

**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>Cyclanthera pedata (wild cucumber)</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	?	
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	y	1
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		
4.1	Grows on infertile soils (oligotrophic, limerock, or excessively draining soils)		
4.11	Climbing or smothering growth habit	y	1
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	n	0
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		
6.05	Requires specialist pollinators	n	0
6.06	Reproduction by vegetative fragmentation	n	-1
6.07	Minimum generative time (years)	1	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	n	-1
7.06	Propagules bird dispersed	?	
7.07	Propagules dispersed by other animals (externally)	n	-1
7.08	Propagules dispersed by other animals (internally)	y	1
8.01	Prolific seed production		
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		
<b>Total Score</b>			<b>1</b>

<b>Outcome</b>	<b>Evaluate*</b>
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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	5	yes
B	9	yes
C	14	yes
total	28	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		
2.02		
2.03	Wunderlin, R.P. (1978) Flora of Panama, part IX. Family 182. Cucurbitaceae. Annals of the Missouri Botanical Garden 65: 285-368.	probably native to Andean South America
2.04		
2.05	Siemonsma and Piluek, eds. (1994) Plant Resources of South-East Asia. No. 8. Vegetables. PROSEA, Bogor, Indonesia.	"Native to Andean South America...Cultivated from Mexico to Peru and Ecuador and also occasionally in the Old World tropics (e.g. Malaysia, Nepal, Taiwan)."
3.01	1. Whitaker, TW (1990) Cucurbits of potential economic importance. Pp. 318-324 in DM Bates, RW Robinson, and C Jeffrey (eds) Biology and Utilization of the Cucurbitaceae. Cornell University Press, Ithaca and London. 2. Wunderlin, R.P. (1978) Flora of Panama, part IX. Family 182. Cucurbitaceae. Annals of the Missouri Botanical Garden 65: 285-368. 3. HEAR.org, Plant species introduced to Galapagos ( <a href="http://www.hear.org/galapagos/invasives/topics/management/plants/projects/species.htm">http://www.hear.org/galapagos/invasives/topics/management/plants/projects/species.htm</a> ). 4. National Research Council (1989) Lost Crops of the Incas: Little-Known Plants of the Andes with Promise for Worldwide Cultivation. National Academy Press, Washington, D.C.	1. " <i>Cyclanthera pedata</i> is native to the New World. It is cultivated from Mexico to Peru and Ecuador, and it frequently occurs as an escape". 2. "It is probably native to Andean South America, but is commonly cultivated in the Neotropics for its edible fruit and it frequently occurs as an escape." [unclear whether naturalized outside its native range] 3. listed as introduced and present in the Galapagos [unclear whether naturalized] 4. "In Nepal, it is occasionally cultivated at about 2,000 m elevation and has escaped in places." [unclear whether naturalized]
3.02		no evidence
3.03		no evidence
3.04		no evidence
3.05		no evidence
4.01	Wunderlin, R.P. (1978) Flora of Panama, part IX. Family 182. Cucurbitaceae. Annals of the	no description of these traits

	Missouri Botanical Garden 65: 285-368.	
4.02		no evidence
4.03	Wunderlin, R.P. (1978) Flora of Panama, part IX. Family 182. Cucurbitaceae. Annals of the Missouri Botanical Garden 65: 285-368.	no description of this
4.04		
4.05		no evidence
4.06	1. Csorba, R., E.F. Kiss, and I. Molnar (2004) Reactions of some Cucurbitaceous species to zucchini yellow mosaic virus (ZYMV). Communications in Agricultural and Applied Biological Sciences 69: 499-506. 2. Rezende (2000) <i>Cyclanthera pedata</i> var. <i>edulis</i> : new host of papaya ringspot virus-type W in Brazil. Plant Disease 84: 1155.	1. <i>C. pedata</i> was found to be a host of zucchini yellow mosaic virus, a virus causing epidemics among the Cucurbitaceae. 2. <i>C. pedata</i> var. <i>edulis</i> found to be a host for papaya ringspot virus-type W in Brazil.
4.07	Siemonsma and Piluek, eds. (1994) Plant Resources of South-East Asia. No. 8. Vegetables. PROSEA, Bogor, Indonesia.	"Young fruits are eaten, raw or cooked... Young shoots and leaves are also edible."
4.08		no evidence
4.09		
4.1		
4.11	Siemonsma and Piluek, eds. (1994) Plant Resources of South-East Asia. No. 8. Vegetables. PROSEA, Bogor, Indonesia.	vigorous vine, up to 5 m long
4.12		no evidence
5.01		terrestrial
5.02	USDA, NRCS. 2005. The PLANTS Database, Version 3.5 ( <a href="http://plants.usda.gov">http://plants.usda.gov</a> ). Data compiled from various sources by Mark W. Skinner. National Plant Data Center, Baton Rouge, LA 70874-4490 USA.	Cucurbitaceae
5.03	USDA, NRCS. 2005. The PLANTS Database, Version 3.5 ( <a href="http://plants.usda.gov">http://plants.usda.gov</a> ). Data compiled from various sources by Mark W. Skinner. National Plant Data Center, Baton Rouge, LA 70874-4490 USA.	Cucurbitaceae
5.04	1. Siemonsma and Piluek, eds. (1994) Plant Resources of South-East Asia. No. 8. Vegetables. PROSEA, Bogor, Indonesia. 2. Wunderlin, R.P. (1978) Flora of Panama, part IX. Family 182. Cucurbitaceae. Annals of the Missouri Botanical Garden 65: 285-368.	annual (1, 2)
6.01		
6.02	Stephens (2003) Achoccha - <i>Cyclanthera pedata</i> L. University of Florida, IFAS Extension, HS538 ( <a href="http://edis.ifas.ufl.edu/pdffiles/MV/MV00500.pdf">http://edis.ifas.ufl.edu/pdffiles/MV/MV00500.pdf</a> ).	"Propagation is by seeds".
6.03		
6.04		
6.05	Vogel, S. (1981) The glue-producing anther hairs of <i>Cyclanthera pedata</i> (Cucurbitaceae). Plant Systematics and Evolution 137: 291-316.	Anther hairs of <i>C. pedata</i> "aid in pollination by producing a glue which

		sticks the coarse pollen grains onto insect visitors".
6.06	1. Siemonsma and Piluek, eds. (1994) Plant Resources of South-East Asia. No. 8. Vegetables. PROSEA, Bogor, Indonesia. 2. Wunderlin, R.P. (1978) Flora of Panama, part IX. Family 182. Cucurbitaceae. Annals of the Missouri Botanical Garden 65: 285-368.	annual (1, 2) [and no evidence of vegetative reproduction]
6.07	1. Siemonsma and Piluek, eds. (1994) Plant Resources of South-East Asia. No. 8. Vegetables. PROSEA, Bogor, Indonesia. 2. Wunderlin, R.P. (1978) Flora of Panama, part IX. Family 182. Cucurbitaceae. Annals of the Missouri Botanical Garden 65: 285-368.	annual (1, 2)
7.01		
7.02	Siemonsma and Piluek, eds. (1994) Plant Resources of South-East Asia. No. 8. Vegetables. PROSEA, Bogor, Indonesia.	"Native to Andean South America...Cultivated from Mexico to Peru and Ecuador and also occasionally in the Old World tropics (e.g. Malaysia, Nepal, Taiwan)."
7.03		no evidence
7.04	1. Siemonsma and Piluek, eds. (1994) Plant Resources of South-East Asia. No. 8. Vegetables. PROSEA, Bogor, Indonesia. 2. Nash (1976) in PIER, Institute of Pacific Islands Forestry ( <a href="http://www.hear.org/Pier/species/cyclanthera_pedata.htm">http://www.hear.org/Pier/species/cyclanthera_pedata.htm</a> ).	1. "Fruit a pepo...up to 16 cm long". 2. "not explosively dehiscent"
7.05		no evidence
7.06	Siemonsma and Piluek, eds. (1994) Plant Resources of South-East Asia. No. 8. Vegetables. PROSEA, Bogor, Indonesia.	"Fruit a pepo...up to 16 cm long". [quite large for a bird]
7.07	Siemonsma and Piluek, eds. (1994) Plant Resources of South-East Asia. No. 8. Vegetables. PROSEA, Bogor, Indonesia.	"Fruit a pepo...up to 16 cm long...sometimes with soft spines". [sometimes has spines, but they are soft, and fruit is most likely too large for external dispersal]
7.08	Siemonsma and Piluek, eds. (1994) Plant Resources of South-East Asia. No. 8. Vegetables. PROSEA, Bogor, Indonesia.	"Fruit a pepo...up to 16 cm long".
8.01	National Research Council (1989) Lost Crops of the Incas: Little-Known Plants of the Andes with Promise for Worldwide Cultivation. National Academy Press, Washington, D.C.	each fruit "containing up to a dozen seeds"
8.02		
8.03		
8.04		
8.05		