

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):	Prunus cerasifera Ehrh.
Synonyms:	None known
Common names:	cherry plum; Myrobalan plum; Pissard plum; purpleleaf plum
Evaluation date (mm/dd/yy):	08/07/05
Evaluator #1 Name/Title:	Peter J. Warner
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Email address:	pwarn@parks.ca.gov ; corylus@earthlink.net
Address:	P. O. Box 603, Little River, CA 95456
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:	Peter Warner, Joe DiTomaso, Jake Sigg, Cynthia Roye
Committee review date:	8/15/05
List date:	enter text here
Re-evaluation date(s):	enter text here

General comments on this assessment:

This assessment primarily based on personal observations of evaluator; more information needed for most questions.

Table 2. Criteria, Section, and Overall Scores

1.1	Impact on abiotic ecosystem processes	U	No Information
1.2	Impact on plant community	C	Observational
1.3	Impact on higher trophic levels	C	Observational
1.4	Impact on genetic integrity	U	No Information

“Impact”
 Enter four characters from Q1.1-1.4 below:
UCCU
 Use matrix determine the score; enter below:
C

2.1	Role of anthropogenic and natural disturbance	B 2	Observational
2.2	Local rate of spread with no management	C 1	Observational
2.3	Recent trend in total area infested within state	B 2	Observational
2.4	Innate reproductive potential Wksht A	C 1	Observational
2.5	Potential for human-caused dispersal	A 3	Observational
2.6	Potential for natural long-distance dispersal	C 1	Observational
2.7	Other regions invaded	C 1	Other Pub. Mat'l

“Invasiveness”
 For questions at left, recall that an A gets 3 points, a B gets 2, a C gets 1, and a D or U gets=0. 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 the Overall Score and Alert Status from the three section scores and enter them below:
Low
No Alert

3.1	Ecological amplitude/Range	A	Observational
3.2	Distribution/Peak frequency Wksht C	D	Observational

“Distribution”
 Use matrix determine the score; enter below:
B

Table 3. Documentation

Question 1.1 Impact on abiotic ecosystem processes	U No Information back
Identify ecosystem processes impacted: No information.	
Rationale: enter text here	
Sources of information: enter text here	
Question 1.2 Impact on plant community composition, structure, and interactions	C Observational back
Identify type of impact or alteration: In some infestations, minor displacement of native shrubs or trees by occupying canopy space; may have indirect impact on seed dispersal of native species	
Rationale: Fruits are large, attractive, and consumed by birds, especially corvids, and frugivorous mammals, e.g., raccoons.	
Sources of information: enter text here	
Question 1.3 Impact on higher trophic levels	C Observational back
Identify type of impact or alteration: Fruits are edible for birds, mammals, reptiles (?); tree trunks and branches often armored with stout thorns	
Rationale: Fruit consumption: positive for frugivores; spines may cause injuries to some animals	
Sources of information: Warner, PJ. 1994-2005. Personal observations in San Mateo, Marin, Sonoma, Mendocino, Humboldt, Napa, and Shasta counties. 707/937-2278; corylus@earthlink.net	
Question 1.4 Impact on genetic integrity	U No Information back
Identify impacts: No documented hybrids with native species; Jepson Manual cites potential hybridization with other horticultural congeners (1); several native congeners, including some that are likely to occupy ecological types also invaded by <i>P. cerasifera</i> (e.g., <i>P. virginiana</i> , <i>P. emarginata</i>)	
Rationale: No documented occurrences of hybridization with native <i>Prunus</i> species.	
Sources of information: 1. Hickman, JC (ed.). 1993. The Jepson Manual: Higher Plants of California. University of California Press, Berkeley, CA	
Question 2.1 Role of anthropogenic and natural disturbance in establishment	B Observational back
Describe role of disturbance: Some plants grow in relatively undisturbed sites (woodlands, riparian zones outside flood plains); natural (flooding) or anthropogenic (tilling, grazing) also appear to provide good germination conditions	

Rationale: enter text here	
Sources of information: Warner, PJ. 1994-2005. Personal observations in San Mateo, Marin, Sonoma, Mendocino, Humboldt, Napa, and Shasta counties. 707/937-2278; corylus@earthlink.net	
Question 2.2 Local rate of spread with no management	C Observational back
Describe rate of spread: Spread appears largely opportunistic by frugivory and seed dispersal; only occasional observations of mature trees with saplings or seedlings nearby	
Rationale: Most trees are not within thickets or larger stands, but growing alone or within a generally sparse population. With mature trees present, a rapidly spreading population would generally consist of large numbers of younger plants, and this is not the case.	
Sources of information: Warner, PJ. 1994-2005. Personal observations in San Mateo, Marin, Sonoma, Mendocino, Humboldt, Napa, and Shasta counties. 707/937-2278; corylus@earthlink.net	
Question 2.3 Recent trend in total area infested within state	B Observational back
Describe trend: Substantial information lacking; however, occurrences are clearly underreported and undocumented. Range in CA extends well beyond those cited in Jepson Manual (1) and on CalFlora website (2).	
Rationale: Personal observations indicate that slow spread into suitable habitats is occurring, and likely to continue as individuals are intentionally introduced, or dispersed by wildlife, into new areas (3).	
Sources of information: 1. Hickman, JC (ed.). 1993. The Jepson Manual: Higher Plants of California. University of California Press, Berkeley, CA 2. CalFlora: Information on California plants for education, research and conservation. [web application]. 2005. Berkeley, California: The CalFlora Database [a non-profit organization]. Available: http://www.calflora.org/ . (Accessed: Aug 07, 2005) 3. Warner, PJ. 1994-2005. Personal observations in San Mateo, Marin, Sonoma, Mendocino, Humboldt, Napa, and Shasta counties. 707/937-2278; corylus@earthlink.net	
Question 2.4 Innate reproductive potential	C Observational back
Describe key reproductive characteristics: edible fruits, large seeds, perennial woody plant that will stump- and root-sprout following cutting of trunks (1)	
Rationale: observed morphological characters (1)	
Sources of information: 1. Warner, PJ. 1994-2005. Personal observations in San Mateo, Marin, Sonoma, Mendocino, Humboldt, Napa, and Shasta counties. 707/937-2278; corylus@earthlink.net	

Question 2.5 Potential for human-caused dispersal	A Observational back
Identify dispersal mechanisms: Commercial sales; edible fruits with one large seed that is generally not consumed by humans	
Rationale: The species and cultivars are still sold widely as an ornamental tree; fruits eaten by humans, so species can be dispersed when pits are disposed of in new areas.	
Sources of information: enter text here	
Question 2.6 Potential for natural long-distance dispersal	C Observational back
Identify dispersal mechanisms: Fruits and seeds consumed by birds and mammals	
Rationale: Attractive and substantially sized fruits; however, range of individual animals eating fruits is usually not over 1 km	
Sources of information: Warner, PJ. 1994-2005. Personal observations in San Mateo, Marin, Sonoma, Mendocino, Humboldt, Napa, and Shasta counties. 707/937-2278; corylus@earthlink.net	
Question 2.7 Other regions invaded	C Other Pub. Mat'l back
Identify other regions: Reported as invasive in Australian bush: South Australia, Queensland, New South Wales (1); in New Zealand (2); reported widely established in Pacific NW (3, 4, 5), Northeastern N. America (4)	
Rationale: Australian bush similar in rainfall, temperatures to cismontane woodlands - not verified by evaluator; considered invasive in Oregon (3, 5), riparian areas, woodlands; <i>P. cerasifera</i> has probably invaded most analogous types in CA, until demonstrated otherwise.	
Sources of information:	
<ol style="list-style-type: none"> 1. The Nature Conservancy. 2005. The Invasive Species Initiative. Rod Randall's Big Weed List. Online: http://tncweeds.ucdavis.edu/global/australia/pol.htm 2. New Zealand Dept. of Conservation. 2005. Online: http://www.doc.govt.nz/Regional-Info/010~Canterbury/005~Publications/Protecting-and-Restoring-Our-Natural-Heritage/021~Appendix-1.asp 3. Native Plant Society of Oregon, Emerald Chapter. Invasive Gardening and Landscaping Plants of the Southern Willamette Valley. Online: http://www.emeraldnpso.org/inv_ornmtns.html 4. USDA, NRCS. 2004. The PLANTS Database, Version 3.5 (http://plants.usda.gov). National Plant Data Center, Baton Rouge, LA 70874-4490 USA. 5. Haysom, KA, and ST Murphy. 2003. The status of invasiveness of forest tree species outside their natural habitat: a global review and discussion paper. Online: http://www.fao.org/documents/show_cdr.asp?url_file=/DOCREP/006/J1583E/J1583E10.htm (Appendices, Table 6) 	

Question 3.1 Ecological amplitude/Range	A Observational back
Describe ecological amplitude, identifying date of source information and approximate date of introduction to the state, if known: Primarily invades coastal scrub, lower elevation riparian zones, woodlands (1).	
Rationale: enter text here	
Sources of information: 1. Warner, PJ. 1994-2005. Personal observations in San Mateo, Marin, Sonoma, Mendocino, Humboldt, Napa, and Shasta counties. 707/937-2278; corylus@earthlink.net	
Question 3.2 Distribution/Peak frequency	D Observational back
Describe distribution: Distribution probably underreported (1), but observed populations are few, sporadic, and limited in size; very locally, infestations can constitute a significant proportion of cover (2).	
Rationale: Occurrences underreported, so personal observations used for this question (2).	
Sources of information: 1. CalFlora: Information on California plants for education, research and conservation. [web application]. 2005. Berkeley, California: The CalFlora Database [a non-profit organization]. Available: http://www.calflora.org/ . (Accessed: Aug 07, 2005)	
2. Warner, PJ. 1994-2005. Personal observations in San Mateo, Marin, Sonoma, Mendocino, Humboldt, Napa, and Shasta counties. 707/937-2278; corylus@earthlink.net	

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	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 Total Unknowns
	C (1-3)

Note any related traits: RE: Seedling growth rate and potential for invasiveness: J. Bellingham, P., P. Duncan, R., G. Lee, W. & P. Buxton, R. (2004) Seedling growth rate and survival do not predict invasiveness in naturalized woody plants in New Zealand. *Oikos*106(2): 308-316. doi: 10.1111/j.0030-1299.2004.13171.x

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	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	D. present
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	D. present
	riparian woodland	D. present
	riparian scrub (incl. desert washes)	D. present
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).