Family: ***Phytolaccaceae***

Taxon: ***Rivina humilis***

Synonym: *Rivina laevis L.*

Common Name: bloodberry
Coral berry
pigeonberry
rougeplant

Questionaire : current 20090513 **Assessor:** Chuck Chimera **Designation:** H(Hawai'i)
Status: Assessor Approved **Data Entry Person:** Chuck Chimera **WRA Score 11**

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)**	
303	**Agricultural/forestry/horticultural weed**	**n=0, y = 2*multiplier (see Appendix 2)**	
304	**Environmental weed**	**n=0, y = 2*multiplier (see Appendix 2)**	**y**
305	**Congeneric weed**	**n=0, y = 1*multiplier (see Appendix 2)**	**n**
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**	**n**
405	**Toxic to animals**	**y=1, n=0**	
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**	**n**
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**	**n**
604	**Self-compatible or apomictic**	**y=1, n=-1**	**y**
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**	**2**
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**	**y**
707	**Propagules dispersed by other animals (externally)**	**y=1, n=-1**	**n**
708	**Propagules survive passage through the gut**	**y=1, n=-1**	**y**
801	**Prolific seed production (>1000/m2)**	**y=1, n=-1**	**y**
802	**Evidence that a persistent propagule bank is formed (>1 yr)**	**y=1, n=-1**	**y**
803	**Well controlled by herbicides**	**y=-1, n=1**	**y**
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: H(Hawai'i) **WRA Score** **11**

Supporting Data:

101	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.	No evidence
102	2011. WRA Specialist. Personal Communication.	NA
103	2011. WRA Specialist. Personal Communication.	NA
201	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.	"A monotypic genus of southwestern United States east to Florida and south to South America, widely naturalized."
202	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.	"A monotypic genus of southwestern United States east to Florida and south to South America…"
203	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.	"Naturalized populations of rouge plant thrive in conditions that range from dry leeward areas under koa haole (Leucaena) scrub to moist forests in windward valleys." [in Hawaii, tolerates range of environmental conditions]
203	2008. Gargiullo, M.B./Magnuson, B.L/Kimball, L.D.. A field guide to plants of Costa Rica. Oxford University Press US, New York, NY	"Habitat: Wet to seasonally dry areas, moist sites in dry, deciduous regions, roadsides, ditches, open sun, part shade. Altitude: Sea level to 1200 m." [broad elevation range in Costa Rica >1000m]
203	2011. Dave's Garden. PlantFiles: Pigeon Berry, Bloodberry, Rouge Plant, Baby Pepper, Coral Berry. http://davesgarden.com/guides/pf/go/58615/	"Hardiness: USDA Zone 7a: to -17.7 °C (0 °F) USDA Zone 7b: to -14.9 °C (5 °F) USDA Zone 8a: to -12.2 °C (10 °F) USDA Zone 8b: to -9.4 °C (15 °F) USDA Zone 9a: to -6.6 °C (20 °F) USDA Zone 9b: to -3.8 °C (25 °F) USDA Zone 10a: to -1.1 °C (30 °F) USDA Zone 10b: to 1.7 °C (35 °F)"
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.	"A monotypic genus of southwestern United States east to Florida and south to South America, widely naturalized."
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.	"…widely naturalized."
301	1981. Smith, A.C.. Flora Vitiensis Nova - A New Flora of Fiji (Spermatophytes Only). Volume 2.. Pacific Tropical Botanical Garden, Lawai, HI	"occurring near sea level along roadsides, in fields, pastures, gardens, etc., sometimes locally frequent in shady places" [Fiji]
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.	"…in Hawaii naturalized in dry to mesic, shade, disturbed areas, 10-130 m, on Kauai, Oahu, and Hawaii. Naturalized prior to 1871 (Hillebrand, 1888)."
301	2003. Oppenheimer, H.L.. New plant records from Maui and Hawai'i Counties. Bishop Museum Occasional Papers. 73: 3-30.	"Coral berry has been documented in Hawai'I from the islands of Kaua'i, O'ahu, Maui, and Hawai'i (Wagner et al., 1990: 1016–1017; Meidell et al., 1997: 17). On Moloka'i, it was observed in 1995 at Ili'ili'opae heiau, but no specimens were collected until recently. Material examined: MOLOKA'I: Mapulehu, 10 m, roadside weed, 18 Nov 2001, Oppenheimer H110135."
301	2007. Oppenheimer, H.L.. New plant records from Moloka'i, Lāna'i, Maui, and Hawai'i for 2006. Bishop Museum Occasional Papers. 96: 17-34.	"Naturalized on Kaua'i, O'ahu, Moloka'i, West Maui, and Hawai'i (Wagner et al. 1999: 1017; Meidell et al. 1997: 17; Oppenheimer 2003: 18), coral berry was recently collected on East Maui. Material examined. MAUI: East Maui, Wailuku Distr, Paeahu ahupua'a, 213 m, naturalized in small intermittent stream channel in Prosopis/Cenchrus dry forest with relict native elements, 7 May 2006, Oppenheimer H50608."
302	1959. Yuncker, T.G.. Plants of Tonga. Bishop Museum Bull. 220. Bishop Museum Press, Honolulu, HI	"a weedy plant of waste areas"
302	1978. Croat, T.B.. Flora of Barro Colorado Island. Stanford University Press, Stanford, CA	"A weedy species in the Canal Zone, it can be expected on BCI."
302	1981. Smith, A.C.. Flora Vitiensis Nova - A New Flora of Fiji (Spermatophytes Only). Volume 2.. Pacific Tropical Botanical Garden, Lawai, HI	"In Fiji, Rivina humilis is a naturalized weed occurring near sea level, along roadsides, in fields, pastures, gardens, etc., sometimes locally frequent in shady places."

302	1993. Kubitzki, K./Rohwer, J.G./Bittrich, V. (eds.). The Families and genera of vascular plants. Volume II. Springer-Verlag, Berlin, Heidelberg, New York	"Rivina humilis is sometimes cultivated as an ornamental, but it is also a widespread tropical weed."
302	1995. Matthew, K.M.. An excursion flora of Central Tamilnadu, India. CRC Press, Boca Raton, FL	"Occasional weed"
302	2000. Tucker, N.I.J.. Linkage restoration: Interpreting fragmentation theory for the design of a rainforest linkage in the humid Wet Tropics of north-eastern Queensland. Ecological Management & Restoration. 1(1): 35-41.	"Coral Berry (Rivina humilis) is present in the disturbed remnants that are now incorporated into the corridor. It is likely, then, that this species could also invade reserves at either end through restored linkages. Control at the source point is the most appropriate weed strategy and this is regularly undertaken for all agricultural and environmental weeds in the linkage and environs. Regular monitoring of weed cover is also an important component of the strategy and this is undertaken systematically every 6 months."
302	2011. WRA Specialist. Personal Communication.	A disturbance with negative environmental impacts in certain situations [See 3.04]
303	2007. Randall, R.P.. Global Compendium of Weeds - Rivina humilis [Online Database]. http://www.hear.org/gcw/species/rivina_humilis/	Listed as an agricultural weed [but no evidence of impacts or control methods found]
304	1996. Leys, A.R.. Weed Management Programs in New South Wales National Parks. Eleventh Australian Weeds Conference Proceedings.	"In the Brunswick Heads Nature Reserve 56 weed species were identified and their importance varied with habitat. Important species include bitou bush, lantana, Cape ivy (Delairea odorata), coral berry (Rivina humilis),…" [weed of nature reserves]
304	2001. Saunders, M.. National recovery plan for the Endangered Native Jute Species, Corchorus cunninghamii F. Muell. in Queensland (2001-2006). http://www.environment.gov.au/biodiversity/threatened/publications/recovery/c-cunninghamii/index.html	"Populations of C. cunninghamii are declining in both Queensland and New South Wales. Threatening processes such as clearing, habitat loss, weed invasion, inappropriate fire regimes, grazing, recreation and timber harvesting would all appear to be contributing to this decline….At all locations exotic weed species such as Lantana camara (lantana), Ageratina adenophora (crofton weed) and Rivina humilis (coral berry) pose a threat to C. cunninghamii through competition and habitat alteration."
304	2002. Ipswich City Council. Environmental Weed Control Rebate for the Control of Environmental Weeds. www.northcoastweeds.org.au	"Rivina humilis...WEED CATEGORY 1. These species are recognised as environmental weeds regardless of locations and applications. Therefore the use of any species in this category will be discouraged throughout the city."
304	2002. Urban Design, Cultural Heritage & Landscape Unit & Land for Wildlife. Guidelines for Undesirable Plants for Natural Bushland & Waterways. Information Sheet 5. https://www.goldcoast.qld.gov.au	"Rivina humilis Birds feed on berries spreading seed to rainforest remnants" [included in a list of introduced plants which readily spread to bushland and waterways]
304	2003. Motooka, P./Castro, L./Nelson, D./Nagai, G./Ching,L.. Weeds of Hawaii's Pastures and Natural Areas: An Identification and Management Guide. CTAHR, UH Manoa, Honolulu, HI http://www.ctahr.hawaii.edu/invweed/weedsHi.html	"Environmental impact: Displaces small understory natives."
305	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.	"…a monotypic genus…"
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.	"Plants 4-10 dm tall, rarely taller. Leaves usually widely spaced, 4-12 cm long, 1.5-4 cm wide, both surfaces glabrous or puberulent especially along veins, petioles 1-3.5 cm long, usually puberulent along upper surface." [no spines, thorns, or burrs]
402	2007. Siddiqui, Z.S.. Allelopathic effects of black pepper leachings on Vigna mungo (L.) Hepper. Acta Physiologiae Plantarum. 29: 303–308.	"Likewise, Biden alba and Rivina humilis were negatively affected in terms of germination and biomass accumulation by the irrigation of aqueous extract of Brazilian pepper leaves in field laboratory experiments (Morgan and Overholt 2005)." [R. humilis mentioned in allelopathic studies as the species negatively affected, but no evidence that that Rivina is allelopathic]
403	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.	"Plants 4-10 dm tall, rarely taller." [not parasitic]

404	1974. McMahan, C.A./Inglis, J.M.. Use of Rio Grande Plain Brush Types by White-Tailed Deer. Journal of Range Management. 27(5): 369-374.	"Of the forbs, only alkali sida (Sida hederacea), sensitivebriar (Schrankia sp.), bloodberry rougeplant (Rivina humilis), and knotweed leafflower (Phyllanthus polygonoides) received heavy grazing by deer. But these forbs were generally classed as rare or infrequent in the preferred brush types." [consumed by white-tailed deer]
404	2000. Texas AgriLife Research and Extension. Native Plants of South Texas - Rouge-plant. Texas A&M University, Uvalde, TX http://uvalde.tamu.edu/herbarium/rihu.htm	"The fruits are eaten by Rio Grande turkeys, chachalacas, mourning doves, white-winged doves and numerous species of passerine birds. The leaves are consumed by javelinas." [leaves could probably be consumed by pigs and/or goats in Hawaiian Islands]
405	2007. Nelson, L./Shih, R.D./Balick, M.J.. Handbook of poisonous and injurious plants. The New York Botanical Garden. Springer, New York, NY	"Toxic Part: The leaves and roots are poisonous. The absence of reports of poisoning from the attractive berries suggests that they do not contain clinically significant concentrations of toxin." [unknown if toxic to animals. See 4.04]
406	2011. WRA Specialist. Personal Communication.	Unknown
407	1997. Nellis, D.W.. Poisonous plants and animals of Florida and the Caribbean. Pineapple Press Inc., Sarasota, FL	"Consumption of the fruit produces numbness of the mouth within 2 hours, with a feeling of warmth in the throat and stomach. This is followed by coughing, thirst, tiredness with yawning, and subsequent vomiting and diarrhea (sometimes bloody), The leaves and roots contain larger amounts of toxin."
407	1999. Tull, D.. Edible and Useful Plants of Texas and the Southwest: A Practical Guide. University of Texas Press, Austin, TX	"All parts of the plant are considered toxic, with toxicity similar to that of its larger relative poke…"
407	2001. Hanelt, P. (ed.). Mansfeld's encyclopedia of agricultural and horticultural crops: (except ornamentals).. Angiospermae - monocotyledones: orchidaceae - pandanaceae, Volume 5. Springer-Verlag, Berlin, Heidelberg, New York	"Red fruits are used for dyeing, also medicinal plant (leaves)."
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.	"Erect, slender herbs…" [no evidence of and unlikely to create a fire hazard in natural ecosystems]
409	1995. Richardson, A.. Plants of the Rio Grande Delta. University of Texas Press, Austin, TX	"Widespread, usually in partial shade."
409	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 in dry to mesic, shaded, disturbed areas"
409	2011. Gann, G.D./Abdo, M.E./Gann, J.W./Gann, Sr., G.D./Woodmansee, S.W./Bradley, K.A./Grahl, E./Hines, K.N.. Natives For Your Neighborhood. The Institute for Regional Conservation, Miami, FL http://www.regionalconservation.org.	"Rouge plant recruits readily from seed in the garden and can become very aggressive in shady areas."
410	2011. Dave's Garden. PlantFiles: Pigeon Berry, Bloodberry, Rouge Plant, Baby Pepper, Coral Berry. http://davesgarden.com/guides/pf/go/58615/	"Soil pH requirements: 6.1 to 6.5 (mildly acidic) 6.6 to 7.5 (neutral) 7.6 to 7.8 (mildly alkaline)"
410	2011. Lady Bird Johnson Wildflower Center. Native Plant Database - Rivina humilis. http://www.wildflower.org/plants/result.php?id_plant=rihu2	"Soil Description: Moist and well-drained sand, sandy loam, loam, clay, and calcareous soils. "
411	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.	"Erect, slender herbs, often woody at base." [not climbing or smothering]
412	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 in dry to mesic, shaded, disturbed areas, 10-130 m" [no evidence that dense thickets form in Hawaiian Islands]
412	2010. Lahey, J.. Fort Bushland Newsletter - September 2010 Notes. http://www.cdea.org.au/cdea1/	"At last I can see light at the end of the tunnel in the battle to eradicate Rivina humilis (Coral Berry). After working for three and a half years on an area that was once covered by these weeds it seems that the seedbank is now almost exhausted." [unknown if Rivina excludes other vegetation]

501	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.	Terrestrial
502	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.	Phytolaccaceae [not a grass]
503	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.	Phytolaccaceae [not a nitrogen fixing woody plant]
504	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.	"Erect, slender herbs, often woody at base." [not a geophyte]
601	2000. Texas AgriLife Research and Extension. Native Plants of South Texas - Rouge-plant. Texas A&M University, Uvalde, TX http://uvalde.tamu.edu/herbarium/rihu.htm	No evidence
601	2004. Hammer, R.L.. Florida Keys wildflowers: A Field Guide to Wildflowers, Trees, Shrubs, and Woody Vines of the Florida Keys. Globe Pequot, Guilford, CT	No evidence of substantial reproductive failure in native habitat
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.	"Seed ca. 2.5-3.5 mm in diameter, puberulent"
602	2004. Hammer, R.L.. Florida Keys wildflowers: A Field Guide to Wildflowers, Trees, Shrubs, and Woody Vines of the Florida Keys. Globe Pequot, Guilford, CT	"…spreads readily from seeds in cultivation."
603	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.	"…a monotypic genus…" [no evidence of hybridization documented]
604	2010. Ashworth, L./Marti, M.L.. Forest Fragmentation and Seed Germination of Native Species from the Chaco Serrano Forest. Biotropica. 10.1111/j.1744-7429.2010.00721.x: 1–8.	"Table 1" [Rivina humilis listed as Self-compatible]
605	2010. Ashworth, L./Marti, M.L.. Forest Fragmentation and Seed Germination of Native Species from the Chaco Serrano Forest. Biotropica. 10.1111/j.1744-7429.2010.00721.x: 1–8.	"Table 1...Pollination vector...Insect visited"
605	2011. Dave's Garden. PlantFiles: Pigeon Berry, Bloodberry, Rouge Plant, Baby Pepper, Coral Berry. http://davesgarden.com/guides/pf/go/58615/	"Other details: This plant is attractive to bees, butterflies and/or birds"
606	2011. Dave's Garden. PlantFiles: Pigeon Berry, Bloodberry, Rouge Plant, Baby Pepper, Coral Berry. http://davesgarden.com/guides/pf/go/58615/	"Propagation Methods: From seed; direct sow after last frost"
607	2011. Gann, G.D./Abdo, M.E./Gann, J.W./Gann, Sr., G.D./Woodmansee, S.W./Bradley, K.A./Grahl, E./Hines, K.N.. Natives For Your Neighborhood. The Institute for Regional Conservation, Miami, FL http://www.regionalconservation.org.	"Growth Rate: Fast...Flowering Season: All year." [probably flowers in 1-2 years]
701	1981. Smith, A.C.. Flora Vitiensis Nova - A New Flora of Fiji (Spermatophytes Only). Volume 2.. Pacific Tropical Botanical Garden, Lawai, HI	"In Fiji, Rivina humilis is a naturalized weed occurring near sea level, along roadsides, in fields, pastures, gardens, etc.,.." [could possibly be dispersed in contaminated soil along roadsides, but no evidence, and no means of external attachment of seeds or fruit]

702	1997. Nellis, D.W.. Poisonous plants and animals of Florida and the Caribbean. Pineapple Press Inc., Sarasota, FL	"Beneficial Uses. This plant is cultivated as an ornamental and at one time was grown to use the fruit juice as a dye and as an ink. Folk medicine has used the plant tea to treat colds, diarrhea, difficult urination, flatulence, gonorrhea, jaundice, and ovarian pain."
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.	"Rouge plant has been naturalized in Hawaii for more than a century and is apparently grown as an ornamental; nurseries sometimes sell small plants in containers."
703	2011. WRA Specialist. Personal Communication.	No evidence
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.	"Fruit orange, red or purple, subglobose, ca. 4 mm in diameter. Seed ca. 2.5-3.5 mm in diameter, puberulent" [no adaptations for wind dispersal]
705	2001. Steinmann, V.. Phytolaccaceae Pokeweed Family. Journal of the Arizona-Nevada Academy of Science. 33(1): 46-49.	"Canyons and riparian habitats in oak woodland, grassland, & desert scrub: Cochise, Graham, Greenlee, Pima, Santa Cruz cos.; 800- 1800 m (2700-5900 ft); Jun-Dec; NM, TX; s to Argentina" [fruits/seeds in riparian habitats possibly spread by water]
706	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.	"Fruit orange, red or purple, subglobose, ca. 4 mm in diameter. Seed ca. 2.5-3.5 mm in diameter, puberulent" [fleshy-fruited, & presumably adapted for bird dispersal]
706	2000. Texas AgriLife Research and Extension. Native Plants of South Texas - Rouge-plant. Texas A&M University, Uvalde, TX http://uvalde.tamu.edu/herbarium/rihu.htm	"The fruits are eaten by Rio Grande turkeys, chachalacas, mourning doves, white-winged doves and numerous species of passerine birds."
706	2005. Carlo, T.A.. Interspecific neighbors change seed dispersal pattern of an avian dispersed plant. Ecology. 86(9): 2440–2449.	"Rivina is also consumed and dispersed by Tyrannus and Mimus (T. A. Carlo, unpublished data), and I had a potted population for uses in related research."
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.	"Fruit orange, red or purple, subglobose, ca. 4 mm in diameter. Seed ca. 2.5-3.5 mm in diameter, puberulent" [no evidence & no means of external attachment]
708	1978. Croat, T.B.. Flora of Barro Colorado Island. Stanford University Press, Stanford, CA	"Seeds of Rivina humilis have been found in the gut of ducks (Ridley, 1930)."
708	2003. Garrison, J.S.E.. The role of alien tree plantations and avian seed-dispersers in native dry forest restoration in Hawaii. PhD. Dissertation. University of Hawaii, Honolulu, HI	"Corky passionflower (Passiflora suberosa) and octopus tree (Schefflera actinophylla) were found in intermediate abundance in bird feces. Strawberry guava (Psidium cattleianum), lantana (Lantana camara), and coralberry (Rivina humilis) seeds were present in lower numbers. Clidemia, Schinus, Passiflora, Schefflera, and Rivina all produce small fruits that can be eaten by birds in one or two bites...coralberry (Rivina humilis) seeds were found in lower abundance in bird feces."
801	2010. Lahey, J.. Fort Bushland Newsletter - September 2010 Notes. http://www.cdea.org.au/cdea1/	"At last I can see light at the end of the tunnel in the battle to eradicate Rivina humilis (Coral Berry). After working for three and a half years on an area that was once covered by these weeds it seems that the seedbank is now almost exhausted. For the first year or two, every time it rained the seedlings germinated at the rate of about 10,000 per sq metre."
802	1989. Vora, R.S.. Seed Germination Characteristics of Selected Native Plants of the Lower Rio Grande Valley, Texas. Journal of Range Management. 42(1): 36-40.	"Emergence from 5-month-old pigeon-berry (Rivina humilis) seed planted in May 1985 was 79% after 43 days. No pre-germination treatment of seeds was necessary. No emergence was obtained from 3-year-old seeds"
802	2010. Lahey, J.. Fort Bushland Newsletter - September 2010 Notes. http://www.cdea.org.au/cdea1/	"At last I can see light at the end of the tunnel in the battle to eradicate Rivina humilis (Coral Berry). After working for three and a half years on an area that was once covered by these weeds it seems that the seedbank is now almost exhausted. For the first year or two, every time it rained the seedlings germinated at the rate of about 10,000 per sq metre. Now, finally after 3½ years, only a handful of seedlings appear after rain which is a real relief as I was starting to think that the seedbank was inexhaustible. What this does show though is that to get rid of this weed we must diligently weed an infested area for about 4 years to ensure that no plants reach maturity to provide seeds to replenish the seedbank." [seed bank apparently lasts for almost 4 years]

803	2003. Motooka, P./Castro, L./Nelson, D./Nagai, G./Ching,L.. Weeds of Hawaii's Pastures and Natural Areas: An Identification and Management Guide. CTAHR, UH Manoa, Honolulu, HI http://www.ctahr.hawaii.edu/invweed/weedsHi.html	"Sensitive to MCPA and triclopyr but re-treatment probably needed"
804	2011. WRA Specialist. Personal Communication.	Unknown
805	2011. WRA Specialist. Personal Communication.	Unknown