



a sub committee of the
National Biosecurity Committee

Selection of additional Weeds of National Significance

Weeds of National Significance (WoNS) are high impact, established weeds for which targeted, strategic co-investment in a nationally coordinated manner will deliver long-term benefits across Australia. They are causing major economic, environmental and/or social impacts in a number of states/territories with strong potential for further spread.

Successful nomination as a WoNS recognises a species as a priority current and future weed threat to Australia, requiring coordinated and strategic management along with shared stakeholder investment to develop and implement best practice to prevent, eradicate, contain and/or minimise its impacts in different parts of the nation.

The selection of an additional 12 WoNS ([Table 1](#)) were subject to technical and policy considerations in a process managed by the Australian Weeds Committee (AWC), summarised as follows:

- The Bureau of Rural Sciences (now the Australian Bureau of Agricultural and Resource Economics and Sciences – ABARES) reviewed best practice weed risk assessment, resulting in the report *Methodology to prioritise Weeds of National Significance (WoNS) candidates* (Lizzio *et al.* 2010). AWC endorsed this report for use in assessing new WoNS candidates.
- In recognition of ongoing resource commitments to managing the inaugural 20 WoNS, the AWC elected to consider much fewer nominations for formal assessment than was originally done in 1999. AWC jurisdictions consulted with their respective weed experts and nominated a total of 16 species as candidates for new WoNS.
- AWC agreed that, where a genus or a number of species within a genus were nominated, then only one representative species was required to be comprehensively assessed with respect to that nomination.
- ABARES undertook the technical assessment of the 16 nominations, using scientific information and data provided by nominating jurisdictions.
- The assessments were peer reviewed at an ABARES workshop with weed risk assessment technical experts from each jurisdiction. Alternative approaches were developed by the experts to address problems identified with certain questions, with jurisdictions then providing follow-up assessment data.
- ABARES proposed several risk models for AWC consideration in the final report *Assessing new Weeds of National Significance candidates* (Mewett *et al.* 2011).
- AWC's selected model to rank species was (*Invasiveness + Potential for Spread*) × (*Impacts + Socioeconomic & Environmental Values*), with equal weighting of these four criteria. This model could essentially be translated as (local and national spread) × (local and national impacts), recognising the interaction between spread and impact in determining overall weed risk. The model aligned with the *Standards Australia/Standards New Zealand National Post-Border Weed Risk Management Protocol* (HB 294:2006).

- AWC also subjected the 16 nominations to a further qualitative analysis of feasibility of control using criteria derived from the National Environmental Biosecurity Response Agreement (NEBRA), using ABARES data where applicable. Despite all of the WoNS candidates having particular challenges in management of infestations, control was found to be achievable for each species.
- Having considered the technical basis for new WoNS through assessment of risk and feasibility of control, AWC then considered the candidates with regards to policy considerations. All nominations were judged to:
 - have support from multiple jurisdictions;
 - meet the selection criteria for Category 3 - Established Invasive Species of National Significance of the *National Categorisation System for Invasive Species* (AWC and VPC 2011); and
 - have potential to achieve cost-beneficial, cross-jurisdictional outcomes with regards to investments in actions for prevention of spread, protection of assets, improving awareness and capacity, and/or improving integrated weed management.
- Finally, AWC considered resource requirements for the WoNS initiative and potential for grouping to achieve efficiencies:
 - It was agreed as beneficial to combine closely related taxa under the same WoNS declaration (i.e. opuntoid cacti, brooms), consolidating to 14 nominations.
 - A “freeing up” of national coordination resources as the original 20 WoNS transitioned to Phase 3 enabled 12 additional WoNS (refer to www.weeds.org.au/WoNS for further information on phasing). The two lowest ranking nominees, giant rats tail grass and sea spurge, were not endorsed by AWC as WoNS.

The 12 WoNS announced by AWC on 20 April 2012 are important new additions to Australia’s WoNS list. The 32 WoNS affect southern and northern Australia, and impact on a diversity of primary industries, natural ecosystems, social amenity and cultural values.

References

- Anon. (2006). *HB 294-2006 National Post-Border Weed Risk Management Protocol*, Standards Australia. International Ltd., Sydney, Standards New Zealand, Auckland and CRC Australian Weed Management, Adelaide.
- Australian Weeds Committee and Vertebrates Pests Committee (2011) *National Categorisation System for Invasive Species*.
http://www.weeds.org.au/docs/National_Categorisation_Invasive_Species.pdf
- Lizzio J, Richmond L, Mewett O, Hennecke B, Baker J and Raphael B (2010). *Methodology to prioritise Weeds of National Significance candidates*, Bureau of Rural Sciences, Canberra.
- Mewett O, Richmond L, Southwell D, McCowen S, Sands A and Hennecke B (2011). *Assessing new Weeds of National Significance candidates*, ABARES report prepared for the Australian Weeds Committee, Canberra.

Table 1. Twelve additional Weeds of National Significance (WoNS) announced by Chair of the Australian Weeds Committee, Dr Jim Thompson, on 20 April 2012.

WoNS		Species
African boxthorn	Thicket-forming, spiny shrub invading arid rangelands, bushland and coastal ecosystems	<i>Lycium ferocissimum</i>
Asparagus weeds	Perennial, tuberous vines invading sub-tropical and temperate bushland and coastal ecosystems	<i>Asparagus aethiopicus</i> , <i>A. africanus</i> , <i>A. asparagoides</i> Western Cape form *, <i>A. declinatus</i> , <i>A. plumosus</i> , <i>A. scandens</i> (Excludes <i>A. officinalis</i> , <i>A. racemosus</i>)
Bellyache bush	Toxic, thicket-forming shrubs invading tropical rangeland pastures and riparian ecosystems	<i>Jatropha gossypifolia</i>
Brooms	Thicket-forming woody legumes invading temperate bushland, forestry and pastures	<i>Genista monspessulana</i> , <i>G. linifolia</i> , <i>Cytisus scoparius</i>
Cat's claw creeper	A perennial, tuberous vine invading sub-tropical and warm temperate forests and riparian vegetation.	<i>Dolichandra unguis-cati</i>
Fireweed	A toxic, non-palatable, annual forb invasive in pastures	<i>Senecio madagascariensis</i>
Gamba grass	A high biomass, perennial grass invading tropical savannahs	<i>Andropogon gayanus</i>
Madeira vine	A perennial, tuberous vine invading sub-tropical and warm temperate forests and riparian vegetation	<i>Anredera cordifolia</i>
Opuntoid cacti**	Thicket-forming, spiny succulents invading arid rangelands ecosystems	<i>Opuntia</i> spp., <i>Cylindropuntia</i> spp., <i>Austrocylindropuntia</i> spp. (Excludes <i>O. ficus-indica</i>)
Sagittaria	An emergent, perennial aquatic herb that blocks waterways	<i>Sagittaria platyphylla</i>
Silver leaf nightshade	A deep-rooted, perennial forb invasive in cropping systems	<i>Solanum elaeagnifolium</i>
Water hyacinth	A floating, perennial, aquatic herb that blankets waterways	<i>Eichhornia crassipes</i>

* Current research may result in this having a different taxonomic status to common bridal creeper (an existing Phase 3 WoNS)

** Naturalised opuntoid cacti in Australia are currently under taxonomic review