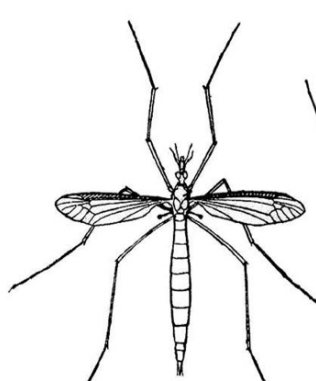
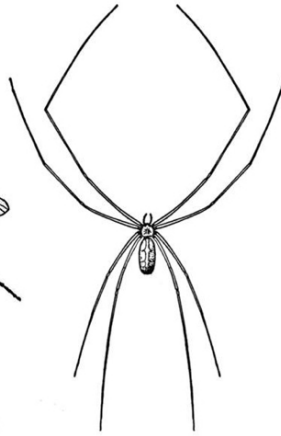


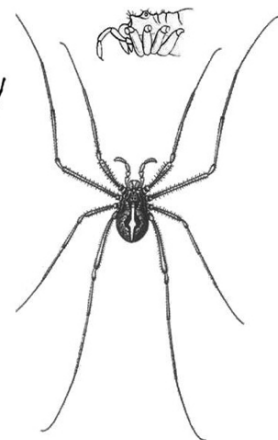
THE GREAT OUTDOORS



Cranefly



Daddy Longlegs
Spider



Daddy Longlegs
Harvestman

Illustration: Burke Museum. Labels: J. Morton Galetto

Ghoulish Lore

Separating fact from fiction keeps our columnist busy leading up to Halloween.

By J. Morton Galetto, CU Maurice River

Naturalists like to exchange stories about the natural world and sometimes the tales seem too weird to be true. For example, rather large octopuses' ability to travel from one tank to another through a long two-inch-wide tube is rather miraculous, as is the fact that they become attached to their aquarium keepers in more ways than solely by suction cups. Other peculiar animal anecdotes

include the fact that a chameleon's tongue is as long as its body, and a starfish can be cut into five pieces with each piece able to regenerate a whole creature. All of these facts are true and represent a fraction of a percent of endless other unique adaptations.

It is October and it seems only fitting that we explore at least one eerie piece of lore. I tend to be skeptical of creepy random bits of information, so I like to research them so that I can tell fact from fiction.

I'm often in the field with retired teachers who impart many interesting factoids to me and a cadre of Citizens United hikers. A number of years ago, on a naturalist-led hike, one such respected individual relayed to us, "A daddy longlegs has deadly lethal venom. But it is unable to bite because its fangs are too short."

I responded, "Huh, does that sound right to you? I'm going to have to look it up. Also don't think it's a spider."

There is an old adage that if it sounds too good to be true, it probably isn't. Well, I sometimes subscribe to a parallel philosophy: if it sounds too horrid to be accurate, it's possibly false.

And as it turns out it is a tall tale, in many ways just simply wrong, or, to quote our President, "Malarky." To be fair he wasn't talking about daddy longlegs when he used that term. Furthermore I have no recollection what he was referring to in that instance because evidently once you say "Malarky" people only condemn your word choice as old-fashioned and forget about the topic that elicited the comment. Apparently many people believe the daddy longlegs to carry deadly venom with no mechanism of distribution, including some rather bright folks who should know better. Even nature shows have erroneously perpetrated this myth.

So let's seek some clarification as well as noting the problem with common names. Three different animals are known as "daddy longlegs," and sharing a common name creates confusion. One of these creatures is the phantom crane fly, a Tipulidae, which is an insect with minute wings and long legs that inflates tiny leg sacs with air to help it float about. (A previous SNJ Today story, The Great Outdoors published, July 2019 covered the crane fly). In fact the natural history of the phantom cranefly, *Bittacomorpha clavipes*, falls into the category of "hard-to-believe true facts." This however is not our subject species, nor is it a species with a deadly bite – in fact it doesn't

bite at all. Again, it is an insect, with six legs.

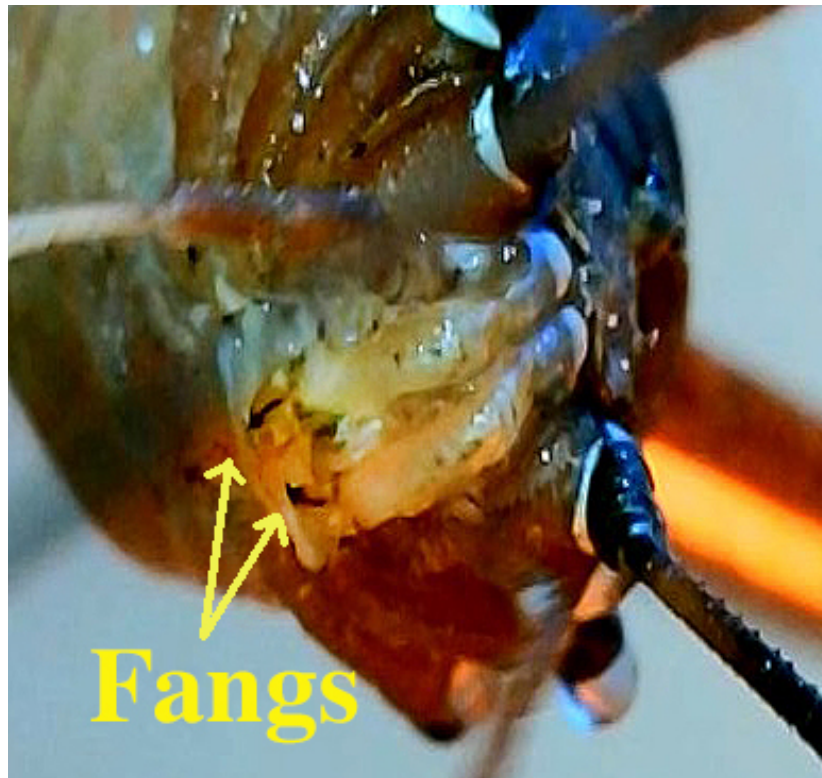
Then there is the cellar spider, of the Arachnida sub-classification Pholcidae family and species *Pholcus phalangioides*. The classification in this instance is important because it is truly a spider and does have venom glands, ducts, and fangs, two body parts, eight eyes, eight legs, and two body segments. In some regions of the country some people call them daddy longlegs. I do not; they are cellar spiders, with long legs like our subject species but still a spider. Their bite is not known to be dangerous, and a recent study showed them to have unusually weak venom as it relates to its effect on insects.

Our target species, the *daddy longlegs* or *eastern harvestman*, falls into the sub-classification Arachnida, but it is not a spider. Its order is Opiliones, and along with scorpions, ticks, mites, pseudoscorpions, camel spiders, whip spiders, and vinegaroons it is a member of the Arachnida group, belonging to the family Sclerosomatidea and the species *leiobunum vittatu*. It inhabits most of the United States from the midwest eastward.



One pair of legs is longer than the other three pair. Those two legs possess sensory organs and act as antennae, assisting the harvestman that has poor vision in comparison to other Arachnida. The pointer shows one of the longer legs extended. Photo: J. Morton Galetto

For laypeople like me, and as far as our myth-busting crusade is concerned, the point is that since they have neither venom glands nor ducts, daddy longlegs clearly can't inflict deadly poison through their fangs. They do have eight legs but only two sideways-looking eyes. They don't produce silk so they don't spin webs. Therefore they are not spiders.



A daddy longleg's fang-like mouth parts under magnification. It has no venom but uses its mouth parts to grasp and tear apart its prey. Photo: J. Morton Galetto

Although these critters lack venom, they have glands at the sides of their body that secrete foul-tasting and -smelling chemical defenses. Evidently these are not detected by people unless they were to get intimate with them. Their likely predators are birds, large spiders, and insects like assassin bugs.

True spiders have two noticeable body parts: a "cephalothorax" (the head and thorax) and an "abdomen," connected by a narrow constriction or "waist." Eastern harvestmen/daddy longlegs have a cephalothorax and abdomen but no

perceivable waist – so they just look oval with long spindly legs.

They feed on plant fluids, fungi, and other arthropods. They are one of the vultures in the bug world, cleaning up insect carrion.

Harvestmen lay eggs throughout autumn, which hatch in the spring. Young harvestmen emerge from eggs and are miniatures of their adult counterparts. Females lay hundreds of eggs in moist soil and the hatchlings shed their skins as they grow larger. In autumn they gather in large clusters in tree holes, basements, attics or other enclosed places. Their lifespan is about a year.

Are they creepy? Well, I suppose that depends on how you define the word. But they do not pose a threat, unless you freak out and fall down a flight of steps or sustain some other fright-related accident, simply by seeing one.

When I was a child we had a girl in the neighborhood whom I considered weird. For the purposes of this story I shall call her Pandora (to protect her innocence; after all she *was* just a child). She used to remove a harvestman's legs one at a time. A severed leg will twitch for about an hour after removal, and she would line them up on a

yard wall and delight in their movements. I found her torture rather horrifying, which by the way was Pandora's intent – to scare away younger children like myself. She found it amusing while I did not. It was nevertheless quite effective.

This prolonged movement is thought to distract would-be predators while the harvestman seeks refuge, or to leave the assailant holding a leg versus the entire bug. While they can lose an appendage and survive with the ones remaining, they do not regenerate limbs like some reptiles.

The University of Kentucky relays other myths: "In the old days, it was believed that you could use daddy-longlegs to find your lost cattle. When you wanted to know which direction the herd had wandered to, you could pick up a daddy-longlegs by all of the legs but one, and the free leg would point in the direction of the cattle."

Other folklore suggests, "If you kill a daddy longlegs it will rain the next day." I don't know if Pandora became a cowhand or built an ark, but she was well on her way to becoming a sideshow geek.

So all three possible candidates for assuming that daddy longlegs present a danger are essentially harmless. Therefore as Halloween approaches you will simply have to be

satisfied with old-fashioned ghosts and goblins and creepy tricks.

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University of Kentucky Entomology. Kentucky Harvestmen

University of California, Riverside, Department of Entomology, Spider Research – spiders.ucr.edu.