

# 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**

<b>Species name (Latin binomial):</b>	Aira caryophyllea
<b>Synonyms:</b>	silver European hairgrass
<b>Common names:</b>	silver hairgrass
<b>Evaluation date (mm/dd/yy):</b>	8/2/04
<b>Evaluator #1 Name/Title:</b>	Joseph M. DiTomaso/Coop. Ext. Specialist
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<b>Evaluator #2 Name/Title:</b>	enter text here
<b>Affiliation:</b>	enter text here
<b>Phone numbers:</b>	enter text here
<b>Email address:</b>	enter text here
<b>Address:</b>	enter text here

Section below for list committee use—please leave blank

<b>List committee members:</b>	Joe DiTomaso, Jake Sigg, Peter Warner, Cynthia Roye
<b>Committee review date:</b>	September 2005
<b>List date:</b>	enter text here
<b>Re-evaluation date(s):</b>	enter text here

**General comments on this assessment:**

Very little information is on Aira caryophyllea anywhere.

**Table 2. Criteria, Section, and Overall Scores**

<a href="#">1.1</a>	Impact on abiotic ecosystem processes	<b>D</b>	<b>Rev'd, Sci. Pub'n</b>
<a href="#">1.2</a>	Impact on plant community	<b>D</b>	<b>Observational</b>
<a href="#">1.3</a>	Impact on higher trophic levels	<b>D</b>	<b>No Information</b>
<a href="#">1.4</a>	Impact on genetic integrity	<b>D</b>	<b>Other Pub. Mat'l</b>

**“Impact”**  
 Enter four characters from Q1.1-1.4 below:  
**DDDD**  
 Use matrix determine the score; enter below:  
**D**

<a href="#">2.1</a>	Role of anthropogenic and natural disturbance	<b>B 2</b>	<b>Rev'd, Sci. Pub'n</b>
<a href="#">2.2</a>	Local rate of spread with no management	<b>C 1</b>	<b>Observational</b>
<a href="#">2.3</a>	Recent trend in total area infested within state	<b>B 2</b>	<b>Observational</b>
<a href="#">2.4</a>	Innate reproductive potential <a href="#">Wksht A</a>	<b>B 2</b>	<b>Rev'd, Sci. Pub'n</b>
<a href="#">2.5</a>	Potential for human-caused dispersal	<b>C 1</b>	<b>Observational</b>
<a href="#">2.6</a>	Potential for natural long-distance dispersal	<b>C 1</b>	<b>Observational</b>
<a href="#">2.7</a>	Other regions invaded	<b>C 1</b>	<b>Rev'd, Sci. Pub'n</b>

**“Invasiveness”**  
 For questions at left, recall that an A gets 3 points, a B gets 2, a C gets 1, and a D or U gets=0. Enter the sum total of all points for Q2.1-2.7 below:  
**10**  
 Use matrix to determine score and enter below:  
**C**

**“Plant Score”**  
 Using matrix, determine the Overall Score and Alert Status from the three section scores and enter them below:  
**Not listed**

<a href="#">3.1</a>	Ecological amplitude/Range	<b>B</b>	<b>Observational</b>
<a href="#">3.2</a>	Distribution/Peak frequency <a href="#">Wksht C</a>	<b>A</b>	<b>Other Pub. Mat'l</b>

**“Distribution”**  
 Use matrix determine the score; enter below:  
**A**

**Table 3. Documentation**

<b>Question 1.1</b> Impact on abiotic ecosystem processes	D Observational <a href="#">back</a>
Identify ecosystem processes impacted: No information available. However, populations do not get extensive enough to have a major impact on abiotic processes, including moisture use and fire regimes.	
Rationale: enter text here	
Sources of information: Observational- J.M. DiTomaso 2004.	
<b>Question 1.2</b> Impact on plant community composition, structure, and interactions	D Rev'd, Sci. Pub'n <a href="#">back</a>
Identify type of impact or alteration: No information available. However, Aira caryophyllea is a very common grass in California grasslands. It doesn't generally form extensive high density populations over an expansive area and does not compete well in areas with a thick thatch or litter layer. Thus, it appears to have only a minor impact on plant community composition.	
Rationale: enter text here	
Sources of information: Bartolome, J.W. 1979. Germination and seedling establishment in California annual grassland. <i>Journal of Ecology</i> 67:273-281; Observational- J.M. DiTomaso 2004.	
<b>Question 1.3</b> Impact on higher trophic levels	D Rev'd, Sci. Pub'n <a href="#">back</a>
Identify type of impact or alteration: Unlikely that Aira causes any impact or alteration in higher trophic levels. Does not have much forage value, but is not common enough to be an important forage species.	
Rationale: enter text here	
Sources of information: Robbins, W.W. , M.K. Bellue and W.S. Ball. 1970. Weeds of California. Department of Agriculture, State of California, Sacramento; Observational- J.M. DiTomaso 2004.	
<b>Question 1.4</b> Impact on genetic integrity	D Other Pub. Mat'l <a href="#">back</a>
Identify impacts: No native Aira species in California.	
Rationale: enter text here	
Sources of information: Hickman, J.C. (ed.). 1993. The Jepson Manual. UC Press, Berkeley	

<b>Question 2.1</b> Role of anthropogenic and natural disturbance in establishment	B Rev'd, Sci. Pub'n <a href="#">back</a>
Describe role of disturbance: Found in distrubed grasslands, generally with little litter layer.	
Rationale: enter text here	
Sources of information: Hickman, J.C. (ed.). 1993. The Jepson Manual. UC Press, Berkeley; Bartolome, J.W. 1979. Germination and seedling establishment in California annual grassland. Journal of Ecology 67:273-281	
<b>Question 2.2</b> Local rate of spread with no management	C Observational <a href="#">back</a>
Describe rate of spread: Does not appear to be expanding range in California. Was reported as common in the 1970 Weeds of California by Robbins and Bellue. However, the information in this book was actually written in 1959.	
Rationale: enter text here	
Sources of information: Robbins, W.W. , M.K. Bellue and W.S. Ball. 1970. Weeds of California. Department of Agriculture, State of California, Sacramento; Observational, J.M. DiTomaso 2004.	
<b>Question 2.3</b> Recent trend in total area infested within state	B Observational <a href="#">back</a>
Describe trend: Does not appear to be expanding range. Seems to have occupied all available grassland sites.	
Rationale: enter text here	
Sources of information: Observational, J.M. DiTomaso 2004.	
<b>Question 2.4</b> Innate reproductive potential	B Rev'd, Sci. Pub'n <a href="#">back</a>
Describe key reproductive characteristics: Slender winter annual that produces numerous seed. Seeds do not appear to remain viable for more than 2 years.	
Rationale: enter text here	
Sources of information: Bartolome, J.W. 1979. Germination and seedling establishment in California annual grassland. Journal of Ecology 67:273-281	
<b>Question 2.5</b> Potential for human-caused dispersal	C Observational <a href="#">back</a>
Identify dispersal mechanisms: Very little opportunity for human-related movement. Seed falls directly to soil. Can be moved in hay, but seldom does it occur in hay production regions.	

Rationale: enter text here	
Sources of information: Observational, J.M. DiTomaso 2004.	
<b>Question 2.6</b> Potential for natural long-distance dispersal	C Observational <a href="#">back</a>
Identify dispersal mechanisms: Very little long distance movement via natural means. Seeds simply fall to the soil in grassland environments.	
Rationale: enter text here	
Sources of information: Observational, J.M. DiTomaso 2004.	
<b>Question 2.7</b> Other regions invaded	C Rev'd, Sci. Pub'n <a href="#">back</a>
Identify other regions: Common in many other states including Idaho, Oregon, Washington, Wyoming, Texas and many southern and eastern states. Also found in Nova Scotia. Native to Europe. Pretty much always found in open grasslands, much like California.	
Rationale: enter text here	
Sources of information: Oldham, M.J. and M. Zinck. 1997. New and noteworthy records for the Vascular Flora of Nova Scotia. Canadian Field-Naturalist 111(3):393-398; Catling, P.M., V.R. Brownell and B. Freedman. 1984. Silver hairgrass, <i>Aira caryophyllea</i> , new to eastern Canada, and other notable records from Seal Island, Nova Scotia. Canadian Field-Naturalist 98(2):248-249; Brown, L.E. and C.D. Peterson. 1984. <i>Carex rosea</i> (Cyperaceae), <i>Trifolium lappaceum</i> (Fabaceae) and <i>Aira caryophyllea</i> (Poaceae) new to Texas. Sida 10(3):263-264	
<b>Question 3.1</b> Ecological amplitude/Range	B Observational <a href="#">back</a>
Describe ecological amplitude, identifying date of source information and approximate date of introduction to the state, if known: Found primarily in open grasslands, generally on sandy soils.	
Rationale: enter text here	
Sources of information: Observational, J.M. DiTomaso 2004.	
<b>Question 3.2</b> Distribution/Peak frequency	A Other Pub. Mat'l <a href="#">back</a>
Describe distribution: Common in many grasslands of California.	
Rationale: enter text here	

Sources of information: Robbins, W.W. , M.K. Bellue and W.S. Ball. 1970. Weeds of California. Department of Agriculture, State of California, Sacramento;  
Observational, J.M. DiTomaso 2004.

**Worksheet A**[back](#)

Reaches reproductive maturity in 2 years or less	<b>Yes: 1 pt</b>
Dense infestations produce >1,000 viable seed per square meter	<b>Yes: 2 pts</b>
Populations of this species produce seeds every year.	<b>Yes: 1 pt</b>
Seed production sustained over 3 or more months within a population annually	<b>No: 0 pt</b>
Seeds remain viable in soil for three or more years	<b>No: 0 pts</b>
Viable seed produced with <i>both</i> self-pollination and cross-pollination	<b>Unknown: 0 pts</b>
Has quickly spreading vegetative structures (rhizomes, roots, etc.) that may root at nodes	<b>No: 0 pt</b>
Fragments easily and fragments can become established elsewhere	<b>No: 0 pts</b>
Resprouts readily when cut, grazed, or burned	<b>Yes: 1 pt</b>
	<b>4 pts      1 unknown</b>
	<b>B (4-5 pts)</b>
<b>Note any related traits:</b> enter text here	

## Worksheet C - California Ecological Types

[back](#)

(*sensu* Holland 1986)

Major Ecological Types	Minor Ecological Types	Code*
<b>Marine Systems</b>	marine systems	score
<b>Freshwater and Estuarine Aquatic Systems</b>	lakes, ponds, reservoirs	score
	rivers, streams, canals	score
	estuaries	score
<b>Dunes</b>	coastal	score
	desert	score
	interior	score
<b>Scrub and Chaparral</b>	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
<b>Grasslands, Vernal Pools, Meadows, and other Herb Communities</b>	coastal prairie	<b>B. 21-50</b>
	valley and foothill grassland	<b>A. &gt;50%</b>
	Great Basin grassland	<b>C. 5-20%</b>
	vernal pool	<b>D. present</b>
	meadow and seep	score
	alkali playa	score
	pebble plain	score
<b>Bog and Marsh</b>	bog and fen	score
	marsh and swamp	score
<b>Riparian and Bottomland</b>	riparian forest	score
	riparian woodland	score
	riparian scrub (incl. desert washes)	score
<b>Woodland</b>	cismontane woodland	<b>B. 21-50</b>
	piñon and juniper woodland	score
	Sonoran thorn woodland	score
<b>Forest</b>	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
<b>Alpine Habitats</b>	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).