

Scientific Name: *Lagarosiphon major*

Common name: Lagarosiphon

QUESTION	COMMENTS	REFERENCE	RANKING
Social			
1. Restrict human access?	Aquatic species. Does not affect human access on land.	P & C (2001)	L
2. Reduce tourism?	An “aggressive freshwater weed,” it may affect some recreational activities such as swimming or boating.	P & C (2001)	MH
3. Injurious to people?	The physical properties of the plant are not harmful to humans, however, “it has the ability to accumulate considerable amounts of arsenic from the surrounding medium.” Tests conducted on sheep in New Zealand revealed the arsenic does not pose a serious threat to health.	P & C (2001) Lancaster <i>et al</i> ¹	L
4. Damage to cultural sites?	“in spite of one of its common names, oxygen weed, in a dense infestation of <i>Lagarosiphon major</i> there often is less oxygen present than in the surrounding water: thus dense infestations, ‘in such quantities confer no oxygen benefit on fish and other animals in the lake’.” Potential to obliterate the historic/cultural feature.	Ramey (2001) ²	H
Abiotic			
5. Impact flow?	Establishes in slow-moving streams and, “...in sheltered areas protected from wind and waves...it forms dense stands which impede water flow.” Major impact on subsurface flow.	P & C (2001)	MH
6. Impact water quality?	It, “interferes with water utilisation and shades out other plants.” “Heavy infestations of Lagarosiphon deplete oxygen levels in water, killing fish.” High effect on dissolved O ₂ levels.	P & C (2001)	H
7. Increase soil erosion?	Aquatic species.		L
8. Reduce biomass?	Dense stands would significantly increase biomass.	P & C (2001)	L
9. Change fire regime?	Aquatic species.		L
Community Habitat			
10. Impact on composition (a) high value EVC	Aquatic species		L
(b) medium value EVC	Aquatic species		L
(c) low value EVC	Aquatic species		L
11. Impact on structure?	“can form a light-blocking canopy so dense and thick (3 feet thick) that <i>Lagarosiphon major</i> easily outcompetes even tall non-canopy forming native species.” “ <i>Lagarosiphon major</i> successfully out-competed native species wherever it has colonised New Zealand lakes in the depth zone 2-6 m--normally occupied by native milfoils (<i>Myriophyllum</i> spp.) and pondweeds (<i>Potamogeton</i> spp.).” Would have a major impact on the floral strata in aquatic situations.	Ramey (2001)	MH/H
12. Effect on threatened flora?			

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Fauna			
13. Effect on threatened fauna?			
14. Effect on non-threatened fauna?	“Heavy infestations of Lagarosiphon deplete oxygen levels in water, killing fish.” Its presence may also impact on waterbirds. Serious reduction in habitat.	P & C (2001)	MH
15. Benefits fauna?	No known benefits.		H
16. Injurious to fauna?	“it has the ability to accumulate considerable amounts of arsenic from the surrounding medium.” Tests conducted on sheep in New Zealand revealed the arsenic does not pose a serious threat to health. Unlikely to affect native fauna.	Lancaster <i>et al</i>	L
Pest Animal			
17. Food source to pests?	In New Zealand, grass carp (<i>Ctenopharyngodon idella</i>) readily ate the plant in feeding trials. However, this species does not occur in Victoria.	Edwards (1975) ³	L
18. Provides harbor?	No		L
Agriculture			
19. Impact yield?	Aquatic species.		L
20. Impact quality?	Aquatic species.		L
21. Affect land value?	Aquatic species.		L
22. Change land use?	Aquatic species.		L
23. Increase harvest costs?	Aquatic species.		L
24. Disease host/vector?	None evident		L

¹ Lancaster, RJ., Coup, MR., Hughes, JW., 1971, Toxicity of arsenic present in lakeweed, *New Zealand Veterinary Journal*, Vol 19, No. 7, pp. 141–145. (CAB abstract)

² Ramey, V., 2001, Lagarosiphon major. Centre for Aquatic and Invasive Plants, University of Florida, <http://aquat1.ifas.ufl.edu/seagrant/lagmaj2.html>, viewed 10/04/03.

³ Edwards, D. J., 1975, Taking a bite at the waterweed problem, *New Zealand Journal of Agriculture*, 130(1):33, 35-36