

# Western Skink

## *Eumeces skiltonianus*

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*Disclaimer: The following document was compiled based on a review of information currently available for this species as of November 25, 2005. This document can be used to assist with the identification of this species and to support the development of management recommendations as they relate to forestry activities. For more information on this species, please refer to the reference section or consult with a Species at Risk specialist.*

### **Description**

The Western Skink is a medium-sized lizard, up to 83 mm in length. It is characterized by smooth, shiny scales, a pointed head, and short legs that are characteristic of skinks<sup>1</sup>. Four longitudinal, light-coloured stripes extend from the head to the base of the tail. The stripes contrast with the dark-coloured, brown dorsum and grey or black sides. The tail is blue, often vividly coloured in juveniles. Apart from fading in brightness, the colouration of adults is similar to that of young. Reddish patches may be present on the chin and sides of the head of breeding adults of both sexes but is brighter in males<sup>2</sup>.



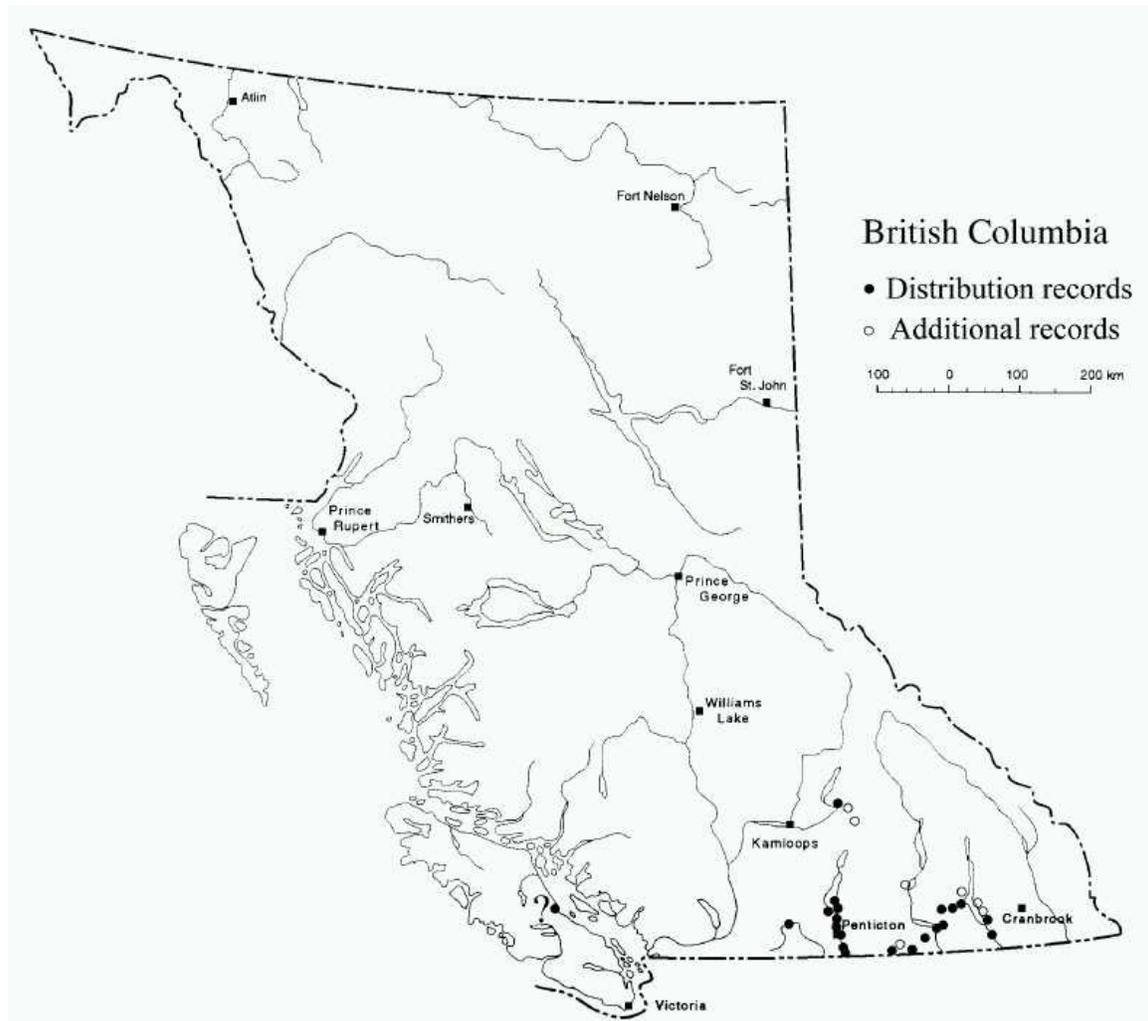
*Photo courtesy of Gavin Hanke*



*Adult Western Skink. Photo credit: Chris Brown*

## Distribution

In Canada, the species is restricted to a small portion of British Columbia between Kootenay Lake in the east and Princeton in the west, south of latitude 51° N<sup>3</sup>.



*Distribution of the Western Skink in British Columbia<sup>3</sup>*

### **Forest Districts<sup>4</sup>**

- Arrow Boundary Forest District (DAB)
- **Cascades Forest District (DCS)**
- **Kamloops Forest District (DKA)**
- Kootenay Lake Forest District (DKL)
- Okanagan Shuswap Forest District (DOS)

### **Biogeoclimatic Units<sup>4</sup>**

- BG - Bunchgrass
- ESSF - Engelmann Spruce – Subalpine Fir
- ICH - Interior Cedar – Hemlock
- IDF - Interior Douglas-fir
- PP - Ponderosa Pine

### **Elevation**

In British Columbia, this species has been sighted at elevations up to 1080m<sup>3</sup>.

### **Map of Known Locations**

Western Skink occurrence data is considered sensitive by the Conservation Data Centre (CDC). Therefore, known locations for this species in the Cascades and Kamloops forest districts is not available to the public. Please contact the CDC to request this data at:

Phone: (250) 356-0928

Fax: (250) 387-2733

## **Biology**

Western Skinks are secretive and most often found when turning over rocks or other cover. In the summer, both sexes excavate burrows in loose soil, often under or by rocks or other cover objects. The burrows of males are longer (up to 48 cm long) and narrower than those of females; nesting females construct enlarged terminal chambers to their burrows<sup>3</sup>. The seasonal activity period of skinks ranges from spring to fall, but they are observed most easily during various periods between March and July, depending on the locality. The skinks suspend activities during cold periods in winter<sup>5</sup> and probably hibernate in underground communal dens<sup>3</sup>.

### **Reproduction**

Mating takes place in May-June and females lay 2 to 6 eggs in June-July. The eggs hatch in July-August. The exact timing of the events varies among geographic locations. During an ongoing study in the Creston Wildlife Management Area, British Columbia, two egg masses, each consisting of 4 eggs, were found in July, and hatchling-sized skinks were found in August and early September<sup>3</sup>. The mother guards the eggs and stays with hatchlings until they disperse from the nest<sup>6</sup>.

Nests are typically located in enlarged, 5-9 cm wide and 2.5-4 cm high chambers at the end of burrows terminating under rocks. The chambers can be up to 25 cm underground<sup>7</sup>.

### **Foraging**

The Western Skink will consume a variety of insects at different life history stages, including eggs of various species, such as caterpillars, moths, beetles, grasshoppers, and crickets. Other invertebrates, such as spiders and isopods, constitute a small part of their diet<sup>3</sup>.

## **Habitat**

The Western Skink inhabit many of the same habitats as the Northwestern Alligator Lizard. In south-central British Columbia, the range of the Western Skink overlaps the Bunchgrass, Ponderosa Pine, Interior Douglas Fir, Interior Cedar-Hemlock, and Engelmann Spruce-Subalpine Fir Biogeoclimatic Zones. A large number of sighting records exists from the Okanagan Valley, particularly from its southern portion. The species is not confined to the arid zones, however, and populations also occur in the moister Cedar-Hemlock zone west of the Kootenay Mountains<sup>3</sup>.

### ***Important Habitats and Habitat Features***

Western Skinks have a high site fidelity and require an abundance of rocks or decaying wood for cover. They are often found in relatively damp habitats, including riverbanks<sup>1</sup>, but they also occupy drier upland areas<sup>8</sup>. In southern Okanagan, the skinks inhabit rock (primarily gneiss) outcrops and stable talus (rock debris) slopes, but they can also be found in lacustrine (lake-associated) escarpments and along creek banks. Western Skinks seem to prefer habitats with a southern aspect<sup>3</sup>.



*Photo courtesy of Jacob Dulisse*

## **Conservation and Management**

### ***Status***<sup>4</sup>

Provincial Rank: S2S3 (Provincially Imperiled/Vulnerable)

BC List: Blue (Special Concern)

COSEWIC Status: SC (May 2002) (Special Concern)

SARA Schedule: 1 (Special Concern)

### ***Threats***

Habitat alteration and fragmentation caused by human activities and developments is probably a major factor limiting the distribution and persistence of populations of the Western Skink within suitable areas. Habitat fragmentation is likely to curtail movements between habitat patches and may result in reduced rates of colonization of new areas and recolonization of areas where populations have been extirpated due to other causes and natural fluctuations<sup>3</sup>. An increased human population has resulted in more residential development, road construction, and extraction of talus<sup>9</sup>.

## Management Recommendations

Consult with a Registered Professional Biologist prior to implementing the following management recommendations because certain situations may require custom solutions based on specific site characteristics.

- Budget permitting, develop a habitat model to help identify high value habitat found within your areas of interest. The complexity of the model, and therefore its accuracy, will be dependent on budgetary constraints.
- Identify locations where this species is known to occur: if available, obtain occurrence data from the Conservation Data Centre (<http://srmwww.gov.bc.ca/cdc/>) and if necessary conduct surveys.

In areas where Western Skinks are identified:

- Do not disturb Western Skink habitat. Maintain critical structural elements such as rock outcrops, talus slopes, friable soils, coarse woody debris, concentrations of boulders, or other unconsolidated materials and vegetative cover<sup>10</sup>.
- Maximize connectivity between known occurrences and suitable habitat.
- Retain coarse woody debris especially larger diameter pieces >15 cm (T. Manning pers. Comm.), moss, and understorey intact.
- Do not conduct prescribed burning.
- Do not use pesticides or insecticides.

## References

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- <sup>1</sup> Gregory, P.T., and R.W. Campbell. 1984. The Reptiles of British Columbia. Handbook 44, British Columbia Provincial Museum, Victoria.
- <sup>2</sup> Stebbins, R.C. 1954. Amphibians and Reptiles of Western North America. McGraw-Hill Book Company, Inc., New York.
- <sup>3</sup> COSEWIC. 2002j. COSEWIC assessment and status report on the western skink *Eumeces skiltonianus* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vi + 19 pp.
- <sup>4</sup> BC Conservation Data Center. Website: <http://srmapps.gov.bc.ca/apps/eswp/>.
- <sup>5</sup> Rodgers, T.L., and H.S. Fitch. 1947. Variation in the skinks (Reptilia: Lacertilia) of the skiltonianus group. University of California Publications in Zoology 48:169-220.
- <sup>6</sup> NatureServe (The Nature Conservancy and the Natural Heritage Network) 2005. Website: <http://www.natureserve.org/explorer>.
- <sup>7</sup> Tanner, W.W. 1957. A taxonomic and ecological study of the western skink. Great Basin Naturalist 17:59-94.
- <sup>8</sup> Cook, F.R. 1984. Introduction to Canadian amphibians and reptiles. National Museum of Natural Sciences, Ottawa.
- <sup>9</sup> Environment Canada Species at Risk. Website: [http://www.speciesatrisk.gc.ca/search/speciesDetails\\_e.cfm?SpeciesID=29](http://www.speciesatrisk.gc.ca/search/speciesDetails_e.cfm?SpeciesID=29).
- <sup>10</sup> Rutherford, P.L., and P.T. Gregory. 2001. Habitat Use and Movement Patterns of Northern Alligator Lizards and Western Skinks in Southeastern British Columbia. Columbia Basin Fish and Wildlife Compensation Program, BC Hydro, B.C. Minist. Environ, Lands and Parks, B.C. Fish. in partnership with Creston Valley Wildl. Manage. Area, Columbia Basin Trust and Univ. Victoria. 52pp.