

# 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>	Holcus lanatus L.
<b>Synonyms:</b>	n/a
<b>Common names:</b>	Common velvet grass, Yorkshire Fog
<b>Evaluation date (mm/dd/yy):</b>	3/17/ 05
<b>Evaluator #1 Name/Title:</b>	Jeffrey Corbin
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Section below for list committee use—please leave blank

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

**General comments on this assessment:**

enter text here

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

<a href="#">1.1</a>	Impact on abiotic ecosystem processes	<b>C</b>	<b>Observational</b>
<a href="#">1.2</a>	Impact on plant community	<b>A</b>	<b>Rev'd, Sci. Pub'n</b>
<a href="#">1.3</a>	Impact on higher trophic levels	<b>C</b>	<b>Anecdotal</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:*

**CACD**

*Using matrix, determine score and enter below:*

**B**

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

**Invasiveness**

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

**15**

*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:*

**Medium**

**No Alert**

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

**Distribution**

*Using matrix, determine score and enter below:*

**A**

**Table 3. Documentation**

<b>Question 1.1</b> Impact on abiotic ecosystem processes	C Observational <a href="#">back</a>
Identify ecosystem processes impacted: Some effects on water, N levels - especially compared to exotic annual grasses	
Rationale: enter text here	
Sources of information: Not much. I have done my own studies on water and N, but they're not published Jeff Corbin, UC Berkeley, personal observations.	
<b>Question 1.2</b> Impact on plant community composition, structure, and interactions	A Rev'd, Sci. Pub'n <a href="#">back</a>
Identify type of impact or alteration: Holcus is capable of forming almost monospecific stands, especially in coastal habitats.	
Rationale: It is also a demonstrated problem in New Zealand.	
Sources of information: Hektner, M.M. and T.C. Foin. 1977. Vegetation analysis of a northern California Coastal prairie: Sea Ranch, Sonoma County, California. Madrono 21:83-103. Corbin J.D. and C.M. D'Antonio. In prep. Out of the frying pan: Invasion of exotic perennial grasses into California coastal prairie grasslands. Meredith Thomsen, Dept. of Integrative Biology, UC Berkeley, unpublished data. Jesson, L., D. Kelly, et al. (2000). "The importance of dispersal, disturbance, and competition for exotic plant invasions in Arthur's Pass National Park, New Zealand." New Zealand Journal of Botany 38(3): 451-468.	
<b>Question 1.3</b> Impact on higher trophic levels	C Anecdotal <a href="#">back</a>
Identify type of impact or alteration: Not very palatable forage.	
Rationale: Does well in grazed areas.	
Sources of information: Jeff Corbin, personal observations. Very little info.	
<b>Question 1.4</b> Impact on genetic integrity	D Other Pub. Mat'l <a href="#">back</a>
Identify impacts: None.	
Rationale: No native species of Holcus in California.	

Sources of information: Hickman, J. C. (ed.) 1993. The Jepson Manual, Higher Plants of California. University of California Press. Berkeley, CA	
<b>Question 2.1</b> Role of anthropogenic and natural disturbance in establishment	A Rev'd, Sci. Pub'n <a href="#">back</a>
Describe role of disturbance: Invades intact and undisturbed grasslands, including grasslands where grazing is removed. Also, unpublished documentation of its invasion into native-dominated coastal prairies (D'Antonio and Corbin).	
Rationale: enter text here	
Sources of information: enter text here	
<b>Question 2.2</b> Local rate of spread with no management	A Rev'd, Sci. Pub'n <a href="#">back</a>
Describe rate of spread: At Sea Ranch (Foin and Hetkner 1986), it went from 6% cover to 21% cover in 4 years. There is plenty of anecdotal evidence, too..	
Rationale: enter text here	
Sources of information: Foin and Hektner 1977; Peter Connors, Reserve Manager. pers. comm. for Bodega Marine Reserve. pgconnors@ucdavis.edu.	
<b>Question 2.3</b> Recent trend in total area infested within state	B Observational <a href="#">back</a>
Describe trend: Species well distributed in state and has the potential to spread more. Currently spreading.	
Rationale: enter text here	
Sources of information: DiTomaso, observational Dan Gluesenkamp, Audubon Canyon Ranch, pers. obs.	
<b>Question 2.4</b> Innate reproductive potential	A Other Pub. Mat'l <a href="#">back</a>
Describe key reproductive characteristics: Produces MANY seeds, every year, and can produce rhizomes.	
Rationale: enter text here	
Sources of information: DiTomaso and Healy. 2006. Weeds of California. UC DANR Publ. #3488. Jeff Corbin, UC Berkeley, personal observations	

<b>Question 2.5</b> Potential for human-caused dispersal	C Other Pub. Mat'l <a href="#">back</a>
Identify dispersal mechanisms: Very light seeds, wind dispersed. Also, can catch in shoes easily, but these probably do not contribute much to movement further than 1 km.	
Rationale: enter text here	
Sources of information: DiTomaso and Healy. 2006. Weeds of California. UC DANR Publ. #3488. Jeff Corbin, UC Berkeley, personal observations	
<b>Question 2.6</b> Potential for natural long-distance dispersal	C Other Pub. Mat'l <a href="#">back</a>
Identify dispersal mechanisms: Wind, and stuck in mud on shoes. The seeds are very small and can easily be blown around, but not 1 km. Often grows close to water and can move long distances by this mechanism.	
Rationale: enter text here	
Sources of information: DiTomaso and Healy. 2006. Weeds of California. UC DANR Publ. #3488. J. Corbin, personal observations	
<b>Question 2.7</b> Other regions invaded	B Rev'd, Sci. Pub'n <a href="#">back</a>
Identify other regions: A problem in New Zealand grasslands. Whether it becomes more successful in interior CA Grasslands is a question...	
Rationale: enter text here	
Sources of information: Jesson, L., D. Kelly, et al. (2000). "The importance of dispersal, disturbance, and competition for exotic plant invasions in Arthur's Pass National Park, New Zealand." New Zealand Journal of Botany 38(3): 451-468.	
<b>Question 3.1</b> Ecological amplitude/Range	B Other Pub. Mat'l <a href="#">back</a>
Describe ecological amplitude, identifying date of source information and approximate date of introduction to the state, if known: Widespread in coastal grasslands. Can also be found further inland.	
Rationale: I was answering this question in terms of what potential % can <i>Holcus</i> reach in a particularly invaded grassland. I don't have a good guess about number of coastal grasslands that are invaded. Among N. CA ones, I still think its pretty close to 50%, although I don't have any data to back it up.	
Sources of information: CalFlora, Jeff Corbin, UC Berkeley, personal observations	

<b>Question 3.2</b> Distribution/Peak frequency	A Observational <a href="#">back</a>
Describe distribution: Most common in northern California coastal prairie.	
Rationale: enter text here	
Sources of information: DiTomaso and Corbin, observational. John Randall, The Nature Conservancy, and Dan Gluesenkamp, Audubon Canyon Ranch, pers. obs.	

**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>No: 0 pt</b>
Has quickly spreading vegetative structures (rhizomes, roots, etc.) that may root at nodes	<b>Yes: 1 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>6 pts      Total Unknowns</b>
	<b>A (6+ pts)</b>

**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*
<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	C. 5-20%
	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	A. >50%
	valley and foothill grassland	D. present
	Great Basin grassland	score
	vernal pool	score
	meadow and seep	C. 5-20%
	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	score
	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).