

Assessment date 12 February 2015

<i>Bambusa chungii</i> ALL ZONES		Answer	Score
1.01	Is the species highly domesticated?	n	0
1.02	Has the species become naturalised where grown?		
1.03	Does the species have weedy races?		
2.01	Species suited to Florida's USDA climate zones (0-low; 1-intermediate; 2-high) North Zone: suited to Zones 8, 9 Central Zone: suited to Zones 9, 10 South Zone: suited to Zone 10	2	
2.02	Quality of climate match data (0-low; 1-intermediate; 2-high)	2	
2.03	Broad climate suitability (environmental versatility)	n	0
2.04	Native or naturalized in habitats with periodic inundation North Zone: mean annual precipitation 50-70 inches Central Zone: mean annual precipitation 40-60 inches South Zone: mean annual precipitation 40-60 inches	y	1
2.05	Does the species have a history of repeated introductions outside its natural range?	y	
3.01	Naturalized beyond native range	n	-2
3.02	Garden/amenity/disturbance weed		
3.03	Weed of agriculture	n	0
3.04	Environmental weed	n	0
3.05	Congeneric weed	y	2
4.01	Produces spines, thorns or burrs	n	0
4.02	Allelopathic	n	0
4.03	Parasitic	n	0
4.04	Unpalatable to grazing animals		
4.05	Toxic to animals		
4.06	Host for recognised pests and pathogens	y	1
4.07	Causes allergies or is otherwise toxic to humans	n	0
4.08	Creates a fire hazard in natural ecosystems		
4.09	Is a shade tolerant plant at some stage of its life cycle	n	0
4.10	Grows on infertile soils (oligotrophic, limerock, or excessively draining soils). North & Central Zones: infertile soils; South Zone: shallow limerock or Histisols.		
4.11	Climbing or smothering growth habit	n	0
4.12	Forms dense thickets	n	0
5.01	Aquatic	n	0
5.02	Grass	y	1
5.03	Nitrogen fixing woody plant	n	0
5.04	Geophyte	n	0
6.01	Evidence of substantial reproductive failure in native habitat		
6.02	Produces viable seed		

6.03	Hybridizes naturally	n	-1
6.04	Self-compatible or apomictic		
6.05	Requires specialist pollinators	n	0
6.06	Reproduction by vegetative propagation	y	1
6.07	Minimum generative time (years)	>4	-1
7.01	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)		
7.02	Propagules dispersed intentionally by people	y	1
7.03	Propagules likely to disperse as a produce contaminant	n	-1
7.04	Propagules adapted to wind dispersal	n	-1
7.05	Propagules water dispersed		
7.06	Propagules bird dispersed		
7.07	Propagules dispersed by other animals (externally)	n	-1
7.08	Propagules dispersed by other animals (internally)		
8.01	Prolific seed production		
8.02	Evidence that a persistent propagule bank is formed (>1 yr)	n	-1
8.03	Well controlled by herbicides		
8.04	Tolerates, or benefits from, mutilation or cultivation		
8.05			
Total Score			-1
Implemented Pacific Second Screening			no
Risk Assessment Results			Low

section	# questions answered	satisfy minimum?
A		10 yes
B		8 yes
C		12 yes
total		30 yes

	Reference	Source data
1.01		Cultivated, but no evidence of selection for reduced weediness.
1.02		skip to 2.01
1.03		skip to 2.01
2.01	1. PERAL NAPPFAST Global Plant Hardiness (http://www.nappfast.org/Plant_hardiness/NAPPFAST%20Global%20zones/10-year%20climate/PLANT_HARDINESS_10YR%20lgnd.tif). 2. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?409896 (10 February 2014).	No computer analysis was performed. 1. Global hardiness zone: (9?-)10-12; equivalent to USDA Hardiness zones (8a?-)8b-11b+. 2. Native to China (Guangdong, Guangxi, Hainan); Hong Kong.
2.02		No computer analysis was performed. Native range is well known; refer to 2.01 source data.
2.03	1. Köppen-Geiger climate map (http://www.hydrol-earth-syst-sci.net/11/1633/2007/hess-11-1633-2007.pdf).	1. Distribution in the native range occurs in 2 , possibly 3, climatic groups.
2.04	1. World Climate Maps. http://www.climate-charts.com/World-Climates-Maps.html . Accessed 5 February 2014.	1. Native areas: 975 mm-2474 mm (38.5"-97.4").
2.05	1. Quindembo Bamboo. http://bamboonursery.com/ . Accessed 10 February 2014. 2. Rogers GK. 2012. Landscape Plants for South Florida: A Manual for Gardeners, Landscapers and Homeowners. 3rd ed. [Internet]. Palm Beach Gardens, FL: Palm Beach State College; [cited 10 February 2014]. Accessed from: http://www.plantbook.org/plantdata/poaceae/bambusa_chungii.html .	1. Quindembo Bamboo began importing non-invasive bamboos (e.g., <i>Bambusa chungii</i>) through the State Quarantine to Hawaii in 1989. 2. Imported (to FL) from China in the early 1990s.
3.01		No evidence found.
3.02	1. Rogers GK. 2012. Landscape Plants for South Florida: A Manual for Gardeners, Landscapers and Homeowners. 3rd ed. [Internet]. Palm Beach Gardens, FL: Palm Beach State College; [cited 10 February 2014]. Accessed from: http://www.plantbook.org/plantdata/poaceae/bambusa_chungii.html .	1. Non-invasive clumping bamboo.
3.03	1. Rogers GK. 2012. Landscape Plants for South Florida: A Manual for Gardeners, Landscapers and Homeowners. 3rd ed. [Internet]. Palm Beach Gardens, FL: Palm Beach State College; [cited 10 February 2014]. Accessed from: http://www.plantbook.org/plantdata/poaceae/bambusa_chungii.html .	1. Non-invasive clumping bamboo.
3.04	1. Rogers GK. 2012. Landscape Plants for South Florida: A Manual for Gardeners, Landscapers and Homeowners. 3rd ed. [Internet]. Palm Beach Gardens, FL: Palm Beach State College; [cited 10 February 2014]. Accessed from: http://www.plantbook.org/plantdata/poaceae/bambusa_chungii.html .	1. Non-invasive clumping bamboo.
3.05	1. Holm, L. et al. A Geographical Atlas of World Weeds. New York: John Wiley & Sons, 1979. Print. 2. Global Invasive Species Database, 2005. <i>Bambusa vulgaris</i> . Available from: http://www.issg.org/database/species/ecology.asp?si=1399&fr=1&sts=sss&lang=EN [Accessed 3 February 2014].	1. <i>Bambusa vulgaris</i> is listed as being present as a weed in Jamaica. 2. <i>Bambusa vulgaris</i> is the most widespread member of its genus, and has long been cultivated across the tropics and subtropics. It prefers lowland humid habitats, but tolerates a wide range of climatic conditions and soil types. It commonly naturalizes, forming monospecific stands along river banks, roadsides and open ground.

4.01		These structures are not included in the description of this species.
4.02		No evidence found.
4.03	1. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?409896 (10 February 2014).	1. Family: Poaceae (not a parasitic family).
4.04		No evidence found.
4.05		No evidence found.
4.06		No evidence found.
4.07		No evidence found.
4.08		No evidence found.
4.09	1. Rogers GK. 2012. Landscape Plants for South Florida: A Manual for Gardeners, Landscapers and Homeowners. 3rd ed. [Internet]. Palm Beach Gardens, FL: Palm Beach State College; [cited 10 February 2014]. Accessed from: http://www.plantbook.org/plantdata/poaceae/bambusa_chungii.html .	1. Prefers full sun. (Many nursery sites indicate grows in full sun to partial shade, but no definitive evidence of shade tolerance).
4.10	1. Rogers GK. 2012. Landscape Plants for South Florida: A Manual for Gardeners, Landscapers and Homeowners. 3rd ed. [Internet]. Palm Beach Gardens, FL: Palm Beach State College; [cited 10 February 2014]. Accessed from: http://www.plantbook.org/plantdata/poaceae/bambusa_chungii.html .	1. Prefers rich, well-drained soil.
4.11	1. Rogers GK. 2012. Landscape Plants for South Florida: A Manual for Gardeners, Landscapers and Homeowners. 3rd ed. [Internet]. Palm Beach Gardens, FL: Palm Beach State College; [cited 10 February 2014]. Accessed from: http://www.plantbook.org/plantdata/poaceae/bambusa_chungii.html .	1. Top out at about 30 feet, with culms up to 2 inches in diameter.
4.12		
5.01	1. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?409896 (10 February 2014). 2. Rogers GK. 2012. Landscape Plants for South Florida: A Manual for Gardeners, Landscapers and Homeowners. 3rd ed. [Internet]. Palm Beach Gardens, FL: Palm Beach State College; [cited 10 February 2014]. Accessed from: http://www.plantbook.org/plantdata/poaceae/bambusa_chungii.html .	1. Family: Poaceae. 2. Hills or often on river or stream banks.
5.02	1. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network - (GRIN) [Online Database]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/taxon.pl?409896 (10 February 2014). 2. Rogers GK. 2012. Landscape Plants for South Florida: A Manual for Gardeners, Landscapers and Homeowners. 3rd ed. [Internet]. Palm Beach Gardens, FL: Palm Beach State College; [cited 10 February 2014]. Accessed from: http://www.plantbook.org/plantdata/poaceae/bambusa_chungii.html .	1. Family: Poaceae. 2. Top out at about 30 feet, with culms up to 2 inches in diameter.
5.03		

5.04	1. Clayton, W.D., Vorontsova, M.S., Harman, K.T. and Williamson, H. (2006 onwards). GrassBase - The Online World Grass Flora. http://www.kew.org/data/grasses-db.html . [accessed 10 February 2014; 10:32 AM (EST)]. 2. Rogers GK. 2012. Landscape Plants for South Florida: A Manual for Gardeners, Landscapers and Homeowners. 3rd ed. [Internet]. Palm Beach Gardens, FL: Palm Beach State College; [cited 10 February 2014]. Accessed from: http://www.plantbook.org/plantdata/poaceae/bambusa_chungii.html .	1. Pachymorph (clumping bamboo). 2. Sympodial.
6.01		No evidence found.
6.02	1. Dave's Garden. http://davesgarden.com/ . Accessed 10 February 2014.	1. Seed collecting: allow seedheads to dry on plants; remove and collect seeds. Seed does not store well; sow as soon as possible.
6.03		No evidence found.
6.04		No evidence found.
6.05		No evidence found.
6.06	1. Dave's Garden. http://davesgarden.com/ . Accessed 10 February 2014.	1. Propagation methods: By dividing the rootball; by dividing rhizomes, tubers, corms or bulbs (including offsets); by air layering.
6.07		No evidence found.
7.01		No evidence found.
7.02	1. Quindembo Bamboo. http://bamboonursery.com/ . Accessed 10 February 2014.	1. Used for fine weaving in traditional cultures and also part of the Chinese medicine chest.
7.03		No evidence found.
7.04		No evidence found.
7.05		No evidence found.
7.06		No evidence found.
7.07		No evidence found.
7.08		No evidence found.
8.01		No evidence found.
8.02	1. Dave's Garden. http://davesgarden.com/ . Accessed 10 February 2014. 2. Shanmughavel P & Francis K. 1997. Balance and turnover of nutrients in a bamboo plantation (<i>Bambusa bambos</i>) of different ages. <i>Biological Fertile Soils</i> , 25: 69-74.	1. Seed does not store well; sow as soon as possible. 2. Bamboo seeds possess a short period of viability (a few days to 1 month).
8.03		No evidence found.
8.04		No evidence found.
8.05		No evidence found.

Bambusa chungii (White-powder bamboo)

Explanation:

Tree or tree-like shrub:

B. No evidence to support/deny dispersal mechanism or life cycle time.

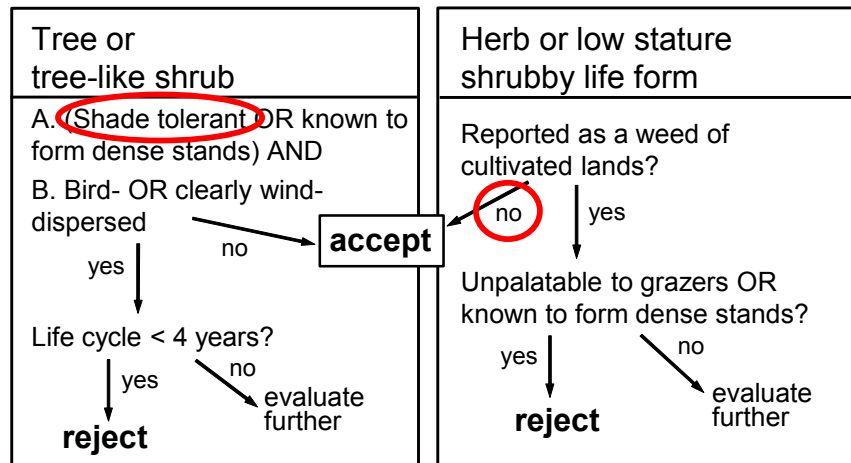
Herb or low stature life form:

Evidence to support/deny palatability and growth habit in a natural setting were not found.

Conclusion: Evaluate

Pacific second screening: decision rules for species with WRA scores between 1 and 6

(from Daehler *et al.* 2004)



Vines, bamboo and large-stature grasses must pass both tests