

Project Update: May 2017

A. Tiger and leopard scat collection

We have collected more than 200 scats including ~ 150 of tigers and >50 of leopards from core area and surrounding forests of Chitwan National Park. Scats were collected from December 2016 to April 2017. About equal number of scats were collected from buffer zone and core area. Trails, forest roads and riverbeds were systematically searched to find scat of tigers and leopards. We focused our scat collection in the central part of the park where tiger density is high. Trained wildlife technicians of National Trust for Nature Conservation (NTNC) assisted in scat collection. All the scats were collected in zip-lock plastic bags with unique identification number.

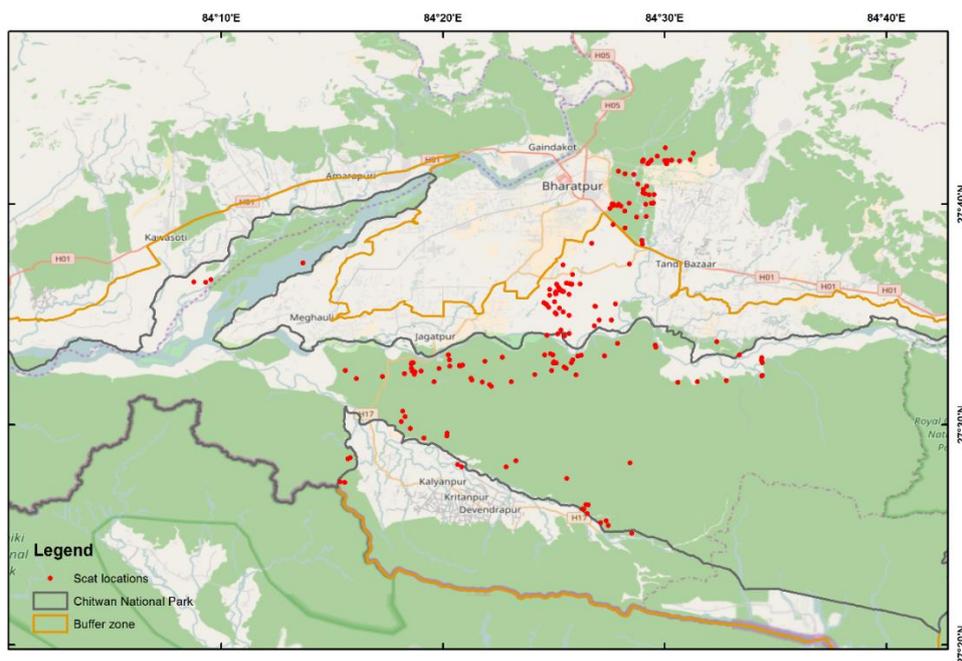


Fig. 1: Chitwan National Park, Buffer Zone and Location of scat collection (red dots).



Fig.2: One of the sample being collected in zip-lock bag

B. Scat analysis

The samples were washed using 1 mm sieve to separate remains like hairs and bones from the digested material. The prey species present on the scat was primarily identified based on microscopic hair analysis. Hair analysis was done at NTNC's laboratory in Chitwan. The existing reference collection of NTNC and a manual (Bahuguna, 2010) was used to compare the hair present on the scat. An MSc student, Mr. Simon Reynaert from Antwerp University, Belgium assisted in microscopic hair analysis. Data obtained from this project will also be used by Mr. Simon for his master's thesis in addition to my PhD chapter.



Fig. 3: Reference hair scale structure used to compare the hair in the scat.

C. Survey of livestock victim households

We visited 254 households who lost their livestock in last 5 years (2013-2017) to get detailed information about the incidents. The field survey was conducted during February - March 2017. Name and address of the applicant was obtained from the database of CNP & BZUCs. Household head or family member (above the age of 16) was interviewed using a pre-structured questionnaire. GPS location of the house and livestock depredation place were recorded. Socio-economic status of the family, livestock herding practices, preventive measures and relief for the loss were collected in a standard format.

D. Data analysis

I am currently working at Leiden University, Netherlands as part of my PhD study. I am analysing the data and writing article based about human-wildlife conflict in Chitwan, including livestock depredation based on data collected from this project. I plan to analyse data and write the article for scientific publication about tiger, leopard interaction (diet and other aspects) once the prey identification (scat analysis) is completed.