Impact Assessment Record

Scientific Name: *Onopordum tauricum* Willd. Common name: taurian thistle

QUESTION	COMMENTS	RATING	CONFIDENCE
Social			
1. Restrict human access?	"Severe infestations can form tall, dense, impenetrable stands" (Healy, Enloe & DiTomaso, 2005). "Restricts access of people [to] recreation areas" (RBWD, 2005).	**MH**	**MH**
2. Reduce tourism?	"Severe infestations can form tall, dense, impenetrable stands" (Healy, Enloe & DiTomaso, 2005). "Restricts access of people [to] recreation areas" (RBWD, 2005).	**MH**	**MH**
3. Injurious to people?	Leaves and stems bear spines up to 1.5 cm long (Davis, 1975) when flowering stems develop in spring/summer of the second year of growth (Healy, Enloe & DiTomaso, 2005).	**ML**	**MH**
4. Damage to cultural sites?	Flowers purplish-pink on thorny plants up to 2 m (Tutin, 1980) in dense stands (Healy, Enloe & DiTomaso, 2005) are likely to be very obvious to the average visitor and have a moderate visual effect.	**ML**	**H**
Abiotic			
5. Impact flow?	Invades pasture, roadsides and waste places (Groves et. al, 2002), steppe, open scrub and fallow fields (Davis, 1975), drainage creeks (MCA, 2006). Terrestrial species.	**L**	**H**
6. Impact water quality?	See Q. 6. Terrestrial species.	**L**	**H**
7. Increase soil erosion?	Biennial species (Groves et al, 2002) that will die off, leaving bare patches that could be quite extensive where "dense, impenetrable stands" (Healy, Enloe & DiTomaso, 2005) have existed. The potential for large scale soil movement is moderate.	**ML**	**MH**
8. Reduce biomass?	Invades pasture, roadsides and waste places (Groves et. al, 2002), steppe, open scrub and fallow fields (Davis, 1975), drainage creeks (MCA, 2006). In this type of vegetation, the plant is likely to replace other herbaceous species.	**ML**	**H**
9. Change fire regime?	Infestations do not appear to form closed canopies (see photo CDFA, 2005), allowing indigenous vegetation to persist, although more sparsely. Post senescence "stems can persist into he next season with spiny phyllaries and receptacles attached" (Healy, Enroe & DiTomaso, 2005). In grassland and open scrub, where this plant invades (Davis, 1975) this dried vegetation adds to the fuel load, most likely causing a moderate increase in the intensity of fires.	**MH**	**MH**
Community Habitat			
10. Impact on composition (a) high value EVC	EVC=Heathy Woodland (V), CMA= Wimmera, Bioreg.=Goldfields, CLIMATE=VH. Infestations do not appear to form closed canopies (see photo CDFA, 2005), allowing indigenous vegetation to persist, although more sparsely. Sparse infestations with very little displacement of indigenous species.	**L**	**MH**
(b) medium value EVC	EVC=Sand Heathland (D), CMA= Wimmera, Bioreg.=Wimmera, CLIMATE=VH. Infestations do not appear to form closed canopies (see photo CDFA, 2005), allowing indigenous vegetation to persist, although more sparsely. Sparse infestations with very little displacement of indigenous species.	**L**	**MH**
(c) low value EVC	EVC=Heathy Woodland (LC), CMA= Wimmera, Bioreg.=Wimmera, CLIMATE=VH. Infestations do not appear to form closed canopies (see photo CDFA, 2005), allowing indigenous vegetation to persist, although more sparsely. Sparse infestations with very little displacement of indigenous species.	**L**	**MH**

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QUESTION	COMMENTS	RATING	CONFIDENCE
11. Impact on structure?	Infestations do not appear to form closed canopies (see photo CDFA, 2005), allowing indigenous vegetation to persist, although more sparsely. As taurian thistle "seedlings do not compete well with established perennial grasses" (Healy, Enroe & DiTomaso, 2005), this plant is unlikely to have a major effect on intact ecosystems. In grassland and open scrub, where this plant invades (Davis, 1975) and strongly competes with native plants for resources (Healy, Enroe & DiTomaso, 2005), it is likely to have a minor impact on the forb and herb layers, but not the shrub layer (20-60% of the floral strata).	**ML**	**MH**
12. Effect on threatened flora?	No information found.	**MH**	**L**
Fauna			
13. Effect on threatened fauna?	No information found.	**MH**	**L**
14. Effect on non-threatened fauna?	Strongly competes with native plants for resources (Healy, Enroe & DiTomaso, 2005) and "restricts access of…large mammals to foraging and watering" (RBWD, 2005). This plant will reduce the amount of native vegetation growing and also its availability as a food source to native animals. Infestations may reduce the number of animals in a local area.	**MH**	**MH**
15. Benefits fauna?	Unlikely as a food source (see Q. 14), but a possible shelter to desirable species of small mammals	**MH**	**MH**
16. Injurious to fauna?	Leaves and stems bear spines up to 1.5 cm long (Davis, 1975) when flowering stems develop in spring/summer of the second year of growth (Healy, Enloe & DiTomaso, 2005).	**MH**	**MH**
Pest Animal			
17. Food source to pests?	Goats eat the seed heads of the related *O. illyricum* so it is likely that taurian thistle would also be a food source to these pests (Holst & Allan, 1996).	**ML**	**H**
18. Provides harbor?	As this plant and "restricts access of…large mammals" (RBWD, 2005) it is likely to provide harbour to small pest species, such as rats.	**ML**	**M**
Agriculture			
19. Impact yield?	"Serious pasture weeds in southern Australia" (Briese et al, 1995). Reduces productivity (Healy, Enroe & DiTomaso, 2005). "Severe infestations can form tall, dense, impenetrable stands" (Healy, Enloe & DiTomaso, 2005) that "Restricts access of…large mammals to foraging and watering" (RBWD, 2005). May have a major impact on the carrying capacity of infested land by more than 5%. Reducing stock levels and allowing perennial grasses to establish is likely to drastically reduce the establishment of weed seedlings (Healy, Enloe & DiTomaso, 2005), allowing grazing to continue	**MH**	**MH**

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QUESTION	COMMENTS	RATING	CONFIDENCE
20. Impact quality?	Similar *Onopordum* spp. (*O. acanthium* & *O. illyricum*) contribute to vegetable faults in wool (Parsons & Cuthbertson, 1992). Taurian thistle has very similar flower/seed heads (Healy, Enroe & DiTomaso, 2005) that would also be likely to reduce the quality of wool, which might be rejected for sale.	**H**	**MH**
21. Affect land value?	The ability to reduce infestations of this weed with good cultural methods (Healy, Enloe & DiTomaso, 2005) means that this weed should not significantly affect land value.	**L**	**MH**
22. Change land use?	In order to reduce the density of infestations, cultural methods may need to change, with temporary removal of stock from infested areas while perennial pasture re-establishes methods (Healy, Enloe & DiTomaso, 2005).	**ML**	**MH**
23. Increase harvest costs?	Harvest costs should not be increased, as control in pasture is via good cultural methods (Healy, Enloe & DiTomaso, 2005).	**L**	**MH**
24. Disease host/vector?	No record of this plant as a disease host/vector in Healy, Enloe & DiTomaso (2005).	**L**	**MH**

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Revisions

Date	Revised by	Revision