

Global Perspectives Grant Report

Summer 2024

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Large grazer and carnivore ecology across open landscapes

Amount Spent: \$5783

Non-technical summary:

This project seeks to establish a durable connection between University of Wyoming's Rangeland Ecology and Management program and managed wildlands around the world to ultimately better understand how small stakeholder agriculture and subsistence communities, native herbivore populations, and large carnivore populations interact. Both Wyoming and Zambia possess large expanses of public and private lands used for agriculture and local livelihoods that also hold diverse communities of native herbivores and carnivores. This project identified key collaborators to engage in future teaching and research activities, shared new data collection and organization protocols to build data sets needed to test theories explaining how large herbivore and carnivore systems work over a range of land uses, and identified one future potential graduate student for recruitment.

Main Results

DC began coordinating research training and collaboration activities with partner agency the Zambian Carnivore Programme to develop training materials for conducting human and wildlife surveys in rural Zambia. May On May 29, 2024, DC travelled to the field camp of the Zambian Carnivore Programme (ZCP) near Chunga, Zambia. DC met with UW PhD student, Howard Maimbo as well as ZCP staff/students Stephi Matsushima, Anna Kusler, Cat Sun and others until June 12. Activities and accomplishments achieved at while at ZCP included:

1. A daylong meeting with members of the Greater Kafue Landscape Limited group (including the Zambian Department of National Parks and Wildlife, The Nature Conservancy, African Parks Foundation, Musekese Conservation, Panthera, Game Rangers International, and others) which included a presentation by UW PhD student, Howard Maimbo.
2. Finalized a data collection plan with African Parks Foundation.
3. Finalized a collaborative monitoring and data sharing agreement with Musekese Conservation.
4. Completed 100+kms of survey transects (for herbivores and humans) spanning a wide range of landscape uses (wildlife conservations, crop production, grazing), and developed new transect methods.
5. Four days of intense training in herbivore and human survey execution with Department of National Parks and Wildlife Ecologist, Andrew Mulenge, Mumbwa District
6. Discussed future plans for development of monitoring efforts with Fulbright Fellow, Dr. Michelle Kissling and others.
7. Delivered critical research equipment including 3 laser rangefinders, 2 binoculars, 3 Teloncis TR-8 recievers, and 8 GPS collars.
8. Discussed potential graduate school options with two potential new graduate students.
9. Discussing and integrating online data collection and management platforms (SMART, ESRI, ACCESS, and Cybertracker) with ZCP Deputy Director Terry Brcnic to facilitate organization, analysis, and dissemination of environmental data going back to 2009.

Future Plans and Potential Impacts

D. Christianson is currently developing proposals to continue this research with the Zambian Carnivore Programme. D. Christianson intends to recruit at least one new Zambian graduate student before 2027. D. Christianson is currently working on two research manuscripts that developed during this project.



Radio-tracking in Kafue National Park with UW PhD student Howard Maimbo (5 June 2024).



UW PhD student Howard Maimbo presenting monitoring strategy and preliminary results with the Greater Kafue Landscape Limited group in Chunga, Zambia, (6 June 2024).



Documenting the occurrence of fire along fixed transects that have been surveyed since 2012.



Preparing to head into the field (Howard Maimbo) in the operations building at Zambia Carnivore Programme's Hood Bridge base. (8 June 2024)



One of many repairs on a field vehicle (12 June 2024)



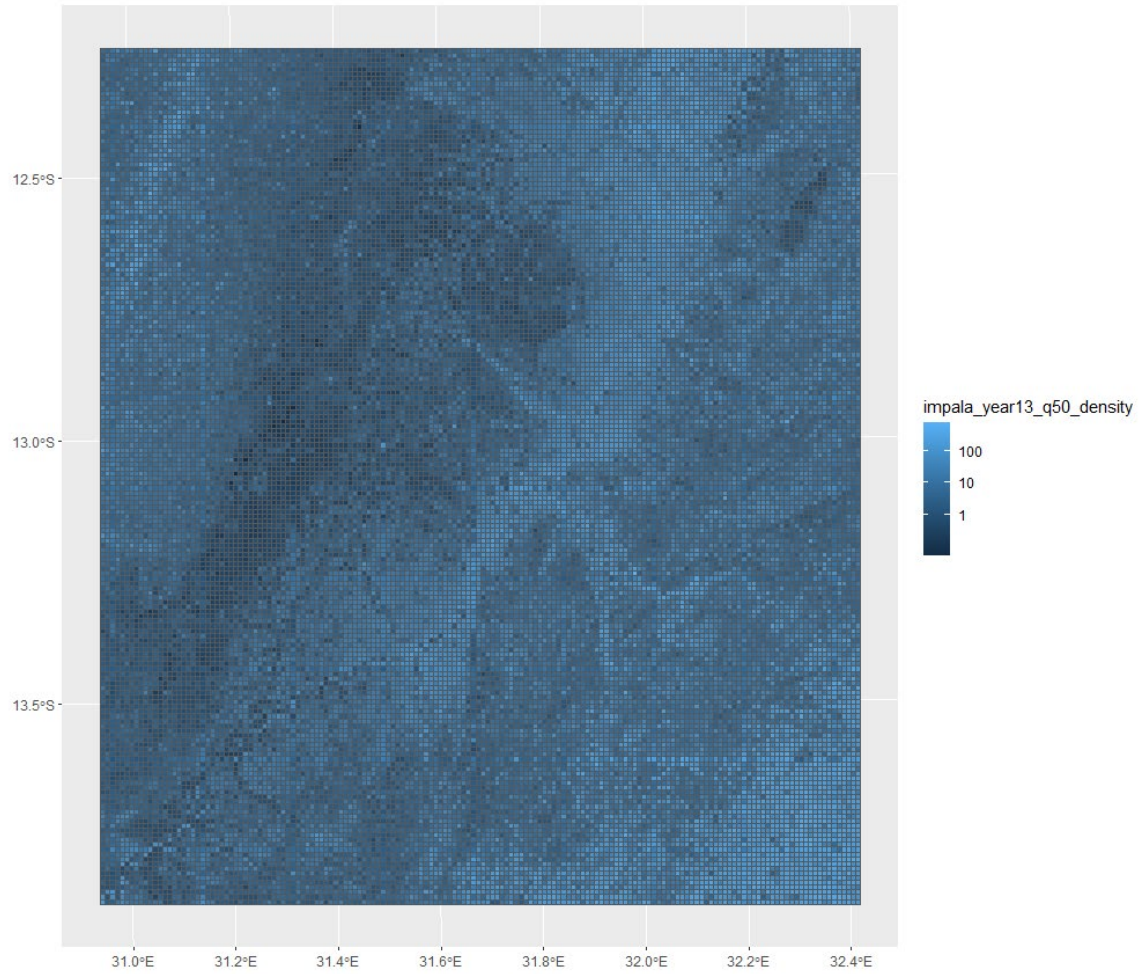
Herbivore and human survey training with Zambia Department of National Parks and Wildlife Ecologist, Andrew Mulenge. UW PhD student Howard, Maimbo in back. (10 June 2024)



Zambian Carnivore Programme – Luangwa Team and D. Christianson during debrief after field testing of CyberTracker observation protocol for distance sampling of large herbivores, near South Luangwa National Park, Mfuwe, Zambia (21 May 2022).



Human wildlife human conflict meeting (during brief interruption) with former graduate student T. Mweetwa and prospective graduate student D. Zimba at the Zambian Carnivore Programme headquarters, Mfuwe, Zambia (16 May 2022).



Test raster produced with Zambian Carnivore Program to develop predictive models of herbivore density across a 3000 km² area in eastern Zambia.