Impact Assessment Record

Scientific name: *Rhamnus alaternus* L. Common name: Italian Buckthorn

QUESTION	COMMENTS	RATING	CONFIDENCE
Social			
1. Restrict human access?	*Rhamnus alaternus* is a fast growing shrub, able to grow to 6m and form dense stands. Used as a hedge it could therefore pose a major physical barrier (Blood 2001; Muyt 2001; Weber 2003). The plants ability to sucker could also impose on tracks and is reportedly difficult to control requiring significant works with follow up (Blood 2001; Weber 2003).	**H**	**MH**
2. Reduce tourism?	Unknown.	**M**	**L**
3. Injurious to people?	*R. alaternus*' branches have traditionally been used in Spain to make a decoction for high blood pressure (Akerreta *et al* 2007). There is no evidence however of the plant causing injury.	**L**	**M**
4. Damage to cultural sites?	Unknown.	**M**	**L**
Abiotic			
5. Impact flow?	The species can occur in riparian vegetation, there is no evidence however of it occurring in flowing water and obstructing flow.	**L**	**M**
6. Impact water quality?	The species can occur in riparian vegetation, there is no evidence however of it occurring in water and affecting water quality.	**L**	**M**
7. Increase soil erosion?	As reported by Blood (2001) the species is fast growing, has a strong root system and readily suckers therefore providing good vegetation cover for the soil surface and support to the soil structure, reducing the risk of erosion.	**ML**	**M**
8. Reduce biomass?	The species is reported to displace the existing vegetation creating a dense species poor stand (Weber 2003). The species ability to prevent regeneration of trees and shrubs as reported by Muyt (2001) may stop the biomass accumulating beyond a certain point, overall however invasion by *R. alaternus* is considered to cause direct replacement of biomass.	**ML**	**MH**
9. Change fire regime?	Unknown.	**M**	**L**
Community Habitat			
10. Impact on composition (a) high value EVC	EVC= Escarpment Shrubland (E); CMA= Glenelg Hopkins; Bioreg= Glenelg Plain; VH CLIMATE potential. The species vigorous growth shades out ground flora altering the floral composition and can prevent regeneration of shrubs and trees and lead to species poor stands (Muyt 2001; Weber 2003). The species therefore may cause major displacement of species within a layer.	**MH**	**MH**

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QUESTION	COMMENTS	RATING	CONFIDENCE
(b) medium value EVC	EVC= Hills Herb-rich Woodland (D); CMA= Glenelg Hopkins; Bioreg= Goldfields; VH CLIMATE potential. The species vigorous growth shades out ground flora altering the floral composition and can prevent regeneration of shrubs and trees and lead to species poor stands (Muyt 2001; Weber 2003). The species therefore may cause major displacement of species within a layer.	MH	MH
(c) low value EVC	EVC= Rocky Outcrop Herbland (LC); CMA= Glenelg Hopkins; Bioreg= Greater Grampians; VH CLIMATE potential. The species vigorous growth shades out ground flora altering the floral composition and can prevent regeneration of shrubs and trees and lead to species poor stands (Muyt 2001; Weber 2003). The species therefore may cause major displacement of species within a layer.	MH	MH
11. Impact on structure?	The species vigorous growth shades out ground flora altering the floral composition and can prevent regeneration of shrubs and trees and lead to species poor stands (Muyt 2001; Weber 2003). The species therefore may eventually have a major effect on all layers.	H	MH
12. Effect on threatened flora?	Not specifically reported, however its general impact of floral composition could impact threatened species.	MH	L
Fauna			
13. Effect on threatened fauna?	Not specifically mentioned, however the alteration of vegetation composition could impact threatened fauna by altering habitat structure and food supply.	MH	L
14. Effect on non-threatened fauna?	Not specifically mentioned, however the alteration of vegetation composition could impact fauna by altering habitat structure and food supply. It is unknown however to what extent this would impact fauna.	M	L
15. Benefits fauna?	Fruit is eaten by birds and possible by possums (Muyt 2001).	MH	MH
16. Injurious to fauna?	There is no evidence of this.	L	M
Pest Animal			
17. Food source to pests?	Berries possibly eaten by foxes (Muyt 2001).	MH	MH
18. Provides harbour?	Used as an ornamental hedge the species is capable of forming dense stands (Blood 2001). Muyt (2001) reports that the species may be a food source for foxes, therefore the dense vegetation it forms may also provide shelter.	MH	M
Agriculture			
19. Impact yield?	Reported to invade plantations (Webb, Sykes & Garnock-Jones 1988). It is unknown however if the species reduces yield by any significant amount.	M	L

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QUESTION	COMMENTS	RATING	CONFIDENCE
20. Impact quality?	Reported to invade plantations (Webb, Sykes & Garnock-Jones 1988). It is unknown however if the species impacts the quality of the produce by any significant amount.	**M**	**L**
21. Affect land value?	Unknown	**M**	**L**
22. Change land use?	Reported to invade plantations (Webb, Sykes & Garnock-Jones 1988). It is unknown however if invasion by the species results in any change to land use.	**M**	**L**
23. Increase harvest costs?	Reported to invade plantations (Webb, Sykes & Garnock-Jones 1988). It is unknown however if invasion by the species results in any change to cost of production.	**M**	**L**
24. Disease host/vector?	While considered rare the species can be a host of Alfalfa mosaic virus, a disease that effects lucerne (Cardin 2006; Garran & Gibbs 1982). Is reported as a host of *Pseudomonas savastanoi* a bacterium that causes olive knot disease (Temsah, Hanna & Saad 2007).	**M**	**H**