

Progress Report

Raptor Migration Study and Conservation Camps Along the Migration Corridor and Wintering Ground in Nepal



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Website: www.birdsofnepal.org

Project Duration:

February 2014 to May 2014

Submitted to:

The Rufford Foundation, United Kingdom



Rational and Objectives of the Project

Raptors are at the top of food chain and have a direct impact on population when the environment is stressed. There are several threats to the population of raptors this includes poisoning, destruction of nesting sites, shooting, habitat alteration, climate change and direct human persecution. In Nepal around 41% of raptors are believed to be threatened due to above factors. Presently it has been identified the drug diclofenac which resulting the catastrophic decline on south Asian vulture population also has a same effect on Aquila eagles (Sharma et al 2014). Therefore long term monitoring on population of these birds could be very important to show the effect on population. Nepal has diverse topographic/geographic and climatic condition that supports variety of habitats for the raptors species including east to west raptor migration flyway as well as wintering ground for many species of raptors. Migration of Steppe Eagle *Aquila nipalensis nipalensis* is extraordinary in this part of the world. Beside Steppe eagle additional 35 species of migrating raptors can be spotted here. Study of migratory raptor population from migration corridor using watch site is very effective method to monitor regional raptor population, which could lead to identify population trend and predict the species status.

Therefore present project aims to study raptors population from the east west migration corridor during each autumn at Thoolakharka watch site, south of Annapurna Himalaya and conduct several conservation camps along the migration corridor and wintering areas in Lumbini and Kapilvastu of western Nepal.



Major Activities and Result

Raptor conservation awareness camp was conducted in total of 40 schools of three districts, namely Kaski, Rupandehi (Lumbini) and Kapilvastu district that covering total of 2708 students.

Conservation Camps

Raptor conservation camps were conducted in two major sites (a) Pokhara valley and along the migration corridor to the north part of Kaski district. In Pokhara Valley conservation camps were focused in “Kande”, “Nau-dada”, “Lumle”, “Dhampus” and “Hemja” area because this is the major corridor for raptor migration during autumn. (b) Lowland wintering ground in Rupandehi and Kapilvastu district to the lowland of western Nepal, which supports many wintering and resident raptor species including globally threatened Imperial Eagle *Aquila heliaca*, Greater Spotted Eagle *A. clanga*, White-rumped Vulture *Gyps bengalensis* and Indian Spotted Eagle *Aquila hastata*.



Education campaign in the breeding and stopover site is prime requisite for the minimization of threats and species conservation. Therefore conservation camps were

organized in several schools around the migratory sites as well as wintering area in Pokhara Valley and along the lowland districts Lumbini and Kapilvastu that supports Farmland of Lumbini and Jagadishpur IBA. Conservation camps were supported by relevant banners and power point on different aspects of raptors including their ecology, importance of raptors to the farming community and maintenance of environmental health, threats and conservation needs. Conservation camps were organized in total of 40 schools (List of the school and number of participants is included in the **Annex II**). The participants' number in each school was ranged from 19 to 273 and covered between grade 5 to bachelor level.

Prior to the presentation/lecture questionnaires survey was conducted to find out the behavior, attitude, threats and existing knowledge by using pre settled questions. Model of the questionnaire is provided in the **Annex I**. Stories on raptors and other birds were also presented on the camps to make conservation camp more interesting and effective. Other activities including essay writing, raptor picture drawing and raptor quiz were also conducted in the conservation camp.

In Kaski District Camps were conducted in total of 20 schools that covered 1001 students. Similarly 10 schools on Lumbini covered 823 students and 10 schools in Kapilvastu district covered 884 students.



Essay Competition

Essay competition was conducted to find out the existing knowledge of raptors among the students and promote raptor conservation activities. Both Nepali and English medium essay competition was conducted among the students of class eight, nine and ten in 2 Schools.

In Paramount English Boarding school, Rupandehi, English medium essay competition was organized and total of 19 students from class 9 were participating in the competition. Among the participants Aadarsha Bhusal, Pratikshya Bashyal and Yojana Aryal hold first, second and third position respectively. Similarly; Nepali essay competition was organized in Shree Bishnu Paduka Secondary School, Kaski. Total of 12 students were (class 9 and 10) participating in the completion and Sarita Gurung, Rita Gurung and Naresh Gurung hold the first, second and third position respectively.

To encourage the students on raptor/birds conservation, different books such as Birds of Nepal (Field guide book in Nepali language), Charaka Kathaharu (Story of Birds) were provided as a prize for the winners.

Drawing Competition

Open individual drawing competition was held in Future Star Boarding School located at Lumle-5, Kaski. Total of 14 students were participating in the drawing competition. In the drawing competition students drew the picture of different kinds of raptors including vultures, eagles and hawks. Susmita Subedi, Anjali Thapa and Babita Devkota hold the first, second and third position respectively.



Quiz Competition

Quiz competition was held in Shree Mahendra Secondary School, Kaski. Total of 16 students were participated in the quiz contest. Students were divided into 4 groups and named as Steppe Eagle, Peregrine Falcon, Himalayan Vulture and Eurasian Sparrowhawk. Objectives questions related to raptor and other wildlife were asked in the competition. Himalayan Vulture and Peregrine Falcon group respectively hold the first and second position.



Questionnaire Survey

Before the talk programme on each school and discussion on raptor conservation issues; a short questionnaire survey was conducted among the students. Short questionnaire was given to the students concerning about the knowledge on raptor and threats and the data was taken. Model of questionnaire is provided in the **Annex I**.

Note: *Analysis of the survey will be included in the final report.*



Photo: *Black-eared Kite (Milvus lineatus) caged in Lumbini area*

Annex: I

Questionnaires Survey Form for the Students before Raptor Conservation Camp

School:-

District:

Location:

Date:

(Instruction for questionnaire survey in conservation camp: ask each question, tell them to raise hands and write number in the box)

- | | | | | |
|-----------------------------------------------------------------------------------|-----|--------------------------|----|--------------------------|
| 1. Have you ever seen Raptors (sakarichara)? | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| 2. Do you think Raptors are useful/important? | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| 3. Have you ever noticed or have seen the nest of raptors? | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| 4. Do you know or have you ever destroyed the nest of raptors? | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| 5. Do you know or have you collected raptor eggs or nestlings? | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| 6. How many of you have catapult with you at your home? | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| 7. Do you know or have you trapped or killed raptors? | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| 8. Do you know or have you eaten raptors meat? | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| 9. Do you know somebody keeping raptors at home? | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| 10. Do you know about raptors migration? | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| 11. Do you know raptors from different countries come to this area during winter? | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |

Surveyor's Comments (if any):

Surveyor Name:

Annex II

SN	Name of Schools	District	Total students
1	Gyanu Baba Secondary Boarding School	Kaski	57
2	Bhanubhakta Secondary Boarding School	Kaski	59
3	Sunflower Secondary Boarding School	Kaski	45
4	Spiral Galaxy Higher Secondary Boarding School	Kaski	60
5	Pokhara Academy	Kaski	87
6	Shree Bindhyabasini Higher Secondary School	Kaski	57
7	Balmandir Higher Secondary School	Kaski	43
8	Prativa Higher Secondary School	Kaski	40
9	Laxmi Adarsha Higher Secondary Boarding School	Kaski	80
10	Shree Amar Singh Model Higher Secondary School	Kaski	120
11	Machhapuchhre Secondary School	Kaski	25
12	Morning Star Secondary English Boarding School	Kaski	23
13	Future star Lower Secondary School	Kaski	28
14	Balmandir Secondary School	Kaski	38
15	Shree Bishow Lower Secodary School	Kaski	28
16	Udaya Madhyamic Bidhyalaya	Kaski	36
17	Shree Prithvi Narayan Madhyamic Bidhyalaya	kaski	54
18	Bal Jyoti Secondary School	Kaski	32
19	Shree Bishnu Paduka Secondary School	Kaski	28
20	Shree Mahendra Higher Secondary School	Kaski	61
21	Butwal Multiple College	Repandehi	30
22	Deep Boarding School	Rupandehi	78
23	Pamir Academy	Rupandehi	47
24	New Horizon English Boarding Higher Secondary School	Rupandehi	32
25	Dawn Children English High School	Rupandehi	19
26	White House Education(Bridge Course Centre)	Rupandehi	273
27	Tinau English Boarding School	Rupandehi	28
28	Oxford Higher Secondary School	Rupandehi	196
29	Kalika Higher Secondary School	Rupandehi	49
30	Paramount English Boarding School	Rupandehi	71
31	Wisdom Higher Secondary School	Kapilvastu	56
32	Janata Higher Secondary School(Grade 9A+9B)	Kapilvastu	99
33	Shree Banganga Higher Secondary School(Kapilvastu	86
34	Horizon English Boarding Higher Secondary School	Kapilvastu	120
35	Pancha Lower Secondary School	Kapilvastu	120

36	Bal Secondary School	Kapilvastu	175
37	Shree Siddhartha Secondary School	Kapilvastu	74
38	Little star Secondary School	Kapilvastu	33
39	Odari Secondary School	Kapilvastu	54
40	Hem Raj higher Secondary School	Kapilvastu	67
	Total number of participants		2708



Photo: *Peregrine Falcon*