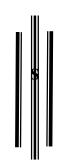
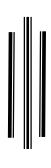
POPULATION STATUS, HABITAT USE AND BREEDING SUCCESS OF ASIAN OPENBILL (Anastomus oscitans) IN LAMI TAL AND TIKAULI TAL, CHITWAN



A Dissertation Submitted for the Partial Fulfillment of the Requirements for the Master's Degree of Science in Zoology (Ecology)

By

Srijana Sapkota Exam Roll No. 1314 Batch no. 2062\2063 T. U. Red No. 5-2-19-866-2002



То

Central Department of Zoology Institute of Science and Technology Tribhuvan University, Kirtipur Kathmandu, Nepal March, 2010

RECOMMENDATION

This is to certify that Ms. Srijana Sapkota has carried out the dissertation entitled "POPULATION STATUS, HABITAT USE AND BREEDING SUCCESS OF ASIAN OPENBILL (*Anastomus oscitans*) IN LAMI TAL AND TIKAULI TAL, CHITWAN" as a partial fulfillment of the M.Sc. Degree in Zoology under my supervision and guidance. To the best of my knowledge, this dissertation has not been submitted for any other degree in any institution. I recommend that the dissertation be accepted for the partial fulfillment of the requirements for the Master's Degree of Science in Zoology specializing in Ecology.

Tej Bahadur Thapa Associate professor Central Department of Zoology Tribhuvan University Kirtipur, Kathmandu Nepal

Date:.....

LETTER OF APPROVAL

On the recommendation of supervisor Mr.Tej Bahadur Thapa this dissertation submitted by Ms. Srijana Sapkota entitled "POPULATION STATUS, HABITAT USE AND BREEDING SUCCESS OF ASIAN OPENBILL (*Anastomus oscitans*) IN LAMI TAL AND TIKAULI TAL, CHITWAN" is approved for examinationand submitted to the Tribhuvan University in partial fulfillment of the requirements for the Master's degree of Science in Zoology with Ecology as a special paper.

> Prof.Dr. Ananda Shova Tamrakar Head Central Department of Zoology Tribhuvan University Kirtipur, Kathmandu, Nepal

CERTIFICATE OF APPROVAL

This dissertation submitted by Ms. Srijana Sapkota entitled "POPULATION STATUS, HABITAT USE AND BREEDING SUCCESS OF ASIAN OPENBILL (*Anastomus oscitans*) IN LAMI TAL AND TIKAULI TAL, CHITWAN" has been accepted as a partial fulfillment of Master's Degree in Zoology Specializing in Ecology

EVALUATION COMMITTEE

Asso. Prof. Tej Bahadur Thapa Supervisor Central Department of Zoology Tribhuvan University Kirtipur, Kathmandu Prof. Dr Ananda Shova Tamrakar Head Central Department of Zoology Tribhuvan University Kirtipur, Kathmandu

External Examiner

Internal Examiner

Date of Examination:....

DECLARATION

This study entitled "POPULATION STATUS, HABITAT USE AND BREEDING SUCCESS OF ASIAN OPENBILL (*Anastomus oscitans*) IN LAMI TAL AND TIKAULI TAL, CHITWAN" is original of its kind and has not been submitted anywhere. The findings and statements stated in this dissertation are based on my own field works.

Date:

Srijana Sapkota Exam Roll No.1314 T.U. Regd. No. 5-2-19-866-2002

Date:....

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Srijana Sapkota

Central Department of Zoology T.U. Redg. No. 5-2-19-866-2002 Exam Roll No:-1314 Batch:-2062/2063

ABSTRACT

The Asian Openbill (*Anastomus oscitans*) is the vulnerable species of birds. Its population has been declining in the Chitwan. Present study was carried out to determine the population size, habitat use and breeding activities in Lami Tal and Tikauli Tal, Chitwan. Road transect surveys methods were used to collect data of Asian Openbill and Jacknife technique was used to calculate the estimated population size. The conservation threats were analyzed by field surveys and questionnaire surveys.

The maximum estimated population size of Asian Openbill was 118 in Tikauli Tal area and 151 in Lami Tal area. Asian Openbill was found to use the wetlands for nesting, foraging and feeding purpose. The total nest recorded during the study was all in the wetland area. The feeding grounds surveyed were all the wetlands as rice fields as rice fields, marshy areas etc. Saj (*Terminalia tomentosa*), Simal (*Bombax ceiba*) and Palas (*Butea monoserma*) were extensively used by Asian Openbills for nesting purpose.

Using active nests as primary unit, the breeding success of Asian Openbill was 87.5% in Lami Tal area and Tikauli Tal area. Two types of results were found from the different sites. No any significant in flock size of Asian Openbill was found between nesting and post-nesting phase ($t_{cal}=2.24 < t_{tab}=2.31$) in Lami Tal while there was significant difference in flock size of Asian Openbill between nesting and post-nesting phase ($t_{cal}=2.71 > t_{tab}=2.31$) in Tikauli Tal.

Remarkable decline in the no. of Asian Openbill may be due to the habitat destruction, lack of food, natural calamities, unfavourable condition and use of chemical fertilizers. Raising of awareness among the local people, plantation of nesting trees in wetland area and providing information about the ecological role of Asian Openbills in controlling the paddy pests.

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ABBREVIATIONS AND ACRONYMS

BCN	=	Bird Conservation Nepal
CNP	=	Chitwan National Park
DNPWC	=	Department of National Parks and Wildlife Conservation
IUCN	=	International Union for Conservation of Nature
PA	=	Protected Area
PWR	=	Parsa Wild Reserve
RH	=	Relative Humidity
AOb	=	Asian Openbill
CFUG	=	Community Forest User Group
UNESCO	=	United Nations Educational, Scientific and Cultural
		Organization
(°C)	=	Degree Celcius
KBS	=	Kulik Bird Sanctuary
CWRC	=	Centre for Wildlife Rehabilition and Conservation
MOFSC	=	Ministry of Forest and Soil Conservation