California Status Factors

Elcode IMGASC7150

Gname MONADENIA CHACEANA

Gcomname CHACE OR SISKIYOU SIDEBAND

Number of Occurrences

B = 6 - 20

Comments The species is rare and known from 33 localties, many close together (Burke et al., 1999). In total, about 6 sites are known (Roth, 1993).

Number of Occurrences with Good Viability

C = Few (4-12) occurrences with good viability

Comments Some old sites are known to survive (Frest and Johannes, 2000).

Population Size

U = Unknown

Comments Population density at known sites has not been determined (Burke et al., 1999).

Range Extent

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

Comments Known from Siskiyou County, California. The known range for this species is based on limited data and is likely an artifact of collecting. Most of the known sites are within the Shasta and Little Shasta River Drainages, California (Frest and Johannes, 2000; Roth, 1993). The Type Locality is "Among rocks about halfway up a spur of Badger Mountain on the west side of Shasta River canyon, not far from its mouth, in Siskiyou Co., CA." according to Frest and Johannes (1993a). The species is known from the general vicinity of the Type Locality in the Hornbrook Quadrangle and from one site in the Yreka Quadrangle. The species has been found in talus habitat (a rockslide) 1/4 mile below the Copco Dam in the Shasta River Canyon and a rocky area near the mouth of the Shasta River Canyon. The range is expected to extend as far west as the Weaverville Ranger District of Shasta-Trinity National Forest (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 Only from the general vicinity of the type locality, in the Hornbrook Quadrangle, Shasta River drainage, Siskiyou County, California plus one site from the Yreka Quadrangle (Roth, 1993).

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 species is based on limited collecting from 2 known population areas. Significant data gaps exist in our knowledge of the species' fossil record and its biologic and environmental needs. The species' present and former distribution, and the factors that have controlled distribution, diet, reproductive rates, and dispersal rates need further investigation. Local and range-wide population trends are not known (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.

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Threats

B = Moderate and imminent threat. Threat is moderate to severe and imminent for a significant proportion (20-60%) of the population, occurrences, or area. Ecological community occurrences are directly impacted over a moderate area, either causing irreversible damage or requiring a long-term recovery.

Scope	Moderate	Severity	Moderate	Immediacy	High

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 to this species (Burke et al., 1999). Grazing and mining activities in very limited area of a known occurrence; road construction; urban and agricultural expansion in the Shasta Valley are all threats (Frest and Johannes, 2000).

Number of Appropriately Protected and Managed Occurrences

A = None. No occurrences appropriately protected and managed

Comments There are no known protected occurrences. Only a small portion of the species' range is thought to occur on federal land. Though Riparian Reserves may provide some measure of protection, some locations could occur outside reserves. Six (6) of the known locations are on private land, but near public land. New sites have recently been discovered on BLM lands and National Forest lands in the vicinity of Yreka, California (Burke et al., 1999).

Intrinsic Vulnerability

U = Unknown

Comments Data have not been published on the reproductive biology of this species (Burke et al., 1999). The species lays eggs in loose soil (several 10s), is likely to live 6+ years, and probably matures in 2 years (Barry Roth, personal communication, 1996 in 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 the lower reaches of major drainages, in talus and rock slides, under rocks and woody debris in moist conifer forests, in caves, and in shrubby areas in riparian corridors. Rocks and large woody debris serve as refugia during the summer and late winter seasons (Kelley et al.,

1999). It has been found in the lower reaches of major drainages, in talus and rock slides, under rocks and woody debris in moist conifer forests, in caves, and in shrubby areas in riparian corridors. Rocks and large woody debris serve as refugia during the summer and late winter seasons. Temperature is lower and humidity is higher under talus than in the surrounding environment (Burke et al., 1999).

Other Considerations

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Greasons

Range slightly restrictive, but sites scattered and abundance at all sites low. There are no known protected occurrences in California.

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, T.J. and E.J. Johannes. 1993a. Mollusc species of special concern within the range of the northern spotted owl. Final report for the Forest Ecosystem Management Working Group. Deixis Consultants, Seattle, Washington. 39 pp.
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.