

A preliminary assessment of bat diversity and people's attitude towards their conservation in Baksa District, western Assam

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Abstract

Field studies were conducted in Baksa district of western Assam to assess the bat diversity and their conservation opportunities especially in the anthropogenic landscape. We report the presence of 14 bat species in 10 genera and 4 families from the study area which is likely to go up with intensive surveys. The bat genus *Myotis* is being reported for the first time from Assam. Since many of the bat species encountered are found in anthropogenic environment, they remain vulnerable to persecution and protecting bat populations in human landscape remains a big challenge. However, it also throws us an opportunity for conservation as educating the villagers about the importance of bat and persuading them to live in harmony can go a long way in conservation of this little known but ecologically important group of animals.

Keywords

Bat diversity, threats, conservation, Baksa district, Assam

Introduction

The bat (Mammalia: Chiroptera) fauna of the north eastern part of India is exceptionally diverse with at least 70 species, including a few newly described and recently reported species (Bates and Harrison, 1997; Thabab and Bates (2002); Sinha, 1999; Ruedi *et al.* 2012a, 2012b). This constitutes well over fifty percent of the total bat species diversity (123 species) from India (Ruedi *et al.* 2012; Sanjitha and Dookia, 2013). However, compared to the north eastern region as a whole, the bat diversity of the state of Assam is seemingly poor at 30 species (Bates and Harrison, 1997; Sinha, 1999; Boro *et al.* 2013; Boro and Saikia, 2015) which may partly be attributed to the lack of field studies in the state. Despite the tremendous ecological role of bats in maintaining a healthy ecosystem, they are one of the least understood and explored mammalian group especially in the north-east Indian context. In this backdrop, the authors initiated a series of preliminary field

surveys in Baksa district of western Assam to assess the bat diversity of the area especially in the anthropogenic environment and to assess the threat faced by them. Located in the northwestern part of Assam, Baksa is one of the newest districts of Assam. It is bordered by Bhutan in the North, Udalguri district in the East, Barpeta, Nalbari and Kamrup district in the South and Chirang district in the West. Baksa district covers an area of approx. 2400 sq. km. Vegetation is dominated by tropical moist deciduous type and interspersed with semi-evergreen forest.

Methodology

The field surveys were conducted between February, 2012 to July 2013 in five localities of Baksa district (Map1) namely Goreswar (approx. 26°31'55"N, 91°43'17"E) Balahati Village (approx. 26°32'53"N, 91°42'02"E),