Monitoring wildlife with camera traps at a global scale: challenges and opportunities

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Quick stats

• Tropical forest network – 17 sites in 16 countries
• More than 2.5 M images, 4-8 years of data/site
• Half million images added every year
• Ground-dwelling mammals birds, ~300 species
• Software to quickly process field images (OpenDesk TEAM)
Challenges

• Data management: camera trap data accumulates quickly
Challenges

• Turning camera trap data into useful indicators for policy makers
Challenges

• Sustainable funding: everybody needs data but nobody wants to fund ‘just monitoring’
Opportunities

• Standardized, cost-effective and verifiable
  – $30-40K per year/PA
  – Camera traps are getting cheaper
  – Images allow for easy verification
Opportunities

- Available indicator (Wildlife Picture Index) can be calculated through a specialized analytics system (WPI AS). WPI can be easily aggregated/disaggregated starting at the species level.
Opportunities

• Methods and analyses are scalable to the level of national protected area networks or other relevant national and regional networks
Opportunities

• Represent some key Essential Biodiversity Variables
  – species distribution
  – population abundance
  – taxonomic diversity trends.
Opportunities

- Many countries (in particular tropical) need monitoring systems for wildlife and not sure where to start
Opportunities

- Images of animals are a key asset for communication and education at local, regional and national levels
Opportunities

• Protected area effectiveness indicators (e.g. METT scores) need more quantitative ways to assess biodiversity outcomes.
A comprehensive biodiversity monitoring solution to improve protected area effectiveness
Wildlife Picture Index Analytics System
Camera Trap Data Network

The Camera Trap Data Network is an archive for camera trap images and metadata for use by researchers and conservationists trying to discover and save wildlife communities around the world. Camera trappers can use this network to ensure their data properly archived, protected from loss, and available for global studies (at a range of access levels). Biodiversity data analysts can use the network to ask new scientific questions and track population trends. Animal lovers can enjoy millions of unique pictures.

“Data driven Wildlife Monitoring and Management”

How Wildlife Monitoring Works?

Upload Camera Trap Data
Share your data with collaborators around the world by synchronizing with the network’s data standards.

Compute Analysis
Camera Trap images and survey data are analyzed and computed for various analytics on new data arrival from the parks and.

View Camera Trap Data
View, analyze and download globally shared camera trap data by individuals and organizations.