



Short Communication

New Distribution Record and the Status of Long-Billed Vulture *Gyps indicus* in Sindh Province of Pakistan in 2019 – 2020

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ABSTRACT

This paper records a new distribution of long-billed vulture in the Sindh Province of Pakistan. Existing literature on long-billed vultures provides the distribution and status of this vulture in Sindh Province but does not cover the western mountainous eco-region. IUCN Pakistan's team conducted a pre-monsoon baseline survey in the province in the dry season in June 2019 and another survey in the vulture breeding season, in February 2020. Methodology included direct field observations and interviews of local communities. Field Guide to the Birds of Pakistan, by the senior author and other related literature, as well as the use of a high resolution camera helped in the identification of the species. During the surveys, information on the use of non-steroid anti-inflammatory drugs, that is diclofenac and other drugs known to be harmful to vultures, were gathered through interviews. This paper suggests that the vultures and other raptors in the mountainous eco-region of Sindh are in relatively larger populations compared to the Eastern side of Sindh due to the abundance of wild ungulates in protected areas such as the Khirthar National Park.

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Authors' Contributions

ZBM, NAS and FS jointly involved in the fieldwork. ZBM wrote the article and NAS and FS helped him.

Key words

Gyps indicus, Long-Billed Vulture, Pakistan, Sindh

The long-billed or Indian vulture, *Gyps indicus* is an oriental species. It was classified into three sub species viz., *Gyps indicus indicus*, *Gyps indicus jonesi* and *Gyps indicus tenuirostris*. These subspecies' ranges in Pakistan were approximately assigned due to paucity of collected material (Ali and Ripley, 1968). These were lumped together under the name long-billed vulture. Roberts (1991) mentioned it to breed in Kalinjhar Hills at Nagarparkar and having seen it in December 1978 in Badin district. He also mentioned that the long-billed vulture's range of distribution covers southeastern Thar Desert and areas adjacent to Nagarparkar. Ali and Ripley (1968) mention that it also breeds in Karoonjhar Mountains. Roberts (1991) considered this vulture virtually absent from Pakistan. On the contrary, Chaudhary et al. (2012) noticed increase in its population after the ban on the sale of 'diclofenac', a veterinary drug after 2007-2012. A survey was conducted around Thar Coal project sites in Tharparkar from April 23 to 30, 2012 (unpublished) and an EIA Report submitted to Government of Sindh. Karoonjhar hills in Nagarparkar were especially searched to locate nesting sites of critically endangered *Gyps* vultures. All these studies covered southeastern Sindh, neglecting western mountainous Sindh. IUCN Pakistan decided to conduct latest baseline

surveys of the vultures in Sindh province.

This paper gives the findings of two surveys conducted in 2019 and 2020. One was conducted in June, 2019, which is pre-monsoon dry summer season and another was conducted in February, 2020, which is almost the middle of the breeding season of all vulture species in Pakistan.

Methodology

Observations in the Field: A team of six persons riding two vehicles were driven at a moderate speed. Each member of the survey team watched the sky for any soaring raptor. The vehicles were stopped at various places to look for any vulture soaring in the sky. While passing through mountains or areas that were not open lands, the team made frequent random stops to scan the sky for vultures. The team watched the birds carefully through high power binoculars, photographed and also made short videos. The identification was done with the help of the field Guide to the Birds of Pakistan by Mirza (2007) and the illustrated vultures' awareness literature prepared by IUCN. Time of sightings and coordinates of the location were recorded. Knowing that the long-billed vulture can be easily confused with the Eurasian Griffon Vulture, special attention was given to its much smaller size than the Eurasian Griffon Vulture, its head covered with scattered growth of very small compactions of tiny feathers and its dirty brown colour, while identifying it in the field (Nadeem et al., 2016). The Eurasian Griffon

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Vulture breeds in the higher mountains of Baluchistan, whereas long-billed vulture nests at much lower elevations on the projections or cavities of vertical cliffs.

The primary information from rural communities and livestock herders on the use of non-steroid anti-inflammatory drug diclofenac through interviews was gathered during the surveys. Market surveys were conducted and the interviews with livestock herders and medical stores were held to find about the NSAID use for veterinary care and its availability in the market.

Results

Two nests were recorded at roughly 274 (900.3 ft.) elevation, on 11th February, 2020 in cavities in a cliff in Guri Hills of Khaar Range, 25°17.203 N and 067°16.745E, Khirthar National Park, and 20 of these were observed in the total western hilly areas of Sindh. So, this was the first evidence of its occurrence, far west of its recorded range in Sindh.

During the winter survey a total of 70 long-billed vultures were seen, 20 out of these were seen in the eastern Thar Desert of districts of Umarkot and Tharparkar, including the Gorano Wetland edge and the Karoonjhar Hills at Nagarparkar.

During the summer survey only one long-billed vulture was seen in Khirthar National Park (KNP), nine at Karoonjhar Hills, Nagarparkar and four were seen in extreme south eastern desert area, Umarkot eastwards. It was noted that very few long-billed vultures, White-backed vultures, and the red-headed vultures *Sarcogyps calvus* were still present in Nagarparkar and Islamkot areas. It was found that a drug Meloxicam, which is nontoxic to vultures, is used in these areas instead of diclofenac which is still used all over Sindh to treat sick livestock. This is in contradiction to the statement of Chaudhary *et al.* (2012) that increases in this vulture's population was noticed after the ban on the sale of diclofenac. During our summer and winter surveys we could not find any species of vulture in the agricultural eco-region. However, in the Thar Desert of Sindh at a few spots in extreme south the situation was not so bad in both seasons.

Discussion

The question that vultures are almost gone for good from Sindh, as in rest of the country, why then there is a small population still surviving in the extreme southeastern part of Sindh, especially in the districts of Umarkot and Tharparkar. It may be, perhaps, due to the carcasses of feral cattle and the wild Nilgai *Boselaphus tragocamelus* across the Indian border fence, do not get treated when sick, so the vultures get NSAID-free meat to eat. Over the last seventy years the old bulls, old cows, and Nilgai are

not slaughtered across the border as these are considered sacred by the Hindus. These animals are allowed to roam freely in the wild. It is possible that the Nagarparkar small population of vultures might be relying on these NSAID free carcasses, when soaring over Indian Territory to find food and hence they are still surviving (Baker, 1922).



Fig. 1. Long-billed vulture.

Another question that why several vultures are still found in the western mountainous eco-region of Sindh? There are now estimated around 5,000 Wild Goat or Sindh Ibex *Capra aegagrus*, about 1,250 Urial or gad *Ovis vignei* and less than 150 Chinkara gazelles *Gazella benneti* in Khirthar National Park, and a further estimated 400 wild goat and 70 Urial are in the close by game reserves of Surjan, Sumbak, Eiri and Hothiano (unpublished reports of the Government of Sindh). There must be mortality in such high number of these wild animals. These ungulates live for about ten years in the wild. Obviously, considerable number of carcasses must be available throughout the year, particularly during the years of prolonged drought. Infant mortality must also be high during the drought years. The availability of sufficient food for the vultures seems obvious. Also there are cliffs suitable for the nesting of long-billed vulture at lower elevations, where this vulture likes to nest. However, variation in summer and winter populations needs to be investigated.

Conclusion

The western mountainous eco-region of Sindh was never investigated for the occurrence of Long-billed vulture. Various baseline studies on vultures reported in Sindh are mainly of the areas in the south and southeast. This study covered the three main Ecoregions of the Sindh

Province *i.e.* western mountainous Sindh, canal irrigated central Sindh and in the east Thar Desert including Karoonjhar Hills of Nagarparkar. The trend of the decline or increase of the populations of the Long-billed vulture in Sindh can only be determined after future surveys, based on the comparison with this study. Any study giving the status of the long-billed vulture in Sindh cannot be considered complete, without covering all three eco-regions of the Sindh Province.

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Statement of conflict of interest

The authors have declared no conflict of interests.

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