

Meet an Amphibian Biologist: Bill Peterman

It's Amphibian Week! In honor of Wednesdays theme, "Meet an Amphibian Biologist," Midwest PARC caught up with salamander expert [Bill Peterman](#), an associate professor of wildlife ecology at The Ohio State University. Peterman's research focuses on landscape-scale spatial processes, population dynamics, human land-use, and wildlife distribution and movement, among other topics related to conservation. Learn more about him in our Q&A below!



What do you do?

Specifically, I'm a landscape ecologist with a fondness for herps. I spend a lot of time thinking about why animals are where they are, how they move around the landscape, and landscape conservation and management strategies to help wildlife.

Geographically, where do you work?

My amphibian work is primarily focused in Ohio and the southern Appalachians, with some ongoing projects in Illinois and Missouri.

Why are you an Amphibian Biologist?

In large part, chance. My undergraduate mentor at Butler University, Travis Ryan, clued me in to a graduate opportunity with Ray Semlitsch at the University of Missouri to study plethodontid salamanders in the southern Appalachians. I saw more salamanders in my first hour in the

Appalachians than I'd seen in my whole life. I was hooked. I received my MS and PhD with Ray, which gave me a broad exposure to amphibian ecology and conservation.

What is your favorite amphibian, and why?

That's tough, but I'd have to say the [pygmy salamander](#), *Desmognathus wrighti*. They have so much character and personality.

Why are amphibians important?

Amphibians are generally integral to the ecosystems they occupy (serving as predators of invertebrates and prey for mammals, birds, snakes), but they may be most important because of what we don't know or understand. Amphibians can be extremely abundant and contribute tremendous biomass, but our understanding of their role(s) in ecosystem processes is often quite limited.

Where, generally, is your favorite field site?

I love surveying the high elevation spruce-fir forests of the Smoky Mountains at night. It's a multi-sensory experience: conifer scent, cool temperatures and squishy humus under foot, and of course, salamanders everywhere!

What is your favorite part of your job?

Working with and mentoring students.

What is your first memory of an amphibian?

Whenever I visited my grandparent's house, I would go out back with a 5-gallon bucket and catch as many green frogs from the creek as possible.

Tell us your favorite amphibian fact.

Salamanders have some of the largest genomes of any vertebrate animal — up to 38 times larger than humans.

What is the most unique amphibian you've ever handled or seen?

I was the first to capture and photograph the [patch-nosed salamander](#), *Urspeleperpes brucei*. I didn't know what I had at the time, other than it was something I'd never seen nor read about before. Describing this diminutive salamander was a tremendous opportunity to expand my network and collaborate with the likes of Carlos Camp and the late David Wake. Kind of crazy how a salamander could bring so many people together. However, I'll note that discovering and describing a species comes with very little notoriety, except with my 7- and 9-year-old kids and their science classes!

