

Duke Scientists Use Smartphones, Drones To Study Endangered Species

By WILL MICHAELS, WUNC 91.5 NORTH CAROLINA PUBLIC RADIO • MAY 26, 2017



A screengrab of a footprint taken to monitor endangered species.

Conservation scientists at Duke University are using images from smartphones and drones to study the population and behavior of endangered species.

Researchers say they can use photos of footprints to determine an animal's species, age and sex, as well as its migration habits. They're also using the technology to crowd-source data on species across the world.

Stuart Pimm, a conservation ecology professor in Duke's Nicholas School of the Environment, said the system is especially helpful in accessing remote areas like south central China, which is home to the endangered giant panda.

“We can identify 95 percent of individual pandas from their paw prints,” Pimm said. “That's going to be a really valuable technique to allow the Chinese authorities to count pandas.”

Researchers are starting with three species, including jaguars in the Americas, snow leopards in Asia, and cheetahs in Africa.

The developers hope it will help conservation efforts for endangered species by getting a better idea of where they are and how many are left.

The system should make it easier to study species like the Amur tiger in northeastern China, according to Sky Alibhai, a professor at the Nicholas School of the Environment.

“In order to survey these areas, you literally have to go on foot and you've got three feet of snow,” Alibhai said. “Now imagine if you can deploy a drone to basically say, 'Is there a tiger trail there?' It's as simple as that.”