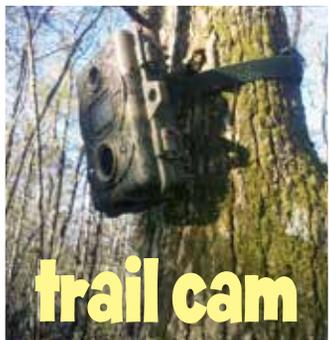
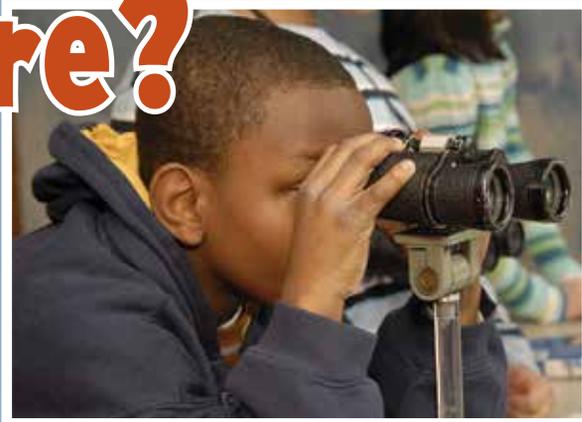


What's out there?

How do scientists use technology to help them discover what lives where?

To better manage habitats and the animals that live in them, scientists use many kinds of technology. They learn which animals live in an area and where they move around, both within their preferred habitats and to other places.



trail cam

Fishers

are large members of the weasel family that nearly disappeared from New York State in the 1930s, due mostly to habitat loss and unregulated trapping. Now fishers are making a comeback, returning to many of the areas where they used to live. Scientists used camera traps to help determine the spread of fishers in the state. Around 600 camera traps were set up during the winters of 2013 and 2014. These camera traps are motion-activated trail cameras baited with large pieces of beaver meat (a delicacy to fishers). The meat is hung on a tree about four feet off the ground, and when the fisher moves towards the bait, the camera takes a photo. In addition, wire brushes placed around the bait collect hair samples, allowing scientists to identify individual fishers (using DNA), track their movement, and find out how many fishers are in the area. Surveys will continue in winter 2015, and the public can also submit their observations. To learn more, see the December 2014 *Conservationist*.



taking the bait

Atlantic Coast leopard frog

Scientists used technology to help confirm the identity of New York State's newly identified frog, the Atlantic Coast leopard frog. One difference it has from other leopard frogs is its call, and scientists used special sound equipment (acoustic monitoring) to demonstrate this. After recording the calls and then turning the data into sonograms (pictures of sound), scientists could use the sonograms to help formally describe the new species.



Scientists who study bats are interested in knowing which species live where.

One way this can be done is by listening to them—each species makes unique sounds during echolocation, which can be used to tell them apart. Echolocation is a type of sonar that bats use to help them navigate and locate their prey. Using special microphones and computer software, much like in the leopard frog study, scientists create pictures of the sounds bats make and use these pictures to help determine which bats are present at different locations. By knowing this, scientists can take steps to better protect bats that need help, such as the endangered Indiana bat.

