

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>Chorisia speciosa (floss-silk tree)</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)		
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	y	1
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	n	0
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	n	0
4.1	Grows on infertile soils (oligotrophic, limerock, or excessively draining soils)	n	0
4.11	Climbing or smothering growth habit	n	0
4.12	Forms dense thickets	n	0
5.01	Aquatic	n	0

5.02	Grass	n	0
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	y	1
6.03	Hybridizes naturally		
6.04	Self-compatible or apomictic	n	-1
6.05	Requires specialist pollinators	n	0
6.06	Reproduction by vegetative fragmentation		
6.07	Minimum generative time (years)	5	-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	y	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	y	1
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	Effective natural enemies present in Florida, or east of the continental divide		
Total Score			-5

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	6	yes
B	11	yes
C	16	yes
total	33	yes

Data collected 2006-2007

Question number	Reference	Source data
1.01		used horticulturally, but no evidence of selection for reduced weediness
1.02		
1.03		
2.01	Martin (1988) <i>Chorisia speciosa</i> A. Saint Hil.: a succulent treasure. Cactus and Succulent Journal 60: 237-238.	" <i>Chorisia speciosa</i> is reported to stand temperatures to 20°F."
2.02		
2.03		
2.04		
2.05	1. Horticipia 4.0 2. Beentje (1989) Flora of Tropical East Africa: Bombacaceae. A.A. Balkema/Rotterdam/Brookfield.	1. used horticulturally in U.S. 2. "widely planted as an avenue tree" in East Africa
3.01		no evidence
3.02		no evidence
3.03		no evidence
3.04		no evidence
3.05		no evidence
4.01	Dehgan, B. (1998) Landscape Plants for Subtropical Climates. University Press of Florida.	trunk and large branches covered with stout, conical spines
4.02		no evidence
4.03	Dehgan, B. (1998) Landscape Plants for Subtropical Climates. University Press of Florida.	no description of this
4.04		
4.05		no evidence
4.06	1. Ching (1977) <i>Chorisia speciosa</i> : floss silk tree. American Horticulturist 56: 42. 2. Horticipia 4.0	1. "Chorisia appear to be free of diseases and pests" 2. No pests, diseases, or damaging agents of major concern.
4.07		no mention of toxicity in horticultural or toxicity references
4.08		no evidence
4.09	1. Dehgan, B. (1998) Landscape Plants for Subtropical Climates. University Press of Florida. 2. Horticipia 4.0 3. Pereira de Souza and Valio (2001) Seed size, seed germination, and seedling survival of Brazilian tropical tree	1. "plant in full sun" 2. exposure: full sun 3. Seedlings of <i>C. speciosa</i> show very low survival under shade conditions.

	species differing in successional status. <i>Biotropica</i> 33: 447-457.	
4.1	1. Engel and Parrotta (2001) An evaluation of direct seeding for reforestation of degraded lands in central Sao Paulo State, Brazil. <i>Forest Ecology and Management</i> 152: 169-181. 2. Ching (1977) <i>Chorisia speciosa</i> : floss silk tree. <i>American Horticulturist</i> 56: 42.	1. <i>Chorisia speciosa</i> had significantly lower germination rates on sites of medium and low fertility than on a site of high fertility; its stand density was much lower after 45 days on the medium and low fertility sites than on the high fertility site; its stand density after 2 years was almost nonexistent on the medium and low fertility sites. BUT 2. "At the Arboretum, trees have performed equally well in good and marginal soils." [The more detailed information indicates a "no" answer.]
4.11	Dehgan, B. (1998) <i>Landscape Plants for Subtropical Climates</i> . University Press of Florida.	tree
4.12		no evidence
5.01		terrestrial
5.02	Dehgan, B. (1998) <i>Landscape Plants for Subtropical Climates</i> . University Press of Florida.	Bombacaceae
5.03	Dehgan, B. (1998) <i>Landscape Plants for Subtropical Climates</i> . University Press of Florida.	Bombacaceae
5.04		
6.01		
6.02	Dehgan, B. (1998) <i>Landscape Plants for Subtropical Climates</i> . University Press of Florida.	propagation: by seed
6.03	Gibbs and Bianchi (1993) Post-pollination events in species of <i>Chorisia</i> (Bombacaceae) and <i>Tabebuia</i> (Bignoniaceae) with late-acting self-incompatibility. <i>Botanica Acta</i> 106: 64-71.	"These two <i>Chorisia</i> species [<i>C. chodatii</i> and <i>C. speciosa</i>] are closely related and they will give fully fertile hybrid progeny." [not clear whether this is in the wild or not]
6.04	Gibbs and Bianchi (1993) Post-pollination events in species of <i>Chorisia</i> (Bombacaceae) and <i>Tabebuia</i> (Bignoniaceae) with late-acting self-incompatibility. <i>Botanica Acta</i> 106: 64-71.	<i>C. speciosa</i> was shown to be self-incompatible.
6.05	Souza, Kageyama, and Sebbenn (2003) Sistema de reproducao em populacao natural de <i>Chorisia speciosa</i> A. St.-Hil. (Bombacaceae). <i>Revista Brasileira de Botanica</i> 26: 113-121.	<i>C. speciosa</i> probably pollinated by butterflies, bats, and/or hummingbirds. [Includes, but not limited to, specialist pollinators.]
6.06		
6.07	Martin (1988) <i>Chorisia speciosa</i> A. Saint Hil.: a succulent treasure. <i>Cactus and Succulent Journal</i> 60: 237-238.	"reaches maturity (blooming size) at 5-8 years of age"

7.01		
7.02	1. Horticultura 4.0 2. Beentje (1989) Flora of Tropical East Africa: Bombacaceae. A.A. Balkema/Rotterdam/Brookfield.	1. used horticulturally in U.S. 2. "widely planted as an avenue tree" in East Africa
7.03		no evidence; seeds unlikely to come into contact with produce
7.04	1. Dehgan, B. (1998) Landscape Plants for Subtropical Climates. University Press of Florida. 2. Souza, Kageyama, and Sebbenn (2003) Sistema de reproducao em populacao natural de <i>Chorisia speciosa</i> A. St.-Hil. (Bombacaceae). Revista Brasileira de Botanica 26: 113-121.	1. seeds with silky, kapok-like floss 2. seeds wind dispersed
7.05		no evidence
7.06		wind dispersed
7.07		no evidence of any means of attachment
7.08		wind dispersed
8.01	Lorenzi (2002) Brazilian Trees, 4th edition. Instituto Plantarum de Estudos da Flora Ltda. Sao Paulo, Brazil.	"Yields yearly a large quantity of viable seeds"
8.02	Barbosa, Santos Jr., and Pisciotano (2000) Effect of burial and submersion on seed survival of native species used in riparian forestation. Revista Arvore 24: 317-322.	" <i>Chorisia speciosa</i> ...seeds were not resistant to burial for more than 30 days."
8.03		
8.04		
8.05		