

Taxon: <i>Barleria repens</i> Nees	Family: Acanthaceae
Common Name(s): coral creeper red barleria small bush violet	Synonym(s): <i>Barleria querimbensis</i> Klotzsch <i>Barleria swynnertonii</i> S.Moore

Assessor: Chuck Chimera	Status: Assessor Approved	End Date: 1 Mar 2021
WRA Score: 18.0	Designation: H(HPWRA)	Rating: High Risk

Keywords: Naturalized, Weedy Herb, Ornamental, Dehiscent Capsules, Spreads Vegetatively

Qsn #	Question	Answer Option	Answer
101	Is the species highly domesticated?	y=-3, n=0	n
102	Has the species become naturalized where grown?		
103	Does the species have weedy races?		
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)	y
303	Agricultural/forestry/horticultural weed	n=0, y = 2*multiplier (see Appendix 2)	n
304	Environmental weed	n=0, y = 2*multiplier (see Appendix 2)	y
305	Congeneric weed	n=0, y = 1*multiplier (see Appendix 2)	y
401	Produces spines, thorns or burrs	y=1, n=0	n
402	Allelopathic		
403	Parasitic	y=1, n=0	n
404	Unpalatable to grazing animals		
405	Toxic to animals	y=1, n=0	n
406	Host for recognized pests and pathogens		
407	Causes allergies or is otherwise toxic to humans	y=1, n=0	n
408	Creates a fire hazard in natural ecosystems		
409	Is a shade tolerant plant at some stage of its life cycle	y=1, n=0	y

Qsn #	Question	Answer Option	Answer
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	y
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, 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		
604	Self-compatible or apomictic		
605	Requires specialist pollinators		
606	Reproduction by vegetative fragmentation	y=1, n=-1	y
607	Minimum generative time (years)		
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	y=1, n=-1	y
702	Propagules dispersed intentionally by people	y=1, n=-1	y
703	Propagules likely to disperse as a produce contaminant		
704	Propagules adapted to wind dispersal	y=1, n=-1	n
705	Propagules water dispersed	y=1, n=-1	y
706	Propagules bird dispersed	y=1, n=-1	n
707	Propagules dispersed by other animals (externally)		
708	Propagules survive passage through the gut	y=1, n=-1	n
801	Prolific seed production (>1000/m ²)		
802	Evidence that a persistent propagule bank is formed (>1 yr)		
803	Well controlled by herbicides		
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)		

Supporting Data:

Qsn #	Question	Answer
101	Is the species highly domesticated?	n
	Source(s)	Notes
	Staples,G.W., Imada, C.T., & Herbst, D.R. 2002. New Hawaiian plant records for 2000. Bishop Museum Occasional Papers 68: 3-18	[No evidence] "A relatively recent introduction to Hawai'i as an ornamental plant groundcover, this species was noted to spread out of planted areas and to have the potential to become invasive when it was first correctly identified (Staples & Herbst, 1994). Now there is evidence that <i>B. repens</i> has begun to move out of gardens and to appear in settings where it is clearly not cultivated. Collectors on all islands should monitor its distribution and abundance in the event that control measures become necessary. This South American herb is typically less than 12" tall, has opposite, elliptic-ovate leaves 1–2" long, and axillary salmon-pink flowers about 1.75" long with a 5-lobed limb 1–1.5" across. The base of the flower is enclosed in 2 large papery bracts that persist in fruit, turning semi-transparent with darker veins. The slender capsule splits open forcibly and flings out the 4 flat, plate-shaped, 0.25" diameter seeds. Material examined. O'AHU: Kuli'ou'ou Ridge trail, mixed alien mesic forest of <i>Acacia confusa</i> , <i>Psidium</i> , <i>Lantana</i> , 8 Sep 2000, F. Kraus s.n. (BISH 665308)."

102	Has the species become naturalized where grown?	
	Source(s)	Notes
	WRA Specialist. (2021). Personal Communication	NA

103	Does the species have weedy races?	
	Source(s)	Notes
	WRA Specialist. (2021). Personal Communication	NA

201	Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"	High
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2021). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 1 Mar 2021]	"Native Africa SOUTHERN AFRICA: South Africa [KwaZulu-Natal]"
	Joffe, P. (2003). PlantzAfrica.com - <i>Barleria repens</i> . SANBI. http://www.plantzafrika.com/plantab/barlerrepens.htm . [Accessed 1 Mar 2021]	"Natural distribution Woodland and forest, from KwaZulu-Natal northwards to tropical Africa."

202	Quality of climate match data	High
	Source(s)	Notes

Qsn #	Question	Answer
	USDA, Agricultural Research Service, National Plant Germplasm System. (2021). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 1 Mar 2021]	

203	Broad climate suitability (environmental versatility)	n
	Source(s)	Notes
	Plant This. (2021). <i>Barleria repens</i> . http://www.plantthis.com . [Accessed 1 Mar 2021]	"Hardiness zones: 10-13"
	Dave's Garden. (2021). Coral Creeper, Red <i>Barleria</i> - <i>Barleria repens</i> . https://davesgarden.com/guides/pf/go/57323/ . [Accessed 1 Mar 2021]	"Hardiness: 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	Native or naturalized in regions with tropical or subtropical climates	y
	Source(s)	Notes
	Oppenheimer, H. & Bustamante, K.M. (2014). New Hawaiian plant records for 2013. Bishop Museum Occasional Papers 115: 19–22	"Commonly cultivated as a ground cover or bedding plant, this species easily escapes and has been documented as a naturalized species on O'ahu (staples et al. 2002: 3), Lāna'i, and East and West Maui (Oppenheimer 2003: 3). it was recently collected on Kaua'i, where it is naturalized in disturbed lowland areas."

205	Does the species have a history of repeated introductions outside its natural range?	y
	Source(s)	Notes
	Acevedo-Rodríguez, P. & Strong, M.T. (2012). Catalogue of Seed Plants of the West Indies. Smithsonian Contributions to Botany 98. Smithsonian Institution Scholarly Press, Washington, D.C.	" <i>Barleria repens</i> Nees in A.L.P.P. de Candolle, Prodr. 11: 230. 1847. Distribution: Exotic in Puerto Rico and Virgin Islands (St. Thomas); native to Old World."
	Oppenheimer, H. & Bustamante, K.M. (2014). New Hawaiian plant records for 2013. Bishop Museum Occasional Papers 115: 19–22	"Commonly cultivated as a ground cover or bedding plant, this species easily escapes and has been documented as a naturalized species on O'ahu (staples et al. 2002: 3), Lāna'i, and East and West Maui (Oppenheimer 2003: 3). it was recently collected on Kaua'i, where it is naturalized in disturbed lowland areas."

301	Naturalized beyond native range	y
	Source(s)	Notes
	Meyer, J. Y., & Laverne, C. 2004. Beautés fatales: Acanthaceae species as invasive alien plants on tropical Indo-Pacific Islands. Diversity and Distributions, 10(5-6): 333-347	"... <i>Barleria repens</i> , a creeping herb up with salmon flowers. The last mentioned species is spreading quickly in people's yards on the island of Maui (Hawaii), but has not been seen in natural areas yet (F. & K. Starr, pers. comm. 2002). It was recently collected in mixed alien mesic forest on the island of O'ahu (F. Kraus, pers. comm. to F. & K. Starr)."

Qsn #	Question	Answer
	Staples, G.W., Imada, C.T., & Herbst, D.R. 2002. New Hawaiian plant records for 2000. Bishop Museum Occasional Papers 68: 3-18	"A relatively recent introduction to Hawai'i as an ornamental plant groundcover, this species was noted to spread out of planted areas and to have the potential to become invasive when it was first correctly identified (Staples & Herbst, 1994). Now there is evidence that <i>B. repens</i> has begun to move out of gardens and to appear in settings where it is clearly not cultivated. Collectors on all islands should monitor its distribution and abundance in the event that control measures become necessary."
	Oppenheimer, H. & Bustamante, K.M. (2014). New Hawaiian plant records for 2013. Bishop Museum Occasional Papers 115: 19-22	"Commonly cultivated as a ground cover or bedding plant, this species easily escapes and has been documented as a naturalized species on O'ahu (Staples et al. 2002: 3), Lāna'i, and East and West Maui (Oppenheimer 2003: 3). It was recently collected on Kaua'i, where it is naturalized in disturbed lowland areas. Material examined. KAUA'I: Koloa Distr., Mahā'ulepū, 24 m, 3 May 2013, Oppenheimer, M. Sporck, & J.Q.C. Lau H51302."
	Oppenheimer, H. L. (2003). New plant records from Maui and Hawai'i Counties. Bishop Museum Occasional Papers. 73: 3-30	"Recently reported as escaping cultivation and becoming naturalized on O'ahu (Staples et al., 2002: 3), this species has also started to spread on 2 other islands. It differs from <i>B. cristata</i> , the other species of <i>Barleria</i> naturalized in Hawai'i, by its prostrate or sometimes climbing habit, salmon colored corolla, and bracts lacking spines on the margins."

302	Garden/amenity/disturbance weed	y
	Source(s)	Notes
	Technigro. (2010). The Vegetation Manager - March. www.technigro.com.au/documents/MarchTVM.pdf	"Coral creeper (<i>Barleria repens</i>) is a creeping or scrambling shrubby plant that is an emerging weed of urban bushland, riparian vegetation, coastal sand dunes, waste areas and disturbed sites. The plant has recently been reported in major urban centres in the coastal parts of eastern QLD, with three larger infestations recently being reported in Brisbane."
	Brisbane City Council. 2013. Brisbane Invasive Species Management Plan 2013-17. Brisbane City Council, Brisbane	"Council declared Class C pest plants" ... " <i>Barleria repens</i> - Current distribution - Scattered but widespread" [Class C = Contain]
	Kinsey, T.B. (2021). Hawaiian Plants and Tropical Flowers - A Guide to the Flowers and Plants of Hawaii - <i>Barleria repens</i> - Coral Creeper. https://wildlifeofhawaii.com/flowers . [Accessed 1 Mar 2021]	"These attractive, but weedy plants are fast-growing and can spread quickly by seed or rooting stems."
	Dave's Garden. (2021). Coral Creeper, Red <i>Barleria</i> - <i>Barleria repens</i> . https://davesgarden.com/guides/pf/go/57323/ . [Accessed 1 Mar 2021]	[Negative review from grower in Florida] "On Jun 14, 2010, Kalpavriksha from Sarasota, FL wrote: Once you have this, you'll almost never get rid of it. The seeds shoot a distance and the smallest piece left in the ground will resprout. It will invade hedges, pots, even the driest and most sandy soil. Looks like I'll be pulling it out for years."

Qsn #	Question	Answer
303	Agricultural/forestry/horticultural weed	n
	Source(s)	Notes
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence

304	Environmental weed	y
	Source(s)	Notes
	Brisbane City Council. (2021). Weed identification Tool - Coral Creeper - <i>Barleria repens</i> . http://weeds.brisbane.qld.gov.au . [Accessed 1 Mar 2021]	" <i>Barleria repens</i> (Coral Creeper) has the potential to cause environmental damage by colonising riparian zones and forming dense thickets that displace native vegetation and prevent movement of animals."
	NSW WeedWise. (2021). Coral creeper (<i>Barleria repens</i>). https://weeds.dpi.nsw.gov.au/Weeds/coralcreeper . [Accessed 1 Mar 2021]	"Coral creeper is an environmental weed that can: form very dense ground cover smother other plants outcompete native plants especially in the understorey of bushland."
	Technigro. (2010). The Vegetation Manager - March. www.technigro.com.au/documents/MarchTVM.pdf	"This plant has been recorded in the understorey of urban bushland and disturbed forests, but it is also a potential weed of riparian vegetation, roadsides, disturbed sites and waste areas."

305	Congeneric weed	y
	Source(s)	Notes
	Csurhes, S. & Edwards, R. 1998. Potential environmental weeds in Australia: Candidate species for preventative control. Biodiversity Group, Environment Australia, Canberra, Australia	" <i>B. prionitis</i> is a thorny shrub which has naturalised at several locations in the Northern Territory and Queensland. It has a history as a weed in Mauritius and could invade native vegetation throughout tropical and sub-tropical, coastal areas of Australia. Although the plant is a popular garden ornamental, there appears to be an opportunity to eradicate naturalised specimens and prevent further sale by the nursery trade."
	Meyer, J. Y., & Lavergne, C. 2004. Beautés fatales: Acanthaceae species as invasive alien plants on tropical Indo-Pacific Islands. <i>Diversity and Distributions</i> , 10(5-6): 333-347	[Possibly] "Most, if not all Acanthaceae species were intentionally introduced to tropical islands as ornamentals. Many of them which have escaped gardens (e.g. <i>Asystasia gangetica</i> , <i>Barleria cristata</i> , <i>Blechnum pyramidatum</i> , <i>Justicia betonica</i> , <i>Thunbergia alata</i> among the most common tropical species, Whistler, 1994; Swarbrick, 1997), well known as 'agricultural weeds' (i.e. unwanted plant species in agroecosystems), 'ruderals' (i.e. growing under disturbed conditions) or 'adventives' (i.e. growing in a place for a while only, that can be called transient, casual, or occasional escapes). They are naturalized in human-disturbed areas such as urban areas, waysides (along trails and roads), wastelands, old garden sites, fallow or abandoned fields, pastures, forestry plantations, croplands and other cultivated areas (taro marshes, banana plantations, etc.). They are usually restricted to open habitats, sometimes found in riverbanks and forest margins and clearings, and rarely found in the understorey of closed canopy forests." ... "The garden ornamental <i>Barleria lupulina</i> was found as a ruderal in dry zones of La Réunion (Lavergne, 1982)."

Qsn #	Question	Answer
	Glanzrig, A., McLachlan, K, and Kessal, O. 2004. Garden Plants that are Invasive Plants of National Importance: an overview of their legal status and commercial availability. WWF Australia, Sydney	[Prohibited from trade, import & targeted for eradication] "Table 5: Naturalised Garden Plants on the Alert List of Environmental Weeds" [<i>Barleria prionitis</i> - State/Terr. Control Status = WA-II NT-I, II, III ... I. Prohibited for Sale and/or trade by State / Territory II. Prohibited Import by State / Territory III. Eradication required by State / Territory]

401	Produces spines, thorns or burrs	n
	Source(s)	Notes
	Staples, G.W. & Herbst, D.R. (2005). A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[No evidence] "This herbaceous plant usually remains less than 1 foot tall and has elliptic-ovate leaf blades 1-2 inches long that taper gradually into the petiole. The flowers are 1.75 inches long, with a deeply 5-lobed limb 1-1.5 inches in diameter; the 2 ovate bracts below the flower persist and enclose the capsule, turning semi-transparent and papery with dark, prominent veins. The capsule is slenderly oblong, about 0.75 inches long, and splits open to release 4 flattened, disc shaped seeds about 0.25 inches in diameter"

402	Allelopathic	n
	Source(s)	Notes
	WRA Specialist. (2021). Personal Communication	Unknown. No evidence found

403	Parasitic	n
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2021). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 1 Mar 2021]	[No evidence] Family: Acanthaceae Subfamily: Acanthoideae Tribe: Barlerieae

404	Unpalatable to grazing animals	n
	Source(s)	Notes
	Shaheen, H., Qureshi, R., Iqbal, S., & Qasem, M. F. 2014. Seasonal availability and palatability of native flora of Santh Saroola Kotli Sattian, Rawalpindi, Pakistan. African Journal of Plant Science, 8(2): 92-102	[Unknown for <i>Barleria repens</i> . Other <i>Barleria</i> species, including <i>Barleria acanthoides</i> and <i>Barleria cristata</i> , are labeled MP - Moderately palatable] "Table 1. Inventory of native flora along with local names, family, part used, palatability, availability and animal preference."

405	Toxic to animals	n
	Source(s)	Notes
	Plant This. (2021). <i>Barleria repens</i> . http://www.plantthis.com . [Accessed 1 Mar 2021]	"No hazards currently listed."

Qsn #	Question	Answer
	Quattrocchi, U. (2012). CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	No evidence
	Wagstaff, D.J. (2008). International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL	No evidence

406	Host for recognized pests and pathogens	
	Source(s)	Notes
	Joffe, P. (2003). PlantzAfrica.com - <i>Barleria repens</i> . SANBI. http://www.plantzafrika.com/plantab/barlerrepens.htm . [Accessed 1 Mar 2021]	"Pest-free and fairly frost-tolerant, it can take sun or light shade, and can handle temperatures ranging from about -2°C to 36°C."
	Nichols, G. (2005). Growing rare plants: a practical handbook on propagating the threatened plants of southern Africa. Southern African Botanical Diversity Network Report No. 36. SABONET, Pretoria	"This family is prone to Australian and Mealy Bug. I find that if the plants are in good condition and not stressed, the insects don't cause too much trouble. Should it be necessary to use insecticides, use only the chemicals registered for these pests."

407	Causes allergies or is otherwise toxic to humans	n
	Source(s)	Notes
	Plant This. (2021). <i>Barleria repens</i> . http://www.plantthis.com . [Accessed 1 Mar 2021]	"No hazards currently listed."
	Quattrocchi, U. (2012). CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL	No evidence
	Wagstaff, D.J. (2008). International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL	No evidence

408	Creates a fire hazard in natural ecosystems	
	Source(s)	Notes
	Joffe, P. (2003). PlantzAfrica.com - <i>Barleria repens</i> . SANBI. http://www.plantzafrika.com/plantab/barlerrepens.htm . [Accessed 1 Mar 2021]	[Unknown. Could potentially act as a fuel ladder by climbing into other vegetation] "It usually forms a rounded to spreading bushy shrub, 0.7 m high by 1 m wide, but sometimes also climbs/leans into nearby trees and shrubs (up to 2 m!)."

409	Is a shade tolerant plant at some stage of its life cycle	y
	Source(s)	Notes
	NSW WeedWise. (2021). Coral creeper (<i>Barleria repens</i>). https://weeds.dpi.nsw.gov.au/Weeds/coralcreeper . [Accessed 1 Mar 2021]	"Coral creeper grows in tropical, subtropical and temperate areas. It can tolerate shade and can grow in the understory of forests. Most infestations in NSW have been on sandy soils."
	Dave's Garden. (2021). Coral Creeper, Red <i>Barleria</i> - <i>Barleria repens</i> . https://davesgarden.com/guides/pf/go/57323/ . [Accessed 1 Mar 2021]	"Sun Exposure: Full Sun Sun to Partial Shade"

Qsn #	Question	Answer
	Joffe, P. (2003). PlantzAfrica.com - <i>Barleria repens</i> . SANBI. http://www.plantzafrika.com/plantab/barlerrepens.htm . [Accessed 1 Mar 2021]	[Tolerates, but does not prefer, shade] "When planted in very deep shade it tends to become lanky and untidy and does not produce as many flowers." ... "Pest-free and fairly frost-tolerant, it can take sun or light shade, and can handle temperatures ranging from about -2°C to 36°C."
410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	y
	Source(s)	Notes
	Nichols, G. (2005). Growing rare plants: a practical handbook on propagating the threatened plants of southern Africa. Southern African Botanical Diversity Network Report No. 36. SABONET, Pretoria	" <i>Barleria repens</i> , <i>B. obtusa</i> , <i>B. obtusa</i> x <i>repens</i> , <i>Dicliptera heterostegia</i> , <i>Dyschoriste rogersii</i> , <i>D. depressa</i> , <i>Isoglossa woodii</i> , <i>Justicia betonica</i> , <i>J. protracta</i> , <i>Phaulopsis imbricata</i> , and <i>Asystasia gangetica</i> root readily and grow in virtually any soil, and under any conditions regarding moisture or water content."
411	Climbing or smothering growth habit	y
	Source(s)	Notes
	Joffe, P. (2003). PlantzAfrica.com - <i>Barleria repens</i> . SANBI. http://www.plantzafrika.com/plantab/barlerrepens.htm . [Accessed 1 Mar 2021]	"It usually forms a rounded to spreading bushy shrub, 0.7 m high by 1 m wide, but sometimes also climbs/leans into nearby trees and shrubs (up to 2 m!)."
	Kinsey, T.B. (2021). Hawaiian Plants and Tropical Flowers - A Guide to the Flowers and Plants of Hawaii - <i>Barleria repens</i> – Coral Creeper. https://wildlifeofhawaii.com/flowers . [Accessed 1 Mar 2021]	"This variable and adaptable plant can grow as low, rounded plants when young, as a spreading groundcover in open, sunny locations, as a tall, rambling vine amongst other plants, or even as an epiphyte on other plants like palm trees."
412	Forms dense thickets	y
	Source(s)	Notes
	Technigro. (2010). The Vegetation Manager - March. www.technigro.com.au/documents/MarchTVM.pdf	"Capable of forming a dense groundcover in forest understoreys"
501	Aquatic	n
	Source(s)	Notes
	Technigro. (2010). The Vegetation Manager - March. www.technigro.com.au/documents/MarchTVM.pdf	[Terrestrial] "This plant has been recorded in the understorey of urban bushland and disturbed forests, but it is also a potential weed of riparian vegetation, roadsides, disturbed sites and waste areas."
502	Grass	n
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2021). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 1 Mar 2021]	Family: Acanthaceae Subfamily: Acanthoideae Tribe: Barlerieae

Qsn #	Question	Answer
503	Nitrogen fixing woody plant	n
	Source(s)	Notes
	USDA, Agricultural Research Service, National Plant Germplasm System. (2021). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 1 Mar 2021]	Family: Acanthaceae Subfamily: Acanthoideae Tribe: Barlerieae

504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	Notes
	Staples, G.W. & Herbst, D.R. (2005). A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	"This herbaceous plant usually remains less than 1 foot tall and has elliptic-ovate leaf blades 1-2 inches long that taper gradually into the petiole."

601	Evidence of substantial reproductive failure in native habitat	n
	Source(s)	Notes
	Joffe, P. (2003). PlantzAfrica.com - <i>Barleria repens</i> . SANBI. http://www.plantzafrika.com/plantab/barlerrepens.htm . [Accessed 1 Mar 2021]	No evidence

602	Produces viable seed	y
	Source(s)	Notes
	Technigro. (2010). The Vegetation Manager - March. www.technigro.com.au/documents/MarchTVM.pdf	"Coral creeper reproduces by seed and vegetatively via its rooting stems."
	Staples, G.W., Imada, C.T., & Herbst, D.R. 2002. New Hawaiian plant records for 2000. Bishop Museum Occasional Papers 68: 3-18	"The slender capsule splits open forcibly and flings out the 4 flat, plate-shaped, 0.25" diameter seeds."

603	Hybridizes naturally	
	Source(s)	Notes
	Nichols, G. (2005). Growing rare plants: a practical handbook on propagating the threatened plants of southern Africa. Southern African Botanical Diversity Network Report No. 36. SABONET, Pretoria	[Hybrid reported. Unknown if naturally occurring] " <i>Barleria repens</i> , <i>B. obtusa</i> , <i>B. obtusa</i> x <i>repens</i> , <i>Dicliptera heterostegia</i> , <i>Dyschoriste rogersii</i> , <i>D. depressa</i> , <i>Isoglossa woodii</i> , <i>Justicia betonica</i> , <i>J. protracta</i> , <i>Phaulopsis imbricata</i> , and <i>Asystasia gangetica</i> root readily and grow in virtually any soil..."

604	Self-compatible or apomictic	
	Source(s)	Notes

Qsn #	Question	Answer
	Makholela, T. M., Van der Bank, F. H., & Balkwill, K. 2004. Allozyme variation in <i>Barleria saxatilis</i> (Acanthaceae) is lower than in two congeneric endemics. <i>South African Journal of Botany</i> , 7 (4): 515-520	[Unknown. Self-compatibility documented in other <i>Barleria</i> species] "The type of breeding system obtained from P:O was facultative autogamy in all the three <i>Barleria</i> species. Cruden's (1977) outcrossing index indicated <i>B. greenii</i> to be partially self-compatible, outcrossing and with a demand for pollinators. The same was also observed in <i>B. argillicola</i> and <i>B. saxatilis</i> , but it was also observed that <i>B. argillicola</i> can be self-compatible with some demand for pollinators whereas <i>B. saxatilis</i> can also be cleistogamous."

605	Requires specialist pollinators	
	Source(s)	Notes
	Russell, G. (2003). African Hawk moths & African orchids. <i>Orchids South Africa</i> : 59 - 65	"Whether small day-flying hawk moths like the clear-winged Bee Hawk Moth <i>Cephanodes hylas</i> and the African Humming Bird Hawk Moth <i>Macroglossum trochilus</i> are involved in the pollination of orchids is unknown. The former is often seen on an autumn afternoon here in my garden visiting mauve and purple flowers like <i>Barleria repens</i> (Acanthaceae)."
	Steenftoft, M. (1988). <i>Flowering Plants in West Africa</i> . Cambridge University Press, Cambridge, UK	[Family Description] "Pollination is by long-tongued insects, whether the corolla is gullet-shaped or tubular."

606	Reproduction by vegetative fragmentation	y
	Source(s)	Notes
	Joffe, P. (2003). <i>PlantzAfrica.com - Barleria repens</i> . SANBI. http://www.plantzafrika.com/plantab/barlerrepens.htm . [Accessed 1 Mar 2021]	"New branches tend to root as they touch ground, so this plant can quickly increase its territory if not kept under surveillance!"
	Oppenheimer, H. L. (2003). New plant records from Maui and Hawai'i Counties. <i>Bishop Museum Occasional Papers</i> . 73: 3-30	"Staples et al. (2000: 15) listed <i>B. repens</i> as potentially invasive, dispersing mechanically and vegetatively." ... "It frequently volunteers in gardens and waste areas, roots from discarded clippings, and is suspected of being moved as a contaminant of nursery stock."
	Technigro. (2010). <i>The Vegetation Manager - March</i> . www.technigro.com.au/documents/MarchTVM.pdf	"The younger stems are green and sparsely hairy, while older stems may become somewhat woody in nature. These stems tend to produce roots where they touch the ground, enabling this plant to spread quite quickly."

607	Minimum generative time (years)	
	Source(s)	Notes
	Plant This. (2021). <i>Barleria repens</i> . http://www.plantthis.com . [Accessed 1 Mar 2021]	"Growth rate: average"

701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	y
	Source(s)	Notes
	Technigro. (2010). <i>The Vegetation Manager - March</i> . www.technigro.com.au/documents/MarchTVM.pdf	"Stem segments and seeds are commonly spread from gardens into bushland via dumped garden waste and may also be spread by mowers and slashers."

Qsn #	Question	Answer
	NSW WeedWise. (2021). Coral creeper (<i>Barleria repens</i>). https://weeds.dpi.nsw.gov.au/Weeds/coralcreeper . [Accessed 1 Mar 2021]	"When the seed capsule splits open it ejects four seeds that can land several metres away. Seeds can also be spread by water, animals, mud and by the dumping of garden waste."
	Oppenheimer, H. L. (2003). New plant records from Maui and Hawai'i Counties. Bishop Museum Occasional Papers. 73: 3-30	[Dispersed accidentally] "It frequently volunteers in gardens and waste areas, roots from discarded clippings, and is suspected of being moved as a contaminant of nursery stock."

702	Propagules dispersed intentionally by people	y
	Source(s)	Notes
	Oppenheimer, H. & Bustamante, K.M. (2014). New Hawaiian plant records for 2013. Bishop Museum Occasional Papers 115: 19–22	"Commonly cultivated as a ground cover or bedding plant, this species easily escapes and has been documented as a naturalized species on O'ahu (staples et al. 2002: 3), Lāna'i , and East and West Maui (Oppenheimer 2003: 3)."

703	Propagules likely to disperse as a produce contaminant	
	Source(s)	Notes
	Oppenheimer, H. L. (2003). New plant records from Maui and Hawai'i Counties. Bishop Museum Occasional Papers. 73: 3-30	[Possibly] "It frequently volunteers in gardens and waste areas, roots from discarded clippings, and is suspected of being moved as a contaminant of nursery stock."

704	Propagules adapted to wind dispersal	n
	Source(s)	Notes
	NSW WeedWise. (2021). Coral creeper (<i>Barleria repens</i>). https://weeds.dpi.nsw.gov.au/Weeds/coralcreeper . [Accessed 1 Mar 2021]	[Not specifically adapted for wind dispersal, but wind may aid in dispersal of explosively dehiscent seeds] "When the seed capsule splits open it ejects four seeds that can land several metres away. Seeds can also be spread by water, animals, mud and by the dumping of garden waste."

705	Propagules water dispersed	y
	Source(s)	Notes
	Technigro. (2010). The Vegetation Manager - March. www.technigro.com.au/documents/MarchTVM.pdf	"Its seeds may be spread up to a few metres from the parent plant when they are explosively released from their fruit. They may be further dispersed by water, animals and in mud."

706	Propagules bird dispersed	n
	Source(s)	Notes
	Staples, G.W. & Herbst, D.R. (2005). A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Not fleshy-fruited] "The capsule is slenderly oblong, about 0.75 inches long, and splits open to release 4 flattened, disc-shaped seeds about 0.25 inches in diameter"

707	Propagules dispersed by other animals (externally)	
	Source(s)	Notes

Qsn #	Question	Answer
	Technigro. (2010). The Vegetation Manager - March. www.technigro.com.au/documents/MarchTVM.pdf	[Possibly. Small size may aid adherence to fur or feet of animals, or seeds may stick to animals in mud] "Its seeds may be spread up to a few metres from the parent plant when they are explosively released from their fruit. They may be further dispersed by water, animals and in mud."

708	Propagules survive passage through the gut	n
	Source(s)	Notes
	Technigro. (2010). The Vegetation Manager - March. www.technigro.com.au/documents/MarchTVM.pdf	[No evidence of ingestion or internal dispersal] "Its seeds may be spread up to a few metres from the parent plant when they are explosively released from their fruit. They may be further dispersed by water, animals and in mud. Stem segments and seeds are commonly spread from gardens into bushland via dumped garden waste and may also be spread by mowers and slashers."

801	Prolific seed production (>1000/m ²)	n
	Source(s)	Notes
	Technigro. (2010). The Vegetation Manager - March. www.technigro.com.au/documents/MarchTVM.pdf	"The fruit is a small club-shaped capsule that splits open when mature to release four seeds."

802	Evidence that a persistent propagule bank is formed (>1 yr)	n
	Source(s)	Notes
	Royal Botanic Gardens Kew. (2021) Seed Information Database (SID). Version 7.1. http://data.kew.org/sid/ . [Accessed 1 Mar 2021]	Unknown. No storage information for <i>Barleria repens</i> . Other species have orthodox seeds, which may indicate that species in this genera could form persistent soil seed banks.

Qsn #	Question	Answer
803	Well controlled by herbicides	
	Source(s)	Notes
	Technigro. (2010). The Vegetation Manager - March. www.technigro.com.au/documents/MarchTVM.pdf	[Effectiveness unknown] "For this particular species, documentation on the use of herbicides for control has proven difficult to find however treatment using Starane has proven to be successful on the infestation found in Kuraby. There is also information available for similar species belonging to the same genus. Research suggests that control of coral creeper is also likely to be achieved using a range of other herbicides including Glyphosate, 2,4-D or Fluroxypyr. Application methods may include cut & swab, stem scraping and leaf wiping or foliar spray. For the latter, the use of a suitable non-ionic surfactant is recommended due to the glossy nature of the leaves. Within Queensland, the APVMA's Environmental Weeds Permit PER11463 (http://permits.apvma.gov.au/PER11463.PDF) covers the use of these herbicides in an appropriate, non-crop situation. Before applying these methods of control within other state boundaries, it is recommended that you consult any relevant permits and government legislation."
	Brisbane City Council. (2021). Weed identification Tool - Coral Creeper - <i>Barleria repens</i> . http://weeds.brisbane.qld.gov.au . [Accessed 1 Mar 2021]	[Efficacy unknown] "Impact and control methods Cut stump and Foliar spray; Stem scrape"

804	Tolerates, or benefits from, mutilation, cultivation, or fire	Y
	Source(s)	Notes
	NSW WeedWise. (2021). Coral creeper (<i>Barleria repens</i>). https://weeds.dpi.nsw.gov.au/Weeds/coralcreeper . [Accessed 1 Mar 2021]	"Coral creeper stems can root when they touch the ground. Slashing, mowing and dumping of garden waste spreads the stems."
	Joffe, P. (2003). PlantzAfrica.com - <i>Barleria repens</i> . SANBI. http://www.plantzafrika.com/plantab/barlerrepens.htm . [Accessed 1 Mar 2021]	[Tolerates hard pruning] "Prune the plant back hard after flowering (at the end of autumn/winter) to keep it neat. Regard the prunings as free mulch!"

805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	
	Source(s)	Notes
	Oppenheimer, H. & Bustamante, K.M. (2014). New Hawaiian plant records for 2013. Bishop Museum Occasional Papers 115: 19–22	[Unknown, but apparently not limiting ability to spread in Hawaiian Islands] "Commonly cultivated as a ground cover or bedding plant, this species easily escapes and has been documented as a naturalized species on O'ahu (staples et al. 2002: 3), Lāna'i, and East and West Maui (Oppenheimer 2003: 3). It was recently collected on Kaua'i, where it is naturalized in disturbed lowland areas."

Summary of Risk Traits:

High Risk / Undesirable Traits

- Thrives in tropical climates
- Naturalized on Kauai, Oahu, Maui and Lanai
- A disturbance and environmental weed
- Other *Barleria* species have become invasive
- Shade tolerant
- Tolerates many soil types
- Can climb into and possibly smother other vegetation
- Can form dense thickets (Australia)
- Seeds dispersed by explosive dehiscence of capsules, as well as secondarily by water, and possibly by attachment to people, animals or machinery
- Able to spread vegetatively by branches that root when touching the ground
- Can be spread by discarded garden clippings
- Able to resprout after cutting or hard pruning

Low Risk Traits

- Unarmed (no spines, thorns or burrs)
- Non-toxic
- Ornamental