

WeedScan™ — an app and website for identifying, reporting and mapping priority weeds in Australia

“It’s difficult to manage what you can’t identify, and so it is with weeds!”

WeedScan has been developed by the Centre for Invasive Species Solutions, CSIRO, the NSW Department of Primary Industries, the South Australian, Queensland and Victorian Governments and Atlas of Living Australia to help overcome this barrier.

Mobile apps like PlantSnap and PictureThis have revolutionised plant identification through artificial intelligence — instantly suggesting plant names based on a digital photograph.



European blackberry (*Rubus fruticosus* sp. agg.). Image by Richie Southerton (CSIRO)

The ability of accessible, rapid diagnostic tools to aid the early detection of new weeds is clear. However, existing plant identification apps are often paywalled and typically do not tell users whether their plant is a weed. They certainly don’t go the extra yard to link weed identification to relevant local weed management information or facilitate the reporting of priority weeds to government weeds staff.

WeedScan’s identification suggestions includes links to existing weed profiles, filtered according to the user’s state or territory, if known. Users are prompted to make a record if the weed is a priority in their state or territory and if they proceed, notifications may be sent to government weeds staff. Public WeedScan records will be visible on a map which can be viewed and searched by users.



Salvinia (*Salvinia molesta*). Image by Andrew Mitchell (CISS)

“WeedScan bridges this gap.”

Backed by deep learning science

WeedScan’s artificial intelligence model has been trained by CSIRO to recognise approximately 270 priority weed species across Australia to help people identify weeds from their photos.

Tried and tested by end users

WeedScan is not just based on science, but has been rigorously tested in the field by farmers, community groups, agronomists, park rangers and Weeds and NRM officers across Australia. The link between identification and what to do if a weed has been identified must be tried and proven.

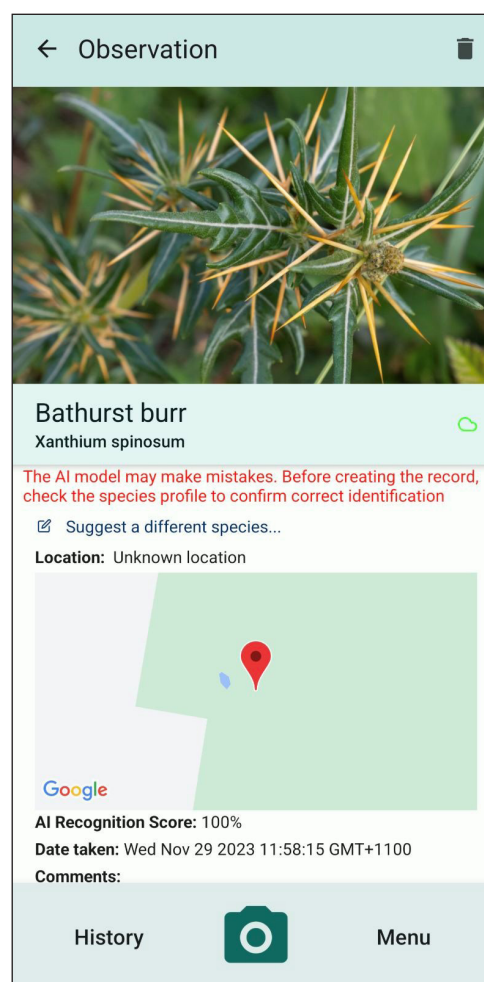
Top banner image: Ground asparagus (*Asparagus aethiopicus*). Image by Richie Southerton (CSIRO)



This new tool provides graziers, farmers, bush regenerators, communities, NRM bodies and State, Territory and Australian government bodies, NRM groups with an easy-to-use digital tool enabling:

- a) priority weeds to be identified quickly without expert knowledge
- b) easy access to best practice management information
- c) action either at the individual enterprise level or as part of a community-led regional WeedScan network.

Silver-leaf Nightshade (*Solanum elaeagnifolium*). Image by Dr Hanwen Wu (NSW DPI)



WeedScan uses machine learning to identify priority weeds. Here it offers a profile of Bathurst burr, followed by the option to create a record of the observation (including location), once the user is satisfied the identification is correct.



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