

## BC's Coast Region: Species & Ecosystems of Conservation Concern Sharp-tailed Snake (*Contia tenuis*)

Global: G5 Provincial S1: COSEWIC: E BC List: Red



Notes on *Contia tenuis*: *Contia tenuis*: A member of the family Dipsadidae (“Rear-Fanged Snakes”), also referred to as “Sharptail Snake, Brown Snake, Oregon Worm Snake” and “Pacific Brown Snake.” Recent DNA analysis has identified there are actually 2 species for the genus *Contia* in western North America, the more widely distributed *C. tenuis* and *C. longicaudae* (found only in California and Oregon). The species scientific name “*tenuis*” means slender or thin. This reclusive species spends much of its life under cover or in downed wood.



### Description

Adult *length* 20-45 cm. A small, smooth-scaled snake, the body is the thickness of a pencil. The 15 rows of scales distributed around the dorsal part of the body range from reddish along the back to grey along the sides. Adults have an indistinct, dark lateral stripe that terminates in a dark line across each eye of the blunt nosed head. Belly scales are light grey to a greenish-blue with a sharp black bar lining each ventral scale (“scute”), giving the snake a characteristic black and white pattern on the ventral area. Juveniles are a distinctly solid brick-red with yellowish-brown lateral lines. On adults and juveniles the dorsal scales near the tail are uniformly red, terminating in a small sharp “spur” that divides the anal plate and from which the species derives its name.

### Diet

Sharp-tailed Snake is believed to feed almost exclusively on slugs, including native (e.g. tail-droppers) and introduced species (e.g. chocolate arion slug). Sharp-tailed Snake have long teeth, which may help in securing and swallowing these types of mollusks.

### Look's Like?

The tail spur, divided anal plate, smooth scales and distinct black and white pattern on the belly make Sharp-tailed snake difficult to confuse with the only other group of snake species on Vancouver Island - Garter Snake. Northwestern Garter Snake is likely the only species that could be mistaken for Sharp-tailed Snake, especially in densely vegetated conditions. Northwestern Garter Snake can range from reddish-brown to grey with combinations of pale, red and broken, black, lateral and dorsal stripes. They also have a dark line across each eye. However Garter Snakes as whole are highly active above ground during certain times of the day and exploit a number of habitats, while Sharp-tailed Snake, usually nocturnal in late summer, is fossorial (sub-surface) and typically found under cover of downed wood or in areas with abundant debris cover in the understory.



Northwestern Garter Snake (juvenile)

**Distribution**

Found from central California through Oregon and generally east of the Cascades in Washington. The populations in northern Oregon, throughout Washington and BC<sup>1</sup> are disjunct. There are approximately 8-10 populations in BC found on the southeastern tip of Vancouver Island. Other populations occur on adjacent Gulf Islands (South and North Pender Island and Saltspring Island). The first occurrence for the South Coast, from the Pemberton area was confirmed in 2011. A occurrence north of Kamloops in the Southern Interior from the 1964 remains unconfirmed.



Sharp-tailed Snake (*Contia tenuis*), known occurrence range for the Coast Region (Pemberton occurrence - yellow star).

<sup>1</sup> In 2008 the species was rediscovered on the San Juan Islands (Turtleback Mountain, Orcas Island) filling a distribution gap between Washington and BC.

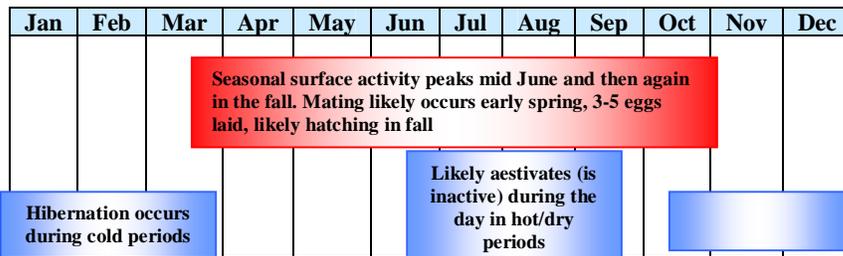
**Habitat Preferences** On Vancouver Island and adjacent islands this species is found on the edge of Douglas-fir, Garry oak and Arbutus stands. Sharp-tailed Snake also occasionally utilize habitats adjacent to grass meadows.

**Critical Features** Sharp-tailed Snake is considered to live most of the time underground (fossorial). Individuals have been found along south-facing rocky slopes, gardens, and forest openings, which may provide hibernation, aestivation and egg-laying sites.

Cover types include cavities in decomposing woody debris (lower right), leaf litter, talus and similar forms of cover.



**Seasonal Life Cycle**



Little is known regarding actual reproductive timing. Eggs are likely laid in rock crevices or between plant roots, nest sites may be communal. Hatchlings may take 3 or more years to mature.

**Threats**

- ◆ Small population size and limited distribution in areas undergoing rapid development and habitat loss/alteration make this species vulnerable to localized extirpations.
- ◆ This species is thought to have a small home range and is not naturally mobile over large distances reducing abilities to colonize new sites.
- ◆ Roadways that cut through core habitat areas or migration corridors and lack wildlife passage structures increase vehicle mortality impacts and population fragmentation.
- ◆ Vegetation maintenance (e.g. mowing, weed control), compaction from recreation activities (ATV and mountain bikes) contribute to injury and direct mortality.
- ◆ Application of pesticides to control slugs both reduces prey availability as well as having sub-lethal and direct mortality effects.
- ◆ Predation by feral and free ranging domestic pets (e.g. dogs and cats) as well as increased vulnerability to ground foraging birds that benefit from human settlement and fragmented environments (e.g. Northwestern Crow).

**Conservation & Management Objectives**

- ◆ Apply conservation and management objectives as set out in “Recovery Strategy for the Sharp-tailed Snake (*Contia tenuis*) in British Columbia.” Integrate complimentary objectives found in “Best Management Practices for Amphibians and Reptiles in Urban and Rural Environments in British Columbia.”

- ◆ Inventory and monitor using Resource Inventory Standards Committee methodology # 38 Inventory Methods for Snakes (Version 2.0).

**Specific activities should include:**

- ◆ Maintain connectivity and reconnect fragmented segments of habitat to reduce migration and dispersal barriers that may contribute to local population extirpations.
- ◆ Investigate the existence of additional populations throughout the species' Canadian range, including suitable habitats outside the known range within the Coast Region.
- ◆ Collect information on population trends and reduce gaps in knowledge of this species habitat requirements and population ecology.
- ◆ Encourage landowners to retain important features (woody debris cover, hibernacula and aestivation habitat) and create conservation covenants to buffer critical features on their property.
- ◆ Employ integrated pest management approaches that reduce the need for chemical applications in urban, agricultural and silviculture practices that impact Sharp-tailed Snake preferred prey items and may impact the snake directly.
- ◆ Improve overall awareness regarding this unique endemic snake species to protect local populations and increase knowledge on distribution.

This species is listed under the Federal Species At Risk Act (SARA) and may be subject to protections and prohibitions under the BC Wildlife Act. Habitat for this species may also be governed under provincial and federal regulations including the Fish Protection Act and Federal Fisheries Act as well as Regional and local municipal bylaws.

**Content for this Factsheet has been derived from the following sources**

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Every effort has been made to ensure content accuracy. Comments or corrections should be directed to the South Coast Conservation Program: [info@sccp.ca](mailto:info@sccp.ca). Content updated August 2011.

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