

MOUNTAINS

Saving aquatic wildlife becomes education park ranger's passion



Your Turn
Frances Figart
Guest columnist

Summer is here! And as temperatures and humidity rise, returning visitors to Great Smoky Mountains National Park are tempted to dip their toes — and more — in the cool waters of the park's 2,900 miles of clear mountain streams.

Many do not yet know that doing so can put wildlife at risk.

Ranger Julianne Geleynse is trying to change that. Raised near lakes and streams in Minnesota, Geleynse was "an outdoor kid" who spent her free time fishing, wandering in the woods, and discovering the natural world, eager to look up each new discovery in the library.

"Growing up in a land full of lakes has pretty much made me dependent on water features to feel at home," she says. "I never knew national parks existed until I was 23 and started exploring them. When I saw that a career existed where I could share my passion for the natural world, I did everything I could to get a job in the National Park Service."

Now an education park ranger in the Smokies with a B.S. in Biology and M.S in Biological Sciences from Clemson University, Geleynse is living her dream. In spring and fall she works with students of all ages, introducing them to the natural world and the science behind GSMNP. Her summers are spent running a high school internship pro-



The Eastern hellbender salamander is adversely affected when rocks are moved in streams. COURTESY OF BRIAN GRATWICKE

gram that introduces youth to park service career choices.

Over the winter months, she develops educational materials with Great Smoky Mountains Association and other park partners to help the public understand issues that affect the park. Among her personal passions is the Don't Move Rocks campaign.

The Smokies' streams are fed by tens of thousands of springs, constantly trickling water from crevices in the ancient mountain range. Residing beneath the surface is everything from native brook trout to 11 species of crayfish to two species of giant salamander.

"This time of year, we start to see damage in our creeks and streams

caused by the creation of cairns, channels and rock dams," says Geleynse. "Many salamander and fish species lay their eggs under rocks of various sizes. The movement or removal of these rocks is similar to someone rearranging your furniture or completely moving your house. It disrupts breeding behavior and can completely destroy the nest and eggs of both salamanders and fish."

Hellbender population in decline

In 2017, University of Tennessee researchers started to notice a sharp decline in population of the Eastern hellbender, one species of giant salamander that lives in the park. Geleynse set to

work developing educational materials about the threats rock moving poses to aquatic wildlife.

Living in a stream in the Smokies is already hard for aquatic life. Natural flooding and drought events occur seasonally, changing the landscape and animals' habitat. It's easy to think that making one rock dam or cairn can't do much harm. However, with millions of visitors recreating in park streams, the damage is visible.

"Eastern hellbenders have been found dead between the rocks of dams, their nests destroyed at a time of year when flooding does not normally occur," says Geleynse. "A better way to pass the time is to bring a snorkel and some goggles and explore with the exciting creatures that live below the surface. Who knows, you may even spot a snot otter yourself."

Last year 12.5 million people visited the Smokies to escape the developed world — yet rock cairns, dams and channels are evidence of human disturbance, changing the park's wilderness character. And it's not just parks that are affected. Moving rocks in any stream can threaten the creatures who make it their home.

"When we started the campaign, most people had no idea that moving rocks killed salamanders, fish and other aquatic life," Geleynse says. "But now that they have that knowledge, they're starting to change their behavior and not move rocks."

Frances Figart is the editor of *Smokies Life* magazine and the Creative Services Director for the 34,000-member Great Smoky Mountains Association, an educational nonprofit partner of Great Smoky Mountains National Park. Reach her at frances@gsmassoc.org.

Black bears on the move in Pisgah National Forest

Karen Chávez Asheville Citizen Times
USA TODAY NETWORK

Black bears never really get a good winter's sleep in the Southern Appalachians of Western North Carolina because of our relatively warm winters.

So the bruins have been out of their dens for months now, but are on the prowl for food, as is the natural course of a bear's life, and have been rather active in Pisgah National Forest, according to the Forest Service.

In a June 19 news release, the Forest Service warned visitors to North Mills River, Bent Creek Experimental Forest near Asheville, as well as the Black Balsam and surrounding areas in the Pisgah Ranger District, to be on the lookout for black bears.

In the Grandfather Ranger District, bears have also been active at Table Rock and the Old Fort Picnic Area.

Black bears look for food that campers and trail users bring on their trips. While black bear attacks on people are rare, such attacks have resulted in human fatalities.

To avoid bear attacks, experts recommend the following:

- Keep your dog on a leash in areas where bears are reported.
- If you notice a bear nearby, pack up your food and trash immediately and vacate the area as soon as possible.
- If a bear approaches, move away slowly; do not run. Get into a vehicle or a secure building.
- If necessary, attempt to scare the animal away with loud shouts, by banging



A black bear checks a grill for leftover food at the Humpback Rocks Picnic Area on the Blue Ridge Parkway in Virginia in this photo from 2015. COURTESY OF BLUE RIDGE PARKWAY

pans together, or throwing rocks and sticks at it.

■ If you are attacked by a black bear, try to fight back using any object available. Act aggressively and intimidate the bear by yelling and waving your arms. Playing dead is not appropriate.

Visitors are encouraged to prevent bear interactions by practicing these additional safety tips:

- Do not store food in tents.
- Properly store food and scented

items, like toothpaste, by using a bear-proof container, or leaving them in your vehicle. Many toiletries that seem to have little to no odor can still attract bears.

■ Clean up food or garbage around fire rings, grills, or other areas of your campsite.

■ Do not leave food unattended.
■ Never run away from a bear. Back away slowly and make lots of noise.

The large number of bear sightings and encounters in the past few years

has led to required use of bear-proof canisters in the Shining Rock and Black Balsam areas. Backcountry users must use commercially-made canisters constructed of solid, non-pliable material manufactured for the specific purpose of resisting entry by bears.

Justin McVey, mountain region wildlife biologist for the N.C. Wildlife Resources Commission, spends the better part of his spring chasing bear calls.

He said North Carolina has a healthy black bear populations, with roughly 7,000-9,000 in the WNC mountains, and another 11,000-13,000 on the coast, for a total of some 18,000-21,000.

"It seems like bears have been really active this year, starting a little sooner than normal," McVey said. "We've had lots of calls of bears being around."

He said it's hard to say if the increased bear activity is due to lack of natural food sources or the increase in available, human-supplied food sources.

"It very well could be this time of the year where the berries haven't really popped out by yet, and so the bears are hungry. But it also very well could be just bears that over time have been conditioned to rely on sources of food provided by people, whether that's garbage or bird seed or intentional feeding," he said.

People should only call the wildlife commission about bears they encounter in their yards, McVey said, or if a bear is injured or orphaned or is causing harm, and should follow the Bearwise.org principles for both residential and outdoor setting.

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