Family: Myrtaceae

Print Date: 5/17/2011

Taxon: Eucalyptus erythrocorys

Synonym: NA Common Name: Illyarrie

Candle bark gum Red helmet

				Red helmet		
_	ionaire :	current 20090513	Assessor:	Chuck Chimera	Designation: E	VALUATE
Status	S :	Assessor Approved	Data Entry Person:	Chuck Chimera	WRA Score 6	
01 Is	the species hi	ghly domesticated?			y=-3, n=0	n
02 H	las the species	become naturalized where g	grown?		y=1, n=-1	
03 D	oes the species	s have weedy races?			y=1, n=-1	
		o tropical or subtropical clin tropical'' for ''tropical or su		ly wet habitat, then	(0-low; 1-intermediate; 2-high) (See Appendix 2)	High
02 Q	uality of clima	ate match data			(0-low; 1-intermediate; 2-high) (See Appendix 2)	High
03 B	road climate s	uitability (environmental ve	ersatility)		y=1, n=0	n
04 N	ative or natur	alized in regions with tropic	al or subtropical climates		y=1, n=0	y
05 D	oes the species	s have a history of repeated i	introductions outside its na	tural range?	y=-2, ?=-1, n=0	y
01 N	aturalized bey	ond native range			y = 1*multiplier (see Appendix 2), n= question 205	
02 G	arden/amenity	y/disturbance weed			n=0, y = 1*multiplier (see Appendix 2)	n
03 A	gricultural/foi	restry/horticultural weed			n=0, y = 2*multiplier (see Appendix 2)	n
04 E	nvironmental	weed			n=0, y = 2*multiplier (see Appendix 2)	n
05 C	ongeneric wee	ed			n=0, y = 1*multiplier (see Appendix 2)	y
01 P	roduces spines	s, thorns or burrs			y=1, n=0	n
02 A	llelopathic				y=1, n=0	
03 P	arasitic				y=1, n=0	n
04 U	npalatable to	grazing animals			y=1, n=-1	
05 T	oxic to animal	s			y=1, n=0	n
06 H	lost for recogn	ized pests and pathogens			y=1, n=0	
07 C	auses allergies	s or is otherwise toxic to hun	nans		y=1, n=0	n
08 C	reates a fire h	azard in natural ecosystems			y=1, n=0	
09 Is	s a shade tolera	ant plant at some stage of its	s life cycle		y=1, n=0	n
10 T	olerates a wide	e 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	y
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, corn	ns, 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 = 4+ years = -1	= 0,
701	Propagules likely to be dispersed unintentionally (plants growing in he areas)	avily trafficked y=1, n=-1	
702	Propagules dispersed intentionally by people	y=1, n=-1	y
703	Propagules likely to disperse as a produce contaminant	y=1, n=-1	y
704	Propagules adapted to wind dispersal	y=1, n=-1	y
705	Propagules water dispersed	y=1, n=-1	n
706	Propagules bird dispersed	y=1, n=-1	n
707	Propagules dispersed by other animals (externally)	y=1, n=-1	n
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	
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 ag	y=-1, n=1	
	Γ	Designation: EVALUATE WRA Score	e 6

hhor	ting Data:	
101	2006. Boland, D.J./Brooker, M.I.H./Chippendale, G.M./William McDonald, M Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	[Is the species highly domesticated?? No] No evidence
102	2011. WRA Specialist. Personal Communication.	NA
103	2011. WRA Specialist. Personal Communication.	NA
201	2006. Boland, D.J./Brooker, M.I.H./Chippendale, G.M./William McDonald, M Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	[Species suited to tropical or subtropical climate(s) 2-high] "endemic to Western Australia where it is restricted to a narrow coastal belt extending from Cockleshell Gully north to Dongara, with an outlier further north in Kalbarri National Park." [Native range includes subtropical distribution at 27°47′05″S 114°14′45″E]
202	2006. Boland, D.J./Brooker, M.I.H./Chippendale, G.M./William McDonald, M Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	[Quality of climate match data? 2-high] "endemic to Western Australia where it is restricted to a narrow coastal belt extending from Cockleshell Gully north to Dongara, with an outlier further north in Kalbarri National Park."
203	2006. Boland, D.J./Brooker, M.I.H./Chippendale, G.M./William McDonald, M Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	[Broad climate suitability (environmental versatility)? No] "Altitudinal range: 20-80 m; Hottest/coldest months: 32 ^o C/8-9 ^o C; Frost incidence: low; Rainfall: 400-500 mm per year, winter max."
203	2011. Dave's Garden. PlantFiles: Illyarrie, Red Cap Gum, Red Helmet - Eucalyptus erythrocorys. http://davesgarden.com/guides/pf/go/55991/	[Broad climate suitability (environmental versatility)? No] "Hardiness: USDA Zone 9a: to -6.6 °C (20 °F) 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	2006. Boland, D.J./Brooker, M.I.H./Chippendale, G.M./William McDonald, M Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	[Native or naturalized in regions with tropical or subtropical climates? Yes] "endemic to Western Australia where it is restricted to a narrow coastal belt extending from Cockleshell Gully north to Dongara, with an outlier further north in Kalbarri National Park."
205	2011. Sunny Gardens. Eucalyptus erythrocorys. http://www.sunnygardens.com/garden_plants/eucalyptus/eucalyptus_1340.php	[Does the species have a history of repeated introductions outside its natural range? Yes] "A familiar sight in California and Arizona"
301	2002. Brown, K./Brooks, K Bushland Weeds. A practical guide to their management With case studies from the Swan Coastal Plain and beyond. Environmental Weeds Action Network, Greenwood, Australia	[Naturalized beyond native range? Questionably] "Table 1. Some Western Australian natives known to have naturalised outside their native range (adapted from Keighery, G., unpublished report)." [List includes Eucalyptus erythrocorys (Illyarrie Gum), but no other information was found that documents the naturalization of this tree]
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	2007. Randall, R.P Global Compendium of Weeds - Index [Online Database]. http://www.hear.org/gcw/	[Environmental weed? No] No evidence
305	2003. Weber, E Invasive Plant Species of the World. A Reference Guide to Environmental Weeds. CABI Publishing, Wallingford, UK	[Congeneric weed? Yes] "Eucalyptus cladocalyxWhere invasive, the tree recruits dense cohorts of seedlings following fires, threatening native plants by shading them out. It coppices freely after damage. Over time, extensive stands dry out the soils due to a high water consumption and change the species composition of the associated flora."

401	1998. Hill. K.D./Johnson, L.A.S Systematic studies in the eucalypts. 8. A review of the Eudesmioid eucalypts, Eucalyptus subgenus Eudesmia (Myrtaceae). Telopea. 7(4): 375-414.	[Produces spines, thorns or burrs? No] "Tree or stout few-stemmed mallee to 8 m. Bark smooth, grey or cream to pale grey-brown; sometimes irregularly persistent in flaky patches. Juvenile leaves to 10 cm long and 5 cm wide, opposite, petiolate, ovate, green, densely hispid with 'stellate hairs'. Adult leaves 12–20 cm long, 1.2–3 cm wide, opposite or subopposite, coriaceous, narrow-lanceolate to lanceolate, acuminate, glossy, green; petioles 10–30 mm long; lateral veins at 30–40° to midrib, moderately closely spaced; secondary reticulum irregular and incomplete; intramarginal vein distinct, looped between lateral veins. Inflorescences simple, axillary; umbellasters 3-flowered; peduncles 15–30 mm long; pedicels 5–10 mm long, both 2-winged. Buds broadly campanulate, 25–35 mm long, 15–25 mm diam.; calyptra about half as long as hypanthium, shallowly hemispherical, 4-lobed with cruciform ridging, red; hypanthium green. Calyx free, persisting as 4 small teeth around top of hypanthium on mature fruits. Stamens all fertile, in 4 fascicles; filaments regularly inflexed, yellow-green; anthers oblong, versatile, dehiscing by parallel slits. Fruits broadly campanulate, apically broadly 4-lobed, 25–45 mm long, 30–50 mm diam., 4-locular; disc level to domed. Seeds irregular, angular, dull, brownish black, sometimes with a ragged translucent wing around the edge; hilum ventral; chaff angular, dark brown."
402	2001. Sasikumar, K./Vijayalakshmi, C./Parthiban, K.T Allelopathic effects of four Eucalyptus species on Redgram (Cajanus cjan L.). Journal of Tropical Agriculture. 39: 134-138.	[Allelopathic? Unknown] "Abstract: Investigations to identify the allelopathic compounds in the leachates of bark, fresh leaves and leaf litter of Eucalyptus tereticornis, E. camaldulensis, E. polycarpa and E. microtheca using paper and as chromatography showed the presence of coumaric, gallic, gentisic, hydroxybenzoic, syringic and vanillic acids and catechol. The influence of identified phenolics as well as leachates on the germination, seedling length, dry matter production, vigour index and nitrogenase activity of redgram (CO.5) was studied. Germination was inhibited by each individual compounds tested while vigour index was significantly affected by catechol, ferulic, gallic and syringic acids, compared to control. Bioassay with leachates revealed significant reduction in germination over control in all the cased, 7 days after sowing. Dry matter production was affected by E. camaldulensis and E. microtheca. Meanwhile, vigour index was affected by E. camaldulensis, E. polycarpa and E. microtheca. Seedling length was affected in all the cases except E. camaldulensis, 37 days after sowing. Simultaneously, reduction in vigour index and nitrogenase activity was also noted in all the cases, compared to control." [Many Eucalyptus species demonstrate allelopathic potential, but it is unknown whether E. erythrocorys possesses allelopathic properties]
403	2006. Boland, D.J./Brooker, M.I.H./Chippendale, G.M./William McDonald, M Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	[Parasitic? No] "usually a small tree or sometimes a straggly mallee 6-8 m tall." [Myrtaceae]
404	2006. Boland, D.J./Brooker, M.I.H./Chippendale, G.M./William McDonald, M Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	[Unpalatable to grazing animals? Unknown]
404	2011. WRA Specialist. Personal Communication.	[Unpalatable to grazing animals? Unknown] No information on palatability of this species found
405	2006. Boland, D.J./Brooker, M.I.H./Chippendale, G.M./William McDonald, M Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	[Toxic to animals? No] No evidence
405	2008. Irish, M Trees and Shrubs for the Southwest: Woody Plants for Arid Gardens. Timber Press, Portland, OR	[Toxic to animals? No] No evidence
405	2009. Hoffmann, H Small native eucalypts for gardens. Note: 399. Department of Agriculture and Food, South Perth, WA http://www.agric.wa.gov.au/objtwr/imported_asset s/content/hort/flor/flodpw/gn_eucalypts_in_home_garden.pdf	[Toxic to animals? No] No evidence
406	2000. Keane, P.J./Kile, G.A./Podger, F.D Diseases and pathogens of eucalypts. CSIRO Publishing, Collingwood, Australia	[Host for recognized pests and pathogens? Unknown] "Table 12.1 Eucalyptus and Corymbia species recorded as hosts of Armillaria species in forests, plantations and amenity plantings in Australia." [Includes E. erythrocorys as a host of Armillaria luteobubalina, but importance as a host unknown]
406	2011. WestOne. Field Guides - Eucalyptus erythrocorys. http://www.westone.wa.gov.au/toolbox5/clm/html/	[Host for recognized pests and pathogens? Unknown] "Pests and diseases: Leaf eating insects. Borers." [Importance of pests unknown]

2006. Bolland, D.J./Brooker, M.I.H./Chippendale, G.M./William McDonald, M Forest trees of Australia: CSIRO Publishing, Collingwood, Australia: 2007. Australian Native Plant Society, Eucalyptus erythrocorys. http://anpsa.org.au/e-ery.html 2009. Hoffmann, H Small native eucalypts for gardens. Note: 399. Department of Agriculture and Food, South Perth, WA http://www.agic.wa.uobjtwr/imported_asset s/content/hort/flor/flodpw/gn_eucalypts_in_home_garden.pdf 2008. Irish, M Trees and Shrubs for the Southwest: Woody Plants for Arid Gardens. Timber Press, Portland, OR 2011. Dave's Garden. PlantFiles: Illyarrie, Red Cap Gum, Red Helmet - Eucalyptus erythrocorys. http://davesgarden.com/guides/pf/go/55991/ 2011. Sunny Gardens. Eucalyptus erythrocorys-http://www.buricopia.com/hortpix/html/eucery000.htm 2011. Sunny Gardens. Eucalyptus erythrocorys-thtp://www.buricopia.com/hortpix/html/eucery000.htm 2011. Brice and Shrubs for He Gardens in the eucalypts, Eucalyptus subgenus Eudesmind (bytraceae). Telopea. 7(4): 375-414. 2007. Australian Native Plant Society. Eucalyptus erythrocorys-thtp://apas.org.au/e-ery.html 2008. Irish, M. Trees and Shrubs for the Southwest: Woody Plants for Arid Gardens. Timber Press, Portland, OR 2011. Horticopia Inc. Eucalyptus erythrocorys-the Southwest: Woody Plants for Arid Gardens. Timber Press, Portland, OR 2011. Horticopia Inc. Eucalyptus erythrocorys-the Southwest: Woody Plants for Arid Gardens. Timber Press, Portland, OR 2011. Horticopia Inc. Eucalyptus erythrocorys-the Plant Society Eucalyptus erythrocorys in the Plant Society Eucalyptus eryt	: Full I Sun"
erythrocorys. http://anpsa.org.au/e-ery.html 2009. Hoffmann, H Small native eucalypts for gardens. Note: 399. Department of Agriculture and Food, South Perth, WA http://www.agric.wa.gov.au/objtwr/imported_asset s/content/hort/flodf/lodpw/gn_eucalypts_in_home_garden.pdf 2008. Irish, M Trees and Shrubs for the Southwest: Woody Plants for Arid Gardens. Timber Press, Portland, OR 2011. Dave's Garden. PlantFiles: Illyarrie, Red Cap Gum, Red Helmet - Eucalyptus erythrocorys. http://davesgarden.com/guides/pf/go/55991/ 2011. Horticopia Inc Eucalyptus erythrocorys - Red Cap Gum, Red Cap Eucalyptus, Red Helmet. http://www.horticopia.com/hortpix/html/eucery000.htm 2011. Sunny Gardens. Eucalyptus erythrocorys. http://www.sunnygardens.com/garden_plants/eucalyptus/eucalyptus_1340.php 2011. Sunny Gardens. Eucalyptus subgenus Eudesmioid eucalypts, Eucalyptus subgenus Eudesmioid eucalypts, Eucalyptus subgenus Eudesmioid eucalypts, Eucalyptus subgenus Eudesmioid eucalypts, Eucalyptus erythrocorys. http://anpsa.org.au/e-ery.html 2008. Irish, M Trees and Shrubs for the Southwest: Woody Plants for Arid Gardens. Timber Press, Portland, OR [Tolerates a wide range of soil conditions? Yes] "It commonly grows on limestons oils and is well adapted to alkaline conditions." [Tolerates a wide range of soil conditions? Yes] "Although red-cap gum is tolerar of almost any soil, providing it with good drainage is best."	: Full I Sun"
contain a very flammable oil. Don't plant your trees too close to the house." [Description of genus, but unknown for E. erythrocorys] http://www.agric.wa.gov.au/objtwr/imported_asset s/content/hort/flor/flodpw/gn_eucalypts_in_home_ garden.pdf 409 2008. Irish, M Trees and Shrubs for the Southwest: Woody Plants for Arid Gardens. Timber Press, Portland, OR 409 2011. Dave's Garden. PlantFiles: Illyarrie, Red Cap Gum, Red Helmet - Eucalyptus erythrocorys. http://davesgarden.com/guides/pf/go/55991/ 409 2011. Horticopia Inc Eucalyptus erythrocorys - Red Cap Gum, Red Cap Eucalyptus, Red Helmet. http://www.horticopia.com/hortpix/html/eucery000. htm 409 2011. Sunny Gardens. Eucalyptus erythrocorys- http://www.horticopia.com/hortpix/html/eucery000. htm 409 2011. Sunny Gardens. Eucalyptus erythrocorys- http://www.horticopia.com/hortpix/html/eucery000. htm 409 2011. Sunny Gardens. Eucalyptus erythrocorys- http://www.sunnygarden_plants/euc alyptus/eucalyptus_1340.php 410 1998. Hill. K.D./Johnson, L.A.S Systematic studies in the eucalypts, 8. A review of the Eudesmioid eucalypts, Eucalyptus subgenus Eudesmia (Myrtaceae). Telopea. 7(4): 375-414. 410 2007. Australian Native Plant Society. Eucalyptus erythrocorys. http://anpasa.org.au/e-ery.html 410 2008. Irish, M Trees and Shrubs for the Southwest: Woody Plants for Arid Gardens. Timber Press, Portland, OR [Is a shade tolerant plant at some stage of its life cycle? No] "Exposure: Full Sun" [Is a shade tolerant plant at some stage of its life cycle? No] "Sunlight: Full Sun" [Is a shade tolerant plant at some stage of its life cycle? No] "Exposure: Full Sun" [Is a shade tolerant plant at some stage of its life cycle? No] "Exposure: Full Sun" [Is a shade tolerant plant at some stage of its life cycle? No] "Exposure: Full Sun" [Is a shade tolerant plant at some stage of its life cycle? No] "Exposure: Full Sun" [Is a shade tolerant plant at some stage of its life cycle? No] "Exposure: Full Sun" [Is a shade tolerant plant at some stage of its life cycle? No]	: Full I Sun"
Southwest: Woody Plants for Arid Gardens. Timber Press, Portland, OR 2011. Dave's Garden. PlantFiles: Illyarrie, Red Cap Gum, Red Helmet - Eucalyptus erythrocorys. http://davesgarden.com/guides/pf/go/55991/ 2011. Horticopia Inc Eucalyptus erythrocorys - Red Cap Gum, Red Cap Eucalyptus, Red Helmet. http://www.horticopia.com/hortpix/html/eucery000. htm 2011. Sunny Gardens. Eucalyptus erythrocorys. http://www.sunnygardens.com/garden_plants/euc alyptus/eucalyptus_1340.php 1038. Hill. K.D./Johnson, L.A.S Systematic studies in the eucalypts. 8. A review of the Eudesmioid eucalypts, Eucalyptus subgenus Eudesmia (Myrtaceae). Telopea. 7(4): 375-414. 2007. Australian Native Plant Society. Eucalyptus erythrocorys. http://anpsa.org.au/e-ery.html 2008. Irish, M Trees and Shrubs for the Southwest: Woody Plants for Arid Gardens. Timber Press, Portland, OR Is a shade tolerant plant at some stage of its life cycle? No] "Exposure: Full Sun" Is a shade tolerant plant at some stage of its life cycle? No] "Exposure: Full Sun" Is a shade tolerant plant at some stage of its life cycle? No] "Exposure: Full Sun" Is a shade tolerant plant at some stage of its life cycle? No] "Exposure: Full Sun" Is a shade tolerant plant at some stage of its life cycle? No] "Exposure: Full Sun" Is a shade tolerant plant at some stage of its life cycle? No] "Exposure: Full Sun" Is a shade tolerant plant at some stage of its life cycle? No] "Exposure: Full Sun" Is a shade tolerant plant at some stage of its life cycle? No] "Exposure: Full Sun" Is a shade tolerant plant at some stage of its life cycle? No] "Exposure: Full Sun" Is a shade tolerant plant at some stage of its life cycle? No] "Exposure: Full Sun" Is a shade tolerant plant at some stage of its life cycle? No] "Exposure: Full Sun" Is a shade tolerant plant at some stage of its life cycle? No] "Exposure: Full Sun" Is a shade tolerant plant at some stage of its life cycle? No] "Exposure: Full Sun" Is a shade tolerant plant at some stage of its life users life users life u	: Full I Sun"
Cap Gum, Red Helmet - Eucalyptus erythrocorys. http://davesgarden.com/guides/pf/go/55991/ 2011. Horticopia Inc Eucalyptus erythrocorys - Red Cap Gum, Red Cap Eucalyptus, Red Helmet. http://www.horticopia.com/hortpix/html/eucery000. htm 2011. Sunny Gardens. Eucalyptus erythrocorys. http://www.sunnygardens.com/garden_plants/eucalyptus/eucalyptus_1340.php 1998. Hill. K.D./Johnson, L.A.S Systematic studies in the eucalypts. 8. A review of the Eudesmioid eucalypts, Eucalyptus subgenus Eudesmia (Myrtaceae). Telopea. 7(4): 375-414. 2007. Australian Native Plant Society. Eucalyptus erythrocorys. http://anpsa.org.au/e-ery.html 2008. Irish, M Trees and Shrubs for the Southwest: Woody Plants for Arid Gardens. Timber Press, Portland, OR	l Sun"
Red Cap Gum, Red Cap Eucalyptus, Red Helmet. http://www.horticopia.com/hortpix/html/eucery000. htm 2011. Sunny Gardens. Eucalyptus erythrocorys. http://www.sunnygardens.com/garden_plants/euc alyptus/eucalyptus_1340.php 1998. Hill. K.D./Johnson, L.A.S Systematic studies in the eucalypts. 8. A review of the Eudesmioid eucalypts, Eucalyptus subgenus Eudesmia (Myrtaceae). Telopea. 7(4): 375-414. 2007. Australian Native Plant Society. Eucalyptus erythrocorys. http://anpsa.org.au/e-ery.html 2008. Irish, M Trees and Shrubs for the Southwest: Woody Plants for Arid Gardens. Timber Press, Portland, OR [Is a shade tolerant plant at some stage of its life cycle? No] "Sunlight: Full Sun" with some stage of its life cycle? No] "Sunlight: Full Sun" http://www.sunnygardens.com/garden_plants/euc alyptus erythrocorys. a shade tolerant plant at some stage of its life cycle? No] "Sunlight: Full Sun" http://www.sunnygardens.com/garden_plants/euc alyptus erythrocorys. A.S Systematic swide range of soil conditions? Yes] "locally abundant in mallee woodland thickets on calcareous sand of old beach dune systems, often partly indurated to form 'sheet limestone' in the soil." [Tolerates a wide range of soil conditions? Yes] "It commonly grows on limestone soils and is well adapted to alkaline conditions." [Tolerates a wide range of soil conditions? Yes] "Although red-cap gum is tolerar of almost any soil, providing it with good drainage is best."	
http://www.sunnygardens.com/garden_plants/euc alyptus/eucalyptus_1340.php 1998. Hill. K.D./Johnson, L.A.S Systematic studies in the eucalypts. 8. A review of the Eudesmioid eucalypts, Eucalyptus subgenus Eudesmia (Myrtaceae). Telopea. 7(4): 375-414. 2007. Australian Native Plant Society. Eucalyptus erythrocorys. http://anpsa.org.au/e-ery.html 2008. Irish, M Trees and Shrubs for the Southwest: Woody Plants for Arid Gardens. Timber Press, Portland, OR [Tolerates a wide range of soil conditions? Yes] "It commonly grows on limestone soils and is well adapted to alkaline conditions." [Tolerates a wide range of soil conditions? Yes] "Although red-cap gum is tolerar of almost any soil, providing it with good drainage is best."	3un"
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Southwest: Woody Plants for Arid Gardens. of almost any soil, providing it with good drainage is best." Timber Press, Portland, OR	stone
2011 Horticopia Inc. Fucalyntus enthrocorys - [Tolerates a wide range of soil conditions? Vest "Soil pH requirements: Acidic	lerant
Red Cap Gum, Red Cap Eucalyptus, Red neutral, slightly alkaline Soil type: Sandy, clay, loamy" Helmet. http://www.horticopia.com/hortpix/html/eucery000. htm	.с,
2006. Boland, D.J./Brooker, M.I.H./Chippendale, G.M./William McDonald, M Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	nes a
2006. Boland, D.J./Brooker, M.I.H./Chippendale, G.M./William McDonald, M Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	pen
2006. Boland, D.J./Brooker, M.I.H./Chippendale, [Aquatic? No] "usually a small tree or sometimes a straggly mallee 6-8 m tall." G.M./William McDonald, M Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	tall."
2006. Boland, D.J./Brooker, M.I.H./Chippendale, [Grass? No] Myrtaceae G.M./William McDonald, M Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	
2006. Boland, D.J./Brooker, M.I.H./Chippendale, [Nitrogen fixing woody plant? No] Myrtaceae G.M./William McDonald, M Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	

504	2006. Boland, D.J./Brooker, M.I.H./Chippendale, G.M./William McDonald, M Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	[Geophyte (herbaceous with underground storage organs bulbs, corms, or tubers)? No] "usually a small tree or sometimes a straggly mallee 6-8 m tall."
601	2007. Australian Native Plant Society. Eucalyptus erythrocorys. http://anpsa.org.au/e-ery.html	[Evidence of substantial reproductive failure in native habitat? No] "Conservation Status: Not considered to be at risk in the wild."
502	1998. Hill. K.D./Johnson, L.A.S Systematic studies in the eucalypts. 8. A review of the Eudesmioid eucalypts, Eucalyptus subgenus Eudesmia (Myrtaceae). Telopea. 7(4): 375-414.	[Produces viable seed? Yes] "Seeds irregular, angular, dull, brownish black, sometimes with a ragged translucent wing around the edge; hilum ventral; chaff angular, dark brown."
502	2007. Australian Native Plant Society. Eucalyptus erythrocorys. http://anpsa.org.au/e-ery.html	[Produces viable seed? Yes] "Propagation is from seed which germinates readily. Viable seed is best obtained from a group of trees so that crossing is enabled,"
503	2011. WRA Specialist. Personal Communication.	[Hybridizes naturally? Unknown]
604	1988. Potts, B.M./Savva, M Self-incompatibility in Eucalyptus. In: 'Pollination '88'. University of Melbourne, Melbourne, Australia	[Self-compatible or apomictic? Unknown] "Eucalypts are generally preferentially outcrossing (Pryor 1976; Griffin et a1 1987), with relatively high outcrossing rates (e.g. 0.69-0.84 Moran and Bell 1983) maintained by varying degrees of self-fertility (Pryor 1957, 1976; Hodgson 1976b; Griffin et a1 1987), aided by protandry (Pryor 1976) and reinforced by selection against the products of self-fertilization in later stages of the life cycle (see Potts et a1 1987). Most species exhibit a marked reduction in seed yield following self pollination compared to outcrossing, although within species there is considerable variation in the level of self-fertility (Pryor 1957, 1976; Table 1). In most of the species examined in detail to date, the majority of individuals are partially self fertile, but individuals range from fully self-incompatible to fully self fertile" [Unknown for E. erythrocorys]
605	1998. Hill. K.D./Johnson, L.A.S Systematic studies in the eucalypts. 8. A review of the Eudesmioid eucalypts, Eucalyptus subgenus Eudesmia (Myrtaceae). Telopea. 7(4): 375-414.	[Requires specialist pollinators? No] "Inflorescences simple, axillary; umbellasters 3-flowered; peduncles 15–30 mm long; pedicels 5–10 mm long, both 2-winged. Buds broadly campanulate, 25–35 mm long, 15–25 mm diam.; calyptra about half as long as hypanthium, shallowly hemispherical, 4-lobed with cruciform ridging, red; hypanthium green. Calyx free, persisting as 4 small teeth around top of hypanthium on mature fruits. Stamens all fertile, in 4 fascicles; filaments regularly inflexed, yellow-green; anthers oblong, versatile, dehiscing by parallel slits." [Floral structure does not suggest adaptations for specialized pollination]
605	2009. Hoffmann, H Small native eucalypts for gardens. Note: 399. Department of Agriculture and Food, South Perth, WA http://www.agric.wa.gov.au/objtwr/imported_asset s/content/hort/flor/flodpw/gn_eucalypts_in_home_garden.pdf	
505	2011. The Wildflower Society of Western Australia (Inc.). Our Flowers - Why They are so Special. http://members.ozemail.com.au/~wildflowers/Herit age.htm	[Requires specialist pollinators? No] "llyarrie (Eucalyptus erythrocorys) shows many of the typical characteristics - large showy flowers with bright red bud caps, presumably to attract the attention of birds. It flowers in mid summer." [Floral structure does not suggest adaptations for specialized pollination]
506	2007. Australian Native Plant Society. Eucalyptus erythrocorys. http://anpsa.org.au/e-ery.html	[Reproduction by vegetative fragmentation? No] "Propagation is from seed which germinates readily." [No evidence of vegetative spread]
507	2006. Mountain States Wholesale Nursery. Eucalyptus erythrocorys. www.mswn.com/Plant%20Info%20Sheets/Eucaly ptus%20erythrocorys.pdf	[Minimum generative time (years)? Unknown] "Growth Rate: Moderate to Fast" [Unknown, but fast growth rate, & use of tree as an ornamental for its showy flowers, suggests it may reach reproductive maturity in <4 years]
507	2011. Horticopia Inc Eucalyptus erythrocorys - Red Cap Gum, Red Cap Eucalyptus, Red Helmet. http://www.horticopia.com/hortpix/html/eucery000.htm	[Minimum generative time (years)? Unknown] "Growth rate: Fast"
701	2011. Horticopia Inc Eucalyptus erythrocorys - Red Cap Gum, Red Cap Eucalyptus, Red Helmet. http://www.horticopia.com/hortpix/html/eucery000.htm	[Propagules likely to be dispersed unintentionally? Unknown] "Landscape uses: Specimen, street tree" [Unknown, but may be possible if grown along streets and other heavily trafficked areas]
702	1998. Hill. K.D./Johnson, L.A.S Systematic studies in the eucalypts. 8. A review of the Eudesmioid eucalypts, Eucalyptus subgenus Eudesmia (Myrtaceae). Telopea. 7(4): 375-414.	[Propagules dispersed intentionally by people? Yes] "Known as 'Illyarrie' and widely cultivated for its conspicuous flowers and pleasant general appearance."

702	2003. Windmill Outback Nursery. Eucalyptus erythrocorys - Llyarie. http://www.australiaplants.com/Eucalyptus_erythrocorys.htm	[Propagules dispersed intentionally by people? Yes] "Uses: Ornamental plantings, planting along coastal areas."
703	2011. Australian Native Plants Nursery. Eucalyptus erythrocorys. http://www.australianplants.com/plants.aspx?id=1 081	[Propagules likely to disperse as a produce contaminant? Probably] "The large bell-like fruit is attractive and used in wreaths Flowers buds & seed pods used in cut flower arrangements." [Use of seed capsules in floral arrangements likely to inadvertently spread seeds with other cut flowers]
704	1998. Hill. K.D./Johnson, L.A.S Systematic studies in the eucalypts. 8. A review of the Eudesmioid eucalypts, Eucalyptus subgenus Eudesmia (Myrtaceae). Telopea. 7(4): 375-414.	[Propagules adapted to wind dispersal? Yes] "Fruits broadly campanulate, apically broadly 4-lobed, 25–45 mm long, 30–50 mm diam., 4-locular; disc level to domed. Seeds irregular, angular, dull, brownish black, sometimes with a ragged translucent wing around the edge; hilum ventral; chaff angular, dark brown." [winged seeds]
705	1998. Hill. K.D./Johnson, L.A.S Systematic studies in the eucalypts. 8. A review of the Eudesmioid eucalypts, Eucalyptus subgenus Eudesmia (Myrtaceae). Telopea. 7(4): 375-414.	[Propagules water dispersed? Probably not] "Seeds irregular, angular, dull, brownish black, sometimes with a ragged translucent wing around the edge; hilum ventral; chaff angular, dark brown." [seeds appear to be adapted only for wind dispersal]
706	1998. Hill. K.D./Johnson, L.A.S Systematic studies in the eucalypts. 8. A review of the Eudesmioid eucalypts, Eucalyptus subgenus Eudesmia (Myrtaceae). Telopea. 7(4): 375-414.	[Propagules bird dispersed? No] "Fruits broadly campanulate, apically broadly 4-lobed, 25–45 mm long, 30–50 mm diam., 4-locular; disc level to domed. Seeds irregular, angular, dull, brownish black, sometimes with a ragged translucent wing around the edge; hilum ventral; chaff angular, dark brown." [Not fleshy-fruited]
707	1998. Hill. K.D./Johnson, L.A.S Systematic studies in the eucalypts. 8. A review of the Eudesmioid eucalypts, Eucalyptus subgenus Eudesmia (Myrtaceae). Telopea. 7(4): 375-414.	[Propagules dispersed by other animals (externally)? No] "Fruits broadly campanulate, apically broadly 4-lobed, 25–45 mm long, 30–50 mm diam., 4-locular; disc level to domed. Seeds irregular, angular, dull, brownish black, sometimes with a ragged translucent wing around the edge; hilum ventral; chaff angular, dark brown." [No evidence, and no means of external attachment]
708	2011. WRA Specialist. Personal Communication.	[Propagules survive passage through the gut? Unknown] Seeds unlikely to be consumed
801	2006. Boland, D.J./Brooker, M.I.H./Chippendale, G.M./William McDonald, M Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	[Prolific seed production (>1000/m2)? Probably not] "In natural populations, flowering is unreliable and apparently subject to seasonal conditions. Cultivated trees flower Feb-Aug." [suggests large seed densities would not be produced]
802	2008. Royal Botanic Gardens Kew. Seed Information Database (SID). Version 7.1. http://data.kew.org/sid/	[Evidence that a persistent propagule bank is formed (>1 yr)? Unknown]
802	2011. Dave's Garden. PlantFiles: Illyarrie, Red Cap Gum, Red Helmet - Eucalyptus erythrocorys. http://davesgarden.com/guides/pf/go/55991/	[Evidence that a persistent propagule bank is formed (>1 yr)? Unknown] "Properly cleaned, seed can be successfully stored"
803	2003. Weber, E Invasive Plant Species of the World. A Reference Guide to Environmental Weeds. CABI Publishing, Wallingford, UK	[Well controlled by herbicides? Unknown] "Eucalyptus globulusSince the tree easily resprouts, cut stumps must be treated immediately with herbicides such as glyphosate, or sprouts must be regularly removed over several years" [Herbicde effective against other species, but no information on chemical control of or herbicide efficacy for E. erythrocorys]
804	1993. Bell, D.T./Plummer, J.A./Taylor, S.K Seed Germination Ecology in Southwestern Western Australia. Botanical Review. 59(1): 24-73.	[Tolerates, or benefits from, mutilation, cultivation, or fire? Yes] "Appendix IEucalyptus erythrocorysFire response syndromeResprouter" ["Nearly two-thirds of the species of plant communities in southwestern Western Australian plant communities survive severe fires by resprouting from protected buds under bark of above-ground organs, from buds of underground basal lignotubers, or from other underground perennating tissue"]

2006. Uchida, J./Zhong, S.. First Report of a Rust Disease on Ohia Caused by Puccinia psidii in Hawaii. Plant Disease. 90(4): 524.

805

Print Date: 5/17/2011

[Effective natural enemies present locally (e.g. introduced biocontrol agents)? Potentially. Puccinia psidii infects Eucalyptus species and is widespread in the Hawaiian Islands, as well as Florida, California, and Australia] "Several species of Metrosideros (Myrtaceae), referred to as ohia in Hawaii, are endemic trees that comprise as much as 80% of the native Hawaiian forests. For centuries, these trees have provided niches for many indigenous and endangered plants and animals and are treasured by Hawaiians for their beauty and role in folklore and legends. During April 2005, a cultivated ohia plant was diagnosed by the Agricultural Diagnostic Service Center at the University of Hawaii at Manoa as infected by a rust fungus. Rust pustules containing abundant urediniospores were observed on leaves, stems, and sepals, causing discolored spots and severe deformity of young leaves and growing tips. By July 2005, a similar rust disease was observed on other plants in the family Myrtaceae; namely Syzygium jambos (L.) Alston, Eugenia koolauensis Degener, E. reinwardtiana (Blume) DC, and Psidium guajava L. Microscopic examination of the uredinia and urediniospores showed that the rust was morphologically similar to Puccinia psidii, which is reported as the guava or eucalyptus rust in Florida and Central and South America (1,2). To confirm the identity of this fungus, DNA was extracted from urediniospores of two isolates collected from ohia plants, and their nuclear ribosomal internal transcribed spacer (ITS) was amplified with two universal primers, ITS4 and ITS5 (3). Sequences of the ITS region of these isolates from ohia were identical to the P. psidii isolates provided by A. Alfenas in Brazil and M. Rayachhetry in Florida. Koch's postulate of the isolates, obtained from ohia, was performed using 1 x 108 spores/ml of urediniospores suspension in distilled water. The suspension was sprayed onto 6-month-old ohia seedlings. These inoculated seedlings were placed in clear plastic chambers maintained at 100% relative humidity and 22°C with a combination of 10-h fluorescent light period and a 14 h dark period. After 48 h of incubation, the seedlings were removed from the chambers and transferred to a greenhouse where the ambient temperature ranged from 20 to 24°C. Rust pustules appeared after 1 to 2 weeks of incubation. Symptoms first appeared as tiny, bright yellow, powdery eruptions that developed into circular, uredinial pustules on the stem and foliage. These pustules later expanded, coalesced, and became necrotic, spreading over the entire leaf and stem surfaces, and then leaves and stems were deformed and tip dieback ensued. These symptoms were the same as those observed on the naturally infected cultivated ohia plant mentioned above. P. psidii is reported to be native to South and Central America that later spread to some Myrtaceous plants in the Caribbean countries (1). It has a very wide host range within the family Myrtaceae (2). To our knowledge, this is the first report of P. psidii in Hawaii. This rust disease may pose a formidable threat to Myrtaceous species that make up the native Hawaiian forests and are grown as ornamental plants or for the production of wood chips."