

NATURE DETECTIVES

Spring 2021



Daddy Long-legs and the Playground Myth

Have you ever wondered about daddy long-legs? You might know they aren't spiders, even though they certainly resemble spiders with their eight flimsy legs. Maybe you spotted a daddy long-legs on the school playground? They are fairly common to find in shady places such as under a slide, beside the building, or on a wall.

Possibly you heard a kid say, "They are the most poisonous spider in the world!" Then a buddy countered, "Yah, but they have such a tiny mouth, they can't bite people." Perhaps your friend worried, "What if that one has a bigger mouth?!"

The Myth Heard Around the World

Incredibly, *that* myth about them being deadly has spread all over the world. (Well, not in Antarctica...no daddy long-legs there.) Truth is, daddy long-legs *cannot* inject deadly toxins because they have no glands for making venom nor any fangs for venom delivery. No venom, no fangs, no worries for humans.

Many people mix up the words *poisonous* and *venomous*. Poison is something unsafe to swallow such as a toxic plant. Venom is toxin that some snakes and other critters make in glands in their bodies to inject with their bite or sting.



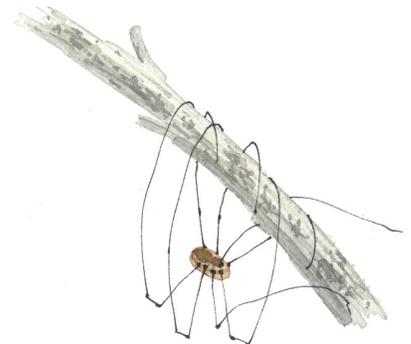
Spiders do have venom glands and fangs, usually teeny fangs and most do not have very toxic venom. Spiders have two very obvious main body parts divided by a narrow middle, and spiders have three or four pairs of eyes. (Remember daddy long-legs aren't spiders.)

Daddy long-legs have one pair of light-sensing eyes, placed on a miniature tower on the front of their body. The body of a daddy long-legs slightly resembles a round raisin held up on skinny legs. They don't have a narrow waist, and their two main body parts are hidden under their exoskeleton.



Without venom or fangs, daddy long-legs have survived just fine on earth for over 400 million years.

In fact, fossils of daddy long-legs that lived 100 million years *before* dinosaurs look pretty much like those in Boulder County today.



What Are Daddy Long-legs?

Like spiders, daddy long-legs are arachnids, and all arachnids have eight legs. There are many kinds of arachnids, including mites, ticks, and scorpions. Daddy long-legs are more closely related to scorpions than to spiders.

When temperatures warm in the spring, daddy long-legs hatch from eggs that an adult female inserted in damp soil the previous fall. The babies look like tiny adults. As their body grows, they must molt. They shed their old, outgrown exoskeleton, then the surface of their body dries to become a new, bigger exoskeleton. They molt six times over the summer to reach adult size in the fall.

Molting is hazardous work. It may take hours for the new exoskeleton to harden. Usually molting is done while hanging upside down. First they pull their body out of the old exoskeleton. Then they grab one leg at a time to pull each leg out. They have to be careful because the legs are wet and sticky coming out of the old exoskeleton. Legs that accidentally touch will glue together. Yikes!

Specialized Legs

The way daddy long-legs move and scurry over obstacles like rocks and leaves looks unearthly. They usually carry their bodies low to the surface, hanging below their super-long legs bent at an angle. It looks somewhat like their bodies float in the middle of four wobbly versions of the letter M. The shape has inspired some science fiction writers in their design of alien monsters.



Notice how your fingers can curl into a fist because of your joints. Daddy long-legs have many joints in their legs, and the joints become even more numerous near the tips. Each leg also ends in a miniature claw to give them clinging power. They climb like monkeys by wrapping their flexible legs over the top of twigs and branches.

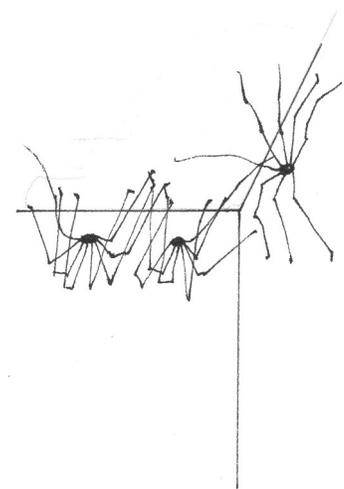
They only walk on six of their eight legs, the front pair of legs and the back two pairs. With careful observation, you can see them using the second pair from the front as feelers, just as you might put out your arms to feel your way in the dark. Unlike your arms, that second pair of legs can also taste and smell what they are touching. They even breathe through their legs too.

Where Do They Hang Out

Daddy long-legs don't have silk glands so they can't make webs. Look for them in the shade under leaves or on shady walls near the ground. Because they dry out easily, they like hiding in damp places among plants and under wood.

They seek out small sources of water too. They drink by lowering their small mouth to the surface to sip a sip of water.

Sometimes they hang out in a group with their legs intertwined.



Predator, Scavenger, Forager

Variety is the key to a daddy long-legs' menu. They eat tiny bites of solid food.

They hunt soft-bodied insects such as mites, aphids, and little caterpillars.

They scavenge dead animals and decaying plants.

They munch on mushrooms.

Tools for Eating and Grooming

Near their mouth are two grabbers that look like stubby legs with teeny claws. Daddy long-legs use them to grasp, hold, and tear off pieces of food.

Miniature jaws in front of the mouth act like pincers or teeny scissors to chop morsels of food into mouth-sized bites.

Don't worry! These tools and the claws on their legs are too small to break human skin.

Daddy long-legs also use their grabbers to hold their legs for grooming. They draw the legs one at a time through their jaws, carefully nibbling off any filth.



Weird Defenses

Birds, ants, spiders, toads and other hungry creatures hunt daddy long-legs.

If the predator seizes it by the leg, the daddy long-legs simply detaches its leg, and darts safely away.

The leg won't grow back, but the daddy long-legs is okay without it.

To make sure the lost leg holds a predator's attention, nerves in the detached leg keep it twitching for a while.

The brownish body colors of daddy long-legs are good camouflage in rotting leaves. Sometimes looking dead and hiding in plain sight is enough of a defense.

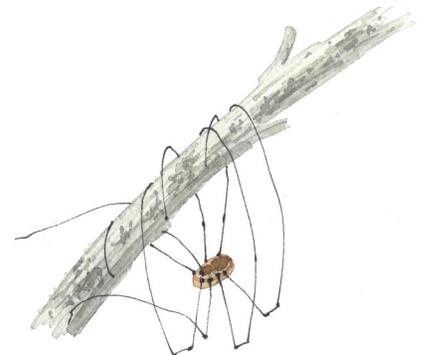
As another defense, they can release a yucky fluid at the sides of their body to repulse an attacker. The fluid smells and tastes awful.

Who'd want to eat that?!

Sometimes a threatened daddy long-legs starts bouncing its body on its legs, sort of like it's dancing. Maybe this makes it harder for predators to see where to attack or maybe the dancer just looks so weird, the attacker loses its appetite.

Adult daddy long-legs have no defenses against cold air so when winter sets in their life-cycle comes to an end.

Next spring a new generation will hatch, emerge from the ground, grow to adulthood, and sometimes dance.





Sherlock Fox says:

Daddy long-legs is the common name for this arachnid in the U.S. and Canada. Their common name is **harvestmen** in Mexico and some other places, maybe because so many are seen in the fall when most farm crops are gathered.

The name daddy long-legs usually refers to a type of flying insect in Mexico, which is called a crane fly in some parts of the U.S. (Even more confusing, the crane fly isn't a fly.) In other places, the name daddy long-legs is used for a web-dwelling cellar spider with longish legs. Names can be so confusing!

Sensations

Taste, smell, and touch are sensed by the longest pair of legs on a daddy long-legs. That long pair is located on their body behind the front pair of legs. The sensing legs aren't necessary for walking, and are often stretched out beyond the front legs relaying information on what lies ahead. Think about how taste, smell, and touch help YOU decide where to go or what to eat.

Their eyes play a role in sensing their surroundings too, even though their eyes are simple eyes that mostly tell light from dark. For instance, a sudden looming shadow might warn of a predator approaching. Can you think of other ways seeing bright light and dark shadows might help a daddy long-legs find shelter, food, and water?

Side-View Vision

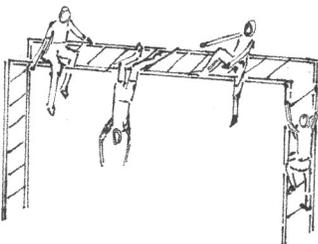
When you are afraid of being caught by a predator, being able to see on both sides and towards your back is important! Daddy long-legs have eyes aimed to the side of their body for this very reason. To see what that's like, put your hands together and then open them slightly to fit over your nose and part of your eyes.



Try walking around the room using your new peripheral vision. Hopefully there are no predators right in front of you! Next time you're in a car, look at the side-view mirrors—they are doing a similar thing, allowing the driver to see to the side and behind.

Clingy Claws

Daddy long-legs have jointed legs and little claws on the end of their legs that helps them hold on and hang upside down. We don't have claws but we do have fingers that grasp, and jointed arms and legs.



Go outside to a jungle gym, swing set, or a sturdy tree branch and hang upside down with your arms and legs. Try moving along the bar or branch daddy long-legs style!

Text by Katherine Young and Deborah Price
Illustrations by Carol Tuttle