

Shad in the Classroom – a Memorable Experience

North Carolina Museum of Natural Sciences

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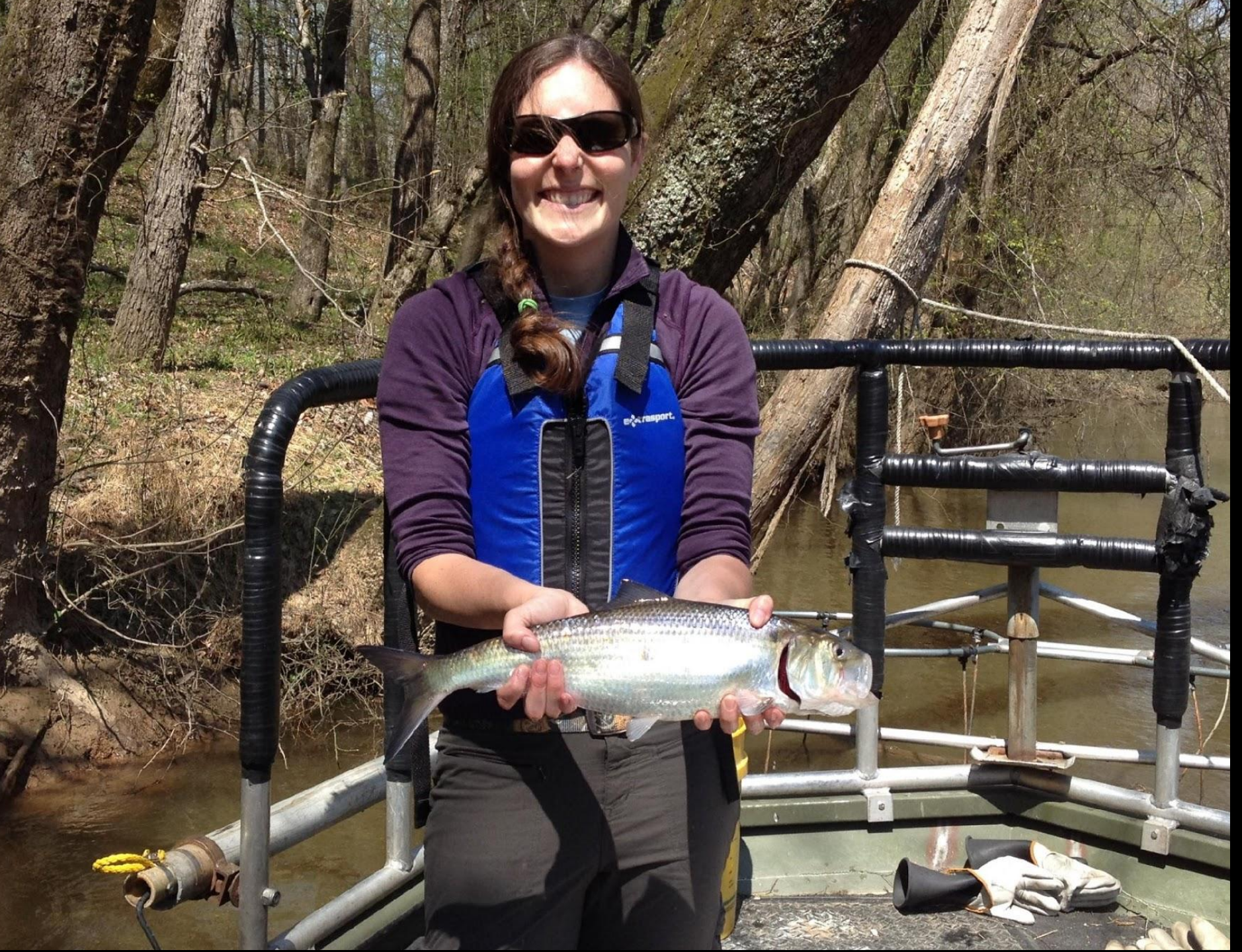
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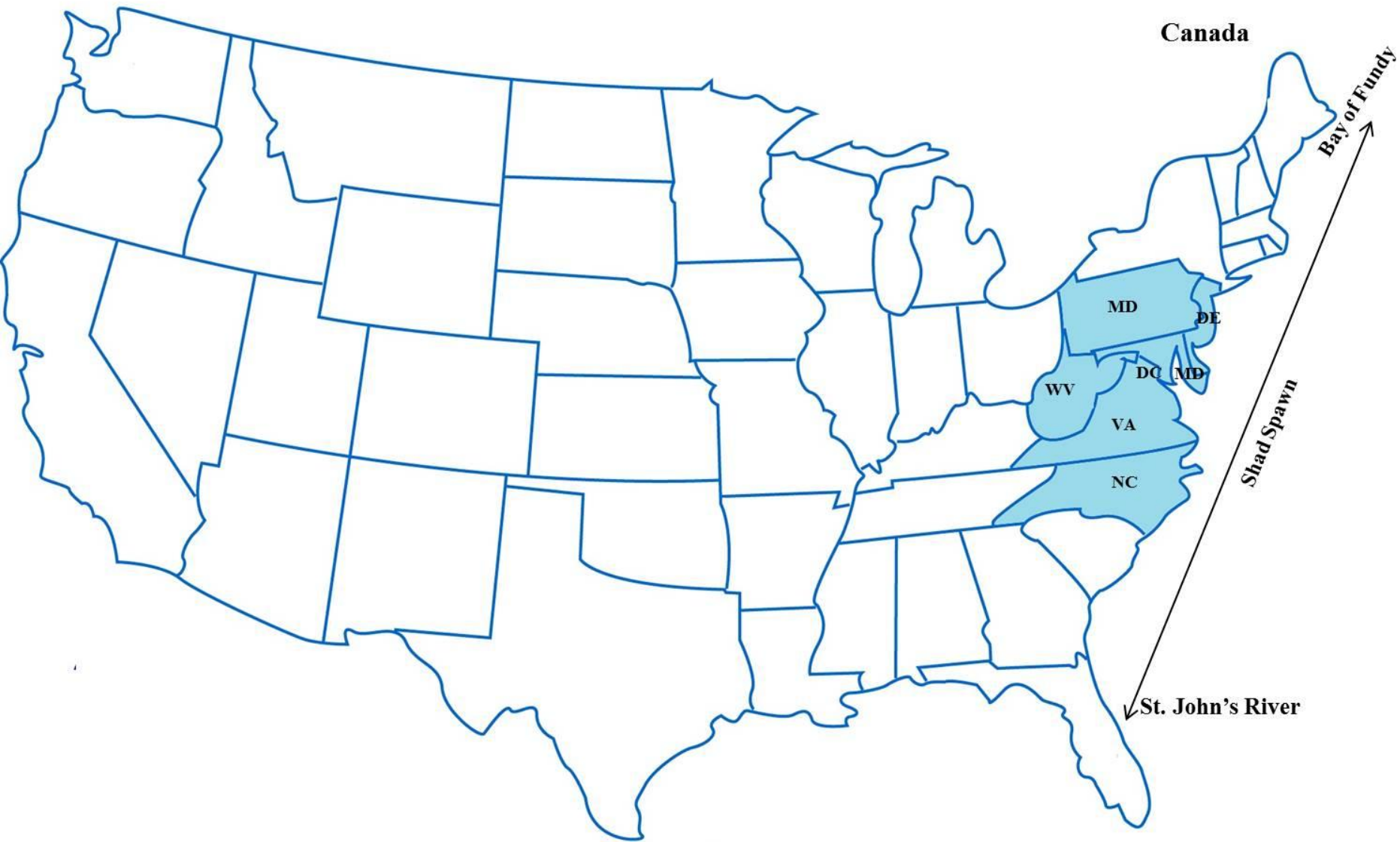
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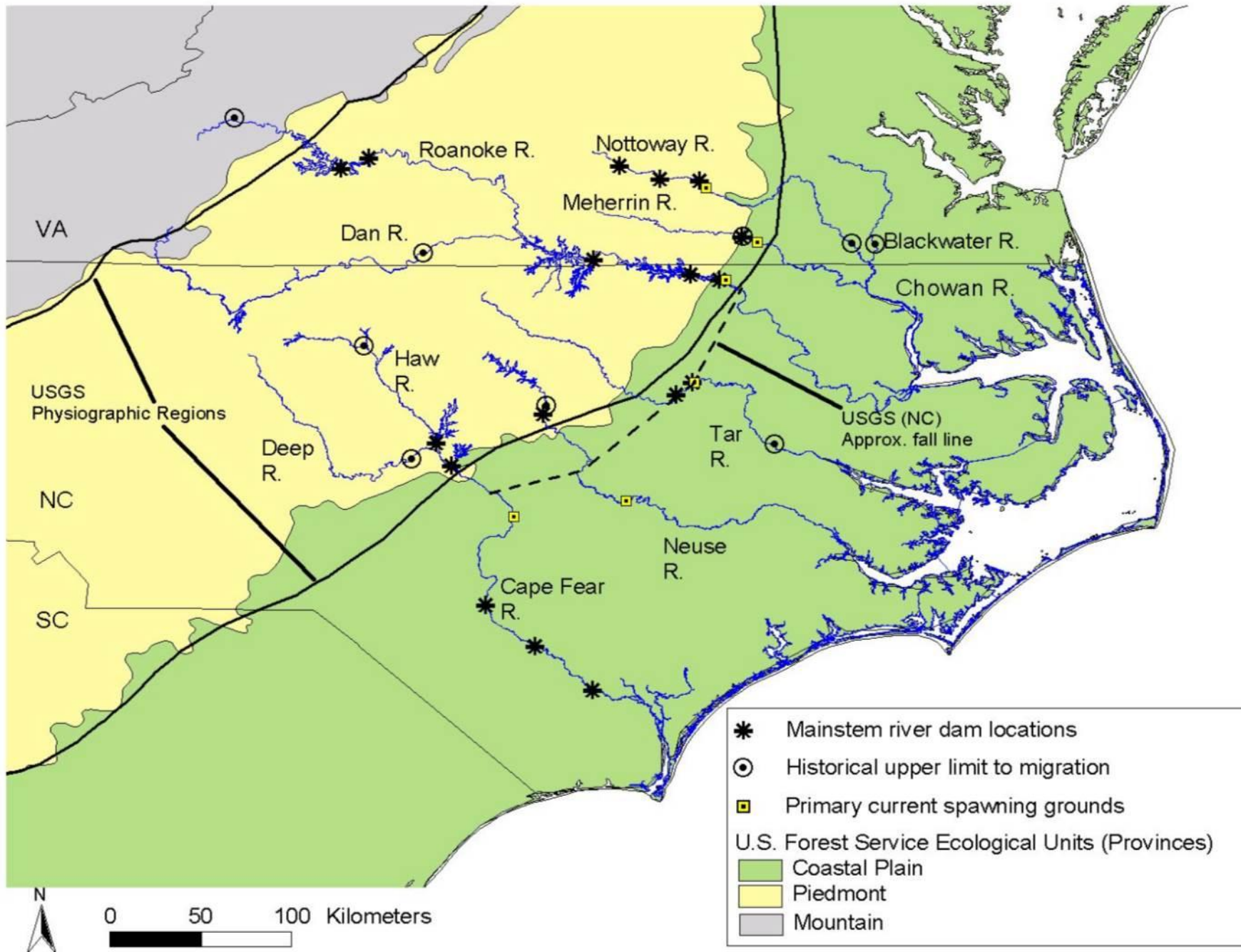
Thanks to our supporters

- Albemarle-Pamlico National Estuary Program
- NC Wildlife Resources Commission
- US Fish & Wildlife Service
- National Fish & Wildlife Foundation
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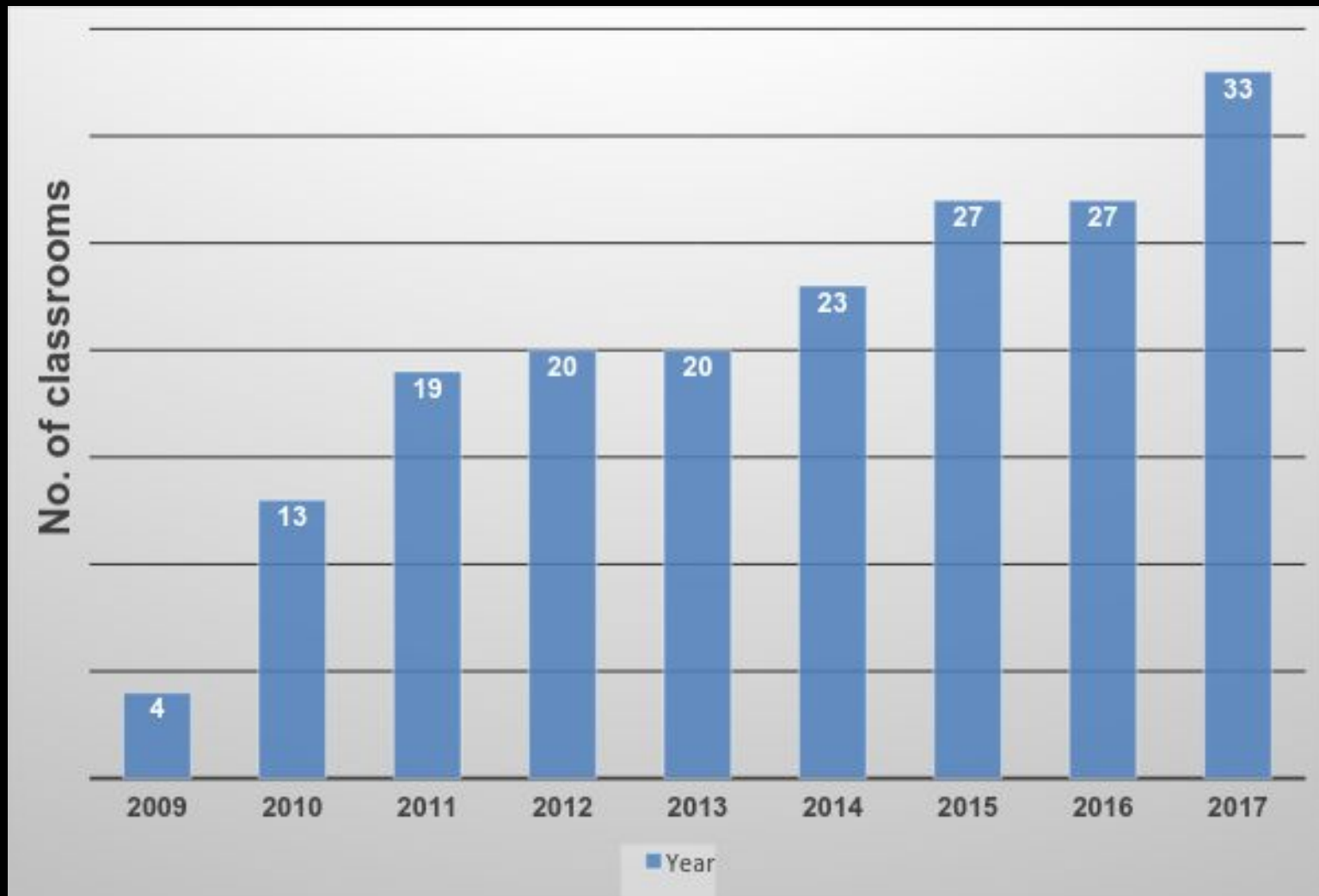


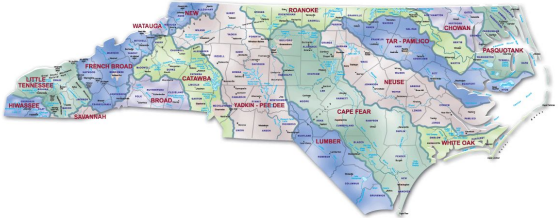
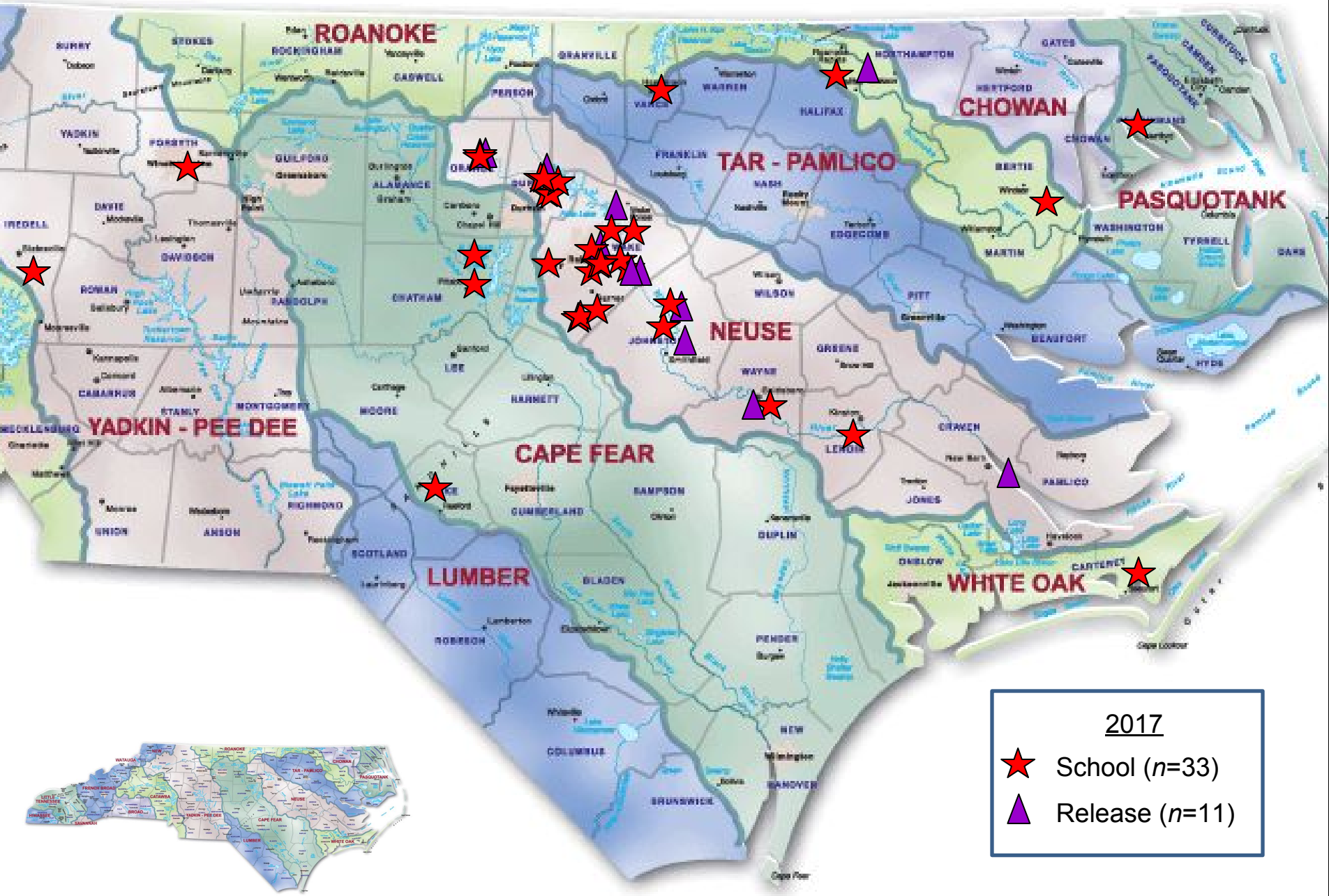






Program Growth





A group of students and adults are engaged in a river restoration project. They are gathered around a concrete weir structure in a stream. Some students are crouching by the water, while others are standing on the steps. There are green and orange plastic bins and a clipboard visible. The scene is outdoors with trees and foliage in the background.

Program Goals

- Teach North Carolina teachers and students about American shad natural history and ecology
- Connect teachers and students with their local river basin
- Provide the opportunity for students to participate in the American shad restoration effort
- Inspire a new generation of biologists and ecologists

Shad in the Classroom









1025
1025

1025

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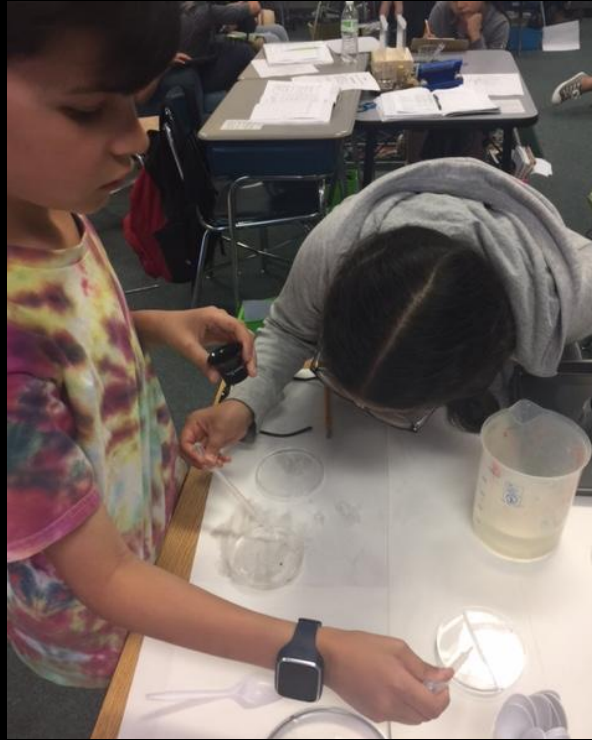
Delivering Shad







Student Involvement



Raising Shad



“This year my students were actually able to see a heart beating in one of the eggs, right before it hatched before our eyes. It was remarkable!”





WEST POINT ON THE END



- 1 ENTRANCE
- 2 PARKING
- 3 ROAD
- 4 WALKWAY
- 5 BRANCO HOUSE
- 6 END MILL
- 7 PICNIC SHELTER
- 7 REST ROOMS
- 8 BLS OF PHOTOGRAPHY
- 9 MERCURY
- 10 BLACKSMITH SHED
- 11 BRIDGE

ALL PETS
MUST BE
ON A LEASH



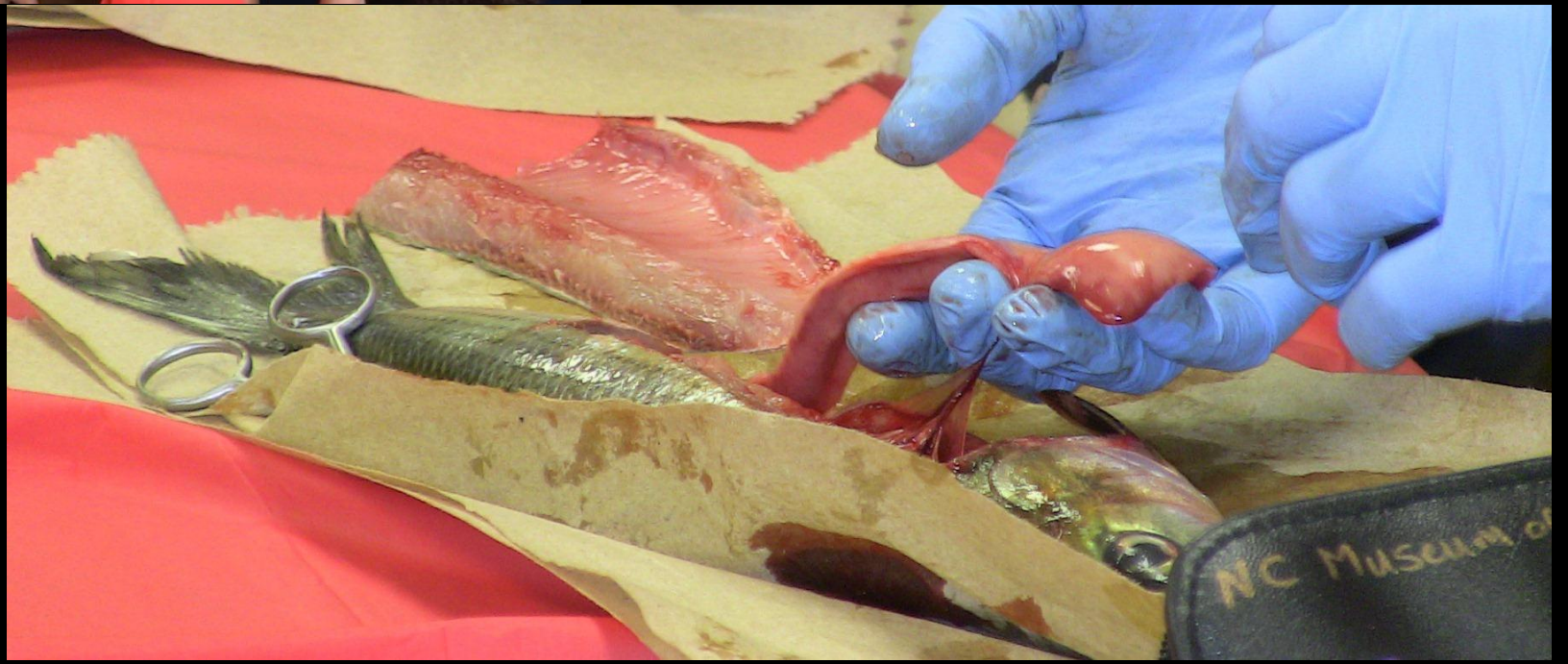
PLEASE CLEAN UP
AFTER YOUR PET

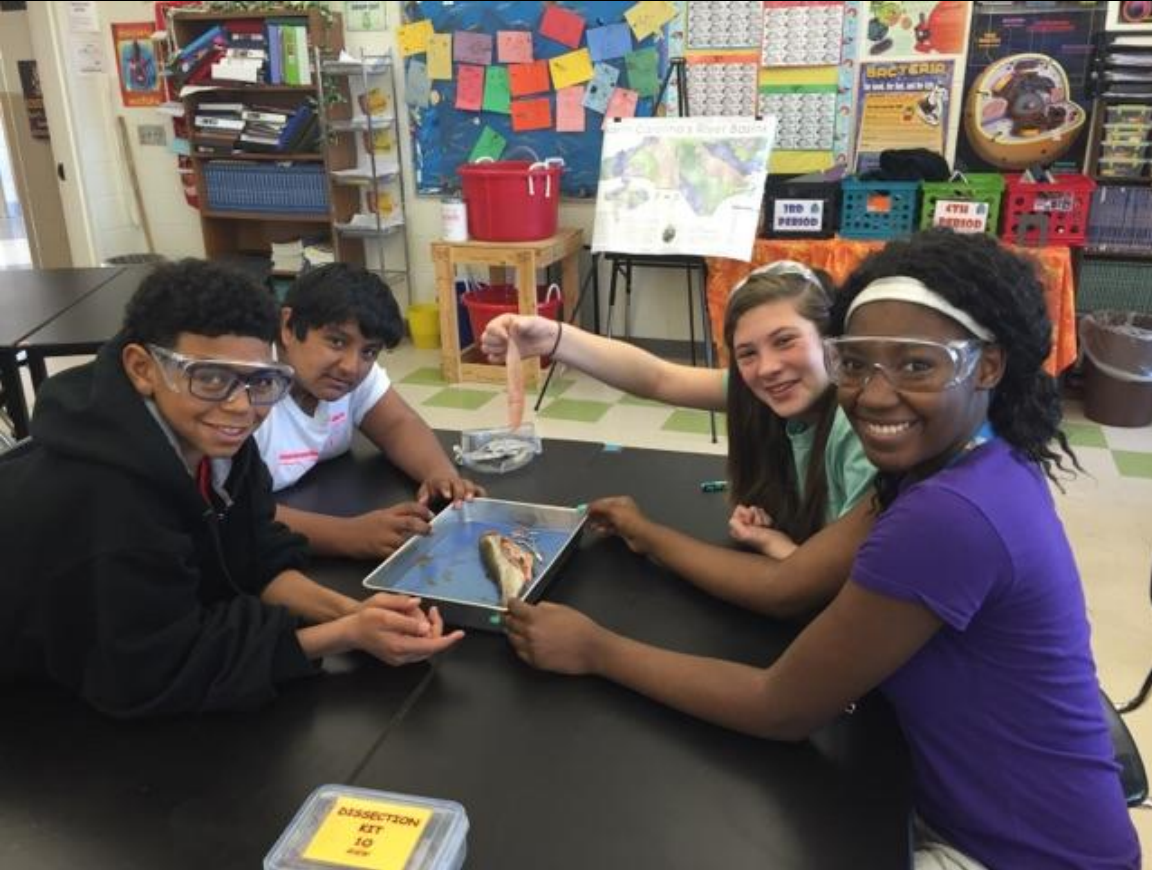
PROPERTY AND PROTECT FOR OWNER'S BENEFIT
RESERVED

PLEASE RECYCLE
YOUR TRASH

RECYCLE
YOUR TRASH



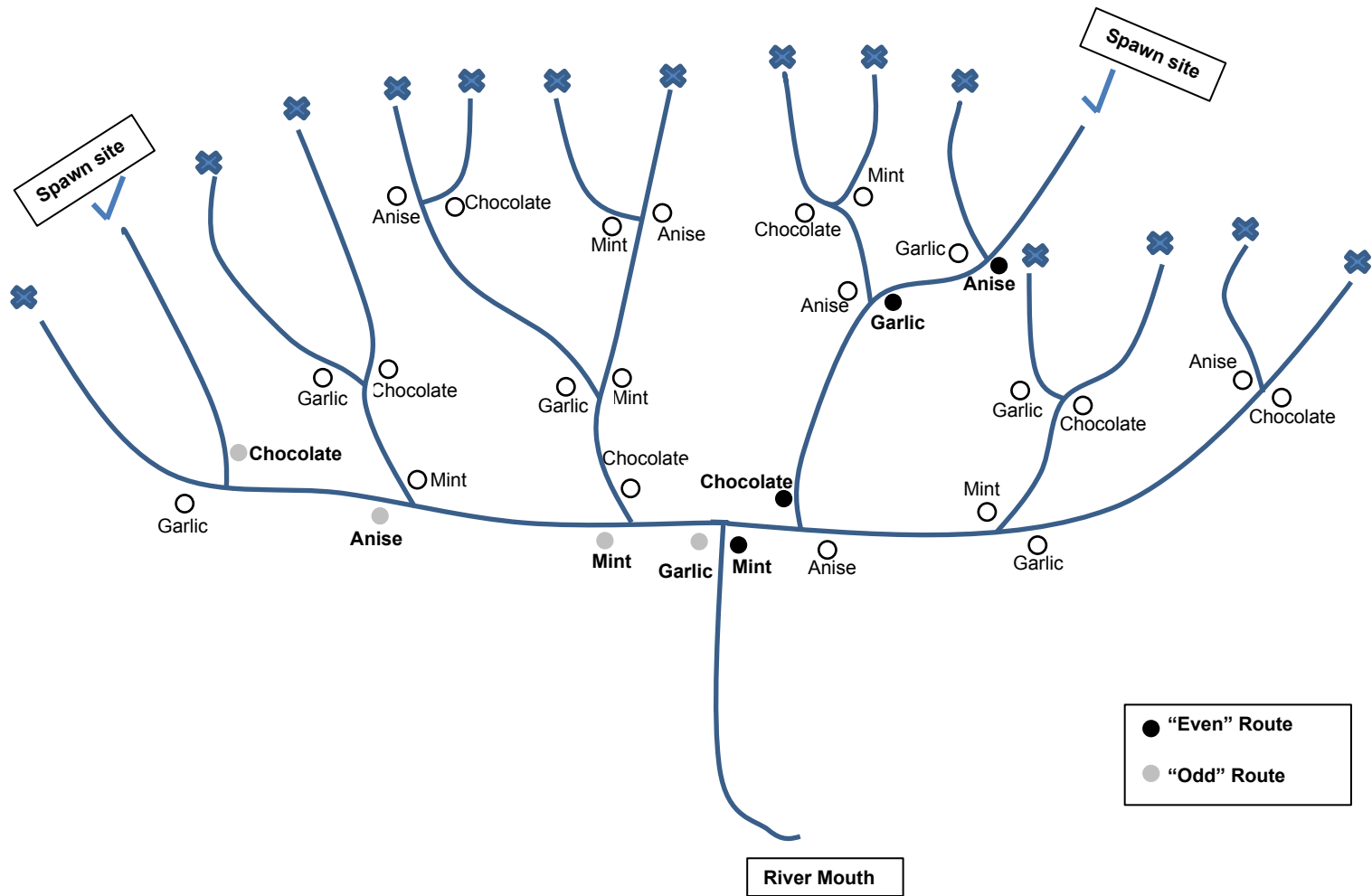




“The dissection really adds to the experience because kids get to see parts of the fish that they never really think about. Like the swim bladder – they never before wondered how a fish can go up and down and stay upright in the water. If they ever noticed that fish have different shapes of fins, they certainly never wondered why.”

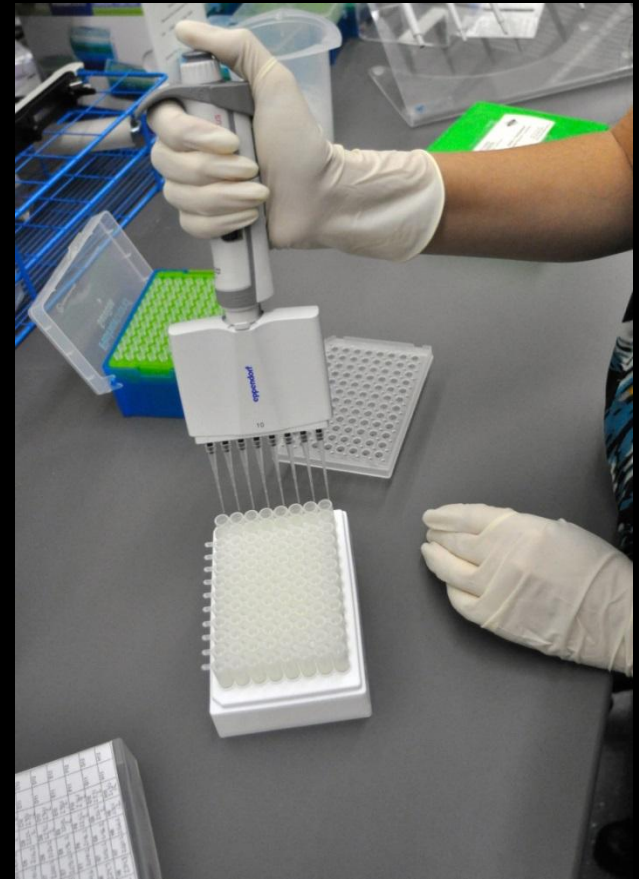


Shad Scents

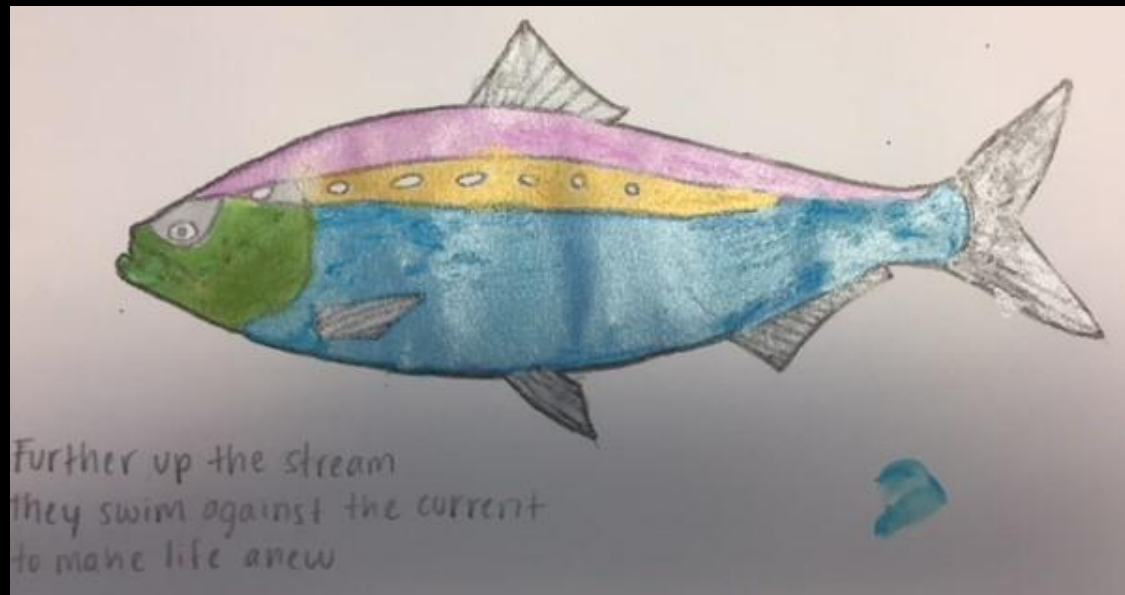




Who's Your Shaddy?



Shad Pipette Art



River Days - Geodome





Release Day



Release Day



“The students have been inspired by the classroom shad and seem to think more about how their actions impact the environment.”



“The learning experience cannot be replaced by any simulation or video.”







“Some of these students have never left their town before and many have never been to a river. The experience turned out to be very beneficial.”

Thanks Volunteers!



Teacher Led Extensions

NCSU
Aquaculture
Fish Barn Field
Trip



NCWRC Biologists at Shad Release



Neuse River Clean-Up with Neuse Riverkeepers

Journaling and
Nature
Exploration at
Release Site



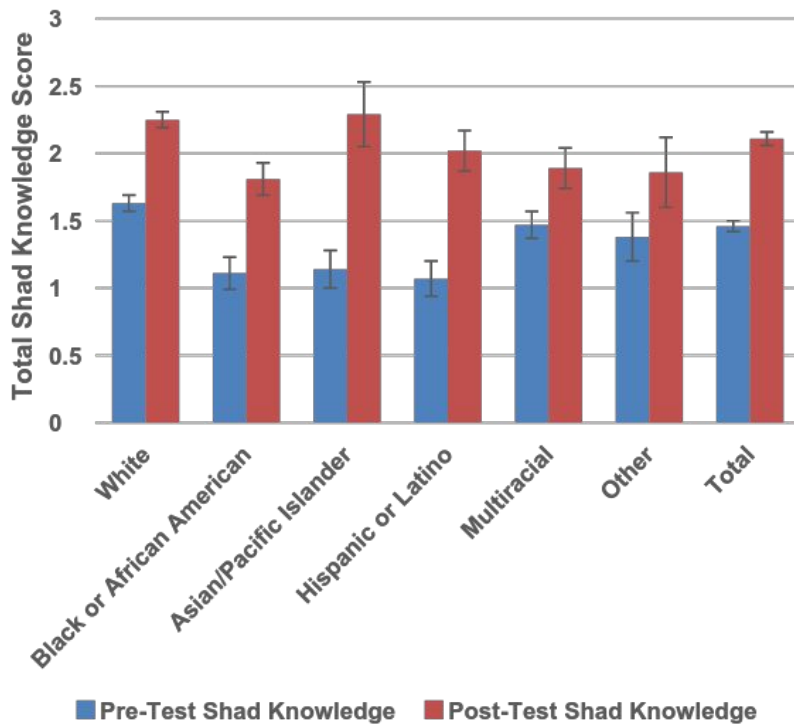
Shad in the Classroom

by the Numbers

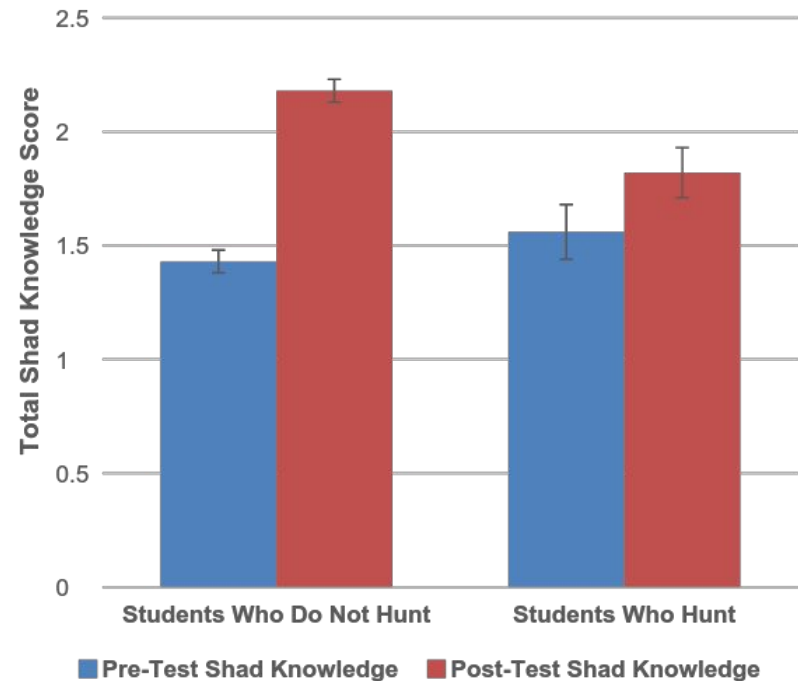
- 186 classrooms (2009-2017) – 11,713 students (2013-2017)
- 33 Classrooms
(29 Neuse, 4 Roanoke ~1,000 eggs each)
- 13 elementary, 14 middle, 6 high
- 48.3% shad survival (97% max)
- 100% positive evaluation of workshops and overall program

Shad Knowledge (2016)

Change in Shad Knowledge by Race



Change in Shad Knowledge by Students Who Do and Do Not Hunt



Dr. Nils Peterson, Dr. Kathryn Stevenson, and graduate student Kalysha Clark at the NCSU Human Dimensions of Conservation Biology Lab

Quote from a student's journal: "I loved releasing the shad into the river. I know that I helped make a difference in their population and I am happy for them!"





“Because when we teach kids about their small part in the bigger world, they become better people. And when we trust them to take care of tiny live things, they become better people. And better people take care of our environment because they realize that their actions affect more than just what’s right in front of them. Thank you for providing such a great experience for my students! I have many who would never engage in real-world, hands-on science without opportunities such as these.”