

Observation of albino *Rhinopoma hardwickii* in Bikaner, Rajasthan, India

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Abstract. Albinism is rare among wild animals as these abnormal creatures have poor survival rate and are even rejected by conspecifics. *Rhinopoma hardwickii* and *R. microphyllum* are two most abundant bat species of the Thar desert. An albino *R. hardwickii* was observed in a cave temple in Bikaner, a permanent roost of *R. hardwickii* and *R. microphyllum*. This is the first record of an albino *R. hardwickii* from the Thar and second from India.

Albinism, bats, *Rhinopoma hardwickii*, Thar desert

Bats are found almost everywhere in the world. They are unique among mammals as they are the only group that has evolved true flight. They exhibit a great dietary diversity of insects, fish, blood, fruit, nectar and pollen (Kunz 1982).

Bikaner is one of the 13 districts which constitute the Thar Desert in western Rajasthan, India. Air temperature in the area ranges between 28 and 47 °C and in May and June it rises up to 50–51 °C. Bikaner is inhabited by a variety of mammal and bird species. Numerous historical and man-made caves are found there which are used by bats as roosts. Six insectivorous and one frugivorous species of bats have been reported



Fig. 1. An albino individual of *Rhinopoma hardwickii* in the cave temple in Bikaner, Rajasthan, India; left – the individual in the colony roost (encircled), right – close up view of the individual compared to a normally coloured individual.

Obr. 1. Albinotický jedinec víkonosa indického (*Rhinopoma hardwickii*) v Bikanerském jeskynním chrámu (Radžasthan, Indie); vlevo – jedinec v úkrytu kolonie (v elipse), vpravo – detailní pohled na dotyčného jedince ve srovnání s normálně zbarveným jedincem.

from the area (Singh et. al. 2014) and the diversity of bats is increasing due to ecological changes being brought about by construction of the Indira Gandhi Canal (Sharma 2012). The Annapurna Mata temple is situated in the Pawanpuri area of Bikaner. This historical temple was built during establishment of the Bikaner State. It has a cave in the campus made by gravel mining. The cave contains a mixed colony of *Rhinopoma microphyllum* (Brünnich, 1782) and *R. hardwickii* Gray, 1831, and the latter species is the dominant bat in the roost. We have been observing this roost for a long time, studying population status and breeding biology of the two species. During one such observation we found an albino individual of *Rhinopoma hardwickii* and several photographs of it were taken (Fig. 1). This albino individual was found deep inside the cave. We could observe this particular individual for five days and after that it suddenly disappeared from the cave and was never sighted again.

Albinism in animals occurs due to the absence of the melanin pigment. As a consequence their skin looks pale/off-white and eyes look red due to the reflection of colour of capillaries of the retina. It is difficult for albino bats to survive as they are more conspicuous to predators. Albino individuals look abnormal and may get rejected by conspecifics. Their rate of survival is very low because of many factors. A large number of findings of albino bats have been reported from different parts of the world, however, the reports of albinism among Indian bats are scarce: *Rhinopoma microphyllum* (Karim 1983), *R. hardwickii* (Bhati 1988), *Hipposideros* sp. (Khajuria 1972), and *Hipposideros diadema* (Bandana & Marimuthu 2006). An albino individual of *Rhinopoma microphyllum* has been reported from the Jodhpur region of the Thar Desert (Bhati 1988). Our finding represents the first record of albino *Rhinopoma hardwickii* from the Thar Desert and second record from India.

Souhrn

Pozorování albinotického jedince víkonosa indického (*Rhinopoma hardwickii*) v Bikaneru, Radžasthan, Indie. Albinismus je u divokých zvířat vzácným jevem, neboť takto abnormálně zbarvení tvorové mají nízký stupeň přežití a jsou také často odmítáni ostatními jedinci svého druhu. Víkonos indický (*Rhinopoma hardwickii*) a víkonos velký (*R. microphyllum*) jsou dva nejhodnější netopýří druhy pouště Thar. Albinotický víkonos indický byl pozorován v jeskynním chrámu v Bikaneru, což je stálý úkryt obou druhů rodu *Rhinopoma*. Jedná se o první nález albinotického víkonosa indického (*R. hardwickii*) z pouště Thar a druhý z Indie.

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