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)**:**	Erodium brachycarpum (Godron) Thell.
Synonyms:	Erodium obtusiplicatum
Common names:	shortfruit stork's bill
Evaluation date (mm/dd/yy)**:**	2/1/05
Evaluator #1 Name/Title:	Elizabeth Brusati, project manager
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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:
In grasslands, E. botrys, E. brachycarpum, and E. cicutarium all coexist and behave similarly.

Table 2. Criteria, Section, and Overall Scores

1.1	Impact on abiotic ecosystem processes	D	Observational
1.2	Impact on plant community	C	Other Pub. Mat'l
1.3	Impact on higher trophic levels	D	Observational
1.4	Impact on genetic integrity	D	Other Pub. Mat'l

Impact

Enter four characters from Q1.1-1.4 below:

DCDD

Using matrix, determine score and enter below:

C

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

10

Use matrix to determine score and enter below:

C

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

Distribution

Using matrix, determine score and enter below:

A

Plant Score

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

Low

No Alert

Table 3. Documentation

Question 1.1 Impact on abiotic ecosystem processes D Observational back
Identify ecosystem processes impacted: Do not appear to have significant impact on abiotic processes.
Rationale: enter text here
Sources of information: DiTomaso, observational
Question 1.2 Impact on plant community composition, structure, and interactions C Other Pub. Mat'l back
Identify type of impact or alteration: May be able to outcompete native species. Forms large basal rosettes of leaves that can kill nearby plants (1), but this generally only occurs after disturbance, such as fire and they are quickly outcompeted within a year or two of fire.
Rationale: enter text here
Sources of information: DiTomaso, J., and E. Healy. in prep. Weeds of California and Other Western States .Kyser and DiTomaso, 2002. Weed Science
Question 1.3 Impact on higher trophic levels D Observational back
Identify type of impact or alteration: Good forage for wildlife although when they form a dominant stand after fire then can reduce annual grasses and limit late season forage. This is a transient response.
Rationale: enter text here
Sources of information: DiTomaso, observational.
Question 1.4 Impact on genetic integrity D Other Pub. Mat'l back
Identify impacts: No information available on hybridization, but there are two native Erodium species in California: E. macrophyllum on the south and central coast and the Channel Islands, and E. texanum on the southern coast and desert. Doubtful if these species hybridize. No record of any Erodium species hybridizing.
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 enter text here
Question 2.1 Role of anthropogenic and natural disturbance in establishment C Other Pub. Mat'l back
Describe role of disturbance: Found mainly in disturbed sites (see 3.1).

Rationale: enter text here
Sources of information: DiTomaso and Healy. 2006. Weeds of California. UC DANR Publ $3488.
Question 2.2 Local rate of spread with no management C No Information back
Describe rate of spread: Can fluctuate up and down, but over all remains static.
Rationale: enter text here
Sources of information: DiTomaso, observational.
Question 2.3 Recent trend in total area infested within state C No Information back
Describe trend: Widely distributed and has been in the state for many years.
Rationale: enter text here
Sources of information: DiTomaso, observational.
Question 2.4 Innate reproductive potential B Other Pub. Mat'l back
Describe key reproductive characteristics: Winter annual.
Rationale: enter text here
Sources of information: DiTomaso and Healy. 2006. Weeds of California. UC DANR Publ. #3488.
Question 2.5 Potential for human-caused dispersal B Other Pub. Mat'l back
Identify dispersal mechanisms: Can be dispersed by clinging to shoes and clothes of people, tire, and agricultural or maintenance equipment (1).
Rationale: enter text here
Sources of information: DiTomaso and Healy. 2006. Weeds of California. UC DANR Publ. #3488.
Question 2.6 Potential for natural long-distance dispersal B Other Pub. Mat'l back
Identify dispersal mechanisms: Mericarps dispserse by water, soil movement, and especially by clinging to the fur, feathers, or feet of animals (1). Most seed fall to soil surface.

Rationale: enter text here
Sources of information: 1. 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 southern Europe. Occupies similar habitats elsewhere in US and world.
Rationale: enter text here
Sources of information: 1. USDA, NRCS. 2004. 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 B Other Pub. Mat'l back
Describe ecological amplitude, identifying date of source information and approximate date of introduction to the state, if known: Present in Sonoma, Mendocino, Contra Costa, Sacramento, Glenn, Butte, Tehama, Shasta, Santa Barbara, Kern, Los Angeles, San Diego, and Riverside counties (1). Found on roadsides, pastures, fields, grasslands, rangelands, waste places, and other open disturbed sites throughout California, except in deserts and the Great Basin, to 1000m (2).
Rationale: enter text here
Sources of information: 1. USDA 2004 2. DiTomaso and Healy in prep
Question 3.2 Distribution/Peak frequency A Observational back
Describe distribution: Very common in valley and foothill grasslands.
Rationale: enter text here
Sources of information: DiTomaso, observational. Joanna Clines, US Forest Service, pers. obs. Cynthia Roye, California Dept. of Parks and Recreation, pers. obs.

Worksheet A

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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	**No: 0 pt**
Seeds remain viable in soil for three or more years	**No: 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	**No: 0 pts**
Resprouts readily when cut, grazed, or burned	**No: 0 pt**
	4 pts **1 unknown**
	B (4-5 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	**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**
Grasslands, Vernal Pools, Meadows, and other Herb Communities	coastal prairie	**B. 21-50%**
	valley and foothill grassland	**B. 21-50%**
	Great Basin grassland	**C. 5-20%**
	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	**B. 21-50%**
	piñon and juniper woodland	**score**
	Sonoran thorn woodland	**score**
Forest	broadleaved upland forest	**score**
	North Coast coniferous forest	**score**
	closed cone coniferous forest	**score**
	lower montane coniferous forest	**C. 5-20%**
	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).