

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):	Carduus tenuifolius Curtis.
Synonyms:	enter text here
Common names:	slenderflower thistle, Italian thistle, multiheaded thistle, seaside thistle, shore thistle, winged plumeless thistle
Evaluation date (mm/dd/yy):	3/28/05
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Section below for list committee use—please leave blank

List committee members:	Carla Bossard, John Randall, Carri Pirosko, Dan Gluesenkamp, Gina Skurka, Brianna Richardson
Committee review date:	7/8/05
List date:	enter text here
Re-evaluation date(s):	enter text here

General comments on this assessment:

This species is very similar to *Carduus pycnocephalus* (according to the Jepson Manual, they may be the same species).

Table 2. Criteria, Section, and Overall Scores

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

<p>Impact</p> <p><i>Enter four characters from Q1.1-1.4 below:</i></p> <p>DCBD</p> <p><i>Using matrix, determine score and enter below:</i></p> <p>C</p>

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

<p>Invasiveness</p> <p><i>Enter the sum total of all points for Q2.1-2.7 below:</i></p> <p>8</p> <p><i>Use matrix to determine score and enter below:</i></p> <p>C</p>

<p>Plant Score</p> <p><i>Using matrix, determine Overall Score and Alert Status from the three section scores and enter below:</i></p> <p>Low</p> <p>No Alert</p>
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<u>3.1</u>	Ecological amplitude/Range	A	Other Pub. Mat'l
<u>3.2</u>	Distribution/Peak frequency <u>Wksht C</u>	D	Observational

<p>Distribution</p> <p><i>Using matrix, determine score and enter below:</i></p> <p>B</p>

Table 3. Documentation

Question 1.1 Impact on abiotic ecosystem processes	D Observational back
Identify ecosystem processes impacted: No known impacts.	
Rationale: enter text here	
Sources of information: Carla Bossard, St. Mary's College, and Dan Gluesenkamp, Audubon Canyon Ranch, pers. obs.	
Question 1.2 Impact on plant community composition, structure, and interactions	C Other Pub. Mat'l back
Identify type of impact or alteration: Not often encountered in wildlands in California. May replace species that are better wildlife and livestock forage (1).	
Rationale: enter text here	
Sources of information: 1. Roche C. 1992. Slender Thistle, Italian Thistle, Plumeless Thistle. Weeds Pacific Northwest Extension Publication, PNW 431.	
Question 1.3 Impact on higher trophic levels	B Other Pub. Mat'l back
Identify type of impact or alteration: Reduces value of forage for wildlife and livestock. Dense stands can restrict grazing. Restricts recreational activities.	
Rationale: enter text here	
Sources of information: 1. Roche C. 1992. Slender Thistle, Italian Thistle, Plumeless Thistle. Weeds Pacific Northwest Extension Publication, PNW 431.	
Question 1.4 Impact on genetic integrity	D Other Pub. Mat'l back
Identify impacts: None	
Rationale: No native California Carduus species.	
Sources of information: Hickman. 1993. The Jepson Manual.	
Question 2.1 Role of anthropogenic and natural disturbance in establishment	C Other Pub. Mat'l back
Describe role of disturbance: Typically inhabit disturbed open sites, roadsides, pastures, annual grasslands, and waste areas. Does not compete well in sites with established vegetation.	
Rationale: enter text here	

Sources of information: DiTomaso, J.M., and E. 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: Rarely managed in wildland areas and has not spread much except year to year variation.	
Rationale: enter text here	
Sources of information: DiTomaso, observational.	
Question 2.3 Recent trend in total area infested within state	C Other Pub. Mat'l back
Describe trend: May not be a distinct species from <i>Carduus pycnocephalus</i> . If it is, then it is much less common and invasive.	
Rationale: enter text here	
Sources of information: DiTomaso and Healy. 2006. Weeds of California. UC DANR Publ. #3488.	
Question 2.4 Innate reproductive potential	B Other Pub. Mat'l back
Describe key reproductive characteristics: Winter annual, sometimes biennial. Plants exist as basal rosettes until flowering shoots develop at maturity. Reproduces by seed. Seeds germinate under a wide range of temperature regimes, mostly in fall and spring. Typically self-pollinating. Flowerheads typically produce 11 central seeds and two to three outer seeds. Outer seeds may remain dormant and can persist in the soil seedbank for up to seven years.	
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	C Other Pub. Mat'l back
Identify dispersal mechanisms: Seeds can disperse with human activities.	
Rationale: enter text here	
Sources of information: DiTomaso, J.M., and E. Healy. in prep. Weeds of California and Other Western States.	
Question 2.6 Potential for natural long-distance dispersal	C Other Pub. Mat'l back
Identify dispersal mechanisms: Seeds can be dispersed with wind, water, birds, and small mammals.	

Rationale: enter text here	
Sources of information: enter text here	
Question 2.7 Other regions invaded	C Other Pub. Mat'l back
Identify other regions: State-listed noxious weed in Oregon and Washington, where it primarily occurs in mixed stands on annual rangelands with Italian thistle (1). Also in Texas, Pennsylvania, and New Jersey (2).	
Rationale: enter text here	
Sources of information: 1. Roche C. 1992. Slender Thistle, Italian Thistle, Plumeless Thistle. Weeds Pacific Northwest Extension Publication, PNW 431. 2. DiTomaso, J.M., and E. Healy. in prep. Weeds of California and Other Western States.	
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: Present in North Coast, North Coast Ranges, Sierra Nevada foothills, Central Coast, San Francisco Bay region, South Coast Ranges, Southwestern region, to 1000m. Colonizes disturbed sites and annual grasslands (1). Can grow in mixed stands with Italian thistle (<i>C. pycnocephalus</i>) (2).	
Rationale: enter text here	
Sources of information: 1. DiTomaso, J.M., and E. Healy. in prep. Weeds of California and Other Western States. 2. Roche C. 1992. Slender Thistle, Italian Thistle, Plumeless Thistle. Weeds Pacific Northwest Extension Publication, PNW 431 Dan Gluesenkamp, Audubon Canyon Ranch, pers. obs.	
Question 3.2 Distribution/Peak frequency	D Observational back
Describe distribution: Not nearly as commonly encountered as <i>Carduus pycnocephalus</i> .	
Rationale: enter text here	
Sources of information: DiTomaso, 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	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	Yes: 2 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	No: 0 pt
	4 pts
	Total Unknowns
	B (4-5 pts)
Note any related traits: Seed production low because of effect of biocontrol agent, <i>Rhinocyllus conicus</i> .	

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	D. present
	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. present
	valley and foothill grassland	D. present
	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	D. present
	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).