

Taxon: <i>Blechnum gibbum</i>	Family: Blechnaceae
Common Name(s): dwarf tree fern silver lady fern	Synonym(s): Lomaria gibba Labill.

Assessor: No Assessor	Status: Assessor Approved	End Date: 2 Dec 2014
WRA Score: 4.0	Designation: EVALUATE	Rating: Evaluate

Keywords: Tree Fern, Tropical, Ornamental, Shade-tolerant, Wind-Dispersed

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	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)	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	y=1, n=0	n
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	n
411	Climbing or smothering growth habit	y=1, n=0	n
412	Forms dense thickets	y=1, n=0	n
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	y=-1, n=0	n
606	Reproduction by vegetative fragmentation	y=1, n=-1	n
607	Minimum generative time (years)		
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)		
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	y
705	Propagules water dispersed		
706	Propagules bird dispersed	y=1, n=-1	n
707	Propagules dispersed by other animals (externally)		
708	Propagules survive passage through the gut		
801	Prolific seed production (>1000/m ²)	y=1, n=-1	y
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		
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. & 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
102	Has the species become naturalized where grown?	
	Source(s)	Notes
	WRA Specialist. 2014. Personal Communication	NA
103	Does the species have weedy races?	
	Source(s)	Notes
	WRA Specialist. 2014. 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, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. URL: http://www.ars-grin.gov/ . [Accessed 2 Dec 2014]	"Native: PACIFIC Southwestern Pacific: New Caledonia; Vanuatu"
202	Quality of climate match data	High
	Source(s)	Notes
	USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. URL: http://www.ars-grin.gov/ . [Accessed]	
203	Broad climate suitability (environmental versatility)	n
	Source(s)	Notes
	Dave's Garden. 2014. PlantFiles: Dwarf Tree Fern, Silver Lady Fern - <i>Blechnum gibbum</i> . http://davesgarden.com/guides/pf/go/56997/ . [Accessed 2 Dec 2014]	"Hardiness: 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) USDA Zone 11: above 4.5 °C (40 °F)"
204	Native or naturalized in regions with tropical or subtropical climates	y

Qsn #	Question	Answer
	Source(s)	Notes
	USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. URL: http://www.ars-grin.gov/ . [Accessed 2 Dec 2014]	"Native: PACIFIC Southwestern Pacific: New Caledonia; Vanuatu"

205	Does the species have a history of repeated introductions outside its natural range?	y
	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	"In Hawaii, dwarf tree ferns are grown in the ground in shaded, protected areas as well as containers."
	Shepherd, L. D., Perrie, L. R., Parris, B. S., & Brownsey, P. J. 2007. A molecular phylogeny for the New Zealand Blechnaceae ferns from analyses of chloroplast trn L-trn F DNA sequences. New Zealand Journal of Botany, 45(1): 67-80	"Plants identified as the New Caledonian species <i>Blechnum gibbum</i> and the South American species <i>B. brasiliense</i> are cultivated in New Zealand"

301	Naturalized beyond native range	n
	Source(s)	Notes
	Brownsey, P. J., & Perrie, L. R. 2011. A revised checklist of Fijian ferns and lycophytes. <i>Telopea</i> , 13(3): 513-562	" <i>Blechnum gibbum</i> (Labill.) Mett. Recorded only once from an unlocalised specimen in BISH. Considered by Brownlie (1977) to be possibly naturalised."
	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	" <i>Blechnum gibbum</i> is native to New Caledonia and Vanuatu. It has also been reported from Fiji, based on a single collection made in the 1920s, but has not been found there since then."
	Imada, C. 2012. Hawaiian Native and Naturalized Vascular Plants Checklist (December 2012 update). Bishop Museum Technical Report 60. Bishop Museum, Honolulu, HI	No evidence
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	No evidence

302	Garden/amenity/disturbance weed	n
	Source(s)	Notes
	Randall, R.P. 2007. The introduced flora of Australia and its weed status. CRC for Australian Weed Management, Glen Osmond, Australia	No evidence
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	No evidence

303	Agricultural/forestry/horticultural weed	n
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Qsn #	Question	Answer
	Source(s)	Notes
	Randall, R.P. 2007. The introduced flora of Australia and its weed status. CRC for Australian Weed Management, Glen Osmond, Australia	No evidence
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	No evidence

304	Environmental weed	n
	Source(s)	Notes
	Randall, R.P. 2007. The introduced flora of Australia and its weed status. CRC for Australian Weed Management, Glen Osmond, Australia	No evidence
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	No evidence

305	Congeneric weed	y
	Source(s)	Notes
	Weller, S. G., Cabin, R. J., Lorence, D. H., Perlman, S., Wood, K., Flynn, T., & Sakai, A. K. 2011. Alien plant invasions, introduced ungulates, and alternative states in a mesic forest in Hawaii. <i>Restoration Ecology</i> , 19(5): 671-680	"Four alien species appeared to respond differently to drought, based on changes in percent cover." ... "Potentially, the most significant responses occurred in two widespread alien fern species, <i>Adiantum hispidulum</i> and <i>Blechnum appendiculatum</i> . Both of these species increased in percent cover during a drought period when native ferns decreased substantially. <i>Blechnum appendiculatum</i> also responded positively to fencing, suggesting that removal of ungulates favored this fern species. <i>Blechnum appendiculatum</i> forms thick mats that prevent establishment of seeds and spores (Wilson 1996). An alien species that prevents establishment of natives and thrives under drought conditions that result in mortality of native species, represents an obvious threat to the integrity of these mesic forests."
	Palmer, D.D. 2003. Hawaii's Ferns and Fern Allies. University of Hawaii Press, Honolulu, HI	"This tropical American fern, first collected in Hawaii in 1918, has escaped from gardens and spread extensively. It is a serious weed that competes with many native fern species and is especially threatening to species of the rare endemic genus <i>Diellia</i> ."

401	Produces spines, thorns or burrs	n
	Source(s)	Notes
	Learn 2 Grow. 2014. <i>Blechnum gibbum</i> 'Silver Lady'. http://www.learn2grow.com/plants/blechnum-gibbum-silver-lady/ . [Accessed 2 Dec 2014]	"Sharp or Has Thorns - No"

Qsn #	Question	Answer
402	Allelopathic	
	Source(s)	Notes
	WRA Specialist. 2014. Personal Communication	Unknown

403	Parasitic	n
	Source(s)	Notes
	USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. URL: http://www.ars-grin.gov/ . [Accessed 2 Dec 2014]	Blechnaceae

404	Unpalatable to grazing animals	
	Source(s)	Notes
	Coomes, D. A., Allen, R. B., Forsyth, D. M., & Lee, W. G. 2003. Factors preventing the recovery of New Zealand forests following control of invasive deer. <i>Conservation Biology</i> , 17(2): 450-459	[Possibly Yes. Other <i>Blechnum</i> species are unpalatable] "For example, there is evidence that browsing of woody saplings has promoted the spread of the unpalatable ground ferns <i>Blechnum discolor</i> and <i>Blechnum procerum</i> (Wardle 1984; Wardle et al. 2001), which provide an effective barrier against further regeneration of woody species (Wardle 1984)."
	Mehltreter, K., Walker, L.R. & Sharpe, J.M. 2010. <i>Fern Ecology</i> . Cambridge University Press, Cambridge, UK	[Possibly Yes] "Young leaves are white or red, supposedly an adaptation against herbivory or fungal attack.."

405	Toxic to animals	n
	Source(s)	Notes
	Wagstaff, D.J. 2008. <i>International poisonous plants checklist: an evidence-based reference</i> . CRC Press, Boca Raton, FL	No evidence in genus

406	Host for recognized pests and pathogens	
	Source(s)	Notes
	Nickel, E. 2010. Shorter tree fern: <i>Blechnum gibbum</i> 'Silver Lady'. http://www.sfgate.com/homeandgarden/pickoftheweek/article/Shorter-tree-fern-Blechnum-gibbum-Silver-Lady-2454388.php . [Accessed 2 Dec 2014]	"The most common pests are aphids, mealy bugs and spider mites. Wiping the leaves with a damp cloth will help to keep such pests at bay."

407	Causes allergies or is otherwise toxic to humans	n
	Source(s)	Notes
	Wagstaff, D.J. 2008. <i>International poisonous plants checklist: an evidence-based reference</i> . CRC Press, Boca Raton, FL	No evidence in genus

Qsn #	Question	Answer
408	Creates a fire hazard in natural ecosystems	n
	Source(s)	Notes
	Gardening Info Zone. 2014. Blechnum hard fern. http://www.gardeninginfozone.com/blechnum-hard-fern . [Accessed 2 Dec 2014]	[No evidence, and unlikely given moist habitat] "They flourish as terrestrial ferns in moist to wet soils."

409	Is a shade tolerant plant at some stage of its life cycle	y
	Source(s)	Notes
	Kirsten, K. 2001. Gardening with Keith Kirsten. Struik Publishers, Cape Town, South Africa	"It does well in the shade in subtropical gardens and may be used as an indoor plant provided the atmosphere is kept moist."
	Dave's Garden. 2014. PlantFiles: Dwarf Tree Fern, Silver Lady Fern - <i>Blechnum gibbum</i> . http://davesgarden.com/guides/pf/go/56997/ . [Accessed 2 Dec 2014]	"Sun Exposure: Light Shade Partial to Full Shade Full Shade"
	Forest Ferns. 2014. <i>Blechnum gibbum</i> . http://www.forestferns.co.uk/tree-ferns/blechnum/blechnum-gibbum . [Accessed 2 Dec 2014]	"To grow this fern outside in warmer climates find a shady spot with relatively high humidity and plant <i>Blechnum gibbum</i> in a good open acid soil that will drain freely."

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	n
	Source(s)	Notes
	Nickel, E. 2010. Shorter tree fern: <i>Blechnum gibbum</i> 'Silver Lady'. http://www.sfgate.com/homeandgarden/pickoftheweek/article/Shorter-tree-fern-Blechnum-gibbum-Silver-Lady-2454388.php . [Accessed 2 Dec 2014]	"Blechnums are lime intolerant, so if you are in an area where hard water is the norm, use purified water for indoor specimens or add a few drops of lemon juice to the water." ... "Grow in moist, well drained slightly acidic soil in full to partial shade. Add lots of organic material to the soil."
	Learn 2 Grow. 2014. <i>Blechnum gibbum</i> 'Silver Lady'. http://www.learn2grow.com/plants/blechnum-gibbum-silver-lady/ . [Accessed 2 Dec 2014]	"Soil pH = Acidic Soil Drainage - Well Drained Soil type - Loam"

411	Climbing or smothering growth habit	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	"Treelike; rhiz to 3' or more tall, scales black."

412	Forms dense thickets	n
	Source(s)	Notes
	Hubbuck, C. 2014. Gardening in the Coastal Southeast - The Genus <i>Blechnum</i> Family Blechnaceae. http://southeastgarden.com/blechnum.html . [Accessed 2 Dec 2014]	[No evidence] "Typically, this is solitary fern that develops a short trunk."
	WRA Specialist. 2014. Personal Communication	No evidence of thicket formation reported to date

Qsn #	Question	Answer
501	Aquatic	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	[Terrestrial] "In Hawaii, dwarf tree ferns are grown in the ground in shaded, protected areas as well as containers."

502	Grass	n
	Source(s)	Notes
	USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. URL: http://www.ars-grin.gov/ . [Accessed]	Blechnaceae

503	Nitrogen fixing woody plant	n
	Source(s)	Notes
	USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. URL: http://www.ars-grin.gov/ . [Accessed 2 Dec 2014]	Blechnaceae

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	"Treelike; rhiz to 3' or more tall, scales black."

601	Evidence of substantial reproductive failure in native habitat	n
	Source(s)	Notes
	WRA Specialist. 2014. Personal Communication	No evidence

602	Produces viable seed	y
	Source(s)	Notes
	Dave's Garden. 2014. PlantFiles: Dwarf Tree Fern, Silver Lady Fern - <i>Blechnum gibbum</i> . http://davesgarden.com/guides/pf/go/56997/ . [Accessed 2 Dec 2014]	"Propagation Methods: From spores"

Qsn #	Question	Answer
603	Hybridizes naturally	
	Source(s)	Notes
	WRA Specialist. 2014. Personal Communication	Unknown

604	Self-compatible or apomictic	
	Source(s)	Notes
	Soltis, D.E. & Soltis, P.S. 1992. The Distribution of Selfing Rates in Homosporous Ferns. American Journal of Botany 79(1): 97-100	[Unknown. Self-compatibility present in other <i>Blechnum</i> species] "The distribution of intragametophytic selfing rates among species of homosporous ferns is clearly uneven. Most species of homosporous ferns would be classified as extreme outcrossers. In contrast, a few species are nearly exclusively inbreeding. In only a few populations of <i>Dryopteris expansa</i> and <i>Hemionitis palmata</i> and a single population of <i>Blechnum spicant</i> do we see convincing evidence of a mixed mating system. The uneven distribution of selfing rates we observed for homosporous ferns, coupled with a corresponding bimodality of the magnitude of genetic load, strongly supports the model."

605	Requires specialist pollinators	n
	Source(s)	Notes
	WRA Specialist. 2014. Personal Communication	No pollinators required in pteridophytes. Water may be required for fertilization & production of the sporophyte

606	Reproduction by vegetative fragmentation	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	"Treelike' rhiz up to 3' or more tall" [Forms a single trunk. No evidence of vegetative spread by rhizomes]
	Dave's Garden. 2014. PlantFiles: Dwarf Tree Fern, Silver Lady Fern - <i>Blechnum gibbum</i> . http://davesgarden.com/guides/pf/go/56997/ . [Accessed 2 Dec 2014]	[No evidence] "Propagation Methods: From spores"

607	Minimum generative time (years)	
	Source(s)	Notes
	Hubbuck, C. 2014. Gardening in the Coastal Southeast - The Genus <i>Blechnum</i> Family Blechnaceae. http://southeastgarden.com/blechnum.html . [Accessed 2 Dec 2014]	[Time to maturity unknown] "It grows to about three feet tall. It grows well in part shade to full shade in moist soil."

Qsn #	Question	Answer
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	
	Source(s)	Notes
	WRA Specialist. 2014. Personal Communication	Unknown. Prolific spore production, and cultivation could possibly result in accidental dispersal through attachment to clothing, or equipment.

702	Propagules dispersed intentionally by people	y
	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	"In Hawaii, dwarf tree ferns are grown in the ground in shaded, protected areas as well as containers."

703	Propagules likely to disperse as a produce contaminant	
	Source(s)	Notes
	WRA Specialist. 2014. Personal Communication	Unknown. Spores could potentially contaminate soil or potting media of any plants growing in the vicinity of reproductive age individuals

704	Propagules adapted to wind dispersal	y
	Source(s)	Notes
	Gordon, D. R., Mitterdorfer, B., Pheloung, P. C., Ansari, S., Buddenhagen, C., Chimera, C., ... & Williams, P. A. 2010). Guidance for addressing the Australian Weed Risk Assessment questions. Plant Protection Quarterly, 25(2): 56-74	"This group includes tumbling plants and fern spores."

705	Propagules water dispersed	
	Source(s)	Notes
	WRA Specialist. 2014. Personal Communication	Unknown. No direct evidence of water dispersal, but small size of spores could result in transport by water.

706	Propagules bird dispersed	n
	Source(s)	Notes
	WRA Specialist. 2014. Personal Communication	Although spores may adhere to birds, the likely vectors of dispersal for spores are wind, and possibly water.

707	Propagules dispersed by other animals (externally)	
	Source(s)	Notes
	WRA Specialist. 2014. Personal Communication	Unknown. Possible that spores may adhere to fur or mud on animals.

Qsn #	Question	Answer
708	Propagules survive passage through the gut	
	Source(s)	Notes
	WRA Specialist. 2014. Personal Communication	Unknown. Unlikely to be consumed and not adapted for internal dispersal.

801	Prolific seed production (>1000/m2)	y
	Source(s)	Notes
	Gordon, D. R., Mitterdorfer, B., Pheloung, P. C., Ansari, S., Buddenhagen, C., Chimera, C., ... & Williams, P. A. 2010. Guidance for addressing the Australian Weed Risk Assessment questions. <i>Plant Protection Quarterly</i> , 25(2): 56-74	"Assume 'yes' for fern taxa unless contradictory evidence exists."
	Staples, G.W. & Herbst, D.R. 2005. <i>A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places</i> . Bishop Museum Press, Honolulu, HI	"The crown bears distinctly different sterile and fertile fronds."

802	Evidence that a persistent propagule bank is formed (>1 yr)	
	Source(s)	Notes
	Dyer, A.F. & Lindsay, S. 1992. Soil Spore Banks of Temperate Ferns. <i>American Fern Journal</i> 82(3): 89-123	[Unknown for <i>Blechnum gibbum</i> , a tropical species] "However, although it has now been established that spore banks lasting at least one year are widespread, there is still no direct evidence that any spore banks persist for much more than two years." ... "Other evidence confirms that some fern spores can remain viable for several decades under various artificial storage conditions."

803	Well controlled by herbicides	
	Source(s)	Notes
	WRA Specialist. 2014. Personal Communication	Unknown. No evidence of herbicide efficacy or chemical control of this ornamental species

804	Tolerates, or benefits from, mutilation, cultivation, or fire	
	Source(s)	Notes
	WRA Specialist. 2014. Personal Communication	Unknown

805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	
	Source(s)	Notes
	WRA Specialist. 2014. Personal Communication	Unknown

Summary of Risk Traits:

High Risk / Undesirable Traits

- Thrives in tropical climates
- Other *Blechnum* species have become invasive
- Shade tolerant
- Spores dispersed by wind & possibly water
- Planted intentionally by people
- Prolific spore production
- Limited ecological information makes accurate risk prediction difficult

Low Risk Traits

- No reports of invasiveness or naturalization
- Unarmed (no spines, thorns or burrs)
- Non-toxic
- Ornamental
- Requires acidic to neutral soils
- Not reported to spread vegetatively

Second Screening Results for Tree/tree-like shrubs

(A) Shade tolerant or known to form dense stands?> Yes. Not known to form dense stands. Tolerates shade

(B) Wind-dispersed?> Yes

(C) Life cycle <4 years? Unknown

Outcome = Evaluate