

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>Rohdea watanabei</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	n	0
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	?	
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	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	n	0
6.02	Produces viable seed		
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)		
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		
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)	?	
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			0

Outcome	Accept
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section	# questions answered	satisfy minimum?
A	11	Yes
B	7	Yes
C	10	Yes
total	28	yes

Question number	Reference	Source data
1.01		used horticulturally, but no evidence of significant modification
1.02		
1.03		
2.01	<p>1. PERAL NAPPFAST Global Plant Hardiness (http://www.nappfast.org/Plant_hardiness/NAPPFAST%20Global%20zones/10-year%20climate/PLANT_HARDINESS_10YR%20gnd.tif). 2. Editorial Committee of the Flora of Taiwan (2003) Flora of Taiwan, 2nd Edition. Volume 6, p. 112. Department of Botany, National Taiwan University, Taipei, Taiwan. Accessed online at http://www.discoverlife.org/mp/20o?search=Rohdea+watanabei. 3. Songyun, L and Tamura, MN (2000) <i>Campylandra chinensis</i>. p 239. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis). Accessed online at http://flora.huh.harvard.edu/china/PDF/PDF24/campylandra.pdf.</p>	<p>1. Global hardiness zones 9-10. 2. endemic to Taiwan (Ilan, Taoyuen, Nantou, Hualien). 3. Anhui, Fujian, Guangdong, Guangxi, Henan, Hubei, Hunan, Jiangxi, Shaanxi, Sichuan, Taiwan, Yunnan.</p>
2.02		
2.03	<p>1. Köppen-Geiger climate map (http://www.hydro-earth-syst-sci.net/11/1633/2007/hess-11-1633-2007.pdf). 2. Editorial Committee of the Flora of Taiwan (2003) Flora of Taiwan, 2nd Edition. Volume 6, p. 112. Department of Botany, National Taiwan University, Taipei, Taiwan. Accessed online at http://www.discoverlife.org/mp/20o?search=Rohdea+watanabei. 3. Songyun, L and Tamura, MN (2000) <i>Campylandra chinensis</i>. p 239. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis). Accessed online at http://flora.huh.harvard.edu/china/PDF/PDF24/campylandra.pdf.</p>	<p>1. One to two climatic regions. 2. Endemic to Taiwan (Ilan, Taoyuen, Nantou, Hualien). 3. Anhui, Fujian, Guangdong, Guangxi, Henan, Hubei, Hunan, Jiangxi, Shaanxi, Sichuan, Taiwan, Yunnan.</p>
2.04	<p>1. Climate Source (http://www.climatesource.com/cn/fact_sheets/chinappt_xl.jpg). 2. Climate Source (http://www.climatesource.com/tw/fact_sheets/taippt_xl.jpg).</p>	<p>1. For the regions listed, average annual precipitation ranges from 11.8 inches/year to 196.9 inches/year. 2. For the regions listed (northern and central), average annual precipitation ranges from 78.7 inches/year to 275.6</p>

		inches/year.
2.05	Crug Farm (http://www.mailorder.crug-farm.co.uk/default.aspx?alpha=R).	Sold in the United Kingdom.
3.01		no evidence
3.02		no evidence
3.03		no evidence
3.04		no evidence
3.05		no evidence
4.01	Songyun, L and Tamura, MN (2000) <i>Campylandra chinensis</i> . p 239. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis). Accessed online at http://flora.huh.harvard.edu/china/PDF/PDF24/campylandra.pdf .	no description of these traits
4.02		
4.03	Songyun, L and Tamura, MN (2000) <i>Campylandra chinensis</i> . p 239. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis). Accessed online at http://flora.huh.harvard.edu/china/PDF/PDF24/campylandra.pdf .	no description of parasitism
4.04		
4.05	Flora of Taiwan Editorial Committee (1975) Flora of Taiwan. Volume 5. p. 74. Epoch Pub. Co., Taipei.	no evidence
4.06		
4.07	Flora of Taiwan Editorial Committee (1975) Flora of Taiwan. Volume 5. p. 74. Epoch Pub. Co., Taipei.	no evidence
4.08		
4.09	Flora of Taiwan Editorial Committee (1975) Flora of Taiwan. Volume 5. p. 74. Epoch Pub. Co., Taipei.	"Under forests".
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 these regions.
4.11	Flora of Taiwan Editorial Committee (1975) Flora of	"Perennial herb, the rootstocks nearly

	Taiwan. Volume 5. p. 74. Epoch Pub. Co., Taipei.	cylindric, 10-12 cm long, fleshy, with many elongate roots, 15-20 cm long, 1-1.5 mm across; stems none".
4.12	Flora of Taiwan Editorial Committee (1975) Flora of Taiwan. Volume 5. p. 74. Epoch Pub. Co., Taipei.	"Perennial herb, the rootstocks nearly cylindric, 10-12 cm long, fleshy, with many elongate roots, 15-20 cm long, 1-1.5 mm across; stems none".
5.01		terrestrial
5.02		Liliaceae
5.03		Liliaceae
5.04	Songyun, L and Tamura, MN (2000) <i>Campylandra chinensis</i> . p. 239. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis). Accessed online at http://flora.huh.harvard.edu/china/PDF/PDF24/campylandra.pdf .	"Rhizome slightly elongate, terete, 1-1.5 cm thick".
6.01		no evidence
6.02		
6.03		
6.04		
6.05		
6.06	Songyun, L and Tamura, MN (2000) <i>Campylandra chinensis</i> . p 239. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis). Accessed online at http://flora.huh.harvard.edu/china/PDF/PDF24/campylandra.pdf .	"Rhizome slightly elongate, terete, 1-1.5 cm thick".
6.07		
7.01		
7.02	Crug Farm (http://www.mailorder.crug-farm.co.uk/default.aspx?alpha=R).	Sold in the United Kingdom.
7.03		no evidence
7.04	1. Songyun, L and Tamura, MN (2000) <i>Campylandra chinensis</i> . p 239. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis). Accessed online at http://flora.huh.harvard.edu/china/PDF/PDF24/campylandra.pdf . 2. Flora of Taiwan Editorial	1. "Berries purple-red at maturity, globose, 8-10 mm in diam." 2. "Berry obliquely ellipsoidal, reddish, 1-1.5 cm across". [no evidence of adaptations to wind dispersal]

	Committee (1975) Flora of Taiwan. Volume 5. P. 74. Epoch Pub. Co., Taipei.	
7.05		
7.06	1. Songyun, L and Tamura, MN (2000) <i>Campylandra chinensis</i> . p 239. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis). Accessed online at http://flora.huh.harvard.edu/china/PDF/PDF24/campylandra.pdf . 2. Flora of Taiwan Editorial Committee (1975) Flora of Taiwan. Volume 5. P. 74. Epoch Pub. Co., Taipei.	1. "Berries purple-red at maturity, globose, 8-10 mm in diam.". 2. "Berry obliquely ellipsoidal, reddish, 1-1.5 cm across".
7.07	1. Songyun, L and Tamura, MN (2000) <i>Campylandra chinensis</i> . p 239. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis). Accessed online at http://flora.huh.harvard.edu/china/PDF/PDF24/campylandra.pdf . 2. Flora of Taiwan Editorial Committee (1975) Flora of Taiwan. Volume 5. P. 74. Epoch Pub. Co., Taipei.	1. "Berries purple-red at maturity, globose, 8-10 mm in diam.". 2. "Berry obliquely ellipsoidal, reddish, 1-1.5 cm across". [no evidence of adaptations to external dispersal]
7.08	1. Songyun, L and Tamura, MN (2000) <i>Campylandra chinensis</i> . p 239. In: Wu, Z and Raven, PH (editors). Flora of China. Vol. 24. Science Press (Beijing) and Missouri Botanical Garden (St. Louis). Accessed online at http://flora.huh.harvard.edu/china/PDF/PDF24/campylandra.pdf . 2. Flora of Taiwan Editorial Committee (1975) Flora of Taiwan. Volume 5. P. 74. Epoch Pub. Co., Taipei.	1. "Berries purple-red at maturity, globose, 8-10 mm in diam.". 2. "Berry obliquely ellipsoidal, reddish, 1-1.5 cm across".
8.01		
8.02		
8.03		
8.04		
8.05		