

Final Evaluation Report

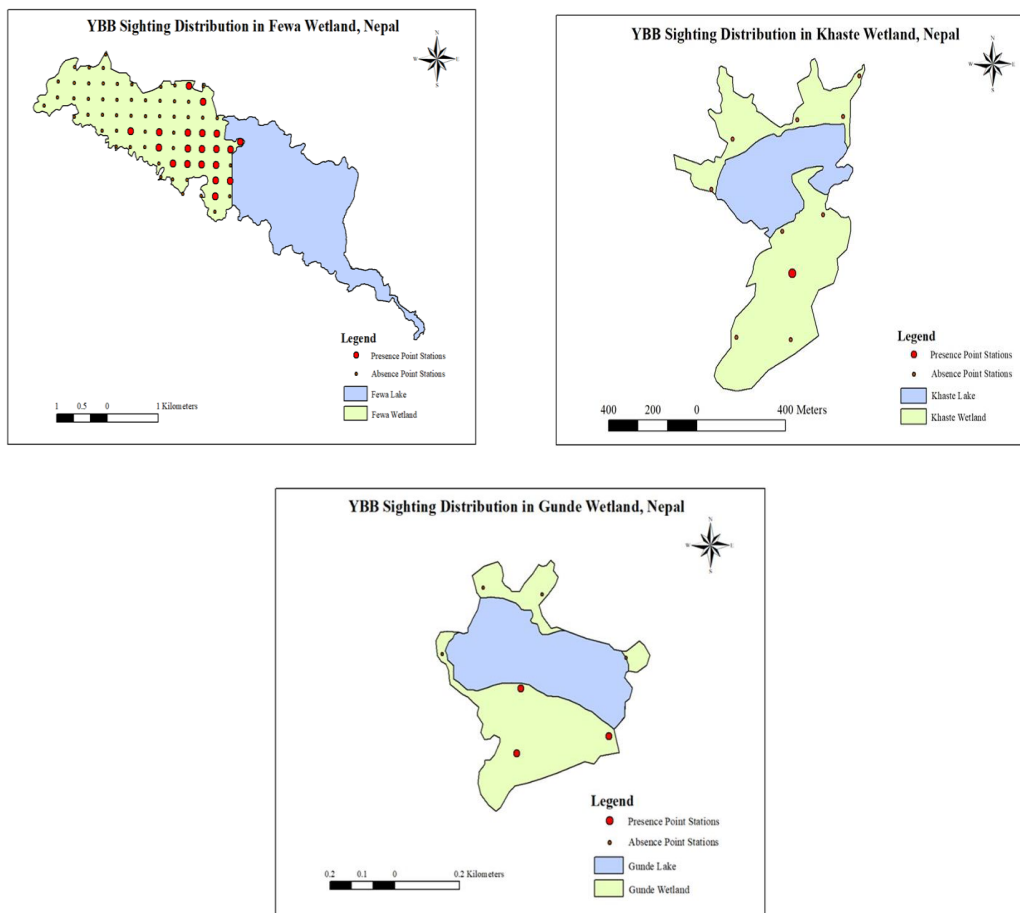
Your Details	
Full Name	Anisha Rana
Project Title	Yellow-breasted Bunting: Population Status, Distribution, and Conservation Challenges in Pokhara Lake Cluster, the youngest Ramsar Site of Nepal
Application ID	35485-1
Date of this Report	7th December 2022

1. Indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.

Objective	Not achieved	Partially achieved	Fully achieved	Comments
Abundance and Distribution Monitoring				After the preliminary survey, abundance and distribution monitoring were conducted in all nine lakes of the Pokhara Lake Cluster (PLC). Point count survey was employed where the count stations were established using the GPS coordinates in the study area. The monitoring duration was correspondent to the recorded months of stay of yellow-breasted bunting (YBB) in Nepal. Distributional map was created using ArcGIS 10.3.1. Students from Institute of Forestry Pokhara Campus, volunteered for the survey as well.
Threats' Analysis				Direct observation, followed by questionnaire survey, led to the application of Friedman's Test to rank the identified potential threats for YBB (and other bird species in general) and assess their significance. The volunteers from the Institute of Forestry (also locals to the site) assisted with the questionnaire surveys in all the nine lakes of the PLC.
Awareness Campaign				School teaching (N=15), drawing competition and photo exhibition, seminar (including all the local level stakeholders), radio programme (four episodes), and distribution of awareness related promotional materials (t-shirts, information posters, leaflets, etc.) were carried out in and around the study area.
Installation of Signboards indicating Voluntary Avoidance Area (VAA)				Signboards were installed in all the nine lakes in close collaboration with the respective lake management committees. With their installation, we expect positive impacts in terms of increased reach of information on YBB to the general public in the study area.

2. Describe the three most important outcomes of your project.

a). Abundance and Distribution Analysis: This is the first study that has been conducted on yellow-breasted bunting at the scale of Pokhara Lake Cluster (PLC) for the entire period of its stay (as recorded in ZSL Red List of Nepal's Bird). Point count stations were used to monitor the abundance and distribution of YBB in the study area; primarily based on direct sightings. Our study recorded an average abundance of 12, 13, and 230 in Gunde, Khaste, and Phewa lakes respectively whereas no records were made in the other six lakes of the PLC during the project period. This might be due to the difference in the time of survey as there are high chances that YBB might be visiting the latter lakes too as they were quite near to the ones where YBB has been recorded and possess similar vegetation structures too. Also, the poor weather conditions during rainy season in the field might have led to poor visibility. The recorded numbers are quite lower when compared to previous records of winter bird survey conducted by Pokhara Bird Survey (PBS).



Similarly, distribution maps (above) were created using the GPS coordinates for recorded stations, and YBB was found sparsely distributed in Khaste and Gunde lakes but was comparatively more clustered on the western side, on the adjoining wetland area of the Phewa lake. The main outcome is that this survey provides a baseline information on YBB for the entire period of its stay in the wintering ground PLC.

b). Threats Analysis of YBB: We interviewed the local people from all the nine lakes of PLC (N = 305) and their numbers were based on number of the households present in and around the respective lakes. Although most of the respondents didn't recognise YBB, respondents from all the nine lakes reported that there has been an overall decrease in the number of bird species in the lake area as compared to the past decades. The direct field observation, followed by the questionnaire survey, indicated the major ranked threats to be habitat destruction, water pollution, recreational activities, and cattle grazing in the study area. This shows the importance of lowering the intensity of human-induced disturbances and implementing local level interventions towards the conservation of the natural habitat, its flora and fauna species of the PLC.

c). Awareness Program: It was an outstanding opportunity to witness the impacts that our conservation and awareness programmes had upon the concerned stakeholders. All the programmes and related activities were successful in imparting the knowledge and awareness on the importance of the critically endangered species yellow-breasted bunting, as well as on our individual and collective efforts necessary for its conservation. The first and foremost achievement is that we were successful in creating awareness about the existence of the YBB in the PLC. Secondly, we received an enormous willingness of the lake management committees and other stakeholders towards proper management of lake resources for the conservation of the species inhabiting these sites in the days ahead. School teaching helped build a foundation of the concept of conservation among the students, and based on their enthusiasm, we believe that this will eventually motivate them to be responsible towards conservation of natural resources in the future

During the school teaching, we carried out before-and-after knowledge analysis by asking the students (total 750 in number) to answer questions related to knowledge of yellow-breasted bunting, before and after the completion of the programme respectively. The analysis included the following set of questions:

- a. Have you ever heard the name of Yellow-breasted Bunting (Bagale Bagedi) bird before?
- b. Where is it found?
- c. What size is this bird?
- d. What is the colour of this bird?
- e. Do you know about the IUCN categorization of Yellow-breasted Bunting?
- f. Is this bird found in Nepal? If yes, do you know where and when?
- g. What does it feed upon?
- h. What is the ecological importance of this bird?
- i. Why should we conserve Yellow-breasted Bunting?
- j. Do you know any factors that might threaten its survival?

Almost none of the students had any information about yellow-breasted bunting and hence we received no significant answers before the teaching programme. However, once the programme was completed, they were provided another form in which all of them submitted their answers correctly. They were very keen to learn about yellow-breasted bunting, as bird species and their conservation importance

are rarely a topic, which are included in the academic curriculum. This showed that conducting school teaching in a long-term manner, can be a good way to build a foundation for conservation of such species, from a very young age.

The most significant achievement of this work are as follows:

- It has added to establish a baseline information on the abundance status, distribution, use of the habitat structures, and threats related to yellow-breasted bunting and other endangered species in the PLC. This information not only helps to understand YBB's habitat preference in terms of vegetation structures but also to deploy appropriate activities for its conservation in accordance with the main threats recorded in each of the lake areas in the long run.
- Awareness programmes (school teaching, drawing competition, photo exhibition, seminar, awareness-related materials: t-shirts, information poster distribution, etc.) have played an important role in making the students and local communities aware about the significance of the PLC as a major hub for endangered species like YBB, understand the role of such species in the lake ecology, as well as the local stakeholders' role in conservation of such resources. These programmes have made them realised their responsibilities at the local level for the proper management of lake resources. Involvement of local stakeholders including all the lake management committees, Division Forest Office (DFO) Kaski, Pokhara Metropolitan City, Pokhara Bird Society, Bird Conservation Nepal Pokhara Branch, Civil Society, and Media representatives have increased the focus on conservation of YBB and the lake resources in general to a greater extent. The awareness level regarding YBB, and such bird species was quite low but with the implementation of the awareness campaign programmes, the local people are now able to identify YBB and know their importance leading to their emerging willingness to collaborate in such conservation projects in near future.
- Installation of signboards: The local stakeholders including the lake management committees came forward to participate in this activity by themselves, after the completion of the awareness and seminar programmes. Our team believe that such signboards (indicating the voluntary avoidance area in nine lakes for minimising human-induced disturbances) will help in sensitising about the importance of lake resources for the endangered species like YBB and also aware local people about the negative consequences of human disturbances to these species.

3. Explain any unforeseen difficulties that arose during the project and how these were tackled.

As all the team members were quite familiar with the research area and the research techniques involved, there were not any significant obstacles during the project. However, like every project, our team also went through some unforeseen difficulties during the implementation stages and simultaneously tackled them. Foggy and rainy weather made it sometimes very difficult to conduct the monitoring

activities. In such a scenario, we completed the monitoring either on the same day once the weather was clear or simultaneously on the following days. Most of the local people had no idea about YBB (by name) so we made sure to show them the picture and accordingly gained information for threat survey. Also, certain conditions like difficulty in availability of all local stakeholders at a particular time led to changes in the previous schedule as it coincided with the festival seasons as well as elections in the country. Hence, we addressed this situation by rescheduling those programmes by creating small changes in the proposed schedule.

4. Describe the involvement of local communities and how they have benefitted from the project.

Local communities were involved in the whole awareness campaigns. Besides the questionnaire survey, the local communities were a huge part of the seminars and the signboard installation programmes. The seminar programme consisted of representatives of all the nine lake management committees, Pokhara Metropolitan City, Division Forest Office Kaski, Civil Society, Pokhara Bird Society, Bird Conservation Nepal Pokhara Branch, Institute of Forestry, media persons, and local people. We shared information about our research, our findings, and had an entire session to discuss the ways forward regarding collaborative approach towards the proper management of lake resources and conservation of YBB at the local level. The program was considered a huge success by all the participants.

The best part was the commitment the local stakeholders provided (once they gained basic knowledge on YBB) to work on its conservation by conserving the lake resources, which will ultimately benefit all the flora and fauna species of the PLC. Besides gaining knowledge, they also understood that lake conservation has different aspects to it unlike their former understanding as they believed that 'cleaning the lake by removing all the aquatic vegetation' is the ultimate action for its proper management. But now, they understand that removing all the aquatic plant resources, can have major negative impacts on the bird species and hence the entire lake ecosystem. Also, their active participation in the signboard preparation with their interests to collaborate and include their slogans and logos in the signboard, was wonderful to witness. We believe that such involvement will create a sense of ownness among the lake management committees and motivate them to work towards the long-term conservation of YBB.

5. Are there any plans to continue this work?

We conducted the abundance and distribution survey in Pokhara Lake Cluster of Nepal, and we will continue to monitor the species in coming years as well. We are planning to continue this survey in other potential habitats of YBB throughout the country i.e., at the national level. As its population is decreasing over the years, an intensive study about the ecology (including preferred habitat structures) is also important to contribute to its conservation. We also plan to perform ringing of YBB in the PLC (to start with), which is an important tool to understand longevity, mortality, territoriality, and feeding behaviour in context of the migratory bird species. Also, conducting conservation-related campaigns at the national level, will be our next top priority.

6. How do you plan to share the results of your work with others?

We have already shared the results of our work with the local stakeholders by conducting a local level seminar. Coverage of our research activities in newspapers, seminar, poster presentation and broadcasting of our radio program episodes have helped in sharing information on yellow-breasted bunting and our actions dedicated towards its conservation. Our team will produce more articles for publication in newspaper in the upcoming months for a greater and continuous reach to the public. As proposed in our project plan, we have prepared the reports of our research findings which will be distributed to the local and national level stakeholders as soon as possible. The final report and our scientific publication will be submitted to the Rufford Foundation, Ministry of Industry, Tourism, and Environment (MoITE), Department of Forest (DoF), Department of National Parks and Wildlife Conservation (DNPWC), National Trust for Nature Conservation (NTNC), Division Forest Office (DFO) Kaski, Bird Conservation Nepal (BCN), Zoological Society of London (ZSL) Nepal, Institute of Forestry (IOF), Pokhara Bird Society (PBS), BCN Pokhara Branch, Prithivi Narayan Campus (PNC), Lake Management Committees (LMCs), and other relevant stakeholders. Likewise, we will analyse our data using suitable statistical analysis and accordingly, publish our research on a journal to share our work with the international community.

7. Looking ahead, what do you feel are the important next steps?

As the project was based in the nine lakes of Pokhara Lake Cluster, the next step would be to replicate such research in different areas of Nepal (at a national level) with potential YBB habitats using past records. This will assist in attracting the national level attention to the conservation of this species. In addition, ringing of YBB seems to be a significant task because this approach not only helps to track the movement but also to understand longevity, mortality, territoriality, and feeding behaviour of migratory species. It has already been used in some of the wintering grounds of YBB in other countries. Habitat destruction was one of the main threats so identifying the ways to minimise them is important. Also, the main message that we received from the awareness programmes was the lack of knowledge about such species in the local level and how such programmes can develop a sense of responsibility within the concerned stakeholders. Hence, conducting awareness programmes at both local and national level is equally important for the long-term conservation of YBB. Book and publications focused on YBB would also help in creating mass awareness for its conservation.

8. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did the Foundation receive any publicity during the course of your work?

Yes, we used The Rufford Foundation's logo in different materials such as flex banners of different programs (drawing competition, photo exhibition and school teaching) that we organised for the awareness campaign, presentations during school teaching and seminar, signboards (nine), t-shirts (200), leaflets (500) and information posters (500). The Rufford project's name has been broadcast in the

radio programmes and mentioned in news coverage while the scientific publication will also acknowledge The Rufford Foundation for its wonderful support. Hence, The Rufford Foundation received good publicity in the study area as our team provided a brief description about the foundation and its work in the beginning of all the programs conducted within the project period.

9. Provide a full list of all the members of your team and their role in the project.

Below is the full list of all the members of our team:

Mr. Manshanta Ghimire (President, Pokhara Bird Society): Provided guidance and monitoring of project activities throughout the research period and supported with online news publication of the project's activities.

Ms. Raksha Thakuri (Activities' Coordinator): Co-ordinated with all the different authorities for smooth organization of various activities of the project throughout the research period.

Ms. Sraddha Gurung (Research Assistant): Assisted with both field survey, and conservation awareness campaign.

Mr. Sirish Dangi and Mr. Mohan Buchha (Volunteers): Volunteered during the field survey as well as questionnaire survey.

Mrs. Shanti Rana (Media Coordinator): Co-ordinated with the media sector (various online media and FM radios) to support us with news coverage during the research period.

Mr. Arbin Poudel (Volunteer): Assisted with questionnaire survey and awareness programs.

Mr. Dinesh Bhusal (Co-ordinator, Bird Conservation Nepal Pokhara Branch): Assisted by providing volunteers from the organization and through continuous involvement in the awareness programs.

Mr. Amrit Poudel (Research Fellow, Pokhara Bird Society): Supported with communication and co-ordination with the local lake management committees for seminar program.

Mr. Bibek Belbase (Volunteer): Assisted by capturing the field activities in photographs.

Mr. Nabin Pandey (Volunteer): Facilitated the seminar program's discussion session.

10. Any other comments?

Firstly, our whole team truly acknowledge The Rufford Foundation for the financial support of this project. The need of research on the wintering ground of yellow-breasted bunting has been very crucial. We were able to contribute to add a

baseline dataset on the status, distribution, and major threats related to yellow-breasted bunting in its wintering ground while also raising awareness among the local stakeholders. Our group members tried our best in fulfilling the objectives of this project but still there is a lot we need to do toward the long-term conservation of yellow-breasted bunting. And we aspire to work better to bridge the knowledge gaps in our next project.

Secondly, most of the concerned stakeholders have recently gained general information about YBB existence through our project, so continuing the project with their involvement in the future is essential. Also, there was no record in some of the lakes despite similar habitat structure and the further research can be useful to provide useful insights into this situation too.



Yellow-breasted Bunting.



Researcher during field work.



Activities' Coordinator (left) during seminar program and Research assistant with local people (right) during questionnaire survey.



Drawing competition with theme of Yellow-breasted Bunting conservation.



Photo Exhibition Program (left: Media Coordinator; right: President, PBS).



Seminar program including all concerned local stakeholders.



T-shirt inauguration (Representatives from DFO Kaski, PBS and Media).



Discussion with local stakeholders on ways forward for YBB conservation.



Team members and volunteer group during the Seminar program.



School teaching programs.

DRAWING COMPETITION & PHOTO EXHIBITION PROGRAM-2022



YELLOW-BREASTED BUNTING
(बगाले बगेडी)

Project Researcher
Anisha Rana (anisharana52@gmail.com)



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SCHOOL TEACHING PROGRAM ON YELLOW-BREASTED BUNTING



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Flex Banners used for different conservation programs.

**“सिंसार पारिस्थिकिय प्रणालीको संरक्षण गरौं
अति संकटापन्न बगाले बगेडीको संरक्षणमा हातेमालो गरौं ॥”**
“Let’s conserve wetland ecosystem to protect Yellow-breasted Bunting.”



बगाले बगेडीको संरक्षण किन गर्ने ?

- विश्वव्यापी र राष्ट्रिय स्तर दुवैमा अति संकटापन्न पक्षी प्रजाती ।
- स्वस्थ सिंसार र घाँसेमैदानको सूचक प्रजाती ।
- कृषिवालीमा लाग्ने हानिकारक किराहरु खाई किट नियन्त्रकको काम गर्ने प्रजाती ।
- पक्षी पर्यटनका हिसाबले महत्वपूर्ण पक्षी ।

बगाले बगेडीको संरक्षण कसरी गर्ने ?

- सिंसार क्षेत्रहरुमा चराका लागी धापिकएका पासो तथा जालहरु हटाएर ।
- बगाले बगेडीको साथसाथै कुनै पनि पक्षी प्रजातीको अवैध शिकार भएको पाईएमा डिभिजन कार्यालयमा खबर गरेर ।
- वासस्थान खलबल्याउने मानविय कृयाकलाप बन्द/कम गरेर र वासस्थान संरक्षण गरेर ।
- आम जनमानसमा संरक्षण सम्बन्धी जनचेतना फैलाएर ।

अवधारणा

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"बगाले बगेडी र यसको बासस्थानको संरक्षणमा हातेमालो गरौं।"



तस्वीर सौजन्य: विवेक बेल्वासे



तस्वीर सौजन्य: मनशान्त घिमिरे

अतिसंकटापन्न चराहरू जस्तै बगाले बगेडी जाडो मौसम छल्ल यस क्षेत्रमा आई विचरण गर्ने भएकाले निम्न क्रियाकलापहरू नगरिदिनु हुन अनुरोध गर्दछौं।

- जाल तथा पासो नथापिदिनु हुन।
- चराहरूलाई असर पर्ने गरि होहल्ला नगरिदिनु हुन।
- बासस्थान विनाश हुने खालका कुनै पनि कार्य नगरिदिनु हुन।

सहकार्य तथा सहयोग



स्वच्छ रूपा, समृद्ध रूपा।



हिमालयन वन कायान्वय, कास्की

"बगाले बगेडी र यसको बासस्थानको संरक्षणमा हातेमालो गरौं।"



तस्वीर सौजन्य: विवेक बेल्वासे



तस्वीर सौजन्य: मनशान्त घिमिरे

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सहकार्य तथा सहयोग



हिमालयन वन कायान्वय, कास्की

Signboards for Voluntary Avoidance Area (VAA): left (Rupa Lake) and right (Phewa Lake).

"बगाले बगेडी र यसको बासस्थानको संरक्षणमा हातेमालो गरौं।"



तस्वीर सौजन्य: विवेक बेल्वासे



तस्वीर सौजन्य: मनशान्त घिमिरे

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सहकार्य तथा सहयोग



समुहिको लागि तालको विकास।



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पोखरा महानगरपालिका
POKHARA METROPOLITAN CITY



छिमेकन वन कार्यालय, कास्की

"बगाले बगेडी र यसको बासस्थानको संरक्षणमा हातेमालो गरौं।"



तस्वीर सौजन्य: विवेक बेल्वासे



तस्वीर सौजन्य: मनशान्त घिमिरे

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सहकार्य तथा सहयोग



मैदीतालको सुन्दरता हामीले रक्षित गर्नेछौं।
बनासंरक्षण गरिदिएता हामीले अभिमान गर्नेछौं।



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Signboards for VAA: left (Khaste and Neureni Lakes) and right (Maidi Lake).



Installation of Signboards in different lakes.