HCTF Education Biodiversity in BC

Learn about BC's unique diversity of wildlife and ecosystems!

Spiders and their Webs

Introduction

Spiders are a very common form of wildlife. There are 45,000 known spiders species on Earth and over 890 species confirmed in BC! They can be found in many different habitats; from forests to deserts to grasslands to gardens. Spiders eat insects and other small prey. They are beneficial to humans because they help to control farm and garden pests, as well as pests in our homes. They create beautiful webs that sparkle in the sun. Hummingbirds rely on spider web silk to "glue" their tiny, delicate nests together.

So why do some people dislike spiders or are afraid of them? Although they use venom to stun their prey, very few spiders are dangerous to people. In Canada, only the bite of black widow spider is considered dangerous, and this spider species will only bite if threatened.

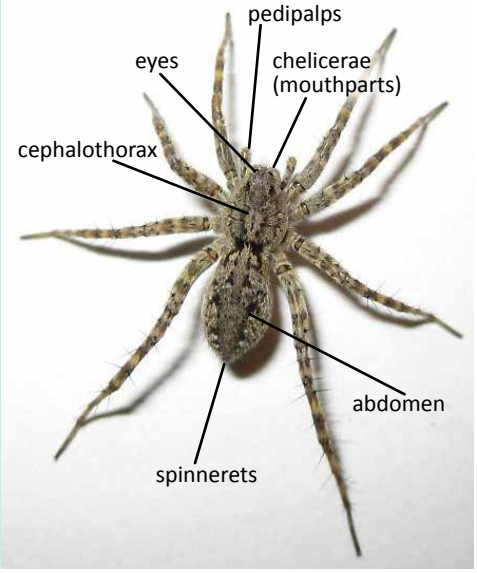
Let's take a closer look at spiders, so we can appreciate them and the wonderful webs they create!

What is a spider?

While they may look similar, spiders are not insects. They are in a group of animals known as *arachnids*. Unlike insects, which have six legs and a pair of antennae, arachnids have eight legs and no antennae.

Spiders have two body segments. The front segment is called the ***cephalothorax***. The spider's eyes and mouthparts (known as the ***chelicerae***) are on this part of the body. Most spiders have eight eyes, but some have less. The legs are connected to this part, as well. Spiders' legs are covered with many hairs. The hairs pick up vibrations and smells from the air. At the end of the legs are small claws. Spiders also have small leg-like structures called ***pedipalps*** on either side of the mouth. They help to hold prey, as sensory organs, and in mating.

The second part of the body is called the **abdomen**. The back end of the abdomen is where the ***spinnerets***, the silk producing glands, are found.



What is a Black Widow ..and what isn't?

Because of its potentially harmful bite, it's worth knowing how to identify a black widow spider. Identifying what *isn't* a black widow spider will help you to get to know all the other harmless spiders! **Respect all spiders you find and look but don't touch!**

The Western black widow spider (*Latrodectus hesperus*) is found in southern BC. As with many spider species, the female Western black widow spider is much larger than the male. The female is 12 to 19 mm in body length, has a characteristic shiny black body, and round abdomen with a red-orange "hourglass" marking on the underside. The male is less than half the size of the female, medium brown with cream-colored markings. Only the bite of a female is harmful.

The look-alike False black widow spider (*Steatoda grossa*) is widespread throughout the province. It may be mistaken for the black widow, but lacks the red hour-glass on its abdomen and has a dark brown tint. A bite from a False black widow is not dangerous but may cause minor irritation.

Black widows are shy, sedentary, and largely nocturnal. They would rather run away than bite you. Found in the warmer, drier areas of the province, they spin irregular webs in dark, sheltered spots close to the ground such as under logs and other debris. To avoid bites, wear gloves when reaching into areas like woodpiles or nooks and crannies in the garage.

Above: Western black widows
Below: False black widow

TRY THIS!

Let's Go on a Web Walk!

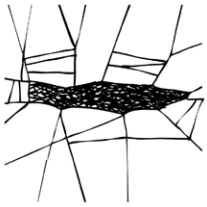
Take a walk outdoors to look for spiders and spider webs. Remember to look but don't touch. Look high and low, look in open areas and among leaf litter or logs or woody debris. Explore and observe: ***What parts of the spider can you name? What is the shape of its body? What is the spider doing? Does the spider have a web? What does the web look like? What kinds of things are in the web?*** Optional: Make sketches of what you see. Record numbers of spiders and web types. Gently mist webs with a spray bottle of water to see them more clearly.

Here are some common web types to look for and some of the species that make them:

Orb Webs

are the type of web you probably envision when you think of spider webs. These wheel-shaped webs are often found in open areas where insects are likely to fly; between trees, tall grasses, or buildings. Orb weavers often wait for their prey in the center of the web.

Top: Banded garden orbweaver Bottom: Cross orbweaver



Sheet Webs

are hammock-like. They are often found between branches of shrubs or trees. Above the web, sheet-web makers string horizontal threads for knocking down prey. When a flying insect hits these threads, it falls onto the sheet section below. The spider, which hangs under the sheet, quickly pulls it through.

Top: Sheetweb spider Bottom: Filmy dome spider

Funnel Webs

may be found in short grasses, shrubs, wood piles, and around buildings often close to the ground. With this type of web, the spider waits for prey at the narrow end of the funnel. When an insect touches the web, the spider shakes the strands to trap it.

Top: Giant house spider Bottom: American grass spider

Irregular/Tangle Webs

are a shapeless jumble of threads attached to a support. Cobwebs are tangle webs that have collected dust and dirt. Many types of garden and house spiders make tangle webs, often in corner areas and small spaces.

Top: Cellar spider Bottom: Hacklemesh spider

No Webs

All spiders make silk, but not all spiders make webs. Some species ambush their prey, while others actively hunt and chase down their prey. These spiders may still use silk to line a burrow, wrap an egg case or tether themselves to a surface.

Left: Red-backed jumping spider Top: Goldenrod crab spider Bottom: Greenland wolf spider

MORE TO EXPLORE

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spiderid.com/locations/canada/british-columbia/
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