

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>Hedera canariensis (Algerian ivy)</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	y	0
3.02	Garden/amenity/disturbance weed	n	0
3.03	Weed of agriculture	n	0
3.04	Environmental weed	y	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	?	
4.06	Host for recognised pests and pathogens	n	0
4.07	Causes allergies or is otherwise toxic to humans	y	1
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	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		
6.05	Requires specialist pollinators		
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)	y	1
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	y	1
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	y	-1
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			13

Outcome	Reject*
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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	10	yes
C	14	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	Hortocopia 4.0	hardy range 8B to 10A
2.02		
2.03	1. Dehgan, B. (1998) Landscape Plants for Subtropical Climates. University Press of Florida. 2. Hrusa, Ertter, Sanders, Leppig, and Dean (2002) Catalogue of non-native vascular plants occurring spontaneously in California beyond those addressed in The Jepson Manual - part I. Madroño 49: 61-98.	1. native to the Canary Islands 2. naturalized in California
2.04		
2.05	1. Dehgan, B. (1998) Landscape Plants for Subtropical Climates. University Press of Florida. 2. Huxley (1992) The New Royal Horticultural Society Dictionary of Gardening. The MacMillan Press, London.	used horticulturally (1, 2)
3.01	Hrusa, Ertter, Sanders, Leppig, and Dean (2002) Catalogue of non-native vascular plants occurring spontaneously in California beyond those addressed in The Jepson Manual - part I. Madroño 49: 61-98.	<i>H. canariensis</i> naturalized in wildlands in California.
3.02		no evidence
3.03		no evidence
3.04	1. Hrusa, Ertter, Sanders, Leppig, and Dean (2002) Catalogue of non-native vascular plants occurring spontaneously in California beyond those addressed in The Jepson Manual - part I. Madroño 49: 61-98. 2. Holloran, Mackenzie, Farrell, and Johnson (2004) Weed Workers' Handbook. California Invasive Plant Council (http://www.cal-ipc.org/ip/management/wwh/pdf/19629.pdf).	1. <i>H. canariensis</i> a "persistent invader of forest and woodland understories" in California. 2. "Algerian ivy is considered more invasive than English ivy because it is rapidly invading relatively undisturbed forest understories."
3.05	Weber (2003) Invasive Plant Species of the World. CABI Publishing.	<i>H. helix</i> considered invasive in Australia, New Zealand, and the western U.S.
4.01	Dehgan, B. (1998) Landscape Plants for	no description of these traits

	Subtropical Climates. University Press of Florida.	
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		toxic to humans, but no evidence of toxicity to animals
4.06	Gilman (1999) <i>Hedera canariensis</i> . FPS-238, University of Florida, IFAS Extension (http://hort.ufl.edu/shrubs/HEDCANA.PDF).	"Problems include scale, sooty mold, and snails. No diseases are of major concern." [problems seem minor]
4.07	1. Holloran, Mackenzie, Farrell, and Johnson (2004) Weed Workers' Handbook. California Invasive Plant Council (http://www.cal-ipc.org/ip/management/www/pdf/19629.pdf). 2. Horticopia 4.0. 3. Russell, Hardin, Grand, and Fraser (1997) Poisonous Plants of North Carolina (http://www.ces.ncsu.edu/depts/hort/consumer/poison/Hederca.htm).	1. "The leaves and berries are toxic." 2. "Pollen can cause slight to mild allergy symptoms." 3. "Severe irritation and allergic contact dermatitis after a delay following contact with cell sap."
4.08		no evidence
4.09	1. Dehgan, B. (1998) Landscape Plants for Subtropical Climates. University Press of Florida. 2. Huxley (1992) The New Royal Horticultural Society Dictionary of Gardening. The MacMillan Press, London. 3. Gilman (1999) <i>Hedera canariensis</i> . FPS-238, University of Florida, IFAS Extension (http://hort.ufl.edu/shrubs/HEDCANA.PDF).	1. full sun to deep shade 2. "preference for shade" (for genus <i>Hedera</i>) 3. "Algerian ivy is an excellent choice for a groundcover in shady locations".
4.1	1. Dehgan, B. (1998) Landscape Plants for Subtropical Climates. University Press of Florida. 2. Horticopia 4.0.	1. varied soils 2. "Suitable soil is well-drained/loamy, sandy or clay."
4.11	Dehgan, B. (1998) Landscape Plants for Subtropical Climates. University Press of Florida.	evergreen woody vine
4.12		no evidence
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.	Araliaceae
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.	Araliaceae
5.04		
6.01		
6.02	Holloran, Mackenzie, Farrell, and Johnson (2004) Weed Workers' Handbook. California Invasive Plant Council (http://www.cal-	produces viable seed

	ipc.org/ip/management/wwh/pdf/19629.pdf	
6.03		
6.04		
6.05		
6.06	Dehgan, B. (1998) Landscape Plants for Subtropical Climates. University Press of Florida.	aerial roots
6.07	1. Dehgan, B. (1998) Landscape Plants for Subtropical Climates. University Press of Florida. 2. Holloran, Mackenzie, Farrell, and Johnson (2004) Weed Workers' Handbook. California Invasive Plant Council (http://www.cal-ipc.org/ip/management/wwh/pdf/19629.pdf).	1. rapid growth 2. grows for up to 10 years before flowering [but time to vegetative reproduction unknown]
7.01	Holloran, Mackenzie, Farrell, and Johnson (2004) Weed Workers' Handbook. California Invasive Plant Council (http://www.cal-ipc.org/ip/management/wwh/pdf/19629.pdf).	"Pulled ivy roots left in contact with soil may reroot."
7.02	1. Dehgan, B. (1998) Landscape Plants for Subtropical Climates. University Press of Florida. 2. Huxley (1992) The New Royal Horticultural Society Dictionary of Gardening. The MacMillan Press, London.	used horticulturally (1, 2)
7.03		no evidence
7.04	Dehgan, B. (1998) Landscape Plants for Subtropical Climates. University Press of Florida.	fruit is a black drupe, to 0.25 in. [no evidence of any adaptations for wind dispersal]
7.05		no evidence
7.06	Dehgan, B. (1998) Landscape Plants for Subtropical Climates. University Press of Florida.	fruit is a black drupe, to 0.25 in. [small, fleshy fruit]
7.07	Dehgan, B. (1998) Landscape Plants for Subtropical Climates. University Press of Florida.	fruit is a black drupe, to 0.25 in. [no evidence of any means of attachment]
7.08	Dehgan, B. (1998) Landscape Plants for Subtropical Climates. University Press of Florida.	fruit is a black drupe, to 0.25 in. [fleshy fruit]
8.01		
8.02		
8.03	Holloran, Mackenzie, Farrell, and Johnson (2004) Weed Workers' Handbook. California Invasive Plant Council (http://www.cal-ipc.org/ip/management/wwh/pdf/19629.pdf).	"To prevent resprouting from the lower portion remaining in the ground, the stump can be treated with herbicide (some land managers use a 50 percent solution of glyphosate)".
8.04		
8.05		