

## WEED RISK ASSESSMENT FORM

Botanical name: *Brachypodium sylvaticum* (Huds.) Beauv.

Common name: false brome, slender false brome

Assessors: Irina Lapina Matthew L. Carlson, Ph.D.  
 Botanist, Alaska Natural Heritage Program, University of Alaska Anchorage, 707 A Street, Anchorage, Alaska 99501  
 tel: (907) 257-2710; fax (907) 257-2789  
 Assistant Professor, Alaska Natural Heritage Program, University of Alaska Anchorage, 707 A Street, Anchorage, Alaska 99501  
 tel: (907) 257-2790; fax (907) 257-2789

Reviewers: Jeff Conn, Ph.D. Jeff Heys  
 Weed Scientist, USDA Agricultural Research Service  
 PO Box 757200 Fairbanks, Alaska 99775  
 tel: (907) 474-7652; fax (907) 474-6184  
 Exotic Plant Management Program  
 Coordinator, National Park Service, Alaska Region - Biological Resources Team, 240 W. 5th Ave, #114, Anchorage, AK 99501  
 tel: (907)644-3451, fax: 644-3809

Roseann Densmore, Ph.D. Julie Riley  
 Research Ecologist, US Geological Survey, Alaska Biological Science Center, 1101 East Tudor Road Anchorage, AK 99503  
 tel: (907) 786-3916, fax (907) 786-3636  
 Horticulture Agent, UAF Cooperative Extension Service  
 2221 E. Northern Lights Blvd. #118 Anchorage, AK 99508-4143  
 tel: (907) 786-6306

Jamie M. Snyder  
 UAF Cooperative Extension Service  
 2221 E. Northern Lights Blvd. #118 Anchorage, AK 99508-4143  
 tel: (907) 786-6310 alt.tel: (907) 743-9448

**Outcome score:**

A. Climatic Comparison		
This species is present or may potentially establish in the following eco-geographic regions:		
1	South Coastal	Yes
2	Interior-Boreal	Yes
3	Arctic-Alpine	Yes

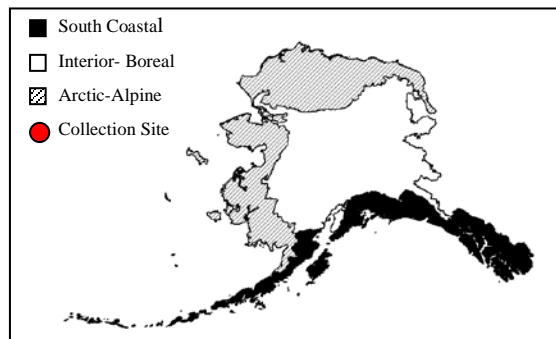
B. Invasiveness Ranking	Total (Total Answered*) Possible	Total	
1	Ecological impact	40 (40)	31
2	Biological characteristic and dispersal ability	25 (23)	19
3	Ecological amplitude and distribution	25 (25)	14
4	Feasibility of control	10 (10)	5
Outcome score		100 (98) <sup>b</sup>	69 <sup>a</sup>
Relative maximum score†			0.70

\* For questions answered "unknown" do not include point value for the question in parentheses for "Total Answered Points Possible."

† Calculated as <sup>a</sup>/<sub>b</sub>.

**A. CLIMATIC COMPARISON:**

1.1. Has this species ever been collected or documented in Alaska?	
	Yes – continue to 1.2
No	No – continue to 2.1
2. Which eco-geographic region has it been collected or documented (see inset map)? <i>Proceed to Section B. Invasiveness Ranking.</i>	
	South Coastal
	Interior-Boreal
	Arctic-Alpine



Documentation: *Brachypodium sylvaticum* has not been documented in Alaska (AK Weed Database 2004, Hultén 1968, UAM 2004, Welsh 1974).

Sources of information:

AK Weeds Database. 2004. Database of exotic vegetation collected in Alaska. University of Alaska, Alaska Natural Heritage Program – US Forest Service – National Park Service Database. Available: <http://akweeds.uaa.alaska.edu/>

Hultén, E. 1968. Flora of Alaska and Neighboring Territories. Stanford University Press, Stanford, CA. 1008 p.

University of Alaska Museum. University of Alaska Fairbanks. 2004.

<http://hispidamuseum.uaf.edu:8080/home.cfm>

Welsh, S.L. 1974. Anderson's flora of Alaska and adjacent parts of Canada. Brigham University Press. 724 pp.

2.1. Is there a 40% or higher similarity (based on CLIMEX climate matching) between climates any where the species currently occurs and

a. Juneau (South Coastal Region)?

Yes – record locations and similarity; proceed to Section B.  
Invasiveness Ranking

Yes No

b. Fairbanks (Interior-Boreal)?

Yes Yes – record locations and similarity; proceed to Section B.  
Invasiveness Ranking

No

c. Nome (Arctic-Alpine)?

Yes Yes – record locations and similarity; proceed to Section B.  
Invasiveness Ranking

No

– If “No” is answered for all regions, reject species from consideration

Documentation: Using CLIMEX matching program, climatic similarity between Juneau and areas where the species is documented is high. False brome is common along the coastal region of Norway, including the area around Bergen, which has a 73% similarity with Juneau. This suggests that there are likely no abiotic limitations to its establishment in South Coastal Alaska. Range of the species includes Kirov and Kazan, Russia (Gubanov et al. 1995), which has a 66%, and 58% climatic match with Nome, and 60% and 59% climatic match with Fairbanks respectively. Thus establishment of *Brachypodium sylvaticum* in Interior-Boreal and Arctic-Alpine ecogeographic regions may be possible. However, this species does not range into alpine or arctic regions of Scandinavia (Lid and Lid 1994).

Sources of information: CLIMEX for Windows, Version 1.1a. 1999. CISRO Publishing, Australia.

Gubanov, I.A., K.B. Kiseleva, B.C. Novikov, B.N. Tihomirov. 1995. Flora of vascular plants of Center European Russia. Moscow. Argus. 558 pp. In Russian.

Hultén, E. 1968. Flora of Alaska and Neighboring Territories. Stanford University Press, Stanford, CA. 1008 p.

Lid, J. and D. T. Lid. 1994. Flora of Norway. The Norske Samlaget, Oslo. Pp. 1014.

USDA (United States Department of Agriculture), NRCS (Natural Resource Conservation Service). 2002. The PLANTS Database, Version 3.5 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

## B. INVASIVENESS RANKING

### 1. ECOLOGICAL IMPACT

#### 1.1. Impact on Natural Ecosystem Processes

- |    |   |    |
|----|---|----|
| A. | No perceivable impact on ecosystem processes  | 0  |
| B. | Influences ecosystem processes to a minor degree (e.g., has a perceivable but mild influence on soil nutrient availability)   | 3  |
| C. | Significant alteration of ecosystem processes (e.g., increases sedimentation rates along streams or coastlines, reduces open water that are important to waterfowl)   | 7  |
| D. | Major, possibly irreversible, alteration or disruption of ecosystem processes (e.g., the species alters geomorphology; hydrology; or affects fire frequency, altering | 10 |

community composition; species fixes substantial levels of nitrogen in the soil making soil unlikely to support certain native plants or more likely to favor non-native species)

U. Unknown

Score 

7
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**Documentation:**

Identify ecosystem processes impacted:

False brome hinders trees reestablishment, altering natural successional processes. It also has the potential to change fire regimes and to impact riparian and stream habitats (Kaye 2001, Tu 2002).

Rational:

False brome reduces riparian tree growth, reducing shading and stream structure (Kaye 2001)

Sources of information:

Kaye, T. 2001. *Brachypodium sylvaticum* (Poaceae) in the Pacific Northwest. Botanical Electronic News. Available: <http://www.ou.edu/cas/botany-micro/ben/ben277.html> [February 1, 2005].

Tu, M. 2002. *Brachypodium sylvaticum* (Huds.) P. Beauv. (Slender false-brome, false-brome). TNC Invasive Species Initiative page. Available: <http://tncweeds.ucdavis.edu/alert/alrtbrac.html> [February 1, 2005].

**1.2. Impact on Natural Community Structure**

- A. No perceived impact; establishes in an existing layer without influencing its structure 0
- B. Influences structure in one layer (e.g., changes the density of one layer) 3
- C. Significant impact in at least one layer (e.g., creation of a new layer or elimination of an existing layer) 7
- D. Major alteration of structure (e.g., covers canopy, eradicating most or all layers below) 10
- U. Unknown

Score 

7
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**Documentation:**

Identify type of impact or alteration:

False brome can become dominant in the understory of forests, forming nearly monospecific stands (Kaye 2001, Tu 2002). This species may limit establishment of shrubs and trees (Kaye 2001, Tu 2002)

Rational:

Sources of information:

Kaye, T. 2001. *Brachypodium sylvaticum* (Poaceae) in the Pacific Northwest. Botanical Electronic News. Available: <http://www.ou.edu/cas/botany-micro/ben/ben277.html> [February 1, 2005].

Tu, M. 2002. *Brachypodium sylvaticum* (Huds.) P. Beauv. (Slender false-brome, false-brome). TNC Invasive Species Initiative page. Available: <http://tncweeds.ucdavis.edu/alert/alrtbrac.html> [February 1, 2005].

**1.3. Impact on Natural Community Composition**

- A. No perceived impact; causes no apparent change in native populations 0
- B. Influences community composition (e.g., reduces the number of individuals in one or more native species in the community) 3
- C. Significantly alters community composition (e.g., produces a significant reduction in the population size of one or more native species in the community) 7
- D. Causes major alteration in community composition (e.g., results in the extirpation of one or several native species, reducing biodiversity or change the community composition towards species exotic to the natural community) 10
- U. Unknown

Score 

9
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**Documentation:**

Identify type of impact or alteration:

False brome appears to outcompete and completely exclude native forbs and grasses. It also inhibits establishment of tree seedlings (Kaye 2001, Tu 2002).

Rational:

Sources of information:

Kaye, T. 2001. *Brachypodium sylvaticum* (Poaceae) in the Pacific Northwest. Botanical Electronic News. Available: <http://www.ou.edu/cas/botany-micro/ben/ben277.html> [February 1, 2005].

Tu, M. 2002. *Brachypodium sylvaticum* (Huds.) P. Beauv. (Slender false-brome, false-brome). TNC Invasive Species Initiative page. Available: <http://tncweeds.ucdavis.edu/alert/alrtbrac.html> [February 1, 2005].

1.4. Impact on higher trophic levels (cumulative impact of this species on the animals, fungi, microbes, and other organisms in the community it invades)

- A. Negligible perceived impact 0
- B. Minor alteration 3
- C. Moderate alteration (minor reduction in nesting/foraging sites, reduction in habitat connectivity, interference with native pollinators, injurious components such as spines, toxins) 7
- D. Severe alteration of higher trophic populations (extirpation or endangerment of an existing native species/population, or significant reduction in nesting or foraging sites) 10
- U. Unknown

Score 

8
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Documentation:

Identify type of impact or alteration:

False brome may be unpalatable to wildlife. It reduces the quality of habitat for mammals, native insects, birds, and even fish (Kaye 2001, Tu 2002).

Rational:

Sources of information:

Kaye, T. 2001. *Brachypodium sylvaticum* (Poaceae) in the Pacific Northwest. Botanical Electronic News. Available: <http://www.ou.edu/cas/botany-micro/ben/ben277.html> [February 1, 2005].

Tu, M. 2002. *Brachypodium sylvaticum* (Huds.) P. Beauv. (Slender false-brome, false-brome). TNC Invasive Species Initiative page. Available: <http://tncweeds.ucdavis.edu/alert/alrtbrac.html> [February 1, 2005].

Total Possible 

40
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Total 

31
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2. BIOLOGICAL CHARACTERISTICS AND DISPERSAL ABILITY

2.1. Mode of reproduction

- A. Not aggressive reproduction (few [0-10] seeds per plant and no vegetative reproduction) 0
- B. Somewhat aggressive (reproduces only by seeds (11-1,000/m<sup>2</sup>)) 1
- C. Moderately aggressive (reproduces vegetatively and/or by a moderate amount of seed, <1,000/m<sup>2</sup>) 2
- D. Highly aggressive reproduction (extensive vegetative spread and/or many seeded, >1,000/m<sup>2</sup>) 3
- U. Unknown

Score 

2
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Documentation:

Describe key reproductive characteristics (including seeds per plant):

False brome reproduces rapidly from seed, but does not form creeping rhizomes (Kaye 2001, Tu 2002).

Rational:

Sources of information:

Kaye, T. 2001. *Brachypodium sylvaticum* (Poaceae) in the Pacific Northwest. Botanical Electronic News. Available: <http://www.ou.edu/cas/botany-micro/ben/ben277.html> [February 1, 2005].

Tu, M. 2002. *Brachypodium sylvaticum* (Huds.) P. Beauv. (Slender false-brome, false-brome). TNC Invasive Species Initiative page. Available:

<http://tncweeds.ucdavis.edu/alert/alrtbrac.html> [February 1, 2005].

2.2. Innate potential for long-distance dispersal (bird dispersal, sticks to animal hair, buoyant fruits, wind-dispersal)

- A. Does not occur (no long-distance dispersal mechanisms) 0
- B. Infrequent or inefficient long-distance dispersal (occurs occasionally despite lack of adaptations) 2
- C. Numerous opportunities for long-distance dispersal (species has adaptations such as pappus, hooked fruit-coats, etc.) 3
- U. Unknown

Score

Documentation:

Identify dispersal mechanisms:

Seeds can be dispersed by wildlife species (Kaye 2001).

Rational:

Sources of information:

Kaye, T. 2001. *Brachypodium sylvaticum* (Poaceae) in the Pacific Northwest. Botanical Electronic News. Available: <http://www.ou.edu/cas/botany-micro/ben/ben277.html> [February 1, 2005].

2.3. Potential to be spread by human activities (both directly and indirectly – possible mechanisms include: commercial sales, use as forage/revegetation, spread along highways, transport on boats, contamination, etc.)

- A. Does not occur 0
- B. Low (human dispersal is infrequent or inefficient) 1
- C. Moderate (human dispersal occurs) 2
- D. High (there are numerous opportunities for dispersal to new areas) 3
- U. Unknown

Score

Documentation:

Identify dispersal mechanisms:

Seeds of false brome disperse on vehicles, boots, clothes, and forestry equipment. It appears to initially disperse along roadsides, and then move out into undisturbed areas and clearcuts (Kaye 2001). False brome is also occasionally cultivated for ornamental purposes (Hitchcock and Cronquist 1973).

Rational:

Sources of information:

Hitchcock, C.L. and A. Cronquist. 1973. Flora of the Pacific Northwest. An illustrated manual. University of Washington Press, Seattle and London. P. 623.

Kaye, T. 2001. *Brachypodium sylvaticum* (Poaceae) in the Pacific Northwest. Botanical Electronic News. Available: <http://www.ou.edu/cas/botany-micro/ben/ben277.html> [February 1, 2005].

2.4. Allelopathic

- A. No 0
- B. Yes 2
- U. Unknown

Score

Documentation:

Describe effect on adjacent plants:

There is no data concerning allelopathy.

Rational:

Sources of information:

2.5. Competitive ability

- A. Poor competitor for limiting factors 0

- B. Moderately competitive for limiting factors 1
- C. Highly competitive for limiting factors and/or nitrogen fixing ability 3
- U. Unknown

Score 3

**Documentation:**

Evidence of competitive ability:

False brome appears to outcompete and completely exclude native forbs and grasses (Tu 2002).

Rational:

The species has ability to tolerate a wide range of habitats. It can be found growing in sun or shade, in dry or moist areas (Cal-IPC 2005, Kaye 2001). Davies and Long (1991) suggested the existence of two distinct morphological types within populations of the species that are adapted to different types of environmental conditions.

Sources of information:

Cal-IPC - California Invasive Plant Council. 2005. *Brachypodium sylvaticum* alert. Available: <http://groups.ucanr.org/ceppc/> (February 2, 2005).

Davies, M.S. and G.L. Long. 1991. Performance of two contrasting morphs of *Brachypodium sylvaticum* transplanted into shaded and unshaded sites. *Journal of Ecology* 79: 505-517.

Kaye, T. 2001. *Brachypodium sylvaticum* (Poaceae) in the Pacific Northwest. *Botanical Electronic News*. Available: <http://www.ou.edu/cas/botany-micro/ben/ben277.html> [February 1, 2005].

Tu, M. 2002. *Brachypodium sylvaticum* (Huds.) P. Beauv. (Slender false-brome, false-brome). TNC Invasive Species Initiative page. Available: <http://tncweeds.ucdavis.edu/alert/alrtbrac.html> [February 1, 2005].

**2.6. Forms dense thickets, climbing or smothering growth habit, or otherwise taller than the surrounding vegetation**

- A. No 0
- B. Forms dense thickets 1
- C. Has climbing or smothering growth habit, or otherwise taller than the surrounding vegetation 2
- U. Unknown

Score 2

**Documentation:**

Describe grow form:

Individual bunches increase in size, eventually uniting to form a solid mat 12 to 18 inches high that overwhelms smaller plants (Cal-IPC 2005)

Rational:

Sources of information:

Cal-IPC - California Invasive Plant Council. 2005. *Brachypodium sylvaticum* alert. Available: <http://groups.ucanr.org/ceppc/> (February 2, 2005).

**2.7. Germination requirements**

- A. Requires open soil and disturbance to germinate 0
- B. Can germinate in vegetated areas but in a narrow range or in special conditions 2
- C. Can germinate in existing vegetation in a wide range of conditions 3
- U. Unknown

Score 3

**Documentation:**

Describe germination requirements:

False brome has been observed germination in completely vegetated natural areas (Kaye 2001).

Rational:

Sources of information:

Kaye, T. 2001. *Brachypodium sylvaticum* (Poaceae) in the Pacific Northwest. *Botanical Electronic News*. Available: <http://www.ou.edu/cas/botany-micro/ben/ben277.html>

[micro/ben/ben277.html](http://micro/ben/ben277.html) [February 1, 2005].

2.8. Other species in the genus invasive in Alaska or elsewhere

- A. No 0
- B. Yes 3
- U. Unknown

Score 

3
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Documentation:

Species:

*Brachypodium distachyon* (L.) Beauv. is listed as an invasive plant in California (USDA 2002).

Sources of information:

USDA (United States Department of Agriculture), NRCS (Natural Resource Conservation Service). 2002. The PLANTS Database, Version 3.5 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

2.9. Aquatic, wetland, or riparian species

- A. Not invasive in wetland communities 0
- B. Invasive in riparian communities 1
- C. Invasive in wetland communities 3
- U. Unknown

Score 

1
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Documentation:

Describe type of habitat:

In its native range false brome is most commonly found in forests and woodlands, but may occur in open habitats (Gubanov et al. 1995). False brome is well-established in closed-canopy coniferous forest in western Oregon, often growing along riparian margins (Hitchcock and Cronquist 1973, Kaye 2001).

Rational:

Sources of information:

Gubanov, I.A., K.B. Kiseleva, B.C. Novikov, B.N. Tihomirov. 1995. Flora of vascular plants of Center European Russia. Moscow. Argus. 558 pp.  
Hitchcock, C.L. and A. Cronquist. 1973. Flora of the Pacific Northwest. An illustrated manual. University of Washington Press, Seattle and London. P. 623.  
Kaye, T. 2001. *Brachypodium sylvaticum* (Poaceae) in the Pacific Northwest. Botanical Electronic News. Available: <http://www.ou.edu/cas/botany-micro/ben/ben277.html> [February 1, 2005].

Total Possible	23
Total	19

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3. DISTRIBUTION

3.1. Is the species highly domesticated or a weed of agriculture

- A. No 0
- B. Is occasionally an agricultural pest 2
- C. Has been grown deliberately, bred, or is known as a significant agricultural pest 4
- U. Unknown

Score 

0
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Documentation:

Identify reason for selection, or evidence of weedy history:

False brome is not known as a weed of agriculture.

Rational:

Sources of information:

3.2. Known level of impact in natural areas

- A. Not known to cause impact in any other natural area 0
- B. Known to cause impacts in natural areas, but in dissimilar habitats and climate zones than exist in regions of Alaska 1
- C. Known to cause low impact in natural areas in similar habitats and climate zones to those present in Alaska 3
- D. Known to cause moderate impact in natural areas in similar habitat and climate zones 4
- E. Known to cause high impact in natural areas in similar habitat and climate zones 6
- U. Unknown

Score 4

**Documentation:**

Identify type of habitat and states or provinces where it occurs:

False brome is rapidly invading coniferous forest in western Oregon, where it excludes native forbs and grasses and inhibits establishment of tree seedlings (Kaye 2001).

Sources of information:

Kaye, T. 2001. *Brachypodium sylvaticum* (Poaceae) in the Pacific Northwest. Botanical Electronic News. Available: <http://www.ou.edu/cas/botany-micro/ben/ben277.html> [February 1, 2005].

**3.3. Role of anthropogenic and natural disturbance in establishment**

- A. Requires anthropogenic disturbances to establish 0
- B. May occasionally establish in undisturbed areas but can readily establish in areas with natural disturbances 3
- C. Can establish independent of any known natural or anthropogenic disturbances 5
- U. Unknown

Score 3

**Documentation:**

Identify type of disturbance:

It is likely requires disturbance for initial establishment, but once a population is established it can easily penetrate undisturbed forests (Kaye 2001).

Rational:

Sources of information:

Kaye, T. 2001. *Brachypodium sylvaticum* (Poaceae) in the Pacific Northwest. Botanical Electronic News. Available: <http://www.ou.edu/cas/botany-micro/ben/ben277.html> [February 1, 2005].

**3.4. Current global distribution**

- A. Occurs in one or two continents or regions (e.g., Mediterranean region) 0
- B. Extends over three or more continents 3
- C. Extends over three or more continents, including successful introductions in arctic or subarctic regions 5
- U. Unknown

Score 3

**Documentation:**

Describe distribution:

False brome is native to North Africa, northern and Mediterranean Europe, and Asia (Hitchcock and Cronquist 1973). It has been documented as a part of early successional grassland from Japan (Werger et al. 2002). In North America it is only known only from Oregon (Kaye 2001, USDA 2002).

Rational:

Sources of information:

Hitchcock, C.L. and A. Cronquist. 1973. Flora of the Pacific Northwest. An illustrated manual. University of Washington Press, Seattle and London. P. 623.

Kaye, T. 2001. *Brachypodium sylvaticum* (Poaceae) in the Pacific Northwest. Botanical Electronic News. Available: <http://www.ou.edu/cas/botany-micro/ben/ben277.html> [February 1, 2005].

USDA (United States Department of Agriculture), NRCS (Natural Resource Conservation Service). 2002. The PLANTS Database, Version 3.5



(<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

Werger, M.J.A., T. Hirose, H.J. During, G.W. Heil, K. Hikosaka, T. Ito, U.G. Nachinshonhor, D. Nagamatsu, K. Shibasaki, S. Takatsuki, J.W. van Rheenen, and N.P.R. Anten. 2002. Light partitioning among species and species replacement in early successional grasslands. *Journal of Vegetation Science* 13: 615-626.

### 3.5. Extent of the species U.S. range and/or occurrence of formal state or provincial listing

- A. 0-5% of the states 0
- B. 6-20% of the states 2
- C. 21-50%, and/or state listed as a problem weed (e.g., “Noxious,” or “Invasive”) in 1 state or Canadian province 4
- D. Greater than 50%, and/or identified as “Noxious” in 2 or more states or Canadian provinces 5
- U. Unknown

Score 

4
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#### Documentation:

Identify states invaded:

In North America it is officially known only from Oregon, where it is considered to be a noxious weed (Kaye 2001, USDA 2002).

Rational:

Sources of information:

Kaye, T. 2001. *Brachypodium sylvaticum* (Poaceae) in the Pacific Northwest. Botanical Electronic News. Available: <http://www.ou.edu/cas/botany-micro/ben/ben277.html> [February 1, 2005].

USDA (United States Department of Agriculture), NRCS (Natural Resource Conservation Service). 2002. The PLANTS Database, Version 3.5 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

Total Possible 

25
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Total 

14
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## 4. FEASIBILITY OF CONTROL

### 4.1. Seed banks

- A. Seeds remain viable in the soil for less than 3 years 0
- B. Seeds remain viable in the soil for between 3 and 5 years 2
- C. Seeds remain viable in the soil for 5 years and more 3
- U. Unknown

Score 

0
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#### Documentation:

Identify longevity of seed bank:

Seeds remain viable in the soil for less than one year (Tu 2002). In a study in Oregon seed viability dropped to less than 2% after two years in the soil (Thomas Kaye – pers. com.).

Rational:

Sources of information:

Kaye, T. Institute for Applied Ecology, Corvallis, Oregon, 4550 SW Nash, Corvallis, OR 97333 tel: 541-753-3099. Pers. com.

Tu, M. 2002. *Brachypodium sylvaticum* (Huds.) P. Beauv. (Slender false-brome, false-brome). TNC Invasive Species Initiative page. Available: <http://tncweeds.ucdavis.edu/alert/alertbrac.html> [February 1, 2005].

### 4.2. Vegetative regeneration

- A. No resprouting following removal of aboveground growth 0

- B. Resprouting from ground-level meristems 1
- C. Resprouting from extensive underground system 2
- D. Any plant part is a viable propagule 3
- U. Unknown

Score 

2
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**Documentation:**  
 Describe vegetative response:  
 False brome can resprout from small stem or root fragments when cut. It is fire tolerant and is able to resprout within two weeks after a burn (Cal-IPC 2005, Kaye 2002).  
 Rational:  
 Sources of information:  
 Cal-IPC - California Invasive Plant Council. 2005. *Brachypodium sylvaticum* alert. Available: <http://groups.ucanr.org/ceppc/> (February 2, 2005).  
 Kaye, T. 2001. *Brachypodium sylvaticum* (Poaceae) in the Pacific Northwest. Botanical Electronic News. Available: <http://www.ou.edu/cas/botany-micro/ben/ben277.html> [February 1, 2005].

4.3. Level of effort required

- A. Management is not required (e.g., species does not persist without repeated anthropogenic disturbance) 0
- B. Management is relatively easy and inexpensive; requires a minor investment in human and financial resources 2
- C. Management requires a major short-term investment of human and financial resources, or a moderate long-term investment 3
- D. Management requires a major, long-term investment of human and financial resources 4
- U. Unknown

Score 

3
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**Documentation:**  
 Identify types of control methods and time-term required:  
 Removal of the entire plant by digging is effective for small infestations, but is extremely time and labor-intensive. Repeated mowing, grazing, or burning may eliminate seed production. Herbicides can be applied late in the season after most other species are dormant (Kaye 2001, Tu 2002).  
 Rational:  
 Sources of information:  
 Kaye, T. 2001. *Brachypodium sylvaticum* (Poaceae) in the Pacific Northwest. Botanical Electronic News. Available: <http://www.ou.edu/cas/botany-micro/ben/ben277.html> [February 1, 2005].  
 Tu, M. 2002. *Brachypodium sylvaticum* (Huds.) P. Beauv. (Slender false-brome, false-brome). TNC Invasive Species Initiative page. Available: <http://tncweeds.ucdavis.edu/alert/alertbrac.html> [February 1, 2005].

Total Possible	10
Total	5

<b>Total for 4 sections Possible</b>	<b>98</b>
<b>Total for 4 sections</b>	<b>69</b>

References:

AK Weeds Database. 2004. Database of exotic vegetation collected in Alaska. University of Alaska, Alaska Natural Heritage Program – US Forest Service – National Park Service Database. Available: <http://akweeds.uaa.alaska.edu/>

- Cal-IPC - California Invasive Plant Council. 2005. *Brachypodium sylvaticum* alert. Available: <http://groups.ucanr.org/ceppc/> (February 2, 2005).
- CLIMEX for Windows, Version 1.1a. 1999. CISRO Publishing, Australia.
- Gubanov, I.A., K.B. Kiseleva, B.C. Novikov, B.N. Tihomirov. 1995. Flora of vascular plants of Center European Russia. Moscow. Argus. 558 pp.
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