

Australia/New Zealand Weed Risk Assessment adapted for United States.

Data used for analysis published in: Gordon, D.R. and C.A. Gantz. 2008. Potential impacts on the horticultural industry of screening new plants for invasiveness. Conservation Letters 1: 227-235. Available at: <http://www3.interscience.wiley.com/cgi-bin/fulltext/121448369/PDFSTART>

<i>Carex ciliatomarginata</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 U.S. climates (USDA hardiness 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 regions with an average of 11-60 inches of annual precipitation	y	1
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	y	2
4.01	Produces spines, thorns or burrs	n	0
4.02	Allelopathic		
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		
4.09	Is a shade tolerant plant at some stage of its life cycle	y	1
4.1	Grows on one or more of the following soil types: alfisols, entisols, or mollisols	y	1
4.11	Climbing or smothering growth habit	n	0
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	n	0
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		
7.05	Propagules water dispersed		
7.06	Propagules bird dispersed		
7.07	Propagules dispersed by other animals (externally)		
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 U.S.		
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	11	Yes
B	7	Yes
C	8	Yes
total	26	yes

Data collected 2008

Question number	Reference	Source data
1.01		used horticulturally, but no evidence of significant modification
1.02		
1.03		
2.01	1. PERAL NAPPFAST Global Plant Hardiness (http://www.nappfast.org/Plant_hardiness/NAPPFAST%20Global%20zones/10-year%20climate/PLANT_HARDINESS_10YR%20Ign.d.tif). 2. Ohwi, J (1965) Flora of Japan. Smithsonian Institution, Washington, D.C.	1. Global hardiness zones 6-7 (and possibly 8). 2. "Honshu (central district and westward), Shikoku, Kyushu; rather rare -- Korea"
2.02		
2.03	1. Köppen-Geiger climate map (http://www.hydrol-earth-syst-sci.net/11/1633/2007/hess-11-1633-2007.pdf). 2. Ohwi, J (1965) Flora of Japan. Smithsonian Institution, Washington, D.C.	1. Two climatic regions. 2. "Honshu (central district and westward), Shikoku, Kyushu; rather rare -- Korea"
2.04	MSN Encarta (http://encarta.msn.com/encyclopedia_761566679_4/Japan.html).	Average annual precipitation in Sapporo [north] is 1,130 mm (45 in), while in Tokyo [central] it is 1,410 mm (55 in) and in Kagoshima [south] it is 2,240 mm (88 in).
2.05	1. Perennialplant.eu (http://www.perennialplant.eu/carex-ciliatomarginata-shimanishiki-p-393.html). 2. Veseys (http://www.veseys.com/ca/en/store/ornamental/treasureisland).	1. Sold in Europe. 2. Sold in Canada.
3.01		no evidence
3.02		no evidence
3.03		no evidence
3.04		no evidence
3.05	1. Holm, L, JV Pancho, JP Herberger, and DL Plucknett (1979) A Geographical Atlas of World Weeds. John Wiley and Sons, New York. 2. Parsons, WT and Cuthbertson, EG (2001) Noxious weeds of Australia. 2nd Edition. CSIRO Publishing, Collingwood, Victoria, Australia.	1. One principal weed in New Zealand. 2. One congener is a declared weed in Australia.
4.01	Ohwi, J (1965) Flora of Japan. Smithsonian	no description of these traits

	Institution, Washington, D.C.	
4.02		
4.03	Ohwi, J (1965) Flora of Japan. Smithsonian Institution, Washington, D.C.	no description of parasitism
4.04		
4.05	Ohwi, J (1965) Flora of Japan. Smithsonian Institution, Washington, D.C.	no evidence
4.06		
4.07	Ohwi, J (1965) Flora of Japan. Smithsonian Institution, Washington, D.C.	no evidence
4.08		
4.09	Ohwi, J (1965) Flora of Japan. Smithsonian Institution, Washington, D.C.	"Dry shaded grassy places in mountains".
4.1	USDA, National Resources Conservation Services (NRCS), Soil Survey Division, World Soil Resources (http://soils.usda.gov/use/worldsoils/mapindex/order.html).	Entisols are present in this region.
4.11	Ohwi, J (1965) Flora of Japan. Smithsonian Institution, Washington, D.C.	"Much resembling the preceding [<i>Carex siderostricta</i>]; "[<i>Carex siderostricta</i> description]: Culms few, 10-40 cm. long, with only a few sheaths at the base".
4.12	Ohwi, J (1965) Flora of Japan. Smithsonian Institution, Washington, D.C.	"Much resembling the preceding [<i>Carex siderostricta</i>]; "[<i>Carex siderostricta</i> description]: Culms few, 10-40 cm. long, with only a few sheaths at the base".
5.01		
5.02		Cyperaceae
5.03		Cyperaceae
5.04	1. Ohwi, J (1965) Flora of Japan. Smithsonian Institution, Washington, D.C. 2. Missouri Botanical Garden Kemper Center for Home Gardening (http://www.mobot.org/gardeninghelp/plantfinder/Plant.asp?code=C643).	1. "Much resembling the preceding [<i>Carex siderosticta</i>]...rhizomes creeping, elongate, slender [description of <i>C. siderosticta</i> rhizomes]. 2. "Plants will slowly spread by rhizomes".
6.01		no evidence
6.02		
6.03		
6.04		

6.05	Ohwi, J (1965) Flora of Japan. Smithsonian Institution, Washington, D.C.	Sedge, so does not require specialist pollinators (most likely wind pollinated).
6.06	1. Ohwi, J (1965) Flora of Japan. Smithsonian Institution, Washington, D.C. 2. Missouri Botanical Garden Kemper Center for Home Gardening (http://www.mobot.org/gardeninghelp/plantfinder/Plant.asp?code=C643).	1. "Much resembling the preceding [<i>Carex siderosticta</i>]...rhizomes creeping, elongate, slender [description of <i>C. siderosticta</i> rhizomes]. 2. "Plants will slowly spread by rhizomes".
6.07		
7.01		
7.02	1. Perennialplant.eu (http://www.perennialplant.eu/carex-ciliatomarginata-shimanishiki-p-393.html). 2. Veseys (http://www.veseys.com/ca/en/store/ornamental/treasureisland).	1. Sold in Europe. 2. Sold in Canada.
7.03		no evidence
7.04		
7.05		
7.06		
7.07		
7.08		
8.01		
8.02		
8.03		
8.04		
8.05		