Project Update: December 2023

Aim and objectives:

Our work seeks to create awareness for the conservation of straw-coloured fruit bats in northern Nigeria. The specific objectives are:

- 1) To assess the population of the bats.
- 2) To assess their roost site characteristics.
- 3) To assess the local perception of the species.
- 4) To carry out conservation awareness campaigns in communities surrounding the identified roost sites.

We are now through analysing the data we generated from the ecological survey of bats populations/roost characteristics and social survey on the public perception of, and attitude towards, bats. We also carried out conservation awareness through sensitisation lectures at the Jos Museum.

Methods used and summary of result:

We communicated with the leadership of Jos Museum and Zoo, one of the roosting sites of fruit bats in our study. The leadership assembled all workers for the sensitisation. Some community members around the roost also joined. For the data analysis, we used R statistical software to analyse all the data.

The highlights of the results:

- Bat populations were influenced by tree age, density and species, but not tree size. Hunting, noise and logging were significant threats. Public perception indicated a notable decline in bat numbers compared to historical time, the reasons being the identified threats. Awareness of threats to fruit bats was high among respondents.
- Most respondents (58%) reported that bats do not provide any benefits, while others (23%) reported that they are beneficial as a source of meat.
- A significant majority (69%) perceived bats as good but mostly for consumption as meat. Bad perception about bats included their association with witchcraft, charms and diseases.
- > The findings indicate that people are generally unaware of the ecological importance of bats and perceive them primarily as a food source.
- ➤ There was increased awareness and willingness of people to conserve fruit bats after sensitisation efforts. In fact, Jos Museum and Zoo workers were very happy to learn about these bats and how important they are to the functioning of ecosystems. Some have worked there for over 20 years but had never known how important the bats at their workplace were.

➤ We were told about other roost of *Eidolon* fruit bats and other large colonies of cave dwelling bats on the Jos plateau. We hope to explore some of these roost and colonies in our next project.

Important next steps:

We are supposed to have finished the sensitisation campaign by now. Unfortunately, we only did it at one roost site (Jos Museum). We have not been able to do this at the roost site in Gindiri which is about 2 hrs drive from Jos. There were some farmers-herdsmen clashes in communities along the road to Gindiri but currently there is peace. We now hope to go for the sensitisation in early January 2024. The Gindiri site is very important because the roost there is very large, close to 10 times bigger than the Jos roost. The hunting there is intense, therefore, we cannot afford to miss having a sensitisation campaign there.

Publications and conferences:

1. I am happy to inform you that I attended the 8th biodiversity conference of the Nigerian Tropical Biology Association (NTBA) and the Nigerian Society for Conservation Biology (NSCB) and gave a presentation on the "human perception of bats" aspect of the project. Below are the screen shots of the title page of my presentation, the acknowledgement page and the certificate of attendance to the conference where I presented the work.

Evaluating public perception of bats and implications for their conservation in Nigeria

Dickson Anoibi Matthew



The 8th Biodiversity Conference jointly organized by the Nigerian Tropical Biology Association (NTBA) & Nigerian Society for Conservation Biology (NSCB).

Co-authors

Alai Lawal Ibrahim Stephen Mayowa Ezekiel





MATTHEW, Dickson Anoibi

Participated in the 8th Biodiversity Conference of Nigeria Tropical Biology Association (NTBA) and Nigerian Society for Conservation Biology (NSCB)

Held on 20th -23rd November, 2023

Venue: University of Lagos, Nigeria







LOC, Chairman

Dr. (Mrs.) Adedotun O. Afolayan President, NSCB



- 2. I am also happy to inform you that I have been accepted to give an oral and inperson presentation about our work on bats at the "Students' conference on Conservation Science (SCCS) in Cambridge University in March 2024. The title of my presentation will be "State of fruit bats in Northern Nigeria: assessment of population, threats and engagement of communities for conservation output".
- 3. We had media coverage and publication of the sensitisation programme. Please, find links below.

https://africandrumnews.wordpress.com/2023/09/19/nigerian-researchers-make-case-for-bats-conservation-say-they-are-essential-for-our-eco-system/

Table 1. Updated activity time scale

S/N	Event	Old Date	New Date	Status
1	Consulting with community leaders and relevant stakeholders to commence study	1st week of November, 2022	2 nd Week of February, 2023	Done
2	Eidolon helvum population estimation	November to January, 2022	February to April, 2023	Done
3	Assessment of E. helvum roost site characteristics	November to January, 2022	February to April, 2023	Done
4	Assessment of local perception of bats through questionnaire surveys	February to April, 2023	May to July, 2023	Done
5	Data analysis and Report writing	May to June, 2023	August to September, 2023	Done
6	Preparation of outreach materials	June, 2023	September, 2023	Done
7	Conservation education	June to July, 2023	September to October, 2023	Partly done
8	Writing and sharing report with stakeholders	August to September, 2023	November to December, 2023	Partly done
9	Writing of manuscripts for journal publications	October, 2023	January, 2024	



Figure 1: Cross section of the sensitization lecture to the staff of Jos Museum and nearby community members.



Figure 2: Jonathan, an assistant, placing the banner in preparation for the sensitization at the roost at Jos Museum



Figure 2: Caps, T-shirts and jotters we made and shared during the outreach



Figure 4: This is me in a talk session during the sensitization meeting.



Figure 5: Alai Lawal, one of my team members, being interviewed by Journalists at the end of the sensitization program at Jos Museum (Behind the scenes are Jonathan and I arranging our projector and other gadgets we used).



Figure 3: Group photograph after the sensitization lectures at the roost at Jos Museum: 3^{rd} from the right in the front row is the Zoo manager, next to her is the Museum curator; and 6^{th} in the row is me, Dickson.