# **INVASIVE SPECIES** SOLUTIONS TRUST

Australia is in the grip of an unprecedented alien attack on its native wildlife and environment, with experts warning more of our unique flora and fauna is in danger of disappearing by 2050 unless urgent action is taken.



**invasives.com.au** The Invasive Species Solutions Trust is the philanthropic arm of the Centre





#### The harm being done by invasive pests and weeds

Nearly one fifth of the Earth's surface is at risk of plant and animal invasions. These invasions are impacting native species, ecosystem functions and nature's contributions to people, as well as economies and human health. The rate of introduction of new invasive alien species is higher than ever before and shows no signs of slowing. Globally, invasive species are ranked as the 5th greatest threat to biodiversity, but in Australia they are the number one threat. Australia has the highest rate of mammal extinctions in the world.



The conservative cost of damage caused by invasive species in Australia — predominantly weeds, feral cats, rabbits and fire ants — is \$390 billion over the past six decades and around \$25 billion a year and growing.

#### **Environment**

The climate's new normal, which allows invasive pests and weeds to thrive, means we have no time to waste to save our native flora and fauna. Climate change is opening the door for the infamous cane toad and what were once regarded as tropical and subtropical weeds to stray into southern states.

Bushfires clear the way for feral cats to prey on threatened mammals and birds, while fastbreeding rabbits, goats and deer are often the first to feast on new plant growth, reducing carbon storage and leaving native creatures without food or safe habitat.

#### **Primary Production**

Primary producers are affected by stock damage and losses from carnivorous invasive species (such as feral dogs and foxes) and





damage to grazing land and crops from invasive weeds and herbivorous invasive species (such as rabbits and feral deer).

Weeds cost Australian agriculture \$4.8 billion per year with major environmental costs and impacts on threatened species. Wild dogs, feral cats, foxes, and feral pigs cost agriculture more than \$130 million per year and a major mouse plague can cost more than \$200 million in crop losses.

#### **Threatened Species**

Invasive species have contributed to the extinction of 79 Australian native species. Over eight in 10 nationally listed threatened species are endangered by invasive species. The tragically long list of extinctions caused primarily by invasive species include mammals, frogs, birds, plants, and a fish.

The single biggest vertebrate menace to native species is European rabbits which infest two-thirds of Australia. Additional threats come from feral dogs and cats, pigs, foxes, deer and cane toads.



## How is the Centre contributing to invasive species solutions

The Centre for Invasive Species Solutions (CISS) was developed through the partnership between the Australian Government, all state governments and the ACT, industry members, university partners and the NZ government. It was launched in 2017 and is the successor to the 12-year Invasive Animals Cooperative Research Centre.

#### **The Science**

Australia is a world leader in developing pest and weed solutions, such as biological control agents and baits. We now need to take advantage of new genetic and digital technologies to create solutions for the 21st century that can find and manage invasive species in quicker, cheaper, and simpler ways.

These new technologies have the potential to be game changers in how we tackle pests and weeds in the future. The Centre is at the cutting edge in leading and contributing to this science.

Collaborative science will drive the innovation needed to expedite success. Genetic and



The Centre is creating a formidable team to undertake the challenge of controlling invasive pests and weeds. Governments, Industry Associations and Research Institutions are on board. Progress is being made but your support can help us to speed us solutions and protect threatened species who will become extinct without urgent intervention.

Your donation through the Invasive Species Solutions Trust will contribute to the protection of our environment, our threatened species, and our primary production. To donate click on this QR code or go to our website **invasives.com.au**.

The Centre is now a fully developed and operating national collaborative invasive species RD&E not for profit company. The collaboration consists of 22 members and partners with support from another 60 research organisations.

In this sense the Centre is unique. Collaboration is the foundation on which our success of creating and distribution of our invasive species solutions. The membership gives us the capacity to take an approach to science-based innovation that carries ideas through a technology pipeline to put solutions in the right hands in the right place at the right time.

Engagement also lies at the heart of what The Centre does. People are the key to success. We have a track record of working with land managers to identify the presence of invasive pests and weeds and providing the tools and information they need to manage them. We work with groups involved in community science, natural resource management, and industry and environmental organisations. And we add value to their efforts by a national model of on-ground action and coordination.



digital technologies are poised to transform our national biosecurity system. We need these technologies in the hands of those working behind farm-gates, across regions, and within industry, community and government organisations managing biosecurity as a matter of national importance.

### **TESTIMONIALS**



#### **Our Patron**

I accepted the invitation to become Patron of the Invasive Species Solutions Trust because of my passion for sustainability and love of the Australian environment. I encourage anyone who cares about the physical health of our country to consider supporting the work of the Centre for Invasive Species Solutions.

One way to do that is to support the work of the Invasive Species Solutions Trust. Your investment in the Trust will accelerate the development of new tools and products and assist the Centre to engage communities wanting to manage invasive species.

I commend all involved with the Centre for Invasive Species Solutions and particularly the Invasive Species Solutions Trust for the critically important work you are doing.



#### **CISS Chair**

There has never been a greater need for this company. Australia cannot afford to continue to have our primary industries, our environment, biodiversity, threatened species or our communities negatively impacted by invasive species.

The Centre for Invasive Species Solutions was purpose-built to bring together the best scientists, product developers and users from across Australia and the world to develop and deliver solutions, drive innovation, build efficiencies and plan for and deliver long term outcomes that address Australia's invasive species challenges.

We need to develop new systems and new methods to quickly identify invasive species. We need to develop better surveillance systems, treatments and management systems that empower Australians to eradicate or contain these pest species.



#### **Dr Andy Sheppard CSIRO**

Urgent, decisive, coordinated action is crucial to stopping the spread of invasive species and to protect our extraordinary, irreplaceable native animals and plants, and Australia has a great track record in this space. It is the only way to stop the spread of invasive species, protect native plants and animals and preserve many of our favourite Australian outdoor pastimes.

Prevention will be much more cost effective than trying to control the spread of pests and weeds once they are established. We need to safely harness emerging technologies, revitalise our biosecurity research and innovation system and continue to invest in long term, strategic research and development.

#### **Contact us**

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