



Microbat species *Rhinopoma microphyllum kinneri* and *Rhinopoma hardwickii* new roosting site in Bithuja, Balotra. India

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ABSTRACT:

Study observed microbats viz micro bats species *Rhinopoma microphyllum kinneri* and *Rhinopoma hardwickii* first time in charbhuz temple Bithuja (25°49'59.9"N 72°13'59.9"E). Bithuja is a village and situated in Balotra. These two micro bats are insectivorous in nature. agricultur land is present in and around Bithuja, Balotra.

Keywords: *Rhinopoma Microphyllum Kinneri* , *Rhinopoma Hardwickii*, Bithuja, Balotra.

Introduction:

Bithuja (25°49'59.9"N 72°13'59.9"E) village is situated on the banks of Luni River in Balotra. Where is famous old temple charbhuz temple. During investigation in November, 2021, it was found two microchiroptera species *Rhinopoma microphyllum kinneri* and *Rhinopoma hardwickii* in study site. Chiroptera are two sub orders viz., Megachiroptera and Microchiroptera.

Chiroptera play an important role in ecosystem such as seed dispersion, pollination, insect control, guano. (Hassi, 2018; Soni, 2021). Air temperature ranges between In summer the temperature ranges between 24°C to 45°C and winter 18°C to 22°C.

The small mouse-tailed bat, *Rhinopoma hardwickii* insectivorous species.

Chiroptera are an ecologically different and geologically widespread mammalian group (Simmons, 2003). The roosting plays ecological and evolutionary habits in bats. Roosts provide sites for mating, availability of food resources, protection, social organization, hibernation and rearing young (Kunz, 1980; Soni, 2019).

Material and methods:

During investigation some methods were used such as The counting of bats was done by captures and recaptures method by Fenton and Bell (1979), Kunz (1988), Kunz and Kurta, (1988), the direct roost count methods (Thomas *et al.*, 1979), the identification was done through identification key of Bats and Harrison (1997), and other methods viz., videography, photographic counts by Thomas and Laval (1998). The microclimatic changes observed such as temperature and humidity (maximum minimum) were recorded by thermometer and hygrometer. Global position system was used for the roosting position. (Purohit *et al.*, 2013; Soni 2019; Soni, 2021).



Fig .(1) Insectivorous bats in temple.



Fig.(2) Microbats in temple.

New roosting site:

Microchiropteran species (*Rhinopoma microphyllum kinneri* and *Rhinopoma hardwickii*)

1) Bithuja(25°49'59.9"N 72°13'59.9"E) (Charbhuz Temple):

Bithuja(25°49'59.9"N 72°13'59.9"E) village is situated on the banks of Luni river in Balotra. That has a famous old temple charbhuz temple. It is a new site where are two microchiroptera species *Rhinopoma microphyllum kinneri* and *Rhinopoma hardwickii* present there.it is ten km away from Balotra. Number of species *Rhinopoma microphyllum kinneri* 90 and *Rhinopoma hardwickii* 190 Fig.(1,2).

Conclusion:

In this way positively changes were observed in chiropterans diversity in Balotra. Many of changes viz., agriculture, insect population, transformation of factories, awareness of human and other.

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