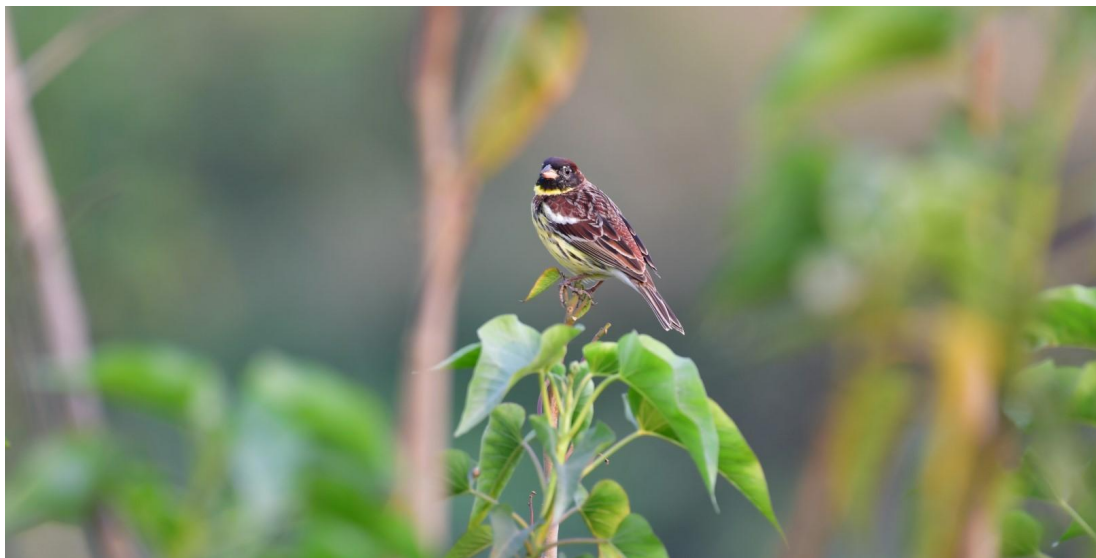


**A preliminary report regarding population and habitat assessment surveys of Yellow-breasted
Bunting *Emberiza aureola* wintering in Pokahra Valley, Nepal.**



Submitted to
Oriental Bird Club

by
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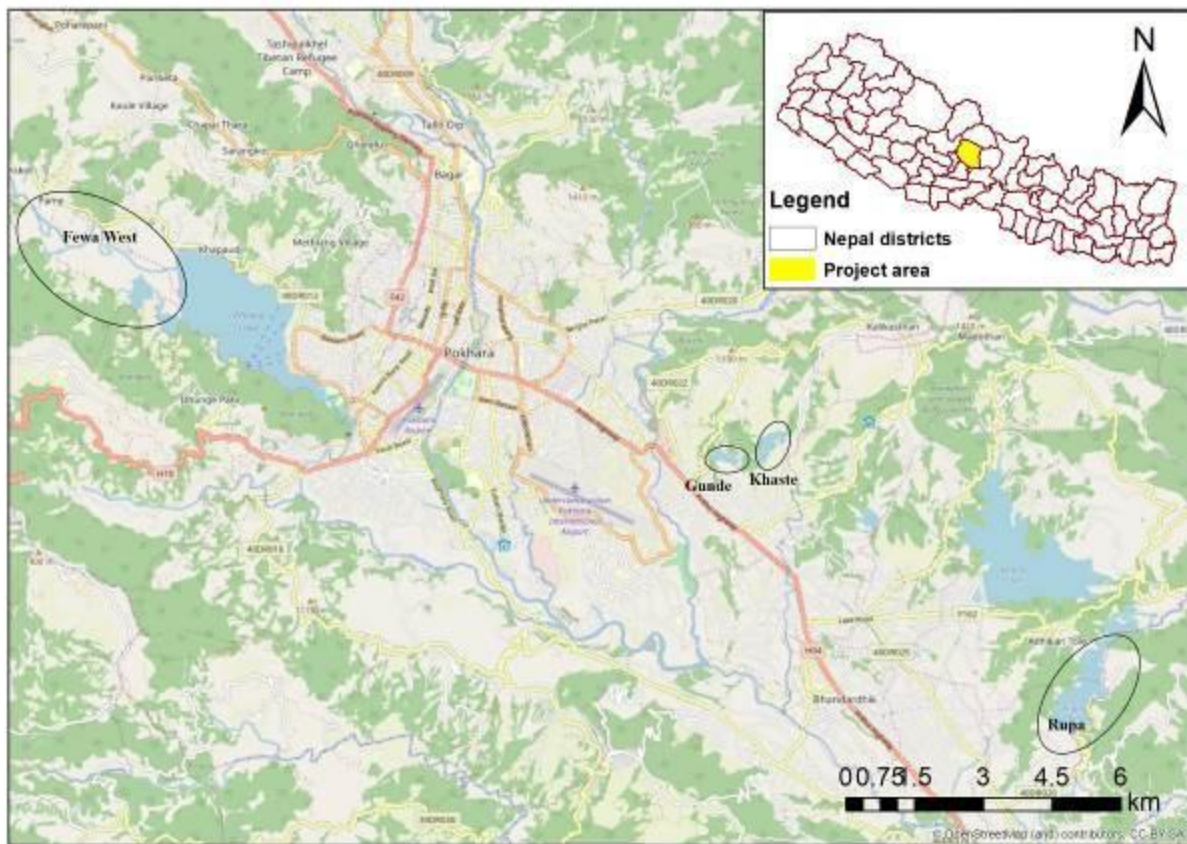
May 2019

BACKGROUND

The Yellow-breasted Bunting is a globally threatened bird first listed as Near Threatened in 2004, upgraded subsequently to Vulnerable in 2008, to Endangered in 2013, and most recently to Critically Endangered (IUCN RedList). To plan conservation actions for the species in Nepal (where present during the wintering months), surveys at previously known sites and potential sites as yet unsurveyed were considered necessary. Along with an assessment of population status, information concerning local threats, habitat use and habitat status was also deemed important.

PROJECT SITES

Given previous knowledge of wintering habitat, survey sites include farmland and grassland situated around the 'lake cluster' of Pokhara Valley were selected. The lake cluster includes nine lakes (identified as a Ramsar site), of which areas around Fewa-west, Gunde Lake, Khaste Lake and Rupa Lake were selected for survey. This was based on information provided by the local birdwatching group in Pokhara, with farmland near these lakes considered good feeding habitat for Yellow-breasted Buntings.



Map 1: Survey sites of Yellow-breasted Bunting in Pokhara

METHODS

Surveys were carried out from 31 January to 8 February 2019 inclusive, using line transect and roost count methods:

Line Transect: A line transect method was followed as described by Bibby et al. (2000). The length of each transect was c. 1 km. long, and Yellow-breasted Bunting counts and habitat data was collected from

100 m either side of the walked line. As well as Yellow-breasted Buntings, other bunting species and pipits were also recorded.

Roost Counts: Roost sites were identified and counts of roosting birds were made separately from transect counts.

Habitat Study: Habitat variables, including the percentage cover of farmland, wetland and grassland, along with the minimum and maximum height of grasses present in 100 m band either side of the transect line were recorded. Potential threats (e.g. hunting, land use practices and other observed threats) were also logged.

RESULTS

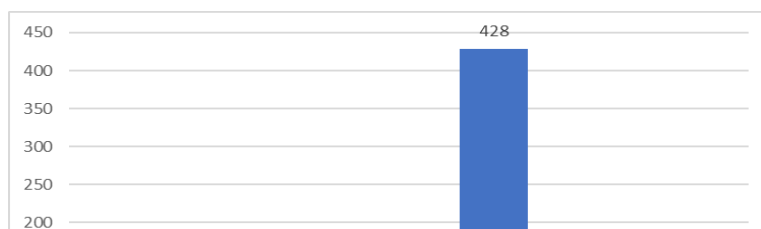
Transect Number	Location	No. of Yellow-breasted Buntings
1	Phewa-west	0
2	Phewa-west	11
3	Phewa-west	1
4	Phewa-west	1
5	Phewa-west	0
6	Phewa-west	4
7	Phewa-west	3
8	Gunde Lake	35
9	Khaste Lake	102
10	Rupa Lake	0
11	Rupa Lake	0

Line transects: A total of 11 transects were surveyed, Yellow-breasted Buntings were recorded along six of these. Twenty individuals were recorded from four transects in the Fewa-west area on the morning of 31 January; 35 individuals were recorded from one transect at Khaste Lake area on the morning of 3

February and 102 individuals from one transect at Gunde Lake area in the morning of the same date. While conducting the transect surveys, it was realised due to small size of the birds and low detectability in stubble of paddy and grass, this method is not suitable.

Roost counts: Considering the flocking nature of species and its rarity, counting birds at roost site was presumed better to assess total numbers in the area. Birds were followed in late afternoons to find the roost site and counting of all birds was conducted from early morning. The maximum number of 428 individuals was recorded in Gunde Lake area on 5 February 2019. Roosting sites at Phewa-west and Khaste Lake area had 17 (4 February 2019) and 55 (5 February) individuals, respectively. No roost birds were noted in Rupa Lake area.

Habitat Study: The habitat of the Yellow-breasted Bunting was studied along the transect lines. There were harvested paddy field in the Phewa-west area. Additionally, there were grasslands (with 10 cm to



150 cm-long grasses). The survey sites of Gunde, Khaste and Rupa Lakes had paddy and wheat fields. The percentage of farmland and grassland present in the study transects are given in Figure 3, below.

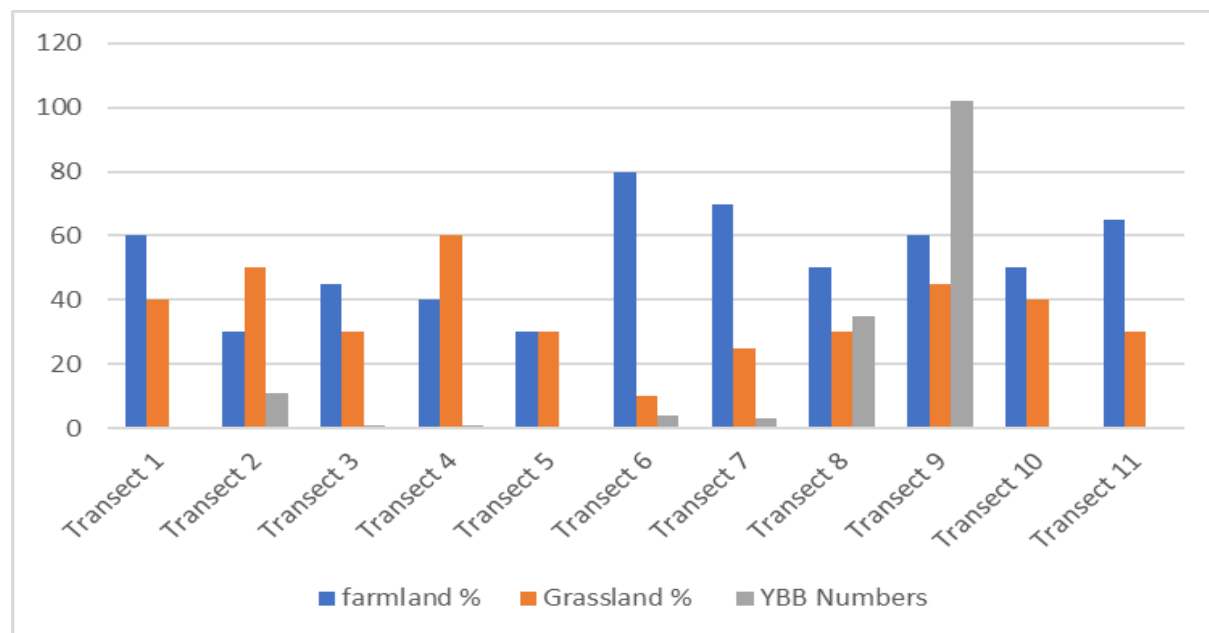


Figure 3: Percentage of farmland and grassland in each transects and number of Yellow-breasted Buntings.

The maximum area of farmland was observed in transect 6 of Phewa-west. There were also a few bushes of *Rubus ellipticus* near to the farmland that the birds were observed to use as refuges. Gunde Lake (transect 8) had tall ‘water reeds’ present in the lake; there were also three separate clumps of roosting reeds surrounded by water with farmland in the southern part. In Rupa Lake, there were tall reeds between farmland, forest and wetland.

Behavior at roosting and rest sites: Yellow-breasted buntings would hide inside bushes during resting periods and at roosting time. Birds slowly moved up to the top of a bush and scanned the area before leaving the roost site in a flock. Reeds appeared important roosting sites at Phewa-west, Khaste and Gunde Lake. Surveys in similar habitat around Rupa Lake did not yield any birds.

Threats

Habitat loss: Major threat for the Yellow-breasted Bunting in Pokhara Valley is habitat loss led by conversion of farmland to settlement, developmental activities and unfriendly habitat management such as removal of reeds and bushes.

Disturbance: All known and potential roost sites of Yellow-breasted Buntings are at major tourist sites in Pokhara Valley. They were seen directly affected by the presence of people around their habitat. Other threats include use of pesticides in farmland and untimely fire. Additionally, according to some birdwatchers, fisherman used to set fishnets to trap birds.

Unforeseen situation for Ringing: We received permission to ring Yellow-breasted Buntings from the Department of National Park and Wildlife Conservation (Nepal). The ringing was planned during this study period and experts (qualified mist-netters and ringers) from the RSPB (UK) were consulted for support and assistance in the field. Unfortunately, RSPB staff were unavailable to participate and to train our project team members. Therefore, it is planned to conduct this next year by inviting one or more professional ringing expert to train the project team.

ACKNOWLEDGEMENTS

I would like to acknowledge Oriental Bird Club for supporting me to do research on this globally threatened species. We are indebted to local people and birdwatchers of Pokhara who provided information regarding Yellow-breasted Bunting and its habitat. I would like to thank my project team members Mr. Jyotendra Jyu Thakuri and Mr. Manshanta Ghimire for helping to reach the sites and their participation in the survey. I am equally thankful to Mr. Milan Baral who joined our team as a learner and assisted in data collection and compilation.

Annex: Photos



ushes along the stream leading



Photo 3: Phragmites reeds (roosting site of Yellow-breasted Bunting) at Gunde Lake.

