

Family: *Fabaceae*

Taxon: *Acacia retinodes*

Synonym: *Racosperma retinodes* (basionym)

Common Name: water wattle
everblooming Acacia
wirilda

Questionnaire :	current 20090513	Assessor:	Patti Clifford	Designation: H(HPWRA)
Status:	Assessor Approved	Data Entry Person:	Patti Clifford	WRA Score 8
101	Is the species highly domesticated?		y=-3, n=0	n
102	Has the species become naturalized where grown?		y=1, n=-1	
103	Does the species have weedy races?		y=1, n=-1	
201	Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"		(0-low; 1-intermediate; 2-high) (See Appendix 2)	Intermediate
202	Quality of climate match data		(0-low; 1-intermediate; 2-high) (See Appendix 2)	High
203	Broad climate suitability (environmental versatility)		y=1, n=0	n
204	Native or naturalized in regions with tropical or subtropical climates		y=1, n=0	y
205	Does the species have a history of repeated introductions outside its natural range?		y=-2, ?=-1, n=0	y
301	Naturalized beyond native range		y = 1*multiplier (see Appendix 2), n= question 205	y
302	Garden/amenity/disturbance weed		n=0, y = 1*multiplier (see Appendix 2)	y
303	Agricultural/forestry/horticultural weed		n=0, y = 2*multiplier (see Appendix 2)	n
304	Environmental weed		n=0, y = 2*multiplier (see Appendix 2)	
305	Congeneric weed		n=0, y = 1*multiplier (see Appendix 2)	y
401	Produces spines, thorns or burrs		y=1, n=0	n
402	Allelopathic		y=1, n=0	
403	Parasitic		y=1, n=0	n
404	Unpalatable to grazing animals		y=1, n=-1	
405	Toxic to animals		y=1, n=0	n
406	Host for recognized pests and pathogens		y=1, n=0	
407	Causes allergies or is otherwise toxic to humans		y=1, n=0	n
408	Creates a fire hazard in natural ecosystems		y=1, n=0	
409	Is a shade tolerant plant at some stage of its life cycle		y=1, n=0	n
410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)		y=1, n=0	y

411	Climbing or smothering growth habit	y=1, n=0	n
412	Forms dense thickets	y=1, n=0	
501	Aquatic	y=5, n=0	n
502	Grass	y=1, n=0	n
503	Nitrogen fixing woody plant	y=1, n=0	y
504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	y=1, n=0	n
601	Evidence of substantial reproductive failure in native habitat	y=1, n=0	n
602	Produces viable seed	y=1, n=-1	y
603	Hybridizes naturally	y=1, n=-1	
604	Self-compatible or apomictic	y=1, n=-1	
605	Requires specialist pollinators	y=-1, n=0	n
606	Reproduction by vegetative fragmentation	y=1, n=-1	n
607	Minimum generative time (years)	1 year = 1, 2 or 3 years = 0, 4+ years = -1	
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	y=1, n=-1	n
702	Propagules dispersed intentionally by people	y=1, n=-1	y
703	Propagules likely to disperse as a produce contaminant	y=1, n=-1	n
704	Propagules adapted to wind dispersal	y=1, n=-1	n
705	Propagules water dispersed	y=1, n=-1	
706	Propagules bird dispersed	y=1, n=-1	y
707	Propagules dispersed by other animals (externally)	y=1, n=-1	y
708	Propagules survive passage through the gut	y=1, n=-1	
801	Prolific seed production (>1000/m2)	y=1, n=-1	
802	Evidence that a persistent propagule bank is formed (>1 yr)	y=1, n=-1	y
803	Well controlled by herbicides	y=-1, n=1	
804	Tolerates, or benefits from, mutilation, cultivation, or fire	y=1, n=-1	y
805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	y=-1, n=1	

Designation: H(HPWRA)

WRA Score **8**

Supporting Data:

101	2010. WRA Specialist. Personal Communication.	No evidence of domestication that reduces weediness.
201	2010. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	Native range: Australia - South Australia, Tasmania, Victoria.
202	2010. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	Native range: Australia - South Australia, Tasmania, Victoria.
203	2010. Calflora. <i>Acacia retinodes</i> Calflora Database. http://www.calflora.org/cgi-bin/species_query.cgi?where-calrecnum=39	In California a cultivation escapee from 0-900 m.
204	2003. Starr, F./Starr, K./Loope, L.. <i>Acacia retinodes</i> water wattle Fabaceae. United States Geological Survey - Biological Resources Division Haleakala Field Station, http://www.hear.org/starr/hiplants/reports/pdf/acacia_retinodes.pdf	<i>Acacia retinodes</i> is known from a few cultivated trees in a gardens in Kula. A few trees are sparingly naturalized in nearby scrub. The parent trees can be seen along Waipoli Rd. and appear to have been planted with other <i>Acacia</i> species (<i>Acacia podalyriifolia</i>) in a garden/residential yard setting. The area is relatively arid with a cool climate and is located at approximately 3,200 ft (975 m) elevation.
205	2003. Starr, F./Starr, K./Loope, L.. <i>Acacia retinodes</i> water wattle Fabaceae. United States Geological Survey - Biological Resources Division Haleakala Field Station, http://www.hear.org/starr/hiplants/reports/pdf/acacia_retinodes.pdf	" <i>Acacia retinodes</i> is known from a few cultivated trees in a gardens in Kula. A few trees are sparingly naturalized in nearby scrub. The parent trees can be seen along Waipoli Rd. and appear to have been planted with other <i>Acacia</i> species (<i>Acacia podalyriifolia</i>) in a garden/residential yard setting. The area is relatively arid with a cool climate and is located at approximately 3,200 ft (975 m) elevation. There are likely other sites on Maui where <i>A. retinodes</i> is located. Island wide surveys are still needed."
205	2010. Calflora. <i>Acacia retinodes</i> Calflora Database. http://www.calflora.org/cgi-bin/species_query.cgi?where-calrecnum=39	Introduced and naturalized in California.
205	2010. Plant World Seeds. <i>Acacia retinodes</i> . Plant World Seeds, http://www.plant-world-seeds.com/store/view_seed_item/5?actionName=view_all_seed&itemname=ACACIA+RETINODES	Plant World Seeds in the United Kingdom has <i>Acacia retinodes</i> seeds for sale.
301	2004. U.S. Fish and Wildlife Service. Marin Islands National Wildlife Refuge Comprehensive Conservation Plan and Environmental Assessment. http://www.fws.gov/cno/refuges/marin/MICCP_FINAL-CCPpgs1-105pdf.pdf	<i>Acacia retinodes</i> is considered invasive and locally abundant on the Marin Islands National Wildlife Refuge, California.
301	2010. Calflora. <i>Acacia retinodes</i> Calflora Database. http://www.calflora.org/cgi-bin/species_query.cgi?where-calrecnum=39	Naturalized in California.
302	2004. U.S. Fish and Wildlife Service. Marin Islands National Wildlife Refuge Comprehensive Conservation Plan and Environmental Assessment. http://www.fws.gov/cno/refuges/marin/MICCP_FINAL-CCPpgs1-105pdf.pdf	<i>Acacia retinodes</i> is considered invasive and locally abundant on the Marin Islands National Wildlife Refuge, California. "Because the Refuge lacks electricity, non-native control has been limited to hand cutting or gas-powered chainsaws to remove fennel, acacia, Scotch broom, and young Monterey Pine.
303	2007. Randall, R.. Global Compendium of Weeds. http://www.hear.org/gcw/	No evidence of agricultural weed.
304	2004. U.S. Fish and Wildlife Service. Marin Islands National Wildlife Refuge Comprehensive Conservation Plan and Environmental Assessment. http://www.fws.gov/cno/refuges/marin/MICCP_FINAL-CCPpgs1-105pdf.pdf	<i>Acacia retinodes</i> is considered invasive and locally abundant on the Marin Islands National Wildlife Refuge, California. "Because the Refuge lacks electricity, non-native control has been limited to hand cutting or gas-powered chainsaws to remove fennel, acacia, Scotch broom, and young Monterey Pine.

305	2006. Global Invasive Species Database. Acacia mearnsii. National Biological Information Infrastructure (NBII) & IUCN/SSC Invasive Species Specialist Group (ISSG), http://www.issg.org/database/species/ecology.asp?fr=1&si=51	"Acacia mearnsii is invasive. "The invasiveness of this species is partly due to its ability to produce large amounts of long-lived seeds (which may be triggered to germinate en masse following bush fires) and the development of a large crown (which shades other vegetation). Its leaves and branches may have allelopathic properties. Acacia mearnsii competes with, and replaces, indigenous vegetation. It may replace grass communities, reducing the carrying capacity of the land. By causing an increase in the height and biomass of vegetation Acacia mearnsii infestations increase rainfall interception and transpiration, which causes a decrease in streamflow. Soil under Acacia mearnsii becomes dessicated more quickly (than it does under grass). Acacia mearnsii stands also destabilise stream banks and support a lower diversity of species."
401	2010. Flora of Australia [online]. Acacia retinodes. Australian Biological Resources Study, Canberra http://www.anbg.gov.au/abrs/online-resources/flora/redirect.jsp	No spines, thorns, or burrs.
402	2010. WRA Specialist. Personal Communication.	Unknown.
403	2010. Flora of Australia [online]. Acacia retinodes. Australian Biological Resources Study, Canberra http://www.anbg.gov.au/abrs/online-resources/flora/redirect.jsp	Not parasitic.
404	2010. WRA Specialist. Personal Communication.	Unknown.
405	2010. National Center for Biotechnology Information. PubMed. U.S. National Library of Medicine, Bethesda, Maryland http://www.ncbi.nlm.nih.gov/sites/entrez	No evidence of toxicity.
405	2010. Specialized Information Services, U.S. National Library of Medicine. TOXNET Toxicology Data Network [Online Database]. National Institutes of Health, http://toxnet.nlm.nih.gov/	No evidence of toxicity.
406	2010. WRA Specialist. Personal Communication.	Unknown.
407	2010. National Center for Biotechnology Information. PubMed. U.S. National Library of Medicine, Bethesda, Maryland http://www.ncbi.nlm.nih.gov/sites/entrez	No evidence of allergies or toxicity.
407	2010. Specialized Information Services, U.S. National Library of Medicine. TOXNET Toxicology Data Network [Online Database]. National Institutes of Health, http://toxnet.nlm.nih.gov/	No evidence of allergies or toxicity.
408	2010. WRA Specialist. Personal Communication.	Unknown.
409	2010. Plants for a Future. Acacia retinodes - Schltl. Swamp wattle. Plants for a Future Database, http://pfaf.org/database/plants.php?Acacia+retinodes	A. retinodes does not tolerate shade.
410	2010. Plants for a Future. Acacia retinodes - Schltl. Swamp wattle. Plants for a Future Database, http://pfaf.org/database/plants.php?Acacia+retinodes	"The plant prefers light (sandy) and medium (loamy) soils and requires well-drained soil. The plant prefers acid, neutral and basic (alkaline) soils and can grow in very alkaline and saline soils."
411	2010. Flora of Australia [online]. Acacia retinodes. Australian Biological Resources Study, Canberra http://www.anbg.gov.au/abrs/online-resources/flora/redirect.jsp	"Shrub or tree 5–10 m high."
412	2010. WRA Specialist. Personal Communication.	Unknown

501	2010. Flora of Australia [online]. Acacia retinodes. Australian Biological Resources Study, Canberra http://www.anbg.gov.au/abrs/online-resources/flora/redirect.jsp	Terrestrial
502	2010. Flora of Australia [online]. Acacia retinodes. Australian Biological Resources Study, Canberra http://www.anbg.gov.au/abrs/online-resources/flora/redirect.jsp	Shrub or tree.
503	2010. Plants for a Future. Acacia retinodes - Schltld. Swamp wattle. Plants for a Future Database, http://pfaf.org/database/plants.php?Acacia+retinodes	Fixes nitrogen.
504	2010. Flora of Australia [online]. Acacia retinodes. Australian Biological Resources Study, Canberra http://www.anbg.gov.au/abrs/online-resources/flora/redirect.jsp	Shrub or tree.
601	2010. WRA Specialist. Personal Communication.	No evidence.
602	1993. Kemp, B./Irvine, R.. Design and use of planting zones at the Organ Pipes National Park: notes on research and planning for the first 20 years. The Victorian Naturalist. 110: 113-124. http://home.vicnet.net.au/~foopnp/Biblio/%28rvegetation%20zones%20	Acacia retinodes was found to be self-seeding in the revegetation zones in Organ Pipes National Park, Australia.
603	2005. Corangamite Seed Supply & Revegetation Network. Acacia retinodes Wirilda. Corangamite Seed Supply & Revegetation Network, http://www.florabank.org.au/files/documents/prove-nance/20070801-10.pdf	"Acacia provincialis and A. semiaurea are thought to be both wattle hybrids that have involved A retinodes."
605	2005. Corangamite Seed Supply & Revegetation Network. Acacia retinodes Wirilda. Corangamite Seed Supply & Revegetation Network, http://www.florabank.org.au/files/documents/prove-nance/20070801-10.pdf	"Bees have been found to be the most consistent pollinators of A. retinodes. The absence of floral and extrafloral nectar excludes pollinators such as marsupials and birds."
606	2010. Plants for a Future. Acacia retinodes - Schltld. Swamp wattle. Plants for a Future Database, http://pfaf.org/database/plants.php?Acacia+retinodes	Propagate by seed.
607	2005. Corangamite Seed Supply & Revegetation Network. Acacia retinodes Wirilda. Corangamite Seed Supply & Revegetation Network, http://www.florabank.org.au/files/documents/prove-nance/20070801-10.pdf	"Acacia seed usually germinates in 3-10 weeks and seedlings are generally fast growing."
701	2010. WRA Specialist. Personal Communication.	No evidence of unintentional dispersal by humans.
702	2003. Starr, F./Starr, K./Loope, L.. Acacia retinodes water wattle Fabaceae. United States Geological Survey - Biological Resources Division Haleakala Field Station, http://www.hear.org/starr/hiplants/reports/pdf/acacia_retinodes.pdf	"Acacia retinodes is known from a few cultivated trees in a gardens in Kula. A few trees are sparingly naturalized in nearby scrub. The parent trees can be seen along Waipoli Rd. and appear to have been planted with other Acacia species (Acacia podalyriifolia) in a garden/residential yard setting. The area is relatively arid with a cool climate and is located at approximately 3,200 ft (975 m) elevation. There are likely other sites on Maui where A. retinodes is located. Island wide surveys are still needed."
702	2010. Calflora. Acacia retinodes Calflora Database. http://www.calflora.org/cgi-bin/species_query.cgi?where-calrecnum=39	Introduced and naturalized in California.
702	2010. Plant World Seeds. Acacia retinodes. Plant World Seeds, http://www.plant-world-seeds.com/store/view_seed_item/5?actionName=view_all_seed&itemname=ACACIA+RETINODES	Plant World Seeds in the United Kingdom has Acacia retinodes seeds for sale.
703	2010. WRA Specialist. Personal Communication.	No evidence of produce contamination.

704	1992. Carr, G.W./Yugovic, J.V./Robinson, K.E.. Environmental weed invasions in Victoria conservation and management implications. Department of Conservation and Environment, East Melbourne	Dispersed by birds and ants.
705	2010. WRA Specialist. Personal Communication.	Unknown.
706	1992. Carr, G.W./Yugovic, J.V./Robinson, K.E.. Environmental weed invasions in Victoria conservation and management implications. Department of Conservation and Environment, East Melbourne	Dispersed by birds and ants.
707	2009. Rowles, A.D./O'Dowd, D.J.. Oecologia. 158: 709-716.	Argentine ants (<i>Linepithema humile</i>) and native Australian ants, <i>Rhytidoponera victoriae</i> and <i>Pheidole</i> sp. Dispersed <i>Acacia</i> retinode seeds in this study on dispersal mutualisms in coastal scrub vegetation in the Mornington Peninsula National Park (MPNP) in southern Victoria, Australia.
708	1992. Carr, G.W./Yugovic, J.V./Robinson, K.E.. Environmental weed invasions in Victoria conservation and management implications. Department of Conservation and Environment, East Melbourne	Unknown.
801	2010. WRA Specialist. Personal Communication.	Unknown
802	2005. Corangamite Seed Supply & Revegetation Network. <i>Acacia retinodes</i> Wirilda. Corangamite Seed Supply & Revegetation Network, <a href="http://www.florabank.org.au/files/documents/prove
nance/20070801-10.pdf">http://www.florabank.org.au/files/documents/prove nance/20070801-10.pdf	"Seed remains viable in the soil for many years."
803	2010. WRA Specialist. Personal Communication.	Unknown.
804	2008. Aitchison, B.. <i>Acacia retinodes</i> . <i>Acacia</i> Study Group Newsletter. 101: 7. <a href="http://www.worldwidewattle.com/socgroups/asg/
newsletters/101.pdf">http://www.worldwidewattle.com/socgroups/asg/ newsletters/101.pdf	Has the ability to sucker.
805	2010. WRA Specialist. Personal Communication.	Unknown