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

Table 1. Species and Evaluator Information

Species name (Latin binomial)**:**	*Helichrysum petiolare*
Synonyms:	
Common names:	Licorice plant
Evaluation date (mm/dd/yy)**:**	5/22/03
Evaluator #1 Name/Title:	Joe DiTomaso
Affiliation:	UC Davis
Phone numbers:	530-754-8715
Email address:	DiTomaso@vegmail.ucdavis.edu
Address:	Weed Science Program, Robbins Hall, Univ. California, Davis CA 95616
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 review committee use—please leave blank

Review committee members:	Joe DiTomaso, Peter Warner, Alison Stanton, Carla Bossard, Cynthia Roye, Jake Sigg, Doug Johnson, Brianna Richardson
Committee review date:	06/06/03
List date:	enter text here
Re-evaluation date(s):	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	**C**	**Observational**
1.3	Impact on higher trophic levels	**U**	**No Information**
1.4	Impact on genetic integrity	**D**	**Observational**

"Impact"

Enter four characters from Q1.1-1.4 below:

UCUC

Use matrix determine the score; enter below:

C

2.1	Role of anthropogenic and natural disturbance	**A 3**	**Other Pub. Mat'l**
2.2	Local rate of spread with no management	**B 2**	**Observational**
2.3	Recent trend in total area infested within state	**B 2**	**Observational**
2.4	Innate reproductive potential	**A 3**	**Other Pub. Mat'l**
2.5	Potential for human-caused dispersal	**A 3**	**Other Pub. Mat'l**
2.6	Potential for natural long-distance dispersal	**D 0**	**Other Pub. Mat'l**
2.7	Other regions invaded	**U 0**	**No Information**

"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:

13

Use matrix to determine score and enter below:

B

"Plant Score"

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

Low

No Alert

3.1	Ecological amplitude	**B**	**Other Pub. Mat'l**
3.2	Distribution	**D**	**Other Pub. Mat'l**

"Distribution"

Use matrix determine the score; enter below:

C

Worksheet A. Complete this worksheet to answer Question 2.4.

Reaches reproductive maturity in 2 years or less	**Unknown: 0 pts**
Dense infestations produce >1,000 viable seed per square meter	**Yes: 2 pts**
Populations of this species produce seeds every year.	**Yes: 1 pt**
Seed production sustained over 3 or more months within a population annually	**Unknown: 0 pts**
Seeds remain viable in soil for three or more years	**Unknown: 0 pts**
Viable seed produced with *both* self-pollination and cross-pollination	**Unknown: 0 pts**
Has quickly spreading vegetative structures (rhizomes, roots, etc.) that may root at nodes	**No: 0 pt**
Fragments easily and fragments can become established elsewhere	**Yes: 2 pts**
Resprouts readily when cut, grazed, or burned	**Yes: 1 pt**
6 pts	**4 unknowns**
A (6+ pts)	

Table 3. Documentation

Question 1.1 Impact on abiotic ecosystem processes
Identify ecosystem processes impacted: Unknown
Rationale: Not studied.
Sources of information:
Question 1.2 Impact on plant community composition, structure, and interactions
Identify type of impact or alteration: Appears to displace native shrubs in heavily infested areas.
Rationale: Can occupy about 10-25% of the cover in heavy infested area.
Sources of information: Observational-DiTomaso
Question 1.3 Impact on higher trophic levels
Identify type of impact or alteration: Unknown
Rationale:
Sources of information:
Question 1.4 Impact on genetic integrity
Identify impacts: Probably none.
Rationale: No known native species within the genus *Helichrysum* in California.
Sources of information: Observational-DiTomaso
Question 2.1 Role of anthropogenic and natural disturbance in establishment
Describe role of disturbance: Appears in coastal shrub areas in absence of human activity and even in sites inaccessible to most humans.
Rationale:
Sources of information: Sigg, J.2000. In, Invasive Plants of California's Wildlands. CalEPPC. UC Press, Berkeley ; Observational-DiTomaso
Question 2.2 Local rate of spread with no management
Describe rate of spread: Has been naturalized for at least 35 years. Appears to be increasing, but may not be doubling <10 years.
Rationale: Reported in Marin Flora in 1969 and in the Mendocino flora in 1990.
Sources of information: Observational-DiTomaso
Question 2.3 Recent trend in total area infested within state
Describe trend: Same as applied to 2.2.
Rationale: Since populations are still localized and left uncontrolled, it is likely that it is not doubling in <10 years.
Sources of information: Observational-DiTomaso
Question 2.4 Innate reproductive potential
Describe key reproductive characteristics: Produces seed and reproduces vegetatively by fragmentation of stems. Plants are brittle and break off easily. Stem fragments can root at nodes.
Rationale:
Sources of information: Sigg, J.2000. In, Invasive Plants of California's Wildlands. CalEPPC. UC Press, Berkeley; DiTomaso, J.M. and E.A. Healy. 2005. Weeds of California. DANR (pre-print)
Question 2.5 Potential for human-caused dispersal
Identify dispersal mechanisms: Still sold by nursery industry and can move throughout coastal areas this way.
Rationale: Long distance movement by landscapers and subsequent short distance movement by seeds and vegetative fragments.
Sources of information: Sigg, J. 1997. CalEPPC News 5(1):8; Observational-DiTomaso
Question 2.6 Potential for natural long-distance dispersal
Identify dispersal mechanisms: Seeds not reported to disperse long distances with wind. Fragments probably remain localized unless dispersed by animals, but this is unknown.
Rationale:
Sources of information: Sigg, J.2000. In, Invasive Plants of California's Wildlands. CalEPPC. UC Press, Berkeley
Question 2.7 Other regions invaded
Identify other regions: Unknown
Rationale:
Sources of information:
Question 3.1 Ecological amplitude
Describe ecological amplitude, identifying date of source information and approximate date of introduction to

the state, if known: Coastal shrub areas in Marin County most commonly invaded. Occasionally found on coastal bluff scrub in North Coast. Reported in coastal mixed conifer forests in Monterey County (Del Monte Forest). Introduced as an ornamental in the 1960s.
Rationale: Expected to invade coastal grasslands but no current reports.
Sources of information: Sigg, J.2000. In, Invasive Plants of California's Wildlands. CalEPPC. UC Press, Berkeley
Question 3.2 Distribution
Describe distribution: heavy infestation in localized areas, but not widespread yet, even in that community type.
Rationale: Largest infestation in Stinson Beach, CA.
Sources of information: Observational-DiTomaso

Complete the worksheet that corresponds to your state using the letter codes and instructions in Section 3.

Worksheet C - California Ecological Types

(*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	**D. presen**
	coastal scrub	**D. presen**
	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**
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	**score**
	North Coast coniferous forest	**D. presen**
	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).