

## California Status Factors

**Elcode** IMGAS62030  
**Gname** PROPHYSAON COERULEUM  
**Gcomname** BLUE-GRAY TAILDROPPER

### Number of Occurrences

A = 1 - 5

**Comments** See Frest and Johannes (2000). Little is known about northern California populations. Absence from immediately adjoining northwestern California in recent studies, excepting the coeruleum like form in Siskiyou County (Frest and Johannes, 2000). Rank takes into account this form.

### Number of Occurrences with Good Viability

U = Unknown what number of occurrences with good viability

**Comments**

### Population Size

U = Unknown

**Comments** Appears relatively common in southwestern Oregon, but rare elsewhere (Frest and Johannes, 2000).

### Range Extent

C = 250-1,000 km<sup>2</sup> (about 100-400 square miles)

**Comments** Puget Trough, south through the western Cascade Range of Washington, Oregon, and northern California. It is also suspected to occur on the east slope of the Cascade Range (Kelley et al., 1999). Note a coeruleum like form (possibly another species) exists in the middle Klamath drainage in Siskiyou County, extending the potential range into California (Frest and Johannes, 2000).

### Area of Occupancy

B = 0.4-4 km<sup>2</sup> (about 100-1,000 acres)

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

**Comments** Absence from immediately adjoining northwestern California in recent studies, excepting the coeruleum like form in Siskiyou County (Frest and Johannes, 2000). Rank takes into account this form.

### 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**

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

D = Declining. Decline of 10-30% in population, range, area occupied, and/or number or condition of occurrences

**Comments** Not found recently by Branson (1977; 1980). Most previously recorded sites are now in urban areas. Declining over most of its wide range except southwestern Oregon (Frest and Johannes, 2000).

## 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 Moderate Immediacy Moderate

**Comments** Logging and agricultural expansion occurs in almost all known range; grazing and urbanization have extirpated most historic sites (Frest and Johannes, 2000).

## Number of Appropriately Protected and Managed Occurrences

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

**Comments**

## Intrinsic Vulnerability

A = Highly Vulnerable. Species is slow to mature, reproduces infrequently, and/or has low fecundity such that populations are very slow (> 20 years or 5 generations) to recover from decreases in abundance; or species has low dispersal capability such that extirpated populations are unlikely to become reestablished through natural recolonization (unaided by humans). Ecological community occurrences are highly susceptible to changes in composition and structure that rarely if ever are reversed through natural processes even over substantial time periods (> 100 years).

**Comments** Experienced massive habitat loss, though fairly common in southwestern Oregon (Frest and Johannes, 2000).

## Environmental Specificity

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

D = Broad. Generalist or community with all key requirements common.

**Comments** Found in a wide range of moist and mixed conifer forests. In open or dry areas, it is usually located in sites with relatively higher shade and moisture levels than those of the general forest habitat. It is typically found in moist plant communities, such as big-leaf maple and sword-fern. This slug is usually associated with leaf and needle litter, wood chips from decomposing logs, mosses, and is known to browse on mycorrhizal fungi species. Fecal analysis in spring of 1998 showed fungal hyphal fragments and structures associated with mycorrhizal fungi root attachment. Spores of hypogeous fungi were also found (Kelley et al., 1999).

## Other Considerations

Recent DNA work by Wilke and Davis (2000) suggests the possibility of a morphometric radiation of this species; though it is likely this species may represent several subspecific taxa in southwestern Oregon (Frest and Johannes, 2000). Listing here reflects the potential for multiple subspecies in Oregon (and possibly California?) to be split out at a future date (Frest and Johannes, 2000).

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## **Greasons**

## **BCD Sources**

## **New Sources**

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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.

Furnish, J., T. Burke, T. Weasma, J. Applegarth, N. Duncan, R. Monthey, and D. Gowan. 1997. Survey protocol for terrestrial mollusk species from the Northwest Forest Plan. Draft 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.

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Wilke, T. and G.M. Davis. 2000. DNA analysis of mollusk species in Oregon: molecular phylogeny, taxonomy, and population structure of *Prophysaon coeruleum* (Gastropoda: Arionidae). National Fish and Wildlife Foundation, Project No. 99-299. 8 pp.