

Impact Assessment Record

Scientific name: *Agapanthus praecox* subsp. *orientalis*

Common name: Agapanthus

| QUESTION | COMMENTS | RATING | CONFIDENCE |
|---|--|--------|------------|
| Social | | | |
| 1. Restrict human access? | Clumps reach height of 60cm (Blood 2001), likely to cause minimal restriction to human access. | L | MH |
| 2. Reduce tourism? | Not described as affecting recreational uses, but as a well known ornamental species (Walsh & Entwisle 1994) with the ability to form monocultures (ARC 2004) it would impact on natural area aesthetics. | ML | MH |
| 3. Injurious to people? | Leaves, rhizome and sap are poisonous. Can cause severe ulceration in the mouth and burning sensation and rashes on skin. Especially toxic to children (Shepherd 2004). Highly toxic. | MH | MH |
| 4. Damage to cultural sites? | 'The large growing varieties will crack restricting concrete (Robertson 2007)'. Potential to cause moderate structure effect. | MH | ML |
| Abiotic | | | |
| 5. Impact flow? | Described to invade terrestrial habitats (Carr et al 1992), so unlikely to impact on water flow. | L | MH |
| 6. Impact water quality? | Described to invade terrestrial habitats (Carr et al 1992), so unlikely to impact on water quality. | L | MH |
| 7. Increase soil erosion? | ' <i>A. praecox</i> is also an excellent plant to use to stabilize a bank and to prevent erosion (Notten 2004). Decreases the probability of soil erosion. | L | M |
| 8. Reduce biomass? | Biomass may increase in understorey due to extensive underground root mass, dense clumping habit (BMCC 2008) and ability to form monocultures (ARC 2004). | L | M |
| 9. Change fire regime? | The presence of thick fleshy leaves (BMCC 2008) could indicate low flammability, and although not documented, in the event of fire may reduce fire intensity of the understorey. | ML | M |
| Community Habitat | | | |
| 10. Impact on composition (a) high value EVC | EVC=Plains Grassland (E); CMA= Corangamite; Bioreg= Otway Plain; VH CLIMATE potential. 'Forms dense monocultures that exclude all other species (ARC 2004)'. 'Dense clumping roots of <i>Agapanthus</i> displace all other vegetation (BMCC 2008)'. Described as a 'serious threat to one or more vegetation formations in Victoria', invading lowland grassland & grassy woodland (Carr et al 1992). Monoculture; displaces all species within understorey. | H | M |
| (b) medium value EVC | EVC=Coastal Headland scrub (D); CMA= Corangamite; Bioreg= Otway Ranges; VH CLIMATE potential. 'Forms dense monocultures that exclude all other species: one cliff infestation at Piha was found to cover an area of over 1000m ² (ARC 2004)'. Has spread widely along foreshores (GCB 2003) and described as a 'serious threat to one or more vegetation formations in Victoria', invading dry coastal vegetation (Carr et al 1992). Monoculture; | H | M |

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| | displaces all species within understorey. | | |
| (c) low value EVC | EVC= Rocky Outcrop Shrubland (LC); CMA= Glenelg Hopkins; Bioreg= Central Victorian Uplands; VH CLIMATE potential. 'Forms dense monocultures that exclude all other species: one cliff infestation at Piha was found to cover an area of over 1000m ² (ARC 2004)'. Invades rocky inland cliffs and low scrub (ARC 2004) and described as a 'serious threat to one or more vegetation formations in Victoria', invading rock outcrop vegetation (Carr et al 1992) Monoculture; displaces all species within understorey. | H | M |
| 11. Impact on structure? | 'Forms dense monocultures that exclude all other species (ARC 2004)', though largely only understorey layer affected. Major effect on <60% of the floral strata. | MH | M |
| 12. Effect on threatened flora? | Dense clumping roots of Agapanthus displace all other vegetation (BMCC 2008) forming monocultures (ARC 2004), However, not specifically described impacting on threatened flora. | MH | L |
| Fauna | | | |
| 13. Effect on threatened fauna? | Dense clumping roots displace all other vegetation (BMCC 2008) forming monocultures (ARC 2004), with potential to reduce faunal habitat and food source, however, was not specifically described impacting on threatened fauna. | MH | L |
| 14. Effect on non-threatened fauna? | Dense clumping roots displace all other vegetation (BMCC 2008) forming monocultures (ARC 2004), with potential to reduce faunal habitat and food source, however, was not specifically described impacting on native fauna. | M | L |
| 15. Benefits fauna? | 'Leaves and rhizomes poisonous, Sticky sap can cause severe ulceration in the mouth (Blood 2001)'. 'Plants seem to be immune to the predation of rabbits (PFAF 2004)'. Described as having 'low' palatability to goats (MLA 2007). No benefits to native fauna were found documented - Unlikely to provide support to desirable species. | L | M |
| 16. Injurious to fauna? | Described as being toxic to humans, causing severe ulceration in the mouth and skin rashes (Shepherd 2004), and is also documented as toxic to other mammal species (P & P Inc.2007). It presumably would have an injurious affect on some native animals if consumed, though the level of impact is unknown. | M | ML |
| Pest Animal | | | |
| 17. Food source to pests? | 'Plants seem to be immune to the predation of rabbits (PFAF 2004)'. Described as having 'low' palatability to goats (MLA 2007). Provides minimal food for pest animals. | L | M |
| 18. Provides harbor? | Its dense clumping habit to a height of 60cm (Blood 2001, BMCC 2008) and formation of monocultures (ARC 2004), gives it potential to provide short term harbour to rabbits, however, no information about its ability to provide harbour was documented in the literature. | M | M |

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| Agriculture | | | |
| 19. Impact yield? | Documented to invade pasture and form monocultures in some habitats (ARC 2004), and it is described as having low palatability (MLA 2007) and as containing toxic properties (Shepherd 2004). However, its potential to reduce available grazing land and impact on agricultural yield is unknown. | M | L |
| 20. Impact quality? | Documented to invade pasture (ARC 2004) but there is no information to suggest would affect agricultural quality. | L | M |
| 21. Affect land value? | Documented to invade pasture (ARC 2004) but and there is no information to suggest would cause a change in land value. | L | M |
| 22. Change land use? | Documented to invade pasture (ARC 2004) but and there is no information to suggest would cause a change in land use. | L | M |
| 23. Increase harvest costs? | Documented to invade pasture and form monocultures in some habitats (ARC 2004), and it is described as having low palatability (MLA 2007) and as containing toxic properties (Shepherd 2004). However, its potential to increase harvest costs due to control or animal health costs is unknown. | M | L |
| 24. Disease host/vector? | Plants were found infected with tomato spotted wilt virus in Tasmania (Wilson et al 2000) . It is unknown if this is an isolated occurrence or if plants occurring on vegetable growing properties would pose any risk. | M | M |