Scientific Name: *Salvinia molesta* Common name: Salvinia

QUESTION	COMMENTS	REFERENCE	RANKING
Social			
1. Restrict human access?	"Dense mats…obstruct or prevent the use of water for fishing, transport and recreation."	Groves *et al* (1995)	**H**
2. Reduce tourism?	"Dense mats…obstruct or prevent the use of water for fishing, transport and recreation." Major impact on recreation.	Groves *et al* (1995)	**H**
3. Injurious to people?	The plant itself has not toxic or injurious properties. However, "the weed mass acts as a harbour for disease vectors." In Queensland, "the plants also create a haven for mosquitoes, which are vectors of Ross River Fever and Encephalitis."	P & C (2001) NRM (2003)[1]	**H**
4. Damage to cultural sites?	"Under flood conditions, rafts of weed material build up at fences and bridges that, in turn, collect other floating debris. The combined weight may cause theses structures to collapse. As native aquatic plants, birds and animals are displaced, the natural beauty of an open water body can be spoilt and further degraded."	NRM (2003)	**H**
Abiotic			
5. Impact flow?	"Growth is best in still or slow-moving fresh water. Currents sweep the free-floating plants away." Would have a minor impact on surface flow.	Groves *et al* (1995)	**ML**
6. Impact water quality?	"Light penetration and oxygen levels are adversely affected." Serious depletion of light and oxygen.	P & C (2001)	**H**
7. Increase soil erosion?	Aquatic species.	P & C (2001)	**L**
8. Reduce biomass?	"Salvinia reproduces vegetatively from fragments and can form large, thick mats that can completely cover water storage areas in a relatively short time." Biomass would increase.	NRM (2003)	**L**
9. Change fire regime?	Aquatic species.	P & C (2001)	**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?	Initial infestations produce pure cultures. However, "…the interwoven stems build up a mass of dead material which provides a suitable substrate for the growth of other wetland plants."	P & C (2001)	**MH**
12. Effect on threatened flora?			

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QUESTION	COMMENTS	REFERENCE	RANKING
Fauna			
13. Effect on threatened fauna?			
14. Effect on non-threatened fauna?	"As plant material decomposes it causes water pollution and stagnation through a reduction in the water quality and oxygen content, resulting in the death of aquatic wildlife and fish." Habitat changed dramatically.	NRM (2003)	**H**
15. Benefits fauna?	"In Australia, the native insects *Hedotettix bolivari* (Sjostedt)(Orthoptera: Acrididae), *Nymphula tenebralis* Walker (Lepidoptera: Pyralidae) and *Rhopalosiphum nymphaea* (L.) (Hemiptera: Aphididae) feed on the plant. Many other insects and arachnids hide and hunt amongst the floating leaves."	Groves *et al* (1995)	**ML**
16. Injurious to fauna?	The plant has no toxic or injurious properties.		**L**
Pest Animal			
17. Food source to pests?	Not known as a food source to pests.		**L**
18. Provides harbor?	Not known to provide harbor for pest species.		**L**
Agriculture			
19. Impact yield?	"Salvinia may establish in rice fields during irrigation and subsequently compete directly with the crop. Spread in this situation may be so explosive that, as has occurred in Sri Lanka, whole fields have been abandoned." In this situation impact is serious.	P & C (2001)	**H**
20. Impact quality?	No impact on quality		**L**
21. Affect land value?	Rice growers in particular, and other users of irrigation in general, may be affected by the existence of *S. molesta* in water storage/supply areas, either by direct competition or through associated water supply problems.	P & C (2001)	**H**
22. Change land use?	As in Q23 above.	P & C (2001)	**H**
23. Increase harvest costs?	No impact on harvest costs.		**L**
24. Disease host/vector?	Not a host or vector for agricultural pests or diseases.		**L**

[1] Department of Natural Resources and Mines, State of Queensland, 2003, *Salvinia*, PP12, http://www.nrm.qld.gov.au/factsheets/pdf/pest/PP12.pdf, viewed 07/07/03