, prioritisation and performance are unclear. Many invasive species responsibilities fall to local governments to manage in an unfunded manner without the support of regional or statewide planning.

Beyond the recommendations of the audit report findings, further urgent reform is necessary:

1. The prohibited-list approach in the Biosecurity Act 2014 fails to address the tens of thousands of potentially invasive species that might be brought into Queensland for trade or cultivation.
2. Biosecurity Queensland Invasive Plant and Animal program staff numbers have declined since 2011.
3. The lack of an independent Natural Resources Commission limits transparency and narrows public engagement options. Closed institutional systems undermine vital public confidence.

Current institutional arrangements in Queensland are a barrier to effective invasive species responses.

Opportunity

A broad-scoped public parliamentary inquiry into the Queensland Biosecurity Act 2014 is needed to identify the full range of regulatory, legislative and institutional changes necessary to improve Queensland's biosecurity system.

The inquiry terms of reference should include the deficiencies in funding arrangements, options to support local and regional biosecurity responses and institutional changes that improve transparency and outcomes. Evaluation should be undertaken into alternative models from other Australian and international jurisdictions.

Immediate actions should also be taken including:

1. Increasing invasive plant and animal research staff capacity to improve early invasive preparedness and identify priority biocontrol research activities.
2. Continuation of the Queensland Feral Pest Initiative (with indexation) alongside a new dedicated environmental invasive species funding program.

Actions needed

The Qld Government should:

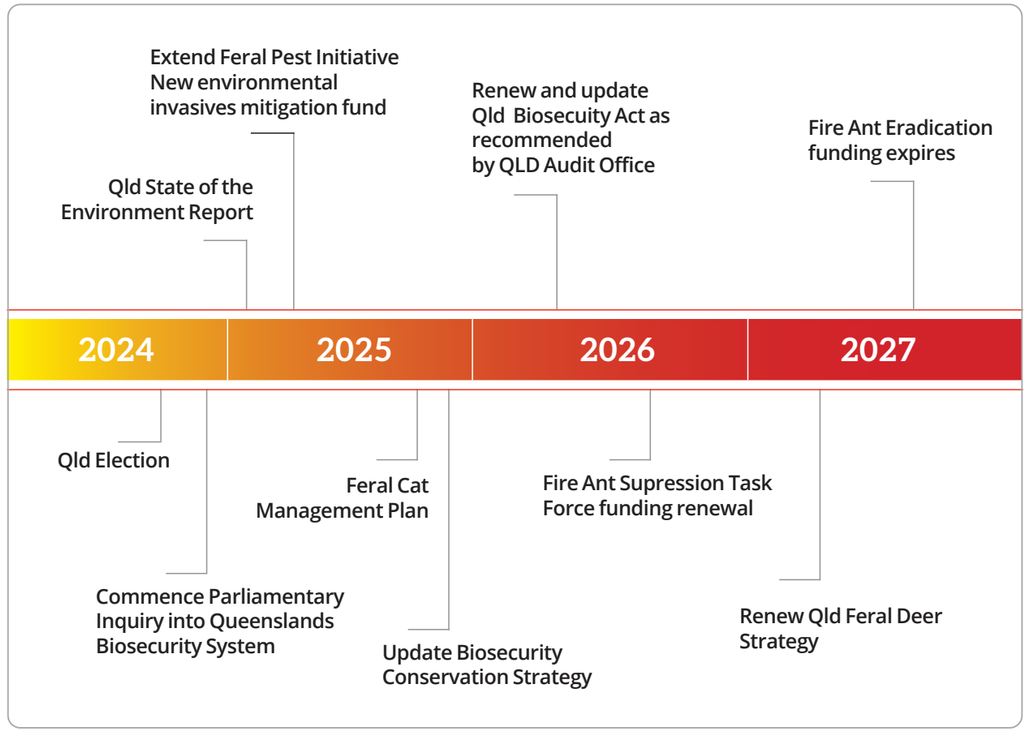
- Commence a parliamentary inquiry to provide recommendations for legislative, regulatory and institutional changes that improve Queensland's biosecurity system.
- Commit to incorporating the recommendations from the Parliamentary Biosecurity Inquiry into an updated *Biosecurity Act 2014*
- Fund 22 research and technical staff positions for the Biosecurity Queensland Invasive Plant and Animal program to restore capacity at the Ecosciences Precinct, Pest Animal Research Centre and Tropical Weeds Research Centres
- Indexation and continuation of the Queensland Feral Pest Initiative beyond the current $10 million over four years.

Example species detected and naturalised in Qld (since 2000) that could have adverse environmental impacts:

- Red Imported Fire Ant
- Electric ant
- Yellow Crazy Ant
- Asian honey bee
- Myrtle rust
- Jaguar cichlid
- Freshwater gold clam
- Edwardsiella ictaluri (aquatic pathogen)
- White spot syndrome virus (aquatic pathogen)
- Blue acara
- Jewel cichlid
- Blue-eyed cichlid
- Suminoe oyster
- Black scar oyster
- New Guinea flatworm
- Nannizziopsis barbatae (reptile pathogen)
- Orange pore fungus
- Lasiodiplodia pseudotheobromae (plant pathogen)
- Xylosandrus crassiusculus (plant pathogen)

Many new weeds have also been naturalised in this time with an unknown number likely to have environmental impacts.

Queenslands Biosecurity System Reform Timeline



Qld Audit Office recommendations from 2023 Report Managing Invasive Species

The Queensland Audit Office recommended that the Department of Agriculture and Fisheries:

1. Strengthens its leadership and coordination role for the biosecurity system by setting strategic priorities, prioritising funding, and coordinating and overseeing activities across Queensland (Chapter 4)
2. Reviews the Biosecurity Act 2014 in consultation with stakeholders, to ensure it has the necessary clarity, authority, and responsibility to effectively and efficiently lead, coordinate, and enforce Queensland's biosecurity system (Chapter 4)
3. Reviews, updates and implements the Queensland invasive plants and animals strategy 2019–2024 (Chapter 4).

   The strategy should:

   a) Identify the current and future challenges and priorities facing Queensland's biosecurity system and provide practical solutions to address these challenges

   b) clearly define Biosecurity Queensland's role in relation to leading the biosecurity system, including coordinating and working with councils and stakeholders responsible for managing established invasive species

   c) include indicators of success to measure performance across the biosecurity system – these measures should be cascaded to all key stakeholders including councils

   d) better align to the Department of Environment and Science's Biodiversity Conservation Strategy.
4. improves the accuracy and level of detail it records about invasive species, their risk, and the activities it does to manage them (Chapter 4). This should include:

   a) determining if the Biosecurity Online Resources and Information System has the required functionality

   b) regularly auditing and reporting on the quality, completeness, and accuracy of data in the Biosecurity Online Resources and Information System

   c) developing processes and measures for analysing its data for trends

   d) using its data in making decisions about how best to manage invasive species.
5. develops and implements a framework for assessing and mitigating the risk of new and established invasive species (Chapter 4). The framework should include:

   a) an approach for regularly assessing, prioritising, and mitigating the risk of invasive species

   b) protocols for communicating the risk of invasive species and any changes in approach to managing those risks to relevant stakeholders.
6. provides greater education and awareness to local councils about how they can use the powers of the Biosecurity Act 2014 to regulate the risk of invasive species (Chapter 4). This should include:

a) educating local councils on when and why they should issue biosecurity orders

b) sharing better practice learnings about how local councils are regulating the risk of invasive species and the outcomes.

7. strengthens its approach for assessing the progress and outcomes of the National Fire Ant Eradication Program (Chapter 5). Decisions about what to do next should be guided by independent assessments grounded by scientific data and modelling. This should include periodically assessing whether it is technically feasible to eradicate fire ants from Queensland
8. reports its progress in eradicating fire ants from Queensland (Chapter 5) and the outcomes of its activities. This should include developing and reporting regularly on performance measures that show how well the program is achieving its outcomes, such as the size of the fire ant infestation over time.