Joint efforts for conservation of vultures in Orchha of Tikamgarh district, Madhya Pradesh, India
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Introduction
The diverse aspects related to vultures have been studied in Tikamgarh district since 2008. This revealed that the valuable and ecologically important vulture population and its conservational requirements. The degree of difficulty and the risk involved in attempting to rescue an injured wild bird depend greatly on the bird species, its size and its condition. In general, small birds are easier and much less risky to handle. Big birds such as vultures if observant can be a handful. The vulture population is being conserved through combined efforts of various departments (Forest Department, Archaeological Department, Tourism Department, Agriculture Department, Animal husbandry and Education Department), Conservationists, NGOs as well as local people. The vultures can be very well protected in their natural abodes with the provision of vulture restaurants to overcome the food shortage and regular monitoring of the breeding, roosting and feeding sites to prevent destruction and disturbance as well as awareness among the people regarding the vanishing scavengers. The mutual efforts for vulture conservation in Tikamgarh have proved that the conservation is not possible with a single authority or a group of people.

Study Area
Orchha is a town in Tikamgarh district of Madhya Pradesh State, India. Orchha lies 25.35° N and 78.64° E. Orchha Nature Reserve a beautiful and well forested area is located in the north of Tikamgarh forest division. The Sanctuary is under active management of the Madhya Pradesh Forest (wildlife) Department. Betwa is an important tributary of the Yamuna river. Orchha is a place of historic importance and has tremendous importance at the national and international level with respect to its architectural, natural and living heritage ("Orchha". Tikamgarh district website). There are fourteen ‘Chhatris’ or memorials to the rulers of Orchha, grouped along the Kanchana Ghat of the river Betwa.

Methodology
It was observed that the vulture fledglings more than a few weeks old had developed aggressive defense responses, which involved hissing, biting, and clawing. Towel or some other cloth was used to catch and handle the bird. It was simply hurled over the vulture’s head, and the wings were held against the body. The vulture that needed care was captured and transported by volunteers who work in small facilities with minimal staff. The vulture was kept cool and in dark until it was transported to Tungarayan Abhiyaran in Orchha.

Result and discussion
The Long-billed vultures (Gyps indicus) and Egyptian vultures (Neophron percnopterus) have breeding colonies in monuments of Orchha in Tikamgarh. Vultures are slow breeders, laying a single egg in one breeding cycle. For this reason it is utmost vital to take care that the fledglings survive and thus assist in overcoming the dwindling population. To achieve this target, the mutual efforts for vulture conservation in Tikamgarh have proved that the conservation is not possible with a single authority or a group of people. The local people, Forest Department, NGOs and volunteers are conserving the vultures jointly. In 2015-16 a total of 8 vulture fledglings have been rescued with cooperative efforts. The vulture breeding colonies in Cenotaphs, Jahagir Mahal and Chaturbhuj Temple are regularly monitored. The caretakers from Archaeological

Fig 1. Fledgling injured by local visitors

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Department not only perform their Government jobs but also their duties towards the environment. They are very alert during the months of May-June when the vulture fledglings learn to fly. The hot dry months of May-June (temperatures ranging between 40-47°C) often result in dehydration of the young birds. Being inexperienced and weak the fledglings once out of the nests are unable to fly back.

Sometimes the fledglings get injured while learning to fly. Due to ignorance and unawareness the local visitors also injure the vultures just for fun by stone
pelting (Fig 1.). The immature fledglings have also been rescued from river Betwa. While drinking water and taking a bath, the fledglings are unable to take the flight and fall in the river (Table 1; Fig 4.). The caretakers and local people inform the vulture experts and volunteers who in turn inform the forest department. With due permission of the forest department, the vultures are taken care of according to their conditions. There is proper facility to keep the vultures in Tungarayan, a beautiful place along river Betwa. The staff of forest department looks after the vultures here and is regularly assisted with the vulture experts. The veterinary doctors are concerned so as to avoid any mishap. The injured vultures are medicated. The dehydrated vultures are treated with ORS (clean water - 1 litre - 5 cupfuls (each cup about 200 ml.) Sugar - Six level teaspoons. Salt - Half level teaspoon. Stir the mixture till the sugar dissolves.). They were provided with 500gm of meat at a time. After keeping in observation for a time span of 5-7 days, they are released back in their natural abodes (Fig. 5-7).

Conclusion
By rescuing an injured or orphaned wild bird one has already taken the very important first step in saving its life. It is advised not to raise a baby bird yourself, no matter how appealing, or treat an injured one, no matter how tempting. Realistically, even experienced rehabilitators cannot save them all, but they can offer the bird its best second chance at survival, self-sufficiency and freedom. Effective education and outreach activities play a major role in motivating the people from different fields to join the conservation initiatives by improving their knowledge and behaviour and sharing scientific advances. The mutual initiatives of various government and non-government organisations as well as individuals have resulted in the conservation of the Mother Nature’s cleaners. The ecological position of vultures cannot be substituted by any other species.

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