

Impact Assessment Record

Scientific Name: Bassia scoparia

Common name: Kochia scoparia

QUESTION	COMMENTS	RATING	CONFIDENCE
<b>Social</b>			
Restrict human access?	Erect, much-branched stems from one to two metres long. Bush can grow up to 150cm in height (Noxious Weed Control Board 1999). May have a low nuisance value which impedes individual access.	<b>ML</b>	<b>MH</b>
Reduce tourism?	Possible that the weed will have a minor effect on aesthetics.	<b>ML</b>	<b>MH</b>
Injurious to people?	Causes 'asthma, hayfever and allergic rhinitis.' 'Common cause of sensitisation..' (All Allergy 1998). Mildly toxic at certain times of year.	<b>ML</b>	<b>M</b>
Damage to cultural sites?	Little or negligible effect on aesthetics or structure of cultural sites.	<b>L</b>	<b>MH</b>
<b>Abiotic</b>			
Impact flow?	Terrestrial species.	<b>L</b>	<b>MH</b>
Impact water quality?	Terrestrial species.	<b>L</b>	<b>MH</b>
Increase soil erosion?	'Has a main taproot [which can grow up to 5 metres] and network of finer roots.' 'Dead plants break off at the base and are blown by the wind as tumbleweeds (CRC for Australian Weed Management 2003). Although, 'can be used in revegetation programs for erosion control' as it can outcompete perennial species, chance of bare ground open to soil erosion is increased (Undersander <i>et al</i> 1990). Only low probability of large scale soil movement.	<b>ML</b>	<b>H</b>
Reduce biomass?	'Dense infestations could suppress recruitment of native ground cover plants and alter natural fire regime' (Csurhes & Edwards 1998). As replacing grasses, biomass may slightly increase.	<b>L</b>	<b>MH</b>
Change fire regime?	'Dense infestations could suppress recruitment of native ground cover plants and alter natural fire regime' (Csurhes & Edwards 1998). Plants die off during dry season. May have minor effect on intensity of fire.	<b>ML</b>	<b>MH</b>
<b>Community Habitat</b>			
Impact on composition (a) high value EVC	EVC= Parilla mallee (E); CMA=Mallee; Bioreg=Murray Mallee; CLIMATE potential=VH. 'Dense infestations could suppress recruitment of native ground cover plants and alter natural fire regime' (Csurhes & Edwards 1998). Monoculture within the groundcover layer.	<b>H</b>	<b>MH</b>
(b) medium value EVC	EVC= Grassy dry forest (D); CMA=Corangamite; Bioreg=Victorian Volcanic Plain; CLIMATE potential=VH. 'Dense infestations could suppress recruitment of native ground cover plants and alter natural fire regime' (Csurhes & Edwards 1998). Monoculture within the groundcover layer.	<b>H</b>	<b>MH</b>
(c) low value EVC	EVC= Coastal Tussock Grassland (LC); CMA=West Gippsland; Bioreg=Gippsland Plain; CLIMATE potential=VH. d. 'Dense infestations could suppress recruitment of native ground cover plants and alter natural fire regime' (Csurhes & Edwards 1998). Monoculture within the groundcover layer.H	<b>MH</b>	<b>MH</b>
Impact on structure?	'Dense infestations could suppress recruitment of native ground cover plants and alter natural fire regime' (Csurhes & Edwards 1998). Major effect on less than 60% of floral strata.	<b>MH</b>	<b>MH</b>

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Effect on threatened flora?	No information available.	<b>MH</b>	<b>L</b>
<b>Fauna</b>			
Effect on threatened fauna?	No information available.	<b>MH</b>	<b>L</b>
Effect on non-threatened fauna?	No documented effect on non-threatened fauna spp.	<b>L</b>	<b>MH</b>
Benefits fauna?	Weed not known to provide benefits to indigenous fauna.	<b>H</b>	<b>MH</b>
Injurious to fauna?	'Contains high levels of oxalates, alkaloids and nitrates that can be toxic to a variety of grazing animals if large amounts are consumed' (CRC for Australian Weed Management 2003). Toxic properties at certain times of the year.	<b>MH</b>	<b>M</b>
<b>Pest Animal</b>			
Food source to pests?	Not known to be a food source to pests.	<b>L</b>	<b>MH</b>
Provides harbor?	Not known to provide harbour to pests.	<b>L</b>	<b>MH</b>
<b>Agriculture</b>			
Impact yield?	Serious pest of late-maturing crops such as sorghum, soybeans and sugarbeets .. an effective competitor for light, nutrients and soil moisture, and can reduce crop yield' (Noxious Weed Control Board 1999). 'A weed that infests cereal crops in the Great Plains of the USA, often severely reducing yields' (Fischer <i>et al</i> 2000). Assume greater than 20% reduction	<b>H</b>	<b>H</b>
Impact quality?	Not documented to impact upon quality of yield.	<b>L</b>	<b>MH</b>
Affect land value?	Not documented to affect land value.	<b>L</b>	<b>MH</b>
Change land use?	Unlikely that the weed would cause a change in priority of land use.	<b>L</b>	<b>MH</b>
Increase harvest costs?	Possible that there will be a minor increase in time and labour required in harvesting.	<b>M</b>	<b>MH</b>
Disease host/vector?	'Resistance to diseases' (Undersander <i>et al</i> 1990). Not a known host or vector for diseases.	<b>L</b>	<b>H</b>

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- CRC for Australian Weed Management 2003, *Weed management guide: Kochia (Bassia scoparia)*, CRC for Australian Weed Management and the Commonwealth Department of the Environment and Heritage, viewed 29 Nov 2005, <http://www.deh.gov.au/biodiversity/invasive/publications/pubs/b-scoparia.pdf>
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- Fischer, A.J., Messersmith, C.G., Nalewaja, J.D. & Duysen, M.E. 2000, 'Interference between spring cereals and Kochia scoparia related to environment and Photosynthetic pathways', *Agronomy Journal*, vol. 92, pp. 173-181, accessed Science Direct Database.
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### Revisions

Date	Revised by	Revision
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