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)**:**	Eucalyptus camaldulensis Dehnhardt
Synonyms:	
Common names:	red gum, river red gum, Red River gum
Evaluation date (mm/dd/yy)**:**	5/17/05
Evaluator #1 Name/Title:	Elizabeth Brusati, project manager
Affiliation:	California Invasive Plant Council
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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 list committee use—please leave blank

List committee members:	enter text here
Committee review date:	enter text here
List date:	enter text here
Re-evaluation date(s):	enter text here

General comments on this assessment:
enter text here

Table 2. Criteria, Section, and Overall Scores

1.1	Impact on abiotic ecosystem processes	C	Observational
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	Other Pub. Mat'l

Impact

Enter four characters from Q1.1-1.4 below:

CCUD

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)	No Information
2.3	Recent trend in total area infested within state	C (1 pt)	No Information
2.4	Innate reproductive potential Wksht A	C (1 pt)	Other Pub. Mat'l
2.5	Potential for human-caused dispersal	C (1 pt)	Other Pub. Mat'l
2.6	Potential for natural long-distance dispersal	C (1 pt)	Other Pub. Mat'l
2.7	Other regions invaded	U (0 pts)	No Information

Invasiveness

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

6

Use matrix to determine score and enter below:

C

Plant Score

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

Low

No Alert

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

Distribution

Using matrix, determine score and enter below:

C

Table 3. Documentation

Question 1.1 Impact on abiotic ecosystem processes C Observational back
Identify ecosystem processes impacted: Uses large amounts of water and can dry up streams in South Africa (1). Changes soil chemistry through allelopathy (2). Has not escaped here to have any affect on abiotic processes.
Rationale: enter text here
Sources of information: 1. Forsyth, G. G., D. M. Richardson, P. J. Brown, and B. W. van Wilgen. 2004. A rapid assessment of the invasive status of Eucalyptus species in two South African provinces. South African Journal of Science. 100:75-77 2. Del Moral, R., and C. H. Muller. 1970. The allelopathic effects of Eucalyptus camaldulensis. American Midland Naturalist. 83: 254-283 Joe DiTomaso, observational.
Question 1.2 Impact on plant community composition, structure, and interactions C Observational back
Identify type of impact or alteration: Allelopathic. In California, annual herbs rarely survive to maturity where Eucalyptus litter accumulates. A bare zone often occurs in the zone between herbs and trees. Eucalyptus contains several toxins, including terpenes. Has not escaped here to have any affect on plant communities.
Rationale:
Sources of information: 1. Del Moral and Muller 1970 DiTomaso, observational.
Question 1.3 Impact on higher trophic levels U No Information back
Identify type of impact or alteration: Eucalyptus globulus is reported to be poor wildlife habitat, but there is no specific information for E. camaldulensis.
Rationale: enter text here
Sources of information: enter text here
Question 1.4 Impact on genetic integrity D Other Pub. Mat'l back
Identify impacts: None
Rationale: No native Eucalyptus species in California.
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: Garden escape in disturbed habitats, but typically urban disturbed sites..
Rationale: enter text here
Sources of information: DiTomaso and Healy. in prep. Weeds of California and Other Western States.
Question 2.2 Local rate of spread with no management C Observational back
Describe rate of spread: Vry uncommon as an escape.
Rationale: enter text here
Sources of information: enter text here
Question 2.3 Recent trend in total area infested within state U No Information back
Describe trend: no information
Rationale: enter text here
Sources of information: enter text here
Question 2.4 Innate reproductive potential C Other Pub. Mat'l back
Describe key reproductive characteristics: Based on similar Eucalyptus globulus: Reproductive at several years old. Flowers late fall to spring. Fruit ripens the following fall to spring. Good seed crops produced at intervals of several years. Seeds are small and dispersed by wind. Germination rates highly variable.
Rationale: Not enough information to score.
Sources of information: Boyd, D. 2000. Eucalyptus globulus. pp. 183-187 in Bossard, C. C., J. M. Randall, and M. C. Hochovsky. Invasive Plants of California's Wildlands. University of California Press, Berkeley.
Question 2.5 Potential for human-caused dispersal C Other Pub. Mat'l back
Identify dispersal mechanisms: Commonly planted as an ornamental tree (1). Uncommon escapee from plantings (2).
Rationale: enter text here

Sources of information: 1. Scalise, K. 2000. UC Berkeley discovery to make possible June 7 attempt to cure California's sick eucalyptus trees. University of California, Agriculture and Natural Resources, News and Information Outreach. http://news.ucanr.org. June 6, 2000

2. DiTomaso and Healy in prep.

Question 2.6 Potential for natural long-distance dispersal C Observational back

Identify dispersal mechanisms: Seeds may dispersed by wind, but no information on how far they are carried. Expected that fruit drop to the ground below parent plant.

Rationale: enter text here

Sources of information: Boyd 2000

Question 2.7 Other regions invaded U No Information back

Identify other regions: Native to Australia, where it has an extensive range and grows primarily in riparian habitats (1). Invasive in South Africa (2), Hawaii, and Puerto Rico (3) but no record of ecosystems.

Rationale: Can't score without information about its range in California.

Sources of information: 1. Del Moral and Muller 1970

2. Forsyth et al. 2004

3. 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 B Other Pub. Mat'l back

Describe ecological amplitude, identifying date of source information and approximate date of introduction to the state, if known: Uncommon garden escape in Inner North Coast Ranges, San Francisco Bay Area, Central Valley, South Coast Ranges, Western Transverse Ranges, South Coast, and Channel Islands (= Jepson regions NW, GV, CW, SW) (1). Reported from Sonoma, Tehama, Butte, San Luis Obispo, Santa Barbara, and San Diego counties (2). Invades grasslands in Santa Barbara County (3). Most other areas of escape are in urban environments.

Rationale: enter text here

Sources of information: 1. DiTomaso and Healy. 2006. Weeds of California. UC DANR Publ. #3488.

2. USDA, NRCS 2004

3. Del Moral and Muller 1970

Question 3.2 Distribution/Peak frequency D Other Pub. Mat'l back

Describe distribution: Uncommon ornamental escape, generally in disturbed areas.

Rationale: enter text here
Sources of information: 1. DiTomaso and Healy. 2006. Weeds of California. UC DANR Publ. #3488.

Worksheet A

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Reaches reproductive maturity in 2 years or less	**No: 0 pt**
Dense infestations produce >1,000 viable seed per square meter	**No: 0 pts**
Populations of this species produce seeds every year.	**Yes: 1 pt**
Seed production sustained over 3 or more months within a population annually	**Yes: 1 pt**
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	**No: 0 pts**
Resprouts readily when cut, grazed, or burned	**Yes: 1 pt**
	3 pts **2 unknowns**
	C (1-3)

Note any related traits: Many of these scores are based on Eucalyptus globulus.

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	**D. presen**
	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	**D. presen**
	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	**score**
	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).