

Family: *Myrtaceae*

Taxon: *Syzygium australe*

Synonym: *Eugenia australis* J. C. Wendl. ex Link
Eugenia myrtifolia Sims

Common Name: brush-cherry

Questionnaire :	current 20090513	Assessor:	Patti Clifford	Designation: H(HPWRA)
Status:	Assessor Approved	Data Entry Person:	Patti Clifford	WRA Score 15
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)	High
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	y
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	n
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)	n
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)	y
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	y
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	n
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	
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	y
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	y
706	Propagules bird dispersed	y=1, n=-1	y
707	Propagules dispersed by other animals (externally)	y=1, n=-1	n
708	Propagules survive passage through the gut	y=1, n=-1	y
801	Prolific seed production (>1000/m2)	y=1, n=-1	n
802	Evidence that a persistent propagule bank is formed (>1 yr)	y=1, n=-1	
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 15

Supporting Data:

101	2011. WRA Specialist. Personal Communication.	[Is the species highly domesticated? No] No evidence of domestication that reduces invasiveness.
102	2011. WRA Specialist. Personal Communication.	[Has the species become naturalized where grown? N/A]
103	2011. WRA Specialist. Personal Communication.	[Does the species have weedy races? N/A]
201	2011. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database Index]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"? High] Native range: Australia - New South Wales [e] Queensland [e].
202	2011. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database Index]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Quality of climate match data? High] Native range: Australia - New South Wales [e] Queensland [e].
203	2010. Hyland, B.P.M./Whiffin, T./Zich, F.A./Duffy, S./Gray, B./Elick, R./Venter, F./Christophel, D.. <i>Syzygium australe</i> : Australian tropical rainforest plants edition 6: trees, shrubs, vines, herbs, grasses, sedges, palms, pandans & epiphytes. CSIRO, http://	[Broad climate suitability (environmental versatility)? Yes] Altitudinal range from sea level to 1100 m.
203	2011. Dave's Garden. PlantFiles: Australian Brush Cherry, Scrub Cherry, Magenta Cherry <i>Syzygium australe</i> 'Australis'. Dave's Garden, http://davesgarden.com/guides/pf/go/54440/	[Broad climate suitability (environmental versatility)?]Hardiness: USDA Zone 9b: to -3.8 °C (25 °F) USDA Zone 10a: to -1.1 °C (30 °F) USDA Zone 10b: to 1.7 °C (35 °F) USDA Zone 11: above 4.5 °C (40 °F)
204	2011. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database Index]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Native or naturalized in regions with tropical or subtropical climates? Yes] Native range: Australia - New South Wales [e] Queensland [e].
205	2011. WRA Specialist. Personal Communication.	[Does the species have a history of repeated introductions outside its natural range? No] No evidence of repeated introductions.
301	2008. Howell, C.. Consolidated list of environmental weeds in New Zealand. Science & Technical Publishing Department of Conservation, Wellington, New Zealand http://www.doc.govt.nz/upload/documents/science-and-technical/drds292.pdf	[Naturalized beyond native range? Yes] Considered an environmental weed in New Zealand.
301	2011. Weed Busters. <i>Syzygium australe</i> . Weed Busters, http://weedbusters.co.nz/weed_info/detail.asp?WeedID=70	[Naturalized beyond native range? Yes] <i>Syzygium australe</i> is one of the plants that the weedbusters in Australia target for removal. It is invasive there.
302	2007. Randall, R.P.. Global Compendium of Weeds - Index [Online Database]. http://www.hear.org/gcw/	[Garden/amenity/disturbance weed? No] No evidence.
303	2007. Randall, R.P.. Global Compendium of Weeds - Index [Online Database]. http://www.hear.org/gcw/	Agricultural/forestry/horticultural weed? No] No evidence.
304	2008. Howell, C.. Consolidated list of environmental weeds in New Zealand. Science & Technical Publishing Department of Conservation, Wellington, New Zealand http://www.doc.govt.nz/upload/documents/science-and-technical/drds292.pdf	[Environmental weed? Yes] Considered and environmental weed in New Zealand.

304	2010. Waitakere City Council. Invasive or Environmental Weeds of Waitakere. http://www.waitakere.govt.nz/CnlSer/pw/plantweed/pdf/weedlist-env-inv.pdf	[Environmental weed? Yes] <i>Syzygium australe</i> is considered an environmental weed in New Zealand. Control of any occurrences is suggested by the Waitakere City Council.
304	2011. Weed Busters. <i>Syzygium australe</i> . Weed Busters, http://weedbusters.co.nz/weed_info/detail.asp?WeedID=70	<input type="checkbox"/> [Environmental weed? Yes] Seedlings remain in shade, and grow tall into any canopy gap caused by windfall or damage to other trees to become long-lived canopy species. Grows faster than native hardwood trees.
305	2006. Darwin Initiative Project. Usambara invasive plant species descriptions: <i>Syzygium jambos</i> . Darwin Initiative Project, http://www.tropical-biology.org/research/dip/species/Syzygium%20jambos.htm	[Congeneric weed? Yes] <i>Syzygium jambos</i> is invasive in the Caribbean, Hawaii, Galapagos, Seychelles, Fiji, Cook Islands, Mauritius and a small part of Australia. Forms dense, fast growing canopies that block out light for lower vegetation, leading to monospecific stands. Trees are able to resprout quickly if damaged. Has the ability to invade undisturbed forest due to shade tolerance. Rapidly invades disturbed areas.
401	2011. Weed Busters. <i>Syzygium australe</i> . Weed Busters, http://weedbusters.co.nz/weed_info/detail.asp?WeedID=70	[Produces spines or burrs? No] Large shrub or small tree to 10 m high with smooth, light grey bark and angular, usually hanging branchlets. Leathery, glossy, oval leaves (4-10 x 1-4 cm) are aromatic when crushed and have numerous, conspicuous, parallel veins. Clusters of 3-25 whitish flowers with red bases are produced from January to July, followed by bunches of oblong-oval crimson-purple berry-like fruit (10-20 x 7-15 mm) each containing a large seed.
402	2011. WRA Specialist. Personal Communication.	[Allelopathic? Unknown.]
403	2010. Nickrent, D.. The parasitic plant connection. Department of Plant Biology, Southern Illinois University, Carbondale http://www.parasiticplants.siu.edu/index.html	[Parasitic? No] Myrtaceae.
404	2011. WRA Specialist. Personal Communication.	[Unpalatable to grazing animals? Unknown]
405	2011. National Center for Biotechnology Information. PubMed. U.S. National Library of Medicine, Bethesda, Maryland http://www.ncbi.nlm.nih.gov/	[Toxic to animals? No] No evidence of toxicity.
405	2011. Specialized Information Services, U.S. National Library of Medicine. TOXNET toxicology data network [online database]. National Institutes of Health, http://toxnet.nlm.nih.gov/	[Toxic to animals? No] No evidence of toxicity.
406	2011. Australian Quarantine and Inspection Service. Myrtle rust questions and answers. Australian Government, http://www.daff.gov.au/aqis/quarantine/pests-diseases/myrtle-rust/myrtle-rust-qa	[Host for recognized pests and pathogens?] <i>Syzygium australe</i> "Meridian Midget" is a host for Myrtle rust
406	2011. WRA Specialist. Personal Communication.	[Host for recognized pests and pathogens? Unknown.]
407	2008. Janick, J./Paull, R.E.. The encyclopedia of fruit & nuts. Cabi Publishing, Wallingford, UK	[Causes allergies or is otherwise toxic to humans? No] Fruits are edible.
407	2011. National Center for Biotechnology Information. PubMed. U.S. National Library of Medicine, Bethesda, Maryland http://www.ncbi.nlm.nih.gov/	[Causes allergies or is otherwise toxic to humans? No] No evidence.
408	2011. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database Index]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Creates a fire hazard in natural ecosystems? Unknown]
409	2011. Dave's Garden. PlantFiles: Australian Brush Cherry, Scrub Cherry, Magenta Cherry <i>Syzygium australe</i> 'Australis'. Dave's Garden, http://davesgarden.com/guides/pf/go/54440/	[Is a shade tolerant plant at some stage of its life cycle? Yes] Sun Exposure: Sun to Partial Shade
409	2011. Weed Busters. <i>Syzygium australe</i> . Weed Busters, http://weedbusters.co.nz/weed_info/detail.asp?WeedID=70	[Is a shade tolerant plant at some stage of its life cycle? Yes] <input type="checkbox"/> Seedlings remain in shade, and grow tall into any canopy gap caused by windfall or damage to other trees to become long-lived canopy species.

410	2011. Dave's Garden. PlantFiles: Australian Brush Cherry, Scrub Cherry, Magenta Cherry <i>Syzygium australe</i> 'Australis'. Dave's Garden, http://davesgarden.com/guides/pf/go/54440/	[Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)? Yes] Soil pH requirements: 5.6 to 6.0 (acidic) 6.1 to 6.5 (mildly acidic) 6.6 to 7.5 (neutral) 7.6 to 7.8 (mildly alkaline)
411	2008. Janick, J./Paull, R.E.. The encyclopedia of fruit & nuts. Cabi Publishing, Wallingford, UK	[Climbing or smothering growth habit? No] Tree can reach up to 25 m.
412	2011. WRA Specialist. Personal Communication.	[Forms dense thickets? Unknown]
501	2008. Janick, J./Paull, R.E.. The encyclopedia of fruit & nuts. Cabi Publishing, Wallingford, UK	[Aquatic? No] Terrestrial; tree.
502	2011. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database Index]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Grass? No] Myrtaceae.
503	2011. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database Index]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl	[Nitrogen fixing woody plant? No] Myrtaceae.
504	2008. Janick, J./Paull, R.E.. The encyclopedia of fruit & nuts. Cabi Publishing, Wallingford, UK	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] Tree.
601	2008. Janick, J./Paull, R.E.. The encyclopedia of fruit & nuts. Cabi Publishing, Wallingford, UK	[Evidence of substantial reproductive failure in native habitat? No] Found widely in the coastal and highland rainforest from southern New South Wales to Central Queensland.
602	2011. Dave's Garden. PlantFiles: Australian Brush Cherry, Scrub Cherry, Magenta Cherry <i>Syzygium australe</i> 'Australis'. Dave's Garden, http://davesgarden.com/guides/pf/go/54440/	[Produces viable seed? Yes] Propagate from seed.
602	2011. Weed Busters. <i>Syzygium australe</i> . Weed Busters, http://weedbusters.co.nz/weed_info/detail.asp?WeedID=70	[Produces viable seed? Yes] Reseeds in bared areas.
603	2011. WRA Specialist. Personal Communication.	[Hybridizes naturally? Unknown]
604	2011. WRA Specialist. Personal Communication.	[Self-compatible or apomictic? Unknown]
605	1980. Hopper, S.D.. Pollination of the rain-forest tree <i>Syzygium tierneyanum</i> (Myrtaceae) at Kuranda Northern Queensland. Australian Journal of Botany. 28: 223-237.	[Requires specialist pollinators? No] The identity, abundance and foraging behaviour of pollinators of the self-compatible, mass-flowering <i>Syzygium tierneyanum</i> were investigated. Forty-five species of nectarivorous animals were recorded. Diurnal visitors included seven bird; nine butterfly, four moth (including two hawkmoth), two bee, two ant, one wasp, three blowfly, one fruit fly, two beetle and one weevil species. While nocturnal visitors included one bat and 12 moth (including three hawkmoth) species. Floral dimensions were such that only the vertebrate and larger insect species regularly contacted anthers and stigmas while foraging. Of these groups the feral honey bee (<i>Apis mellifera</i>) was the most common flower visitor. Honeyeaters and hawkmoths appeared to be the most important native pollinators; they were abundant in the study area and visited numerous flowers (50-250) in quick succession (1-3 s per flower) on each foraging bout. [species in the same genus]
605	2010. Williams, G./Adam, P.. The flowering of Australia's rainforests: a plant and pollination miscellany. Csiro Publishing, Collingwood	[Requires specialist pollinators? No] In New South Wales lowland rainforest, <i>Syzygium smithii</i> , <i>Syzygium floribundum</i> are primarily pollinated by small Hymenoptera, Coleoptera and flies of the suborder Brachycera. [species in same genus]
606	2011. WRA Specialist. Personal Communication.	[Reproduction by vegetative fragmentation? Unknown] [does coppice]

607	. Grundon, N./Wright, J./Irvine, T.. Pelican Point revegetation, Atherton Tableland: an example of a community participatory project- establishment and measuring post-development success. Trees for the Evelyn and Atherton Tableland Inc., Atherton http://w	[Minimum generative time (years)?] Some of the planted trees and shrubs began flowering and fruiting within two to three years after planting. The earliest fleshy-fruited planted trees/shrubs producing fruit were <i>Scolopia braunii</i> [Brown Birch] and <i>Syzygium australe</i> [Creek Satinash] at three years. [not clear what age the trees were when planted]
607	2011. WRA Specialist. Personal Communication.	[Minimum generative time (years)? Unknown.]
701	2011. Weed Busters. <i>Syzygium australe</i> . Weed Busters, http://weedbusters.co.nz/weed_info/detail.asp?WeedID=70	[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)? Yes] Birds and soil movement spread the seeds. Common seed sources are hedges, shelterbelts, gardens, and roadsides.
702	2011. All Natives. <i>Syzygium australe</i> . All Natives Online Nursery, http://www.allnatives.com.au/shrubs/1-to-3m-high/syzygium-lily-pilly-select	[Propagules dispersed intentionally by people? Yes] All Natives nursery has <i>Syzygium australe</i> for sale.
702	2011. Birkdale. <i>Syzygium australe</i> . Birkdale Nursery, http://www.birkdaleinternational.com/products-detail.asp?ID=415&type=shrubs	[Propagules dispersed intentionally by people? Yes]
703	2011. WRA Specialist. Personal Communication.	[Propagules likely to disperse as a produce contaminant? No] No evidence.
704	2008. Janick, J./Paull, R.E.. The encyclopedia of fruit & nuts. Cabi Publishing, Wallingford, UK	[Propagules adapted to wind dispersal? No] Berry.
705	2010. Hyland, B.P.M./Whiffin, T./Zich, F.A./Duffy, S./Gray, B./Elick, R./Venter, F./Christophel, D.. <i>Syzygium australe</i> : Australian tropical rainforest plants edition 6: trees, shrubs, vines, herbs, grasses, sedges, palms, pandans & epiphytes. CSIRO, http://	[Propagules water dispersed? Yes] Grows as a rheophyte in fringing forest along water courses.
706	2011. Weed Busters. <i>Syzygium australe</i> . Weed Busters, http://weedbusters.co.nz/weed_info/detail.asp?WeedID=70	[Propagules bird dispersed? Yes] Birds and soil movement spread the seeds. Common seed sources are hedges, shelterbelts, gardens, and roadsides.
707	2008. Janick, J./Paull, R.E.. The encyclopedia of fruit & nuts. Cabi Publishing, Wallingford, UK	[Propagules dispersed by other animals (externally)? No] Berry. [no means of external attachment]
708	2011. Weed Busters. <i>Syzygium australe</i> . Weed Busters, http://weedbusters.co.nz/weed_info/detail.asp?WeedID=70	[Propagules survive passage through the gut? Yes] Bird dispersed, berry.
801	2011. WRA Specialist. Personal Communication.	[Prolific seed production (>1000/m ²)? No] Clusters of 3-25 whitish flowers with red bases are produced from January to July, followed by bunches of oblong-oval crimson-purple berry-like fruit (10-20 x 7-15 mm) each containing a large seed.
802	2011. WRA Specialist. Personal Communication.	[Evidence that a persistent propagule bank is formed (>1 yr)? Unknown]
803	2011. WRA Specialist. Personal Communication.	[Well controlled by herbicides?] Unknown.
804	2011. Weed Busters. <i>Syzygium australe</i> . Weed Busters, http://weedbusters.co.nz/weed_info/detail.asp?WeedID=70	[Tolerates, or benefits from, mutilation, cultivation, or fire? Yes] Cut stumps resprout.
805	2011. WRA Specialist. Personal Communication.	[Effective natural enemies present locally (e.g. introduced biocontrol agents)? Unknown.]