Scientific Name: *Cardaria draba* Common name: Hoary cress

QUESTION	COMMENTS	REFERENCE	RANKING
Social			
1. Restrict human access?	An erect herb, 15 to 75 cm high, with aerial growth dying in summer. Its presence in dense patches would be a nuisance to pedestrian traffic.	P & C (2001)	**ML**
2. Reduce tourism?	Dense infestations would have a minor effect on aesthetics, and may reduce some recreational activities.	P & C (2001)	**ML**
3. Injurious to people?	Stock losses from grazing the plant have occurred, but are rare. "…the seeds were ground and used as a substitute for pepper and the leaves are eaten as a vegetable in Afghanistan." Not known to be poisonous to humans; no spines or burrs.	P & C (2001)	**L**
4. Damage to cultural sites?	Dense patches likely to create a negative visual impact. The root system is extensive, but not vigorous. Unlikely to cause structural damage.	P & C (2001)	**ML**
Abiotic			
5. Impact flow?	Terrestrial species. "…occurring in dry, unshaded situations."	P & C (2001)	**L**
6. Impact water quality?	Terrestrial species.	P & C (2001)	**L**
7. Increase soil erosion?	Root system comprises, "A main root to 2 metres or more deep with numerous horizontal roots." However, aerial parts of the plant die back in summer leaving surface soil exposed to erosion.	P & C (2001)	**ML**
8. Reduce biomass?	"It occurs as a weed of cereal crops, pastures, roadsides and neglected sites." In these situations, biomass may increase.	P & C (2001)	**L**
9. Change fire regime?	"Aerial growth dies in summer." Possible increase in dry matter leading to minor change in the frequency of fire risk.	P & C (2001)	**ML**
Community Habitat			
10. Impact on composition (a) high value EVC	EVC= Plains grassland (E); CMA=West Gippsland; Bioreg=Highlands – Southern Falls; VH CLIMATE potential Not known as a weed in natural ecosystems (not recorded in Carr *et al* 1992), however, in the United States it is known to compete aggressively with native vegetation. "…eventually eliminates the desirable plants completely." Possible monoculture within the lower stratum. Australian experience: more a weed of agriculture.	Downs (n.d.)[1]	**ML**
(b) medium value EVC	EVC= Grassy woodland (D) CMA=West Gippsland; Bioreg=Highlands – Southern Falls; VH CLIMATE potential. As above, however, as species grows best in unshaded situations, population density may be restricted. In Australia, it occurs in dry unshaded situations. Minor displacement of indicator spp. in lower stratum.	Downs (n.d.)	**ML**
(c) low value EVC	EVC= Heathy woodland (LC); CMA=Port Phillip; Bioreg=Gippsland Plain; VH CLIMATE potential Impact as in 10(b) above.	Downs (n.d.)	**ML**
11. Impact on structure?	"It also occurs commonly in pastures and market gardens in many parts of Australia but is not as competitive in these situations as in cereals." In the US State of Montana *C. draba*, "…is a very aggressive plant. It is competitive with the native plants and eventually eliminates the desirable plants completely." "It is found most often in open, unshaded areas." Would have a major impact on the lower stratum (ground covers, grasses, forbs).	P & C (2001) Downs (n.d.) Esser (1994)[2]	**ML**
12. Effect on threatened flora?			

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QUESTION	COMMENTS	REFERENCE	RANKING
Fauna			
13. Effect on threatened fauna?			
14. Effect on non-threatened fauna?	In the US State of Montana *C. draba*, "…is a very aggressive plant. It is competitive with the native plants and eventually eliminates the desirable plants completely." "The plant…is seldom eaten by stock." Potential to significantly reduce food source of native fauna.	Downs (n.d.) P & C (2001)	**ML**
15. Benefits fauna?	No known benefits.		**H**
16. Injurious to fauna?	The plant, "is potentially mildly toxic." Fauna may lose condition.	Esser (1994)	**ML**
Pest Animal			
17. Food source to pests?	Not known as food source to pests.		**L**
18. Provides harbor?	"Aerial growth dies in summer." In pasture/grassland situations, it may provide some limited harbor to pest animals such as rodents.	P & C (2001)	**ML**
Agriculture			
19. Impact yield?	"In early trials with 2,4-D in the Victorian Wimmera, treated plots yielded 20% more wheat than the plots where hoary cress was unchecked." The plant has serious impact on crop yields.	P & C (2001)	**H**
20. Impact quality?	"…it is seldom eaten by stock. When it is eaten, however, milk and possibly meat are tainted."	P & C (2001)	**ML**
21. Affect land value?	Due to the limited control methods available during the 1930s, presence of the weed in cropping situations, "…greatly reduced land value." In spite of improvements to control methods, its occurrence in paddocks today would most likely reduce the land value.	P & C (2001)	**M**
22. Change land use?	"Fortnightly cultivations killed all plants after 2 years." Temporary loss of land for productive activities that would lead to significant loss.	P & C (2001)	**H**
23. Increase harvest costs?	"…it also interferes with harvesting in some areas." Interference may increase either time or labour to conduct harvest.	P & C (2001)	**M**
24. Disease host/vector?	In the US, *Cardaria* spp. have been found to host viral pathogens that cause beet western yellows and potato leaf roll. Potential threat to Victorian producers?	Jewett (2003)[3]	**H**

[1] Downs, S. n.d. Cardaria draba *Whitetop.* Montana War on Weeds information sheet. Available http://www.mtwow.org/whitetop.html Last accessed 07/04/03
[2] Esser, L. 1994. Cardaria draba. Available http://www.fs.fed.us/database/feis/plants/forb/cardra/all.html Last accessed 07/04/03
[3] Jewett, D. 2003. *Noxious weed found to harbor viruses.* Northern Plains Agricultural Research Laboratory. http://listserver.sidney.ars.usda.gov/sept00oct00.html Last accessed 08/04/03