



Prisoners Find Purpose Behind Bars: Saving Salamanders, Butterflies, and Frogs

By: Nancy Averett

Zoos need help with captive breeding programs. Prisons have a lot of people with a lot of time on their hands. It's the most unlikely match in wildlife conservation.

Robert Cooper scoops a salamander from one of the six fish tanks he keeps in a small, unadorned room, its walls just bare cinder block. “This is my big boy,” he says, projecting his voice above the gurgling water. Cooper stretches his heavily tattooed arms and hands out before him—the words “hate” and “rage” are spelled across his knuckles—to reveal the tiny, slippery amphibian twisting in his cupped palms. “He ain’t too happy right now,” he adds. The salamander, an eastern hellbender, is a reclusive species that rarely interacts with its own kind, let alone humans.

Cooper knows what it feels like to be confined in someone else's grip. He's been a prisoner here at Marion Correctional Institution, in central Ohio, for 15 years. The hellbender he holds and the 11 others in the room are an endangered species endemic to parts of the Midwest, the South, and the Northeast. In six months, they will be released into the wild as part of the Ohio Hellbender Partnership, a consortium of zoos, universities, and government agencies collaborating to help the amphibian's recovery. There is no certain date for Cooper's release, however. He murdered a woman 15 years ago, when he was 21, and is serving a sentence of 27 years to life.

Five years ago, to keep busy and give himself a sense of purpose while doing his time, Cooper joined several other men at the prison to start an organization they named Green Initiative. The original project was to



start a garden on prison grounds so the men could be outside more, fill their days productively, and have fresher food available to them and their fellow prisoners. The men now grow crops on an acre and a half of land; last year they gave away 15,000 pounds of vegetables to the Salvation Army and local churches and community programs. Green Initiative also raises bees and has built a greenhouse to grow hydroponic herbs and raise tilapia in an aquaponic system. It started the prison's first recycling program, diverting more than a million pounds of garbage from landfills in 2013 alone.

Cooper and his friends' efforts eventually helped convince officials at the Ohio Department of Rehabilitation and Correction that it should join the Sustainability in Prisons Program, a nationwide network that formed in 2012 and that includes five states and three counties in California. SPP officials say another 20 states and 10 countries have since contacted them about starting programs, which appeal to prison officials because they can lower costs. Prisons are notoriously wasteful. Many

buildings are old and leaky, making them inefficient to heat and cool, and staff and prisoners have little incentive to recycle.

But recycling can save money, says Leah Morgan, who was hired in 2012 to be ODRC's first sustainability expert. At Southeastern Correctional Complex in Ohio, she says, the institution's trash bill went from \$96,000 a year to \$5 after a recycling program was started. Prison officials saved \$60,000 a year by reducing the number of trash bags they needed to purchase. "Since then we have a department-wide policy that requires all our institutions to recycle," Morgan says. Ohio State University now pays Southeastern to separate trash after football games, allowing it to boast that it has achieved zero waste during the season and enabling Southeastern to pay inmates to separate the trash. Any leftover money goes into a statewide pool that is

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distributed as grants to support additional sustainability efforts across the state, such as Cooper’s hellbender project.



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Morgan got the idea for the project when she attended the first national SPP conference in 2012 and learned that incarcerated men had been raising endangered frogs for the Washington Department of Fish and Wildlife. (Prisoners elsewhere are helping to raise Taylor’s checkerspot butterflies and Pacific pond turtles.) Impressed, she returned determined to start a similar partnership in Ohio. “We started calling potential partners—zoos and other environmental organizations,” Morgan says. “We said, ‘Hey, we’ve got this not-so-crazy idea,’ and ‘Look, Washington is doing it.’ ” She discovered the hellbender partnership and spoke to ecologist Joe Greathouse, director of conservation science at The Wilds, a private, nonprofit safari park and conservation center that works with the Columbus Zoo, a member of the state’s hellbender partnership.

“I thought it was a great idea,” says Greathouse. He had just received a grant to buy supplies to build nest boxes for hellbenders, giving them more habitat once released in the wild. He proposed that the inmates at Marion both raise juvenile salamanders and help build the boxes.

“The men and women who work with the endangered species from inside the fence are given an opportunity to help sustain the life of another species—it’s really rewarding for them,” Morgan says. “At the same time, it’s incredibly helpful for the scientists, who otherwise might not have the time and resources to dedicate to raising these animals at the scale needed to make an impact.”

The largest North American salamander—they can grow to two feet in length—hellbenders have been even more resilient than the prisoners raising them. They survived the mass extinction that wiped out the dinosaurs, but in just a few decades they’ve lost much of their habitat, and much of what remains has been degraded. Population surveys conducted between 2006 and 2009 showed an 82 percent drop from the mid-1980s. A range of factors are at work: Hellbenders like to live in clear, clean streams with gravel bottoms and

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make their homes under large rocks. Pollution and siltation from road construction, agriculture, and other development have muddied the water and buried the rocks, while dams and stream channelization have degraded habitat. The illegal pet trade also may be partly to blame.

Over the past decade a number of streams that once had healthy hellbender populations have been cleaned up, yet the salamanders' numbers did not rebound. So ecologists came up with

the plan to collect eggs, raise the juveniles in captivity, and then release them when they have grown to young adults.

“They’re really vulnerable to predation when they’re young,” says Greathouse. “Only about 10 percent of the larvae survive their first year of life, and only about one individual per 50 eggs survives.” *Photo: Pete Oxford/Getty Images*

The prison environment, it turned out, is well suited for raising hellbenders. At the Toledo Zoo, where Cooper’s salamanders were hatched and more than 500 juveniles are being raised for the repopulation effort, staff members must follow a strict protocol to avoid transferring any infectious agents such as the deadly chytrid fungus from other amphibians in their care. Employees must change into surgical scrubs, wash up to their elbows, and step into special shoes that never leave the biosecure room where the young hellbenders live. At Marion, such precautions aren’t necessary because no other amphibians are on-site. “In some ways, it’s the ideal situation,” says Andy Odum, curator of herpetology and assistant director of animal programs at the Toledo Zoo.

Still, foster parenting hellbenders is not for everyone. With tiny eyes, a flat head, and wrinkled skin slick with mucus, they’re not exactly cuddly. (The caption for a photo of the hellbender on Wikipedia helpfully notes, “Head is in the lower right corner.”) They also secrete slime when they feel threatened, and will occasionally bite.

Randy Canterbury, a prison officer at Marion who oversees Green Initiative, had never heard of the animal when he got a call asking if his men would be willing to raise some. “I went to The Wilds and saw all these giraffes and cool animals,” he says. “Then they showed me the hellbender, and I was like, ‘Are you serious?’ This thing is stupid looking.”

Notwithstanding Canterbury’s initial aversion, he bought in—and luckily, Cooper felt differently. “I thought they were neat,” he says.

Cooper went to the prison library and read scientific articles such as “Post Release Movements of Captive Reared Ozark Hellbenders,” published in the journal *Herpetologica* in 2012, so he could answer other inmates’ questions about the salamanders. “I learned that it’s an indicator species,” he says. “You know that your stream is thriving if they’re in there. They eat a lot of crayfish— they’re important so the population of crayfish doesn’t explode in the streams. I learned that they breathe through their skin. That was something I’d never even thought of. And I thought all salamanders were land animals. These are totally aquatic.”

Cooper’s duties include carefully monitoring the water pH and temperature—the salamanders eat the most and therefore grow the fastest when the temperature is between 50 and 60 degrees—as well as keeping their tanks crystal clean. Caitlin Byrne, a biologist who traveled from The Wilds to Marion every two weeks during the first year of the project to check on the hellbenders, said the Marion men were excellent foster parents.

“They take such good care of them,” she says. “They took meticulous data of everything: weight, length, and behavior. If anything unusual happened, they’d note it right away.” She proudly points out that the group achieved a mortality rate of zero.

State ecologists want the foster-parented hellbenders to grow as big as possible so they have the best chance of surviving once released. Cooper feeds the hellbenders frozen Mysis shrimp and African cichlids, a tropical fish that another man raises in his cell. He’s also given them tilapia from the greenhouse. The result is 12 hearty hellbenders.

“It’s incredibly impressive what they’ve done with them,” Byrne says. “Their hellbenders are huge. We have one-year-olds at The Wilds that are still a quarter of the size that theirs were at the same age.”

Cooper says the program gives meaning to his long days behind bars and offers a way to show others that he has changed. A gangbanger during his first few years in prison, today he’s affable and polite. All that’s left of that former self are the tattoos on his knuckles, which he says he wishes he could erase.

“A lot of guys give up on life in here,” he says. “That’s something I don’t want to do. I got kids. I got family that I actually want to make proud of me.” He pauses, clears his throat and adds: “I done enough for them to dislike me. I’m trying to make them where they like me again.”