

Impact Assessment Record

Scientific Name: *Calystegia silvatica*

Common name: greater bindweed

QUESTION	COMMENTS	RATING	CONFIDENCE
Social			
1. Restrict human access?	Weed is found in waste places, roadsides and forest margins (Brummitt 2002). A creeper growing to 3m or more. Because of the places it grows, and as it climbs over other plants, it would have a negligible impact upon access.	L	H
2. Reduce tourism?	'Very conspicuous even to a passing motorist' (Brummitt 2002). 'Strongly climbing stems and the large white flowers were very conspicuous' (Brummitt 2002). Minor effects to aesthetics.	ML	H
3. Injurious to people?	Plant not documented to cause injury or be toxic to humans.	L	H
4. Damage to cultural sites?	'Very conspicuous even to a passing motorist' (Brummitt 2002). 'Strongly climbing stems and the large white flowers were very conspicuous' (Brummitt 2002). If plant occurred at a cultural site it would have a moderate visual effect.	ML	H
Abiotic			
5. Impact flow?	Terrestrial species.	L	H
6. Impact water quality?	Terrestrial species.	L	H
7. Increase soil erosion?	'.. shallow rhizomes spread for several metres under the soil surface, and root at the nodes'. 'Aerial parts usually dying down in winter' (Roy et al 1998) Occurs in already disturbed sites and would leave some soil exposed during winter but low probability of large-scale soil movement.	L	MH
8. Reduce biomass?	Found 'in great abundance on waste ground over a distance of perhaps 100m, swamping other vegetation and climbing to a height of 3m' (Brummitt 2002). Very vigorous habit and large glossy leaves. Likely to be an increase in biomass.	L	H
9. Change fire regime?	'Aerial parts usually dying down in winter' (Roy et al 1998). Climber with large glossy leaves occurring in waste places, roadsides and forest margins. Plant would have a small or negligible effect on fire risk.	L	MH
Community Habitat			
10. Impact on composition (a) high value EVC	EVC= Plains grassland (BCS =E); CMA=Port Phillip; Bioreg=Gippsland Plain; CLIMATE potential=VH. Found 'in great abundance on waste ground over a distance of perhaps 100m, swamping other vegetation and climbing to a height of 3m' (Brummitt 2002). Major displacement of some dominant species within a strata.	MH	H
(b) medium value EVC	EVC= Riverine grassy woodland (BCS =D); CMA=Mallee; Bioreg= Murray mallee; CLIMATE potential=L. Found 'in great abundance on waste ground over a distance of perhaps 100m, swamping other vegetation and climbing to a height of 3m' (Brummitt 2002). Minor displacement of some dominant species within a strata.	ML	H
(c) low value EVC	EVC= Coastal tussock grassland (BCS =LC); CMA=Port Phillip; Bioreg=Gippsland Plain; CLIMATE potential=VH. Found 'in great abundance on waste ground over a distance of perhaps 100m, swamping other vegetation and climbing to a height of 3m' (Brummitt 2002). Major displacement of some dominant	MH	H

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	species within a strata.		
11. Impact on structure?	Found 'in great abundance on waste ground over a distance of perhaps 100m, swamping other vegetation and climbing to a height of 3m' (Brummitt 2002). Would have a major effect on the lower layers of the floral stratum.	MH	H
12. Effect on threatened flora?	This species is not documented as posing an additional risk to threatened flora.	MH	MH
Fauna			
13. Effect on threatened fauna?	This species is not documented as posing an additional risk to threatened fauna.	MH	MH
14. Effect on non-threatened fauna?	Weed not documented to have an effect on non-threatened fauna species.	L	MH
15. Benefits fauna?	Weed not known to facilitate the establishment of indigenous fauna.	H	MH
16. Injurious to fauna?	Weed not known to be toxic or have an effect on indigenous fauna.	L	MH
Pest Animal			
17. Food source to pests?	Weed not known to provide a food source to pest animals.	L	MH
18. Provides harbor?	Weed not known to provide harbour for pest species.	L	MH
Agriculture			
19. Impact yield?	In New Zealand, <i>Calystegia silvatica</i> grows in some asparagus crops 'as their growth habits are somewhat similar to asparagus and herbicides do not provide adequate long term control'. 'In asparagus.. weeds present during the growing season not only reduce the yield for the current season ...but restrict replenishment of carbohydrate reserves in the crop for the next season's growth' (Rahman & Sanders 1996). Minor impact on quantity of produce.	ML	H
20. Impact quality?	Weed not documented in Rahman and Sanders (1996) to impact upon quality.	L	H
21. Affect land value?	<i>Calystegia silvatica</i> is 'tolerant to most pre-emergent herbicides used in asparagus' (Rahman & Sanders 1996). However, no evidence to suggest that presence of this weed would effect land value.	L	H
22. Change land use?	No evidence to suggest that this weed would cause a change in priority of land use.	L	H

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23. Increase harvest costs?	'Their sprawling climbing stems make harvesting of spears very difficult as they cover the rows and entwine the growing spears' (Rahman & Sanders 1996). Minor increase in cost of harvesting – more time and labour would be required.	M	H
24. Disease host/vector?	Weed not known to act as an alternative host or vector for disease of agriculture.	L	H

References cited:

Brummitt, R. K. 2002, '*Calystegia silvatica* (Convolvulaceae) in Western North America', *Madrono*, vol. 49, no. 2, pp. 130-131.

Rahman, A. & Sanders, P. 1996, "Succession of weed flora in some New Zealand asparagus crops", in *Proceedings of the eight International Asparagus Symposium*, Massey University, New Zealand, 21-26 November, pp. 279-284.

Roy, B., Popay, I., Champion, D., James, T., & Rahman, A. 1998, *Common weeds of New Zealand*, New Zealand Plant Protection Society, New Zealand.

Revisions

Date	Revised by	Revision
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