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Scientists Capture Elusive Giant Palouse Earthworm

by Martin Kaste

The giant Palouse earthworm, a big white worm native to the Palouse prairie region of Idaho and Washington state, was said to be abundant in the late 19th century — then seemed to disappear.

Some people thought they never existed to begin with.

But now, researchers are digging them up again — and that has some people worried.

A Foot Long And Smells Like Lilies?

Last month, Karl Umiker, a support scientist at the University of Idaho, was out on an unplowed fragment of prairie hunting the “big one” with a graduate student. There hadn’t been a confirmed sighting of the worm since 2005, but Umiker had a new tool at his disposal. He calls it an “electroshocker.”

After jolting the soil a couple of times, Umiker dug around, and suddenly there it was. The worm was captured and is now sitting in a freezer at the University of Kansas, where it was positively identified.



Jodi Johnson-Maynard, a soil ecologist at the University of Idaho in Moscow, has been leading the effort to collect samples of the giant Palouse earthworm.

Photo: Martin Kaste, NPR

But Umiker can’t say how big this prairie giant is.

“The problem with earthworm stories is that they get longer and longer, and you can always stretch an earthworm,” he says. That’s “under the normal conditions — without stretching it — close to 20 centimeters.”

That’s about 8 inches. Soil ecologist Jodi Johnson-Maynard, who heads the project, backpedals from the whole “giant” thing.

“There are reportings of a meterlong earthworm, 3 feet long, but I haven’t seen that,” she says. “Now, possibly if one of these guys lives a long time, but I think most common might be a foot or a little bit less.”

Still, it’s clear these aren’t your average night crawlers.

Johnson-Maynard opens a zip-lock bag full of dirt, and out comes a live worm.

She says she thinks it’s a giant Palouse, but it’s too soon to know for sure until the DNA test is done. But it is odd-looking. The ends are more bulbous than your average bait worm, and its body is so translucent, you can see the big vein corkscrewing around its organs. Mature giant Palouse earthworms are practically white, and they may have a particular smell.

“What you read in the literature is that they have a lily-like odor to them,” Johnson-Maynard says.

At least, that’s what someone reported years ago. The worm is so rare, it’s hard to separate myth from reality. Now that Johnson-Maynard has collected a few, she has her doubts. She lifts her nose to her nose.

“I have a fairly sensitive nose, and I just can’t smell the lily,” she says.

Farmers Worry About Endangered Species

But not everybody is thrilled by all this talk of super-rare, biggish, perfumed earthworms.

“I have concerns,” says Craig Fleener, a local farmer and a member of the Idaho Farm Bureau, which recently held a meeting to discuss the possibility that the giant Palouse earthworm could end up on the endangered species list. “There’s great potential for loss of freedom of what you can do with your land if the government comes in and says, ‘Well, you have to do such and such, or you can’t do such and such because we have to protect the giant Palouse earthworm.’”

Fleener believes the country is moving toward socialism, and any effort to list the worm as endangered is another step in that direction. And in fact, local conservation groups are pressing the government to list the worm. One petition was turned down in 2007, but now the groups are trying again.

David Hall, head of the local Palouse Prairie Foundation, says he found some holes on his property. He says he may have found the worms’ burrows, which can go down 15 feet.

He says the holes are “about penny-size, and very smooth and straight down.”

“I thought that was pretty cool,” he says.

But some farmers around here are hoping he doesn’t see anything pop out of those holes.



Last month, Karl Umiker of the University of Idaho used an "electroshocker" to find the giant Palouse earthworm.

Photo: Martin Kaste, NPR