

# 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>	Torilis arvensis (Hudson) Link
<b>Synonyms:</b>	
<b>Common names:</b>	hedgearsley, spreading hedgearsley
<b>Evaluation date (mm/dd/yy):</b>	11/28/05
<b>Evaluator #1 Name/Title:</b>	Elizabeth Brusati, project manager
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<b>Evaluator #2 Name/Title:</b>	Joseph M. DiTomaso/Coop. Ext. Specialist
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<b>Address:</b>	Weed Science Program, Robbins Hall

Section below for list committee use—please leave blank

<b>List committee members:</b>	Joe DiTomaso, John Randall, Peter Warner, Jake Sigg
<b>Committee review date:</b>	1/10/06
<b>List date:</b>	enter text here
<b>Re-evaluation date(s):</b>	enter text here

**General comments on this assessment:**

There is almost no published (or even unpublished) research available on this species.

**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>Observational</b>
<a href="#">1.3</a>	Impact on higher trophic levels	<b>B</b>	<b>Anecdotal</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:*

**UCBD**

*Using matrix, determine score and enter below:*

**C**

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

**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:*

**Medium**

**No Alert**

<a href="#">3.1</a>	Ecological amplitude/Range	<b>A</b>	<b>Other Pub. Mat'l</b>
<a href="#">3.2</a>	Distribution/Peak frequency <a href="#">Wksht C</a>	<b>B</b>	<b>Observational</b>

**Distribution**

*Using matrix, determine score and enter below:*

**A**

**Table 3. Documentation**

<b>Question 1.1</b> Impact on abiotic ecosystem processes	U No Information <a href="#">back</a>
Identify ecosystem processes impacted: No information available	
Rationale: enter text here	
Sources of information: enter text here	
<b>Question 1.2</b> Impact on plant community composition, structure, and interactions	C Observational <a href="#">back</a>
Identify type of impact or alteration: Can be a problem species for livestock and wildlife grazers and an nuisance to humans, but may not get to densities high enough to cause significant ecological impacts.	
Rationale: enter text here	
Sources of information: DiTomaso, observational.	
<b>Question 1.3</b> Impact on higher trophic levels	B Anecdotal <a href="#">back</a>
Identify type of impact or alteration: Fruit can cause problems in wildlife and livestock by sticking to fur and other body parts.	
Rationale: enter text here	
Sources of information: Anecdotal information from local ranchers.	
<b>Question 1.4</b> Impact on genetic integrity	D Other Pub. Mat'l <a href="#">back</a>
Identify impacts: None. The only <i>Torilis</i> in California are <i>T. arvensis</i> and <i>T. nodosa</i> , both introduced.	
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	
<b>Question 2.1</b> Role of anthropogenic and natural disturbance in establishment	B Other Pub. Mat'l <a href="#">back</a>
Describe role of disturbance: Inhabitats disturbed places (1). Common on roadsides and disturbed sites in Oregon (2).	
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. Roche, C. 1992. Hedgeparsley ( <i>Torilis arvensis</i> (Hudson) Link). Pacific Northwest Extension Publication #418., Washington State University, University of Idaho, and Oregon State University Cooperative Extension.	
<b>Question 2.2</b> Local rate of spread with no management	B Observational <a href="#">back</a>
Describe rate of spread: <i>Torilis arvensis</i> is a fast spreading weed that seems for the most part to be under the radar screen. It has been in the Bay Area for more 30 years and it seems that in the last five to 10 years it has taken off.	
Rationale: enter text here	
Sources of information: Bob Case, California Native Plant Society, Cal-IPC, and Contra Costa Ag. Commissioner's office (retired). E-mail 11/27/05.	
<b>Question 2.3</b> Recent trend in total area infested within state	B Observational <a href="#">back</a>
Describe trend: Spreading.	
Rationale: enter text here	
Sources of information: Bob Case, California Native Plant Society, Cal-IPC, and Contra Costa Ag. Commissioner's office (retired). E-mail 11/27/05.	
<b>Question 2.4</b> Innate reproductive potential	C Other Pub. Mat'l <a href="#">back</a>
Describe key reproductive characteristics: Annual. Reproduces by seed. Each flower produces two spiny burs, each with one seed. Most seeds germinate after the first fall rains in areas with mild winters and in spring where winters are more severe.	
Rationale: enter text here	
Sources of information: Roche, C. 1992. Hedgeparsley ( <i>Torilis arvensis</i> (Hudson) Link). Pacific Northwest Extension Publication #418., Washington State University, University of Idaho, and Oregon State University Cooperative Extension.  DiTomaso and Healy. 2006. Weeds of California. DANR, In press.	
<b>Question 2.5</b> Potential for human-caused dispersal	B Other Pub. Mat'l <a href="#">back</a>
Identify dispersal mechanisms: Burs can stick to clothing, equipment, pets, and livestock. Seeds can be spread as contaminants in hay, crop seed, or bedding material.	

Rationale: enter text here	
Sources of information: Roche, C. 1992. Hedgeparsley ( <i>Torilis arvensis</i> (Hudson) Link). Pacific Northwest Extension Publication #418., Washington State University, University of Idaho, and Oregon State University Cooperative Extension.	
<b>Question 2.6</b> Potential for natural long-distance dispersal	A Other Pub. Mat'l <a href="#">back</a>
Identify dispersal mechanisms: Spiny burs can stick to fur of wildlife. Fruits fall near the parent plant or disperse to greater distances with water, mud, and by clinging to the fur, feathers, and feet of animals, to the shoes and clothing of humans, and to vehicle tires.	
Rationale: enter text here	
Sources of information: Roche, C. 1992. Hedgeparsley ( <i>Torilis arvensis</i> (Hudson) Link). Pacific Northwest Extension Publication #418., Washington State University, University of Idaho, and Oregon State University Cooperative Extension. DiTomaso and Healy. 2006. Weeds of California. DANR, In press.	
<b>Question 2.7</b> Other regions invaded	C Other Pub. Mat'l <a href="#">back</a>
Identify other regions: Native to southern Europe and Eurasia. Present in the central, southern, mid-Atlantic and west coast states. Noxious weed of Washington.	
Rationale: enter text here	
Sources of information: USDA, NRCS. 2005. The PLANTS Database, Version 3.5 ( <a href="http://plants.usda.gov">http://plants.usda.gov</a> ). Data compiled from various sources by Mark W. Skinner. National Plant Data Center, Baton Rouge, LA 70874-4490 USA.	
<b>Question 3.1</b> Ecological amplitude/Range	A Other Pub. Mat'l <a href="#">back</a>
Describe ecological amplitude, identifying date of source information and approximate date of introduction to the state, if known: Throughout California, except Great Basin and deserts, to 1600 m. Habitat includes disturbed sites such as roadsides, urban areas, railroad rights-of-way and woodlands. Very common in foothill oak woodlands and grasslands on both east and west side of Central Valley.	
Rationale: enter text here	
Sources of information: USDA, NRCS. 2005. The PLANTS Database, Version 3.5 ( <a href="http://plants.usda.gov">http://plants.usda.gov</a> ). Data compiled from various sources by Mark W. Skinner. National Plant Data Center, Baton Rouge, LA 70874-4490 USA.	

<b>Question 3.2</b> Distribution/Peak frequency	B Observational <a href="#">back</a>
Describe distribution: Most common in oak woodlands.	
Rationale: enter text here	
Sources of information: DiTomaso, observational.	

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

Reaches reproductive maturity in 2 years or less	<b>Yes: 1 pt</b>
Dense infestations produce >1,000 viable seed per square meter	<b>No: 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>Unknown: 0 pts</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>No: 0 pt</b>
	<b>3 pts      1 unknown</b>
	<b>C (1-3)</b>
<b>Note any related traits:</b> enter text here	

## Worksheet C - California Ecological Types

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(*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	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
<b>Grasslands, Vernal Pools, Meadows, and other Herb Communities</b>	coastal prairie	score
	valley and foothill grassland	C. 5-20%
	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	B. 21-50
	riparian scrub (incl. desert washes)	score
<b>Woodland</b>	cismontane woodland	B. 21-50
	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).