

CANDIDATE ASSESSMENT AND LISTING PRIORITY ASSIGNMENT FORM

SCIENTIFIC NAME: *Eriogonum kelloggii*

COMMON NAME: Red Mountain buckwheat

LEAD REGION: Region 1

INFORMATION CURRENT AS OF: January 2003

STATUS/ACTION:

New candidate

Continuing candidate

Non-petitioned

Petitioned - Date petition received: _____

90-day positive - FR date: _____

12-month warranted but precluded - FR date: _____

Is the petition requesting a reclassification of a listed species?

Listing priority change

 Former LP: _____

 New LP: _____

Latest date species first became a Candidate: July 1, 1975

Candidate removal: Former LP: _____

A - Taxon more abundant or widespread than previously believed or not subject to a degree of threats sufficient to warrant issuance of a proposed listing or continuance of candidate status.

F - Range is no longer a U.S. territory.

M - Taxon mistakenly included in past notice of review.

N - Taxon may not meet the Act's definition of "species."

X - Taxon believed to be extinct.

ANIMAL/PLANT GROUP AND FAMILY: Polygonaceae (Buckwheat Family)

HISTORICAL STATES/TERRITORIES/COUNTRIES OF OCCURRENCE: Mendocino County, California

CURRENT STATES/COUNTIES/TERRITORIES/COUNTRIES OF OCCURRENCE: Mendocino County, California

LEAD REGION CONTACT: Diane Elam (CNO), 916-414-6464; Scott McCarthy (RO), 503-231-6131

LEAD FIELD OFFICE CONTACT: Arcata Fish and Wildlife Office, David Solis, 707-822-7201

BIOLOGICAL INFORMATION:

Asa Gray described this taxon in 1870 from specimens that were collected from the type locality by Dr. A. Kellogg at Red Mountain in 1869, Mendocino County, California (Gray 1870).

This species appears to have always been rare, and is currently known from only five occurrences at Red Mountain and Little Red Mountain, Mendocino County, California. This serpentine endemic is found in rocky barren, openings in lower montane coniferous forests between 1,097 and 1,219 meters (3,600 and 4,000 feet) in elevation [California Department of Fish and Game (CDFG) 1997].

Dr. Michael Baad (California State University-Sacramento, pers. comm., 2002) has annually monitored 13.5 square meters (16 square feet) permanent plots on Red Mountain from 1987 to 1998. His research has shown considerable variation in plant density and reproductive success, but no discernible long-term trends (Baad 1998). He did find that this species tends to increase in canopy during wet years. From 1987 through 1998, the plant's populations have experienced little human impact (Baad 1998).

THREATS:

A. The present or threatened destruction, modification, or curtailment of its habitat or range.

The primary threat to this species is the potential for future mining activities. Although mining does not now occur in the species' habitat, potential future surface nickel and chromium mining threaten this species (Dr. M. Baad, *in litt.*, 1994; Finan 1994; CDFG 1997; Jennifer Wheeler, Bureau of Land Management (BLM), pers. comm., 2001). Whether or not mining occurs depends on the future economic feasibility and demand for minerals.

There are 60 mining claims on Red Mountain, which contains the majority of the *Eriogonum kelloggii* populations (BLM 2001), but a single claimant holds all of these claims. Most likely, any mining operation on Red Mountain or Little Red Mountain would be an open-face bench type that would involve removal and processing of the mineral-bearing ore which contains the nickel, chromium, and cobalt (BLM 1988). All vegetation and habitat for *Eriogonum kelloggii* would be removed. Ore would be processed on public or adjacent private lands. Overburden and processed soil disposal areas would be needed, along with a transportation system, perhaps involving cable trams across Cedar Creek Canyon (BLM 1988). The holder of the mining claims could engage in a validation process of their mining claims and thereby be granted patent to the lands on Red Mountain. If the lands were to be patented into private ownership and mining commenced, neither the Service nor the BLM could offer any protection of the land beyond elevating the profile and plight of the plant species in a proposed or final rule.

Although no scientific evidence is available to suggest such secondary effects, additional biological values of the habitat may be lost through habitat fragmentation, alteration of hydrology, and increases in airborne particulates that may depress pollinator success (Saunders et al. 1991; Meffe and Carroll 1997).

B. Overutilization for commercial, recreational, scientific, or educational purposes.

None known at this time.

C. Disease or predation.

None known at this time.

D. The inadequacy of existing regulatory mechanisms.

The State of California listed this species as endangered in 1982, but State laws are inadequate to protect this species (J. Wheeler, pers. comm., 1994). This plant is not listed as a sensitive species by the BLM.

E. Other natural or manmade factors affecting its continued existence.

The small number of populations and individual plants make this species more vulnerable to random environmental events.

FOR RECYCLED PETITIONS: N/A

- a. Is listing still warranted? _____
- b. To date, has publication of a proposal to list been precluded by other higher priority listing actions? _____
- c. Is a proposal to list the species as threatened or endangered in preparation? _____
- d. If the answer to c. above is no, provide an explanation of why the action is still precluded.

LAND OWNERSHIP:

One occurrence is in private ownership, one occurrence on a mixture of private and public lands (BLM), and three occurrences on public lands (BLM) at Red Mountain, Mendocino, California. There may be an additional occurrence on the California Department of Fish and Game reserve at Red Mountain (J. Wheeler, pers. comm., 2001).

PRELISTING:

There are no conservation agreements currently in place for this species. It is unlikely that the development of a conservation agreement would provide any protection against the future patenting of exiting mining claims. The BLM Arcata Field Office staff and manager support the Service listing the taxon.

It is not believed that the development of a conservation agreement would provide any protection against the future patenting of exiting mining claims.

REFERENCES:

Baad, Michael F. Ph.D. 1994. Species expert, California State University. Personal communication.

_____. 1994. Species expert, California State University. Letter to the Service dated

November 28, 1994.

- _____. 2002. Species expert, California State University. Personal communication.
- _____. 1998. The monitoring of rare plant populations permanent plot studies Red Mountain, Mendocino County, California (draft). Permanent plot study update 1998. Prepared for the Bureau of Land Management, Arcata, California.
- Bureau of Land Management. 1988. Department of the Interior, Final Environmental Impact Statement, Wilderness Recommendations for the Arcata Resource Area, Red Mountain WSA (CA-050-132). 101 pp.
- Bureau of Land Management. 2001. Information from the California State Office.
- California Department of Fish and Game. 1997. Natural Diversity Data Base, Sacramento, California.
- Gray, Asa. 1870. Proceeding of the American Academy of Arts and Sciences. Page 293.
- Finan, Mike. 1994. U.S. Army Corps of Engineers, Sacramento District Office. Personal communication.
- Jones, M.E. 1903. Contributions to Western Botany. 11:4-18.
- Meffe, G.K. and C.R. Carroll. 1997. Principles of Conservation Biology, Second edition. Sinauer Associates, Inc. Sunderland, Massachusetts. 729 pp.
- Saunders, D.A., R.J. Hobbs, and C.R. Margules. 1991. Biological consequences of ecosystem fragmentation: A review. Conservation Biology 5:18-32.
- Wheeler, Jennifer. 1994 and 2001. Botanist, Bureau of Land Management, Ukiah Resource Area Office. Personal communication.

LISTING PRIORITY (* after number)

THREAT

Magnitude	Immediacy	Taxonomy	Priority
High	Imminent	Monotypic genus	1
		Species	2
		Subspecies/population	3
	Non-imminent	Monotypic genus	4
		Species	5*
		Subspecies/population	6
Moderate to Low	Imminent	Monotypic genus	7
		Species	8
		Subspecies/population	9
	Non-imminent	Monotypic genus	10
		Species	11
		Subspecies/population	12

Rationale for listing priority number:

Magnitude:

Imminence:

APPROVAL/CONCURRENCE: Lead Regions must obtain written concurrence from all other Regions within the range of the species before recommending changes to the candidate list, including listing priority changes; the Regional Director must approve all such recommendations. The Director must concur on all additions of species to the candidate list, removal of candidates, and listing priority changes.

Approve: Steve Thompson March 6, 2003
Acting Regional Director, Fish and Wildlife Service Date

Concur: _____ Date _____
Director, Fish and Wildlife Service

Do not concur: _____ Date _____
Director, Fish and Wildlife Service

Director's Remarks: _____

Date of annual review: February 2003
Conducted by: _____

Comments: _____

