# **Heritage Rank Status Factors**

Elcode IMGASN2050

Gname VORTICIFEX SP 1

Gcomname KNOBBY RAMS-HORN

### **Number of Occurrences**

A = 1 - 5

Comments This species is a Pit River endemic and is found at two sites in Shasta County, California (Furnish

et al., 1997; Furnish and Monthey, 1999).

## **Number of Occurrences with Good Viability**

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

Comments This species is a Pit River endemic and is found at two sites in Shasta County, California (Furnish

et al., 1997; Furnish and Monthey, 1999).

## **Population Size**

U = Unknown

Comments

## **Range Extent**

B = 100-250 km2 (about 40-100 square miles)

Comments This species is a Pit River endemic and is found at two sites in Shasta County, California. Limited

numbers of additional sites are possible in the Shasta National Forest, and on state-owned lands

near Fall River Mills (Furnish et al., 1997; Furnish and Monthey, 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 This species is a Pit River endemic and is found at two sites in Shasta County, California (Furnish

et al., 1997; Furnish and Monthey, 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 Unknown

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 Unknown

#### **Threats**

A = Substantial, imminent threat. Threat is moderate to severe and imminent for most (> 60%) of the population, occurrences, or area. Ecological community occurrences are directly impacted over a widespread area, either causing irreversible damage or requiring long term recovery

Scope High Severity High Immediacy High

Comments

Habitats associated with the Pit River have been intensively modified by humans. Therefore, it is highly probable that the species in this area have suffered significant negative impacts from mining, logging, grazing, chemical pollution, road and railroad grade construction, and water diversions (Furnish and Monthey, 1999).

## **Number of Appropriately Protected and Managed Occurrences**

A = None. No occurrences appropriately protected and managed

Comments There are no known protected occurrences. Sites are on private land adjoining Shasta National Forest (Furnish et al., 1997; Furnish and Monthey, 1999).

## **Intrinsic Vulnerability**

U = Unknown

Comments Unknown

# **Environmental Specificity**

A = Very Narrow. Specialist or community with key requirements scarce.

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

Comments

Individuals may be found on the surface of cobbles and boulders mostly covered with an encrusting red algae in a large, pristine, cold spring pool complex (Furnish and Monthey, 1999). Elevation of the known site is 1010 meters (Furnish et al., 1997). Rank based on other Vorticifex species.

### Other Considerations

NRANK: N1

Edition 11/27/2002 Edauthor Cordeiro, J.

Grank G1 Grank Date 11/27/2002

## **Greasons**

Limited number of occurrences, with restricted range. This species is a Pit River endemic and is found at two sites in Shasta County, California (Furnish et al., 1997; Furnish and Monthey, 1999). There are no known protected occurrences. Environmental specificity rank based on other Vorticifex species.

#### **BCD Sources**

### **New Sources**

Furnish, J., R. Monthey, and J. Applegarth. 1997. Survey protocol for terrestrial mollusk species from the

Northwest Forest Plan. Version 2.0. Report to the USDI Bureau of Land Management, Salem, Oregon, October 29, 1997. Unpaginated.

Furnish, J.L. and R. Monthey. 1999. Management recommendations for aquatic mollusks. Ver. 2.0. Report submitted to USDI Bureau of Land Management, Salem, Oregon, December 1998. Unpaginated.