

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):	Leucanthemum vulgare Lam.
Synonyms:	Chrysanthemum leucanthemum
Common names:	ox-eye daisy, dog daisy, margriet, marguerite daisy, moon daisy, white daisy, yellow daisy,
Evaluation date (mm/dd/yy):	3/24/05
Evaluator #1 Name/Title:	Elizabeth Brusati, project manager
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Evaluator #2 Name/Title:	Joseph DiTomaso
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Section below for list committee use—please leave blank

List committee members:	Joe DiTomaso, Joanna Clines, Cynthia Roye, Doug Johnson
Committee review date:	7/8/05
List date:	enter text here
Re-evaluation date(s):	enter text here

General comments on this assessment:

Most common in northern California and coastal areas.

Table 2. Criteria, Section, and Overall Scores

1.1	Impact on abiotic ecosystem processes	U	No Information
1.2	Impact on plant community	B	Other Pub. Mat'l
1.3	Impact on higher trophic levels	B	Other Pub. Mat'l
1.4	Impact on genetic integrity	D	Other Pub. Mat'l

Impact

Enter four characters from Q1.1-1.4 below:

UBBD

Using matrix, determine score and enter below:

B

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

Invasiveness

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

14

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

3.1	Ecological amplitude/Range	A	Other Pub. Mat'l
3.2	Distribution/Peak frequency Wksht C	C	Observational

Distribution

Using matrix, determine score and enter below:

B

Table 3. Documentation

Question 1.1 Impact on abiotic ecosystem processes	U No Information back
Identify ecosystem processes impacted: Unknown	
Rationale: enter text here	
Sources of information: enter text here	
Question 1.2 Impact on plant community composition, structure, and interactions	B Other Pub. Mat'l back
Identify type of impact or alteration: Can occasionally form dense stands that which choke out other vegetation in pastures and meadows.	
Rationale: enter text here	
Sources of information: Montana Weed Control Association. no date. Oxeye daisy (<i>Chrysanthemum leucanthemum</i>). Available: http://www.mtweed.org/identification/oxeye_daisy/oxeye_daisy.html . Accessed 3/24/05	
Question 1.3 Impact on higher trophic levels	B Other Pub. Mat'l back
Identify type of impact or alteration: Most large herbivores avoid it and instead feed on grasses. Livestock generally avoid grazing the foliage, and milk from dairy cattle that have consumed the plant can have an unpleasant flavor. Oxeye daisy can host the yellow dwarf potato virus.	
Threatens three federally-listed butterfly species on San Bruno Mountain in the Bay Area.	
Rationale: enter text here	
Sources of information: Montana Weed Control Association. no date. Oxeye daisy (<i>Chrysanthemum leucanthemum</i>). Available: http://www.mtweed.org/identification/oxeye_daisy/oxeye_daisy.html . Accessed 3/24/05	
DiTomaso and Healy. 2006. Weeds of California. UC DANR Publ. #3488.	
Jake Sigg, California Native Plant Society, San Francisco, pers.comm.	
Question 1.4 Impact on genetic integrity	D Other Pub. Mat'l back
Identify impacts: No native <i>Leucanthemum</i> species, but there are native <i>Chrysanthemum</i> . No information on hybridization.	
Rationale: enter text here	

Sources of information: Hickman, J. C. (ed.) 1993. The Jepson Manual, Higher Plants of California. University of California Press. Berkeley, CA	
Question 2.1 Role of anthropogenic and natural disturbance in establishment	B Observational back
Describe role of disturbance: Although it will easily establish in disturbed sites, it can on occasional invade undisturbed areas.	
Rationale: enter text here	
Sources of information: DiTomaso, observational.	
Question 2.2 Local rate of spread with no management	B Observational back
Describe rate of spread: Locally can increase, but not rapidly. Populations expanding in Shasta County.	
Rationale: enter text here	
Sources of information: DiTomaso, observational.	
Question 2.3 Recent trend in total area infested within state	B Observational back
Describe trend: Still expanding in state.	
Rationale: enter text here	
Sources of information: DiTomaso, observational.	
Question 2.4 Innate reproductive potential	A Other Pub. Mat'l back
Describe key reproductive characteristics: Perennial. Prolific seed producer: one plant can produce 26,000 seeds. Reproduction is primarily through seed dispersal and germination, but spreading root stalks also contribute to spread. One study found that 82% of seeds were viable after 6 years and 1 percent were viable after 39 years. Seed production is often prolific, especially when abundant moisture is available. Some seeds can remain viable for up to about 20 years or more under field conditions.	
Rationale: enter text here	
Sources of information: Montana Weed Control Association. no date. Oxeye daisy (<i>Chrysanthemum leucanthemum</i>). Available: http://www.mtweed.org/identification/oxeye_daisy/oxeye_daisy.html . Accessed 3/24/05	
DiTomaso and Healy. 2006. Weeds of California. UC DANR Publ. #3488.	

Question 2.5 Potential for human-caused dispersal	A Other Pub. Mat'l back
Identify dispersal mechanisms: Has escaped from cultivation. Seeds disperse with water, mud, soil movement, animals, vehicle tires, and human activities. Seed is often a component of commercial “wildflower” packets. Cultivation and earth-moving and agricultural equipment can disperse root fragments.	
Rationale: enter text here	
Sources of information: Hickman, J. C. (ed.) 1993. The Jepson Manual, Higher Plants of California. University of California Press. Berkeley, CA DiTomaso and Healy. 2006. Weeds of California. UC DANR Publ. #3488.	
Question 2.6 Potential for natural long-distance dispersal	C Other Pub. Mat'l back
Identify dispersal mechanisms: Seeds disperse with water and animals, but this is probably unusual. Seeds can survive ingestion by animals.	
Rationale: enter text here	
Sources of information: DiTomaso and Healy. 2006. Weeds of California. UC DANR Publ. #3488.	
Question 2.7 Other regions invaded	C Other Pub. Mat'l back
Identify other regions: Native to Europe. Present in every US state (1).	
Rationale: enter text here	
Sources of information: 1. USDA, NRCS. 2005. The PLANTS Database, Version 3.5 (http://plants.usda.gov). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.	
Question 3.1 Ecological amplitude/Range	A Other Pub. Mat'l back
Describe ecological amplitude, identifying date of source information and approximate date of introduction to the state, if known: Invasive in pastures, disturbed mountain meadows, and fields (1). Present in Sonoma, Mendocino, Mono, and San Diego counties (2). In California, it is most invasive in moist grassland and coastal scrub. Oxeye daisy is a state-listed noxious weed in Colorado, Minnesota (secondary), Montana (category 1), Ohio (prohibited), Washington (class B, plant quarantine), and Wyoming. It is also a noxious weed in southeastern Australia (3).	
Rationale: enter text here	
Sources of information: 1. Hickman, J. C. (ed.) 1993. The Jepson Manual, Higher Plants of California. University of California Press. Berkeley, CA 2. USDA, NRCS. 2005. The PLANTS Database, Version 3.5 (http://plants.usda.gov). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.	

3. DiTomaso and Healy. 2006. Weeds of California. UC DANR Publ. #3488.

Question 3.2 Distribution/Peak frequency

C Observational [back](#)

Describe distribution: Most common in northern California and coastal areas.

Rationale: enter text here

Sources of information: DiTomaso, observational.

Peter Warner, California State Parks, observational

Joanna Clines, US Forest Service, observational

Alison Stanton, BMP Ecosciences, observational

Worksheet A[back](#)

Reaches reproductive maturity in 2 years or less	Yes: 1 pt
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	Yes: 2 pts
Viable seed produced with <i>both</i> self-pollination and cross-pollination	Unknown: 0 pts
Has quickly spreading vegetative structures (rhizomes, roots, etc.) that may root at nodes	Yes: 1 pt
Fragments easily and fragments can become established elsewhere	No: 0 pts
Resprouts readily when cut, grazed, or burned	Yes: 1 pt
	8 pts 2 unknowns
	A (6+ 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	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
	chaparral	score
Grasslands, Vernal Pools, Meadows, and other Herb Communities	coastal prairie	C. 5-20%
	valley and foothill grassland	D. presen
	Great Basin grassland	score
	vernal pool	score
	meadow and seep	D. presen
	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	C. 5-20%
	closed cone coniferous forest	D. presen
	lower montane coniferous forest	D. presen
	upper montane coniferous forest	D. presen
	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).