

CREATING A FUTURE FREE OF PLAGUES AND PREDATORS







The Centre for Invasive Species Solutions operates at the interface between science and action.

We are a not-for-profit, member-based organisation formed to address the impact of invasive plants and animals across Australia.

We work collaboratively to undertake innovative research, develop new tools, products and practices, and support the community to take action on invasive species.

We are governed by an independent, skills-based Board of Directors led by our Chair, Bruce Christie. Our team is led by Chief Executive, Andreas Glanznig.

The Centre for Invasive Species
Solutions acknowledges the continuing
connection of this land's Traditional
Custodians to culture, country and
community and pays respect to Elders
past and present.

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Cover images

(L-R): European blackberry (*Rubus fruticosus* sp. agg.). Image by Richie Southerton (CSIRO). Brush-Tailed Rock-Wallaby (*Petrogale penicillata*) (Shutterstock). Bottom image: Andrew Bengsen discussing camera trap placement, Jindabyne Deer Masterclass, April 2019, as part of the Cost-effective management of wild deer project. Image by D. Forsyth, NSW DPI.

Design by

Yvette Cazabon, CISS.

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CHAIR'S FOREWORD

Bruce Christie



Australia has an opportunity to overcome its huge invasive species problem, to help achieve the nation's 2030 goals of building a \$100 billion agricultural industry, and to protect our globally important threatened species and biodiversity.

The opportunity is based on innovation and creating technology pathways that transform the way we manage pests and weeds. Business as usual over the next decade is not an option.

Collaborative science will drive the innovation needed to expedite success. Genetic and digital technologies are poised to transform our national biosecurity system. We need these technologies in the hands of those working behind farmgates, across regions, and within industry, community and government organisations managing biosecurity as a matter of national importance.

The Centre for Invasive Species
Solutions plays the lead role in key
technology areas fundamental to
capturing the opportunity before
us. We do this as a member-based
organisation that spans the Australian
Government, all States and the ACT,
industry Research and Development
Corporations, CSIRO, NRM Regions
Australia, universities, peak industry
groups, conservation NGOs and the
New Zealand Government.

In this sense the Centre is unique. Collaboration is our competitive advantage. Our membership gives us the capacity to take an approach to innovation that carries ideas through a technology pipeline to put solutions in the right hands in the right place at the right time. Collaboration also enables our partners to efficiently pool their resources to build large-scale RD&E programs able to deliver solutions at national scale.

Engaging the community is also at the heart of what we do. We have a track record of working with farmers and other land managers to identify the presence of invasive pests and weeds and providing the tools and information they need to manage them.

Our track record is proven. An independent assessment of our work's impact showed that we provide a benefit to cost ratio of nearly 5.0 to 1 over five years for Portfolio No. 1.

Our solutions don't sit on shelves but are being used right now right across Australia.

ABOUT CISS

The Centre for Invasive Species Solutions (CISS) is a not-for-profit, member-based organisation formed to address the impact of invasive plants and animals across Australia.

We work nationally to produce better solutions based on our invasive species RD&E approach.

An emphasis on a collaborative process — involving research scientists, government, universities and peak industry, environmental and NRM

bodies — is fundamental to our work and has underpinned our success.

We began in 2005 as a Cooperative Research Centre and have since expanded our scope and operations to now address invasive weeds, diseases and pest animals. CISS also supports community action on invasive species through our network of national coordinators.

Our operations are primarily funded and supported by cash and in-kind contributions from state governments, the ACT Government, Commonwealth Department of Agriculture, Water and the Environment and industry Research and Development Corporations. Other CISS members and partners are also a significant source of revenue (both cash and in-kind).

The Invasive Species Solutions Trust was launched in December 2021. Over time the Trust will provide a philanthropic revenue stream to further support our work.

We are proudly apolitical, nonpartisan and not-for-profit. We value boldness, strong ethics and trustworthiness, and work in ways that are transformative and collaborative.



CEO, Andreas Glanznig

OUR APPROACH



Research pipelines

Research translation

New solutions

Integrated systems

National coordination



EVIDENCE

STRATEGIC EFFORT

LANDSCAPE IMPACT

WHAT WE DO

CISS creates solutions to managing invasive species.

We build an evidence base with Australia's leading research scientists to better understand:

- the benefits to Australia's threatened species, the environment and primary production from the effective management of invasive species.
- the impacts of invasive species on our environment, our native animals and our primary production systems.

We develop new solutions that:

- improve the detection and surveillance of invasive species.
- inform the response of authorities to new incursions.
- control pest animals using more humane baits, treatments, lure traps and aggregators.

We develop research pipelines that support the creation of new genetic technologies and new biocontrol technologies. We translate invasive species science into practical solutions and make them available to producers and land managers through our suite of interconnected platforms and apps, including:

- PestSmart, for best practice pest animal management.
- FeralScan, for pest animal management planning, monitoring and reporting.
- Weeds Australia and WeedScan for invasive weeds identification, management planning, monitoring and reporting.

We support agency and community adoption of best management practices, tools and technologies by hosting:

- the National Wild Dog Management Coordinator
- the National Feral Cat and Fox Management Coordinator



Image: Gill Basnett is Australia's first National Feral Cat and Fox Management Coordinator. Image by Paul Jennings.

PROTECTING OUR ENVIRONMENT, PRIMARY PRODUCTION AND THREATENED SPECIES

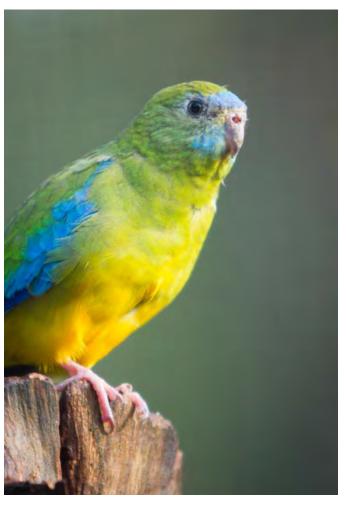






Images (Top to bottom): The Superb parrot (*Polytelis swainsonii*) is listed as a nationally vunerable species. Image by Suzannah Macbeth, Sustainable Farms. Roadside Grey box. Image by Jo Doolan, Kyabram. Sheep grazing.

By creating solutions to invasive species, CISS is helping to protect primary production and the environment, which includes more than 1,250 threatened land-based species impacted by weeds and pest animals.





Images (Top to bottom): Endangered/Threatened species: Orange-bellied Parrot (Neophema chrysogaster) and Bilby (Macrotis).

THE THREAT WE FACE

Hordes of invasive species from beyond our shores — pest animals, invasive weeds, insects and fungi — are threatening our native wildlife, our environment and our way of life.

More than 1,250 of our land-based threatened species are impacted, much of the blame resting with 207 weed species, 57 invasive animals and three pathogens.

Invasive species have contributed to the confirmed extinctions of 79 Australian species since European settlement.

The national extinction rate of native species since 1788 has seen the loss, on average, of 4.3 species per decade. And since the 1960s the dominant driver of nearly all extinctions has been invasive species.

Just three introduced vertebrate pest species — rabbits, pigs and cats — and an endemic plant pathogen threaten more than 800 native species.







European rabbits consume around 15 per cent of the body weight a day. They impact 322 nationally threatened species and nine ecological communities as well as causing lost agricultural productivity of \$217 million a year (iStock image).

Feral pigs cost Australian agriculture over \$100 million each year and impact about 40 nationally threatened species. Image by Brian Doyle.

Feral cats have contributed to over two-thirds of the at least 34 mammal species extinctions in Australia. Image by Leigh Deutscher.

Australia is now home to more than 2,700 weeds. They make up 12 per cent of our flora, a higher proportion than any other continent.

Weeds are transforming our landscapes, displacing native plants, increasing fuel loads for bushfire and choking waterways. And more weeds are becoming established. Each year sees about 20 new weed species established, that is one new species every 18 days.

\$25 billion; the cost to agriculture from weeds is at least \$5 billion a year.

The cumulative cost of invasive species over the past 60 years — in impacts and control costs — has been conservatively estimated at \$390 billion. And if yet more invasive species gain a foothold, the cost will only rise.







Blue Periwinkle is a serious environmental weed of the temperate regions of southern Australia. Image by Andrew Mitchell (CISS).

Salvina is an aquatic free-floating fern that grows in the tropics and sub-tropics forming dense mats that completely cover still or slow-moving water bodies. Image by Andrew Mitchell (CISS).

Cat's Claw Creeper is a long-lived woody climber or creeper that can completely smother native vegetation and is particularly aggressive in riparian vegetation and rainforest plant communities of south-eastern Queensland and north-east New South Wales. Image by Wendy Gibney, NSW DPI.

Sheppard A and Glanznig A (2021) Fighting plague and predators: Australia's path towards a pest and weed-free future. CSIRO, Canberra, Australia.

Woinarski JCZ, Braby MF, Burbidge AA, Coates D, Garnett ST, Fensham RJ, Legge SM, McKenzie NL, Silcock JL and Murphy BP (2019) Reading the black book: the number, timing, distribution and causes of listed extinctions in Australia. Biological Conservation **239** (10826).

OUR PURPOSE

CISS' purpose is to create and deliver valued invasive species solutions for primary industries, the environment and communities.

OUR VISION

Our vision is an Australia free of invasive species.

OUR VALUES

CISS operates as a nonpartisan and not-for-profit organisation.

We work to create and deliver solutions to the invasive species challenges faced by Australia's primary producers, its communities and environment.

Boldness, strong ethics and trustworthiness are important to us, and we work in ways that are transformative and collaborative.



OUR STRATEGIC FOCUS, 2022-2027

- **1. Strategic collaborations focusing on...** partnerships and collaborations to leverage, lead and amplify outcomes.
 - 1.1 Provide national leadership and coordination advice and expertise
 - 1.2 Broker and secure new national and international collaborations to magnify outcomes across systems
 - 1.3 Grow capacity through relationships and opportunities with aligned organisations

Outcomes:

- Growth across national and global collaborations
- Creation of critical mass for greater impact

- **2. Integrated solutions focusing on...** *research, innovation and engagement* (*R,I&E*) *and advance large-scale coordination and breakthroughs.*
 - 2.1 Set and drive the long-term collaborative RI&E agenda to meet member priorities
 - 2.2 Deliver and service our R,I&E collaborations to increase impact
 - 2.3 Accelerate adoption of solution based research and innovation
 - 2.4 Evaluate, synthesise and share performance and impact of programs and projects

Outcomes:

- Translation of technologies across species
- Scaling solutions and impact

- **3. Capability and adoption focusing on...** acceleration of best practice management adoption.
 - 3.1 Build capacity and accelerate adoption of best practice integrated land management and surveillance
 - 3.2 Influence behaviour through improving education and communications that motivate action, and enrich social licence
 - 3.3 Facilitate knowledge exchange and build the capacity of researchers and leaders

Outcomes:

- Increased land manager and community engagement
- Increased adoption of cross-tenure and landscape scale management
- **4. An efficient and effective Centre focusing on...** internal governance and operations, financial management, effective communication and skilled staff.
 - 4.1 Govern and manage the company and ISS Trust effectively
 - 4.2 Maintain strong working relationships with members and partners
 - 4.3 Grow, diversify and leverage income, and our membership base
 - 4.4 Attract and retain skilled staff

Outcomes:

- Longevity of investment across sectors
- Enhanced recognition of our brand value

OUR COLLABORATIVE MODEL for Research, Development and Engagement

The **Centre for Invasive Species Solutions** — with its 10 members, 4 associate members and connections supported by 60+ research institutions — provides a **critical mass** to drive research, development and engagement that generates innovative solutions to weeds and pest animals.

Driving RESEARCH

Leading projects that build an evidence base of new insights and knowledge

- Peer-reviewed journal articles
- Scientific reports
- Economic impact reports

DEVELOPMENT of products, systems and strategies

Creating a new suite of techniques, tools and solutions

- Environmental DNA techniques
- Biocontrol agents
- Novel toxins
- Detection, surveillance and response systems
- Apps underpinned by artificial intelligence and machine learning
- Cross tenure and cooperative management strategies
- Engagement and capability tools

Community **ENGAGEMENT**

Supporting landscape scale community planning and action with best practice digital technologies and national coordination

- · Pestsmart digital platform
- Weeds Australia digital platform
- FeralScan digital platform and apps
- WeedScan app
- National Wild Dog Management Coordinator
- National Feral Cat and Fox Management Coordinator
- National Deer Management Coordinator

LANDSCAPE IMPACT

OUR RECORD OF SUCCESS

CISS — and our predecessor the Invasive Animals CRC — have a proven record of success in delivering innovative tools and systems to manage the threat of invasive species and in accelerating their adoption by land managers and the community.

New tools and systems

Biocontrol agents

CISS' work saw the first release of a new rabbit biocontrol agent in 20 years.

Nearly 1,300 samples of the agent, **RHDV1-K5**, were delivered using a new freeze-dried delivery system through a national network of community and government sites in 2019/20.

The Centre's evaluation of the first potential biocontrol agent for carp, **Cyprinid herpesvirus 3**, led to the development of the National Carp Control Plan (delivered to the Australian Government in January 2020).

New class of toxic baits

The Centre's work (through the Invasive Animals CRC collaboration) led to the first release of the first new predator toxin in 50 years.

Manufactured

para-aminopropiophene (PAPP) baits for wild dogs (Dogabait®) and foxes (Foxecute®) were launched in 2016.

And in 2020 a new targeted feral pig toxin, a **sodium nitrite based manufactured bait**, HogGone®, using novel microencapsulation technology was released.

Genetic surveillance technology

CISS' work led to the development and validation of **eDNA genetic surveillance technology** that allows national priority fish to be detected accurately and cheaply using portable real-time technology developed for national priority amphibians, reptiles and invertebrates such as the Khapra beetle and Yellow crazy ants. and diseases such as Myrtle rust.

New integrated detection and response systems

CISS' work led to the first integrated solution for the **Asian black-spined toad** — a national environmental biosecurity vertebrate priority.

It involves a national incursion response plan supported by an integrated detection system that combines Al-based acoustic technology, lure traps and eDNA detection technology.

Accelerated adoption of best practice on-ground management

Cross-tenure landscape scale management

CISS **national coordinators** accelerated the demonstration and transfer of landscape-scale collective action across Australia using our **FeralScan** community monitoring and management system.

With over a decade of operation, FeralScan now boasts 730 community groups and more than 35,000 registered users.

In just six months since its launch in December 2023, **WeedScan** has grown to include more than 15 community groups and over 1,800 registered users.

Adoption of national standard operating procedures and best practice management

CISS **national coordinators** supported by **our digital information platforms PestSmart and Weeds Australia**accelerate Australians' adoption of best practice management.

In 2022/23, PestSmart attracted 277,719 users and Weeds Australia platform attracted over 87,555 users.

A list of new innovations in development is provided in THE INNOVATIONS WE ARE CREATING (page 14).

A comprehensive list of new tools and systems and measures to accelerate the adoption of best practice on-ground management by CISS and its predecessor is provided in THE INNOVATIONS WE HAVE DELIVERED (pages 16–18).

THE INNOVATIONS WE ARE CREATING

2022

Proof of concept for gene drive technology-based management of vertebrate pests. Two proof of concept projects are underway on a model fish and mammal species. respectively. The model fish species proof of concept is due for completion in 2022. Successful demonstration of these proofs of concept will enable a genetic biocontrol development program to be accelerated targeting national priority vertebrate pests (see also related 2024 innovation output).

Ongoing updates to our extensive set of best practice management guides for managing pests and disease. Our best management practice guides are available to producers and land managers through the PestSmart and Weeds Australia platforms.

Release and implementation of a National Feral Deer Action Plan.

This plan will be a comprehensive guide to consistent and effective management of feral deer in rural and peri-urban environments. It will be driven by the National Deer Management Coordinator and builds on management techniques and strategies validated through CISS feral deer management research and development program.

Testing a Tilapia biocontrol agent.

Tilapia is an invasive fish which is progressively invading northern Australia. Susceptibility trials are being undertaken to assess the suitability of Tilapia Lake Virus for Tilapia control. The trial data will be used to form a biocontrol business case.

Identifying illegal online trade of invasive species. Illegal trade of plants and animals online has changed Australia's traditional invasion pathways. CISS is supporting the development and application of new data mining tools to identify, monitor and interrupt illegal online trade in invasive species.

Automated thermal imagery systems to detect and identify vertebrate pest species. These systems will use artificial intelligence and machine learning to analyse large datasets of thermal images to quickly detect and identify feral deer and pigs at a landscape scale.

First generation eradication decision support software is made available. This first, near real-time analysis software helps land managers to determine the effectiveness of eradication efforts and make optimal and cost-effective decisions on their deployment of resources during an eradication program.

Package submitted for registration of Gonacon targeting kangaroos and wallabies in urban and periurban environments. Gonacon is a non-lethal fertility treatment product for kangaroos and wallabies that is the culmination of a 16-year research and development program.

2023

National registration of the Eradicat® feral cat bait. This 1080-based toxic bait, currently only available in Western Australia, will help protect threatened animal species from feral cats at a landscape scale in Australia's eastern states and territories.

Computer vision Weeds ID app and digital platform. WeedScan will be Australia's first real-time, easy-to-use, automated identification app and digital platform for national and state priority weeds. The culmination of a three-year national project, WeedScan will identify new, emerging and established weeds and support cooperative, community-led weed management.

RHDV2 evaluated as a potential biocontrol agent. RHDV2 will be evaluated for its suitability as the next agent in the CISS rabbit biocontrol pipeline (with the aim of making a new agent available every eight to ten years).

2024

Proof of concept for gene drive technology-based management of a mammal species.

CISS aims to develop and evaluate three gene drive strategies in a mammal model — the mouse — and demonstrate a proof of concept. If successful, it will enable an accelerated genetic biocontrol development program for a pipeline of national priority vertebrate mammal pests that includes mice, rats and rabbits and possibly feral cats in the long term.



Image: Jack A. Rojahn (University of Canberra PhD candidate supported by CISS) testing the new Biomeme analysis kit in the field to detect presence of pests based on eDNA technology. Image by Alejandro Trujillo-González.

THE INNOVATIONS WE HAVE DELIVERED

2006

RHDV1 Czech strain approved to mix with baits, replacing the invasive rabbit inoculation method. The new strain enabled more efficient distribution of the biocontrol agent.

2007

Diploma in Conservation and Land Management (Vertebrate Pest Management) offered by the University of Canberra. This was the first course on strategic pest management offered in Australia that considered pests at a systems level.

Diagnostic test for a virulent calicivirus developed. The test enabled the identification and mapping of benign calicivirus distribution that had the potential for immunity to RHDV.

Managing Bird Damage to Fruit and other Horticultural Crops released.

This book was the first comprehensive guide to the management of bird species to a range of agricultural crops in Australia.

Australia's first National Wild Dog Coordinator appointed. The coordinator's role has been to educate and coordinate a strategic, consistent, cross-tenure approach to wild dog management at a national level using best practice management. The coordinator provided the catalyst for the National Wild Dog Action Plan.

2008

PigOut® 1080 feral pig bait launched. The world's first manufactured feral pig

The world's first manufactured feral pig bait was the culmination of a four-year research and development program.

Development of a new freeze-dried delivery system for the RHDV virus.

This system enabled an effective distribution of RHDV across Australia without the need to package it in dry ice. This meant it was no longer classified as a hazardous good, significantly reducing the cost and impediments to its distribution and uptake.

2009

Discovery of benign endemic rabbit calicivirus (RCV-A1). The RHDV1 Czech strain had been less effective in the cool-wet regions of Australia due to the presence of the benign variant. This new knowledge enabled a global search for a new RHDV1 strain — the *RHD Boost Project* — that could outcompete this benign strain.

Analysis of the economic impacts of vertebrate pest in Australia. An in-depth analysis of the economic costs of managing the four largest vertebrate pests to Australia's agricultural sector showed that the industry suffered \$285 million in annual losses from rabbits, foxes, wild dogs and feral pigs.

Assessment of the social impacts of invasive animals in Australia.

The first comprehensive report detailing the social impacts of invasive animals on families and communities demonstrated that the impact of invasive species was wider than economic or environmental losses.

2010

HogHopper™ launched. This bait delivery service for feral pig control is highly target specific and the result of years of stringent non-toxic field testing in World Heritage Areas and other sites.

2011

eDNA detection technique for Tilapia developed and validated.

The national leadership provided by the Centre not only enabled the development and validation of new detection technology for this invasive fish but also evaluated its cost-effectiveness against existing detection methods.

2012

Launch of the PestSmart toolkit, supported by a national roadshow.

eDNA detection technique for Tilapia extended to three additional national priority pest fish. This detection technique was found to be effective for Oriental Weatherloach, Redfin and Carp (supporting Tasmanian carp eradication).

2013

Rodemise® block baits launched for mice and rats. These solid block baits can be hung in areas that traditional rodent baits cannot reach. They can also be tethered in place to prevent unintentional dispersal of the toxin by rodents.

Mouse Alert producer monitoring and alert system implemented.

Monitoring for mice established across all major Australian grain growing regions.

FeralScan community management and monitoring system 2.0 released.

Capacity added to enable greater community engagement, data sharing and pest control information. This new version improved functionality for community action groups to record and share data, including dashboards to feed into adaptive community management plans. Its success was recognized with a 2016 National Banksia Award. By 2021, the platform was used by over 550 community groups and over 23,400 registered users.

2014

Certificate in Leadership and Community Engagement offered in collaboration with Pennsylvania State University.

Victorian Rabbit Action Network established. This demonstration project was designed to promote community-led action on rabbit management incorporating new community-based social marketing and behavioural science research findings. The success of the network was recognized in 2019 with a UN Public Service Award.

2015

CISS launches the PestSmart 1.0 website providing best practice management information for vertebrate pest species.

eDNA detection technique for multi-species developed and validated.

2016

Dogabait® and Foxecute® wild dog and fox baits launched. PAPP, the first new feral predator toxin in 50 years, designed to complement 1080, is made commercially available. The bait can be safely used in peri-urban areas because it has a vet administered antidote.

Results from 11-years of research on the carp herpes virus leads to \$15 million Australian Government investment. The results of what may potentially be the world's first carp biocontrol agent, led the Australian Government to invest in the final research and development steps for the carp herpes virus through the National Carp Plan (implemented through the Fisheries Research & Development Corporation).

2017

National release of RHDV1-K5 virus.

This first new rabbit biocontrol agent in 20 years was based on an evaluation of 38 calicivirus options. It was the culmination of an eight-year research and development program and used a new freeze-dried delivery system. The release and an associated national rabbit disease monitoring program won an Australian Government Biosecurity Award in 2019.

2018

DeerScan monitoring program launched. Using the architecture of the FeralScan platform, DeerScan provided the first national system for reporting the presence of feral deer, the nature of deer damage, and control interventions.

2019

Ten-year Weeds Research and Development Investment National Framework released by CISS. The framework created an enduring model of co-investment to enhance the impact of current and future weed research, development and engagement efforts, particularly where they address the priorities of the Australian Weeds Strategy 2017–2027.

CISS submits draft National Vertebrate Incursions Prevention and Response Strategy and Invasives Plan to the Commonwealth. The Invasives Plan takes the framework from other individual national response plans and consolidates it into a single, targeted response plan to effectively guide national responses to vertebrate pest incursions.

Certificate III Pest management (wild dog) module offered for VET delivery. This was the first nationally recognised training course specifically focused on wild dog management. The course directly increases the ability of land managers to effectively manage wild dog problems on their properties.

2020

HogGone®, a next generation sodium nitrite based feral pig bait becomes commercially available. The bait uses micro-encapsulation of a common human food additive to which pigs are very susceptible. It is the culmination of a 14-year research and development program that required extensive international collaborations to achieve a successful outcome.

CISS launches Weeds Australia 1.0 website providing best practice management information for Weeds of National Significance, attracting nearly 300,000 page views from over 87,000 users in its first year of operation.

CISS launches PestSmart 2.0 website, an upgraded platform for best practice management of vertebrate pests, attracting 255,000 page views from over 134,000 users in 2020/21 and generating orders for over 7,000 printed glovebox guides.

2021

Australia's first National Feral Cat and Fox Management Coordinator appointed.

Prootype acoustic detection and alert system for starlings. Trials of a new automated system for invasive birds commenced. Once proved successful, the system will give advanced warning of incursions and enable rapid response and management for at risk landscapes.

Prototype feral deer aggregator.

A major trial and refinement of a target specific bait hopper completed. The aggregator, which attracts feral deer, will provide producers and land managers with a tactical feral deer management tool.

2022

Portable real-time eDNA detection technology developed. This technology can be used pre-border (for example, for ornamental fish pathogens), at the Australian border (for example, for Khapra beetle, the Asian black-spined toad and an invasive ant species), and post-border (for example, for Myrtle rust). Khapra beetle eDNA technology was also trialed in a port facility.

Integrated detection systems for Asian black-spined toad developed.

These systems combine artificial intelligence, acoustic and eDNA technologies into a detection system for this species which is national environmental biosecurity risk that includes lured traps.

Genetic biocontrol technology for vertebrate pests: decision framework. The framework includes an investment case and priority ranking of pest animals as potential targets which identifies mice, rats, rabbits and carp as initial priority targets.

2023

New management tool for feral deer released: the Glovebox Guide to Managing Feral Deer offers practical solutions for land managers helping to manage and reduce feral deer impacts.

CISS launches WeedScan Al-powered app, trained on over 120,000 weed images to make weed identification, notification and management more efficient.

2024

Updates to 21 Weeds of National Significance (WONS) best practice management manuals released.

These are supported by the new report investigating biological control research for 27 WONS.

PAPPutty, a welfare-positive lethal trap device, is launched and offers land managers a new tool to improve wild dog and fox control.

This product was the culmination of more than five years' research and development. It is a more humane replacement for other control techniques available for trapped wild dogs.

Australia's Rabbit Biocontrol Pipeline Strategy is released to spearhead R&D efforts to protect previous biocontrol gains, maintain low levels of rabbit populations and a national, collaborative approach to the nation's most destructive vertebrate pest.





Images (Top to bottom): Western Sydney University researchers doing rabbit spot light counts. Heather Barnes, laying carrots laced with RHDV1-K5 for the Department of Parks and Wildlife, Cape Range National Park, Western Australia.

OUR MEMBERS, PARTNERS AND STAKEHOLDERS

CISS is a member-based organisation with 10 members, 4 associate members and 7 partners. We also work with over 60 other organisations to deliver our RD&E mission.

To deliver on our vision of an Australia free of invasive species we work with 80 organisations across Australia.

Member organisations include relevant Australian Government Departments, state and territory government departments and agencies, CSIRO and Meat & Livestock Australia.

Associate member organisations include peak NRM, industry and environmental bodies.

Partner organisations include several Australian universities, the New Zealand Department of Conservation Te Papa Atawhai.

Members





















Associate Members









Our Portfolio No. 1 Partners















OUR TRUST

The Invasive Species Solutions Trust is an Australian Charity registered with the Australian Charities and Not-for-profits Commission. The Trust accepts tax deductible donations to further the research, design and engagement programs conceived and developed through the Centre for Invasive Species Solutions.

We are governed by an independent, skills-based board of Trustees, and managed by a core team of staff based at our Canberra office. Our national portfolio of work is led by an expert team of researchers geographically dispersed across Australia.

We are an apolitical, nonpartisan science-based organisation that takes a considered, evidence-based approach to matters of social licence and emerging pest plant and animal issues.

Through the Trust we seek to work with philanthropists, business leaders and other Not for Profit organisations to develop and implement programs that deliver lasting improvements for our native species, our agricultural systems, and our natural environment.

Your support
will help CISS
develop and deliver
evidence-based
solutions that target
our most urgent
biosecurity needs,
at national and
community levels
covering new,
emerging and
established pests
and weeds.



Farmer checking his cattle using technology. Source: Istock photo



Canola & wheat crop farming in Western Australia. Source: Shutterstock



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BE PART OF THE SOLUTION

Working together is part of the CISS DNA.

Over the past five years we have developed strong collaborations with governments, universities and associations as both members and partners. But we recognise that to maximise the benefits of our forward program we need to expand our network and collaborate with new partners.

Your organisation, department or company can play an integral role in supporting these world-class and collaborative research, development, and engagement programs.

Whether it be through financial or in-kind support, you can partner with CISS to develop and deliver evidence-based solutions that target our most urgent national and community-based biosecurity needs. Alternatively, you can choose to partner with our Invasive Species Solutions Trust and make a tax-deductible donation.

Companies may also seek to partner with us through sponsorship. This is a great way of demonstrating to your customers and staff your commitment to protecting Australia's native species, agriculture and environment.

We appreciate that every company is unique, with different objectives, different budgets, and different goals. With this in mind, we are always happy to work with you and create a tailored partnership or sponsorship package that best fits your brand and culture.







Image to right: A female Golden-shouldered Parrot (also known as Alwal in Olkola language). The Alwal is a significant cultural species for the Olkola of far North Queensland. It is also listed among the Australian Government's top 100 threatened species. Feral cat control is one of the activities supporting its recovery.





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