Learning Barge and watermen team up

Thanks to you, Project Blue Crab makes sea level issues real for fourth graders



Sparrow Road fourth graders peer from the Learning Barge to see Cody Powell's catch.

The fourth graders had just learned the rules for when you can keep a male blue crab. when fourth-generation waterman Ray Wicker drew his boat alongside the Elizabeth River Project's Dominion Energy Learning Barge.

"That one's too small," a student told him, pointing to one of the shellfish scrabbling in Wicker's hamper.

"Yeah, want me to put him back?" Wicker asked, delighted. He had not yet measured his catch to release the small ones. For Project Blue Crab, launched this fall with funding from NOAA, Dominion Energy and you, generous supporters to Elizabeth River Project, more than 18,000 students over three years will learn not only that male blue crabs must be five inches for harvesting. As with this class from Sparrow Road Intermediate School in Chesapeake, they will learn the ecology, commerce and mystic of the river's most iconic fishery to Con't p8

"Princess" receives presidential award

"Almost magical and completely bottomless energy"

he came to us as a princess, in a costume she sewed in a weekend and a charming British accent she gained in the same span. We needed someone to re-enact Princess Elizabeth of the 1600s, for whom our river was named.

"We were just looking for someone in a costume to lead a parade. She had this mesmerizing, almost magical, and completely bottomless energy. We hired her at once to work with the children," says Marjorie Mayfield Jackson, Executive Director, Elizabeth River Project.

In the 19 years since, Robin Dunbar, Deputy Director - Education, Elizabeth River Project, aka "Princess Elizabeth," has turned that same energy and imagination to inventing environmental education programs that needed to be original enough to reawaken the interest of a community that had thought of its Elizabeth as dead.

With a science degree but also a sense of the dramatic as a former puppeteer, Dunbar met the challenge to such an extent that the National Science Foundation has now recognized her as Virginia's only winner of the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring. Honored in DC on Oct. 15-17 for projects such as the Con't p7



Robin Dunbar (R) has led our education for 19 years.

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From the Executive Director

Children deserve a living Elizabeth

ildren once grew up here not knowing even the name of their home river. They thought of it as a sewer they shouldn't play in. No more.

In dramatic contrast, we enter this school year reaching more students than any other environmental group in the region. Thanks to generous donors like you, Elizabeth River Project's diverse education can leave no doubt about the vital ecology of the Elizabeth River and important roles our children can play in the Elizabeth's continuing revival.

I love the mornings when waterman Ray Wicker pauses his boat alongside our Dominion Energy Learning Barge to share his teeming catch with students taking part in this year's Project Blue Crab, focusing on the creature that perhaps more than any, symbolizes the bay and more likely than not, was born in or near the Elizabeth.

I think it's important to the future of the crab, and the children, that Elizabeth River Project also has assumed the role of regional clearinghouse for youth education on sea level resilience. As seas rise, the very makeup of the river is changing, from its temperature and salinity to its increasing load of runoff pollution. Elizabeth's wetlands are

drowning along with our homes.

But we learned a long time ago at Elizabeth River Project to focus on hope rather than angst. This summer at our Paradise Creek Nature Park, a partnership with Portsmouth, inner-city high school students found hope through one of our most intensive education programs yet. The Youth Conservation Interns spent nine weeks learning marketable skills in conservation horticulture, while nature taught them its lesson in peace and renewal.

Thank you for all these ways and more that we're continually introducing young people to Elizabeth, the living home river that is their rightful heritage.

Marjorie Mayfield Jackson **Executive Director**

PS Thanks in advance for a Year-End gift to keep returning our Elizabeth to health this holiday.



RIVERFest Engages 3,000 -

Young attendees observe tadpoles during Elizabeth River Project's RIVERFest. Typically the largest environmental festival in the region, this year's event attracted 3,000 to Back Bay Farmhouse Brewery near the river's Eastern Branch on June 23.

Mission – To restore the Elizabeth River to the highest practical level of environmental quality through community, business and government partnerships.

Mudflats is the newsletter of the Elizabeth 475 Water Street, Suite C103A River Project, a membership-based nonprofit working to restore the Elizabeth River through government, business and citizen partnerships. "Mudflats" refers to that slippery, biologically active zone where land and water meet, symbolizing our search for common ground among diverse interests.

Portsmouth, VA 23704 [P] 757-399-RIVR (7487)



YOU prepare students for "real-world action"

Dozens of schools studying, completing action projects for Youth Resilience Expo

A 15-year old Portsmouth High School student is concentrating on her test tube. She's measuring the salinity of the creek below. The only sound is the soft chirping of birds.

"I don't like going outside in my neighborhood; I like going outside in places like this. I love this place," she tells a classmate from I.C. Norcom High School.

Before their field trip with Elizabeth River Project ends, students visiting Paradise Creek Nature Park on Oct. 25 also will measure trees to estimate how much carbon they store. They'll plant native ferns for wildlife habitat. And back in class, they'll join dozens of schools across the region to plan and carry out action projects for Elizabeth River Project's second annual Youth Resilience Expo. It's set for Saturday, Feb. 29 at Norfolk Botanical Gardens.

Thanks to you, members and supporters, Elizabeth River Project convened an education roundtable that's now drafted one of the nation's first resilience plans for youth. It calls for a collaboration of schools and community partners to ready children to inherit rising seas. The plan also recommends teacher training and hands-on field trips. Foremost, it recommends engaging students in "real world action projects" to "discover hope by making a



Nathaniel Hollis and Ichito Shiroma test water quality at Paradise Creek Nature Park. Visiting from I.C. Norcom High School, these students studied the park's resilience features to plan action projects at school.

difference."

That's what our Youth Resilience Expo is all about and more. A Resilient River Otter curriculum begins this spring at the nature park, a partnership with the City of Portsmouth. A pool of community mentors has offered help with student projects. Sarah McBride and Janet Ehmer, job-sharing our new position of Youth

Resilience Coordinator, are coordinating these efforts and completing an on-line clearinghouse of resources.

Entire schools are signing on including Victory Elementary School in Portsmouth where "everybody's planting something," from a native tree grove to a pollinator garden, McBride says.

Menu of river experiences seeks to reach all ages

Find your fit to achieve 25,000 "citizen soldiers"



Rena B. Wright first- graders with Youth Resilience Coordinator Sarah McBride at the Beazley River Academy at Paradise Creek Nature Park.

Our goal is 25,000 "citizen soldiers" who understand, appreciate and support the restoration of the Elizabeth River. To get there, we offer a menu of river experiences for different age levels. Find yours!

Paradise Creek Nature Park -

- High school and university levels especially find our 40-acre urban park a great place for outdoor ecology research. New Resilient River Otter field trips this spring. Contact Sarah McBride, smcbride@elizabethriver.org.
- •Youth Conservation Interns Program returns next summer with intensive learning in conservation horticulture for Portsmouth high schoolers. Yolima Carr, ycarr@elizaethriver.org.
- Volunteers can learn conservation landscaping on Volunteer Service Days, including 9 am 11 am Nov. 23 & Dec. 7. Register at Paradisecreek. elizabethriver.org/volunteers.
- Families can study environmental topics at Elizabeth River Project's Beazley River Academy. Next: Holiday wreath making with native plants, 10 am Nov. 23 (\$30 members/\$40 non-members, paradisecreek.elizabethriver.org).

Youth Resilience Projects & Expo—Rising sea levels and more extreme weather threaten the river as well as humans. Prepare our youth to inherit these conditions with resilience.

• Get advice and maybe a mentor for an action project at your school. Document results for the Elizabeth River Project's Youth Resilience Expo on Feb. 29 at Norfolk Botanical Gardens. Contact Sarah McBride, smcbride@elizabethriver.org.

Learning Barge – Elementary and middle grades especially love field investigations aboard "America's Greenest Vessel," Elizabeth River Project's Dominion Energy Learning Barge, powered by sun and wind. Sign up soon! Fall is mostly booked and spring is filling fast. Contact Summer Brown, sbrown@elizabethriver.org.

Deepest thanks to our donor societies

The Elizabeth River Project is proud to recognize members of our leadership giving societies. Thank you for contributing \$1,000 or more annually to support our award-winning restoration and education programs. New - Next time recognizing members of \$500+ - our new Seahorse Society! Find out more about our donor societies. Contact Susan Smith at (757)399-7487 or ssmith@elizabethriver.org.

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Philanthropists of the Year: "Extraordinary Squires"

t first, we thought our new board member was a bit of a pain. Here she was questioning just how reliable a used truck we could get for \$5,000, after we had scraped together the funds and made the case for needing it to haul around landscaping supplies for our new venture into river-friendly yards.

Then the board member, Karen Jones Squires, later president of the board at Elizabeth River Project, solved the problem in inimitable style. She donated a not-so-used, high end truck that she had been using to haul the family horses.

That was the first of many wise, generous and pivotal gifts to our mission that earned

Karen and husband Jim Squires the label with Elizabeth River Project staff of "the Extraordinary Squires." This year we nominated them for Outstanding Individual Philanthropist recognition and are delighted they were selected to receive this honor at the regional banquet of the Association of Fundraising Professionals on Nov. 12 at Waterside Marriott.

River Star Homes has grown to 5,500 citizens who do their part at home and Karen's truck is still the way we deliver their rain barrels and native plants. Thank you, Karen and Jim, for this and all the ways you've set the pace for community investment in the health of our home river.



Karen Jones Squires (center, blue cap) cuts the ribbon as board president, 2016, for a sculpture installation at Paradise Creek Nature Park.

Moon River Supper celebrates our top donors

Join our donor societies to attend one-of-a-kind river event under the full moon

trolling high school musicians, moon lanterns flickering in the trees and an elderflower champagne cocktail welcomed about 150 guests to Sept. 14th's Moon River Supper, honoring our most generous donors at Paradise Creek Nature Park.

"It's an extraordinary thank you party," held as a full moon rises over the creek, says Judy Perry, board member and event chair.

The park's "amazing sunsets and breathtaking landscapes" inspired artist Brian Ross to create the pastel featured on this year's invitation, he says. The original inspired a bidding war in a silent auction organized by volunteers Carol Rowe and Sue Rieger, while sunflowers, asters and golden rod added magic to table arrangements by the Elizabeth River Garden Club.

Porte Towne Magic! Pops Orchestra and Show Choir, Portsmouth Public School students, serenaded the guests as they enjoyed fare from Brutti's Catering, Riverbank, Olde Towne Public House, Renaissance Portsmouth and Oberweiss Dairy.

Not yet a donor society member? Contact Susan Smith at ssmith@ elizabethriver.org to join today. We hope to see you at next year's party. Judy Perry and the dedicated committee promise an even more magical 2020 Moon River Supper.



Portsmouth high school musicians serenade the party L-R: Denae Dwight, Ciya Bridgers, Kamiyah Parker



NEW! Join today - Seahorse Society

oin our new Seahorse Society, honoring the "lined seahorse," now returning throughout the Elizabeth.

Increase your annual gift to Elizabeth River Project to \$500 to \$999, or \$1,000 - \$1,499 for organizations, to become a member of the inner circle of top donors.

Your benefits will include an invitation for two to Moon River Supper, a seahorse pin and the satisfaction of leading one of the great river restorations of our time.

Deepest thanks to our members

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Youth Conservation Interns (L-R) Hailey Wilson, Vernon Baller Jr, CJ Cornelius Jackson, Thomas Green and Justin Green learn native landscaping from Elizabeth River Project's Yolima Carr (far right) at Paradise Creek Nature Park.

High schoolers benefit, nature benefits too

Intensive summer program conveys job skills in horticulture while revitalizing nature park

olima Carr studied public gardens in Spain and worked to beautify the Hermitage Museum and Gardens -- until last winter. That's when she began connecting youth and the public to "nature at its best."

That's how Carr describes her goal for the on-going revitalization of the urban forest and restored wetlands at Paradise Creek Nature Park, where she is Elizabeth River Project's Conservation Landscape Curator.

Already, Carr has helped more than 1,000 students plant native species around the 40acre park, a partnership of Elizabeth River Project and the City of Portsmouth. She routinely leads up to 50 volunteers at a time in conservation landscaping during the park's

AWARD - Con't from p1 Dominion Energy Learning Barge, featuring a live wetland, she becomes part of a national network of science education mentors, working together on national projects.

After also inventing our River Star Schools

Volunteer Service Saturdays. But her favorite teaching so far was also the most intensive.

This past summer, Carr and Larry LaPell, Youth Conservation Manager, taught marketable horticulture skills to five Portsmouth high school students for 20 hours a week for nine weeks, all the while watching nature do for the inner-city youth what studies are indicating a forest can do for us all: Provide a renewing respite from our stressful

"You could see they were more calm and more happy" as the summer went on, Carr says. In partnership with the Hampton Roads Workforce Council and thanks to membership support as well as the Beazley and Luck

foundations, the youth planted herbs to attract pollinators to native fruit trees. They began a longer term project adding flowering native shrubs and grasses to beautify a freshwater wetland along the park frontage on Victory Boulevard.

Carr hopes to double the number of Youth Conservation Interns next summer. In the meantime, learn something of conservation landscaping yourself during Volunteer Service Days and other programs this fall and winter at the nature park you make possible.

Explore park programs at paradisecreek. elizabethriver.org. Thanks for your support.

and Wetlands in the Classroom programs as well as one of the region's first sea level resilience education programs for youth and field investigations at Paradise Creek Nature Park, Dunbar says she looks forward to helping reinvent science education nationally. "I think

there's a better way we can figure out to teach science to kids and I want to be part of it."

Only YOU make our pioneer ideas a reality with your generous support. Thank you!

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Winner, "Best Restored Shore"

Thanks to you, fish species increased from four to 26

ou could smell the raw tar pooled on the bottom of the river, creating dead zones. The site on the industrialized Southern Branch drew graduate students in droves to document fish deformity and disease.

That was before the Elizabeth River Project, along with a sister non-profit, the Living River Restoration Trust and more than a dozen industry, community and government partners spent the last decade revitalizing "Money Point" in Chesapeake. Results have now been recognized as one of four national winners of "Best Restored Shore" from the American Shore and Beach Preservation Association.

"The fish populations responded magnificently," says Walter Priest, a wetland scientist on the board of the Trust who traveled to South Carolina to accept the award Oct. 23. He helped design the site's thriving restored wetland and adjacent "living cap," sand and wetlands placed over lower levels of contamination. More



Joe Rieger (L), Elizabeth River Project, and Walter Priest, Living River Restoration Trust board, identify fish at Money Point in Chesapeake. Species increased from four to 26 after partners restored wetlands and cleaned contamination. Photo: Morgan Heim

significant contamination was removed in two phases with one more to go.

Priest and Joe Rieger, who managed the project as deputy director for the Elizabeth River Project, seined the shoreline before and after these efforts. A paltry four species lived there before revitalization, but afterwards

nets teemed with 26 species, from speckled trout to shrimp and puppy drum.

"You point Mother Nature in the right direction, and she takes over," Priest concludes.

Keep the progress going for restoration of the Elizabeth River with your special year-end gift.

Blue crab lessons part of year-long learning through your support



Ray Wicker (L) and Cody Powell help present Project Blue Crab from their crab boat.

Con't from p1 investigate how the blue crab and their community may be affected by rising sea levels. Back at school, they will conduct year-long projects on how to help as young environmental stewards.

Owner of Wicker's Crab Pot restaurant in Chesapeake, Wicker is enhancing Project Blue Crab beyond the barge visits. The waterman is joining nautical folk singers Bob Zentz and Jeanne McDougall Zentz, who have written original songs for the project, and educators including staff from Elizabeth River Project, Chesapeake Public Schools and Virginia Marine Resources Commission at school assemblies to introduce students to Project Blue Crab. Participating teachers also take part in workshops at the Elizabeth River Project's Beazley River Academy at Paradise Creek Nature Park. Students can present their stewardship projects at Elizabeth River Project's Youth Resilience Expo on Feb. 29, 2020 at Norfolk Botanical Gardens, thanks to you and Hampton Roads Community Foundation.

Aboard the barge, students' hands-on investigations include how salinity and temperature changes could affect blue crabs. Focusing on the species brings a special enthusiasm to an issue as complex as rising sea levels, says Robin Dunbar, Deputy Director – Education, Elizabeth River Project. "I think it's because there's such a culture and heritage with the blue crab that goes back so far in our history... Everybody has seen them; they're beautiful and interesting and we want to know more."

"Bye!" the students chorused to the small crab as Wicker sent it sailing overboard.

Find out more about Project Blue Crab from Robin Dunbar at rdunbar@elizabethriver.org. Consider a special Year-End gift to support all our education and restoration programs.