TOLEDO MAGAZINE

toledoBlade.com THE BLADE, TOLEDO, OHIO ■ SUNDAY, FEBRUARY 25, 2018 SECTION C, PAGE 6

THE OUTDOORS PAGE

Raising Hell

RALPH PFINGSTEN

Eastern hellbenders have a muscular tail and short limbs with webbed feet. They are excellent swimmers in the large, free-flowing streams that make up their preferred habitat.

Penta students work with endangered species

By Blade Outdoors Editor Matt Markey and Blade artist Jeff Basting

Ask any group of high school girls to handle slimy, squishy, squirmy, wrinkly-skinned and beady-eyed amphibians day after day, and to do so with extreme care while donning lab coats, special shoes, and making sure they have no lotion or perfume on their hands — that might cause them to collectively cringe.

That is not the case at Penta Career Center, however, where a cadre of young women is raising endangered eastern hellbenders, and doing so with energy, passion, gusto, and the full understanding that they are playing a vital role in restoring the population of this native Ohio salamander.

"They love working with the hellbenders, and they have taken a real interest in this project. It is exciting to see how enthusiastic they are," said Nicole Costello, instructor of small animal care at Penta.

Eastern hellbenders are the largest aquatic salamanders in North America, and they have historically been found from southwestern and south central New York through Pennsylvania, Ohio, West Virginia, Kentucky, and Tennessee and in small portions of several adjacent states. The Ozark hellbender, a subspecies, is found in pockets of Missouri and Arkansas.

Recent field research showed drastic declines in hellbender numbers, including a more than 80 percent reduction in the Ohio hellbender population. The Ohio Hellbender Partnership was formed to work to reverse the decline, which was most likely due to predators, pollutants, and loss of habitat. Since hellbender young suffer high mortality rates in the wild due to predation, eggs are collected to be raised in a controlled environment.

By raising the young hellbenders in captivity and not releasing them into streams until they are about 3 years old, their chances of survival increase dramatically, according to Kent Bekker, director of conservation research at the Toledo Zoo. Because of ideal conditions and ample food, the captive-raised hellbenders should also reach reproductive maturity sooner than hellbenders that spend their first years in streams.

Gregory Lipps from the Ohio Biodiversity Conservation Partnership said finding the physical space and the manpower to care for the young hellbenders was one of the biggest challenges.

The hellbenders are released into streams in the Ohio River watershed.

"Without the dedication of our partner zoos and Penta, we simply would not be able to rear hellbenders in the numbers necessary for a successful program," he said. "Simply rearing hellbenders isn't enough, though; we also need to have confidence that the animals are being reared with attention to biosecurity. The Small Animal Care Program at Penta is an excellent fit with our needs and gives the students an opportunity to use their training in an actual recovery program."

The students enter the hellbender lab, where the youngest salamanders are in tanks on one side of the room and the 3-year-olds that will be released into the wild later this year are on the opposite side. The students change into shoes used only in that room, slip on lab coats, and go to work cleaning the aquariums that house the salamanders, siphoning out waste, preparing food for the hellbenders, and weighing the rambunctious critters.

"All of the steps we have to take to make sure we don't bring in anything that might harm them, that tells me how important a clean environment is to them," said student Leah Liskai. "We need to make sure our river systems and streams are safe for these hellbenders."

Student Savannah Askins, who has been working with the hellbenders since August, said she knew little about them before working in the lab.

"This has taught me a lot about all of the factors that determine the fate of these animals," she said. "This has definitely raised my awareness about habitat and the need for clean water."

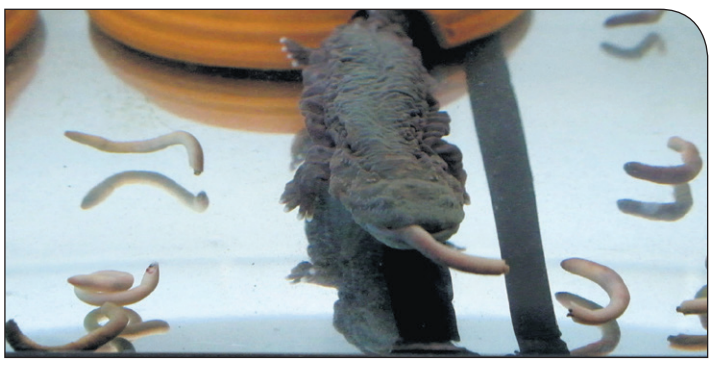
Hellbenders like free-flowing freshwater streams with plenty of wide, flat rocks that can be used for shelter. Their body shape and folds of skin assist in their cutaneous respiration.

"I feel like we're giving them a fighting chance," said student Mariah Vollmar. "We're helping them grow and get established in these streams where they used to live. I want to be able to say I had a hand in bringing the hellbenders back."

John Navarro from the Ohio Division of Wildlife said the cooperative effort of the Ohio Hellbender Partnership will hopefully create another success story in endangered species recovery.

"These organizations are providing human-reared hellbenders for our repatriation efforts with the goal of establishing multiple self-sustaining populations in Ohio," he said. "This would not be successful without their help. Only through collaboration can we make a difference with endangered species recovery."

Brianna Morgan, left, and Katelynn Richardson clean the tanks of juvenile hellbenders in the Penta campus lab.



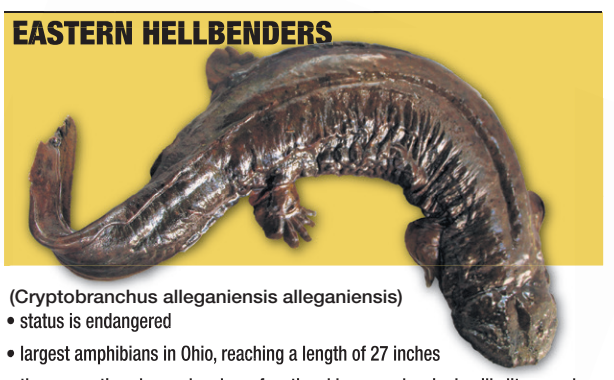
The hellbender diet in captivity includes worms and shrimp.

BLADE PHOTOS/LORI KING

Isabella Bernius-Fischer, left, and Leah Liskai prepare worms to feed the hellbenders being raised in the Penta facility.

Nicole Costello leads the Penta Small Animal Care Program and the hellbender work there.

Mariah Vollmar, left, uses a siphon to exchange the water in one of the tanks where the hellbenders are raised.

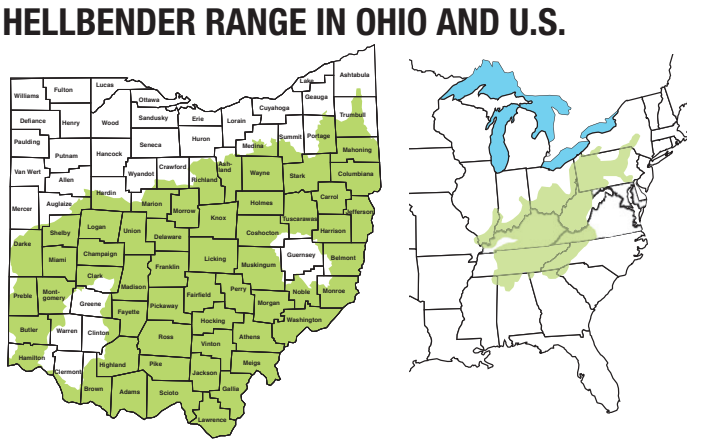


(Cryptobranchus alleganiensis alleganiensis)

- status is endangered
- largest amphibians in Ohio, reaching a length of 27 inches
- these aquatic salamanders have functional lungs and a single gill slit on each side of their necks
- live in medium to large rocky streams, spending most of their time under big rocks
- feed primarily on crayfish, snails, minnows, insects, and worms
- threatened by pollution and degradation of stream habitat and intentional killing and collection

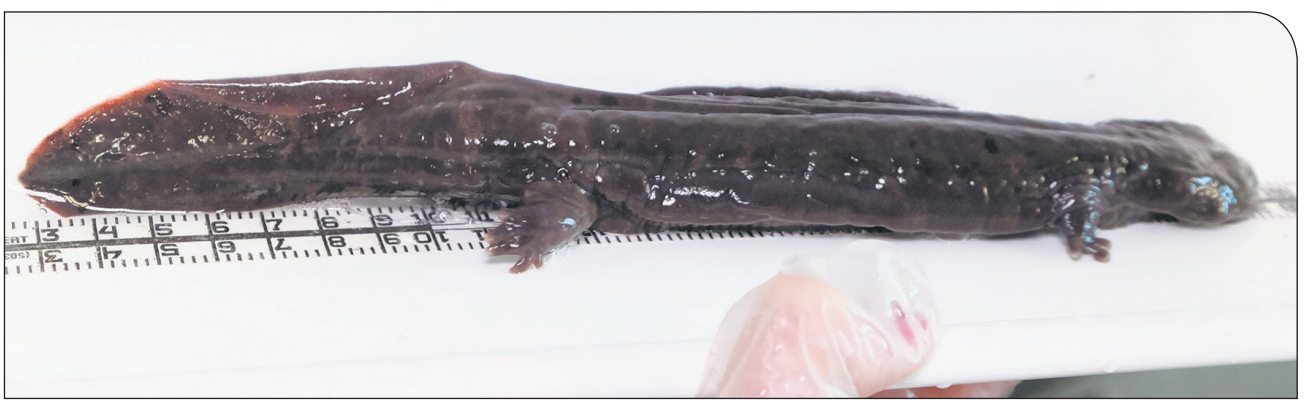
Sources: ODNR, ohioamphibians.com THE BLADE

HELLBENDER RANGE IN OHIO AND U.S.



The historic range of hellbenders covered much of Ohio.

Theresa Paff helps feed the endangered hellbenders.



The hellbenders are measured and weighed regularly so the students at Penta can meticulously chart their growth.