

New App Helps Sort Millions of Trail Camera Images

Remote trail cameras capture millions of images of ocelots, bighorn sheep, elk, pronghorn, birds and other wildlife sparring, visiting water, foraging, marking territory and more within the Refuge System. For those images to be useful for scientific purposes, they must be sorted and labeled.

There's an app for that.

It's called Moniker, and it's available free at the App Store for iPhone and iPad users.

At New Mexico's Sevilleta National Wildlife Refuge alone, 36 cameras amassed 2.7 million images in four years. Typically, sorting that mountain of imagery for scientific analysis means enlisting family, friends, volunteers and neighbors. Meanwhile, more cameras are positioned and the imagery backlog mushrooms.

The Moniker app allows anyone, anywhere to sort camera-trap imagery. The crowd-sourcing approach helps manage the imagery backlog, while the app helps generate public appreciation of America's wildlife. In return, the U.S. Fish and Wildlife Service obtains sorted images useful for addressing management and conservation priorities.

The app operates by downloading 15 still (not video) images at a time to an iPhone or iPad. The app pulls up each image individually, and the user classifies the species by using a scrolling wheel. The user then identifies the number of individual animals. Because most images contain one or two individuals, the app has buttons for these. Otherwise, the number of individuals is keyed in. If, something, say blowing grass, triggers the camera without capturing a wildlife species, the code "ghost" is used.

Ultimately, this process sorts the images and stores them on a remote server, where they are ready for project use. To ensure data quality, each image is sorted multiple times and majority opinion prevails. The final sort is subsampled and checked for accuracy before analysis.

To try the app, go to the App Store on your iPhone (model 4, OS version 8.4.1 or newer) and iPad (model 2 or newer) and search for "Moniker." Moniker may not immediately pop up in the suggestions, so hit the Search tab again and it will.

For more information on how the app can be used for scientific analyses, contact Gran Harris, chief of biological services for the Southwest Region, at Grant_Harris@fws.gov.

CAPTION

U.S. Fish and Wildlife Service remote trail cameras capture a steady stream of images of wildlife, such as this one of a coyote chasing pronghorn at Sevilleta National Wildlife Refuge in New Mexico. A new crowd-sourcing app helps to sift through and label the images.