

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):	Phoenix canariensis Chabaud
Synonyms:	
Common names:	Canary island date palm
Evaluation date (mm/dd/yy):	1/6/05
Evaluator #1 Name/Title:	Elizabeth Brusati, project manager
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Evaluator #2 Name/Title:	Joseph M. DiTomaso
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Section below for list committee use—please leave blank

List committee members:	Jake Sigg, Peter Warner, Bob Case, John Knapp, Elizabeth Brusati
Committee review date:	7/8/05
List date:	enter text here
Re-evaluation date(s):	enter text here

<p>General comments on this assessment: enter text here</p>
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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	B (2 pts)	Other Pub. Mat'l
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	C (1 pt)	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	A (3 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:

13

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:

Low

No Alert

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

Distribution

Using matrix, determine score and enter below:

D

Table 3. Documentation

Question 1.1 Impact on abiotic ecosystem processes	C Observational back
Identify ecosystem processes impacted: At one location in southern California, invasion of palm trees (Phoenix and Washingtonia) caused the river to change direction, flooding an historical site (1). Seeds may be allelopathic, but unknown if this effect is persistent..	
Rationale: Scoring as C because this is only an observation from one site and we don't know how much of the change was due to Phoenix vs. Washingtonia invasion.	
Sources of information: 1. Personal communication from Cindy Burrascano, California Native Plant Society. E-mail in Cal-IPC files. 2. Personal observations, John Knapp, Catalina Island Conservancy, Avalon, CA	
Question 1.2 Impact on plant community composition, structure, and interactions	C Observational back
Identify type of impact or alteration: Displaces native trees.	
Rationale: Dense in Los Penasquitos Preserve. Has been the focus of several restoration projects there. Documented as a pest on the San Diego River (1). One adult can produce a carpet of seedlings (2).	
Sources of information: 1. Personal communication from Cindy Burrascano, California Native Plant Society. E-mail in Cal-IPC files 2. Personal observations, John Knapp, Catalina Island Conservancy, Avalon, CA.	
Question 1.3 Impact on higher trophic levels	U No Information back
Identify type of impact or alteration: Sharp spines can injure people (1). If it's displacing native trees, presumably it is having an impact on native wildlife as well, but we have no specific information on this.	
Rationale: enter text here	
Sources of information: 1. Floridata website. Phoenix canariensis. http://www.floridata.com/ref/P/phoe_can.cfm	
Question 1.4 Impact on genetic integrity	D Other Pub. Mat'l back
Identify impacts: none	
Rationale: No native Phoenix species.	
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	B Other Pub. Mat'l back
Describe role of disturbance: Grows in full sun, so may need disturbance to open up vegetation (1). Invades riparian areas that are naturally disturbed because they operate under a flood dynamic (2).	
Rationale: enter text here	
Sources of information: Gilman, E. F., and D. G. Watson. 1994. Phoenix canariensis. Canary Island Date Palm. Fact sheet. ST-439. Environmental Horticulture Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL. Available: http://hort.ifas.ufl.edu/PHOCANA.pdf	
2. Personal communication from Cindy Burrascano, California Native Plant Society. E-mail in Cal-IPC files.	
Question 2.2 Local rate of spread with no management	B Observational back
Describe rate of spread: Spreading in southern California.	
Rationale: enter text here	
Sources of information: Personal communication from Cindy Burrascano, California Native Plant Society. E-mail in Cal-IPC files.	
Question 2.3 Recent trend in total area infested within state	B Observational back
Describe trend: Spreading in southern California.	
Rationale: enter text here	
Sources of information: Personal communication from Cindy Burrascano, California Native Plant Society. E-mail in Cal-IPC files.	
Question 2.4 Innate reproductive potential	C Other Pub. Mat'l back
Describe key reproductive characteristics: Reproduces by seed. Male and female flowers develop on separate trees (1).	
Rationale: enter text here	
Sources of information: DiTomaso, J. and E. 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: Escape from landscape planting via dispersal in water or by birds. Seeds carried by winter rains into storm drains and then to creeks and rivers (1). Planted in parks and gardens or along streets	

(2).	
Rationale:	
Sources of information: 1. DiTomaso, J. and E. Healy. 2006. Weeds of California. UC DANR Publ. #3488. 2. Brenzel, K. N. 2001. Sunset Western Garden Book. Sunset Publishing Company, Menlo Park, CA.	
Question 2.6 Potential for natural long-distance dispersal	A Other Pub. Mat'l back
Identify dispersal mechanisms: Seeds dispersed by birds. Seeds are large and can be carried downstream in creeks and rivers (1, 2).	
Rationale: enter text here	
Sources of information: 1. DiTomaso, J. and E. Healy. 2006. Weeds of California. UC DANR Publ. #3488. 2. Personal communication from Cindy Burrascano, California Native Plant Society. E-mail in Cal-IPC files..	
Question 2.7 Other regions invaded	C Other Pub. Mat'l back
Identify other regions: Native to Canary Islands. Naturalized in Florida (1). Native habitat includes riparian areas.	
Rationale: enter text here	
Sources of information: DiTomaso, J. and E. Healy. 2006. Weeds of California. UC DANR Publ. #3488.	
Question 3.1 Ecological amplitude/Range	D Other Pub. Mat'l back
Describe ecological amplitude, identifying date of source information and approximate date of introduction to the state, if known: Naturalized in Sonoma, Glenn, San Luis Obispo, and San Diego counties (1). Most common in southern California. Has become a problem in riparian corridors (2, 3). Hardy to 20 degrees F. Sunset lists it as appropriate for zones 9, 12-24 (4). Can tolerate salt spray (4). Listed as an exotic tree for which mechanized removal is authorized by the US Army Corps of Engineers (6).	
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 2. DiTomaso, J. and E. Healy. 2006. Weeds of California. UC DANR Publ. #3488. 3. Personal communication from Cindy Burrascano, California Native Plant Society. E-mail in Cal-IPC files. 4. Brenzel, K. N. 2001. Sunset Western Garden Book. Sunset Publishing Company, Menlo Park, CA. 5. Gilman and Watson 1994	

6. USACE. 2003. Special public notice. Regional general permit No. 41: Removal of invasive exotic plants. US Army Corps of Engineers, Los Angeles District. Public notice 200301094-JMB. Available: http://www.spl.usace.army.mil/regulatory/rgp41_pn.pdf

Question 3.2 Distribution/Peak frequency

D Anecdotal [back](#)

Describe distribution: Mainly found in wildlands of Southern California

Rationale: enter text here

Sources of information:

Worksheet A[back](#)

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	No: 0 pt
Seeds remain viable in soil for three or more years	Unknown: 0 pts
Viable seed produced with <i>both</i> self-pollination and cross-pollination	No: 0 pt
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
	2 pts 1 unknown
	C (1-3)

Note any related traits: enter text here

Worksheet C - California Ecological Types

[back](#)

(*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	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	D. present
	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).