Scientific Name: *Solanum rostratum* Common name: Buffalo burr

QUESTION	COMMENTS	REFERENCE	RANKING
Social			
1. Restrict human access?	"An erect annual herb, commonly 20 to 30 cm high." Information on population density not available, and it is not recorded as being aggressive or invasive in natural ecosystems. From images available, which demonstrate the plant's growth habit, it would be a minor nuisance to humans. Its spiny nature would ensure walkers avoid contact with the plant.	P & C (2001) Bassett & Munro[1] Oklahoma University[2] Uni of Missouri - Columbia[3]	**ML**
2. Reduce tourism?	The spiny stems and fruit of the plant would make its presence felt. Recreational uses may be affected because infested areas cannot be used.		**ML**
3. Injurious to people?	It grows through winter and survives well into summer before dying. Dead material continues to present a hazard because of spines. "Buffalo burr is poisonous and, overseas, there have been fatalities in children after eating the fruit." (One source has described the plant thus: "Nasty, nasty, nasty. This plant is not one to be handled or even stepped on. The spines are very dense, stiff, and sharp. The plant is just brutal.")	P & C (2001)	**H**
4. Damage to cultural sites?	Limited spread of plant. Likely to present a moderate negative visual effect. No effect on structure.	Oklahoma University	**ML**
Abiotic			
5. Impact flow?	Terrestrial species.	P & C (2001)	**L**
6. Impact water quality?	Terrestrial species.	P & C (2001)	**L**
7. Increase soil erosion?	In the western United States it commonly occurs on disturbed sites and sandy soils. Its presence would not increase soil erosion. In Victoria, *S. rostratum* is more commonly a problem in the wheat-growing areas.	WSNWCB[4]	**L**
8. Reduce biomass?	Its growth habit and common habitat (waste areas, overgrazed pastures and roadsides) suggest that biomass would not be greatly affected. Invader replaces biomass.	WSNWCB	**ML**
9. Change fire regime?	The dead plant presents a small amount of dry matter, and "mature plants break off at ground level and are blown about as 'tumble weeds'." Not likely to change the fire regime.	P & C (2001)	**L**
Community Habitat			
10. Impact on composition (a) high value EVC	EVC=Plains grassy woodland (E); CMA=Wimmera; Bioreg=Wimmera Very high CLIMATE match. Mainly a weed of cropping. "…it is generally confined to the wheatbelt. It is somewhat weedy on neglected sites and pastures." In natural ecosystem minor displace species within a strata.	P & C (2001)	**ML**
(b) medium value EVC	EVC=Heathy Woodland (D); CMA=Corangamite; Bioreg=Central Victorian Uplands High potential CLIMATE match only; little displacement of any indigenous species.		**L**
(c) low value EVC	EVC=Heathy woodland (LC); CMA=Glenelg Hopkins; Bioreg=Glenelg Plain Very high CLIMATE match. Mainly a weed of cropping. "…it is generally confined to the wheatbelt. It is somewhat weedy on neglected sites and pastures." In natural ecosystem minor displace species within a strata.	P & C (2001)	**ML**
11. Impact on structure?	Its effect on other species is not recorded. As a low growing annual it may not have a serious impact on structure. In its native region (midwest USA) it is regarded as highly aggressive and invasive, but beyond this range it seems less so. Possibly a minor effect on the floral strata.	WSNWCB	**ML**
12. Effect on threatened flora?			

Scientific Name: *Solanum rostratum* Common name: Buffalo burr

QUESTION	COMMENTS	REFERENCE	RANKING
Fauna			
13. Effect on threatened fauna?			
14. Effect on non-threatened fauna?	Not known to invade natural ecosystems. However, its spiny nature and toxic fruit may have a minor impact on non-threatened fauna.	P & C (2001)	**ML**
15. Benefits fauna?	No known benefits.		**H**
16. Injurious to fauna?	"The plant causes physical injury to stock, particularly around the mouth and nose, and these areas become infected." Potential to harm fauna.	P & C (2001)	**H**
Pest Animal			
17. Food source to pests?	None documented.		**L**
18. Provides harbor?	A low growing annual. It would not provide harbor.	P & C (2001)	**L**
Agriculture			
19. Impact yield?	Where it occurs in pastures it may reduce available fodder as the plant's prickly nature deters animals from grazing.	P & C (2001)	**MH**
20. Impact quality?	*S. rostratum* became a problem in wheat growing areas in Victoria. Its seeds contaminate cereal crops. "Changed farming methods have reduced its significance… it is no longer considered an important weed." The burrs stick to wool, and contribute to vegetable fault in a wool clip.	P & C (2001)	**ML**
21. Affect land value?	Occurs in overgrazed pasture and cropping situations. Cultivation prior to flowering effectively controls the weed, and it is not known as an aggressive weed in Victoria. Likely to have little affect on land value.	WSNWCB P & C (2001)	**L**
22. Change land use?	Occurs in overgrazed pasture and cropping situations. Cultivation prior to flowering effectively controls the weed, and it is not known as an aggressive weed in Victoria. Population density not known. Change in land use unlikely.	WSNWCB P & C (2001) Bassett & Munro	**L**
23. Increase harvest costs?	No evidence		**L**
24. Disease host/vector?	"The weed acts a host for nematodes which affect tomatoes and tobacco in North America." Potential problem for Victorian agriculture.	P & C (2001)	**H**

[1] Bassett, L., Munro, D 1986 The biology of Canadian weeds. *Canadian Journal of Plant Science* 66.
[2] Oklahoma University, Images from Biological Survey, http://www.biosurvey.ou.edu/okwild/buffbur.html, viewed 02/07/03
[3] University of Missouri - Columbia, Images from Missouri Weeds, http://www.psu.missouri.edu/fishel/buffalobur.htm, viewed 02/07/03
[4] Washington State Noxious Weed Control Board, http://www.nwcb.wa.gov/weed_info/buffalobur.html, viewed 02/07/03