The triage approach to conserving biodiversity from lantana invasion

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Summary Lantana (*Lantana camara* L.) has invaded more than 5% of the Australian continent (Sinden *et al.* 2004) and threatens over 1300 native plant and animal species (Turner *et al.* 2007). Over 300 of these species are listed under threatened species legislation. Management strategies are needed to conserve these species, but as lantana can not be controlled across its full distribution, due to the large area invaded, these strategies also need to make efficient use of the limited resources available.

A 'triage' approach to control lantana and conserve biodiversity has been adopted by assessing and prioritising those native species at risk as well as sites for control. Using this approach, we have identified native species threatened by lantana that: (i) require urgent lantana control to persist; (ii) are likely to persist if limited or no control is undertaken, but may require future action; and (iii) will remain threatened even if weed control is undertaken, e.g. where other major threats to the native species remain after control.

Sites for lantana control have been prioritised based on the ability to achieve control and where there was a high likelihood of protecting the biodiversity most at risk, irrespective of land tenure. Individual sites were assessed based on: (i) the ability to achieve effective lantana control; (ii) the degree of threat posed by lantana at the site; and (iii) the condition of the site (including information on other threats) and the condition of the native species present (including the importance of the site to the native species overall survival).

The above triage approach underpins a new national plan for managing lantana for biodiversity conservation, which is being jointly developed by the NSW Department of Environment and Climate Change and Biosecurity Queensland, and funded by Defeating the Weed Menace Program. This plan establishes the management priorities for lantana with respect to the protection of biodiversity in Australia. The process allows for management to be directed towards high priority sites that contain the highest priority biodiversity.

This two-step approach has been used previously to establish such priorities for bitou bush (*Chrysanthemoides monilifera* subsp. *rotundata* (DC.) Norl.) (DEC 2006), with the species at risk also assessed through the Weed Impacts to Native Species assessment tool (see Downey 2006) and sites selected for control using the process called the Prioritisation of Impacts for Conservation of Sites or PIC-Sites (see Downey these proceedings).

This plan for managing lantana also outlines mechanisms to address: management of other weeds that may invade following control; the benefits of lantana to native animals (e.g. where lantana provides a food source) (Turner and Downey these proceedings); and establishes monitoring protocols to assess the response of native species to weed control. For further information on the plan visit: http://www.nationalparks.nsw.gov.au/npws.nsf/Content/Lantana_threat_to_biodiversity.

Keywords Impacts, lantana, selecting sites for control, prioritisation, Threat Abatement Plan.

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