

Students' summer project: Protecting Broad Cove

By KAREN GOULART
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HINGHAM - Splashing about in water and catching fish sounds like typical summer fun for a batch of soon-to-be eighth-graders.

For six Derby Academy students, that notion is only partly correct.

They had fun, they attest, but their summer activities were far from typical.

While their friends hung out and soaked up the sun, these students volunteered to take part in experiments that could help save a troubled ecosystem - right in their school's back yard.

Joining with the state's Executive Office of Energy and Environmental Affairs and the Center for Student Coastal Research, they launched the Derby Academy Broad Cove Stewardship Project.

The students and two of their teachers spent much of the summer conducting scientific tests to determine the health of Broad Cove, the salt marsh that borders the Derby campus and is home to vital plant, fish, fowl and animal species.

Their information and findings are part of an ongoing study of the area. What they found supports concerns that a lack of salt water entering the cove could be harming the ecosystem there.

The data could eventually lead to the widening of a culvert that flushes water between the estuary and Hingham Harbor, which would help increase salinity levels in the water, vital to the health of certain plants and wildlife.

Five of the students at the private school, Erika Wolff, Hannah Rawson, Chrissy Kalpin, Giuliana D'Esopo and Marissa Mitchell, presented their findings to an audience of state, local government and environmental officials on Friday, hoping to bring more attention to estuary-related issues. Student Elias Dagher also worked on the project.

The state Office of Coastal Zone Management will co-sponsor an open house at 7 p.m. Tuesday, Nov. 27, at Derby Academy to share more information about the project with the community.

The project began in the summer of 2006, when the Coastal Zone Management office established baseline readings of the water's salt and oxygen content, temperature, tidal levels and how much estuary water regularly flows through a culvert connecting Hingham Harbor and Broad Cove.

That summer, assistant head of school Jay Saldon and trustee Ellen Roy Herzfelder were trained by the Center for Student Coastal Research to collect data.



Five Derby Academy students presented their study findings to state and local officials on Friday. The students are, from left, Marissa Mitchell, Chrissy Kalpin, Erika Wolff, Hannah Rawson and Giuliana D'Esopo. The adults are, from left, Philip Griffiths, state Sen. Robert Hedlund; Jason Burtner, and Jay Sadlon, assistant head of Derby Academy. (LISA BUL/The Patriot Ledger)

With that knowledge, they were able to guide the students.

For three days a week, up to four hours a day in June, July and August, the student volunteers took their science knowledge into the “real world” and picked up new skills as part of a regional effort to preserve and restore coastal wetlands.

Under the supervision of technology teacher Tricia Daly and math and science teacher Chris O’Connor, they dug wells, tested water salinity and oxygen levels, and caught and cataloged fish and plant species to determine the cove’s health.

When technology teacher Tricia Daly she heard about the school’s involvement in the project, she volunteered to help, and figured the field work was something that would be conducted by teachers. She was excited to learn that students would play a major role in the project.

“They were out there learning hands-on and over time they’re going to get to see the results of their work,” Daly said.

Daly said she hopes involving students in this type of project at a young age will show them they can make a difference.

The Office of Coastal Zone Management will analyze the data to determine what additional data is needed, if any, before deciding what work is needed to restore the health of Broad Cove.

Meanwhile, the students’ work will continue. In September, the girls who participated in the project shared their experiences and findings with fellow students and faculty. In the coming summer, the opportunity to volunteer to continue the scientific work will be offered to the next batch of eighth-grade students.

Philip Griffiths, undersecretary for environment in the state Executive Office of Energy and Environmental Affairs, said restoration of areas like Broad Cove on the South Shore are a priority, and that the partnership with Derby Academy is aiding in that endeavor.

“We’ve all got a stake in what goes on here,” Griffiths said. “Through this partnership, (Derby Academy is) making a difference.”

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