

Cal-IPC Plant Assessment Form

For use with “[Criteria for Categorizing Invasive Non-Native Plants that Threaten Wildlands](#)”
by the California Invasive Plant Council and the Southwest Vegetation Management Association

Version February 2003, modified March 2009
California Invasive Plant Council (formerly CA Exotic Pest Plant Council)
Berkeley, CA www.cal-ipc.org, phone (510) 843-3902

Table 1. Species and Evaluator Information

Species name (Latin binomial):	<i>Nassella manicata</i> (Desv.) Barkworth
Synonyms:	<i>Nassella formicarum</i> auct. non (Delile) Barkworth <i>Stipa formicarum</i> Delile
Common names:	tropical needlegrass, Andean tussockgrass
Evaluation date (mm/dd/yy):	05/ 19 /2011
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Section below for list committee use—please leave blank

List committee members:	
Committee review date:	
List date:	
Re-evaluation date(s):	

General comments on this assessment:

Table 2. Criteria, Section, and Overall Scores

Species: *Nassella manicata*

Region: California

1.1	Impact on abiotic ecosystem processes	C	Observational
1.2	Impact on plant community	C	Observational
1.3	Impact on higher trophic levels	C	Other Publ. Mat.
1.4	Impact on genetic integrity	U	Unknown

<p>Impact</p> <p><i>Enter four characters from Q1.1-1.4 below:</i></p> <p>CCCU</p> <p><i>Using matrix, determine score and enter below:</i></p> <p>C</p>

<p>Plant Score</p> <p><i>Using matrix, determine Overall Score and Alert Status from the three section scores and enter below:</i></p> <p>Limited</p> <p>No Alert</p>
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2.1	Role of anthropogenic and natural disturbance	B	Observational
2.2	Local rate of spread with no management	B	Anecdotal
2.3	Recent trend in total area infested within state	B	Observational
2.4	Innate reproductive potential Wksht A	B	Other Publ. Mat.
2.5	Potential for human-caused dispersal	C	Observational
2.6	Potential for natural long-distance dispersal	C	Other Publ. Mat.
2.7	Other regions invaded	D	Other Publ. Mat.

<p>Invasiveness</p> <p><i>Enter the sum total of all points for Q2.1-2.7 below:</i></p> <p>10</p> <p><i>Use matrix to determine score and enter below:</i></p> <p>C</p>
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<p>Documentation</p> <p><i>Average of all questions</i></p> <p>2.2 out of 4.0</p>

3.1	Ecological amplitude/Range	B	Observational
3.2	Distribution/Peak frequency Wksht C	C	Observational

<p>Distribution</p> <p><i>Using matrix, determine score and enter below:</i></p> <p>C</p>

Table 3. Documentation (Scores are explained in the “[Criteria for Categorizing Invasive Non-Native Plants that Threaten Wildlands](#)”. Short citations may be used in this table. List full citations at end of PAF.)

Impact	
Question 1.1 Impact on abiotic ecosystem processes	C Observational back
Identify ecosystem processes impacted: Could enhance fuel loads in coastal grasslands due to its bulk, but such systems are already very susceptible to fire through grass fuel accumulation.	
Sources of information: Information reported by Peter Warner, Mendocino County, 12/9/2010	
Question 1.2 Impact on plant community composition, structure, and interactions	C Observational back
Identify type of impact or alteration: Displaces native perennial grasses and forbs (many)	
Sources of information: Information reported by Peter Warner, Mendocino County, 12/9/2010	
Question 1.3 Impact on higher trophic levels	C Other Publ. Mat. back
Identify type of impact or alteration: Other <i>Nassella</i> spp are considered unpalatable.	
Sources of information: McLaren 2004,	
Question 1.4 Impact on genetic integrity	U Unknown back
Identify impacts: Potentially could hybridize with native California <i>Nassella/Stipa</i> species. Did not find reports that this has been seen, however. There are several native <i>Nassella</i> spp. in California.	
Sources of information: Hickman, J. C. (ed.) 1993. The Jepson Manual, Higher Plants of California. University of California Press. Berkeley, CA enter text here	
Invasiveness	
Question 2.1 Role of anthropogenic and natural disturbance in establishment	B Observational back
Describe role of disturbance: Occasionally invades areas with little or no natural disturbance, but is most often found on disturbed roadsides.	
Sources of information: Information reported by Peter Warner, Mendocino County, 12/9/2010	
Question 2.2 Local rate of spread with no management	B Anecdotal back
Describe rate of spread: Reports of spread but not sure how much or how quickly.	

Sources of information:	
Question 2.3 Recent trend in total area infested within state	B Observational back
Describe trend: Has been seen spreading to new sites.	
Sources of information: Information reported by Peter Warner, Mendocino County, 12/9/2010	
Question 2.4 Innate reproductive potential	B Other Publ. Mat. back
Describe key reproductive characteristics: Perennial grass. Can self-sow once established. Requires little to no water.	
Sources of information: Brenzel 2001	
Question 2.5 Potential for human-caused dispersal	C Observational back
Identify dispersal mechanisms: Ornamental grass. Could spread along roadsides.	
Sources of information: Information reported by Peter Warner, Mendocino County, 12/9/2010	
Question 2.6 Potential for natural long-distance dispersal	C Other Publ. Mat. back
Identify dispersal mechanisms: Possibly birds. Sparrows at Jenner Headlands, Sonoma County, have been seen using it, but awns probably minimize its use as a food source. Animal dispersal can also occur when seeds cling to fur.	
Sources of information: Information reported by Peter Warner, Mendocino County, 12/9/2010	
Question 2.7 Other regions invaded	D Other Publ. Mat. back
Identify other regions: <i>Nassella manicata</i> is native to Ecuador, Chile, Argentina, and Uruguay, growing on the foothills of the Andes Mountains. It is established in three California counties, growing in disturbed sites, including grazed meadows and old gold tailings. It has also been recorded from Mississippi; it is not known whether the Mississippi population has persisted (Utah State, Grass Manual).	
Sources of information: Utah State University 2010	
Distribution	
Question 3.1 Ecological amplitude/Range	B Observational back
Describe ecological amplitude, identifying date of source information and approximate date of introduction to the state, if known: Coastal terrace prairie, coastal scrub; Sonoma County, Bodega Bay north to Salt Pt. State Park, within 5 miles of coast	
Sources of information:	

Information reported by Peter Warner, Mendocino County, 12/9/2010	
Question 3.2 Distribution/Peak frequency	D Observational back
Describe distribution:	
Sources of information:	
<p>References</p> <p>List full citations for all references used in the PAF (short citations such as DiTomaso and Healy 2007 may be used in table above). Websites should include the name of the organization and the date accessed. Personal communications should include the affiliation of the person providing the observation. Enter each reference on a separate line; the table will expand as needed.</p> <p>Examples:</p> <p>Mitich, L. W. 1995. Intriguing world of weeds: Tansy ragwort. <i>Weed Technology</i>. 9: 402-404.</p> <p>HEAR. Date unknown. <i>Emex spinosa</i>. Hawaiian Ecosystems at Risk. www.hear.org/pier/species/emex_spinosa.htm. Accessed March 17, 2009</p> <p>DiTomaso, J. M. Personal communication from Dr. Joe DiTomaso, Dept. of Plant Science, UC Davis. Email received 3/17/09.</p>	
<p>Brunell, S., G. Schrader, G. Brundu and G. Fried. 2010. Emerging invasive alien plants for the Mediterranean Basin. <i>Bulletin OEPP/EPPO Bulletin</i> 40, 219–238 (EPPO = European and Mediterranean Plant Protection Organization)</p> <p>Hickman, J. C. (ed.) 1993. <i>The Jepson Manual, Higher Plants of California</i>. University of California Press. Berkeley, CA</p> <p>McLaren, D. A., V. Stajsic, and L. Iaconis. 2004. The distribution, impacts, and identification of exotic stipoid grasses in Australia. <i>Plant Protection Quarterly</i>. 19(2): 59-66</p> <p>USDA, NRCS. 2011. The PLANTS Database (http://plants.usda.gov, 18 May 2011). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.</p> <p>Utah State University. 2011. <i>Grass Manual on the Web</i>, Utah State University, http://herbarium.usu.edu/webmanual/ [Accessed May 18, 2011]</p> <p>Warner, Peter. 2010. Personal communication from Peter Warner, Mendocino County, Email received 12/9/2010</p>	

Worksheet A[back](#)

Reaches reproductive maturity in 2 years or less	Yes 1 pt
Dense infestations produce >1,000 viable seed per square meter	No
Populations of this species produce seeds every year.	Yes 1 pt
Seed production sustained over 3 or more months within a population annually	No
Seeds remain viable in soil for three or more years	Unknown
Viable seed produced with <i>both</i> self-pollination and cross-pollination	Yes 1 pt
Has quickly spreading vegetative structures (rhizomes, roots, etc.) that may root at nodes	No
Fragments easily and fragments can become established elsewhere	No
Resprouts readily when cut, grazed, or burned	Yes 1 pt
	4 pts Unknowns 1
	B
Note any related traits:	

Worksheet C - California Ecological Types[back](#)*(sensu* Holland 1986)

Major Ecological Types	Minor Ecological Types	Code*
Marine Systems	marine systems	score
Freshwater and Estuarine Aquatic Systems	lakes, ponds, reservoirs	score
	rivers, streams, canals	score
	estuaries	score
Dunes	coastal	score
	desert	score
	interior	score
Scrub and Chaparral	coastal bluff scrub	D
	coastal scrub	score
	Sonoran desert scrub	score
	Mojavean desert scrub (incl. Joshua tree woodland)	score
	Great Basin scrub	score
	chenopod scrub	score
	montane dwarf scrub	score
	Upper Sonoran subshrub scrub	score
	chaparral	score
Grasslands, Vernal Pools, Meadows, and other Herb Communities	coastal prairie	D
	valley and foothill grassland	score
	Great Basin grassland	score
	vernal pool	score
	meadow and seep	score
	alkali playa	score
	pebble plain	score
Bog and Marsh	bog and fen	score
	marsh and swamp	score
Riparian and Bottomland	riparian forest	score
	riparian woodland	score
	riparian scrub (incl. desert washes)	score
Woodland	cismontane woodland	score
	piñon and juniper woodland	score
	Sonoran thorn woodland	score
Forest	broadleaved upland forest	score
	North Coast coniferous forest	score
	closed cone coniferous forest	score
	lower montane coniferous forest	score
	upper montane coniferous forest	score
	subalpine coniferous forest	score
Alpine Habitats	alpine boulder and rock field	score
	alpine dwarf scrub	score

* A. means >50% of type occurrences are invaded; B means >20% to 50%; C. means >5% to 20%; D. means present but ≤5%; U. means unknown (unable to estimate percentage of occurrences invaded).