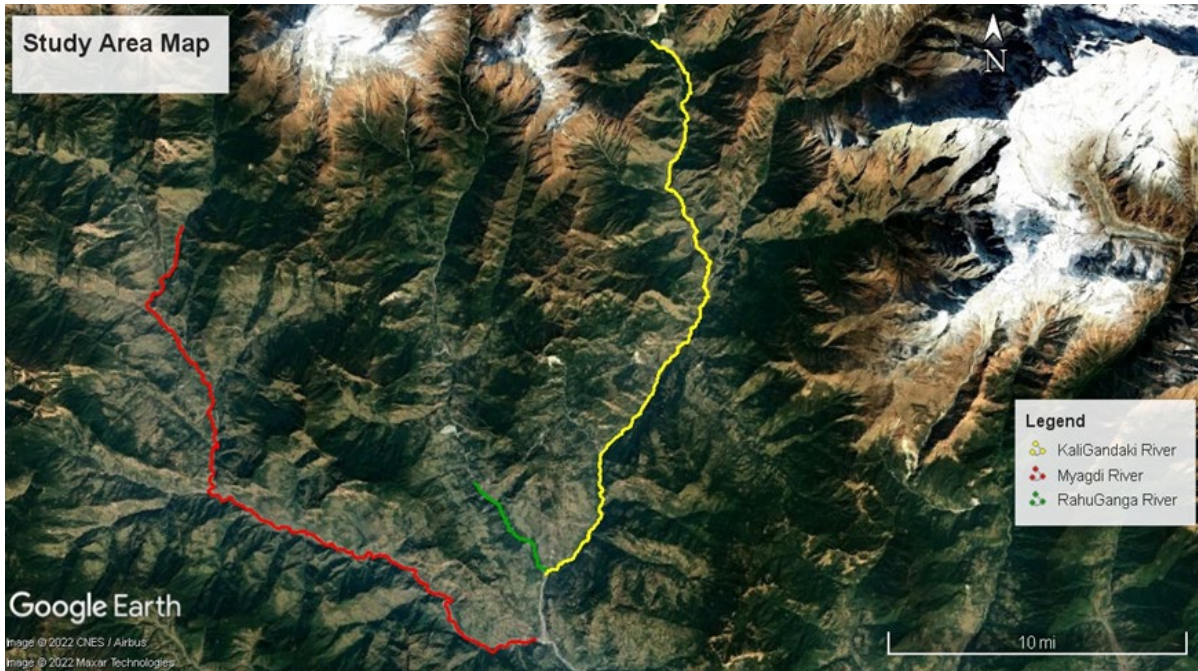


2nd Quarterly Report

Assessment of Distribution, Habitat Characteristics and Awareness of Eurasian otter (*Lutra lutra*) in Kali Gandaki River, Nepal



Study area map of sign survey

Submitted to:

The Rufford Foundation

Submitted by:

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Introductions

Nepal is home to three species of otter i.e., smooth-coated otter, Eurasian otter, and small clawed otter. Eurasian otter is a little studied small mammal in Nepal and has been sighted only once in any of Nepal's river streams since 1991 despite having favourable habitat conditions. The species is rarely prioritised for the research and conservation work due to which, very little information is available about their status, distribution, threats, and ecology in Nepal. Their numbers are decreasing steeply from their natural habitat driving them towards the brink of extinction across regions owing to habitat destruction, loss of prey species, poaching, and water pollution. Therefore, it is essential to develop databases from across the country to devise and formulate the appropriate and pragmatic conservation activities to help conserve the species. Therefore, our research and conservation effort aim to identify the distribution, threats, and habitat ecology of the species along the Kali Gandaki River and its adjacent sub-watershed. We will also conduct school and community teaching programs to help spread the knowledge and awareness among students and local people about the Eurasian otter.

The second phase of the project was conducted during November-December 2022. We conducted sign surveys, questionnaire surveys and a camera trapping survey along the Kali Gandaki corridor and its major tributaries (Myagdi River and Rahuganga River) in Myagdi and Mustang Districts.

The details of activities conducted in the 2nd phase of the project are presented as below:

1. Sign survey

We continuously walked along the single side of the bank of the river traversing a total of 87km in three different rivers in the Myagdi and Mustang Districts (Kali Gandaki River: 38km, Myagdi River: 42km, and Rahuganga River: 7km). Transects of 100m in length by 10m in width were laid at intervals of 900m along the river and each transect was intensively searched for otter signs (scats, tracks, and dens) and documentation of habitat variables. The signs of otters outside transects were also searched and recorded when they were encountered. In total we found 40 scats (Myagdi=36, Kali Gandaki=3, and Rahuganga=1) of otters while surveying 87 km, however, we couldn't collect other evidence of otters. The field result suggests that the otter scats appear to be relatively scant along the study area.

2. Questionnaires surveys

We interviewed 74 respondents living in proximity to rivers, who are involved in fishing activities or who frequently visit rivers or who had at least seen or heard about the otter. Almost all the respondents have not seen the otter recently along the river and they believe that it may have gone locally extinct from the region. They think that the construction of electricity dams, unsustainable fishing, loss in prey biomass, illegal killing and hunting (12-15 years ago Indians used to visit for the hunting of otter along these river streams but this is not prevalent in the recent time) and disturbances (road construction on both the side of the river) are the major threats to otter in the region and local people allege these threats to be the prominent reasons for the drastic decline in otter numbers.



Fig 2: Team leader (Pravin Giri) documenting sign survey data in Myagdi River



Fig 3: Scats (spraints) of otter captured in Myagdi River



Fig 4: Team leader (Pravin Giri) interviewing local people for questionnaire survey

3. Camera trapping survey

In total we installed 7 camera traps along the two different rivers (Kali Gandaki River: 6 cameras and Rahuganga River: 1 camera) in potential sites for 10 days in order to ascertain the presence/absence of otter. But our camera traps did not capture the image of Eurasian otter. Even though we planned to install 13 cameras for 15 days in different potential sites along the Kali Gandaki River, we couldn't install all the cameras due to the high chances of camera trap being stolen. We have planned to install the camera traps again for another 10 days along the potential otter habitat sites in the next phase of the project.



Fig 5: Setting up camera trap for otter survey in Kali Gandaki River

Challenges encountered during the 2nd phase of the project

- Some of the river sections were unreachable due to the highly difficult and sloppy terrain so in few cases we had to make a risky decision on reaching the site for the survey while, in few cases we had to skip them.

- In most of the cases we observed that local people were indifferent to the issues of the river ecosystem and otters, so it was hard to convince them particularly to participate in our questionnaires survey.
- Installing camera traps along the river section with large settlements around was really a challenging task for us as the risk of camera traps being stolen remains always high.



Fig 6: Fisherman deploying Tehari Jal (Fishing net) for fishing in Myagdi River

Further plan

In the 3rd phase of the project, we planned to conduct the following activities.

- School teaching and eco-club formation in schools.
- Community teaching.
- Developing young people as citizen scientists.