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Steve Duin: Salamanders and other creatures at heart of work by biologist raised in Appalachia

By Steve Duin,
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She grew up on Troublesome Creek in a Kentucky hollow, the sweet lull between two Appalachian mountains. Her father was a vaudeville performer and snake-oil salesman who wheeled his convertible into Hindman back in '49 and told the prettiest 19-year-old in sight that he was a famous country-western star.

"My mom didn't have a radio," Tierra Curry said, "so she had no way of knowing."

Frank Curry was 42 when he married Mirtie Mae, and 68 when Tierra arrived. Like her mother, Tierra worked the garden and haunted the woods to stock the dinner table. Her mother had a gift for squirrel -- "Other people in the county would bring squirrel over so she could make gravy on them" -- but Tierra especially cherished the preparations for turtle soup.

"Dynamiting the creek," she says. "It was my very favorite thing. Everything flies out of the creek and ends up on the bank."

Tierra Curry, seen here at the Grand Canyon, works for the Center for Biological Diversity on endangered-species protection. She says a lot of who she is today was formed by growing up on a creek in Appalachia.

She is gentler with water now. I know this because I am watching Curry in the snowmelt between Bridal Veil and Multnomah Falls, as she peeks under rocks for Cascade Torrent Salamanders, one of 53 imperiled amphibians and reptiles for which the Center for Biological Diversity is seeking endangered-species protection.

"A lot of who I am today is growing up on a creek in Appalachia," Curry says. Her slender fingers are steady in the cold, clear water, her knee boots sure on the rocks.

Curry was 10 when the coal companies reached the rim of the hollow and strip-mined both of the mountains that sheltered Hindman.

"It ruined our well water. They cracked our windows and covered everything in dust," Curry says. "I felt helpless. Everyone felt helpless."

For Curry, at least, the feeling didn't last. She was at a small Christian college in Kentucky when she happened upon E.O. Wilson's "The Diversity of Life."

With all due respect to that Troublesome dynamite, Wilson's take on the breathtaking evolution -- and rapid extinction -- of species rocked her world.

"We are erasing a lot of species before they're even named," Curry says. "It grabbed my heart. That's where I drew my line in the sand."

What she discovered, while maneuvering toward her dream job as a conservation biologist, is that we are not helpless. We can defend the most endangered creatures, even in Kentucky, where a jagged hole in the Clean Water Act allows the waste from mountain-top coal removal to be dumped in the nearest stream.

One of six Center for Biological Diversity employees who works out of Portland, Curry has devoted herself to the protection of freshwater amphibians and reptiles like the Torrent, one of the Northwest's two aquatic salamanders.

The other is the Pacific Giant. "Torrents spend most of their life looking over their shoulder for giant salamanders," Curry says.

Given their narrow thermal tolerance, the Torrents are also threatened by any logging or development that muddies a mountain stream.

"If the water temperature rises just a few degrees," Curry says, "they are toast."

She has long championed crayfish, a keystone element in the ecosystem because more than 400 other species seek the shelter of crayfish burrows.

Torrent salamanders are among the creatures whose numbers are threatened.

"If there are crayfish in the creek," Curry notes, "the water is clean and healthy ... and safe for your kids to play in."

But the biologist's favorite species is a freshwater mussel, the orangefoot pimpleback. The mussel reproduces by dangling a lure from its shell. When fish swoop in for a snack, the mussel fires fertilized eggs into the fish's gills, where the eggs develop into pinhead-sized juveniles before casting off on their own.

If the stream water is dirty, the fish never see the mussel lure. Thus, only two reproducing populations of orangefoot pimplebacks survive, one in the Ohio River, the rare river in Kentucky that hasn't been trashed by coal-mining fill.

In the hollow where Curry grew up, 370 miles east of that freshwater mussel colony, she fell asleep to a chorus of frogs and woke to the reveille of birds.

Long before the power lines reached Hindman, her mother took her into the woods and taught her to separate the creatures that sustain us and the ones that might not survive us.

She wants to slow the warming of the planet before the glaciers melt at Glacier and the Joshua trees disappear from Joshua Tree.

She believes that if rivers are refuge for the species we may never meet, they will remain safe for us.

And that faith finds her, this summer morning, in the water cascading off an Oregon mountain, her heart racing right along with the fragile salamander at her fingertips.