

# 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**

<b>Species name (Latin binomial):</b>	Schinus molle L.
<b>Synonyms:</b>	
<b>Common names:</b>	Peruvian pepper tree, California pepper tree
<b>Evaluation date (mm/dd/yy):</b>	5/19/05
<b>Evaluator #1 Name/Title:</b>	Elizabeth Brusati, project manager
<b>Affiliation:</b>	California Invasive Plant Council
<b>Phone numbers:</b>	510-843-3902
<b>Email address:</b>	edbrusati@cal-ipc.org
<b>Address:</b>	1442A Walnut St. #462, Berkeley, CA 94709
<b>Evaluator #2 Name/Title:</b>	Joseph M. DiTomaso
<b>Affiliation:</b>	University of California, Davis
<b>Phone numbers:</b>	530-754-8715
<b>Email address:</b>	jmditomaso@ucdavis.edu
<b>Address:</b>	Dept. Plant Sci., Mail Stop 4, Davis, CA 95616

Section below for list committee use—please leave blank

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

<b>General comments on this assessment:</b>
---

**Table 2. Criteria, Section, and Overall Scores**

<a href="#">1.1</a>	Impact on abiotic ecosystem processes	<b>U</b>	<b>No Information</b>
<a href="#">1.2</a>	Impact on plant community	<b>C</b>	<b>Other Pub. Mat'l</b>
<a href="#">1.3</a>	Impact on higher trophic levels	<b>U</b>	<b>No Information</b>
<a href="#">1.4</a>	Impact on genetic integrity	<b>D</b>	<b>Other Pub. Mat'l</b>

**Impact**

*Enter four characters from Q1.1-1.4 below:*

**UCUD**

*Using matrix, determine score and enter below:*

**C**

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

**Invasiveness**

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

**11**

*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**

<a href="#">3.1</a>	Ecological amplitude/Range	<b>A</b>	<b>Rev'd, Sci. Pub'n</b>
<a href="#">3.2</a>	Distribution/Peak frequency <a href="#">Wksht C</a>	<b>D</b>	<b>Observational</b>

**Distribution**

*Using matrix, determine score and enter below:*

**B**

**Table 3. Documentation**

<b>Question 1.1</b> Impact on abiotic ecosystem processes	U No Information <a href="#">back</a>
Identify ecosystem processes impacted:	
Rationale: enter text here	
Sources of information: enter text here	
<b>Question 1.2</b> Impact on plant community composition, structure, and interactions	C Other Pub. Mat'l <a href="#">back</a>
Identify type of impact or alteration: Is more widespread than Brazilian peppertree in California. In Riverside County, slopes are covered by Schinus molle. However, in Contra Costa county it is present but not very invasive. Appears to vary greatly by location.	
Rationale: enter text here	
Sources of information: DiTomaso and Healy. 2006. Weeds of California. UC DANR Publ. #3488 John Knapp, Catalina Island Conservancy, Avalon, CA. pers. comm Jake Sigg and Bob Case, California Native Plant Society, pers. comm.	
<b>Question 1.3</b> Impact on higher trophic levels	U No Information <a href="#">back</a>
Identify type of impact or alteration: Peruvian peppertree is susceptible to black scale (Saissetia oleae), a detrimental pest of citrus. Plants can cause dermatitis in sensitive individuals. No know impact on native organisms.	
Rationale: enter text here	
Sources of information: enter text here	
<b>Question 1.4</b> Impact on genetic integrity	D Other Pub. Mat'l <a href="#">back</a>
Identify impacts: none	
Rationale: No native Schinus spp.	
Sources of information: Hickman, J. C. (ed.) 1993. The Jepson Manual, Higher Plants of California. University of California Press. Berkeley, CA enter text here	
<b>Question 2.1</b> Role of anthropogenic and natural disturbance in establishment	B Rev'd, Sci. Pub'n <a href="#">back</a>
Describe role of disturbance: Habitat it is listed as invading (desert washes, abandoned fields, disturbed chaparral) all receive either natural or human-caused disturbance.	

Rationale: enter text here	
Sources of information: 1. Nilsen, E. T., and W. H. Muller 1980. A comparison of the relative naturalization ability of two Schinus species in southern California. I. seed germination. Bulletin of the Torrey Botanical Club. 107:51-56 2. Hickman, J. C. (ed.) 1993. The Jepson Manual, Higher Plants of California. University of California Press. Berkeley, CA enter text here	
<b>Question 2.2</b> Local rate of spread with no management	C Observational <a href="#">back</a>
Describe rate of spread: Reported as only mildly invasive, so probably is not spreading much.	
Rationale: enter text here	
Sources of information: Kelly, Mike, California Native Plant Society, San Diego, pers. comm. E-mail 4/29/05	
<b>Question 2.3</b> Recent trend in total area infested within state	C Observational <a href="#">back</a>
Describe trend: Reported as only mildly invasive, so probably is not spreading much.	
Rationale: enter text here	
Sources of information: Kelly, Mike, California Native Plant Society, San Diego, pers. comm. E-mail 4/29/05	
<b>Question 2.4</b> Innate reproductive potential	C Other Pub. Mat'l <a href="#">back</a>
Describe key reproductive characteristics: Sometimes root-sprouting (1,3). Fruits in late fall; seeds germinate in winter (2).	
Rationale: Scores on table inferred from <i>S. terebinthifolius</i> .	
Sources of information: 1. Hickman, J. C. (ed.) 1993. The Jepson Manual, Higher Plants of California. University of California Press. Berkeley, CA 2. Nilsen, E. T., and W. H. Muller. 1980. A comparison of the relative naturalization ability of two Schinus species (Anacardiaceae) in southern California. II. seedling establishment. Bulletin of the Torrey Botanical Club. 107:232-237 3. DiTomaso and Healy. 2006. Weeds of California. UC DANR Publ. #3488.	
<b>Question 2.5</b> Potential for human-caused dispersal	B Other Pub. Mat'l <a href="#">back</a>
Identify dispersal mechanisms: Used to be widely planted as an ornamental, but uncommon now (1).	

Rationale: No information on how often it spreads.	
Sources of information: 1. Brenzel, K. N. 2001. Sunset Western Garden Book. Sunset Publishing Company, Menlo Park, CA.	
<b>Question 2.6</b> Potential for natural long-distance dispersal	A Rev'd, Sci. Pub'n <a href="#">back</a>
Identify dispersal mechanisms: Birds feed on the seeds and may disperse them.	
Rationale: enter text here	
Sources of information: 1. Nilsen, E. T., and W. H. Muller 1980. A comparison of the relative naturalization ability of two Schinus species in southern California. I. seed germination. Bulletin of the Torrey Botanical Club. 107:51-56	
<b>Question 2.7</b> Other regions invaded	C Other Pub. Mat'l <a href="#">back</a>
Identify other regions: Native to South America. Also invades Texas, Hawaii, and Puerto Rico (1). A riparian tree in its native habitat (2).	
Rationale: No information on habitats invaded in other areas, although riparian habitat in South America may be equivalent to desert washes here. However, as it already invades several habitats in California, I rated it C.	
Sources of information: 1. USDA, NRCS. 2005. The PLANTS Database, Version 3.5 ( <a href="http://plants.usda.gov">http://plants.usda.gov</a> ). National Plant Data Center, Baton Rouge, LA 70874-4490 USA. 2. Nilsen, E. T., and W. H. Muller 1980. A comparison of the relative naturalization ability of two Schinus species in southern California. I. seed germination. Bulletin of the Torrey Botanical Club. 107:51-56	
<b>Question 3.1</b> Ecological amplitude/Range	A Rev'd, Sci. Pub'n <a href="#">back</a>
Describe ecological amplitude, identifying date of source information and approximate date of introduction to the state, if known: Washes, slopes, abandoned fields. Jepson regions: Sierra Nevada Foothills, Tehachapis, Great Valley, Central West, Southwest (1). Has naturalized in disturbed chaparral of the Santa Ynez mountains. Was imported by the Spanish as an ornamental (2). Also naturalized in grassland, coastal sage scrub, and old fields in southern California (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. Nilsen, E. T., and W. H. Muller 1980. A comparison of the relative naturalization ability of two Schinus species in southern California. I. seed germination. Bulletin of the Torrey Botanical Club. 107:51-56 3. Nilsen, E. T., and W. H. Muller. 1980. A comparison of the relative naturalization ability of two Schinus	

species (Anacardiaceae) in southern California. II. seedling establishment. Bulletin of the Torrey Botanical Club. 107:232-237

**Question 3.2** Distribution/Peak frequency

D Observational [back](#)

Describe distribution: Only mildly invasive.

Rationale: enter text here

Sources of information: Kelly, Mike, California Native Plant Society, San Diego, pers. comm. E-mail 4/29/05

**Worksheet A**[back](#)

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

## Worksheet C - California Ecological Types

[back](#)

(*sensu* Holland 1986)

Major Ecological Types	Minor Ecological Types	Code*
<b>Marine Systems</b>	marine systems	score
<b>Freshwater and Estuarine Aquatic Systems</b>	lakes, ponds, reservoirs	score
	rivers, streams, canals	score
	estuaries	score
<b>Dunes</b>	coastal	score
	desert	score
	interior	score
<b>Scrub and Chaparral</b>	coastal bluff scrub	score
	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	D. presen
<b>Grasslands, Vernal Pools, Meadows, and other Herb Communities</b>	coastal prairie	score
	valley and foothill grassland	D. presen
	Great Basin grassland	score
	vernal pool	score
	meadow and seep	score
	alkali playa	score
	pebble plain	score
<b>Bog and Marsh</b>	bog and fen	score
	marsh and swamp	score
<b>Riparian and Bottomland</b>	riparian forest	score
	riparian woodland	score
	riparian scrub (incl. desert washes)	D. presen
<b>Woodland</b>	cismontane woodland	score
	piñon and juniper woodland	score
	Sonoran thorn woodland	score
<b>Forest</b>	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
<b>Alpine Habitats</b>	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).