

Family: *Malvaceae*

Taxon: *Lebronnecia kokioides*

Synonym: **Common Name:**

Questionnaire :	current 20090513	Assessor:	Patti Clifford	Designation: L(Hawai'i)
Status:	Assessor Approved	Data Entry Person:	Patti Clifford	WRA Score -2
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	n
301	Naturalized beyond native range		y = 1*multiplier (see Appendix 2), n= question 205	n
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)	n
401	Produces spines, thorns or burrs		y=1, n=0	n
402	Allelopathic		y=1, n=0	
403	Parasitic		y=1, n=0	n
404	Unpalatable to grazing animals		y=1, n=-1	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	
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	
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	
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	
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	
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	n
708	Propagules survive passage through the gut	y=1, n=-1	
801	Prolific seed production (>1000/m2)	y=1, n=-1	n
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: L(Hawai'i)

WRA Score -2

Supporting Data:

101	2010. IUCN. IUCN red list: <i>Lebronnecia kokioides</i> . IUCN, http://www.iucnredlist.org/apps/redlist/details/30398/0	"A small tree which at one time was thought to be reduced to a single individual surrounded by a few seedlings on Tahuata. A small colony covering a few hectares has now been found on Mohotane, a nature reserve.a"
201	2010. IUCN. IUCN red list: <i>Lebronnecia kokioides</i> . IUCN, http://www.iucnredlist.org/apps/redlist/details/30398/0	Native: French Polynesia (Marquesas)
202	2010. IUCN. IUCN red list: <i>Lebronnecia kokioides</i> . IUCN, http://www.iucnredlist.org/apps/redlist/details/30398/0	Native: French Polynesia (Marquesas)
203	1978. Lucas, G./Synge, H.. The IUCN plant red data book: comprising red data sheets on 250 selected plants threatened on a world scale. International Union for Conservation of Nature and Natural Resources. Threatened Plants Committee, http://books.google	"The single Tahuatan tree is on "dry leeward slopes" at the edge of the woody vegetation. On Mohotane, the species occurs both within and outside the remaining dry forest, and ranges from near sea-level to 200 m."
204	2010. IUCN. IUCN red list: <i>Lebronnecia kokioides</i> . IUCN, http://www.iucnredlist.org/apps/redlist/details/30398/0	Native range: French Polynesia (Marquesas).
205	1978. Lucas, G./Synge, H.. The IUCN plant red data book: comprising red data sheets on 250 selected plants threatened on a world scale. International Union for Conservation of Nature and Natural Resources. Threatened Plants Committee, http://books.google	<i>Lebronnecia kokioides</i> is in cultivation at the Pacific Tropical Botanic Garden Hawaii, and in Tahiti; it has been distributed to other gardens such as the Royal Botanic Gardens, Kew, U.K.
301	2007. Randall, R.P.. Global Compendium of Weeds [Online Database]. http://www.hear.org/gcw/	No evidence.
302	2007. Randall, R.P.. Global Compendium of Weeds [Online Database]. http://www.hear.org/gcw/	No evidence.
303	2007. Randall, R.P.. Global Compendium of Weeds [Online Database]. http://www.hear.org/gcw/	No evidence.
304	2007. Randall, R.P.. Global Compendium of Weeds [Online Database]. http://www.hear.org/gcw/	No evidence.
305	2007. Randall, R.P.. Global Compendium of Weeds [Online Database]. http://www.hear.org/gcw/	No evidence.
305	2010. International Plant Names Index. The International Plant Names Index (IPNI) [Online Database]. http://www.ipni.org/	<i>Lebronnecia</i> is a monotypic genus.
401	1978. Lucas, G./Synge, H.. The IUCN plant red data book: comprising red data sheets on 250 selected plants threatened on a world scale. International Union for Conservation of Nature and Natural Resources. Threatened Plants Committee, http://books.google	No spines, thorns or burrs.
402	2010. WRA Specialist. Personal Communication.	Unknown.
403	2010. Nickrent, D.. The parasitic plant connection. Department of Plant Biology, Southern Illinois University, Carbondale http://www.parasiticplants.siu.edu/index.html	Not parasitic.

404	1978. Lucas, G./Synge, H.. The IUCN plant red data book: comprising red data sheets on 250 selected plants threatened on a world scale. International Union for Conservation of Nature and Natural Resources. Threatened Plants Committee, http://books.google	"Only a single tree, surrounded by a few seedlings, was known of this Pacific Island species when it was described in 1966. Its decline was presumably due to grazing by feral horses and other domestic animals, associated with the destruction of the forests. However it has recently been found on a small neighboring island where its population, though small, may be increasing since botanists who visited the island in 1920 did not find it. It appears to be unpalatable to the feral sheep on the island."
404	2010. IUCN. IUCN red list: <i>Lebronnecia kokioides</i> . IUCN, http://www.iucnredlist.org/apps/redlist/details/30398/0	"A small tree which at one time was thought to be reduced to a single individual surrounded by a few seedlings on Tahuata. A small colony covering a few hectares has now been found on Mohotane, a nature reserve. Although feral sheep are present on the island, they appear to find the plant unpalatable."
405	1978. Lucas, G./Synge, H.. The IUCN plant red data book: comprising red data sheets on 250 selected plants threatened on a world scale. International Union for Conservation of Nature and Natural Resources. Threatened Plants Committee, http://books.google	"Only a single tree, surrounded by a few seedlings, was known of this Pacific Island species when it was described in 1966. Its decline was presumably due to grazing by feral horses and other domestic animals, associated with the destruction of the forests. However it has recently been found on a small neighboring island where its population, though small, may be increasing since botanists who visited the island in 1920 did not find it. It appears to be unpalatable to the feral sheep on the island."
406	2010. WRA Specialist. Personal Communication.	Unknown.
407	2010. WRA Specialist. Personal Communication.	Unknown.
408	2010. WRA Specialist. Personal Communication.	Unknown.
409	2010. WRA Specialist. Personal Communication.	Unknown.
410	2010. WRA Specialist. Personal Communication.	Unknown.
411	2010. IUCN. IUCN red list: <i>Lebronnecia kokioides</i> . IUCN, http://www.iucnredlist.org/apps/redlist/details/30398/0	Small tree.
412	2010. WRA Specialist. Personal Communication.	Unknown.
501	2010. IUCN. IUCN red list: <i>Lebronnecia kokioides</i> . IUCN, http://www.iucnredlist.org/apps/redlist/details/30398/0	Terrestrial.
502	2010. IUCN. IUCN red list: <i>Lebronnecia kokioides</i> . IUCN, http://www.iucnredlist.org/apps/redlist/details/30398/0	Malvaceae.
503	2010. www.nationmaster.com . Encyclopedia Nitrogen fixation. Nationmaster.com, http://www.nationmaster.com/encyclopedia/Nitrogen-fixation	Malvaceae.
504	2010. IUCN. IUCN red list: <i>Lebronnecia kokioides</i> . IUCN, http://www.iucnredlist.org/apps/redlist/details/30398/0	Small tree.
601	2010. WRA Specialist. Personal Communication.	No evidence. [see question 404]
602	1978. Lucas, G./Synge, H.. The IUCN plant red data book: comprising red data sheets on 250 selected plants threatened on a world scale. International Union for Conservation of Nature and Natural Resources. Threatened Plants Committee, http://books.google	"Only a single tree, surrounded by a few seedlings, was known of this Pacific Island species when it was described in 1966."
603	2010. International Plant Names Index. The International Plant Names Index (IPNI) [Online Database]. http://www.ipni.org/	Monotypic genus.
603	2010. WRA Specialist. Personal Communication.	Unknown.

604	2010. WRA Specialist. Personal Communication.	Unknown.
605	2010. WRA Specialist. Personal Communication.	Unknown
606	2010. WRA Specialist. Personal Communication.	Unknown.
607	2010. WRA Specialist. Personal Communication.	Unknown.
701	2010. WRA Specialist. Personal Communication.	Not grown in heavily trafficked areas.
702	2010. WRA Specialist. Personal Communication.	Proposed for import.
703	2010. WRA Specialist. Personal Communication.	Unknown.
704	1978. Lucas, G./Synge, H.. The IUCN plant red data book: comprising red data sheets on 250 selected plants threatened on a world scale. International Union for Conservation of Nature and Natural Resources. Threatened Plants Committee, http://books.google	"Fruit a woody capsule 2-3 cm long, with 3 chambers each containing a single rounded black seed 8 mm across and covered with reddish brown hairs c. 1 cm long." [no adaptation for wind dispersal]
705	1978. Lucas, G./Synge, H.. The IUCN plant red data book: comprising red data sheets on 250 selected plants threatened on a world scale. International Union for Conservation of Nature and Natural Resources. Threatened Plants Committee, http://books.google	"Fruit a woody capsule 2-3 cm long, with 3 chambers each containing a single rounded black seed 8 mm across and covered with reddish brown hairs c. 1 cm long."
705	2010. WRA Specialist. Personal Communication.	Unknown.
706	1978. Lucas, G./Synge, H.. The IUCN plant red data book: comprising red data sheets on 250 selected plants threatened on a world scale. International Union for Conservation of Nature and Natural Resources. Threatened Plants Committee, http://books.google	"Fruit a woody capsule 2-3 cm long, with 3 chambers each containing a single rounded black seed 8 mm across and covered with reddish brown hairs c. 1 cm long."
707	1978. Lucas, G./Synge, H.. The IUCN plant red data book: comprising red data sheets on 250 selected plants threatened on a world scale. International Union for Conservation of Nature and Natural Resources. Threatened Plants Committee, http://books.google	"Fruit a woody capsule 2-3 cm long, with 3 chambers each containing a single rounded black seed 8 mm across and covered with reddish brown hairs c. 1 cm long." [no means of external attachment]
708	2010. WRA Specialist. Personal Communication.	Unknown.
801	1978. Lucas, G./Synge, H.. The IUCN plant red data book: comprising red data sheets on 250 selected plants threatened on a world scale. International Union for Conservation of Nature and Natural Resources. Threatened Plants Committee, http://books.google	"Fruit a woody capsule 2-3 cm long, with 3 chambers each containing a single rounded black seed 8 mm across and covered with reddish brown hairs c. 1 cm long."
802	2010. WRA Specialist. Personal Communication.	Unknown.
803	2010. WRA Specialist. Personal Communication.	Unknown.
804	2010. WRA Specialist. Personal Communication.	Unknown.
805	2010. WRA Specialist. Personal Communication.	Unknown.