

UNG | UNIVERSITY of NORTH GEORGIA™

LEWIS F. ROGERS INSTITUTE FOR ENVIRONMENTAL AND SPATIAL ANALYSIS

Environmental Education Workshop 6

UNG –Gainesville Campus Tumbling Creek, Hall County, Georgia

February 29, 2020

Nesbit building, room 2201



Grant # 00D882218

Welcome to the Environmental Education Workshop.

We are thrilled that you have decided to attend this workshop! At the workshop, our goal is that you learn more about north Georgia's forests, soils, water, and environment. With this information we hope that our communities will become responsible stewards of the air, water, and soils in north Georgia. We hope the workshop is both enjoyable and educational. Finally, we encourage you to share the information learned today with your friends, family, and neighbors to have the largest positive impact on our communities to keep our air, soils, and water clean and safe. If you have any questions, please contact Dr. Allison Bailey or Dr. Jamie Mitchem. Enjoy the workshop!



Image by Jill Wellington from Pixabay at www.pixabay.com.

Environmental Education Project

The project objectives focus on comprehensive knowledge, application, technology, and environmental science skills on the environmental issues of invasive insect species, vegetation management, impairment of waterways due to sediment, soil and water quality issues affecting native forest ecosystems in urban, suburban, or rural communities, as all of these community types have native forest ecosystems in Georgia. One of the major issues in vegetation management is how to control invasive plant species without the excessive use of pesticides. Most citizens cannot identify native species in the Foothills landscape, nor proper methods for treatment; and therefore, are unable to act as good stewards of native forests/trees in Georgia rural, suburban, or urban landscapes. Learning activities on native/invasive plant identification and best treatment practices will mitigate this lack of knowledge.

About the Grant Team



Dr. Allison Bailey (Left) & Dr. Jamie Mitchem (Right)

Dr. Allison J. Bailey

Associate Professor of Geography & Environmental Sustainability Studies, IESA

Dr. Bailey's teaching emphasizes environmental communication, human interaction with nature, and conducts research on forest health, tree canopy, wildlife habitat, and public green spaces.

Dr. Jamie Mitchem

Professor of Geography/GIS, IESA

Dr. Mitchem's teaching and research have been in the areas of hazards geography, Geographic Information Science (GIS), meteorology, storm chasing (tornadoes), climatology, climate change, social vulnerability, and emergency management.

Student GIS Technician:

Jacob Lougee, Environmental Spatial Analysis Major

Student Workers:

Natalie Crews, Biology Major

Aaron Carney, Environmental Spatial Analysis Major

Jennifer McCollum, Environmental Spatial Analysis Major

If you need this document in another format, please contact Dr. Allison Bailey at allison.bailey@ung.edu

Collaborating Partners

Sustaining Georgia's green legacy by partnering with individuals, organizations, and communities in raising awareness toward improving and maintaining Georgia's community forests.



Promote sustainable management that leads to naturally diverse and healthy forests and watersheds within the more than 867,510 acres of national forest lands in Georgia; to engage and educate the public to join in this effort; and to promote preservation of this legacy for future generations.

The Georgia Forestry Commission (GFC) is a dynamic state agency responsible for providing leadership, service and education in the protection and conservation of Georgia's forest resources



**GEORGIA
FORESTRY
COMMISSION**

protecting and conserving Georgia's forests



Chattahoochee Riverkeeper is an environmental advocacy organization dedicated solely to protecting and restoring the Chattahoochee River Basin.

Keeping Watch Over Our Waters Since 1994

The Georgia Master Gardener Association, Inc. (GMGA) has as its primary purpose the support of and advocacy for master gardeners and master gardener organizations throughout the state. We work collaboratively with the University of Georgia (UGA) Extension to provide unbiased, research-based horticultural information to the public through our master gardener extension volunteers.



Lumpkin Coalition is a diverse group of wonderful folks -- young and not-so-young, working and retired, Georgia natives and transplants from all over the country -- united by a common commitment to preserving and enhancing the special quality of life here in north Georgia.

The Hall County Master Gardener Extension volunteers help the University of Georgia Cooperative Extension staff convey research-based information about gardening, horticulture and best practices to the public.



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Today's Agenda

Time	Speaker	Topic	Location
9:30	Dr. Bailey	Welcome Message	Nesbitt 2201
10:00	Marie Dunkle	Georgia Mountain Treasures	Nesbitt 2201
11:00	Art History Professor	Environmental Art Influences Perceptions of Nature	Nesbitt 2201
12:00	Dr. Mook	Student presentation about Turtle artwork	Nesbitt 2201
12:30	Lunch		
1:00	Dr. Mitchem	Weather and Climate of North Georgia	Nesbitt 2201
2:00	Dr. Bailey	Streams & Trails of Tumbling Creek	Nesbitt 2201
2:30	Dr. Joshi	Nature Drawing	Nesbitt 2201
3:30		Tumbling Creek Trail Walk	

***Nesbitt 2201** is in Building 17 on the campus map

***Tumbling Creek** is located near the Police building (point 14) on the campus map



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Campus Map

UNIVERSITY of NORTH GEORGIA
GAINESVILLE CAMPUS
Campus Buildings

1 Administration B3
 • Academic Affairs • Faculty Records
 • Bursar Office • Honors Programs
 • Complete College Georgia • Human Resources
 • Comptroller Office • University Relations
 • Vice President

2 Dunlap-Mathis B3
 • Art
 • Center for Teacher, Learning, and Leadership (CTLL)
 • Director for Veteran and Adult Learners
 • IT
 • Military Resource Center
 • Student Disability Services

3 Student Center B3
 • Admissions • Imaging Center
 • Adult Learners • Registrars Office
 • Resource Center • Robinson Ballroom
 • Book Store • Student Affairs
 • Card Services • Student Involvement
 • Career Services • Student Money Management
 • Financial Aid • The Nest Student Printing Services
 • Food Services
 • Game Room & Cybercafe

4 Music B2
 • Classrooms • Faculty Offices

5 Hugh Mills Physical A2
 • Basketball Gym • Pool
 • Education Center • Weight Room

6 Loyd Strickland Academic B3
 • Classrooms • Some Faculty Offices
 • Computer Labs

7 John Harrison Hosch Library A3

8 Plant Operations B1
8a Facilities & Plant Ops Storage B1

9 Field House A2

10 Professional Continuing Education /Performing Arts B4
 • Ed Cabell Theatre
 • Professional & Continuing Education
 • Roy Moore Art Gallery

11 Drama Storage C4

12 J. Foster Watkins Academic B3
 • ACTT Center • Learning Support

13 Science, Engineering, and Technology C3

14 University Police C1

16 Oakwood Building C4
 • Faculty and Staff Offices

17 Martha T. Nesbitt Academic A2
 • Classrooms • Foreign Language Lab
 • Coffee Shop • Writing Center
 • Computer Lab
 • ESL Lab

18 Gainesville Campus Testing Center C5

Visit go.ung.edu/map for more information.

If you need this document in an alternate format for accessibility purposes please contact webteam@ung.edu.
Updated May 16, 2018

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Georgia Mountain Treasures



Photo by Jess Riddle. Retrieved from: www.gafw.org

An important part of Georgia Forest Watch's mission is to protect Georgia's last remaining wildlands – pockets of forested land that are wild and without roads, and home to some of the most remarkable biodiversity in the world. These wild places offer unspoiled scenic beauty and an escape from our fast-paced urban lives. For many of us, there is no greater joy than to hike deep into the woods where the sights, smells and sounds are only those of the forest. Some of these wildlands in the Chattahoochee National Forest are permanently protected within the National Wilderness Preservation System (117,837 acres), and almost 65,000 acres are protected as Inventoried Roadless Areas. Unfortunately, many important wildland tracts in the Chattahoochee National Forest remain that are not adequately protected (approximately 300,000 acres).

One essential component of ForestWatch's preparation for the plan revision is to update the report, "Georgia's Mountain Treasures: The Unprotected Wildlands of the Chattahoochee National Forest," compiled by The Wilderness Society in 1995, with the help of allied organizations, including ForestWatch. The original publication was part of a Mountain Treasures series by The Wilderness Society in the 1990's that identified and described the unprotected wildlands in each of the six national forests in the Southern Appalachians. The Mountain Treasures series emerged at critical times in the forest planning processes for these national forests. The purpose was very specific: to give the public accurate, detailed information about wildlands in these forests so citizens may speak effectively on behalf of these special places.

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Environmental Art Influences Perceptions of Nature

Ansel Adams



Ansel Adams Classic Image: Tetons and Snake River. Image retrieved from:
<http://anseladams.com/ansel-adams-classic-images/>.

Ansel Adams is famous for his black and white images. He was a landscape photographer and environmentalist from 1902 to 1894. His life-long advocacy for environmental conservation helped him expand the National Park system. He was awarded the Presidential Medal of Freedom in 1980.



Andy Goldsworthy



Andy Goldsworthy: Artist that collaborates with Nature. Image retrieved from: www.sarahbeekmans.com



Andy Goldsworthy is a sculpture, photographer, and an environmentalist. He uses natural materials to produce sculptures and art of nature. Some say he is the founder of modern rock balance.



Participate with us in creating your own nature art during your trail walk. Upload a picture to our photo gallery at the above QR code.

Using Box Turtles to Inspire Art



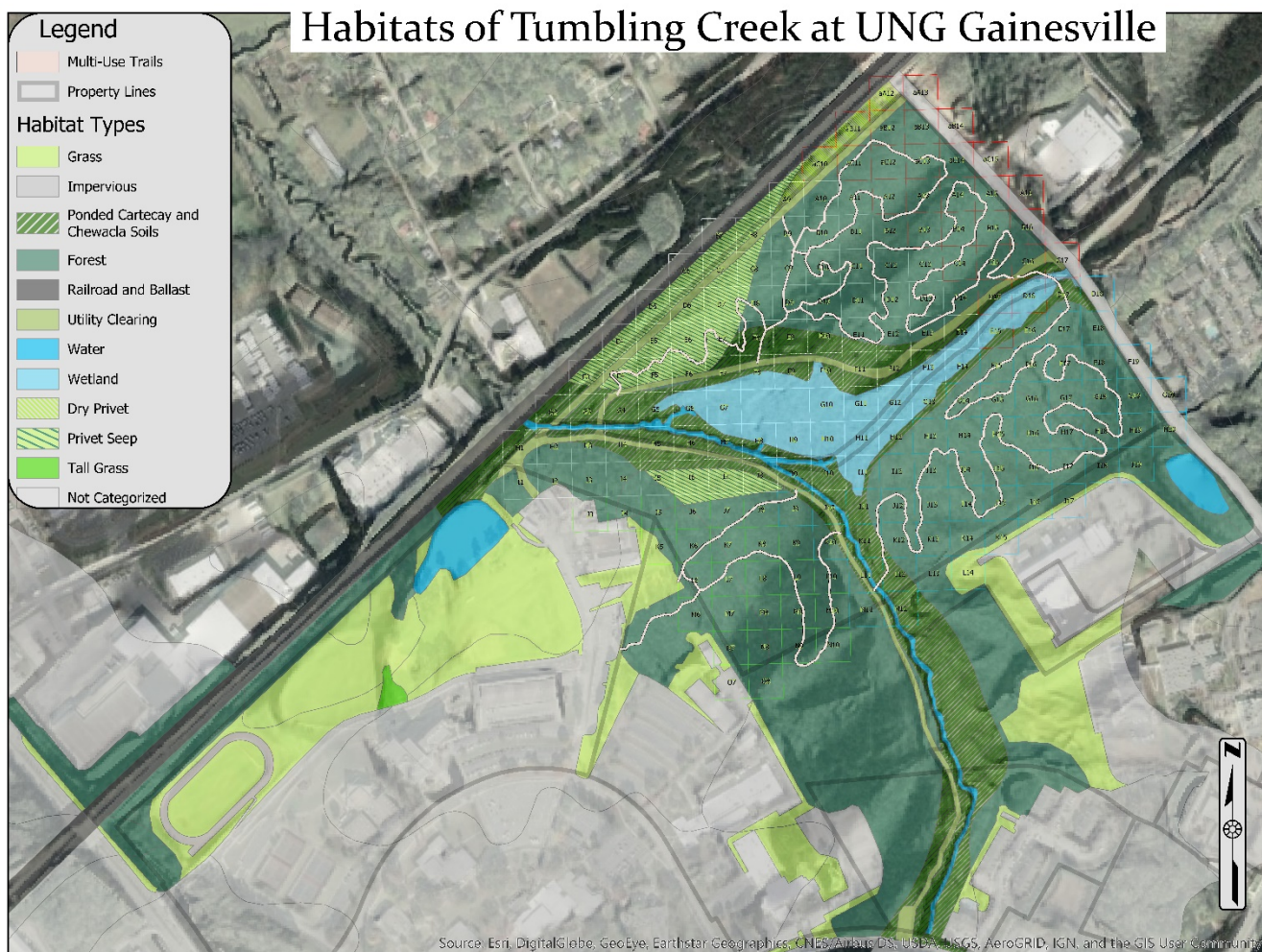
Students Aida Alarcon and Kati Hornick were inspired by the eastern box turtle research conducted by Dr. Jennifer Mook and Dr. Natalie Hyslop, associate professors of biology at UNG. Mook and Hyslop tracked the turtles and collected data about their movements and habitats. Alarcon and Hornick combined art and science to create a collaborative project that includes large-scale paintings and sculptures. Alarcon, a student majoring in digital art, painted a large-scale version of a turtle's eye and body. Hornick, a student majoring in studio art, sculpted ceramic turtles.



Eastern box turtles can be found in the Tumbling Creek Woods located on the UNG campus. This is a perfect habitat for the box turtle because it thrives in moist forested areas, wet meadows, and open fields.



Streams & Trails of Tumbling Creek



Map created by: Jacob Lougee in consultation with: Dr. Natalie Hyslop (Biology) & Dr. Allison Bailey (IESA). Funded by : EPA Grant # 00D882218

Tumbling Creek Research and Recreation Area has been used by UNG faculty and students for years to conduct environmental and ecological research. Their love of nature has been shared with the community hikers and cyclists who explore the trails on a regular basis. Flowing across this property are Tumbling Creek and Ballus Creek, which flow into the watershed feeding the Chattahoochee River. The hydrology, impacted by beaver habitat and other aquatic species, is a federally recognized wetland. All of the projects discussed in today's workshop are made possible by the open access to this property.

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Weather and Climate of North Georgia



Trees affect our climate, and therefore our weather, in three primary ways: they lower temperatures, reduce energy usage and reduce or remove air pollutants. Each part of the tree contributes to climate control, from leaves to roots. The outdoor air conditioning provided by trees reduces the energy used inside your home or office. Shade provided by strategically planted deciduous trees cools buildings during the

warm months, allows the sun's warming rays to shine through its branches in the winter and also protects buildings from cold winds. With some planning, urban trees can help minimize the heat island effect that saddles many cities.

UNG has data collecting weather stations at each of the five campuses. The study of weather provides an excellent foundation for science, technology, engineering and math (STEM) education. The system provides an array of public safety features including lightning alerts, severe weather alerts, temperature forecasts, environmental cameras and agricultural monitoring. It also archives past weather and gives weather forecasts for the coming days. The data can be used to teach about atmospheric pressure, windspeed and direction, and cloud types. The system creates cloud movies, 24-hour time-lapse videos that show the sky conditions for an entire day, in less than a minute. The videos are linked with graphs of temperature, pressure, and dew point.



The UNG Weather STEM Station

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LEWIS F. ROGERS INSTITUTE FOR ENVIRONMENTAL AND SPATIAL ANALYSIS

Established in 2001, the Lewis F. Rogers Institute for Environmental and Spatial Analysis (IESA) on UNG's Gainesville Campus promotes environmental education through the use of advanced technology, interdisciplinary instruction, collaborative learning, and community service. Graduates from our degree and certificate programs have found employment at impressive rates and many go on to reputable graduate schools throughout the United States. Our students follow a curriculum built around a solid core of geospatial science and technology and related courses in areas of their interest, such as environmental science, environmental studies, engineering, education, urban planning and community development, environmental health, and the geosciences. Students find the flexibility to follow their passions, while earning valuable, work-ready training in applied geospatial techniques.



Quick Contacts:

IESA iesa@ung.edu 678-717-3883

Dr. Jamie Mitchem jamie.mitchem@ung.edu 678-717-3927

Dr. Allison J. Bailey allison.bailey@ung.edu 678-717-2276

If you need this document in another format, please contact Dr. Allison Bailey at allison.bailey@ung.edu

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