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.

Pilea nummulariifolia (creeping Charlie)			
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	y	0
3.02	Garden/amenity/disturbance weed	y	0
3.03	Weed of agriculture	y	0
3.04	Environmental weed	n	0
3.05	Congeneric weed	y	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	y	1
4.12	Forms dense thickets	?	
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	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		
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)		
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			11

Outcome	**Reject***

*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	9	yes
C	12	yes
total	27	yes

Data collected 2006-2007

Question number	Reference	Source data
1.01		no evidence of selection for reduced weediness
1.02		
1.03		
2.01		
2.02		
2.03	1. Whistler (2000) Tropical Ornamentals: a Guide. Timber Press, Portland. 2. Lorenzi (2000) Plantas Daninhas do Brasil. Instituto Plantarum.	1. native to the Caribbean area 2. also naturalized in Brazil
2.04		
2.05	Whistler (2000) Tropical Ornamentals: a Guide. Timber Press, Portland.	"widely cultivated for its attractive leaves and creeping habit"
3.01	Lorenzi (2000) Plantas Daninhas do Brasil. Instituto Plantarum.	"easily escapes cultivation, becoming undesirable"
3.02	Lorenzi (2000) Plantas Daninhas do Brasil. Instituto Plantarum.	"easily escapes cultivation, becoming undesirable…It can be found infesting…uncultivated terrain"
3.03	1. Lorenzi (2000) Plantas Daninhas do Brasil. Instituto Plantarum. 2. Holm (1979) A Geographical Atlas of World Weeds. John Wiley and Sons.	1. "it can be found infesting banana and apple orchards" 2. considered a common weed of agriculture in Trinidad
3.04		no evidence
3.05	Holm (1979) A Geographical Atlas of World Weeds. John Wiley and Sons.	*P. microphylla* considered a common weed of agriculture in Hawaii.
4.01	Liogier (1985) Descriptive Flora of Puerto Rico and Adjacent Islands. Spermatophyta. Vol. 1: Casuarinaceae to Connaraceae. Editorial de la Universidad de Puerto Rico.	no description of these traits
4.02		no evidence
4.03	Liogier (1985) Descriptive Flora of Puerto Rico and Adjacent Islands. Spermatophyta. Vol. 1: Casuarinaceae to Connaraceae. Editorial de la Universidad de Puerto Rico.	no description of this
4.04		
4.05		no mention of toxicity in horticultural or toxicity references
4.06		

4.07		no mention of toxicity in horticultural or toxicity references
4.08		no evidence
4.09	1. Whistler (2000) Tropical Ornamentals: a Guide. Timber Press, Portland. 2. Adams (1972) Flowering Plants of Jamaica. University of the West Indies, Mona, Jamaica.	1. "partially shaded places are preferred" 2. "Locally common, on shaded roadside banks and limestone walls"
4.1	1. Adams (1972) Flowering Plants of Jamaica. University of the West Indies, Mona, Jamaica. 2. Liogier (1985) Descriptive Flora of Puerto Rico and Adjacent Islands. Spermatophyta. Vol. 1: Casuarinaceae to Connaraceae. Editorial de la Universidad de Puerto Rico.	1. "Locally common, on shaded roadside banks and limestone walls" 2. "on shaded banks and rocks in forests"
4.11	USDA, NRCS. 2005. The PLANTS Database, Version 3.5 (http://plants.usda.gov). Data compiled from various sources by Mark W. Skinner. National Plant Data Center, Baton Rouge, LA 70874-4490 USA.	growth habit: vine, forb/herb
4.12	Lorenzi (2000) Plantas Daninhas do Brasil. Instituto Plantarum.	"forming dense infestations" [climbing, but low?]
5.01		terrestrial
5.02	USDA, NRCS. 2005. The PLANTS Database, Version 3.5 (http://plants.usda.gov). Data compiled from various sources by Mark W. Skinner. National Plant Data Center, Baton Rouge, LA 70874-4490 USA.	Urticaceae
5.03	USDA, NRCS. 2005. The PLANTS Database, Version 3.5 (http://plants.usda.gov). Data compiled from various sources by Mark W. Skinner. National Plant Data Center, Baton Rouge, LA 70874-4490 USA.	Urticaceae
5.04		
6.01		
6.02	Lorenzi (2000) Plantas Daninhas do Brasil. Instituto Plantarum.	"propagates itself by seeds and stolons"
6.03		
6.04	Renner and Feil (1993) Pollinators of tropical dioecious angiosperms. American Journal of Botany 80: 1100-1107.	genus *Pilea* is dioecious
6.05	1. Whistler (2000) Tropical Ornamentals: a Guide. Timber Press, Portland. 2. Renner and Feil (1993) Pollinators of tropical dioecious angiosperms. American Journal of Botany 80: 1100-1107.	1. tiny, inconspicuous green flowers 2. genus *Pilea* is wind-pollinated
6.06	1. Whistler (2000) Tropical Ornamentals: a Guide. Timber Press, Portland. 2. Lorenzi (2000) Plantas Daninhas do Brasil. Instituto Plantarum.	1. roots at nodes 2. "propagates itself by seeds and stolons"
6.07		
7.01		
7.02	Whistler (2000) Tropical Ornamentals: a Guide. Timber Press, Portland.	"widely cultivated for its attractive leaves and creeping habit"
7.03		no evidence
7.04	Whistler (2000) Tropical Ornamentals: a Guide.	fruit a tiny green achene [no evidence

	Timber Press, Portland.	of adaptations for wind dispersal]
7.05		no evidence
7.06		
7.07		no evidence of any means of attachment
7.08		
8.01		
8.02		
8.03		
8.04		
8.05		