Scientific Name: *Emex australis* Common name: Spiny emex

QUESTION	COMMENTS	REFERENCE	RANKING
Social			
1. Restrict human access?	"A semi-prostrate annual herb." The physical growth of the plant would not restrict human access. However, the spiny fruits, which are hard and woody and bear 3 rigid, sharp spines, may prevent access to some recreational areas. This would particularly apply to bare-footed humans. It may impede individual access.	P & C (2001)	**ML**
2. Reduce tourism?	The spiny fruits may affect some recreational activities.		**MH**
3. Injurious to people?	"The spines cause discomfort and inconvenience to humans, particularly when bare-footed. The fruit can cripple animals, particularly dogs. The fruit is long lived in soil (more than 4 years)."	P & C (2001)	**MH**
4. Damage to cultural sites?	A low growing annual its presence would create a moderate negative visual impact.		**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?	"…it may, in association with other annuals, contribute to the stabilisation of sandy soils." Not likely to contribute to soil erosion.	Panetta *et al* (1998)	**L**
8. Reduce biomass?	"A semi-prostrate annual," growing on grazing and cropping lands, saleyards, vineyards and neglected areas. Invader replaces biomass.	P & C (2001)	**ML**
9. Change fire regime?	"Most plants die in summer." As a low-growing plant it would not contribute to a change in the fire regime.	P & C (2001)	**L**
Community Habitat			
10. Impact on composition (a) high value EVC	EVC=Plains grassy woodland (E); CMA=North Central; Bioreg=Victorian Volcanic Plain; VH CLIMATE potential. "Spiny emex is mainly a weed of cultivated areas and tends to decline in pastures." It occurs in small populations and is limited in distribution. May displace ground cover species.	P & C (2001) Carr *et al* (1992)	**L**
(b) medium value EVC	EVC=Hillcrest herb-rich woodland (D); CMA=Goulburn Broken; Bioreg=Goldfields; VH CLIMATE potential. Impact as in 10(a) above.	P & C (2001) Carr *et al* (1992)	**L**
(c) low value EVC	*E. australis* does not appear to occur in any low value EVC in Victoria.		**L**
11. Impact on structure?	"Spiny emex is mainly a weed of cultivated areas and tends to decline in pastures." In Victoria, it occurs in small patches of limited distribution in lowland grassland & grassy woodland. Minimal impact on structure.	P & C (2001) Carr *et al* (1992)	**L**
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?	Limited distribution in small patches in lowland grassland & grassy woodland. Minimal effect on fauna species.	Carr *et al* (1992)	**L**
15. Benefits fauna?	"*Emex australis* has become a major source of food for Major Mitchell cockatoos (*Cacatua leadbeateri* (Vigors)) and the inland red tailed black cockatoo (*Calyptorhynchus magnificus*)." Both these bird species occur in Victoria where current infestations of *E. australis* are known.	Panetta *et al* (1998)	**MH**
16. Injurious to fauna?	"The fruit can cripple animals." Potential to harm fauna.	P & C (2001)	**H**
Pest Animal			
17. Food source to pests?	"Rodents are known to destroy many seeds each year." Rodent spp. not documented; potential for pest rodents.	P & C (2001)	**ML**
18. Provides harbor?	A semi-prostrate annual, it is not known to provide harbor.		**L**
Agriculture			
19. Impact yield?	"Infestations of spiny emex can be very dense and counts of more than 900 plants per square metre have been made in Western Australia. South Australian studies show that an infestation of about 11 plants per square metre reduces wheat yields by almost 40%." Major impact on quantity of produce.	P & C (2001)	**H**
20. Impact quality?	"Several surveys of the presence, abundance and importance of *E. australis* in crop, pasture and horticultural situations in South Australia show that it is a serious problem and that its presence in grain leads to rejected loads at silos, contaminated and rejected dried fruit, pulse grains, barley, peas, lupins and chickpeas.	Panetta *et al* (1998)	**H**
21. Affect land value?	With the potential to affect agricultural production seriously, its presence would have a major impact on land value.	P & C (2001)	**M**
22. Change land use?	"Spraying infested cops with herbicides often doubles wheat yield in Western Australia. Trials in Western Australia have shown the benefit to be derived from controlling spiny emex in pastures." The cost of control measures is covered by an improved economic return. Little or no change.	P & C (2001)	**L**
23. Increase harvest costs?	Not documented to affect harvest costs.		**L**
24. Disease host/vector?	"It is not known to be an alternative host to insect pests and disease organisms."	Panetta *et al* (1998)	**L**