



Leaves OF Change



A bulletin of the Centers for Urban and Interface Forestry | Southern Research Station | USDA Forest Service

Issue 16, April 2014

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Kids in the Woods Highlight

Young Scientists Find Nature in Their Own Backyards

“THAT’S A tufted titmouse,” says one of **Sara Charbonnet’s** students, looking through his binoculars at one of the bird-feeding stations in Loblolly Woods Nature Park. The boy had been sitting quietly for ten minutes observing birds. Charbonnet, a 6th grade science teacher at Westwood Middle School in Gainesville, Florida, says that in the classroom the boy has trouble paying attention and staying on task, but that all changes when he is outside. “No behavior problems. No attitude problems. He considers himself a scientist now,” she says.

Changes in behavior have been one of the many pleasant surprises for Charbonnet since Westwood Middle School partnered with the US Forest Service – InterfaceSouth, the University of Florida, and several local partners to develop a “Kids in the Woods” project. “Some of the kids who were not really hooked on school have really engaged with this project,” she says.

The Kids in the Woods project with Westwood was initiated over a year and a half ago after InterfaceSouth’s

Annie Hermansen-Báez partnered with **Michael Andreu** from the University of Florida’s School of Forest Resources and Conservation (UFSFRC). Andreu and Hermansen-Báez brainstormed potential ideas and locations for a Kids in the Woods project with **Tony Oyenarte**, former director of Alachua County School District’s Camp Crystal Lake (CCL). Westwood seemed like the perfect fit for outdoor science learning activities due to its proximity to Loblolly Woods Nature Park. Soon after, Hermansen-Báez organized numerous meetings with local natural resource professionals, researchers, and Westwood science teachers to explore different ways of getting kids outdoors and learning about nature in their own backyards while also meeting the school’s required science standards. From these



Students observing birds at the “deep woods” site in Loblolly Woods Nature Park.



Annie Hermansen-Báez with Westwood Middle School sixth grade students and a fake cat that the students nicknamed “Oreo.”

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Westwood Middle School science teachers Sara Charbonnet (left), Christine Henderson (middle), and Elizabeth Burt (right) have observed many benefits for the students as a result of the Kids in the Woods project, including increased comfort with picking up bugs and wading in boots in the creek.

Student Highlight: Danielle Findlay

DANIELLE FINDLAY is a Master's student in the School of Forest Resources and Conservation at the University of Florida working closely with USFS InterfaceSouth on the Kids in the Woods project. She grew up in Miami, Florida and became interested in forestry after a summer internship with the US Forest Service as a wildland firefighter at the Ocala National Forest in Florida. She also spent summers at the Sequoia National Forest in California as a hydrologist technician and at the Ouachita National Forest in Arkansas as a biological technician.

Findlay's master's research involves examining whether 6th grade students at Westwood Middle School experience a change in appreciation and enthusiasm for their local environment through participation in the Kids in the Woods project. She hopes to understand student motivations, desires, and outcomes as a result of engaging in outdoor science learning activities. She is also exploring whether outdoor childhood experiences encourage the early development of pro-environmental behaviors.

After graduating, Findlay hopes to create a program that involves getting kids of all ages outside through camping, hiking, and other outdoor activities. "I don't want to create another summer camp, but rather something that lasts year round and caters to a diversity of people," Findlay said.

meetings, a project team was formed that consists of representatives from the USFS InterfaceSouth, the UFSFRC, Alachua County School District's Westwood Middle School and CCL; City of Gainesville Parks, Recreation and Cultural Affairs; and the Alachua County Environmental Protection Department.

Spurred on by a grant from the US Forest Service's More Kids in the Woods initiative, the school project kicked off in the fall of 2013. Some of the main objectives of the project are for students to become more

they were tired. Some had never been in the woods and were just uncomfortable," says **Elizabeth Burt**, another 6th grade science teacher at Westwood. "But, even on the first day out, they started picking up bugs, making observations, and asking questions. You could just see their confidence as scientists grow and also their general comfort level with working in the woods. They just grew through the whole process."

Hermansen-Báez said that introducing kids to the idea that nature is everywhere, even in urban areas, was

"You could just see their confidence as scientists grow and also their general comfort level with working in the woods."

— **ELIZABETH BURT**

aware and connected to their local environment and exposed to careers in science and natural resources, as well as increased teacher participation in providing outdoor learning experiences for students. Over three hundred sixth graders and three science teachers are participating in the project this school year.

The teachers at Westwood Middle School say that one of the initial challenges was simply that many kids did not have a lot of experience hiking and being in the woods. "On the first day, a lot of the students didn't want to be outside. They would complain that it was too hot, or that

an important part of the project. "We wanted them to know that nature isn't only found in some faraway place; it is right in their own backyards," she said.

Taylor Stein, a professor with the University of Florida's School of Forest Resources and Conservation, and **Danielle Findlay**, a graduate student, have been studying potential changes in the kids' enthusiasm toward nature as a result of the project. Stein and Findlay found that the kids in the project were very enthusiastic about nature even before the project started, but that they actually spend little time there. "Contrary to some conventional

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Taylor Stein and Danielle Findlay are studying potential changes in the student's enthusiasm toward nature as a result of the project.

wisdom, the kids in our study like nature. They are open to it," says Stein. "But some kids say they just have other priorities or that it is difficult to find natural areas."

While getting kids outside is one of

the primary goals in the project, it is also about learning science in a way that fits well within the existing curriculum. Consequently, the group designed projects that gave students first-hand experience with the scientific method—developing hypotheses, collecting data, doing analysis, and drawing conclusions.

In the first study in October 2013, the students observed birds and their behavior at platform feeders, looking to discover how factors such as location, time of day, and the presence of predators might affect how the birds feed. They set up three feeding sites—one on the edge of the school grounds, one on the edge of Loblolly Woods, and one at a "deep woods" site further into Loblolly Woods. They also set up fake predators (a realistic looking snake and cat) at two of the feeders

and left one feeder without a predator as a control to see if the presence of predators affected the feeding habits of birds. Each class collected data throughout the day, so the students were also able to analyze whether time of day influenced how different species fed.

"This was much better than studying bean plants growing in foam cups in the windowsill," joked **Christine Henderson**, another 6th grade science teacher participating in the Kids in the Woods project. "They were just so excited about the project. I loved seeing the looks on their faces on the days we were going outside. They wanted to go every day."

The project team is currently working with the students to study creek erosion, deposition, and water flow in Hogtown Creek, which runs through Loblolly Woods. The students are

Kids in the Woods Partnership

ANOTHER KEY BENEFIT of the Kids in the Woods project with Westwood Middle School has been the formation of a strong partnership between the USFS InterfaceSouth, Westwood Middle School, and several state, county, and city agencies that are participating in organizing the project. Project partners include the US Forest Service (Annie Hermansen-Báez, Wayne Zipperer), the University of Florida's School of Forest Resources and Conservation (Michael Andreu, Taylor Stein, Danielle Findlay, Hollie Greer, Tory Boyd, and numerous university student volunteers), Camp Crystal Lake (former director Tony Oyenarte and current director Scott Burton), the Gainesville Parks, Recreation and Cultural Affairs (Sally Wazny, Merald Clark, Lindsay McConnell, and Linda Demetroupolous), and the Alachua County Environmental Protection Department (ACEPD) (Jennifer Mitchell and Emily Rodriguez).

Jennifer Mitchell (formerly with ACEPD and now living and working in Kentucky), says that the developing network of federal, state, county, and city organizations working on environmental education will bring long-term benefits for the Gainesville area and beyond.

Building a strong partnership is about finding out how each

organization will benefit. Hermansen-Báez says that the Kids in the Woods team spent a lot of time before the project started making sure that the project was a "good fit" for all of the partners and that there was agreement on what the primary objectives would be.

Hermansen-Báez also said a key to the success of the program has been the relationships that have been built among the team's members. The Kids in the Woods team has celebrated project successes together outside of project class time. This has helped communication within the group and contributed to the overall success of the project.

She also added that another key element was the large number of volunteers, including university students and parents who were recruited to help with the outdoor studies. "It really helps to have additional people interacting with the students," she says. "This provided an opportunity for teachers to get know their students better and for the students to be exposed to natural resource and science professionals."

Learn more about our Kids in the Woods team at: <http://www.interfacesouth.org/projects/kids-in-the-woods/connecting-kids/kids-in-the-woods-team>



From left: Michael Andreu, Tory Boyd (InterfaceSouth intern), Danielle Findlay, Hollie Greer, Wayne Zipperer, Annie Hermansen-Báez, and Kelly Hodoval (volunteer) pose during the creek study.

Kids in the Woods Highlight: Young Scientists Find Nature in Their Own Backyards



A pair of tufted titmice share a bird feeder with a squirrel.



Students observing birds on the school grounds.



The fake snake on a feeder located on the edge of Loblolly Woods.

measuring erosion by creating a stream profile, which can then be compared to measurements taken later in the year to determine how much erosion has occurred. “Some of the kids were scared to go in the water before this study began, but now they see the creek as a place of enjoyment and are excited to learn more about it,” commented **Wayne Zipperer**, SRS-4952 researcher and the lead for the creek study.

The most challenging part of the creek study was fitting each student in boots of the correct size. But it was well worth the effort. “It was so fun to see the students’ excitement as they changed into their ‘scientist gear.’ Sometimes it is small details, like putting on rubber boots for wading in a creek, that later on in adulthood spark treasured childhood memories of outdoor experiences,” says **Hollie Greer**, a Kids

in the Woods project specialist working jointly with USFS InterfaceSouth and UFSFRC.

In April, Andreu will lead a study about tree species diversity and see if connections can be made to patterns observed in the bird and creek erosion studies. Students will also learn about the benefits of trees and tree identification.

Project partners are also participating in science fairs and career days and organizing a professional development workshop for the teachers. Additionally, Camp Crystal Lake is organizing

a school camp out, transforming the school’s large grassy field into a campground for the night.

That may sound like some pretty serious science for 6th graders, but Andreu says that he has been impressed by the students’ dedication to the project. “One day I went down to the site while the students were supposed to be out doing observations. I figured that it wouldn’t be too hard to find 20 kids. But, I walked down the trails and listened and didn’t hear anything. I left, thinking they had cancelled for some reason. A few minutes later I saw

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—WAYNE ZIPPERER



Students taking measurements of Hogtown Creek.



Transects were set up at various points along Hogtown Creek.



Wayne Zipperer leads a discussion about creek erosion with students from one of Mrs. Burt’s classes.

“Every kid benefits from being outside. And I think we are learning that some kids even learn more while experiencing nature.” —ANNIE HERMANSEN-BÁEZ

the class marching out of the woods. They had been there the entire time but had been so quiet and focused on observations that I never heard them.”

Sally Wazny is the coordinator of Environmental and Cultural History Programs for the City of Gainesville Parks, Recreation and Cultural Affairs and was also the lead for the bird observation study. Wazny is looking to the long-term effects of these types of science and environmental education programs and hopes that the program can be expanded beyond Westwood Middle School to other middle schools in the area.

“A connection to the environment is really important. Losing that connection has contributed to many negative health consequences in our society, such as ADHD, diabetes, and depression. My hope is that by fostering an appreciation of the environment in the younger generation, they will not only have long-term health benefits, but will also be more motivated to protect



Sally Wazny observes birds with some students.

the environment when they get older,” says Wazny.

The project is only in its first year, but the partners are already thinking ahead and looking for ways to improve the program for the second year of the project and beyond and to share the lessons they have learned with others who are thinking about starting similar programs in their schools and communities. Hermansen-Báez believes that the benefits of the program are clear. “Every kid benefits from being outside,” says Hermansen-Báez. “And I

think we are learning that some kids even learn more while experiencing nature.”

For more information about this project contact: Annie Hermansen-Báez, ahermansen@fs.fed.us, 352-376-3271.

To learn more about the US Forest Service’s More Kids in the Woods initiative visit: www.fs.fed.us/news/2013/releases/05/more-kids-outdoors.shtml and www.fs.usda.gov/main/conservationeducation/about/education-themes/kids-in-woods

Contributors: Josh McDaniel, consultant to the US Forest Service, and Annie Hermansen-Báez.

Photos by: Hollie Greer, Tory Boyd, and Annie Hermansen-Báez.

Related Resources

Kids in the Woods Updates

We now have a new venue for providing updates about our Kids in the Woods and green schools activities. Visit the site at: www.kidsinwoods-interfacesouth.org

Additionally, the InterfaceSouth website has a new section dedicated to providing resources and ideas for increasing the amount of time kids spend outdoors. Visit the website at: www.interfacesouth.org/projects/kids-in-the-woods



In Our Next Issue

We will feature the second phase of SRS-4952 collaborative research on social vulnerability and climate change. Researchers went into the field and spoke with groups that are vulnerable to climate change about their views on climate change and what, if anything, should be done to mitigate its effects.

Upcoming Events

Date	Description	Location	Contact
April 21–22 or May 5–6, 2014	ISA Certified Arborists Preparation Course	Clermont, Kentucky	Laura Lambert, lauraolambert@mac.com
May 14, 2014	Green Infrastructure Community of Practice	Atlanta, Georgia	https://sites.google.com/site/federalgicop/home
May 18–22, 2014	Association of Natural Resource Extension Professionals (ANREP) Conference	Sacramento, California	http://ucanr.edu/ANREP
June 29 – July 1, 2014	Children Learning with Nature 2014 Training Institute	Santa Cruz, California	http://childlearnnature.com/



This issue and past issues can be found online at:
www.interfacesouth.org/products/leaves

Note: InterfaceSouth and Urban Forestry South are the science delivery centers associated with the USFS Southern Research Station work unit, SRS-4952: Integrating Human and Natural Systems in Urban and Urbanizing Environments (<http://www.srs.fs.usda.gov/humanandnaturalsystems>), and the USFS Southern Region. They are collectively called the Centers for Urban and Interface Forestry. InterfaceSouth focuses on interface forestry issues while Urban Forestry South focuses on urban forestry issues.