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The science of right now, right here

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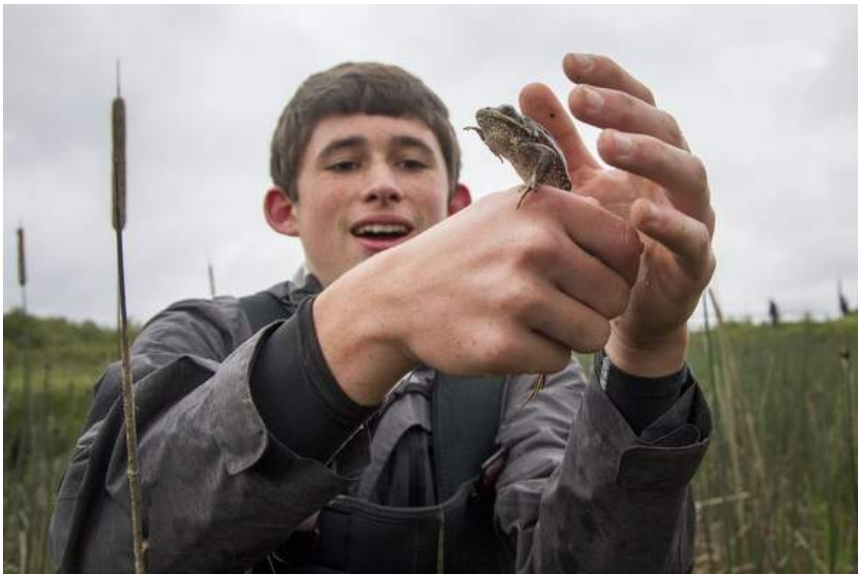

Alex Tallman, a student at Astoria High School, struggles to hold on to a northern red-legged frog he found during a monitoring event at the Airport Mitigation Wetland Friday. It was the 18th year the monitoring event has been held, using students with Astoria High School's ninth-grade Integrated Science classes. More photos online at www.dailyastorian.com JOSHUA BESSEX — THE DAILY ASTORIAN
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An army of ninth-graders from Astoria High School descended into the swamps last week.

School bus after school bus full of Astoria High School ninth-grade science students pulled up to the turnoff just west of the partially finished Lewis and Clark Bridge on an overcast Thursday and Friday. Students piled out and lined up on the Astoria Regional Airport dike trail in front of instructor Lee Cain and a line of chest-waders and hip boots.

"This is a wetland, and it's a nursery for a lot of critters," said Cain, who has been monitoring a slice of wetlands near the airport known as the Astoria Mitigation Bank with the help of his students for 18 years. "You've got to look at every single step and make sure you're not crushing something."

After being dispatched into their assigned groups — fish, amphibians, water quality, plants, marsh wrens, birds, nest boxes, bumblebees and mollusks — and donning their waterproof footwear, the students ventured out into the mitigation bank, created on the corner of Youngs Bay and the Lewis and Clark River long ago to offset past development by the Port of Astoria.

In total, about 160 ninth-graders from six different integrated science courses taught by Cain and newer arrival Nicholas Baisley took part in the annual monitoring. Leading them were an array of volunteer team leaders from local environmental and natural resource nonprofits and agencies Cain gathers each year for the project.

A living classroom

The monitoring of the mitigation bank has been going longer than ninth-grader Brianna Mitchell has been alive. And like many of the other students, Mitchell said she'd never seen it up close before.

“I thought it was pretty,” said Mitchell, who tromped through the mud and tidal inlets late last week with Narayan Elasmar of Columbia River Estuary Study Taskforce (CREST) looking for three-spined stickleback and other fish. “I think I would do it again.”

Mitchell, her team and others followed Elasmar as he trudged around tidal inlets, picking up plastic bottle traps with the small fish, measuring their length and looking at what sort of breeding condition they were in.

Sarah Lertora knew about the wetland from her older sister Rachel Lertora doing it as a freshman. She said it was a chance to see classroom specimens in the wild, such as the northern red-legged frogs she saw leaping off of banks into the inlets.

Her mother Ashley Lertora, with the Oregon Department of Forestry, worked with groups of students monitoring water quality, including temperature, oxygen content and turbidity.

“I’ve run tests in the lab before, but never in nature,” said Claire Albright, one of Lertora’s students. “This is the first field trip I’ve gone on this year.”

This week, the students found themselves back in class, preparing reflective essays on their time in the wetlands, and preparing for their final project presentations to peers on what they observed.

A continuing experiment

In an era of school austerity short on field trips, Cain said he saw an opportunity with the mitigation bank across Youngs Bay at the airport, monitored for the past 18 years.

“I came along in 1998 and was looking for something to do with kids,” Cain said. “So we look at whether this is functioning as a proper wetland. I didn’t think the project would go this long.”

Lee has gathered volunteers from a menagerie of environmental and natural resource groups to lead the students around, even getting sponsorship and T-shirts for the last four years from nonprofit lending group Craft3.

“It fits with our mission,” said Andrew Mattingly, a commercial portfolio administrator with the group, who led students around the wetlands checking nesting boxes for bird eggs.

Julie Tennis was an independent volunteer who works for the Pacific Education Institute in Olympia, Wash., that encourages teachers to get their kids outside. She said Cain’s project is an example of how teachers on strapped budgets can find new learning opportunities. Tennis studies bees on her own time and helped students assess the abundance of them at the mitigation bank.

“It’s accessible,” she said of the bank, less than two miles as the crow flies from the high school. “It’s relevant, because it’s the local environment.”

Students looked rather hesitant when first arriving at the wetlands, Tennis said. “But then that sense of exploration and curiosity takes over,” she said, adding that by the end of their time, kids were enthusiastically slogging through the brush, nets waving, trying to catch as many bees as possible.

Emerging trends

In the 17 years his students have been monitoring the wetlands, Cain said he’s seen some trends emerging, both positive and negative.

“Everything is early this year,” he said about the mild winter, which has led to an early blooming and arrival of many animals, including the tree swallow, a migratory species that winters as far south as Central America before traveling to North America in the spring. Cain beamed at the larger-than-usual numbers of the birds students were finding in the nest boxes around the wetlands.

“If they’re here in decent numbers, it means the wetlands are in good condition,” Cain said.

The property has also seen a spread of the invasive, noxious weed yellow iris. Cain said volunteers over the years have started to cut down on it, with the help of targeted herbicide spraying.

He’s noticed native marsh wrens declining, but Cain’s upbeat about other arrivals at the mitigation bank.

“After 18 years, we’re finally seeing a native mussel colonizing it,” he said of the native clams that have started appearing.

His students will present their reports as a class project, which will join the growing volumes of observations stretching back beyond their birth.

More information:

For more information on the Astoria Mitigation Bank and the monitoring done there, visit http://tinyurl.com/k4efenk