AN IDENTIFICATION GUIDE

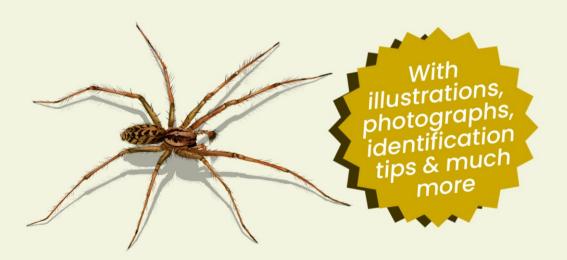
# SPIDERS

OF





# **WASHINGTON STATE**



USASPIDERS.COM MIKE MERANO

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#### Facts about spiders

- Spiders come in various sizes, from the 0.3 mm long Samoan Moss Spider to the gigantic Goliath Birdeater, a tarantula with a leg span of up to one foot. Washington's largest spiders, the giant house spider can reach a leg span of up to almost 2 inches (50 mm).
- The spider with the largest ever recorded leg span of almost 16 inches was a giant huntsman found in Australia.
- Spiders feed almost exclusively on insects both small and large. Almost exclusively! In 2019, a black and yellow garden spider (<u>Argiope aurantia</u>) caught and ate a decent-sized bat in Texas. Well, as they say: "Everything is bigger in Texas." Argiope orb weavers are a very common sight in Washington backyards during summer and autumn, but they are harmless to humans or pets.
- Combined, all spiders in the world consume around 800 million tons of prey per year, 90% of which are insects. In comparison, all whales on earth consume only around 450 million tons of biomass per year.
- Therefore, spiders play an important role in keeping the balance in our natural ecosystem. The spiders in your backyard are removing hundreds of annoying mosquitoes and other crawly creatures. In fact, a single spider eats around 2,000 insects each year. Therefore, we should see spiders as a blessing, not a curse.
- While all spiders have eight legs, the number of eyes differs between species. Some spiders have only six eyes and very few have four eyes, or only two eyes. The infamous recluse spiders of the family Sicariidae, for instance, have only six eyes, while some exotic species found in completely dark caves do not have any eyes at all.
- Spiders and snails have blue blood. Since the circulatory system of spiders is different from humans and mammals, it is scientifically called haemolyph, not blood.
- The silk of the Darwin's bark spider, Caerostris darwini, found on the island of Madagascar, is the toughest biomaterial in the world; it is more than ten times stronger than a comparable strand of Kevlar and twice as strong as any other known spider silk. This spider also creates the largest webs in the world spanning up to 30 feet (10 meters).
- It is a hoax that a person swallows an average of four (or any number of) spiders in his/her lifetime while sleeping. It is very unlikely that a spider will ever enter the mouth of a sleeping person.

#### Dealing with spider bites

Spider bites are more uncommon than you might think. Due to the unspecific symptoms of spider bites, people often mistake bites of mosquitoes, ticks, skin infections or allergic reactions with a spider bite — especially if a spider is seen nearby.

Spiders don't use biting as a defense mechanism against larger "predators" such as humans or pets. Depending on the species, they would rather run away or play dead than bite.

Most bites occur when the spider is faced with a desperate situation — for example, when it is pressed against skin under a piece of clothing or when it is guarding its eggs.

#### Symptoms of a spider bite

Most smaller spiders in Washington will have trouble puncturing human skin, even if they tried, and would leave no marks. Almost all bites of spiders that are large enough to bite through skin can lead to a short-lived local pain, redness, swelling and itchiness, much like a bee sting. The symptoms usually wear off a few hours after the bite.

Most spider bites are harmless and rarely lead to serious complications.

Bites of the black widow may lead to more severe symptoms that affect the body's nervous system. They can result in difficulty breathing, severe headaches, muscle cramps, and other systemic symptoms necessitating emergency medical attention. You can read more about <u>black widow spider bites here</u>.

Symptoms of recluse spider bites do not differ from other spider or insect bites at first. However, in a small percentage of cases, more severe symptoms set in after 12-36 hours. In these cases, the bite area is often encircled by an expanding bruise or a reddish skin tone. You can read more on the possible effects of a recluse spider bite here.

#### How to treat a spider bite

Any spider or insect bite that punctures the skin can lead to secondary infections if not disinfected and handled properly. The danger of such infections is much higher than a medically significant spider bite in the United States.

By following the few simple steps outlined below, you will greatly reduce the risk of infections and ease the symptoms for more severe cases.

If you are bitten by a black widow spider or a recluse spider, you should consult a medical professional. For these severe bites, several treatments such as muscle relaxants, sedatives, and analgesics are used. There is also an antivenom available to counter the effects of the venom on the nervous system when bitten by a black widow spider.

**Please note**: Don't try to extract or suck the spider venom out of the bite area. Instead, follow these simple first-aid instructions to reduce the venom's effects and consult a medical professional in severe cases.



To avoid any secondary infections, clean the wound with a disinfectant.

To ease pain and reduce swelling, apply an ice pack to the bite area for 10 minutes at a time.





Elevate the bitten area to further reduce swelling. In severe cases, try to stay calm and move as little as possible while seeking medical attention. Keeping your heart rate down stops the venom from spreading faster in your system. Apply an antibiotic ointment to the bite area if blisters develop. Take an antihistamine, such as diphenhydramine (Benadryl), to help with itching.





Seek quick medical assistance for serious complications or if you have been bitten by a female black widow or a recluse spider. Try to collect the spider or get an image of it for identification by health professionals.

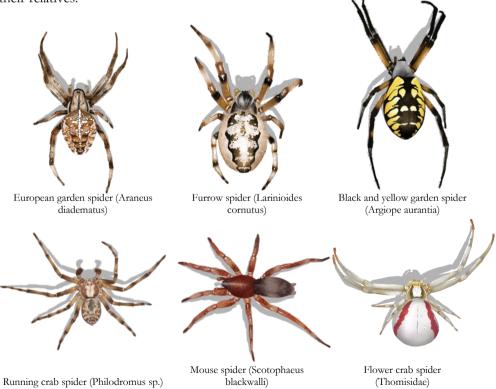
#### Spider identification resource pages

Now that we have hopefully ruled out that you are dealing with a potentially dangerous spider, we can move onto our resources to help you identify common Washington spiders. The next few pages contain a quick overview of key identification characteristics of the most common spiders in Washington: the overall body shape, web types, an overview of the eye arrangements and an overview of these species.

These resources are aimed at helping you identify common Washington spiders more quickly. If the identification guide does not immediately point you to the right overview page for your spider species, you can browse through the <u>spider family detail pages</u>.

#### Most common spiders found in Washington

Despite the seemingly endless variety of spiders in Washington, most sightings and ID requests on the USAspiders.com website are for the spiders illustrated below. If your spider looks exactly like or similar to one of the ones below, you can jump right to the referenced page number in the book to find more details about the species and their relatives.





Spider identification resource pages

#### Common spider web

#### Neoscona - Spotted Orb-weavers

Orb-weavers in the genus Neoscona are commonly referred to as spotted orb-weavers or barn spiders.

#### Web

Spotted orb-weavers are nocturnal spiders and rebuild their webs every night. The webs are large, orb-shaped and are built several feet off the ground. They often setup their web on well-lit patios as the light attracts their main prey: small flying insects.

#### Bite

Like other orb-weavers, spotted orb-weavers are hesitant to bite humans or larger pets. Bites are generally comparable to a bee sting with some local pain and mild discomfort.

#### **Species**

Of the eight species present in North America, three are found in Washington. While the arabesque orb-weaver (Neoscona arabesca) and the western spotted orb-weaver (Neoscona oaxacensis) have been found in Washington for decades, the spotted orb-weaver (Neoscona crucifera) has only recently been introduced from the Eastern United States.

#### Identification Tips & Similar-Looking Spiders

Spotted orb-weavers are easily confused with other orb-weavers of related genera, especially with orb-weavers of the genus <u>Araneus</u>. Spiders of the two genera can be told apart by examining the groove on the upper side of the cephalothorax (fovea). In Araneus spiders, the groove is transverse or almost non-existent while Neoscona spiders have a longitudinal groove (parallel to the body). Also, Neoscona spiders appear hairier than many other orb-weaver species.

Neoscona oaxacensis can be confused with the less common orb-weaver species, Aculepeira packardi.

**Size**: Body size, depending on species, is 0.3-0.8 in. (6-20 mm). Males are around 30% smaller than females.



### Neoscona arabesca – Arabesque Orbweaver

**Range**: Common throughout Washington and most of the United States

**Size**: Female: 0.2-0.4 in. (5-10 mm); Male: 0.2 in. (5-6 mm).

The abdomen can come in a variety of colors such as brown, orange, red, green, etc. Can best be identified by the hairy appearance and the three pairs of slanty dark slashes on the abdomen.

## Neoscona oaxacensis – Western Spotted Orb-weaver

**Range**: Common throughout Washington and the Western United States.

**Size**: Female: 0.4-0.8 in. (10-20 mm); Male: 0.2-0.6 in. (5-15 mm).

Has a more oval abdomen than the other Neoscona species. Can come in a range of colors (mostly dark) and is best identified by the 5+ bright dorsal wavy marks.



#### Spider families quick lookup

Agelenidae – Funnel Weavers – Page 65

Amaurobiidae – Hacklemesh Weavers – Page 78

Anapidae - Page 106

Antrodiaetidae – Folding-door Spiders – Page 98

Anyphaenidae – Anyphaenid Sac Spiders, Ghost Spiders – Page 90

Araneidae – Orb Weavers – Page 37

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Clubionidae – Leaf-Curling Sac Spiders – Page 89

Corinnidae – Corinnid Sac Spider – Page 91

Cybaeidae – Soft Spiders – Page 103

Desidae – Intertidal Spiders – Page 99

Dictynidae - Mesh Web Weavers - Page 105

Dysderidae – Woodlouse Hunters – Page 83

Filistatidae – Crevice Weavers – Page 84

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Hahniidae – Comb-Tailed or Dwarf-Sheet Spiders – Page 104

Linyphiidae – Sheetweb & Dwarf Spiders – Page 96

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Miturgidae – Prowling Spiders – Page 93

Nesticidae – Scaffold Web Spiders – Page 106

Oecobiidae – Disc Web Spiders – Page 100

Oonopidae – Goblin Spiders – Page 106

Oxyopidae – Lynx Spiders – Page 82

Philodromidae – Running Crab Spiders – Page 71

Pholcidae - Cellar Spiders or Daddy Long-Legs - Page 58

Phrurolithidae - Guardstone Spiders - Page 94

Pimoidae – Large Hammockweb Spiders – Page 102

Pisauridae – Nursery Web Spiders – Page 85

Plectreuridae – Page 101

Salticidae – Jumping Spiders – Page 58

Scytodidae - Spitting Spiders - Page 81

Segestriidae – Tube-Dwelling Spiders – Page 104

Sicariidae (not found in Washington) - Violin Spiders or Brown Spiders -

Venomous, Page 27

Sparassidae – Huntsman Spiders or Giant Crab Spiders – Page 72 Telemidae – Long-Legged Cave Spiders – Page 106 Tetragnathidae – Long-Jawed Orb Weavers – Page 49

Theridiidae – Cobweb Spiders – Page 52

Venomous: Western black widow (Page 25)

Thomisidae – Crab Spiders – Page 63

Titanoecidae – Rock Weavers – Page 102

Trachelidae - Ground Sac Spiders - Page 92

Uloboridae – Cribellate Orb Weavers – Page 51

Zodariidae – Ant Spiders – Page 103