Project Update: August 2023

School follow-up

We have visited all five schools during our last field vist. Each school eco-club has done their own best to run eco-club activities. They have arranged quizes, drawings and essay and poem competitions on every last Friday of the month. The programme was organised solely as eco-club activities as we have supported them. But the interesting fact is that one of the school have make a space and plant some flower and shrub species (Fig.1). Their intitation motivate us to talk more on next project objectives regarding eco-club activites around Banke-Bardia Complex.

Figure 1: A form of gardening done by eco-club groups in project target school in Banke district.

We had a brief talk regarding our next project and supporting the eco-club activities around Banke-Bardia Complex with Shree Krishna Secondary School (Fig. 2). We concluded to budget for eco-club for 1 year and make them organise the programme themselves. If possible inter-schools competion could be organised. One of the fascinating ideas we will put in our next eco-club activites is "Goal for Conservation" by organising futsal competion in Banke-Bardia Complex. Duing our follow-up programme school students are really interested to participate in different activites like recording songs for conservation, organising talk shows in local media, field visits to national parks, and establishing a public library.

Figure 2: Interaction with Shree Krishna Secondary School regarding next project and the eco-club activities.

Molecular scatology and prey hair identification

For the diet analysis of tiger through prey hair identification, species was identified based on molecular scatology. As the scats were collected with NTNC technicians based on morphological and indirect signs, species identification was achieved to be higher. Further, only tiger scats were distinguised and prey identification was done based on hair contents. Randomly, 10 scats were drawn from the 70 identified tiger scats and 20 hair samples were identified from each scats. Based on morphological, medullary and cuticle characteristics under light microscope in NTNC, Bardia lab by NTNC technicians prey hair identification was carried out.

Six different wild prey species were identified with two livestock species (goat and cattle) in tiger's diet. Swamp deer followed by cattle contribution in tiger's diet was similar around 23% from Bardia National Park. Sambar deer has the highest biomass contribution (30%) in tiger diet followed by spotted deer (8%). (*Detailed results willl be published as journal article*).

Camera trap

With the help of NTNC, Bardia National Park, Banke National Park we had deployed the camera trap and extracted the GPS location for tigers and leopards (Fig. 3) habitat modelling in Banke-Bardia Complex.

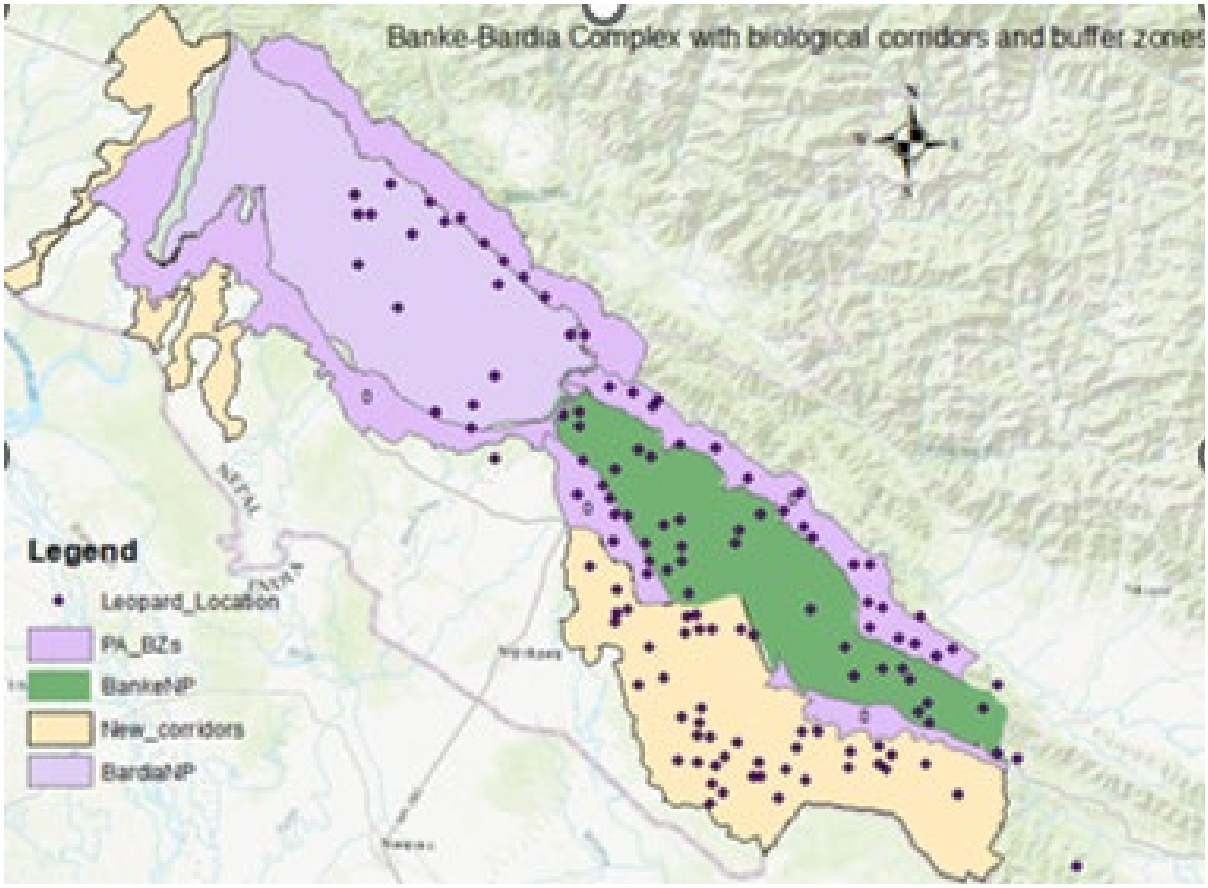
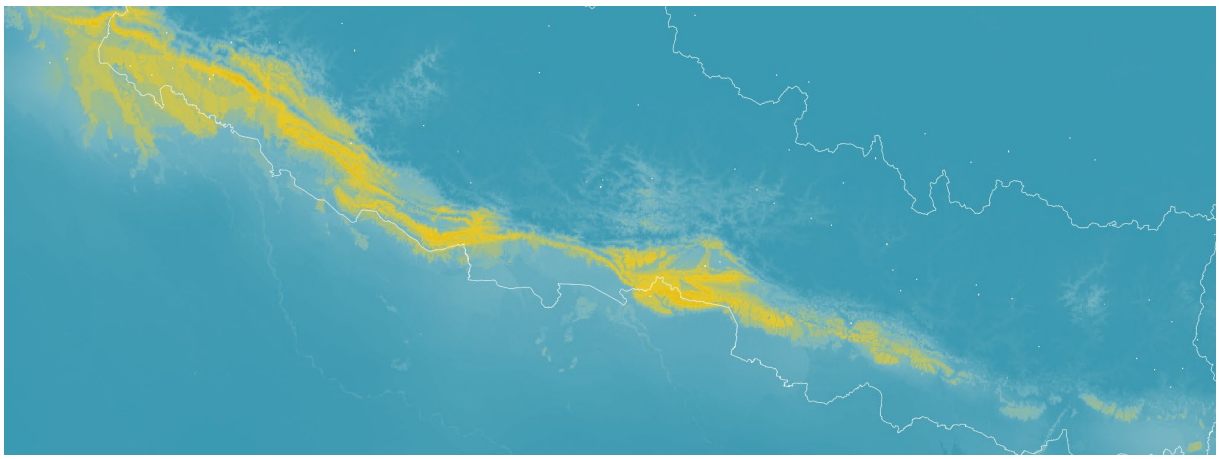


Figure 3: Leopard capture GPS location in Banke-Bardia Complex during the study period

Reserch on progress

We are doing the environtal niche modelling for tiger from collected tigers GPS locations around the TAL. We had gathered data on tiger and leopard from 2018, during the 1st rufford grant. So, we are developing the map based on the data avaibility year. This report only present the portion of results we have obtained in our first phase modelling, which may not be extact with our upcoming research paper. This figure depict the future scenario of tiger in 2035 based on SSP 5.85 (Fig. 4).

Figure 4: Environmental niche modelling of tigers in Terai Arc Landscape, Nepal.



Some camera trap photos

Photo 1: Tigers captured in camera trap in Banke-Bardia Complex.

Photo 2: Leopard captured in camera trap in Banke-Bardia Complex.