Project Update: July 2023

This project entitled "Conservation of Hog deer (*Axis porcinus*) via Community Outreach Programs and Field Surveys in Far-Western Nepal" was initiated after getting official permission from Department of National Park and Wildlife Conservation (DNPWC), Kathmandu, Nepal. This report provides first update on research findings collected so far from March to June 2023 in Shuklaphanta National Park (SNP). It includes the findings from field activities mentioned below:

1. Preliminary field visit.
2. Abstract presentation.
3. Field survey.

1. **Preliminary field visit:** Before the detailed field survey, preliminary field visit (Fig.1.) was conducted to get a general idea about the layout of the study area. Informal interviews (Fig.2.) with the park staff, National Trust for Nature Conservation (NTNC) staff, Nepal army, representative of buffer zone management committee and local people residing in the buffer zone of Shuklaphanta National Park (SNP) was done to know about general information on Hog deer and its potential locations within SNP.

Fig1: Preliminary field visit to SNP. Fig 2: Informal discussion about Hog deer with NTNC staff.

2. **Abstract Presentation:** Abstract presentation was done immediately after the preliminary field visit. The park staff, NTNC staff, Nepal army, representative from buffer zone management committee and some local people residing in the buffer zone of

SNP was invited to provide them with the information on aims and objectives of the project. At the meantime, grid selection for the detailed field survey was done with their participation.

Fig 3: Abstract presentation by principal researcher. Fig.4. Grid selection.

3. **Field Survey:** Detailed field survey was conducted in each selected grid. Camera trapping and distance sampling was conducted in assistance with Mr. Dhiraj Bhatta, Mr. Keshav Ayer, Mr. Hemanta Joshi, Ms. Gauri Negi, Ms. Bimala Awasthi (field assistants) along with the elephant staff.

- **Camera trapping:** Thirty motion-triggered cameras were installed at a height of 45 cm from the ground in each 30 selected grid cells. Cameras were deployed for 30 days, and each camera was monitored once every 10 days to check the batteries and remove images. Camera traps were placed facing north direction. In front of each camera, five bamboo stick markers were placed in a straight line at fixed distance intervals (2.5, 5, 7.5, 10, 12.5 m) in such a way that each marker was visible on camera trap photos for measuring detection distance (Fig.5.).

Fig 5. Setting up camera traps by principal researcher and field assistants.

- **Distance sampling:** We established line transects of 1km on each selected grid cells and the distance sampling was conducted twice on each established line transect. The GPS coordinates of starting point and ending point of each line transect was noted down. Wherever hog deer was detected, the sighting angle using suunto compass, sighting distance using a range finder, herd size, sex of the desired species and habitat type were recorded while walking along the transects in the morning or the evening when hog deer are most mobile and active from the back of elephants (Fig.6. & Fig.7.).

Fig 6: Identifying Hog deer. Fig 7: Using range finder to determine sighting distance.

Fig 8: Direct sighting of Hog deer during field survey