

Part IV. Plant Assessment Form

For use with “Criteria for Categorizing Invasive Non-Native Plants that Threaten Wildlands”
by the California Exotic Pest Plant Council and the Southwest Vegetation Management Association

Electronic version, February 28, 2003

Table 1. Species and Evaluator Information

Species name (Latin binomial):	Agrostis stolonifera L.
Synonyms:	Agrostis alba L. var palustris (Huds.), Agrostis maritima Lam., Agrostis palustris Huds., Agrostis stolonifera L. var. compacta
Common names:	carpet bent, creeping bent, redtop bent, seaside bentgrass
Evaluation date (mm/dd/yy):	2/25/05
Evaluator #1 Name/Title:	Elizabeth Brusati, project manager
Affiliation:	California Invasive Plant Council
Phone numbers:	510-843-3902
Email address:	edbrusati@cal-ipc.org
Address:	1442A Walnut St. #462, Berkeley, CA 94709
Evaluator #2 Name/Title:	Joseph DiTomaso
Affiliation:	University of California-Davis
Phone numbers:	530-754-8715
Email address:	jmditomaso@ucdavis.edu
Address:	Dept. Plant Sci., Mail Stop 4, Davis, CA 95616

Section below for list committee use—please leave blank

List committee members:	Carla Bossard, John Randall, Carri Pirosko, Dan Gluesenkamp, Gina Skurka, Brianna Richardson
Committee review date:	7/8/05
List date:	enter text here
Re-evaluation date(s):	enter text here

General comments on this assessment:

enter text here

Table 2. Criteria, Section, and Overall Scores

1.1	Impact on abiotic ecosystem processes	U	No Information
1.2	Impact on plant community	C	Rev'd, Sci. Pub'n
1.3	Impact on higher trophic levels	U	No Information
1.4	Impact on genetic integrity	U	No Information

Impact

Enter four characters from Q1.1-1.4 below:

UCUU

Using matrix, determine score and enter below:

C

2.1	Role of anthropogenic and natural disturbance	B (2 pts)	Other Pub. Mat'l
2.2	Local rate of spread with no management	U (0 pts)	No Information
2.3	Recent trend in total area infested within state	C (1 pt)	Observational
2.4	Innate reproductive potential Wksht A	A (3 pts)	Other Pub. Mat'l
2.5	Potential for human-caused dispersal	A (3 pts)	Other Pub. Mat'l
2.6	Potential for natural long-distance dispersal	C (1 pt)	Other Pub. Mat'l
2.7	Other regions invaded	C (1 pt)	Observational

Invasiveness

Enter the sum total of all points for Q2.1-2.7 below:

11

Use matrix to determine score and enter below:

B

Plant Score

Using matrix, determine Overall Score and Alert Status from the three section scores and enter below:

Low
No Alert

3.1	Ecological amplitude/Range	B	Other Pub. Mat'l
3.2	Distribution/Peak frequency Wksht C	D	Observational

Distribution

Using matrix, determine score and enter below:

C

Table 3. Documentation

Question 1.1 Impact on abiotic ecosystem processes	U No Information back
Identify ecosystem processes impacted:	
Rationale: enter text here	
Sources of information: enter text here	
Question 1.2 Impact on plant community composition, structure, and interactions	C Rev'd, Sci. Pub'n back
Identify type of impact or alteration: Grows into dense 5-20cm thick sward that completely covers the soil (1), but very large infestations have not been reported.	
Rationale: enter text here	
Sources of information: 1. Collet, C., H. Frochot, and J-M Guekhl. 1996. Growth dynamics and water uptake of two forest grasses differing in their growth strategy and potentially competing with forest seedlings. Canadian Journal of Botany 74(10): 1555-1561.	
Question 1.3 Impact on higher trophic levels	U No Information back
Identify type of impact or alteration:	
Rationale: enter text here	
Sources of information: enter text here	
Question 1.4 Impact on genetic integrity	U No Information back
Identify impacts: There are 15 native bentgrass species in California and several introduced. No information on hybridization.	
Rationale: enter text here	
Sources of information: Hickman, J. C. (ed.) 1993. The Jepson Manual, Higher Plants of California. University of California Press. Berkeley, CA enter text here	
Question 2.1 Role of anthropogenic and natural disturbance in establishment	B Other Pub. Mat'l back
Describe role of disturbance: Inhabits ditches, lake and pond margins, salt and freshwater marshes, disturbed riparian areas.	
Rationale: enter text here	

Sources of information: DiTomaso and Healy in prep.	
Question 2.2 Local rate of spread with no management	U No Information back
Describe rate of spread: no information	
Rationale: enter text here	
Sources of information: enter text here	
Question 2.3 Recent trend in total area infested within state	C Observational back
Describe trend: Appears to be fairly static in its invasiveness and spread.	
Rationale: enter text here	
Sources of information: DiTomaso, observational.	
Question 2.4 Innate reproductive potential	A Other Pub. Mat'l back
Describe key reproductive characteristics: Perennial with creeping stolons to 1m long. A widespread, variable species that consists of a complex of polyploid biotypes. Reproduces vegetatively from creeping stolons and by seed. Seeds probably remain viable for many years under field conditions. Tolerates close mowing.	
Rationale: enter text here	
Sources of information: DiTomaso, J., and E. Healy. in prep. Weeds of California and Other Western States.	
Question 2.5 Potential for human-caused dispersal	A Other Pub. Mat'l back
Identify dispersal mechanisms: Cultivars used for turf and sod. Seeds can disperse with human activities.	
Rationale: enter text here	
Sources of information: DiTomaso, J., and E. Healy. in prep. Weeds of California and Other Western States.	
Question 2.6 Potential for natural long-distance dispersal	C Other Pub. Mat'l back
Identify dispersal mechanisms: Seeds can disperse with water, mud, and animals, but water dispersal would be most important for long distance transport along rivers and streams.	
Rationale: enter text here	

Sources of information: DiTomaso, J., and E. Healy. in prep. Weeds of California and Other Western States	
Question 2.7 Other regions invaded	C Observational back
Identify other regions: The weedy biotype found in California is native to Europe. One biotype may be native to the northern U.S. Present in most contiguous states (1).	
Rationale: Likely inhabits similar environments where it is weedy elsewhere.	
Sources of information: 1. DiTomaso and Healy in prep., DiTomaso, observational.	
Question 3.1 Ecological amplitude/Range	B Other Pub. Mat'l back
Describe ecological amplitude, identifying date of source information and approximate date of introduction to the state, if known: Present in northwestern California, Cascade Range, northern Sierra Nevada, central-western region, southwestern region except Channel Islands to 1000m. Inhabits ditches, lake and pond margins, salt and freshwater marshes, disturbed riparian areas. Facultative wetland indicator species. Some biotypes tolerate salinity, serpentine soil, or high levels of copper or zinc (1). An heliophilic species specific to well-watered and clay soils (2).	
Rationale: enter text here	
Sources of information: 1. DiTomaso and Healy in prep. 2. Collett et al. 1996	
Question 3.2 Distribution/Peak frequency	D Observational back
Describe distribution: Not a common escape in California.	
Rationale: enter text here	
Sources of information: DiTomaso, observational.	

Worksheet A[back](#)

Reaches reproductive maturity in 2 years or less	Yes: 1 pt
Dense infestations produce >1,000 viable seed per square meter	Yes: 2 pts
Populations of this species produce seeds every year.	Yes: 1 pt
Seed production sustained over 3 or more months within a population annually	No: 0 pt
Seeds remain viable in soil for three or more years	No: 0 pts
Viable seed produced with <i>both</i> self-pollination and cross-pollination	Unknown: 0 pts
Has quickly spreading vegetative structures (rhizomes, roots, etc.) that may root at nodes	Yes: 1 pt
Fragments easily and fragments can become established elsewhere	Unknown: 0 pts
Resprouts readily when cut, grazed, or burned	Yes: 1 pt
	6 pts 2 unknowns
	A (6+ pts)
Note any related traits: enter text here	

Worksheet C - California Ecological Types

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(*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	score
	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	score
	valley and foothill grassland	score
	Great Basin grassland	score
	vernal pool	score
	meadow and seep	D. present
	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	D. present
	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).