

# GERALD C. CORCORAN EDUCATION GRANT REPORT THE GEORGIA HIGHLANDS WETLAND AND STREAM EXPERIENCE

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## PROJECT SUMMARY

Northwest Georgia has been highlighted by the Georgia Department of Education as having a high number of economically disadvantaged communities. Many sources indicate that K–12 students in Northwest Georgia have lower access to books because of budget cuts across various school systems. With these economic disadvantages, it is unlikely that these schools would have the funds to provide ecological field trips that highlight native wildlife. Georgia Highlands College (GHC) is situated in the heart of Northwest Georgia and has created a no-cost opportunity for schools to visit the Floyd campus of Georgia Highlands College and learn about various aspects of ecological and geological features of their local environment through classroom and field activities. With the support of NANFA's Gerald C. Corcoran Education Grant we were able to purchase additional equipment that allowed our faculty to not only expand the educational experiences of the students but also to the general community that utilizes our nature preserve.

## GOALS AND OBJECTIVES

The Georgia Highlands Wetland Experience is an opportunity for students in local schools to spend a day with our volunteer faculty and staff and participate in a variety of hands-on activities that feature local wildlife and the geological principles of their local areas. The program includes outdoor activities led by our experienced scientists that includes collecting native fishes and exploring natural fish habitats. Students get an opportunity to observe the incredible diversity of fishes that can be found in Northwest Georgia. While most students are familiar with the game fishes, very few are aware that other species of fish exist, such as the darters, suckers, or other non-game species. Students are also surprised to learn that non-coral reef fish also possess such vibrant colors. Our main goal of this program is for students to discover a new perspective regarding the diverse ecosystem that can be found in their own backyard.

The GHC Wetlands Experience is a program that was implemented in Fall 2015. Local middle schools in Northwest Georgia visit the Floyd campus of Georgia Highlands College and spend a day collecting fishes, turtles, macroinvertebrates, and exploring the geological habitats in which those organisms are found. Each school brings about 60–100 students for a one day field trip. Each year we accommodate up to eight schools potentially impacting 800–1,000 students every year. Northwest Georgia is a low income region with approximately 60–70% of students requiring free or reduced meals, leaving very few resources for K–12 students to explore science outside of the classroom. This initiative allows these students, at no cost other than transportation, to participate in collecting native wildlife. This experience, in many cases, is the only exposure to native fishes that these students will have an opportunity to experience in their lifetime. With this in mind, we make a great effort to impress on students the importance of native species and the importance of their conservation.

When students arrive on campus they are broken up into groups that rotate on a 30-minute cycle with groups participating in macroinvertebrate identification, geological principles, and food webs. After a quick lunch, students rotate with outdoor groups that sample/identify fishes, macroinvertebrates, turtles, and perform wetland delineations around the lake and stream. The Bathyscopes, which were purchased with our NANFA grant money, are a great way for the students to get into the water and observe fish habitats and species diversity in their native environment. After completing the field activities, students leave campus with a new perspective of wetland and stream ecosystems and their ecological importance.

A portion of the grant money awarded was used to produce informational signs that are now posted around our 55-acre lake and adjacent stream. When students are heading to their station for the outdoor portion of the day, there is about a half-mile walk around the lake to the stream. We



Students seining. (Photo by Jeff Brown)



Students exploring the stream. (Photo by Jeff Brown)



Students using bathyscopes. (Photo by Jeff Brown)



Showing off a turtle. (Photo by Jeff Brown)



## COLORS OF THE STREAM





Speckled Darter (*Etheostoma stigmaticum*) can be found throughout this region of Georgia in cool flowing streams.



The Coosa Darter (*Etheostoma coosae*) is only found in the Coosa river drainage. If we don't learn to protect our streams beautiful species like this can disappear forever.



The Red Breasted Sunfish (*Lepomis auritus*) is the most common sunfish in this stream, with its bright red belly and metallic scales.



The Chain Pickerel (*Esox niger*) is a voracious predator but also has some beautiful patterns to them.



The rainbow Shiner (*Notropis chrysomus*) travels in big schools of bright red minnows with bright blue/green flakes on top.

One of the signs showing some of the fishes.

positioned these signs to serve as great stopping and talking points about invasive species, aquatic food webs, and fish diversity. The signs are permanent additions now to the lake and stream where they are also educating the hundreds of people from the general public that visit the lake each week.

### EVALUATION

We are so thrilled with how this project has evolved and changed since its beginning. The Bathyscopes we purchased were such a huge hit it was hard to get students away from the water to go home. We feel the signs are serving as a reminder to any number of people who exercise or fish around our campus that there is a beautiful ecosystem here in Northwest Georgia that is worth protecting thorough conservation efforts.

Feedback from the schools has been overwhelmingly positive. Schools from previous years are scheduling a year in advance to secure a spot the next year. Teachers and administrators from those schools tell us that the students absolutely love visiting the wetlands and stream and talk about the experience for the rest of the school year. To us, this is the best evidence of success. These young men and women are now excited about nature and fishes they didn't even know existed previously. I have heard from students (particularly after a very successful seine haul) that they want to be fisheries biologist, wildlife biologists, or even that they can't wait to go into the stream at their house and see what they can find.

We can't thank NANFA enough for the support and for the opportunity to improve our program and expose more students to nature in their own backyard!

### FINANCIAL REPORT

From the time we submitted the proposed budget to when we spent the money the prices for both signs and Bathyscopes increased. To account for this additional expense, we had to reduce the number of signs to three rather than four. Remaining funds were utilized to securely affix the signs

into the mounts and add a protective layer to limit vandalism and basic weather-related wear.

The following are a few student testimonials from their Wetlands Experience during September 2016:

*"I thought the field trip was amazing! All the classes and the walk were great! I thought the wetlands and lake were beautiful and I would definitely come back again."*

*"I LOVED the turtles and the seining was soooo much fun!!!!"*

*"This trip was AWESOME!!! Thank you so much for letting us come!"*

*"The best part was getting in the water and looking for stuff!!!"*

The following is a testimonial from the teacher regarding the Wetlands Experience during September 2016:

*"The wetland environmental experience was the true meaning of 'hands-on science!' The classes we participated in were completely relevant to our science standards and my 7th graders absolutely loved them! They felt like real scientists when they not only explored the wetlands, but also were able to collect specimens and use real microscopes! The faculty of GA Highlands was wonderful and very helpful with any questions we had. The trip ran like clockwork. It was a wonderful experience and I can't wait to bring my students back next year!"*




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