

Weed management guides: managing weeds for biodiversity

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Summary Numerous environmental weeds threaten native species, habitats and landscapes across Australia. The catalogue of weeds having significant impact varies greatly between regions and sites, reflecting local history and environment. These regional weeds often include a mix of declared and non-declared plants and the impact of weeds that have not been declared can be equal to or greater than that of declared plants in some situations.

Community groups and agencies managing land at the local level need to assess the site and implement a management plan that takes account of all weed species. They have a need for information on identification, biology and control of these environmental weeds in addition to 20 Weeds of National Significance (WoNS) and other proclaimed plants. The Weeds CRC is working to provide such information in eight new weed management guides for key environmental weeds.

All Natural Resource Management (NRM) regions around Australia were invited to nominate up to 10 priority environmental weeds for which insufficient botanical and management information is readily available. Responses were received from 42 NRM regions, listing a total of 261 weeds. These included 44 of the WoNS ranked between 21 and 71 (Thorp and Lynch, 2000) and eight Australian native species naturalised outside their range. The complete weed list is documented at www.weeds.crc.org.au/documents/nrmweedsurveyreport.pdf.

Twenty eight weeds were nominated by five or more regions and were reviewed to determine which ones to cover in the new guides. The main criteria were:

1. Is the weed a threat to natural ecosystems?
2. Are fact sheets and other material already available for the species? If so, do they provide comprehensive information about management in natural ecosystems in an accessible form for community groups?
3. Are there recent research findings or other advances in knowledge about the biology or control of a species that could be useful for community groups if available in a weed management guide?

Eight weeds were then selected for this series:

1. African boxthorn (*Lycium ferocissimum* Miers);
2. Coolatai grass *Hyparrhenia hirta* (L.) Stapf);
3. Brooms (*Cytisus scoparius* (L.) Link, *Genista monspessulana* (L.) L.A.S.Johnson) and related species);
4. Buffel grass (*Cenchrus ciliaris* L.);
5. Periwinkle (*Vinca major* L.);
6. Spanish heath (*Erica lusitanica* Rudolphi) and other *Erica* L. spp.;
7. Cat's claw creeper (*Macfadyena unguis-cati* (L.) A.H.Gentry); and
8. Feathergrasses and mission grasses (*Pennisetum* Rich. ex Pers. spp.).

The guides are being published on the Weeds CRC website (www.weeds.crc.org.au) in the 'Managing weeds for biodiversity' series. Three key areas of preparation are emphasised: (1) know the weed and its biology; (2) know the range of methods for removing it; and (3) know the site, including the condition of the native vegetation. The importance of planning, being strategic, long-term perseverance and use of selective, minimum disturbance weeding methods in native vegetation are highlighted. Suitable methods for applying registered herbicides are included where appropriate. Contact advice is included for further information. All guides will be published by the end of the Weeds CRC term in June 2008.

Keywords Management guides, extension, environmental weeds, biodiversity, bushland weeding.

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REFERENCES

- Thorp, J.R. and Lynch, R. (2000). The determination of Weeds of National Significance. (National Weeds Strategy Executive Committee, Launceston).