

INVASIVE SPECIES SOLUTIONS TRUST

BUILDING FUTURE RESEARCH LEADERS

Together we can drive down Australia's native species extinction rate — currently over four species a decade. Investing in long term, strategic research and development, will fast-track novel biosecurity and invasive species management technologies, creating new ways to prevent, eradicate, contain and control invasive pests.



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The Invasive Species Solutions Trust is the philanthropic arm of the Centre



CENTRE FOR
INVASIVE SPECIES SOLUTIONS



The Issue

Urgent action is needed to prevent further extinctions of threatened species and to improve ecosystem health in the face of climate change. We need to think big about how we can help turn around the extinction rate with over four native species lost every decade and help protect agriculture from pests and weeds.

We need to target and detect new pests before they enter Australia, eradicate unwelcome arrivals where possible and contain them where it is not. We need to better manage high-impact established invaders at landscape scale and protect environmentally sensitive and high-value sites. We need game changing technologies.

Australia is a world leader in developing pest and weed solutions, such as biocontrol agents and baits. We now need to harness new genetic and digital technologies and create solutions for the 21st century that can find and manage invasive species more cheaply, easily, and quickly. These new technologies have the potential to be game changers in how we tackle pests and weeds in the future. We need these emerging technologies that will revitalise our biosecurity research and innovation (R&I) system and we need to invest in long term, strategic research and development.

Australia has success stories. We have controlled the prickly pear, a cactus which once infested 240,000 square kms of Queensland and New South Wales. It has been at insignificant levels for the past 80 years.

The rabbit biological control program has also been highly successful, radically dropping rabbit numbers and impacts since the first biocontrol agent was released in 1950.



Collaborative science is driving 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 farm-gates, across regions, and within industry, community and government organisations managing biosecurity as a matter of national importance.



The Centre for Invasive Species Solutions is a creator of a technology pipeline. Solutions to the destruction caused by invasive species start with ideas that are developed and tested as practical solutions for the people who will use them.

We believe that a pipeline approach is also needed in the training of researchers. Donors are invited to support the Centre to build future research leaders. This approach will attract school students to the study of controlling invasive species, encourage their interest through a 'National Kid's Conference' and support them later in their tertiary education to engage in PhD research on invasive species control.

Project Title	Summary	Funding Request	Investment Sought
Engaging School Students	<p>Historically, the Centre for Invasive Species Solutions ran two educational programs through websites: pestales.org.au and feralfocus.org.au. These programs were successful. As time passed and the technology became less current, the use of these educational portals decreased.</p> <p>Educational programs not only influence the student but also their families. The revamping of these programs to engage students will increase awareness of the importance of discovering solutions to Australia's invasive pests and weeds crisis and engage students in the science behind the Centre's programs.</p>	<p>Programs designed to engage students must be presented in an appealing way using contemporary technology. This program will be managed by a part time science curriculum consultant (who in the course of a year) will review the components needed in the program and then with the assistance of a graphic designer and technology support recreate the program to engage students in understanding why it is so important to control invasive species. The program will then be trialled and evaluated.</p>	<p>\$125000 for a one year program focussed on the redesign of pestales.org.au and feralfocus.org.au</p>
Promoting School engagement through a 'kid's conference'	<p>The Kids' Conference is a unique and engaging event where the presenters are primary and secondary students who share their research projects on a chosen discipline through new and emerging technologies in a real conference environment.</p> <p>A trial was held with the Australasian Vertebrate Pest Conference in 2021. The successful engagement of a small number of schools across Australia and New Zealand has encouraged the Centre to seek to expand the conference to engage more schools.</p>	<p>Donors are asked to consider supporting either a single state/territory, the national conference or the whole program. The program would be based on six states (with ACT combined with NSW and NT combined with SA). A team from each conference will be chosen to participate in the National Conference. One team presenting at the National Conference will be chosen to present virtually at the international Conference.</p>	<p>Each state (and territory where relevant) will consist of 10 teams. The total cost per state is \$20,000.</p> <p>The National Conference which includes involvement in the International Conference for the chosen school will require an investment of \$27,000.</p> <p>The total investment would be \$147,000.</p>
Biosecurity Ready Researchers	<p>The Centre has a proud history of encouraging the development of future leaders through its Balanced Research Program. As experienced researchers move closer to retirement, it is critical that The Centre continues to encourage future generations of researchers by incentivising them with scholarships.</p>	<p>Donors are invited to establish scholarships to support PhD students. The scholarships are for a four year doctorate. If you would like to discuss scholarships for multiple students or in perpetuity, we invite you to make contact.</p>	<p>Options for Donors include \$48,000 (over four years) as a partial (top up) for a four year Doctoral scholarship student to \$180,000 for a four year full Doctoral scholarship.</p>



The Centre for Invasive Species Solutions is creating a formidable team to undertake the challenge of controlling invasive pests and weeds. Governments, Industry Associations and Research Institutions are on board. Our Future Research Leaders program will contribute to the creation of an environmental science research pipeline, engaging school students and supporting Doctoral students.

Your support will help us to contribute to new frontiers of research into solutions that control invasive species by encouraging students of environmental science. Your support of students through the Centre for Invasive Species Solutions, will not only support their development but increase their engagement skills as they work with the Centre to ensure that research findings are provided to the environmentalists, primary producers and Landcare groups who are dealing with the effects of invasive species on a daily basis.

By donating to the Invasive Species Solutions Trust you will encourage environmental science students and contribute to the protection of our environment, our threatened species, and our primary production. To donate use this QR code or go to: invasives.com.au.



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