

Project Update: February 2022

This report provides an update to the research findings noted so far in the study area. It includes the findings from the preliminary survey and field monitoring from November 2021 to February 2022. The project has been successful in targeting the following activities to date:

1. Preliminary survey.
2. Field surveys.
3. Interaction with the local communities.

1. Preliminary Survey

A week-long preliminary visit to all the nine lakes of the study area was done in the first week of November (1st-7th) 2021. This survey was carried out specifically, for two different reasons and they were to determine the potential habitats of yellow-breasted bunting (YBB) in all the lakes of the project site as well as to build a rapport with the concerned stakeholders for effective consecutive field surveys.

2. Field Surveys

Field survey was started from the 2nd week of November 2021, employing all the different methods including abundance monitoring, distribution monitoring, and threat assessment through direct field observation in the research area. This survey was conducted in assistance with Ms Rakshya Thakuri and Mr Manshanta Ghimire along with BSc forestry students. Absolute count of the YBB was carried based on direct sighting and their calls (whenever was possible). The counting was performed in each point count stations of each of the nine lakes for a span of 10 minutes by setting a 1 minute initial settling time. All this information was recorded on field data sheets. The field team made use of the field guidebook named "Birds of Nepal (Grimmett *et al.*, 2003)" to confirm the recording of both YBB and other bird species observed in the count stations. Similarly, the geographic location of the sighting point was noted down with the help of a handheld GPS (Garmin Etrex 10). Alongside the field survey, the habitat type, and any form of disturbances prevalent in the study area were recorded. Recording of disturbances formed a major basis to assess any form of threats to YBB and other bird species at the site levels.

Altogether, we sighted 249, 13, and 12 YBB on average in Phewa Lake, Khaste Lake and Gunde Lake respectively with a maximum of 315 and a minimum of 211 sightings in Phewa, 13 and zero in Khaste, and 12 and zero in Gunde lakes. Details of these records in different lakes of the project area are presented in Table 1 as below:

Table 1: Yellow-breasted Bunting recorded for different months in different lakes during the field surveys of 2021/2022

Lakes	Number of YBB recorded				Average
	November	December	January	February	
Phewa	211	232	236	315	249
Rupa	-	-	-	-	-
Begnas	-	-	-	-	-
Maidi	-	-	-	-	-
Khaste	-	-	13	-	13
Neureni	-	-	-	-	-
Kamalpokhari	-	-	-	-	-
Dipang	-	-	-	-	-
Gunde	-	-	12	-	12

During the point count survey, YBB was recorded only in three out of nine lakes in the study area (Phewa, Khaste, and Gunde wetlands) as shown in above table. The presence count stations in these wetlands along with their distribution has been presented in the maps below:

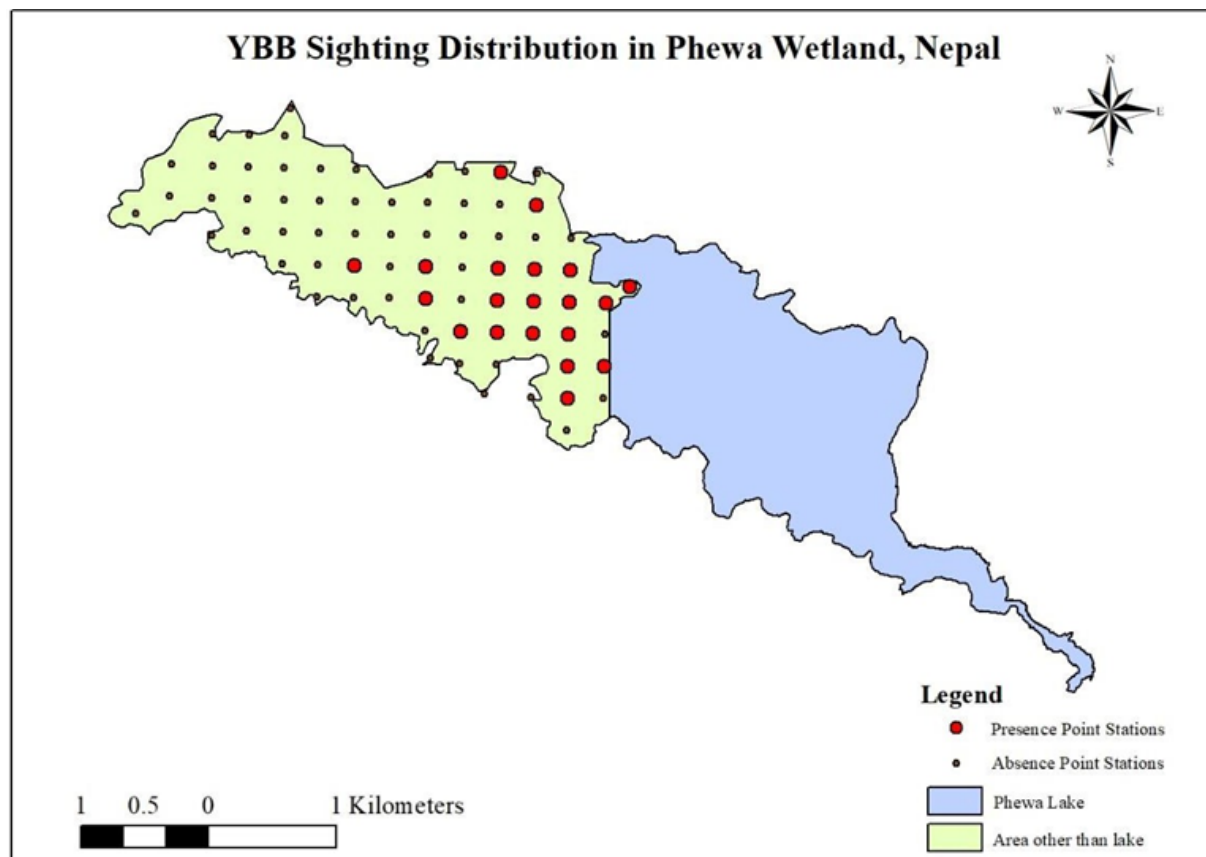


Figure 1: Distribution of YBB recorded in the Phewa Wetland

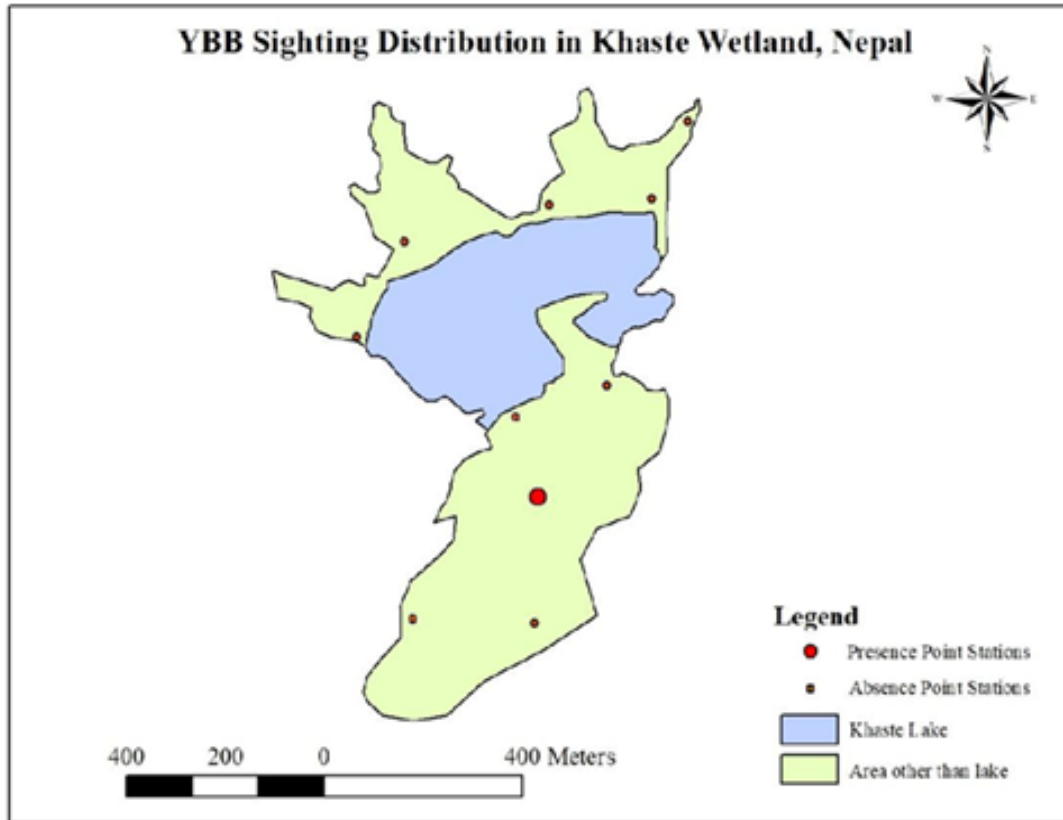


Figure 2: Distribution of YBB as recorded in the Khaste Wetland

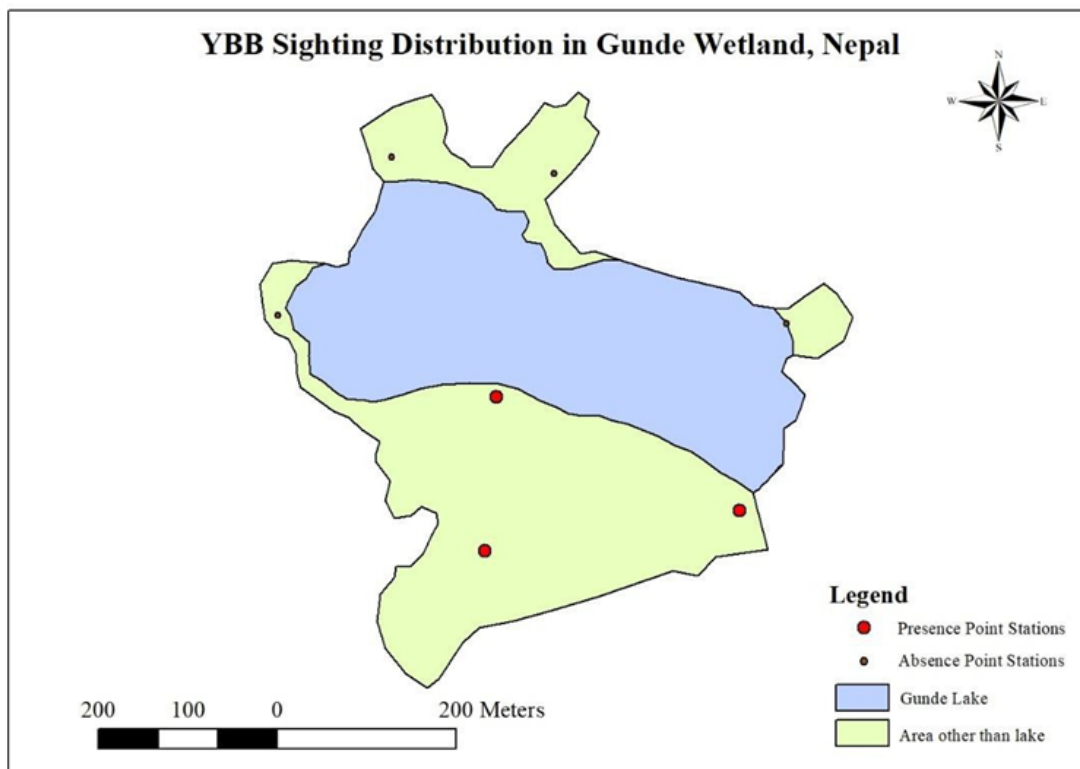


Figure 3: Distribution of YBB as recorded in the Gunde Wetland

The distribution of YBB in the present count stations was mainly found in swampy places with the vegetation type including mostly agricultural land and shrubs present in the wetland areas. Out of the total of 72, 10 and 7-point count stations, the YBB has been recorded in 20, 1 and 3-point count stations of the Phewa (Figure 1), Khaste (Figure 2) and Gunde (Figure 3) wetlands respectively. These observations of YBB in the abovementioned presence count stations have been recorded within up to 300 m from the water in Phewa wetland while from 20 to 100 m from the water in case of Gunde and Khaste wetlands and from 100 to 1000 m from the nearest human settlement. Similarly, they were found to be at a distance of 110 to 820 m from the nearest road network for Phewa while at a range from 5 to 30 m for Gunde and Khaste wetlands. Hence, it has been well noted that YBB presence was found mainly in stations that were near water sources but at a farther distance from direct disturbances such as the roads and human settlements. In the case of Gunde and Khaste Lakes, the distance from the presence count stations to the road network seems to be particularly near compared to Phewa wetland and it might be because these roads possess comparatively very lesser traffic implying lesser disturbance to the YBB in general.

3. Field Observation of Threats for YBB and other wetland dependent bird species

Alongside the abundance and distribution monitoring, field visits were also targeted towards observation of prevalent and potential threats to YBB. In the YBB sighted area, short interactions were made with the local people to understand their perception regarding the threats to the specific wetland bird species including YBB. We were able to find that local people were not quite aware with the identification of YBB and only a few numbers of them got the local name correct (i.e., Bagale Bagadi); they usually were not able to distinguish YBB with other similar birds owing to their small size. The major threats observed in the study area comprised of water pollution, urbanisation, cattle grazing, recreational activities, construction work, water diversion canals, use of the catapults, presence of hunting traps; all affecting the YBB habitat particularly the vegetation structure along with the flow and quality of lake water. The recreational activities were picnics, boating, and paragliding around the YBB's potential habitats. All these activities were observed to have imposed disturbance to the YBB's habitat and hence its distribution. An incidence of catapult use for hunting the grassland birds was also noted in the Phewa lake and this was followed by letting them know about how such activities would affect these bird species and then requested them to not use catapults to kill such birds. Similarly, there were nets (Figure 4) found in Rupa and Phewa lakes. These could serve as a potential threat to YBB and other bird species in these lakes.



Figure 4: Presence of nets found in Phewa and Rupa Lakes (left and right respectively)

The abovementioned threats were entirely based on field observations. In the following months, a semi-structured questionnaire will be undertaken and the local people, lake committee representatives, and local leaders will be interviewed. As found from the above observations, only few people were able to identify YBB so at first YBB's pictorial identification will be carried out using *Birds of Nepal*. This will help to confirm if they are familiar with YBB, or not as local names can differ in different lakes as well. Then, with the questionnaire survey, the major threats will be identified as well as ranked based on interviewee's perception to get an idea about the significant threats prevalent in different wetlands of the project area.



Figure 5: Male, Yellow-breasted Bunting during the Field Survey



Figure 6: Flock of YBB during the Field Survey (Both Male and Female). © Ms. Rakshya Thakuri and Mr. Bibek Belbase