

Family: *Malvaceae***Taxon:** *Talipariti macrophyllum***Synonym:** *Hibiscus macrophyllus* Roxb. ex Hornem. (ba. **Common Name:** Largeleaf Rosemallow
Pariti macrophyllum (Roxburgh ex Hornem.)

Questionnaire : Status:	current 20090513 Assessor Approved	Assessor: Data Entry Person:	Chuck Chimera Chuck Chimera	Designation: EVALUATE WRA Score 3
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		
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	?	
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)	n	
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	n	
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	n	
409	Is a shade tolerant plant at some stage of its life cycle	y=1, n=0		
410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y=1, n=0		
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	
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	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/m ²)	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	
805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	y=-1, n=1	

Designation: EVALUATE

WRA Score 3

Supporting Data:

101	2007. Wu, Z.Y./Raven, P.H./Hong, D.Y. (eds.). Flora of China. Vol. 12 (Hippocastanaceae through Theaceae).. Science Press Beijing, and Missouri Botanical Garden Press, St. Louis.,	[Is the species highly domesticated?? No] No evidence
102	2011. WRA Specialist. Personal Communication.	NA
103	2011. WRA Specialist. Personal Communication.	NA
201	2007. Wu, Z.Y./Raven, P.H./Hong, D.Y. (eds.). Flora of China. Vol. 12 (Hippocastanaceae through Theaceae).. Science Press Beijing, and Missouri Botanical Garden Press, St. Louis.,	[Species suited to tropical or subtropical climate(s)? 2-high] "Evergreen broad-leaved forests, near villages; 400–1000 m. S Yunnan (Xishuangbanna) [Cambodia, India, Indonesia, Malaysia, Myanmar, Pakistan, Thailand, Vietnam]."
202	2007. Wu, Z.Y./Raven, P.H./Hong, D.Y. (eds.). Flora of China. Vol. 12 (Hippocastanaceae through Theaceae).. Science Press Beijing, and Missouri Botanical Garden Press, St. Louis.,	[Quality of climate match data? 2-high] "Evergreen broad-leaved forests, near villages; 400–1000 m. S Yunnan (Xishuangbanna) [Cambodia, India, Indonesia, Malaysia, Myanmar, Pakistan, Thailand, Vietnam]."
203	1998. Riffle, R.L.. The Tropical Look - An Encyclopedia of Dramatic Landscape Plants. Timber Press, Portland, OR	[Broad climate suitability (environmental versatility)? Possibly No] "indigenous to a wide area from India eastward to Java and is hardy to zones 10b and 11."
203	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	[Broad climate suitability (environmental versatility)? Possibly. Found in both temperate and tropical climates] "Native: •ASIA-TEMPERATE China: China - Yunnan [s.] •ASIA-TROPICAL Indian Subcontinent: Bangladesh; India - Assam, Meghalaya, Nagaland Indo-China: Cambodia; Laos; Thailand; Vietnam Malesia: Indonesia - Java, Sumatra; Malaysia; Philippines; Singapoee"
204	2007. Wu, Z.Y./Raven, P.H./Hong, D.Y. (eds.). Flora of China. Vol. 12 (Hippocastanaceae through Theaceae).. Science Press Beijing, and Missouri Botanical Garden Press, St. Louis.,	[Native or naturalized in regions with tropical or subtropical climates? Yes] "Evergreen broad-leaved forests, near villages; 400–1000 m. S Yunnan (Xishuangbanna) [Cambodia, India, Indonesia, Malaysia, Myanmar, Pakistan, Thailand, Vietnam]."
205	1998. Riffle, R.L.. The Tropical Look - An Encyclopedia of Dramatic Landscape Plants. Timber Press, Portland, OR	[Does the species have a history of repeated introductions outside its natural range? Unknown] [Cultivated as an ornamental, but history of introduction outside its broad native range unknown]
205	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.	[Does the species have a history of repeated introductions outside its natural range? Unknown] "in Hawaii at least sparingly naturalized..."
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] "Native to India through the Malay Peninsula to Java; in Hawaii at least sparingly naturalized in mesic sites at least in Palama Valley, Kaipapa'u Valley, and neighboring valleys on Oahu, also in the Kohala Mountains, precise locality unknown, on Hawaii."
301	2011. Parker, J.. BIISC Early Detection Botanist. Pers. Comm. 28 July 2011.	[Naturalized beyond native range? Yes] "We found a plant naturalizing up in North Kohala last year while surveying the Bond Historic district that we never sent in for assessment. It is Hibiscus macrophyllus, and it was already collected from the same area a few years back, and is naturalizing only in one gulch there."
302	2007. Randall, R.P.. Global Compendium of Weeds - Hibiscus macrophyllus [Online Database]. http://www.hear.org/gcw/species/hibiscus_macrophyllus/	[Garden/amenity/disturbance weed? No] No evidence
303	2007. Randall, R.P.. Global Compendium of Weeds - Hibiscus macrophyllus [Online Database]. http://www.hear.org/gcw/species/hibiscus_macrophyllus/	[Agricultural/forestry/horticultural weed? No] No evidence
304	2007. Randall, R.P.. Global Compendium of Weeds - Hibiscus macrophyllus [Online Database]. http://www.hear.org/gcw/species/hibiscus_macrophyllus/	[Environmental weed? No] No evidence

305	2007. Hussey, B.M.J./Keighery, G. J./Dodd, J./Lloyd, S.G./Cousens, R.D.. Western Weeds. A Guide to the Weeds of Western Australia. The Weed Society of Western Australia, Victoria Park, WA	[Congeneric weed? Yes] "The fruiting calyx becomes red and fleshy and has been used as 'filler' for jam. It is a garden escape, occurring as a weed of wasteland, creeks and river edges in the Kimberly." [Refers to <i>H. sabdariffa</i>]
305	2007. Randall, R.P.. Global Compendium of Weeds - <i>Hibiscus tiliaceus</i> [Online Database]. http://www.hear.org/gcw/species/hibiscus_tiliaceus/	[Congeneric weed? Yes] <i>Talipariti tiliaceum</i> / <i>Hibiscus tiliaceus</i> listed as a weed in several aras.
401	2007. Wu, Z.Y./Raven, P.H./Hong, D.Y. (eds.). Flora of China. Vol. 12 (Hippocastanaceae through Theaceae).. Science Press Beijing, and Missouri Botanical Garden Press, St. Louis.,	[Produces spines, thorns or burrs? No] "Trees 6–9 m tall, to 30 cm d.b.h.; trunk erect, bark graywhite. Branchlets, bud, leaves, petioles, stipules, epicalyx lobes, and inflorescences densely hairy, hairs usually 6–8-fascicled, brown, silklike, ca. 8 mm."
402	1993. Jensen, M.. Soil conditions, vegetation structure and biomass of a Javanese homegarden. <i>Agroforestry Systems</i> . 24: 171-186.	[Allelopathic? No] "The vertical structure (Fig. 1) of the vegetation consisted of a ground layer from 0--1 m that, primarily in the openings of the tree canopy, was occupied by <i>Canna edulis</i> , taros, pineapples, young cassavas and various weeds...The uppermost layer from 11 m up to nearly 23 m consisted of scattered coconuts, <i>Lansium</i> , <i>Toona</i> , <i>Hibiscus macrophyllus</i> and <i>Parkia speciosa</i> ." [No evidence. Co-occurrence with several other species suggests no allelopathic properties]
402	2011. Pramono, A.A./Fauzi, M.A./Widyani, M./Heriansyah, I./Roshetko, J.M.. Managing smallholder teak plantations: field guide for farmers. CIFOR, Bogor, Indonesia http://www.cifor.org/publications/pdf_files/Books/B_CIFOR1101.pdf	[Allelopathic? No] "In highland areas, trees that intercrop well with teak include mindi (<i>Melia azedarach</i>), waru gunung (<i>Hibiscus macrophyllus</i>) or suren (<i>Toona</i> sp)."
403	2007. Wu, Z.Y./Raven, P.H./Hong, D.Y. (eds.). Flora of China. Vol. 12 (Hippocastanaceae through Theaceae).. Science Press Beijing, and Missouri Botanical Garden Press, St. Louis.,	[Parasitic? No] "Trees 6–9 m tall" [Malvaceae. Not parasitic]
404	2011. WRA Specialist. Personal Communication.	[Unpalatable to grazing animals? Unknown]
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. WRA Specialist. Personal Communication.	[Host for recognized pests and pathogens? Unknown]
407	2008. Bhardwaj, S./Gakhar, S.K.. Ethnobotanicals used by tribals of Mizoram for furniture and household equipments. <i>Indian Journal of Traditional Knowledge</i> . 7(1): 134-137.	[Causes allergies or is otherwise toxic to humans? No] "Ropes/strings are made from bark and attached to two sides of headband to tie around the load. Strings of arrows and fishing lines are also made out of bark strings." [Traditional uses, with no mention of toxic or allergenic properties]
407	2010. Priyadi, H./Takao, G./Rahmawati, I./Supriyanto, B./Ikbal Nursal, W./Rahman, I.. Five hundred plant species in Gunung Halimun Salak National Park, West Java: a checklist including Sundanese names, distribution and use. CIFOR, Bogor, Indonesia	[Causes allergies or is otherwise toxic to humans? No] "Uses: local house building, interior trim, wagon frames, household implements, musical instruments, packaging." [Multiple uses reported with no evidence of or warnings about toxicity]
407	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/	[Causes allergies or is otherwise toxic to humans? No] No evidence
408	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.	[Creates a fire hazard in natural ecosystems? No. No evidence from Hawaiian Islands]
408	2007. Wu, Z.Y./Raven, P.H./Hong, D.Y. (eds.). Flora of China. Vol. 12 (Hippocastanaceae through Theaceae).. Science Press Beijing, and Missouri Botanical Garden Press, St. Louis.,	[Creates a fire hazard in natural ecosystems? No. No evidence from China]
409	2011. WRA Specialist. Personal Communication.	[Is a shade tolerant plant at some stage of its life cycle? Unknown]
410	2011. WRA Specialist. Personal Communication.	[Tolerates a wide range of soil conditions ? Unknown]

411	2007. Wu, Z.Y./Raven, P.H./Hong, D.Y. (eds.). Flora of China. Vol. 12 (Hippocastanaceae through Theaceae).. Science Press Beijing, and Missouri Botanical Garden Press, St. Louis.,	[Climbing or smothering growth habit? No] "Trees 6–9 m tall, to 30 cm d.b.h."
412	2005. Green Discovery. Selected Trees & Plants found in Phongsali Province. http://www.greendiscoverylaos.com/travelinfo/facts/plants_trees.html	[Forms dense thickets? No evidence from Laos] "Hibiscus, Hibiscus macrophyllus (Po Hoo) is an evergreen tree up to 25 m. It has bright yellow flowers with a dark purple centre and large, almost circular leaves with a distinct heart-shaped base. The twigs are very hairy. It is widespread but never common, favouring gaps in moist open areas. Excellent fibres are extracted from the bark so as to make ropes of good quality."
501	2007. Wu, Z.Y./Raven, P.H./Hong, D.Y. (eds.). Flora of China. Vol. 12 (Hippocastanaceae through Theaceae).. Science Press Beijing, and Missouri Botanical Garden Press, St. Louis.,	[Aquatic? No] "Trees 6–9 m tall, to 30 cm d.b.h." [Terrestrial]
502	2007. Wu, Z.Y./Raven, P.H./Hong, D.Y. (eds.). Flora of China. Vol. 12 (Hippocastanaceae through Theaceae).. Science Press Beijing, and Missouri Botanical Garden Press, St. Louis.,	[Grass? No] Malvaceae
503	2007. Wu, Z.Y./Raven, P.H./Hong, D.Y. (eds.). Flora of China. Vol. 12 (Hippocastanaceae through Theaceae).. Science Press Beijing, and Missouri Botanical Garden Press, St. Louis.,	[Nitrogen fixing woody plant? No] Malvaceae
504	2007. Wu, Z.Y./Raven, P.H./Hong, D.Y. (eds.). Flora of China. Vol. 12 (Hippocastanaceae through Theaceae).. Science Press Beijing, and Missouri Botanical Garden Press, St. Louis.,	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] "Trees 6–9 m tall, to 30 cm d.b.h.; trunk erect, bark graywhite."
601	2007. Wu, Z.Y./Raven, P.H./Hong, D.Y. (eds.). Flora of China. Vol. 12 (Hippocastanaceae through Theaceae).. Science Press Beijing, and Missouri Botanical Garden Press, St. Louis.,	[Evidence of substantial reproductive failure in native habitat? No] "Capsule oblong, 2.5–3 cm, densely scabrous hirsute. Fl. Mar–May, fr. Jul." [No evidence from China]
602	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 viable seed? Yes] Seeds reniform, ca. 4 mm long, bordered with villous hairs."
602	2007. Wu, Z.Y./Raven, P.H./Hong, D.Y. (eds.). Flora of China. Vol. 12 (Hippocastanaceae through Theaceae).. Science Press Beijing, and Missouri Botanical Garden Press, St. Louis.,	[Produces viable seed? Yes] "Capsule oblong, 2.5–3 cm, densely scabrous hirsute. Fl. Mar–May, fr. Jul."
603	2011. WRA Specialist. Personal Communication.	[Hybridizes naturally? Unknown]
604	2011. WRA Specialist. Personal Communication.	[Self-compatible or apomictic? Unknown]
605	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.	[Requires specialist pollinators? Probably not] "Flowers solitary or few in open cymes; involucre bracts 8-14, distinct nearly to base, linear to linear-oblong, up to 25 mm long, yellow hirsute, about equaling the calyx; calyx campanulate, 2.5-3 cm long, lobed to about the middle; petals flaring, yellow with a purplish red basal spot, fading yellowish orange, drying greenish yellow, 6-7 cm long; staminal column included, antheriferous from near base." [Although some large-flowered Hibiscus species are pollinated by bats, the ability of H. macrophyllus to produce seeds suggests that it is adequately pollinated by the suited of pollinators present in the Hawaiian Islands]
606	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.	[Reproduction by vegetative fragmentation> Unknown]
607	1999. Nilaweera, N.S./Natalaya, P.. Role of tree roots in slope stabilisation. Bulletin of Engineering Geology and the Environment. 57: 337-342.	[Minimum generative time (years)? Unknown] "From the data obtained, Hibiscus macrophyllus indicated a promising growth rate of 3.17 m in height after the first growth year...Hibiscus macrophyllus had a very fast growing rate with significant root penetration and lateral distribution. The root tensile strength was medium to high, indicating it would provide quick slope stabilisation." [Very fast growth rate suggests plant may flower at an early age]

701	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.	[Propagules likely to be dispersed unintentionally? Unknown] "Capsules ellipsoid to obovoid, beaked, 2-3.5 cm long, yellow hirsute, the valves eventually separating. Seeds reniform, ca. 4 mm long, bordered with villous hairs." [No means of external attachment, but small seeds could potentially be moved in soil, mud on tire treads, boots, etc.]
702	1998. Riffle, R.L.. The Tropical Look - An Encyclopedia of Dramatic Landscape Plants. Timber Press, Portland, OR	[Propagules dispersed intentionally by people? Yes] "The tree, because of the giant leaves, is incredibly spectacular, with the essence of the tropical look." [Promoted and grown as an ornamental]
703	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.	[Propagules likely to disperse as a produce contaminant? No] "Capsules ellipsoid to obovoid, beaked, 2-3.5 cm long, yellow hirsute, the valves eventually separating. Seeds reniform, ca. 4 mm long, bordered with villous hairs." [Unlikely, given plant is generally not grown with other produce]
704	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.	[Propagules adapted to wind dispersal? No] "Capsules ellipsoid to obovoid, beaked, 2-3.5 cm long, yellow hirsute, the valves eventually separating. Seeds reniform, ca. 4 mm long, bordered with villous hairs."
705	2005. Takayama, K./Ohi-Toma, T./Kudoh, H./Kato, H.. Origin and diversification of <i>Hibiscus glaber</i> , species endemic to the oceanic Bonin Islands, revealed by chloroplast DNA polymorphism. <i>Molecular Ecology</i> . 14: 1059-1071.	[Propagules water dispersed? Unknown] "The wide and overlapping distribution of haplotypes in <i>H. tiliaceus</i> is attributable to the historical and current migration events among distant areas by ocean-current seed dispersal, as seeds of <i>H. tiliaceus</i> are known to be buoyant and able to float in saltwater for more than 3 months, and with high level of germination (Nakanishi 1985, 1988, 1991)...Habitat-shift into inland areas is likely to result in changes of seed-dispersal to more local gravity modes." [<i>H. macrophyllum</i> / <i>T. macrophyllum</i> may be only gravity dispersed]
705	2011. WRA Specialist. Personal Communication.	[Propagules water dispersed? Unknown] Possible that capsules or seeds may float, as they do in the related <i>H. tiliaceus</i> (syn. <i>T. tiliaceum</i>)
706	2007. Wu, Z.Y./Raven, P.H./Hong, D.Y. (eds.). <i>Flora of China</i> . Vol. 12 (Hippocastanaceae through Theaceae).. Science Press Beijing, and Missouri Botanical Garden Press, St. Louis.,	[Propagules bird dispersed? No] "Fruit a capsule, cylindrical to globose, valves 5, dehiscence loculicidal and sometimes partially septicidal or indehiscent (<i>H. vitifolius</i> Linnaeus). Seeds reniform, hairy or glandular verrucose" [Genus description] "Capsule oblong, 2.5–3 cm, densely scabrous hirsute" [Species description. Not fleshy-fruited]
707	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.	[Propagules dispersed by other animals (externally)? Probably not] "Capsules ellipsoid to obovoid, beaked, 2-3.5 cm long, yellow hirsute, the valves eventually separating. Seeds reniform, ca. 4 mm long, bordered with villous hairs." [No means of external attachment, although seeds may stick to mud on feet]
708	2011. WRA Specialist. Personal Communication.	[Propagules survive passage through the gut? Unknown] Seeds unlikely to be consumed
801	2011. WRA Specialist. Personal Communication.	[Prolific seed production (>1000/m ²)? Unknown] No seed density estimates available
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] "Storage Conditions: Some seeds survive after 24 years in herbarium (Dent, 1942)" [Seed bank under field conditions unknown]
803	2011. WRA Specialist. Personal Communication.	[Well controlled by herbicides? Unknown] No information on herbicide efficacy or chemical control of this species
804	2011. WRA Specialist. Personal Communication.	[Tolerates, or benefits from, mutilation, cultivation, or fire? Unknown]
805	2011. WRA Specialist. Personal Communication.	[Effective natural enemies present locally (e.g. introduced biocontrol agents)? Unknown]