

# Invasions, Plagues, and Epidemics: The Atlas of Living Australia's deep dive into biosecurity

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## Abstract

Early detection of new incursions of species of biosecurity concern is crucial to protecting Australia's environment, agriculture, and cultural heritage. As Australia's largest biodiversity data repository, the [Atlas of Living Australia](#) (ALA) is often the first platform where new species incursions are recorded. The ALA holds records of more than 2,380 exotic species and over 1.9 million occurrences of pests, weeds, and diseases—many of which are reported through citizen science. However, until recently there has been no systematic mechanism for notifying relevant biosecurity authorities of potential biosecurity threats. To address this, the ALA partnered with the (Australian) Commonwealth Department of Agriculture, Fisheries and Forestry to develop the Biosecurity Alerts System. Two years on, the project has demonstrated the benefits of biosecurity alerts, but significant barriers exist as we now work to expand this system to State and Territory biosecurity agencies, and seek new sources of biosecurity data. In our presentation, we discuss a brief history of invasive alien species in Australia, the Biosecurity Alerts System, and how we are approaching issues with taxonomy, data standards, and cultural sensitivities in aggregating biosecurity data. We conclude by detailing our progress in expanding the alerts system and tackling systemic issues to help elevate Australia's biosecurity system.

## Keywords

invasive alien species, decision-making, data aggregation

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## **Conflicts of interest**

The authors have declared that no competing interests exist.