



Kids Camera Trap Mammals Around the World: Using eMammal to Create Natural and Cultural Connections

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Topic: Mammal Research, Citizen Science, Education

Release : RALEIGH, NC, USA — In citizen science, the public participates in real scientific research. Given the current decline of many species, citizen science is important for ecological monitoring to collect long-term and large-scale animal population data while engaging the public. Reaching youth is especially important, as connections formed with nature during this time can last into adulthood creating lifelong concerned citizens. However, citizen science projects rarely target youth, as logistics are more challenging and begs the question, “Can kids collect useful data for science?”

Through eMammal Academy, we demonstrate kids as young as nine years old can collect valuable mammal monitoring data using camera traps. Indian, Kenyan, Mexican and American students sampled areas around their school yards and detected 21, 37, 18, and 13 species, including 12 species on the International Union for Conservation of Nature (IUCN) red list in the categories of vulnerable, endangered, and critically endangered. Student-run cameras captured high-profile, charismatic species of international recognition including the black rhinoceros (*Diceros bicornis*) and Bengal tiger (*Panthera tigris*). For the latter species, more unique individuals were captured around school property than in a nearby reserve. Similarly, in the US, we compared camera trap results collected by kids to similar dataset from a state park and found that students captured six more species and had higher detection rates for carnivores including coyotes, red, and grey foxes despite less camera trap days.

eMammal Academy was incorporated into schools using lesson plans co-created by K-12 teachers and scientists aligning science standards. Many teachers reported that eMammal Academy provided an effective tool to engage students and provoke curiosity. In some classrooms, students were so excited to check camera traps that they counted down the days until they can check camera traps and “screamed” with excitement when they viewed the images of animals from the camera.

In each country, the impacts of student-collected research using camera trap photos spread beyond the classrooms involved including presentations by kids with local politicians, community conservation days, and national news coverage. For example, in Mexico, students invited and presented camera trap results to the mayor of Guadalajara and the American Ambassador to Mexico on a large “camera trap” they created using a television screen. These community-held events led to discussions about the management and conservation of local mammals based on real information gathered from the kids allowing information to “trickle up” into adults in the community.

Kids can contribute valid scientific data, citizen science can align with learning outcomes and standards taught in school, and citizen science has the potential to be an effective educational tool.

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