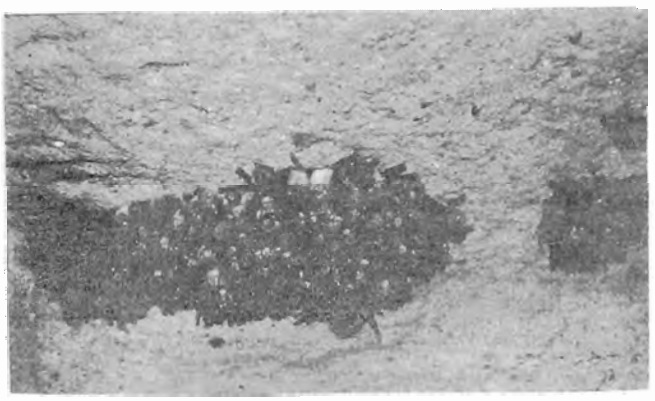
BATS OF GWALIOR REGION

Rajiv Saxena



Insectivorous bats are generally small and have more complicated ears to facilititate them to locate insects in flight through echo-location

Indian Chiroptera contains 109 species belonging to 36 genera and 8 familes, distributed throughout the country from the Himalayas to Kanyakumari and from semi-arid zone to evergreen forests. In recent years, the usefulness of fruit bats in nature conservation has been proved. According to Shahroukh Mistry (1994), three common fruit bats - the flying fox (*Pteropus giganteus*), the short-nosed fruit bat (*Cynopterus sphinx*) and the fulvous fruit bat (*Rousettus leschenaulti*) pollinate and disperse over 110 species of plants. Insectivorous bats eat insects to balance the nature. During 1992-95, six species of bats were identified in Gwalior - Chambal divisions of north Madhya Pradesh. Earlier Lindsay (1927), Brosset (1962) and Sinha (1980) conducted surveys in this region and found four of the six species recorded during present study. The species recorded and their previous recordings are as follows :

	Previous Record
1. *Pteropus giganteus*	
2. *Rhinopoma hardwickii*	Brosset 1962
3. *Taphozous longimanus*	
4. *T. kachhensis*	Brosset 1962
5. *Megoderma lyra*	Sinha 1980
6. *Hipposideros fulvus*	Lindsay 1927

References

Brosset, A. (1962) The bats of central and western India. *J. Bombay Nat. Hist. Soc.* 59:1-57; 583-624; 707-746.

Lindsay, H.M. (1927) Bombay Natural History Society's Mammal Survey of India. No. 40 - Gwalior. *J. Bombay Nat. Hist. Soc.* 31:379-382.

Mistry, S. (1994) Private circulation of survey - 10.5.94. (Unpublished).

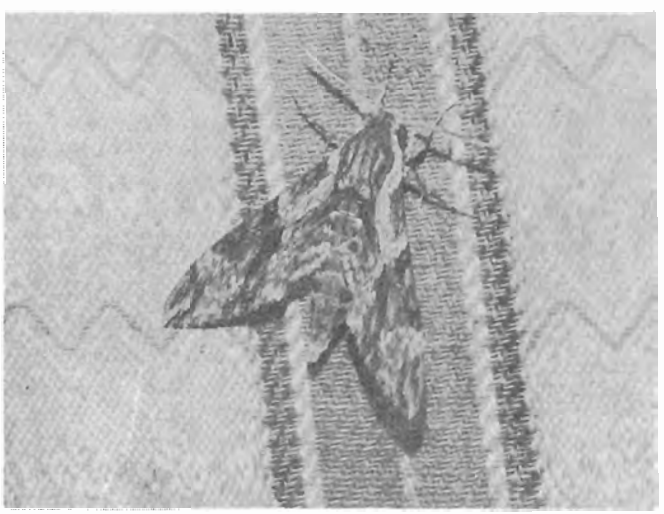
Sinha, Y.P. (1980) The bats of Rajasthan: taxonomy and zoogeography. *Record. Zool. Surv. India.* 76(1-4):7-63.

HAWK MOTH AND CROSS POLLINATION

Hawk moths belong to the family Sphingidae (Heterocera of order Lepidoptera). These are large moths that are generally colourful. They are fast fliers, and are generally seen sipping nectar from flowers with their long proboscis while they are in flight. The proboscis of some of them is as long as 14 cm which enables them to reach the nectar deep inside the long floral tube. The nectar is otherwise inaccessible to most other insects and nectar feeding birds.

These moths help in cross pollination in tubular flowers which bloom after sun set. Such flowers are sweet scented, and therefore, easily attract nocturnal insects. Hawk moths hover over the flowers, and sip the nectar in flight without settling on them. In this way, the pollen does not adhere to the proboscis but the hawk moths furry body catches it from stamens and pistil of the flower. As the moth flits from one flower to another, the pollen is transferred and cross pollination takes place.

Whenever you see blooming sweet scented tubular flowers, think about the important role the hawk moths play in nature.



This hawk moth came to settle on the curtain in the verandah after sipping nectar from the flowers.

MIG, 853, Darpan Colony, Thalipur, Gwalior.