Researchers look into the future to weed out problem plants

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African Olive Fruit.

(Phys.org) —Researchers from Macquarie University and the University of Canberra have developed an assessment scheme that allows them to look into the future to see which exotic plants might become tomorrow's problematic invaders.

They have developed the new horizon-scanning tool, which screens potential plant invaders under future climates and sends the information to land managers. The new assessment scheme, delivered through the WeedFutures website, allows land managers to 'horizon-scan', to assess which exotic plants may become problematic weeds in the future.

"Climate change is a huge challenge for agriculture and biodiversity. The WeedFutures website enables natural resource and agricultural land managers a glimpse into a potential future," says Professor Lesley Hughes, Macquarie University.

In Australia, there are over 30,000 exotic plant species introduced since European settlement. A small number of these have become widespread problem weeds, including well-known species such as bitou bush, blackberry and lantana. Also among these are a huge pool of exotic plants known as 'sleeper weeds' – these are exotic plant species waiting for the right combination of factors to work together to support a successful invasion.

"Currently, invasive plants are a huge cost to the Australian economy and to Australia's biodiversity. Millions of dollars and thousands of volunteer hours are spent trying to control agricultural and environmental weeds. The most cost effective management is to stop exotic plants before they become invaders," says Hughes

Visitors to WeedFutures can look at nearly 300 exotic plants to see how likely they are to become problem weeds under future climates. The website also allows visitors to narrow down their list of potential invaders to regional and local areas, including individual Local Government Areas, national parks and conservation reserves.

"The Weedfutures website will be of enormous value to land managers. It will provide an insight into the future by providing managers with a

powerful tool for assessing emerging weed threats and prioritising exotic species for management under a changing climate," Associate Professor Michelle Leishman, Macquarie University.

The website will be expanded over the coming year to include many more exotic plant species and will be an essential tool for land managers trying to manage for the future.

More information: Weed Futures website: weedfutures.net

Provided by Macquarie University