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)**:**	Poa pratensis L.
Synonyms:	Paneion pratense (L.) Lunell., several subspecies
Common names:	Kentucky bluegrass, smooth meadowgrass
Evaluation date (mm/dd/yy)**:**	3/23/05
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 M. 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:	Jake Sigg, Peter Warner, Bob Case, John Knapp, Elizabeth Brusati
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	B	Other Pub. Mat'l
1.3	Impact on higher trophic levels	C	Other Pub. Mat'l
1.4	Impact on genetic integrity	C	Other Pub. Mat'l

Impact

Enter four characters from Q1.1-1.4 below:

UBCC

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	C (1 pt)	Other Pub. Mat'l
2.3	Recent trend in total area infested within state	C (1 pt)	Other Pub. Mat'l
2.4	Innate reproductive potential Wksht A	B (2 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)	Other Pub. Mat'l

Invasiveness

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

11

Use matrix to determine score and enter below:

B

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

Distribution

Using matrix, 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

Table 3. Documentation

Question 1.1 Impact on abiotic ecosystem processes D No Information back
Identify ecosystem processes impacted: unknown
Rationale: enter text here
Sources of information: enter text here
Question 1.2 Impact on plant community composition, structure, and interactions B Other Pub. Mat'l back
Identify type of impact or alteration: Outcompetes native species. Bluegrass' dense rhizomes allows it to penetrate between native species, reducing species diversity and altering native floristic composition (1).
Rationale: enter text here
Sources of information: 1. Sather, N. Element Stewardship Abstract for Poa pratensis, Poa compresa. The Nature Conservancy, Arlington, VA. Available: http://tncweeds.ucdavis.edu
Question 1.3 Impact on higher trophic levels C Other Pub. Mat'l back
Identify type of impact or alteration: Considered a good forage in the eastern US, but not in western states because its biomass is reduced in areas of low rainfall (1). In mixed-grass prairies, it is less nutritious than native species and has a shorter season than native grasses (2).
Rationale: enter text here
Sources of information: 1. DiTomaso, J., and E. Healy, in prep. Weeds of California and Other Western States. 2. Sather, N. Element Stewardship Abstract for Poa pratensis, Poa compresa. The Nature Conservancy, Arlington, VA. Available: http://tncweeds.ucdavis.edu
Question 1.4 Impact on genetic integrity C Other Pub. Mat'l back
Identify impacts: In Europe, seed production is reported to be primarily apomictic (asexual), but in the U.S., Kentucky bluegrass is known to hybridize with several other Poa species. In California, it hybridizes with Sandberg bluegrass [Poa secunda J. S. Presl], a native species in California, and fowl bluegrass [Poa palustris L.], which is thought to be non-native in California.
Rationale: enter text here
Sources of information: DiTomaso, J., and E. Healy, in prep. Weeds of California and Other Western States.
Question 2.1 Role of anthropogenic and natural disturbance in establishment B Other Pub. Mat'l back
Describe role of disturbance: Inhabits many disturbed and undisturbed plant communities in California,

especially those with northern exposure or high mountain areas (1). Very common turf species and is often found in disturbed sites. Also invades disturbed and undisturbed areas in Colorado (2).
Rationale: enter text here
Sources of information: DiTomaso, J., and E. Healy, in prep. Weeds of California and Other Western States. 2. Weaver, T., J. Lichthart, and D. Gustafson. 1989? Exotic invasion of timberline vegetation, Northern Rocky Mountains, USA. Gen tech rep INT(270): 208-213.
Question 2.2 Local rate of spread with no management C Other Pub. Mat'l back
Describe rate of spread: Does not seem to spread very rapidly locally.
Rationale: enter text here
Sources of information: DiTomaso, J., and E. Healy, in prep. Weeds of California and Other Western States.
Question 2.3 Recent trend in total area infested within state C Other Pub. Mat'l back
Describe trend: Already present throughout California, so probably not spreading much.
Rationale: enter text here
Sources of information: DiTomaso, J., and E. Healy, in prep. Weeds of California and Other Western States.
Question 2.4 Innate reproductive potential B Other Pub. Mat'l back
Describe key reproductive characteristics: Rhizomatous perennial grass. Well known for its ability to survive and thrive on successive defoliations (like lawnmowers) (1). In Europe, seed production is reported to be primarily asexual, but in the US it hybridizes with other species (2). After four years, production levels off at 4000 panicles/sq.m and 100 seeds per panicle. Despite high seed production, new plants are rarely produced from seed in an established prairie. Seeds can germinate from a depth of 42 in. (1).
Rationale: enter text here
Sources of information: 1. Sather, N. Element Stewardship Abstract for Poa pratensis, Poa compresa. The Nature Conservancy, Arlington, VA. Available: http://tncweeds.ucdavis.edu 2. 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: Has escaped cultivation in California and elsewhere. Very common turf and lawn species and has ample opportunities to be moved by humans.

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: Rhizomes and seeds can move in water, particularly after flooding event, but most populations are not next to water.
Rationale: enter text here
Sources of information: DiTomaso and Healy. 2006. Weeds of California. UC DANR Publ. #3488.
Question 2.7 Other regions invaded C Other Pub. Mat'l back
Identify other regions: Native to Eurasia. Present in all contiguous states (1). Naturalized in Canada from Labrador to the west coast. There is disagreement whether populations in the northern states are actually native (2).
Rationale: Scoring as C because already widespread in California.
Sources of information: 1. DiTomaso, J., and E. Healy, in prep. Weeds of California and Other Western States 2. 1. Sather, N. Element Stewardship Abstract for Poa pratensis, Poa compresa. The Nature Conservancy, Arlington, VA. Available: http://tncweeds.ucdavis.edu.
Question 3.1 Ecological amplitude/Range A Other Pub. Mat'l back
Describe ecological amplitude, identifying date of source information and approximate date of introduction to the state, if known: Present throughout California to 3500m. Invades roadsides, pastures, rangelands, grassland, riparian areas, shrubland, coniferous forest and associated meadows. Tolerates partial shade or alkaline to saline soil. Grows best in cool, moist places on soils rich in organic matter and with full sun exposure (1).
Rationale: enter text here
Sources of information: DiTomaso, J., and E. Healy, in prep. Weeds of California and Other Western States.
Question 3.2 Distribution/Peak frequency D Observational back
Describe distribution: Widespread but not frequently encountered. Some botanists believe that populations in undisturbed high mountain meadows of the western states are native.
Rationale:

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	**No: 0 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 *both* self-pollination and cross-pollination	**Yes: 1 pt**
Has quickly spreading vegetative structures (rhizomes, roots, etc.) that may root at nodes	**Yes: 1 pt**
Fragments easily and fragments can become established elsewhere	**No: 0 pts**
Resprouts readily when cut, grazed, or burned	**Yes: 1 pt**

	5 pts	**Total Unknowns**
	B (4-5 pts)	

Note any related traits: enter text here

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	**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	**C. 5-20%**
	valley and foothill grassland	**D. presen**
	Great Basin grassland	**D. presen**
	vernal pool	**score**
	meadow and seep	**D. presen**
	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. presen**
	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	**D. presen**
	lower montane coniferous forest	**C. 5-20%**
	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).