
Coeur d'Alene Salamander

Plethodon idahoensis

Amphibia — Caudata — Plethodontidae

CONSERVATION STATUS / CLASSIFICATION

Rangewide: Apparently secure (G4)
Statewide: Imperiled (S2)
ESA: No status
USFS: Region 1: Sensitive; Region 4: No status
BLM: Regional/State imperiled (Type 3)
IDFG: Protected nongame

BASIS FOR INCLUSION

Core of species' range is in Idaho; uncertain population trend and habitat threats.

TAXONOMY

The Coeur d'Alene salamander was once considered to be a subspecies of Van Dyke's salamander.

DISTRIBUTION AND ABUNDANCE

This species is irregularly distributed across northern Idaho, western Montana, and southeastern British Columbia. Populations in Idaho comprise the core of the range. The majority of records are from the St. Joe and North Fork Clearwater River basins (Wilson et al. 1997), but the species also occurs in the Selway, Kootenai, and Moyie drainages.

Population size has not been estimated. Groves (1988), who reported relative abundance at 34 Idaho sites during 1987, found relatively few (≤ 5 individuals) at 68% of these sites.

POPULATION TREND

The population trend is uncertain. Ninety-five percent of the known occurrences in Idaho and Montana have been verified extant since 1987 (Cassirer et al. 1994), but population trend data have not been collected. Whether the remaining populations have been extirpated is not known.

HABITAT AND ECOLOGY

The Coeur d'Alene salamander occurs in the riparian corridors along streams, among talus in the spray zone of waterfalls, and in seeps or springs (Cassirer et al. 1994). Eggs are laid in water, and larvae are aquatic. Females reach sexual maturity in 4.5 years and breed biannually. Males reach sexual maturity in 3.5 years and mate annually (Lynch 1984).

Adults spend up to 7 months of the year underground in talus or deep fissures associated with exposed, fractured bedrock (Groves et al. 1994). Suitable habitat is

discontinuously distributed within stream systems. Populations occur in small patches of suitable habitat and thus metapopulation dynamics may be important for maintaining population viability. However, population dynamics and dispersal patterns are poorly understood.

ISSUES

Habitat loss and fragmentation are the greatest threats to populations. Potential sources of decreased water quality and aquatic habitat degradation include: (1) chemical pollution arising from mining, pesticide application, or road maintenance (e.g. application of substances used for dust control or road surfacing); (2) flow alteration caused by water diversion or impoundment; (3) sedimentation arising from timber harvest, mining, road maintenance and improvements, trail construction, and recreational activities.

The loss of riparian habitat, including habitat at occupied sites and corridors between occupied habitat patches, is a potential threat. Causes of riparian habitat degradation include road construction and improvement, timber harvest, and water diversion. The loss of connectivity among occupied sites is of importance because dispersal events may maintain the viability of small populations.

Other potential threats include introduction of non–native predators or competitors, such as game fish or bullfrogs.

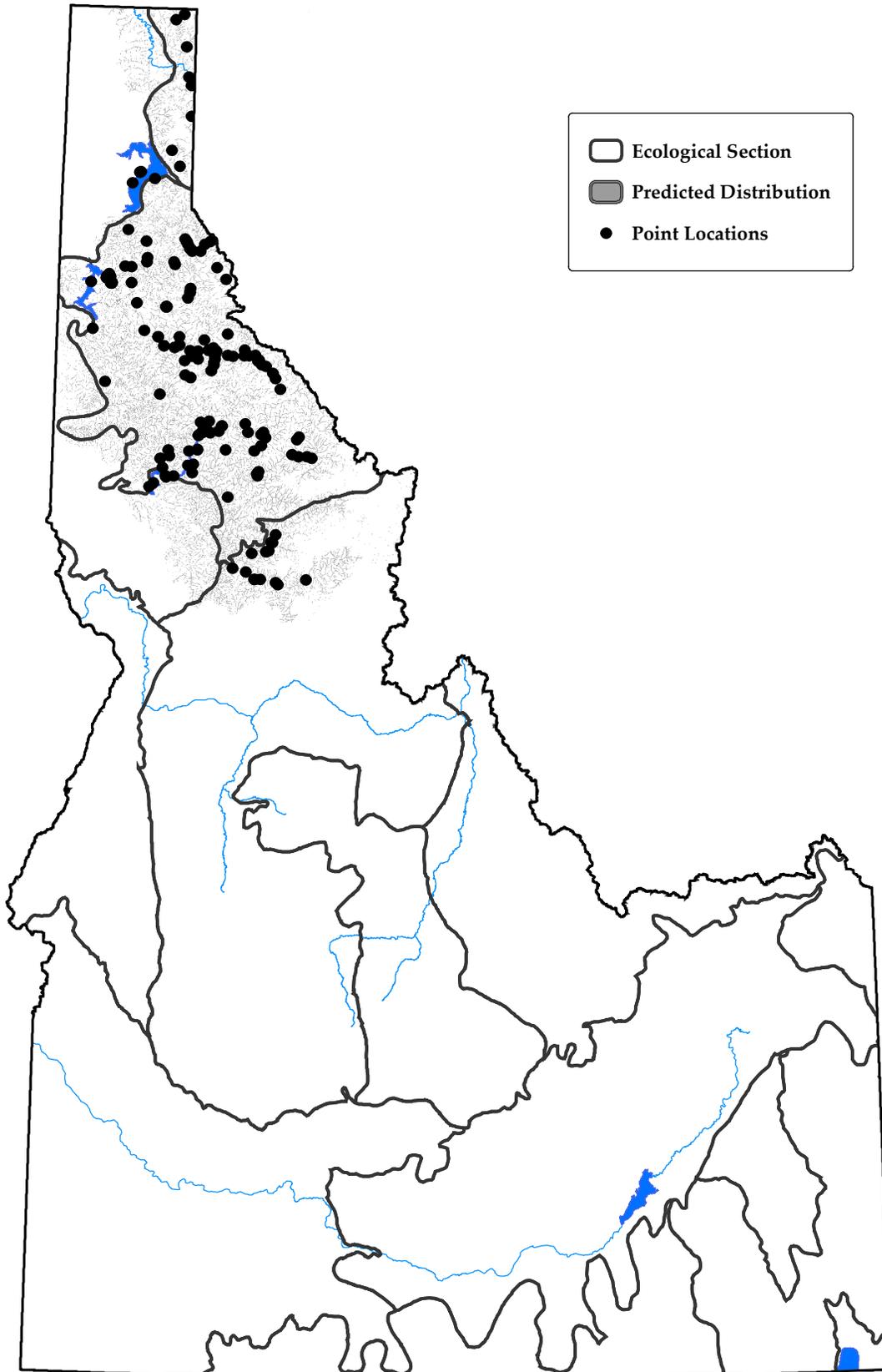
RECOMMENDED ACTIONS

Population trend data are needed. No monitoring program has been implemented, which is significant because few data are available by which to evaluate population trend. Efforts to evaluate population trend could be part of a regional amphibian monitoring program and minimally should comprise measures of site occupancy rates.

Habitat protection efforts are needed. Maintaining water quality and protecting riparian habitat should be promoted at occupied sites and in interconnecting riparian corridors.

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Map created on September 19, 2005
and prepared by Idaho Conservation Data Center.

Sources: Point data are from Idaho Conservation Data Center,
Idaho Department of Fish and Game (2005). Predicted distribution
is from the Wildlife Habitat Relationships Models (WHR),
A Gap Analysis of Idaho: Final Report. Idaho Cooperative Fish
and Wildlife Research Unit, Moscow, ID (Scott et al. 2002).
Predicted distribution is approximate (for more information, go to
http://www.wildlife.uidaho.edu/idgap/idgap_report.asp).

