

Australia/New Zealand Weed Risk Assessment adapted for Florida.

Data used for analysis published in: Gordon, D.R., D.A. Onderdonk, A.M. Fox, R.K. Stocker, and C. Gantz. 2008. Predicting Invasive Plants in Florida using the Australian Weed Risk Assessment. *Invasive Plant Science and Management* 1: 178-195.

<i>Fargesia nitida (fountain bamboo)</i>			
Question number	Question	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)	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		
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	n	0
3.03	Weed of agriculture	n	0
3.04	Environmental weed	n	0
3.05	Congeneric weed	n	0
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	n	0
4.06	Host for recognised pests and pathogens		
4.07	Causes allergies or is otherwise toxic to humans	n	0
4.08	Creates a fire hazard in natural ecosystems	n	0
4.09	Is a shade tolerant plant at some stage of its life cycle	y	1
4.1	Grows on infertile soils (oligotrophic, limerock, or excessively draining soils)	y	1
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		
6.01	Evidence of substantial reproductive failure in native habitat		
6.02	Produces viable seed	?	
6.03	Hybridizes naturally		
6.04	Self-compatible or apomictic		
6.05	Requires specialist pollinators	n	0
6.06	Reproduction by vegetative fragmentation	y	1
6.07	Minimum generative time (years)		
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	n	-1
7.06	Propagules bird dispersed	n	-1
7.07	Propagules dispersed by other animals (externally)	n	-1
7.08	Propagules dispersed by other animals (internally)	n	-1
8.01	Prolific seed production	n	-1
8.02	Evidence that a persistent propagule bank is formed (>1 yr)		
8.03	Well controlled by herbicides		
8.04	Tolerates, or benefits from, mutilation or cultivation		
8.05	Effective natural enemies present in Florida, or east of the continental divide		
Total Score			-4

Outcome	Accept*
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*Used secondary screen from: Daehler, C. C., J.L. Denslow, S. Ansari, and H. Kuo. 2004. A risk assessment system for screening out harmful invasive pest plants from Hawaii's and other Pacific islands. *Conserv. Biol.* 18: 360-368.

section	# questions answered	satisfy minimum?
A	7	yes
B	10	yes
C	13	yes
total	30	yes

Data collected 2006-2007

Question number	Reference	Source data
1.01		cultivated, but no evidence of selection for reduced weediness
1.02		
1.03		
2.01	Horticopia 4.0	hardy range 5A to 11
2.02		
2.03	Yu, Tao, Li, Wang, Xi, Zhang, and Zang (2006) Ramet population structure of <i>Fargesia nitida</i> (Mitford) Keng f. et Yi in different successional stands of the subalpine coniferous forest in Wolong Nature Reserve. Journal of Integrative Plant Biology 48: 1147-1153.	"The plant is distributed in southern Gansu Province and western Sichuan Province, China".
2.04		
2.05	1. Bell (2000) The Gardener's Guide to Growing Temperate Bamboos. Timber Press: Portland, Oregon. 2. Meredith (2001) Bamboo for Gardens. Timber Press: Portland, Oregon.	1. "This is another fine early introduction, with seed reaching Europe towards the end of the nineteenth century". 2. "a choice ornamental"
3.01		no evidence
3.02		no evidence
3.03		no evidence
3.04		no evidence
3.05	Holm (1979) A Geographical Atlas of World Weeds. John Wiley and Sons.	<i>Arundinaria tecta</i> considered present as a weed of agriculture in the U.S. [but unclear whether this is same genus due to confusing taxonomy].
4.01	Bell (2000) The Gardener's Guide to Growing Temperate Bamboos. Timber Press: Portland, Oregon.	no description of these traits
4.02		no evidence
4.03	Bell (2000) The Gardener's Guide to Growing Temperate Bamboos. Timber Press: Portland, Oregon.	no description of this
4.04		
4.05	Yu, Tao, Li, Wang, Xi, Zhang, and Zang (2006) Ramet population structure of <i>Fargesia nitida</i> (Mitford) Keng f. et Yi in different successional stands of the subalpine coniferous forest in	food source for giant panda [and no other evidence of toxicity]

	Wolong Nature Reserve. Journal of Integrative Plant Biology 48: 1147-1153.	
4.06		
4.07		no evidence
4.08		no evidence
4.09	1. Bell (2000) The Gardener's Guide to Growing Temperate Bamboos. Timber Press: Portland, Oregon. 2. Meredith (2001) Bamboo for Gardens. Timber Press: Portland, Oregon. 3. Hortocopia 4.0.	1. " <i>Fargesia nitida</i> is a shade-loving plant of the forest" 2. full shade BUT 3. full sun
4.1	Hortocopia 4.0.	"Suitable soil is well-drained/loamy, sandy or clay."
4.11	Yu, Tao, Li, Wang, Xi, Zhang, and Zang (2006) Ramet population structure of <i>Fargesia nitida</i> (Mitford) Keng f. et Yi in different successional stands of the subalpine coniferous forest in Wolong Nature Reserve. Journal of Integrative Plant Biology 48: 1147-1153.	perennial bamboo
4.12		no evidence
5.01		terrestrial
5.02	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?407339).	Poaceae
5.03	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?407339).	Poaceae
5.04		
6.01		
6.02		no evidence of propagation by seed (rarely fruits)
6.03		
6.04		
6.05		grass
6.06	Yu, Tao, Li, Wang, Xi, Zhang, and Zang (2006) Ramet population structure of <i>Fargesia nitida</i> (Mitford) Keng f. et Yi in different successional stands of the subalpine coniferous forest in Wolong Nature Reserve. Journal of Integrative Plant Biology 48: 1147-1153.	"The clonal growth of <i>F. nitida</i> depends on rhizomatous expansion".
6.07	Yu, Tao, Li, Wang, Xi, Zhang, and Zang (2006) Ramet population structure of <i>Fargesia nitida</i> (Mitford) Keng f. et Yi in different successional stands of the subalpine coniferous forest in Wolong Nature Reserve. Journal of Integrative Plant Biology 48: 1147-1153.	"monocarpic woody clonal plant with a 50-60 yr flowering periodocity" [but time to vegetative reproduction unknown]
7.01		

7.02	1. Bell (2000) <i>The Gardener's Guide to Growing Temperate Bamboos</i> . Timber Press: Portland, Oregon. 2. Meredith (2001) <i>Bamboo for Gardens</i> . Timber Press: Portland, Oregon.	1. "This is another fine early introduction, with seed reaching Europe towards the end of the nineteenth century". 2. "a choice ornamental"
7.03		no evidence
7.04	Flora of China, vol. 22 (http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=242321943).	"Caryopsis yellow-brown to dark brown, ovoid, glabrous." [no evidence of any adaptations to wind dispersal]
7.05		no evidence
7.06		grass
7.07	Flora of China, vol. 22 (http://www.efloras.org/florataxon.aspx?flora_id=2&taxon_id=242321943).	"Caryopsis yellow-brown to dark brown, ovoid, glabrous." [no evidence of any means of attachment]
7.08		grass
8.01	Yu, Tao, Li, Wang, Xi, Zhang, and Zang (2006) Ramet population structure of <i>Fargesia nitida</i> (Mitford) Keng f. et Yi in different successional stands of the subalpine coniferous forest in Wolong Nature Reserve. <i>Journal of Integrative Plant Biology</i> 48: 1147-1153.	"monocarpic woody clonal plant with a 50-60 yr flowering periodicity" [so number of seeds/year is low]
8.02		
8.03		
8.04		
8.05		