Impact Assessment Record

Scientific name: *Freesia alba x Freesia leichtlinii*

Common name: Freesia

QUESTION	COMMENTS	RATING	CONFIDENCE	
Social				
1. Restrict human access?	Growing to only 40cm in height (Blood 2001) it is not likely to restrict human access.	L	МН	
2. Reduce tourism?	It can form extensive and dense stands (Weber 2003), which would have a negative affect on aesthetics in natural areas. There is no evidence to suggest it would impact on recreational activities.	ML	MH	
3. Injurious to people?	There is some conflicting literature about its injurious nature. <i>Freesia spp.</i> is documented as non-toxic (King Filmer 2006, OPC 2007) and not listed in specific 'poisonous plant' books (Everist 1981, Shepherd 2004), but also documented as toxic, e.g. 'All parts of plant are poisonous if ingested (Daves Garden 2007)'.	М	L	
4. Damage to cultural sites?	As a low growing herb (Blood 2001) it is unlikely to cause damage to cultural sites or infrastructure.	L	МН	
Abiotic				
5. Impact flow?	A terrestrial species (Muyt 2001), unlikely to impact on water flow.	L	МН	
6. Impact water quality?	A terrestrial species (Muyt 2001), unlikely to impact on water quality.	L	MH	
7. Increase soil erosion?	'Freesias impede the growth and regeneration of indigenous ground flora. Extensive stands can establish (Muyt 2001)'. There is some potential for increased soil instability if species with more extensive root systems are replaced by <i>Freesia</i> , however, the effect is likely to be minimal, with a low probability of large scale soil movement.	L	М	
8. Reduce biomass?	Can form extensive and dense stands (Weber 2003) and densities of up to 1500 bulbs/m ² are known to occur (EWAN 2006). It could increase below ground and understorey biomass, however, the above ground biomass only exists for part of the year.	М	L	
9. Change fire regime?	Its ability to impede the growth and regeneration of native ground flora such as grasses (Muyt 2001, EWAN 2006) could reduce fire frequency and/or intensity in some ecosystems, e.g. grasslands, woodlands. However, the affect is likely to be minor.	ML	М	
Community Habitat				
10. Impact on composition (a) high value EVC	EVC= Plains Woodland (BCS= E); CMA= Wimmera; Bioreg= Greater Grampians; CLIMATE potential=VH. Invades various heathland, woodland and grassland communities (Carr et al 1992). 'Freesias impede the growth and regeneration of indigenous ground flora (Muyt 2001)'.Forms extensive and dense stands (Weber 2003). Competes with native vegetation particularly native orchids and grasses (EWAN 2006). Excludes native species (ESC 2004). Potential to form monoculture within the understorey layer.	H	МН	

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QUESTION	COMMENTS	RATING	CONFIDENCE
(b) medium value EVC	EVC= Heathy herb-rich woodland (BCS= D); CMA= Glenelg Hopkins; Bioreg= Glenelg Plain; CLIMATE potential=VH. Invades various heathland, woodland and grassland communities (Carr et al 1992). 'Freesias impede the growth and regeneration of indigenous ground flora (Muyt 2001)'.Forms extensive and dense stands (Weber 2003). Competes with native vegetation particularly native orchids and grasses (EWAN 2006). Excludes native species (ESC 2004). Potential to form monoculture within the understorey layer.	Н	МН
(c) low value EVC	EVC= Sand Heathland (BCS= LC); CMA= Wimmera; Bioreg= Greater Grampians; CLIMATE potential=VH. Invades various heathland, woodland and grassland communities (Carr et al 1992). 'Freesias impede the growth and regeneration of indigenous ground flora (Muyt 2001)'.Forms extensive and dense stands (Weber 2003). Competes with native vegetation particularly native orchids and grasses (EWAN 2006). Excludes native species (ESC 2004). Potential to form monoculture within the understorey layer.	H	МН
11. Impact on structure?	Freesias impede the growth and regeneration of indigenous ground flora. Extensive stands can establish (Muyt 2001)'. Major effect on <60% of the floral strata.	MH	МН
12. Effect on threatened flora?	Competes with native vegetation particularly orchids and grasses, forming dense infestations. Densities of up to 1500 bulbs/m^2 are known to occur (EWAN 2006). Though its impact specifically on threatened flora was not found documented there a number of threatened orchid species in Victoria that occur in the same ecosystems that Freesia invades (Coates <i>et al</i> 2003).	MH	М
Fauna			
13. Effect on threatened fauna?	Excludes native plant species (ESC 2004). 'Freesias impede the growth and regeneration of indigenous ground flora. Extensive stands can establish (Muyt 2001)'. Although not documented, it has potential to reduce habitat and food source to threatened native invertebrate and vertebrate fauna.	MH	L
14. Effect on non- threatened fauna?	Excludes native plant species (ESC 2004). 'Freesias impede the growth and regeneration of indigenous ground flora. Extensive stands can establish (Muyt 2001)'. More specifically it is documented to compete with native orchids and grasses (EWAN 2006) and therefore has the potential to reduce habitat and food source to native invertebrate and vertebrate fauna that depend on particular species of these ground floras.	Μ	М
15. Benefits fauna?	No information was found to suggest it would benefit indigenous fauna.	Н	М
16. Injurious to fauna?	It was not found described to be injurious to fauna, however the literature is not extensive and there is a suggestion that it may be toxic to humans (Daves Garden 2007).	М	L
Pest Animal			
17. Food source to pests?	No information was found to suggest it would provide a food source to pests.	L	М
18. Provides harbor?	As a low growing herb it would provide negligible harbour to pests.	L	М

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QUESTION	COMMENTS	RATING	CONFIDENCE
Agriculture			
19. Impact yield?	Not described as a weed of agriculture.	L	М
20. Impact quality?	Not described as a weed of agriculture.	L	М
21. Affect land value?	Not described as a weed of agriculture.	L	М
22. Change land use?	Not described as a weed of agriculture.	L	М
23. Increase harvest costs?	Not described as a weed of agriculture.	L	М
24. Disease host/vector?	Not described as a weed of agriculture.	L	М