



Controlled burns: GCSU students learn best practices for healthy forests

Since the dawn of time, people have feared, fought and sought to control fire.

Last summer, fires burned in Oregon, Washington, Montana, Nevada, Arizona and New Mexico. They caused 5,000 people to flee the Canadian town of Jasper.

Even before summer began—almost 90,000 acres of Californian grassland burned—15 times more than a year ago. And Russia's far east saw a jaw-dropping 12.8 million acres of forest scorched.

Fortunately, there are few wildfires in Georgia.

Students who took Dr. Bruce Snyder's fire-ecology class last semester know why. The Georgia College & State University bi-yearly biology course teaches the importance of prescribed fires to prevent unnecessary destruction.

"Because we burn intentionally, we haven't had the kind of out-of-control wildfires you see in other parts of the world. Without controlled fire," Snyder said, "it's going to literally all go up in smoke."

This spring was Snyder's third time teaching fire ecology. He talks about America's long history of fire suppression that started in the 1920s. When forests thicken, one spark can cause huge fires, wiping out plant species and changing entire ecosystems.

Snyder trained to become a wildland firefighter. He works with the Georgia Department of Natural Resources and U.S. Forest Service to find opportunities for students to study the renewing effects of fire—in a state known for its forest management.

In 2017, according to Statista, Georgia conducted 83,588 planned fires on more than 1.2 million acres—more than any state except Florida.

Snyder took students on two long treks through Oconee National Forest in Putnam County to look for evidence of previous fire, see woodland growth before a controlled burn and return to understand the aftereffects.

Students learned how woods grow heavy with inflammable materials. When air is dry instead of humid, it only takes a lightning strike to ignite.



Dr. Bruce Snyder above with class. Below: Molly Hooks, '22, who works with the U.S. Forest Service as a silviculture technician.



Controlled burnings get rid of these fuels—smaller trees, fallen logs, sticks, piles of pine straw and leaf litter. This allows more sunlight. Remaining ash is rich in fertilizing nutrients, like nitrogen and phosphorus.

"Fire is nature's way of doing something important," Snyder said. "Our plant systems create fuel and, at some point without prescribed burning, it's going to have the right ingredients—oxygen and the right moisture levels—to ignite and become destructive."

"Students learn what fire is and how it affects the environment and different species that interact with that environment," he said.

On field trips, students took notes, sketched evidence of overgrowth and measured impact on wildlife. They noted weather, considered the role of wind and predicted how fire would move through the area.

Not a bad way to spend a class.

As a biology major, recent graduate Amber Stubbs was curious how fire impacts animal habitats. She wants to be a herpetologist and was fascinated to learn how snakes move underground during prescribed fires, while birds fly to safety.

"One of the things that really attracted me to Georgia College," Stubbs said, "was when I heard professors there were doing research and a lot of it was hands on, out in the field, and students could find pretty interesting things to do original research on, like herpetology."

"That really gives you a leg up—not only to get the coursework, but to get actual field experience to further your career," she said. "That's a big, big plus at Georgia College."

Other seniors created prescribed fire plans as capstone projects. They collected evidence of past fires, noted burn scars and determined how hot flames got. They researched site histories, studied maps and considered wind direction as part of forest management.

A big surprise for students was how quickly plants rejuvenate. It was a lesson on the resiliency of life.

"Most people think of fire as destructive when, in reality," Snyder said. "We can't stop fire. But it can be used as a tool. Instead of destruction, we see rebirth."

Internship takes environmental science major to geothermal wonderland

Most internships are pretty cool. They give students hands-on experience and a chance to see if a career field really suits them.

But John Hollis' three-part internship was much more than that.

It was an adventure. A real expedition—trekking past hot springs; vast fields of spikey purple flowers, forests of towering pines, barren ravines, rocky-cliff beaches and spectacular waterfalls.

He even visited the volcanic eruption site that caused the town of Grindavik to be evacuated in November 2023.

Grindavik, Iceland, that is.

Hollis is a junior environmental science major from Flowery Branch, Georgia. He transferred to Georgia College & State University in 2022 because he heard about the university's certificate program in sustainability and opportunities in recycling.

That led him to search environmental internships. He found Global Treks & Adventures LLC based in Michigan, which offers travel expedi-



Junior John Hollis in Iceland.

tions to Iceland and Spain for environmental research and anthropology.

During the three-month internship, Hollis studied prepared topics, toured the Reykjanes Peninsula and wrote a travel article for publication. His group visited the Reykjadalur Hot Spring

Thermal River; Thingvellir National Park, where two tectonic plates are narrowly separated by the Atlantic Ocean; Mt. Helgafel in Heimae, where the god Thor was once thought to reside; and the geothermal hot springs at Seltún.

Hollis saw towering Norway Spruce and Scots Pines in Heidmörk Forest; the stunning mountain range of Esjan; and the seaside town of Keflavik.

The group lodged at the Sudurnes Science and Learning Center in the coastal town of Sandgerði, where fish and chips can always be found on the menu.

Georgia College helped Hollis "immensely" to prepare for this adventure.

"It was a quick expedition but full of learning and research," Hollis said. "I helped collect GPS data, so we could publish accurate trail information and create maps."

"I was on the trails pretty much the whole time, collecting information," he added. "I couldn't ask for anything more."

Did you know?

Georgia College & State University's Department of Government and Sociology just wrapped up its weeklong program, "In Defense of Democracy."

Topics included the perils of polarized politics for election workers and threat of disinformation. A talk also explored whether democracy worldwide is on the brink.

The documentary film "Lowndes County and the Road to Black Power" was shown. It depicts a town with an 80% Black population but zero Black voters and how a local movement turned that around.

Programming followed the university's annual "Constitution Week," which this year focused on Constitutional democracy, a review of recent Supreme Court decisions, oral arguments before the Georgia Court of Appeals and a discussion on checks and balances.

There was also a concert featuring presidential campaign music from history. Dr. Dana Gorzelany-Mostak, founder of Trax on the Trail, also recently gave a talk on Eminem's "Lose Yourself" as a campaign anthem, used by three candidates from two political parties.

University Communications wins honorable mentions for snake story

Georgia College & State University's Office of University communications won two honorable mentions in Regan PR Daily's 2024 Nonprofit Communications award competition. Both honorable mentions were for coverage on "Students use technology to delve into the secret lives of snakes."

The story, written by media relations specialist Cindy O'Donnell, won honorable mention in Regan's Digital Content category. Two videos from the package, filmed and edited by director of Video Communications Stacey Lumley and video specialist Chris Brown, also won honorable mention in the Video category.

Joshua Smith, interim director of Web Communications, handled social media for the package, which included stunning pictures by photography manager Anna Leavitt.

"We're all thankful to have gifted communicators on our team," said Alan Weston, interim associate vice president for Strategic Communications and director of Marketing and Publications.

"For Georgia College & State University to be mentioned in the same

breath as large organizations with national recognition is incredibly valuable," Weston said. "Our team's efforts are constantly laser focused on solidifying the brand of our great university in the best way possible. While our work is typically carried out behind-the-scenes, it's nice to have our staff brought to the forefront through their talent."

University Communications writes news features promoting the accomplishments of Georgia College faculty, staff and students. These appear on the university's news website, Front Page, along with pictures to help illustrate stories.

Occasionally, a special topic comes along that begs for more.

The snake story was one.

It was a unique opportunity to celebrate the human element—GCSU's biology faculty and students. But it also delved into a subject most people find fascinating.

The story posted to Front Page in April 2023 and featured exciting research by Dr. Dominic DeSantis, assistant professor of biology. He developed original technology that allows students to track rattlesnakes



in their natural habitat and record their unseen behaviors.

This subject was approached in multiple, attention-grabbing ways: extensive interviews, lively writing, engaging pictures and two outstanding videos. To give readers and viewers a sense of "being there," the communications team spent time in the snake lab at Herty Hall and on location—trudging miles in the heat through tick-infested forests in Putnam County. The extra effort helped produce show-not-tell details.

What's going on in Bobcat Territory?

Visit frontpage.gcsu.edu/events

Tuesday

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6:30 p.m. GCSU Creative Writing Programs hosts visiting writer, novelist and alumnus Stephen Hundley at Pat Peterson Museum Education room in Ina Dillard Library.

7:30 p.m. GCSU Music Department hosts guest artist and pianist Silvan Negrutiu for "Sacred & Profane" concert in Max Noah Recital Hall.

Wednesday

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3-5 p.m. Farmer and Artisan Market with community vendors and live music on Front Campus.

6-8 p.m. As part of GCSU events leading to Flannery O'Connor's 100th in March, the public's invited to see the movie "Wildcat" free in Russell Auditorium.

Thursday

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7:30 p.m. GCSU's "Music Department Showcase Recital" in Magnolia Ballroom.

Friday

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Saturday

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