

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):	Brachypodium sylvaticum (Huds.) Beauv.
Synonyms:	
Common names:	false-brome, slender false-brome
Evaluation date (mm/dd/yy):	12/29/04
Evaluator #1 Name/Title:	Elizabeth Brusati, project manager
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Evaluator #2 Name/Title:	enter text here
Affiliation:	enter text here
Phone numbers:	enter text here
Email address:	enter text here
Address:	enter text here

Section below for list committee use—please leave blank

List committee members:	Carla Bossard, Joe DiTomaso, Cynthia Roye, Jake Sigg, Peter Warner, Matt Brooks
Committee review date:	3/16/05
List date:	enter text here
Re-evaluation date(s):	enter text here

General comments on this assessment:

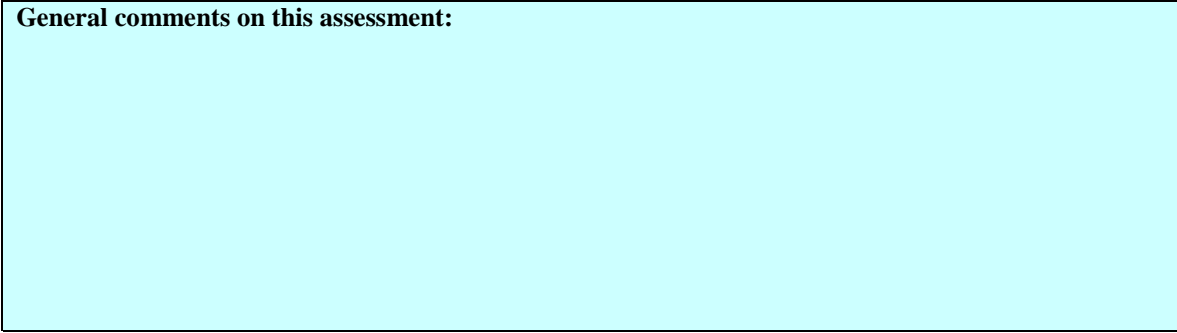


Table 2. Criteria, Section, and Overall Scores

1.1	Impact on abiotic ecosystem processes	U	Anecdotal
1.2	Impact on plant community	A	Rev'd, Sci. Pub'n
1.3	Impact on higher trophic levels	B	Other Pub. Mat'l
1.4	Impact on genetic integrity	D	Rev'd, Sci. Pub'n

Impact

Enter four characters from Q1.1-1.4 below:

UABD

Using matrix, determine score and enter below:

B

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

Invasiveness

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

16

Use matrix to determine score and enter below:

A

Plant Score

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

Medium
Red Alert

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

Distribution

Using matrix, determine score and enter below:

D

Table 3. Documentation

<p>Question 1.1 Impact on abiotic ecosystem processes</p>	<p>U Anecdotal back</p>
<p>Identify ecosystem processes impacted: Long-term impacts unknown. May sequester soil moisture, making it unavailable to tree seedlings. May change fire behavior because it increases fine fuel loads.</p>	
<p>Rationale: enter text here</p>	
<p>Sources of information: Tu, M. 2002. Weed alert! <i>Brachypodium sylvaticum</i> (Huds.) P. Beauv. The Nature Conservancy, Invasive Species Initiative. http://tncweeds.ucdavis.edu/alert/alrtbrac.html. Accessed 12/28/04</p>	
<p>Question 1.2 Impact on plant community composition, structure, and interactions</p>	<p>A Rev'd, Sci. Pub'n back</p>
<p>Identify type of impact or alteration: Forms monospecific stands in forest understory that outcompete and completely exclude native forbs and grasses. May inhibit establishment of tree seedlings (1). In Finland, grows as large, almost pure stands and is a strong competitor in shady, deciduous forests (2). Forms dense cover at Thornewood Open Space Preserve in CA (3). In Oregon, it has been observed to displace native understory plants, suppress forest regeneration, degrade wildlife habitat, and increase fire risk.</p>	
<p>Rationale: enter text here</p>	
<p>Sources of information: 1. Tu 2002. 2. Haeggstrom, C.-A. and R. Skyten (1996). "Flowering and individual survival of a population of the grass <i>Brachypodium sylvaticum</i> in Nato, Aland Islands, SW Finland." <i>Annales Botanici Fennici</i> 33(1): 1-10. 3. E-mail from Jim Johnson, Streamkeeper, San Francisquito Watershed Council. 2/17/05 4. Chornesky, E.A. et al. 2005. Science priorities for reducing the threat of invasive species to sustainable forestry. <i>BioScience</i> 55(4):335-348.</p>	
<p>Question 1.3 Impact on higher trophic levels</p>	<p>B Other Pub. Mat'l back</p>
<p>Identify type of impact or alteration: Reduction of habitat for butterflies because it outcompetes plants that are their food sources. Unknown if unpalatable but deer are reported to graze on it. Reported to degrade wildlife habitat.</p>	
<p>Rationale: Tu, M. 2002. Weed alert! <i>Brachypodium sylvaticum</i> (Huds.) P. Beauv. The Nature Conservancy, Invasive Species Initiative. http://tncweeds.ucdavis.edu/alert/alrtbrac.html. Accessed 12/28/04</p>	
<p>Sources of information: 1. Chornesky, E.A. et al. 2005. Science priorities for reducing the threat of invasive species to sustainable forestry. <i>BioScience</i> 55(4):335-348.text here</p>	
<p>Question 1.4 Impact on genetic integrity</p>	<p>D Rev'd, Sci. Pub'n back</p>
<p>Identify impacts: none</p>	

Rationale: no native <i>Brachypodium</i> species	
Sources of information: Hickman, J. C. (ed.) 1993. <i>The Jepson Manual, Higher Plants of California</i> . University of California Press. Berkeley, CA enter text here	
Question 2.1 Role of anthropogenic and natural disturbance in establishment	A Rev'd, Sci. Pub'n back
Describe role of disturbance: When invading, may first disperse along roadsides (1). In Finland, increased in closed canopy forest without any disturbance (2). Does not do well if grazed or cut (2). In California, spreading in undisturbed redwood and mixed evergreen forest as well as along roadsides and trails (3).	
Rationale: enter text here	
Sources of information: 1. Kaye, T. 2003. Invasive plant alert. False-brome (<i>Brachypodium sylvaticum</i>). False-brome working group. www.appliedeco.org/FBWG.htm . Accessed 12/28/04	
3. E-mail from Jim Johnson, Streamkeeper, San Francisquito Watershed Council. 2/17/05	
Question 2.2 Local rate of spread with no management	B Observational back
Describe rate of spread: In an experimental plot in California, 15 plants in a 100 sq.ft. area increased to 150 sq. ft. in one year, forming dense cover. The following year, seedlings were present in an area of 500 sq. ft..	
Rationale: enter text here	
Sources of information: E-mail from Jim Johnson, Streamkeeper, San Francisquito Watershed Council	
Question 2.3 Recent trend in total area infested within state	C Observational back
Describe trend: Discovered in Santa Cruz mountains in 2004 (1). Removed at Thornewood Open Space Preserve, San Mateo County (2). Spread documented only from area surrounding Schilling Lake at Thornewood OSP (3).	
Rationale: Scoring as C because only reported in one area in California.	
Sources of information: 1. Tu M., Randall J.M. 2003. 2003 Cal-IPC Red Alert! Proceedings, California Invasive Plant Council Symposium. Pgs. 116-120.	
2. Midpeninsula Regional Open Space District. 2004. District responds to eliminate non-native weed slender false-brome. Open Space News. Winter 2004-05: 2.	
3. E-mail from Jim Johnson, Streamkeeper, San Francisquito Watershed Council 2/17/05	
Question 2.4 Innate reproductive potential	B Observational back
Describe key reproductive characteristics: Perennial bunchgrass. Not rhizomatous. Reproduces rapidly from seed and can resprout from small stem or root fragments when cut. Seed bank probably does not survive longer than one year, but this is not confirmed (1). Tufts can survive several years, but do not flower each year (2). Seeds	

<p>sprouted one year after plants were removed in 2004. J. Johnson at Thornewood Open Space Preserve is monitoring regeneration of seedlings in eradicated plots (3). Seedbank appears to last one year, with very few seeds surviving to the second year (preliminary data). Has two rounds of seedling germination, in fall and spring (4). Self-compatible and long-lived. Can produce many seeds, but exact number not known (5).</p>	
<p>Rationale: enter text here</p>	
<p>Sources of information: 1. Tu 2002. 2. Haeggstrom and Skyten 1996 3. E-mail from Jim Johnson, Streamkeeper, San Francisquito Watershed Council 2/17/05 4. E-mail from Julie Kemp, University of Oregon 4/21/05 5. E-mail from Alisa Ramakrishnan, Portland State University. 4/22/05</p>	
<p>Question 2.5 Potential for human-caused dispersal</p>	<p>A Anecdotal back</p>
<p>Identify dispersal mechanisms: Spreads mostly by roads, road maintenance, and moving logging or road equipment from invaded areas (1). In California, spreading along roads (2).</p>	
<p>Rationale: .</p>	
<p>Sources of information: 1. E-mail from Cindy McCain, NW Oregon Ecology Group, US Forest Service. 2/15/05 2. E-mail from Jim Johnson, Streamkeeper, San Francisquito Watershed Council.</p>	
<p>Question 2.6 Potential for natural long-distance dispersal</p>	<p>B Observational back</p>
<p>Identify dispersal mechanisms: Able to move along game trails without human vectors. In Oregon, is spreading on floodplain of the Willamette Valley and down creeks.</p>	
<p>Rationale: enter text here</p>	
<p>Sources of information: E-mail from Cindy McCain, NW Oregon Ecology Group, US Forest Service. 2/15/05</p>	
<p>Question 2.7 Other regions invaded</p>	<p>A Other Pub. Mat'l back</p>
<p>Identify other regions: . Oregon is the only other US state where invasive. In OR, invades closed canopy coniferous forests, riparian forests, forest edges, and upland prairies with full sun at elevations ranging from 200-3500 ft.. In Willamette Valley, occurs with native perennial bunch grasses. Invaded 40 years ago and now infests thousands of acres in Willamette Valley.</p>	
<p>Rationale: enter text here</p>	

Sources of information: Tu 2002. Kaye, T. 2003. E-mail from Cindy McCain, NW Oregon Ecology Group, US Forest Service. 2/15/05	
Question 3.1 Ecological amplitude/Range	D Observational back
Describe ecological amplitude, identifying date of source information and approximate date of introduction to the state, if known: Found in CA 2003. Small distribution so far, in Santa Cruz mountains (1, 2). Open space district removed infestation at Thornewood Preserve. Favored habitat is high shade of redwoods where there are sun breaks. Does not grow in deepest shade of redwoods. Spreading in redwood and mixed evergreen forest (3).	
Rationale: enter text here	
Sources of information: 1. Tu and Randall 2003 2. Midpeninsula Regional Open Space District. 2004. 3. E-mail from Jim Johnson, Streamkeeper, San Francisquito Watershed Council	
Question 3.2 Distribution/Peak frequency	D Observational back
Describe distribution: New invader, very low frequency of occurrence so far.	
Rationale: enter text here	
Sources of information: enter text here	

Worksheet A[back](#)

Reaches reproductive maturity in 2 years or less	Yes: 1 pt
Dense infestations produce >1,000 viable seed per square meter	Unknown: 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 <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: 0 pt
Fragments easily and fragments can become established elsewhere	Unknown: 0 pts
Resprouts readily when cut, grazed, or burned	Yes: 1 pt
	4 pts 2 unknowns
	B (4-5 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	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	D. present
	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).