

California Status Factors

Elcode IMGASC7037
Gname MONADENIA FIDELIS KLAMATHICA
Gcomname OAK FLAT OR KLAMATH SIDEBAND

Number of Occurrences

B = 6 - 20

Comments Known from 11 sites, all historical except the type locality (along Oak Flat Creek, near the Klamath River, Siskiyou County, California--Burke et al., 1999) and five miles upstream from forks of the Salmon River, Siskiyou County, California (Frest and Johannes, 2000; Roth, 1993). Frest and Johannes (2000) list fewer sites.

Number of Occurrences with Good Viability

B = Very few (1-3) occurrences with good viability

Comments No specimens have been found for many years, except for specimens collected at the type locality in 1998 by T.R. Weasma (Burke et al., 1999). Only one site known currently, five miles upstream from forks of Salmon River, Siskiyou County, California (Frest and Johannes, 2000; Roth, 1993).

Population Size

U = Unknown

Comments Local and range-wide population trends are not known (Burke et al., 1999).

Range Extent

C = 250-1,000 km² (about 100-400 square miles)

D = 1,000-5,000 km² (about 400-2,000 square miles)

Comments Known from Siskiyou and Humboldt Counties, the Salmon River drainage, possibly down to the Hoopa Valley Indian Reservation, California, but not east of Sacramento or into coastal areas. Known from two sites in Siskiyou and Humboldt Counties, California, in the main Klamath River canyon and possibly also in the Salmon River drainage (Frest and Johannes, 2000). Range does not extend east of the Sacramento River Basin or into coastal areas (Kelley et al., 1999). *Monadenia fidelis klamathica* is only known from 11 known sites in 3 small areas collected in the 1930s and one in the Salmon River drainage collected in the early 1950s. The Type Locality for *Monadenia fidelis klamathica* is along Oak Flat Creek, near the Klamath River, Siskiyou County, California. It is also known from Orleans, California, in the Happy Camp area, and up the Salmon River a few miles from its junction with the Klamath River. *Monadenia fidelis klamathica* is suspected as far south as the Hoopa Valley Indian Reservation, California. It is not suspected east of the Sacramento drainage and is not likely west in coastal areas (Burke et al., 1999).

Area of Occupancy

B = 0.4-4 km² (about 100-1,000 acres)

C = 4-20 km² (about 1,000-5,000 acres)

LB = 4-40 km (about 2.5-25 miles)

LC = 40-200 km (about 25-125 miles)

Comments Monadenia fidelis klamathica is known from 11 known sites in three small areas collected in the 1930s and one in the Salmon River drainage collected in the early 1950s (Burke et al., 1999).

Long-term Trend in Population Size, Extent of Occurrence, Area of Occupancy, and/or Number or Condition of Occurrences

U = Unknown. Long-term trend in population, range, area occupied, or number or condition of occurrences unknown

Comments Present knowledge of this subspecies is based on limited collecting, most of which occurred prior to the early 1960s. The historic known sites need to be reverified (Burke et al., 1999).

Short-term Trend in Population Size, Extent of Occurrence, Area of Occupancy, and/or Number or Condition of Occurrences

U = Unknown. Short-term trend in population, range, area occupied, and number and condition of occurrences unknown.

Comments Present knowledge of this subspecies is based on limited collecting, most of which occurred prior to the early 1960s. The historic known sites need to be reverified (Burke et al., 1999).

Threats

U = Unknown. The available information is not sufficient to assign degree of threat as above. (Severity, scope, and immediacy are all unknown, or mostly [two of three] unknown or not assessed [null].)

Scope	Unknown	Severity	Unknown	Immediacy	Unknown
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Comments Given that little information is available about the habitat needs of the species, the following statements can be applied: In general, land snails cannot tolerate extremely dry (xeric) conditions, have restricted ranges, and are slow to disperse. Consequently, they are very vulnerable to management activities that increase temperature, decrease moisture, or decrease food supplies available in populated sites. Habitat alteration by either human or natural means (including fire, herbicide use, recreation development), over-collecting, and disturbance during aestivation may constitute major threats. The species' very small known range and close association with riparian zones further suggests that habitat alteration, which would result in a decrease of existing shade, woody debris and leaf litter, increased soil compaction, or major flood events by either human or natural means, might constitute specific threats to the species. Grazing activities that remove vegetative cover and compact the soil are of greatest concern. Disturbance of refuge areas by grazing animals during the aestivation periods is likely to cause mortality (Burke et al., 1999).

Number of Appropriately Protected and Managed Occurrences

B = Few (1-3) occurrences appropriately protected and managed

Comments Monadenia fidelis klamathica has been found on private lands and within the Siskiyou Wilderness. There is a known site within a riparian corridor on Federal land in a Matrix land use allocation (Burke et al., 1999).

Intrinsic Vulnerability

B = Moderately Vulnerable. Species exhibits moderate age of maturity, frequency of reproduction, and/or fecundity such that populations generally tend to recover from decreases in abundance over a period of several years (on the order of 5-20 years or 2-5 generations); or species has moderate dispersal capability such that extirpated populations generally become reestablished through natural recolonization (unaided by humans). Ecological community occurrences may be susceptible to changes in composition and structure but tend to recover through natural processes given reasonable time (10-100 years).

Comments This subspecies lives for at least several years and is probably sexually active in the fall, with the young hatching in the spring. Egg masses are probably white, laid in small hollows in the soil under cover, and may consist of as many as 120 eggs, with more than one clutch in a season

(Burke et al, 1999).

Environmental Specificity

B = Narrow. Specialist or community with key requirements common.

C = Moderate. Generalist or community with some key requirements scarce.

Comments Found in stable riparian zones within semi-dry mixed deciduous and conifer forests, but not necessarily restricted to riparian zones. Late successional forest with high canopy closure, a mixed conifer and hardwood component, and the presence of large, down woody debris or rock talus is considered optimum habitat. This species has been found under logs, in rocky areas, and on pine needle and oak leaf litter (Kelley et al., 1999). Forest litter in the semi-dry areas inhabited by these species is considered to be an important habitat component. This species is tolerant of drier conditions than most *Monadenia fidelis* subspecies, but not as adapted to dry conditions as *Monadenia chaceana* or *Monadenia troglodytes* (Burke et al., 1999).

Other Considerations

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Grank S1 **Grank Date** 11/27/2002

Reasons

Known only from 11 sites, all historical except the type locality (along Oak Flat Creek, near the Klamath River, Siskiyou County, California--Burke et al., 1999) and five miles upstream from forks of the Salmon River, Siskiyou County, California (Frest and Johannes, 2000; Roth, 1993). Somewhat limited range. Many possible threats. Some protected sites.

BCD Sources

New Sources

Burke, T.E., J.S. Applegarth, and T.R. Weasma. 1999. Management recommendations of survey and manage terrestrial mollusks. Ver. 2.0. Report submitted to USDI Bureau of Land Management, Salem, Oregon, October 1999. Unpaginated.

Frest, J.T. and E.J. Johannes. 2000. A baseline survey of southwestern Oregon, with emphasis on the Rogue and Umpqua River drainages. Year 2000 Report prepared for Oregon Natural Heritage Program, Portland, Oregon. 403 pp.

Kelley, R., S. Dowlan, N. Duncan, and T. Burks. 1999. Field Guide to Survey and Manage Terrestrial Mollusk Species from the Northwest Forest Plan. Bureau of Land Management, Oregon State Office, Portland, Oregon. 114 pp.

Roth, B. 1993. Polygyrid land snails, *Vespericola* (Gastropoda: Pulmonata). 1. Species and populations formerly referred to *Vespericola columbianus* (Lea) in California. *The Veliger*, 36: 134-144.