

Family: *Myrtaceae***Taxon:** *Eucalyptus resinifera***Synonym:** *Eucalyptus hemilampra* F.Muell.**Common Name:** kino gum*Eucalyptus resinifera* var. *grandiflora* Benth.

red messmate

Eucalyptus resinifera var. *hemilampra* (F.Mu

red stringybark

red mahogany

Questionnaire : current 20090513
Status: Assessor Approved**Assessor:** Assessor
Data Entry Person: Assessor**Designation:** H(HPWRA)**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)	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	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)	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)	
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	y
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	>3
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	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	n
704	Propagules adapted to wind dispersal	y=1, n=-1	y
705	Propagules water dispersed	y=1, n=-1	
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 agents)	y=-1, n=1	

Designation: H(HPWRA)

WRA Score **8**

Supporting Data:

101	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Is the species highly domesticated? No] No evidence
102	2013. WRA Specialist. Personal Communication.	NA
103	2013. WRA Specialist. Personal Communication.	NA
201	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Species suited to tropical or subtropical climate(s) 2-High] "This species enjoys humid tropical to warm temperate climates without a pronounced winter dry season and few frosts."
202	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Quality of climate match data 2-High]
203	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Broad climate suitability (environmental versatility)? Yes. Elevation range exceeds 1000m -Environmental versatility] "- Altitude range: 0 - 1200 m - Mean annual rainfall: 700 - 2600 mm - Rainfall regime: summer; uniform - Dry season duration: 2 - 4 months - Mean annual temperature: 15 - 25°C - Mean maximum temperature of hottest month: 24 - 34°C - Mean minimum temperature of coldest month: 0 - 19°C - Absolute minimum temperature: -9 - 7°C"
204	1999. Wagner, W.L./Herbst, D.R./Sohmer, S.H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Native or naturalized in regions with tropical or subtropical climates? Yes] "in Hawaii planted on Oahu, Maui and Hawaii and regenerating from seed in these areas. Over 90,500 trees planted between 1920 and 1949."
204	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Native or naturalized in regions with tropical or subtropical climates? Yes] "This species enjoys humid tropical to warm temperate climates without a pronounced winter dry season and few frosts."
205	1989. Little Jr., E.L./Skolmen, R.G.. Common forest trees of Hawaii: (native and introduced). USDA Agriculture Handbook No. 679. USDA Forest Service, Washington, D.C.	[Does the species have a history of repeated introductions outside its natural range? Yes] "The Division of Forestry has planted 90,000 trees on all islands." ... "The best stand of this tree is at Kalopa State Park, where there are many trees about 200 ft (61 m) tall." ... "This is one of the most promising of more than 30 species of Eucalyptus that have been tested experimentally in forest plantations in Puerto Rico. Widely grown in forest plantations elsewhere."
205	2000. Liogier, A.H./ Martorell, L.F.. Flora of Puerto Rico and adjacent islands: a systematic synopsis. Second Edition Revised. La Editorial, UPR, San Juan, Puerto Rico	[Does the species have a history of repeated introductions outside its natural range? Puerto Rico] "Plants as a forest tree and persistent in the mountains, Puerto Rico"
205	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Does the species have a history of repeated introductions outside its natural range? Yes] Widely planted throughout the world
301	1989. Webb, C.J./Sykes, W.R./Garnock-Jones, P.J./Given, D.R./Brownsey, P.J.. Checklist of dicotyledons, gymnosperms, and pteridophytes naturalised in New Zealand: Additional records and corrections. New Zealand Journal of Botany. 27(2): 139-162.	[Naturalized beyond native range?] "Bay of Islands (Russell State Forest); rare cultivation escape.
301	1999. Wagner, W.L./Herbst, D.R./Sohmer, S.H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Naturalized beyond native range? Yes] "in Hawaii planted on Oahu, Maui and Hawaii and regenerating from seed in these areas. Over 90,500 trees planted between 1920 and 1949."
301	2006. Howell, C.J./Sawyer, J.W.D.. New Zealand naturalised vascular plant checklist. New Zealand Plant Conservation Network, Wellington, NZ www.nzpcn.org.nz	[Naturalized beyond native range?] "Eucalyptus resinifera" ... "Naturalised plant status = Casua"
302	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Garden/amenity/disturbance weed? No] No evidence
303	2012. Randall, R.P.. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	[Agricultural/forestry/horticultural weed? No] No evidence

304	2001. Segura-Burciaga, S./Meave, J.. Effect of the removal of the exotic <i>Eucalyptus resinifera</i> on the floristic composition of a protected xerophytic shrub land in Southern Mexico City. Pp 319-329 in Plant invasions: species ecology & ecosystem management	[Environmental weed? Possibly Yes. May suppress native seedling recruitment] "Whilst a new main campus for the National Autonomous University of Mexico was under construction in 1951 over an old lava field, some 200 seedlings of the exotic species <i>E. resinifera</i> were planted in rows along roads. This initial population spread into the existing fragments of natural vegetation by means of an "advancing front". Since then, the borders of the two largest remnants of natural vegetation classified as xerophytic shrubland presently protected in an ecological reserve have been surrounded by the <i>E. resinifera</i> . These alter the natural conditions and resource availability due to their fast growth rate and efficient water and nutrient uptake, both attributes that have rendered them successful competitors in this short (<7 m), heliophyte dominated community. To limit <i>E. resinifera</i> spreading, in 1991 a control programme was created based on a population study previously conducted. Because <i>E. resinifera</i> canopy intercepts light and the slow decomposition litter forms a layer which interferes with seed germination, we refer to the combination of these factors as "Eucalyptus effect". An experiment was designed to test if the removal of one or both of the abovementioned factors induces the recovery of the natural plant community properties in Mexico, during 1996, 1997 and 1998. Four treatments were applied each in eight 20 m ² circular plots centred on individual <i>E. resinifera</i> : (1) shade with litter (SL); (2) shade without litter (SWL); (3) without shade, with litter (WSL); (4) without shade, without litter (WSWL); four equal reference samples were randomly located in the native, <i>E. resinifera</i> free vegetation. Plots were censused in 1996 (rainy season, prior to treatments), and in the dry and rainy seasons of 1997 and 1998 for species number, plant density and cover. Natural community samples were richer in non-weedy species than sites with <i>E. resinifera</i> , in which weeds were dominant. Mean density of non weedy species became higher in treatments where <i>E. resinifera</i> shade was removed. Mean cover was directly associated to rainfall fluctuations. The study suggests that a 2-year period is too short to allow a complete recovery of the native shrub land community properties."
305	2003. Weber, E.. Invasive Plant Species of the World. A Reference Guide to Environmental Weeds. CABI Publishing, Wallingford, UK	[Congeneric weed? Yes] " <i>Eucalyptus cladocalyx</i> " ... "Where invasive, the tree recruits dense cohorts of seedlings following fires, threatening native plants by shading them out."
401	1999. Wagner, W.L./Herbst, D.R./Sohmer, S.H.. Manual of the flowering plants of Hawaii. Revised edition.. University of Hawai'i Press and Bishop Museum Press, Honolulu, HI.	[Produces spines, thorns or burrs? No] No evidence
402	2011. Kaur, S./Singh, H.P./Batish, D.R./Kohli, R.K.. Chemical characterization and allelopathic potential of volatile oil of <i>Eucalyptus tereticornis</i> against <i>Amaranthus viridis</i> . Journal of Plant Interactions. 6(4): 297-302.	[Allelopathic? Unknown for <i>E. resinifera</i>] "Based on the study, it can be concluded volatile oil of <i>E. tereticornis</i> possess allelopathic potential and could be explored as bioherbicide for future weed management programs." [Several <i>Eucalyptus</i> species demonstrate allelopathic properties]
403	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Parasitic? No] " <i>Eucalyptus resinifera</i> is a medium-sized to tall tree"
404	1998. Benson, D./McDougall, L.. Ecology of Sydney plant species. Part 6. Dicotyledon family Myrtaceae. Cunninghamia. 5(4): 808-987.	[Unpalatable to grazing animals? Unknown] "Browsed by Koala <i>Phascolarctos cinereus</i> (Hawkes 1978). Resistant to termite attack (Froggatt 1923)."
404	2010. Moreton Bay Regional Council. Fact sheet - Koalas. http://www.moretonbay.qld.gov.au/uploadedFiles/moretonbay/environment/fauna/KoalasFactSheet.pdf	[Unpalatable to grazing animals? Unknown] "Koala food trees of our region" [Included <i>Eucalyptus resinifera</i> . Unknown if palatable to other animals]
405	1998. Benson, D./McDougall, L.. Ecology of Sydney plant species. Part 6. Dicotyledon family Myrtaceae. Cunninghamia. 5(4): 808-987.	[Toxic to animals? No evidence] "Blossoms eaten by Grey-headed Flying Fox <i>Pteropus poliocephalus</i> (Eby 1995). Browsed by Koala <i>Phascolarctos cinereus</i> (Hawkes 1978). Resistant to termite attack (Froggatt 1923)."
405	2008. Wagstaff, D.J.. International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL	[Toxic to animals? No] No evidence
406	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Host for recognized pests and pathogens?] "Pests recorded Insects: <i>Paropsis charybdis</i> (<i>eucalyptus</i> tortoise beetle) <i>Phoracantha recurva</i> (<i>eucalyptus</i> longhorned borer) <i>Phylacteophaga froggatti</i> (leafblister sawfly)" ...
407	2008. Wagstaff, D.J.. International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL	[Causes allergies or is otherwise toxic to humans? No] No evidence

407	2013. Noosa's Native Plants. <i>Eucalyptus resinifera</i> . http://www.noosanativeplants.com.au/plants/214/eucalyptus-resinifera [Accessed 12 July 2013]	[Causes allergies or is otherwise toxic to humans? No evidence] "Some information about bush foods and medicines may be anecdotal. Correct identification and preparation is essential: Used as a fish POISON Honey Production: pale amber, honey source medium, Pollen source major. Bush food: Nectar sucked from flowers. Water extracted from roots. Bush medicine: Diarrhoea and dysentery - kino (gum) solution drunk. Pad of chewed Leaves often placed on wound to heal.; Leaves and oil prescribed for everything."
408	1996. Skull, S./Adams, F.. Fire Management and Vegetation Communities - Townsville and Thuringowa Shires - Final Report - Report No 96/21. Australian Centre for Tropical Freshwater Research, James Cook University, North Queensland	[Creates a fire hazard in natural ecosystems? Unknown] "Wet sclerophyll forests occur in restricted areas near vine forest on elevated slopes in the northern section of the study area. They are tall open forests which may be dominated by <i>Eucalyptus grandis</i> (Rose gum), <i>Eucalyptus resinifera</i> (Red stringybark), <i>Allocasuarina torulosa</i> (Forest oak), <i>Eucalyptus intermedia</i> (Pink bloodwood) and <i>Eucalyptus tereticornis</i> (Forest red gum). The understorey usually consists of ferns, shrubs and grasses (Ashton 1981a). Wet sclerophyll forests are derived from vine forest subject to high intensity fires lit by Aboriginal people in the past (Ashton 1981b). Throughout much of north Queensland remaining sections of wet sclerophyll forests are being reinvaded by rainforest species due to reduced fire frequencies (Unwin et al. 1985, G. Harrington pers. comm.). Current fire management of this ecotone aims to re establish wet sclerophyll forests to their former extent (P. Williams, pers. comm.)."
409	1989. Little Jr., E.L./Skolmen, R.G.. Common forest trees of Hawaii: (native and introduced). USDA Agriculture Handbook No. 679. USDA Forest Service, Washington, D.C.	[Is a shade tolerant plant at some stage of its life cycle? Yes] "Eastern Australia, coastal regions. Usually scattered, occasionally in small almost pure stands, and more tolerant of shade than most eucalypts."
410	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Tolerates a wide range of soil conditions?] "- Soil texture: light; medium - Soil drainage: free - Soil reaction: acid; neutral - Special soil tolerances: shallow"
410	2006. Boland, D.J./Brooker, M.I.H./Chippendale, G.M./William McDonald, M.. Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	[Tolerates a wide range of soil conditions? Yes] "It grows on a wide range of soils, with best development on light, fertile sandy clay loams and on deep red loams of volcanic origin."
411	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Climbing or smothering growth habit? No] " <i>Eucalyptus resinifera</i> is a medium-sized to tall tree, usually in the height range of 25-30 m but sometimes attaining 45 m, with a range in diameter at breast height of 0.5 or less to 1.5 m."
412	1989. Little Jr., E.L./Skolmen, R.G.. Common forest trees of Hawaii: (native and introduced). USDA Agriculture Handbook No. 679. USDA Forest Service, Washington, D.C.	[Forms dense thickets? Possibly Yes] "Usually scattered, occasionally in small almost pure stands..." [Probably refers to planted stands]
412	1998. Benson, D./McDougall, L.. Ecology of Sydney plant species. Part 6. Dicotyledon family Myrtaceae. Cunninghamia. 5(4): 808-987.	[Forms dense thickets? No evidence] "Typical local abundance: Frequent-occasional"
501	2006. Boland, D.J./Brooker, M.I.H./Chippendale, G.M./William McDonald, M.. Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	[Aquatic? No] "Red mahogany is usually found on lowland slopes, in valleys and sheltered flats."
502	2006. Boland, D.J./Brooker, M.I.H./Chippendale, G.M./William McDonald, M.. Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	[Grass? No] Myrtaceae
503	2006. Boland, D.J./Brooker, M.I.H./Chippendale, G.M./William McDonald, M.. Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	[Nitrogen fixing woody plant? No] Myrtaceae
504	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] " <i>Eucalyptus resinifera</i> is a medium-sized to tall tree, usually in the height range of 25-30 m but sometimes attaining 45 m, with a range in diameter at breast height of 0.5 or less to 1.5 m."
601	2006. Boland, D.J./Brooker, M.I.H./Chippendale, G.M./William McDonald, M.. Forest trees of Australia. CSIRO Publishing, Collingwood, Australia	[Evidence of substantial reproductive failure in native habitat? No] No evidence
602	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Produces viable seed? Yes] "- Seed storage orthodox - Vegetative propagation by cuttings - Stand establishment using planting stock"

603	2009. Clarke, B./McLeod, I./Vercoe, T.. Trees for Farm Forestry: 22 promising species. Rural Industries Research and Development Corporation, Kingston	[Hybridizes naturally? Yes] "Records of the following natural hybrids involving <i>E. pellita</i> and other species in the subgenus <i>Symphomyrtus</i> were noted in a review by Griffin et al. (1988): <i>E. pellita</i> x <i>E. resinifera</i> , <i>E. grandis</i> x <i>E. pellita</i> and <i>E. brassiana</i> x <i>E. pellita</i> ."
603	2009. Le, S.. Genetic differentiation among and within three red mahoganies, <i>Eucalyptus pellita</i> , <i>E. resinifera</i> and <i>E. scias</i> . MSc thesis. Southern Cross University, Lismore, NSW	[Hybridizes naturally? Unknown] "Despite close geographical proximity and records of natural hybridisation in North Queensland, <i>E. resinifera</i> (total of 77 individuals from 8 locations) and <i>E. pellita</i> (total of 85 individuals from 12 locations) remain genetically distinct as taxa."
604	1995. Potts, B./Gore, P.. Reproductive biology and controlled pollination of <i>Eucalyptus</i> - a review. School of Plant Science, University of Tasmania, Hobart, Tasmania	[Self-compatible or apomictic? Unknown] "Eucalypts are generally preferentially outcrossing (Pryor 1976; Griffin et al 1987), with high outcrossing rates (e.g. 0.69-0.84 Moran and Bell 1983; Prober et al. 1990) maintained by varying degrees of self-fertility (Pryor 1976), aided by protandry (Griffin and Hand 1979; Fig. 3.2) and reinforced by selection against the products of self-fertilization in later stages of the life cycle (Potts et al. 1987; Hardner and Potts 1995). Self fertility 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; Pryor 1976; Table 4.2). In most of the species examined to date, the majority of individuals are partially self-fertile, but individuals range from fully self incompatible to fully self-fertile. Post-mating barriers to self-fertilization are thus rarely complete, and (Eldridge 1976) notes that "persistent attempts at artificial self-pollination have been successful to some degree on almost every tree tested".
605	1998. Benson, D./McDougall, L.. Ecology of Sydney plant species. Part 6. Dicotyledon family Myrtaceae. Cunninghamia. 5(4): 808-987.	[Requires specialist pollinators? No] "Flowers: White, October–February. Probably pollinated by honeybees, native bees, and other insects (P. Kubiak pers. comm.)."
606	1998. Benson, D./McDougall, L.. Ecology of Sydney plant species. Part 6. Dicotyledon family Myrtaceae. Cunninghamia. 5(4): 808-987.	[Reproduction by vegetative fragmentation? No] " <i>Eucalyptus resinifera</i> subsp. <i>Resinifera</i> " ... "Vegetative spread: No"
607	1998. Queensland CRA/RFA Steering Committee. Commercial Plantation Land Capability Analysis of South East Queensland. Queensland Government/Commonwealth of Australia,	[Minimum generative time (years)?] "This species grows a little slower than <i>E. grandis</i> , but is still faster growing than some of the other pole species, and makes a good coppice crop."
607	2012. City of Ryde. Home > Environment > Trees > Selecting the Right Tree > Outside Urban Bushland Areas. http://www.ryde.nsw.gov.au/Environment/Trees/Selecting+the+Right+Tree/Outside+Urban+Bushland+Areas [Accessed 12 July 2013]	[Minimum generative time (years)? 4+] " <i>Eucalyptus resinifera</i> " ... "Min Height at Maturity (m) = 14+" [Probably >4 years]
701	1998. Benson, D./McDougall, L.. Ecology of Sydney plant species. Part 6. Dicotyledon family Myrtaceae. Cunninghamia. 5(4): 808-987.	[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)? Unknown] "Dispersal, establishment & growth: Diaspore: seed, dispersed locally by wind or gravity, no dormancy mechanism." [Possible that small seeds could be inadvertently dispersed in mud on boots, tires etc., but no such evidence was found]
702	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Propagules dispersed intentionally by people? Yes] "The species is reasonably effective as a shelterbelt tree and makes an attractive avenue specimen. "
703	1998. Benson, D./McDougall, L.. Ecology of Sydney plant species. Part 6. Dicotyledon family Myrtaceae. Cunninghamia. 5(4): 808-987.	[Propagules likely to disperse as a produce contaminant? No] "Dispersal, establishment & growth: Diaspore: seed, dispersed locally by wind or gravity, no dormancy mechanism." [No evidence]
704	1989. Little Jr., E.L./Skolmen, R.G.. Common forest trees of Hawaii: (native and introduced). USDA Agriculture Handbook No. 679. USDA Forest Service, Washington, D.C.	[Propagules adapted to wind dispersal? Yes] "Seed capsules egg-shaped to half-round, 1/4 inch (6 mm) in diameter, on stalk of 1/4 inch (6 mm), with disk slightly convex and usually 4 prominent sharp pointed raised valves."
704	1998. Benson, D./McDougall, L.. Ecology of Sydney plant species. Part 6. Dicotyledon family Myrtaceae. Cunninghamia. 5(4): 808-987.	[Propagules adapted to wind dispersal? Yes] "Dispersal, establishment & growth: Diaspore: seed, dispersed locally by wind or gravity, no dormancy mechanism."
705	1998. Benson, D./McDougall, L.. Ecology of Sydney plant species. Part 6. Dicotyledon family Myrtaceae. Cunninghamia. 5(4): 808-987.	[Propagules water dispersed? Unknown] "Dispersal, establishment & growth: Diaspore: seed, dispersed locally by wind or gravity, no dormancy mechanism."
706	1998. Benson, D./McDougall, L.. Ecology of Sydney plant species. Part 6. Dicotyledon family Myrtaceae. Cunninghamia. 5(4): 808-987.	[Propagules bird dispersed? No] "Dispersal, establishment & growth: Diaspore: seed, dispersed locally by wind or gravity..."
707	1998. Benson, D./McDougall, L.. Ecology of Sydney plant species. Part 6. Dicotyledon family Myrtaceae. Cunninghamia. 5(4): 808-987.	[Propagules dispersed by other animals (externally)? No] "Dispersal, establishment & growth: Diaspore: seed, dispersed locally by wind or gravity, no dormancy mechanism." [No apparent means of external attachment]

708	1998. Benson, D./McDougall, L.. Ecology of Sydney plant species. Part 6. Dicotyledon family Myrtaceae. Cunninghamia. 5(4): 808-987.	[Propagules survive passage through the gut? Unknown] "Fruit reported from pellets of Currawongs (Buchanan 1989a)."
801	1997. Grant, C.D./Koch, J.M.. Ecological aspects of soil seed-banks in relation to bauxite mining. II. Twelve year old rehabilitated mines. Australian Journal of Ecology. 22: 177-184.	[Prolific seed production (>1000/m ²)? Not in this study] "Eucalyptus resinifera, one of the planted overstorey species, had a reasonably large soil seed store in autumn but was almost absent in spring collected samples" ... "In the current study, autumn-collected soils contained a reasonably large store of one of the planted overstorey components (44 seeds m/m ² , E. resinifera) that was not present in the spring-collected soils. This seed store is obviously transient and germination would occur in winter of every year. Establishment of E. resinifera has been observed to be very low in unburnt areas (= 0.01m ²) but extremely high in burnt areas (= 20 m/m ²)."
801	1998. Benson, D./McDougall, L.. Ecology of Sydney plant species. Part 6. Dicotyledon family Myrtaceae. Cunninghamia. 5(4): 808-987.	[Prolific seed production (>1000/m ²)? Unknown] "Fruit/seed: Woody capsule 7-11 mm long, retained on tree for up to a year."
802	1998. Benson, D./McDougall, L.. Ecology of Sydney plant species. Part 6. Dicotyledon family Myrtaceae. Cunninghamia. 5(4): 808-987.	[Evidence that a persistent propagule bank is formed (>1 yr)? Possibly on tree] "Fruit/seed: Woody capsule 7-11 mm long, retained on tree for up to a year." ... "Diaspore: seed, dispersed locally by wind or gravity, no dormancy mechanism."
803	2013. WRA Specialist. Personal Communication.	[Well controlled by herbicides? Unknown] No information on herbicide efficacy or chemical control of this species
804	1998. Benson, D./McDougall, L.. Ecology of Sydney plant species. Part 6. Dicotyledon family Myrtaceae. Cunninghamia. 5(4): 808-987.	[Tolerates, or benefits from, mutilation, cultivation, or fire? Yes] "Fire response: Resprouts from epicormic buds (at Myall Lakes, Myerscough et al. 1995). Resprouted from base, trunk and branches after high intensity fire (1/1994) at Lane Cove (P. Kubiak pers. comm.)."
804	2005. CAB International. Forestry Compendium. CAB International, Wallingford, UK	[Tolerates, or benefits from, mutilation, cultivation, or fire? Yes] "It grows fast and coppices well"
804	2009. Kubiak, P.J.. Fire responses of bushland plants after the January 1994 wildfires in northern Sydney. Cunninghamia. 11(1): 131-165.	[Tolerates, or benefits from, mutilation, cultivation, or fire? Yes] "Appendix 1. Observations on fire responses (after 100% leaf scorch) of vascular plants in the Lane Cove River (LCR) (observations mainly Jan 1994 - Oct 1999) and Narrabeen Lagoon (NL) (Mar - Oct 1994) catchments, following the fires of January 1994." [Eucalyptus resinifera - Fire Response = R = majority of adult plants resprouted after the fires]
805	2010. Zauza, E.A.V./Alfenas, A.C./Old, K./Couto, M.M.F./Graça, R.N./Maffia, L.A.. Myrtaceae species resistance to rust caused by Puccinia psidii. Australasian Plant Pathology. 39: 406-411.	[Effective natural enemies present locally (e.g. introduced biocontrol agents)? Resistant to P. psidii] "Seeds from different species and provenances of Myrtaceae, collected from wild populations in Australia, were screened for resistance to rust caused by Puccinia psidii." ... "Independent of the provenance, the most resistant species were: Corymbia calophylla 'rosea', C. tessellaris, Melaleuca ericifolia, Eucalyptus tereticornis, E. resinifera, E. scias subsp. scias, E. paniculata, E. pellita and C. intermediata."
805	2013. WRA Specialist. Personal Communication.	[Effective natural enemies present locally (e.g. introduced biocontrol agents)? Unknown]

Summary of Risk Traits

High Risk / Undesirable Traits

- Naturalized in Hawaiian Islands and New Zealand
- Genus has a reputation for naturalizing & invasiveness
- Tolerates many soil conditions (and potentially able to exploit many different habitat types)
- Shade tolerant
- May hybridize with other *Eucalyptus* species
- Seeds wind-dispersed
- Coppices & resprouts following damage from cutting or fires

Low Risk / Desirable Traits

- Unarmed (no spines, or thorns)
- Landscaping and ornamental value
- Will not spread vegetatively