Howard County students raise horseshoe crabs in science class

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Bella Ryb shows off a horseshoe crab she and classmate Arra Kuehl found in Ocean City during the weekly class Nov. 19. (Staff photo by Matt Roth)

Lunch and recess can be regarded by elementary school students as times free from classroom instruction, but not for 15 fifth-graders at Pointers Run Elementary School, in Clarksville.

The students, along with teachers Eric Jayne and Chris Brown, use the time to raise horseshoe crabs, testing the water in three tanks and feeding the eight 1-year-old crabs and several dozen recently hatched "babies."

Split into three groups and wearing matching T-shirts that proclaim them to be "horseshoe crab scientists," students sit at tables with water samples, charts measuring salinity, pH, nitrate and nitrite levels and test kits, adding drops of chemicals into beakers of water that then turn varying shades of orange, pink and turquoise.

They are testing the water for different stages of the nitrogen cycle, Jayne said.

This is the second year of the project; Last year, Jayne, Brown and their students released 21 horseshoe crabs into the Chesapeake Bay at Sandy Point State Park. Come May, the students will make that trip again.

The program, called "Raising Horseshoe Crabs in the Classroom," is sponsored by the Maryland Department of Natural Resources and allows the students a unique opportunity:

Because it is illegal to otherwise catch horseshoe crabs or their eggs, few people get to watch horseshoe crabs hatch and grow on a daily basis.

Few people know much about the crabs, Jayne said, but his students are the exception to that rule. The students are a wealth of horseshoe crab information.

"They have a similar blood system to us and five pairs of pinchers," said Aara Kuehl, 10, of Columbia.

Horseshoe crabs are an endangered species as well, the students know.

"They used to be over-harvested," said Bella Ryb, 10, of Clarksville. "And sea-birds also need them for food so they could get endangered, too. It's very sad."

After testing the water and feeding the crabs, students eat lunch as Jayne goes over data on the projector. Ammonia levels were higher in one of the tanks, and students began brainstorming reasons for the rise, and solutions. A possible problem? Perhaps the filter was set too low, so the crabs wouldn't get sucked up into the gears, one student suggested.

The students meet once a week to care for and learn about the crabs, and once a month a guest speaker comes into the classroom for a seminar. The students don't seem to mind exchanging some free time for more learning.

"They're giving up their recess and their lunch once a week, and we never hear a peep of complaint," Jayne said.

If testing the tank water wasn't cool enough for the students -- "We get to be like real scientists," said Samy Victores, 10, of Columbia -- the fifth-graders are also excited to observe a rarely seen part of nature in their own classrooms.

"We get to see such a cool part of nature," said Alyck Mooma, 11, of Fulton. "It's fascinating because we get to learn about them, and really learn about the creatures related to them. Hardly anyone knows much about them. I think they may frighten people, or people might think they're not important."

The students are learning just how important horseshoe crabs are in the ecosystem and sharing that information with anyone who will listen.

"It's like a department store sale," Aara said. "Like, you go in and go, 'Wow, this is some really great stuff,' and then you tell a friend, and they tell a friend, and they say 'Wow,' too. It's word of mouth."