



A Guide to the Amphibians  
and Reptiles of California

# Lesser Slender Salamander - *Batrachoseps minor*

Jockusch, Yanev & Wake, 2001

Description | Taxonomy | Original Description | Scientific Name | Alternate Names | Similar Herps | References | Conservation Status

Click on a picture for a larger view



Range in California: Red

[Range Map](#) of all Slender Salamanders in California



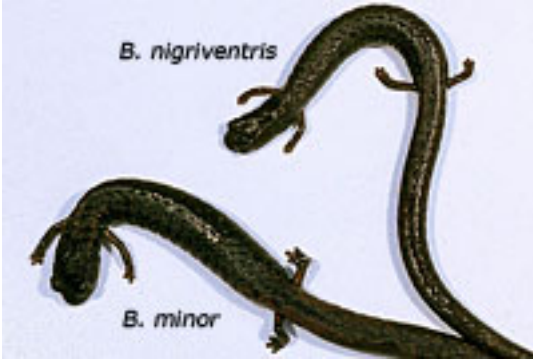
Adult 1, San Luis Obispo County



Adult 1, San Luis Obispo County  
© [David Wake](#)



Adult 2, San Luis Obispo County



A comparison of an adult salamander (adult 2) that is probably *Batrachoseps minor* shown on the left with a small specimen of the sympatric Black-bellied Slender Salamander, *Batrachoseps nigriventris*, which was found well outside of the range of *B. minor*. (*B. nigriventris* adults grow larger than this specimen.) You can see that *B. minor* has distinctly larger hands and feet.

Adult 1, shown in the top row, was the first live specimen of *B. minor* found in more than ten years. It was discovered by Tim Burkhardt, a major contributor to this website, with Samantha Winegarner in February of 2001. Chemical analysis by the University of California at Berkeley confirmed the species. More information [here](#). Adult 2 was found in February 2003 in the same location where adult 1 was found. It is difficult to positively differentiate *B. minor* from *B. nigriventris* by sight, only chemical analysis is definitive. Adult 2 was tentatively identified by its body and limb size and this was confirmed through photographs by David Wake, but it was not identified through chemical analysis.

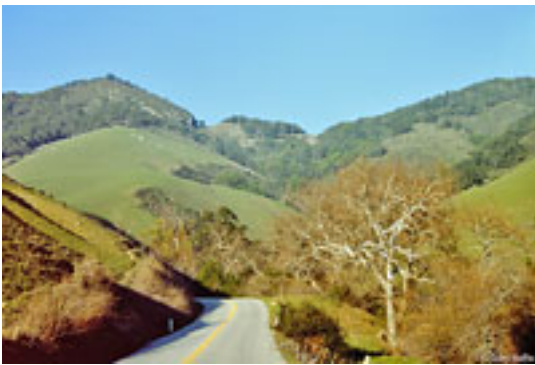


Adult 3, San Luis Obispo County. © [Spencer Williams](#). The species of this salamander was confirmed by an expert from these pictures from the dorsal texture which is matte, not glossy, the large head, the relatively short tail, long legs, and large feet with distinct toes, and the orange wash on the thighs.



Adult 4, San Luis Obispo County  
© [Ryan Sikola](#)

## Habitat



Habitat, San Luis Obispo County



Habitat, San Luis Obispo County



Habitat, San Luis Obispo County  
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Habitat, San Luis Obispo County  
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Habitat, San Luis Obispo County  
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Description

Size

Adults are 1 - 2 3/10 inches long (2.5 - 5.8 cm) from snout to vent.

Appearance

A small, slim salamander, the smallest of the Slender Salamanders, with 17-18 costal grooves, a short body, fairly long legs, and a broad head with a distinct neck. Small size, short limbs, a long slender body with a narrow head and a long tail, and conspicuous costal and caudal grooves give this species the worm-like appearance typical of most Slender Salamanders. There are 9-12 costal folds between adpressed limbs. There are [four toes](#) on the front and hind feet, which is also typical of Slender Salamanders. [five toes](#) on the hind feet.)

Color and Pattern

Color is blackish brown, sometimes with a tan dorsal stripe with pinkish or apricot highlights, most noticable on the tail.

Comparison with Sympatric Slender Salamanders

Coexists with *B. nigriventris*. *B. minor* is distinguished by its more robust body, broader head and longer and larger limbs with more conspicuous toes than [B. nigriventris](#).

Life History and Behavior

A member of family Plethodontidae, the Plethodontid or Lungless Salamanders.

Plethodontid salamanders do not breathe through lungs. They conduct respiration through their skin and the tissues lining their mouth. This requires them to live in damp environments on land and to move about on the ground only during times of high humidity. (Plethodontid salamanders native to California do not inhabit streams or bodies of water but they are capable of surviving for a short time if they fall into water.)

Plethodontid salamanders are also distinguished by their naso-labial grooves, which are vertical slits between the nostrils and upper lip that are lined with glands associated with chemoreception.

All Plethodontid Salamanders native to California lay eggs in moist places on land. The young develop in the egg and hatch directly into a tiny terrestrial salamander with the same body form as an adult. (They do not hatch in the water and begin their lives as tiny swimming larvae breathing through gills like some other types of salamanders.)

Activity

Active on rainy or wet nights when temperatures are moderate, fall through spring. Retreats underground when the soil dries or when air temperature drops to near freezing. Found under rocks, logs, bark, and other debris.

Defense

Slender salamanders use several defense tactics, including:  
- Coiling and remaining still, relying on cryptic coloring to avoid detection.  
- Uncoiling quickly and springing away repeatedly bouncing over the ground, then remaining still again to avoid detection.  
- Detaching the tail, which wriggles on the ground to distract a predator from the salamander long enough for it to escape. (After its tail is detached or severed, the salamander will grow a new tail.)

Diet and Feeding

Most likely eats a variety of small invertebrates. Feeding behavior is not well known, but other *Batrachoseps* species are sit-and-wait predators that use a projectile tongue to catch prey.

Breeding

Little is known about the breeding behavior and egg-laying habits of this species. Reproduction is terrestrial.

Eggs

Other female Slender Salamanders lay eggs in moist places underground.

Young

Young develop completely in the egg and hatch fully formed.

Habitat

Inhabits moist locations in forests of mixed oak, tanbark oak, sycamore and laurel above 1,300 ft. (400 m).

Geographical Range

Endemic to California. Found only in a small area in the southern Santa Lucia Mountains of San Luis Obispo county.

Notes on Taxonomy

Prior to its description in 2001, *B. minor* was recognized as *B. pacificus* which has been split into ten species as the result of molecular studies.

"B. minor is now genuinely rare. We (Arden Brame and I) once found 25 salamanders in an area near York Mountain Winery. They could be sorted into two piles of 10 and 15. The B. minor were small but robust, with distinctly larger hands and feet in individuals of the same length, and these also had a somewhat broader head and a "neck", although the latterfeature is subtle. When examined osteologically the two also differed in one important character, presence or absence of a tibial spur.

This is what convinced me that there were two species. It took many years to finally get the genetic information that demonstrated that the two rather similar species are distinct and not even close relatives." David B. Wake, public internet forum correspondence.

Here's a [Diagram of the \*Batrachoseps\* Complex](#) showing the relationships between species.

Alternate and Previous Names (Synonyms)

*Batrachoseps minor* - Lesser Slender Salamander (Jockusch, Yanev, Wake 2001, Stebbins 2003, 2012)  
*Batrachoseps pacificus* - Pacific Slender Salamander (Stebbins 1985)  
*Batrachoseps attenuatus* - California Slender Salamander (Stebbins 1954, 1966)  
*Batrachoseps attenuatus attenuatus* - Worm-salamander (Bishop 1943)  
*Batrachoseps attenuatus* - Slender Salamander (Storer 1925)  
*Batrachoseps nigriventris* (Cope 1869)  
*Batrachoseps attenuatus* (Cooper 1868)  
*Batrachoseps attenuata* (Baird 1850)  
*Salamandrina attenuata* (Eschscholtz 1833)

Conservation Issues (Conservation Status)

Previously more common, *B. minor* is now difficult to find, and is greatly outnumbered by *B. nigriventris* with which it co-exists. Similarities in appearance with *B. nigriventris* make it difficult to survey for and estimate current numbers of this species.

Taxonomy

Family	Plethodontidae	Lungless Salamanders	Gray, 1850
Genus	<i>Batrachoseps</i>	Slender Salamanders	Bonaparte, 1841
Species	<i>minor</i>	Lesser Slender Salamander	Jockusch, Yanev & Wake, 2001

Original Description

Elizabeth L. Jockusch, Kay P. Yanev, and David B. Wake "Molecular phylogenetic analysis of slender salamanders, genus *Batrachoseps* (Amphibia: Plethodontidae), from central coastal California with descriptions of four new species." Herpetological Monographs, #15 2001.

Meaning of the Scientific Name

*Batrachoseps*: Greek - amphibian, frog lizard - describes lizard-like appearance. *minor*: probably referring to the small size of this salamander compared to other *Batrachoseps* species

from [Scientific and Common Names of the Reptiles and Amphibians of North America - Explained](#) © Ellin Beltz

Similar Neighboring Salamanders

[Batrachoseps incognitus](#)  
[Batrachoseps nigriventris](#)  
[Batrachoseps gavilanensis](#)

More Information and References

[California Department of Fish and Wildlife](#)  
[AmphibiaWeb](#)

Elizabeth L. Jockusch, Kay P. Yanev, and David B. Wake "Molecular phylogenetic analysis of slender salamanders, genus *Batrachoseps* (Amphibia: Plethodontidae), from central coastal California with descriptions of four new species." Herpetological Monographs, #15 2001.

Robert C. Thomson, Amber N. Wright, and H. Bradley Shaffer.*California Amphibian and Reptile Species of Special Concern*. University of California Press, 2016.

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Powell, Robert., Joseph T. Collins, and Errol D. Hooper Jr. *A Key to Amphibians and Reptiles of the Continental United States and Canada*. The University Press of Kansas, 1998.

Bartlett, R. D. & Patricia P. Bartlett. *Guide and Reference to the Amphibians of Western North America (North of Mexico) and Hawaii*. University Press of Florida, 2009.

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Conservation Status

The following status listings are copied from the April 2018 Special Animals List and the 2017 Endangered and Threatened Animals List, both of which are published by the California Department of Fish and Wildlife.

If no status is listed here, the animal is not included on either CDFW list. This most likely indicates that there are no serious conservation concerns for the animal. To find out more about an animal's status, you can go to the NatureServe and IUCN websites to check their rankings.

Check [here](#) to see the most current complete lists.

Organization	Status Listing	
NatureServe Global Ranking	G1	Critically Imperiled—At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors. Imperiled—At high risk

												of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
	NatureServe State Ranking	S1										Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) orbecause of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.
	U.S. Endangered Species Act (ESA)	None										
	California Endangered Species Act (CESA)	None										
	California Department of Fish and Wildlife	SSC										Species of Special Concern
	Bureau of Land Management	None										
	USDA Forest Service	S										Sensitive
	IUCN	DD										Data Deficient

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