



Attracting Snakes into your Backyard

tips for reptile-friendly landscaping and gardening

Did you know?

The Sharp-tailed Snake is endangered in Canada.



ADULT SHARP-TAILED SNAKE

Did you know?

All our local snakes, such as the Northwestern Garter Snake, are harmless to humans.



NORTHWESTERN GARTER SNAKE

Why is snake-friendly gardening important?

Native forest habitats in southern British Columbia are under pressure from human activities. Little remains of the original coastal Douglas-fir ecosystems that once covered southeastern Vancouver Island and the Gulf Islands. This area is home to a number of rare species, including the Endangered Sharp-tailed Snake. Fortunately, these snakes can coexist with humans in low-density urban areas, as long as suitable habitat features remain. Snake-friendly gardening can help this species to survive in your area.

Adopting snake-friendly gardening practices can make your backyard a better place for native plants and wildlife, and may result in a more productive garden with fewer garden pests. Measures taken to attract and protect Sharp-tailed Snakes and their habitats contribute to a broader goal of conserving our native ecosystems and biodiversity.

What reptiles can I expect to attract to my garden?

All our local snakes are harmless and pose no threat to humans. Four species of snakes inhabit Vancouver Island and the Gulf Islands: the **Sharp-tailed Snake** and three species of garter snakes (**Western Terrestrial Garter Snake**, **Common Garter Snake**, and **Northwestern Garter Snake**). Two lizards occur in the area: the native **Northern Alligator Lizard**, and the non-native **Wall Lizard** (which has been introduced to the Victoria area and appears to be spreading).

The Sharp-tailed Snake is a small (less than 35 centimetres long), reddish brown, slender snake about the thickness of a pencil. The tail is tipped with a thorn-like spike, giving the species its common name. This secretive snake is rarely found out in the open away from shelter. In Canada the Sharp-tailed Snake occurs on Pender, Saltspring, and Galiano islands, and on the southern tip of Vancouver Island. However, even if you are located outside of these "hotspots", snake-friendly gardening is still worthwhile, as new localities for the Sharp-tailed Snake may be discovered, and you are likely to attract garter snakes, which also eat slugs and are beneficial in the garden.

What can I do?

1. Provide hiding places

Snakes require shelter from their many predators such as hawks and crows that are quick to make a meal of them. Suitable hiding places may consist of rocks or decaying logs, brush piles, or patches of dense shrub or herbaceous vegetation.

One of the simplest ways to provide shelter for snakes is to leave natural cover-objects — fallen logs, bark, and rocks — in place. You can also leave areas of uncut vegetation in an orchard or in a perennial border. Using hedges to divide the property into different areas enhances its appearance and provides hiding places and travel corridors for snakes and other small wildlife.

You can also construct special structures for snakes. These can range from simple rock and brush piles to elaborate rock walls. Dry-stack rock walls (built without mortar) are particularly suitable, because the crevices and cracks between rocks provide abundant and varied hiding places for snakes and lizards. If you decide to start with rock or brush piles, make sure that the piles are stable and relatively large (about one metre wide at the base). Careful placement of these structures is also important: locate them adjacent to borders, hedges, or a compost heap.



Did you know?

Adding hiding places is an excellent way to attract snakes.

Did you know?

South-facing rocky slopes provide egg-laying and nursery sites for the Sharp-tailed Snake.

2. Provide warm sites

Snakes and lizards derive most of their body heat from the environment and therefore require suitable warm "sunning" areas. Raising the body temperature helps these reptiles digest their food and assimilate energy. The availability of warm sites is particularly important for females when they are producing eggs or young. In contrast to garter snakes that give birth to live young, the Sharp-tailed Snake lays eggs.

If you are fortunate enough to have a rocky hillside or a knoll that receives sun for at least a part of the day, make sure to protect it and restrict foot-traffic in that area. Prevent erosion by restricting activities immediately upslope, as soil and silt can fill the cracks between rocks. Keeping such slopes free of Scotch Broom and other invasive plants that will shade them is also beneficial. Adding rocks of varying sizes to the base of an exposed hillside is one way to improve habitat for snakes, and placing new rock walls and rock piles on south-facing slopes or where they receive sun is another.

In the garden, snakes may take advantage of warm conditions under black plastic sheets that are used to control weeds on vegetable or flowerbeds. You can provide warm sites just for snakes by placing sheets of tin or black asphalt roofing in sunny locations — about 60 x 60 centimetres (2 x 2 feet) sheets work well. These covers are more durable than plastic sheets and last for many years. If these covers are used, however, take special care to place them in low-traffic locations to avoid injury to the animals sheltering underneath.



3. Provide a pesticide-free environment

Chemical pesticides and herbicides can harm wildlife either directly or by contaminating their food supply. Chemical slug bait containing metaldehyde is

hazardous not only to wildlife but also to children and family pets. Whenever possible, use alternative methods to chemical pesticides to control garden pests

Encouraging snakes to inhabit your garden is a natural way to control slugs. In particular, the Sharp-tailed Snake and the Northwestern Garter Snake are voracious feeders on slugs. Depending on the magnitude of your slug problem, you might need to use a combination of control measures. Effective measures include trapping, hand-picking, and use of barriers. Frequent cultivation of the soil and using a drip-irrigation rather than a sprinkler system will also help reduce the slug population in your garden.

4. Tread gently

You can reduce the accidental death of snakes, lizards, and other small animals by taking a few simple precautions. When moving rocks or repairing old rock walls, be aware that these cover objects may have become home to animals — take special care to avoid accidentally crushing animals that might be sheltering there. When mowing tall grass, first walk through or stir the area, so that any concealed snakes have a chance to move out of harm's way. Similarly, when using a weed-eater, first stir the area with a stick to alert snakes to your presence — they will quickly slither away.

5. Encourage and protect native vegetation and habitats

When creating wildlife habitat, imitate patterns found in nature. Replace straight lines with irregular patterns and avoid large monocultures of single plants. Large "tidied up" areas and weed-free gardens provide poor habitat for snakes and other small wildlife. Sometimes natural patterns may initially look unstructured, but you will soon grow accustomed to viewing the landscape with snakes and other wild creatures in mind.

Instead of imported ornamentals, use native shrubs and herbs. In the Gulf Islands, plants that occur in habitats occupied by the Sharp-tailed Snake include salal, ocean spray, Nootka rose, and western trumpet honeysuckle. Because native plants are adapted to local conditions, they usually require less maintenance and attention than fancy imports. Several local nurseries provide a wide selection of native plants and can help get you started.

One of the best ways to protect wildlife habitat is to leave some of your property in its natural state. Even small patches of natural areas can be effective as habitat both for small animals such as reptiles and for native plants. Conservation covenants provide a way for landowners to ensure long-term protection of special habitats on their properties. Many local conservation organizations and land trusts provide assistance with setting up such stewardship agreements. Tax credits or other incentives are often available for landowners that engage in stewardship agreements or donate land for conservation.

6. Enhance access to habitats

Natural landscapes are a mosaic of interconnected habitats, providing a variety of conditions for wildlife. Reduce the distance between habitat patches for easy access to animals. Snakes are more likely to use the structures you have provided, such as rock walls or brush piles, if they are not isolated in the middle of large open areas. Efforts to maintain and restore wildlife habitat on your property reduce fragmentation of the landscape and create habitat networks in your area. What you do on your property, however small, can make a difference.

Did you know?

Our local snakes consume large numbers of slugs, including exotic garden pests.



SHARP-TAILED SNAKE AND ARION SLUG

Did you know?

The human population of the southern Gulf Islands is predicted to increase by 50% over the next 30 years.

Did you know?

If you want to ensure that a part of your property remains in its natural state, consider a conservation covenant.

How do I know if **landscaping** is working?

You are likely to see more garter snakes (and probably be startled by their quick movements) in your yard and garden, or you may see them using the structures and habitat patches you have provided. And perhaps by midsummer, your lettuce won't have so many slug holes in them!

In contrast to garter snakes, Sharp-tailed Snakes are secretive, and any effects will be more difficult to notice. If you reside in a potential area for this species and are interested in working with biologists to find out the best ways to restore habitat for these snakes, please contact us.

Where can I get more **information**?

Snake identification

- Gregory, P. T., and Campbell, W. 1984. The Reptiles of British Columbia. British Columbia Provincial Museum Handbook 44.
- St. John, A. 2002. Reptiles of the Northwest. California to Alaska, Rockies to the Coast. Lone Pine Publishing, Edmonton, Alberta.
- Storm, R. M., and Leonard, W. P (coordinating editors). 1995. Reptiles of Washington and Oregon. Seattle Audubon Society, Seattle, Washington.

Habitat restoration, management, and stewardship

- Backyard Habitat for Canada's Wildlife. Canadian Wildlife Federation (<http://www.cwf-fcf.org/pages/product.htm>)
- Habitat Management Guidelines for Amphibians and Reptiles of the Midwest. The Center for Reptile and Amphibian Conservation and Management. (<http://herpcenter.ipfw.edu/index.htm?http://herpcenter.ipfw.edu/outreach/MWHabitatGuide/&2>)
- Link, Russell. 1999. Landscaping for Wildlife in the Pacific Northwest. University of Washington Press, Seattle, Washington.
- Naturescape British Columbia: <http://www.hctf.ca/nature.htm> Phone 1-800-387-9853 ext. 5
- Penn, B. 1996. Stewardship Options for Private Landowners in British Columbia. Stewardship Series. Government of Canada and Province of British Columbia. (available on the Stewardship Centre web site)
- Stewardship Centre: <http://www.stewardshipcentre.bc.ca>

Pest management

- University of California Pest Management Guidelines. Snails and Slugs. 1999. (<http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7427.html>)
- Washington State University Cooperative Extension Program: Hortsense. Home gardener fact sheets for managing plant problems with IPM or Integrated Pest Management. <http://pep.wsu.edu/hortsense/>

Gardening with native plants

- Native Plant Society of British Columbia: <http://www.npsbc.org>
- Pettinger, A. with B. Costanzo. (2002, revised edition) Native Plants in the Coastal Garden. Whitecap Books, Vancouver, BC.
- Pojar, J. and A. MacKinnon, editors. 1994. Plants of Coastal British Columbia. Lone Pine Publishing, Edmonton, Alberta.

Text and photographs Kristiina Ovaska and Christian Engelstoft with the assistance of the Sharp-tailed Snake Recovery Team

Photo on page 3 Bill Leonard

Contact Sharp-TailedSnake@Victoria1.gov.bc.ca



JUVENILE SHARP-TAILED SNAKE

Did you know?

Many uncertainties remain about the best way to restore habitat for the endangered Sharp-tailed Snake. Your help is essential, and we would like to work with you.

Canada

Habitat Stewardship Program



BRITISH COLUMBIA

Ministry of Water, Land and Air Protection

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