

Impact Assessment Record

Scientific Name: Calluna vulgaris

Common name: heather

QUESTION	COMMENTS	RATING	CONFIDENCE
<b>Social</b>			
1. Restrict human access?	Grows up to 1.25m, with woody pliable stems (CRC for Australian Weed Management 2003). 'Varies from low and sparse to dense and bushy' (USDA Forest Service 2004). Weed would have a minimal or negligible impact on human access.	<b>L</b>	<b>MH</b>
2. Reduce tourism?	'The role of heather as a highly valued and major floristic component of British and European heathlands' (Chapman & Bannister 1994). Visitors would be aware but not bothered by weed.	<b>ML</b>	<b>H</b>
3. Injurious to people?	Not known to have any injurious effects.	<b>L</b>	<b>MH</b>
4. Damage to cultural sites?	'.. alpine and subalpine areas of Victoria are threatened by <i>C. vulgaris</i> . Because of the cultural, environmental and recreational importance of these unique habitats..' (CRC for Australian Weed Management 2003). If the weed did occur in cultural sites, likely to have a moderate visual effect.	<b>ML</b>	<b>M</b>
<b>Abiotic</b>			
5. Impact flow?	Terrestrial species.	<b>L</b>	<b>H</b>
6. Impact water quality?	Terrestrial species	<b>L</b>	<b>H</b>
7. Increase soil erosion?	'.. deliberately planted in gardens and for erosion control' (CRC for Australian Weed Management 2003). Fibrous lateral root system. 'A surface mat is formed by adventitious roots and fine branches of the main root system' (USDA Forest Service 2004). Low probability of causing large scale soil movement.	<b>L</b>	<b>MH</b>
8. Reduce biomass?	In a national park in New Zealand ' <i>C. vulgaris</i> now dominates virtually all of the area previously covered in .. tussock grass-land' (Rogers & Leathwick 1996). Has a 'dense canopy during much of its life' (CRC for Australian Weed Management 2003). Likely that the biomass may increase.	<b>L</b>	<b>H</b>
9. Change fire regime?	'Dense canopy during much of its life and forms persistent leaf litter'. ' .. large accumulation of wood and litter' (CRC for Australian Weed Management 2003). 'Temperatures and [fire] intensities increased with stand age until the mature phase,' at which point they decline in degenerate stands (USDA Forest Service 2004). Likely that the weed would contribute to a minor change in intensity of fire risk.	<b>ML</b>	<b>MH</b>
<b>Community Habitat</b>			
10. Impact on composition (a) high value EVC	EVC= Clay heath (V); CMA=East Gippsland; Bioreg=East Gippsland Lowland; CLIMATE potential=VH. ' .. ability to dominate leads to a severe loss of biodiversity by displacing native vegetation and reducing the range and habitat available to native fauna' (Rogers & Leathwick 1996). In a national park in New Zealand ' <i>C. vulgaris</i> now dominates virtually all of the area previously covered in .. tussock grass-land' (CRC for Australian Weed Management 2003). Major displacement of some dominant species within a strata.	<b>MH</b>	<b>MH</b>
(b) medium value EVC	EVC= Heathy woodland (D); CMA=East Gippsland; Bioreg=East Gippsland Lowland; CLIMATE potential=VH. ' .. ability to dominate leads to a severe loss of biodiversity by displacing native vegetation and reducing the range and habitat available to native fauna' (Rogers & Leathwick 1996). In a national park in New Zealand ' <i>C. vulgaris</i> now dominates virtually all of the area previously covered in .. tussock grass-land' (CRC for Australian Weed Management 2003). Major displacement of some dominant species within a strata.	<b>MH</b>	<b>MH</b>

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(c) low value EVC	EVC= Banksia woodland. (LC); CMA=East Gippsland; Bioreg=East Gippsland Lowland; CLIMATE potential=VH. ‘ .. ability to dominate leads to a severe loss of biodiversity by displacing native vegetation and reducing the range and habitat available to native fauna’ (Rogers & Leathwick 1996). In a national park in New Zealand ‘ <i>C. vulgaris</i> now dominates virtually all of the area previously covered in .. tussock grass-land’ (CRC for Australian Weed Management 2003). Major displacement of some dominant species within a strata.	<b>MH</b>	<b>MH</b>
11. Impact on structure?	‘ .. ability to dominate leads to a severe loss of biodiversity by displacing native vegetation and reducing the range and habitat available to native fauna’ (Rogers & Leathwick 1996). In a national park in New Zealand ‘ <i>C. vulgaris</i> now dominates virtually all of the area previously covered in .. tussock grass-land’ (CRC for Australian Weed Management 2003). Major effect on less than 60% of the floral strata.	<b>MH</b>	<b>H</b>
12. Effect on threatened flora?	This species is not documented as posing an additional risk to threatened flora.	<b>MH</b>	<b>MH</b>
<b>Fauna</b>			
13. Effect on threatened fauna?	This species is not documented as posing an additional risk to threatened fauna.	<b>MH</b>	<b>MH</b>
14. Effect on non-threatened fauna?	‘ .. ability to dominate .. displacing native vegetation and reducing the habitat available to native fauna’ (CRC for Australian Weed Management 2003). Has the potential to have a minor effect on non-threatened fauna spp.	<b>ML</b>	<b>M</b>
15. Benefits fauna?	‘ the most important yearlong food of rock ptarmigan and grouse in Scotland and Denmark’. ‘Large portion of the diet of domestic sheep’ ‘ primary cover of the European red grouse .. probably also provides good cover for other upland game birds, small nongame birds, and small mammals’ (USDA Forest Service 2004). Possible that the weed could provide some assistance in either food or shelter to desirable species.	<b>MH</b>	<b>MH</b>
16. Injurious to fauna?	Not known to be toxic to indigenous fauna.	<b>L</b>	<b>MH</b>
<b>Pest Animal</b>			
17. Food source to pests?	‘Red deer and mountain hare also browse heather’ (USDA Forest Service 2004). Possible that the weed would supply food for one or more minor pest spp.	<b>ML</b>	<b>MH</b>
18. Provides harbor?	‘ primary cover of the European red grouse .. probably also provides good cover for other upland game birds, small nongame birds, and small mammals’ (USDA Forest Service 2004). May provide harbour for minor pest spp.	<b>ML</b>	<b>MH</b>
<b>Agriculture</b>			
19. Impact yield?	Not a weed of agriculture.	<b>L</b>	<b>MH</b>
20. Impact quality?	Not a weed of cropping.	<b>L</b>	<b>MH</b>
21. Affect land value?	Weed not known to affect value of land.	<b>L</b>	<b>MH</b>

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22. Change land use?	Weed not known to cause a change in priority of land use.	<b>L</b>	<b>MH</b>
23. Increase harvest costs?	Not a weed of cropping.	<b>L</b>	<b>MH</b>
24. Disease host/vector?	Not known as a host or vector for disease of agriculture.	<b>L</b>	<b>MH</b>

### References cited:

- Chapman, H.M. and Bannister, P. 1994, 'Vegetative reproduction and performance of *Calluna vulgaris* in New Zealand, with particular reference to Tongariro National Park', *New Zealand Journal of Ecology*, vol. 18, no. 2, pp. 109-121, viewed 30 Nov 2005, [http://www.nzes.org.nz/nzje/free\\_issues/NZJEcol18\\_2\\_109.pdf](http://www.nzes.org.nz/nzje/free_issues/NZJEcol18_2_109.pdf)
- CRC for Australian Weed Management 2003, *Weed management guide: Heather (Calluna vulgaris)*, CRC for Australian Weed Management and the Commonwealth Department of the Environment and Heritage, viewed 30 Nov 2005, [http://www.weeds.crc.org.au/documents/wmg\\_heather.pdf](http://www.weeds.crc.org.au/documents/wmg_heather.pdf)
- Rogers, G.M. & Leathwick, J.R. 1996, 'North Island seral tussock grasslands. 3. The influence of heather (*Calluna vulgaris*) on rates of change from tussock grassland to shrubland', *New Zealand Journal of Botany*, vol. 34, pp. 473-487, viewed 30 Nov 2005, <http://www.rsnz.org/publish/nzjb/1996/161.php>
- US Department of Agriculture Forest Service 2004, *Species: Calluna vulgaris*, Forest Service, United States Department of Agriculture, viewed 30 Nov 2005, <http://www.fs.fed.us/database/feis/plants/shrub/calvul/all.html>

### Revisions

Date                      Revised by                      Revision