

Impact Assessment Record

Scientific Name: *Thunbergia laurifolia* Lindl. _____

Common name: laurel clock vine _____

QUESTION	COMMENTS	RATING	CONFIDENCE
Social			
1. Restrict human access?	A “vigorous, perennial climbing vine...forming impenetrable colonies” (CRC Weed Management, 2003). See also the picture in this reference depicting a wall of vine that would be a major impediment to access.	H	M
2. Reduce tourism?	The extent of these infestations would be obvious to most visitors and it also has the ability to “pull down mature trees” with their weight and in lower layers of vegetation, “killing many plants” (NR & M, 2005). This would render natural areas extremely unappealing to most potential visitors.	H	M
3. Injurious to people?	No spines, burrs or toxins noted in CRC Weed Management (2003).	L	M
4. Damage to cultural sites?	“Large tubers can cause damage to paths, fences and foundations” ” (NR & M, 2005) as well as the devastating effects on natural environments described in Q. 11. This plant could cause major structural damage to sites and obliteration of cultural features.	H	M
Abiotic			
5. Impact flow?	Infests areas along coastal streams ” (NR & M, 2005) and with its ability to pull down mature trees, could cause obstructions in waterways that might have a major effect on either subsurface or surface flow, depending on where the tree falls and how large it is.	MH	M
6. Impact water quality?	Unlikely to have an impact on water quality as it is a terrestrial species not noted as growing in water (CRC Weed Management, 2003)..	L	M
7. Increase soil erosion?	Where this plant pulls down trees (see Q. 2) and exposes soil, erosion is likely to occur.	ML	M
8. Reduce biomass?	Biomass will be significantly reduced by this plant where it kills and replaces large woody vegetation (see Q. 2).	H	M
9. Change fire regime?	Where the less specialised <i>Thunbergia</i> replaces scleromorphic vegetation (see Q. 2) it is likely to greatly reduce the frequency and intensity of fire, an important mechanism even in rainforest (Groves, ed., 1994).	H	H
Community Habitat			
10. Impact on composition (a) high value EVC	Potential distribution analysis shows that this species is not likely to occur as an invasive plant in Victoria.	L	H
(b) medium value EVC	Potential distribution analysis shows that this species is not likely to occur as an invasive plant in Victoria.	L	H
(c) low value EVC	Potential distribution analysis shows that this species is not likely to occur as an invasive plant in Victoria.	L	H
11. Impact on structure?	“The plant climbs and blankets native vegetation often pulling down mature trees with the weight of the vine. Smothered vegetation also has dramatically reduced light levels to lower layers of vegetation drastically limiting growth, and killing many plants” ” (NR & M, 2005). This plant could have a major effect on all layers in a community, killing trees as well as lower vegetation layers.	H	M

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QUESTION	COMMENTS	RATING	CONFIDENCE
12. Effect on threatened flora?	Potential distribution analysis shows that this species is not likely to occur as an invasive plant in Victoria.	L	H
Fauna			
13. Effect on threatened fauna?	Potential distribution analysis shows that this species is not likely to occur as an invasive plant in Victoria.	L	H
14. Effect on non-threatened fauna?	This vine's ability to replace almost all the flora in a community (see Q. 11), dramatically changes habitat, leading to the possible extirpation of fauna species.	H	M
15. Benefits fauna?	Provides very little support for desirable species as it "blankets native vegetation" (CRC Weed Management, 2003), reducing habitat value.	H	M
16. Injurious to fauna?	No spines, burrs, toxins etc. noted in CRC Weed Management (2003).	L	M
Pest Animal			
17. Food source to pests?	Not noted as a food source for pests.	L	L
18. Provides harbor?	In blanketing vegetation (CRC Weed Management, 2003) this vine creates potential harbour for foxes and wild pigs.	H	M
Agriculture			
19. Impact yield?	"In agricultural areas it infests roadsides, pastures and headlands of canefields, forming impenetrable colonies" (CRC Weed Management, 2003). Not recorded as palatable to herbivores, so there is the potential for it to reduce the carrying capacity of invaded pasture. The extent would depend on the infestation of which no data could be found, so a medium score was chosen.	M	L
20. Impact quality?	No spines, burrs, toxicity noted in CRC Weed Management (2003).	L	M
21. Affect land value?	See Q. 19. This plant would be very obvious in a pasture, so if it colonises large areas, with an ability to significantly reduce yield it would reduce land value, but there is no evidence for this, so a medium value was chosen.	M	L
22. Change land use?	See Q. 20. Large enough infestations may force a change from pasture to cropping (where the plant is only recorded in headlands of cane fields (CRC Weed Management, 2003) and so is probably a viable alternative. No information about the extent of pasture infestations is available though.	M	L
23. Increase harvest costs?	Not noted as a weed of cropping (just canefield headlands in CRC Weed Management, 2003), so should not increase harvest costs.	L	MH
24. Disease host/vector?	" <i>Thunbergia</i> species are susceptible to spider mites, whiteflies and scale insects" (Starr, Starr & Loope, 2003). These pest species are a problem in agricultural crops, however they are not uncommon, so infestations on this plant probably won't increase infection rates by much, if at all.	MH	MH

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References cited:

CRC Weed Management 2003, *Weed Management Guide- Laurel clock vine- Thunbergia laurifolia*, CRC Weed Management, Australia.

Groves RH (ed) 1994, *Australian Vegetation* (2nd ed.), Cambridge University Press, Australia.

Natural Resources and Mines (NR&M) 2005, '*Thunbergia* Blue trumpet vine,' *facts pest series*, Land Protection, QLD.

Starr, F, Starr, K, Loope, L 2003, *Hawaiian Ecosystems at Risk project (HEAR)*, US Geological Survey, viewed: 11/07/2005,

www.hear.org/starr/hiplants/reports/html/thunbergia_laurifolia.htm.

Date	Revised by	Revision
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