

'Everyone can be a naturalist' says the man who preserved more than 150,000 acres

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Suburban environs can be dull. Lawns and roads don't offer much biodiversity for curious boys. But Charles Bier, a recently retired senior director of conservation science for the Western Pennsylvania

Conservancy, found a way outside.

He caught salamanders and crayfish in Powers Run and fished at its confluence with the Allegheny River not too far from his O'Hara home. He scoured the Powers Run valley, heading to the orchards, forest and fields around the old Allegheny County Workhouse farm, now RIDC Park, where wildlife aplenty awaited.

After one of Bier's captured black snakes got loose in the house, his mother banned the wild reptiles. But Bier's outdoor forays persisted, as did the souvenirs.

He once stashed six snakes, including smooth green snakes (a slender non-venomous species), in an empty pop can that he hid under his mother's car seat while returning from a family vacation in Erie.

Bier's passion for nature paid off.

As an adult, he went on to survey every county in Western Pennsylvania and document the rarest creatures and plants. He served as director of the Pennsylvania Natural Heritage Program, which conducts much of the fieldwork used in designating endangered species and their conservation.

"Everyone can be a naturalist at some level," said Bier, 69, of Buffalo Township. "People can be in better touch with nature. It's like the moment when you look at the stars and realize there's something bigger than you and Netflix."

Bier's fieldwork and recommendations led to the conservancy preserving more than 153,000 acres of species-rich land in Western Pennsylvania during his almost 43-year tenure, according to Cynthia Carrow, the conservancy's vice president for government and community relations.

"It's not often that somebody can say one's work will be appreciated in the future for all people, for all time. That is quite a legacy," she said.

Fungi and polar bears

Bier is still picking up wildlife. Recently, while walking the Butler-Freeport Community Trail near his home, he scooped up and briefly cradled a leopard moth caterpillar crawling in the middle of the trail—a potential death sentence for the fuzzy black 1.5-inch creature.

But Bier, being Bier, immediately spotted it and moved it to safety off the path in the hemlock-lined valley.

He knows what lives in the woods—things most people don't see or consider. Things like fungi.

"If the mushroom isn't on our pizza, we don't think about it much," he said.

But there are thousands of species of fungi in Pennsylvania.

"They're not animals. They're not plants," Bier said. "They belong to another kingdom of organisms.

"What if the fungi went away? They are doing a lot of the decomposition work on earth. Imagine a tree falling and it doesn't go away."

There is much more to nature than what Bier calls the "mega charismatic vertebrates"—handsome wildlife like bears, squirrels, owls, bald eagles and river otters.

"The polar bear is loved," he noted. "Films showing polar bears swimming in the ocean (without land in sight) tug at the heartstrings of

the public."

Macro charismatic vertebrates are attractive, but there's so much more.

"What people consider to be lesser creatures such as fungi and insects are driving the ecosystem," he said.

And they are interesting to see and learn about.

"Be fascinated," Bier said. "Butterfly watching—they are just as fascinating as the bald eagles."

There's the general public's "green blindness" to plant diversity.

"When you drive down the highway, if you're not a naturalist, it's just green stuff going by the window," he said.

Then there are the myths about the dangers of snakes, bats and spiders. "People don't have to be afraid. I've been around a lot of rattlesnakes and really haven't been afraid."

Bier's lifelong work has focused on preserving the habitats of all life forms and some of the most endangered creatures on earth, including aquatic species.

Bier documented rarities such as multiple mussel species that are globally significant in French Creek and the Allegheny River.

The conservancy and other organizations continue to preserve land in the French Creek watershed.

From O'Hara to Buffalo

Bier came up in the 1970s, during an environmental golden age that featured passage of both the Clean Water Act and the Endangered Species Act.

A typical Pittsburgher, his father was a steelworker for the U.S. Steel American Bridge Division in Lawrenceville. His mother worked in administration for O'Hara Township.

But Bier's life turned out not to be so average.

Under the tutelage of Beulah Frey, the late Fox Chapel Area School District teacher who developed one of the first high school environmental education programs in the state, Bier's interest in the natural world blossomed.

He and other nature-crazy high school [students](#) became student Audubon Society naturalists and camped out at the Todd Nature Reserve, a wild and woodsy bird-filled destination owned by the organization in Buffalo Township.

"It was like the movie 'Dead Poets Society,' but instead it was like a 'Dead Naturalists Society' and we read Henry David Thoreau, Wendell Berry, Ed Abbey, Aldo Leopold and others."

Bier doesn't think kids can easily get out in nature for organized forays like when he was young.

"You need mentors who take on the burden of the responsibility to get kids outdoors for a variety of activities and overnights," he said.

While earning his bachelor of science degree in zoology from the University of Wisconsin, he worked as a naturalist at Todd Nature Reserve and lived at the site's primitive cabin where he camped as a

teenager.

He met his wife, Terry, on one of the nature walks he led.

They built a home near the reserve, raising two children and eventually donating a portion of nearby family-owned land to Audubon for preservation.

They lived as close to nature as possible—growing most of their food. They raised sheep, a cow for milking and chickens. They also harvested deer.

Bier still cuts and splits firewood to heat his passive solar-energy home.

Living sustainably is a concept Bier promotes and lives.

But he doesn't think people should have to go to extremes. For instance, to figure out their carbon footprint for a vacation or strain to read the little numbers on plastics to separate for recycling.

Big changes need to be systematic, he said.

Where's the rare stuff?

Historically, the conservancy identified and bought important natural areas including land for 11 [state parks](#) including Ohio pyle, McConnells Mill and Moraine State Park, as well as state forests, game lands and conservancy-owned lands.

But the focus changed in the 1980s.

"We morphed away from the 'Here's a nice piece of land with old growth forest' to beginning to look at rare and endangered species," said

Paul Wiegman, a retired WPC naturalist and vice president for science and stewardship.

Wiegman hired Bier twice.

Knowing Bier since he was a teenager, Wiegman, as a board president, first hired him as a teacher/naturalist for the Audubon Society of Western Pennsylvania's headquarters at Beechwood Farms Nature Preserve, then the conservancy.

"Charles is always questioning what he is seeing and what other people are seeing and putting it together," he said. "His beautiful, inquisitive mind captures the whole of natural history."

The two men consulted a rare and endangered plant list published in 1974 and visited museum collections, checking records dating back more than a century to learn if those endangered species still existed.

One wildflower, Barbara's buttons, an endangered plant with frilly, daisy-like petals, was recorded years ago in Ohiopyle. They matched the historical information to a topographic map to hunt down the flower, then looked for it elsewhere.

"That's where Charles really shines," Wiegman said. "He looks for clues. He knows what the plant looks like and where it grows and what kind of habitat."

In the mid-1980s, Wiegman and Bier slow-walked the 20 miles of river bank, both sides, of the Youghiogheny River from Confluence to Connellsville to document endangered species.

"In Ohiopyle, we could say to the state park, "Be aware these rare plants are here, don't damage them,"" Wiegman said.

They added the results of their fieldwork to a database managed by the Pennsylvania Natural Heritage Program, which Bier directed for about 10 years.

The conservancy continues to work with government agencies and development projects on the locations of [endangered species](#).

Protecting areas hosting biodiversity drives land purchases for the nonprofit today.

As a conservation scientist emeritus, Bier plans to volunteer to help with environmental education and other projects.

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