

Family: *Apocynaceae*

Taxon: *Allamanda schottii*

Synonym: *Allamanda cathartica* var. *schottii* (Pohl) L. F. **Common Name:** bush allamanda

Questionnaire :	current 20090513	Assessor:	Patti Clifford	Designation:
Status:	Assessor Approved	Data Entry Person:	Patti Clifford	WRA Score 8
101	Is the species highly domesticated?		y=-3, n=0	n
102	Has the species become naturalized where grown?		y=1, n=-1	
103	Does the species have weedy races?		y=1, n=-1	
201	Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"		(0-low; 1-intermediate; 2-high) (See Appendix 2)	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	n
204	Native or naturalized in regions with tropical or subtropical climates		y=1, n=0	y
205	Does the species have a history of repeated introductions outside its natural range?		y=-2, ?=-1, n=0	y
301	Naturalized beyond native range		y = 1*multiplier (see Appendix 2), n= question 205	y
302	Garden/amenity/disturbance weed		n=0, y = 1*multiplier (see Appendix 2)	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	y
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	y
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	
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	

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	n
702	Propagules dispersed intentionally by people	y=1, n=-1	y
703	Propagules likely to disperse as a produce contaminant	y=1, n=-1	n
704	Propagules adapted to wind dispersal	y=1, n=-1	n
705	Propagules water dispersed	y=1, n=-1	
706	Propagules bird dispersed	y=1, n=-1	
707	Propagules dispersed by other animals (externally)	y=1, n=-1	y
708	Propagules survive passage through the gut	y=1, n=-1	
801	Prolific seed production (>1000/m2)	y=1, n=-1	
802	Evidence that a persistent propagule bank is formed (>1 yr)	y=1, n=-1	
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:

WRA Score 8

Supporting Data:

101	2011. WRA Specialist. Personal Communication.	[Is the species highly domesticated? No] No evidence of domestication that reduces invasive characteristics.
102	2011. WRA Specialist. Personal Communication.	[Has the species become naturalized where grown?] NA
103	2011. WRA Specialist. Personal Communication.	[Does the species have weedy races?] NA
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 region: French Guiana; Brazil - Bahia, Rio de Janeiro.
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 region: French Guiana; Brazil - Bahia, Rio de Janeiro.
203	2011. Dave's Garden. PlantFiles: bush allamanda - Allamanda schottii. Dave's Garden, http://davesgarden.com/guides/pf/go/55239/	[Broad climate suitability (environmental versatility)? No] Hardiness: USDA Zone 10b: to 1.7 °C (35 °F) USDA Zone 11: above 4.5 °C (40 °F)
203	2011. Kemper Center for Home Gardening. Allamanda schottii. Missouri Botanical Gardens, http://www.mobot.org/gardeninghelp/plantfinder/Plant.asp?code=A481	[Broad climate suitability (environmental versatility)? No] USDA hardiness zones: 10-11.
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 region: French Guiana; Brazil - Bahia, Rio de Janeiro.
205	2000. Whistler, W.A.. Tropical Ornaments: A Guide. Timber Press, Portland, OR	[Does the species have a history of repeated introductions outside its natural range? Yes] Widely cultivated for its large yellow flowers.
205	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Does the species have a history of repeated introductions outside its natural range? Yes] This native of Brazil has been introduced to other tropical areas and is frequently cultivated in Africa, Asia, and Hawaii."
301	1988. Smith, A. C.. Flora Vitiensis nova: a new flora of Fiji. Volume 4. National Tropical Botanical Garden, Lawai, Kauai, Hawaii	[Naturalized beyond native range? Yes] In Fiji, "cultivated near sea level and sometimes naturalized"
302	2007. Randall, R.. Global compendium of weeds - Allamanda schottii. Global Compendium of Weeds, http://www.hear.org/gcw/species/allamanda_schottii/	[Garden/amenity/disturbance weed? No] No evidence.
303	2007. Randall, R.. Global compendium of weeds - Allamanda schottii. Global Compendium of Weeds, http://www.hear.org/gcw/species/allamanda_schottii/	[Agricultural/forestry/horticultural weed? No] No evidence.
304	2007. Randall, R.. Global compendium of weeds - Allamanda schottii. Global Compendium of Weeds, http://www.hear.org/gcw/species/allamanda_schottii/	[Environmental weed? No] No evidence.
305	2001. Werren, G.. Environmental Weeds of the Wet Tropics Bioregion: Risk Assessment & Priority Ranking. Rainforest CRC, Cairns, Australia http://www.wettropics.gov.au/res/downloads/Weeds.pdf	[Congeneric weed? Yes] "Scramblers and climbers that have spread widely and, to some extent, have become integrated into the natural communities – the foremost of these being Chromolaena odorata, Mikania micrantha, Turbina corymbosa, Thunbergia spp., Sphagneticola trilobata and Solanum seaforthianum that have insidious effects, while others such as exotic Passiflora spp., Mimosa diplotricha, Momordica charantia and Allamanda cathartica exert at least intermittent competition and can form dense mats to adversely affect the growth of a range of native species."

401	2011. Kemper Center for Home Gardening. Allamanda schottii. Missouri Botanical Gardens, http://www.mobot.org/gardeninghelp/plantfinder/Plant.asp?code=A481	[Produces spines, thorns or burrs? Yes] Prickly burr-like fruits.
402	2011. WRA Specialist. Personal Communication.	[Allelopathic?] Unknown.
403	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Parasitic? No] Apocynaceae.
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 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 evidence of toxicity.
406	2011. Kemper Center for Home Gardening. Allamanda schottii. Missouri Botanical Gardens, http://www.mobot.org/gardeninghelp/plantfinder/Plant.asp?code=A481	[Host for recognized pests and pathogens?] Scale, mealy bugs and leaf spot are pests of this species.
406	2011. WRA Specialist. Personal Communication.	[Host for recognized pests and pathogens?] Unknown.
407	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Causes allergies or is otherwise toxic to humans? Yes] The sap is poisonous.
407	2011. Dave's Garden. PlantFiles: bush allamanda - Allamanda schottii. Dave's Garden, http://davesgarden.com/guides/pf/go/55239/	[Causes allergies or is otherwise toxic to humans? Yes] Handling plant may cause skin irritation or allergic reaction.
407	2011. Kemper Center for Home Gardening. Allamanda schottii. Missouri Botanical Gardens, http://www.mobot.org/gardeninghelp/plantfinder/Plant.asp?code=A481	[Causes allergies or is otherwise toxic to humans? Yes] As with most dogbane family members, the stems exude a toxic milky sap.
408	2011. WRA Specialist. Personal Communication.	[Creates a fire hazard in natural ecosystems?] Unknown.
409	2003. Llamas, K.A.. Tropical Flowering Plants. Timber Press, Portland, OR	[Is a shade tolerant plant at some stage of its life cycle?] Full sun.
409	2011. Dave's Garden. PlantFiles: bush allamanda - Allamanda schottii. Dave's Garden, http://davesgarden.com/guides/pf/go/55239/	[Is a shade tolerant plant at some stage of its life cycle?] Full sun, sun to partial shade.
409	2011. Horticopia Inc.. Allamanda schottii - bush allamanda. Horticopia, http://www.horticopia.com/hortpix/html/alanea000.htm	[Is a shade tolerant plant at some stage of its life cycle?] Partial shade or partial sun to full sun.
409	2011. Kemper Center for Home Gardening. Allamanda schottii. Missouri Botanical Gardens, http://www.mobot.org/gardeninghelp/plantfinder/Plant.asp?code=A481	[Is a shade tolerant plant at some stage of its life cycle?] Full sun.
410	2011. Horticopia Inc.. Allamanda schottii - bush allamanda. Horticopia, http://www.horticopia.com/hortpix/html/alanea000.htm	[Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)? Yes] Soil pH: Acidic, neutral, alkaline, slightly alkaline. Soil type: sandy, clay loam
410	2011. Kemper Center for Home Gardening. Allamanda schottii. Missouri Botanical Gardens, http://www.mobot.org/gardeninghelp/plantfinder/Plant.asp?code=A481	[Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)?] Grow in organically rich, medium moisture, well-drained soils.

410	2011. University of North Florida. Plants of the UNF campus - Allamanda schottii - bush allamanda. University of North Florida, http://www.unf.edu/anf/physicalfacilities/landscape/plants/Allamanda_schottii_-_Bush_allamanda.aspx	[Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)? Yes] Adaptable to soil types.
411	1995. Courtright, G.. Tropicals. Timber Press, http://books.google.com/books?id=cBfKhbj5xXIC&pg=PA114&dq=allamanda+neriifolia&hl=en&ei=8IUOTpLSJL0swPKkNWaDg&sa=X&oi=book_result&ct=result&resnum=4&sqi=2&ved=0CD8Q6AEwAw#v=onepage&q=allamanda%20neriifolia&	[Climbing or smothering growth habit?] A vine often grown as a shrub.
411	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Climbing or smothering growth habit?] Viney shrub.
411	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Climbing or smothering growth habit?] A shrub.
412	2011. WRA Specialist. Personal Communication.	[Forms dense thickets?] Unknown.
501	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Aquatic? No] Terrestrial.
502	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Grass? No] Apocynaceae.
503	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Nitrogen fixing woody plant? No] Apocynaceae.
504	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers) No] Shrub.
601	2011. WRA Specialist. Personal Communication.	[Evidence of substantial reproductive failure in native habitat? No] No evidence.
602	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Produces viable seed? Yes] Propagate by cuttings or seed.
602	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Produces viable seed? Yes] Propagate by seed or woody cuttings.
603	2011. WRA Specialist. Personal Communication.	[Hybridizes naturally?] Unknown.
604	2011. WRA Specialist. Personal Communication.	[Self-compatible or apomictic?] Unknown.
605	2000. Roulston, T.H./Cane, J.H./Buchman, S.L.. What governs protein content of pollen: pollinator preferences, pollen-pistil interactions, or phylogeny. Ecological Monographs. 70: 617-643. http://ddr.nal.usda.gov/bitstream/10113/30628/1/IND22081130.pdf	[Requires specialist pollinators? No] Bee pollinated.
606	2011. WRA Specialist. Personal Communication.	[Reproduction by vegetative fragmentation?] Unknown.
607	2011. Hortocopia Inc.. Allamanda schottii - bush allamanda. Horitocopia, http://www.hortocopia.com/hortpix/html/alanea000.htm	[Minimum generative time (years)?] Average growth rate.
607	2011. WRA Specialist. Personal Communication.	[Minimum generative time (years)?] Unknown.

701	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)?] Fruit a spiny globose capsule to 7 cm (3 in.) in diameter
701	2011. WRA Specialist. Personal Communication.	[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)?] Unknown.
702	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Propagules dispersed intentionally by people? Yes] Widely cultivated.
702	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Propagules dispersed intentionally by people? Yes] "This native of Brazil has been introduced to other tropical areas and is frequently cultivated in Africa, Asia, and Hawaii."
703	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Propagules likely to disperse as a produce contaminant ? No] Fruit a spiny globose capsule to 7 cm (3 in.) in diameter
703	2011. WRA Specialist. Personal Communication.	[Propagules likely to disperse as a produce contaminant ? No] No evidence of produce contamination.
704	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Propagules adapted to wind dispersal? No] Fruit a spiny globose capsule to 7 cm (3 in.) in diameter. [no adaptation for wind dispersal]
705	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Propagules water dispersed?] Fruit a spiny globose capsule to 7 cm (3 in.) in diameter
706	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Propagules bird dispersed?] Fruit a spiny globose capsule to 7 cm (3 in.) in diameter
706	2011. WRA Specialist. Personal Communication.	[Propagules bird dispersed?] Unknown.
707	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Propagules dispersed by other animals (externally)? Yes] Fruit a spiny globose capsule to 7 cm (3 in.) in diameter. [burr adaptation - likely temporary attachment to animal fur]
708	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Propagules survive passage through the gut?] Fruit a spiny globose capsule to 7 cm (3 in.) in diameter
708	2011. WRA Specialist. Personal Communication.	[Propagules survive passage through the gut?] Unknown.
801	2011. WRA Specialist. Personal Communication.	Prolific seed production (>1000/m2)?] Unknown.
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	2003. Llamas, K.A.. Tropical Flowering Plants. Timber Press, Portland, OR	[Tolerates, or benefits from, mutilation, cultivation, or fire?] Shrubby, spreading allamanda; prune lightly after bloom.
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.