

Threats and Hunting Methods of Crane Species in District Karak of Khyber Pakhtunkhwa, Pakistan

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Abstract

This study aim to determine threats to crane species, reasons of hunting, hunting methods and affective approach for conservation in district Karak, Pakistan. Study area fall on the migratory rout of the refuges flocks of Cranes species so it is extended to its migratory routs. The data were collected through semi structured questionnaires and field visits in three campuses in the months of October and November, 2010. The study find out that migratory flocks of cranes decrease by 95% in the last 15-20 years and now rarely passing through these routes. The number of cranes in each flock decrease and changed the migratory rout from Karak to Dera Ismail Khan. It is also investigated that captive population and number of individual as well as breeding pairs increased in the district Karak. This study played an important role in the awareness of local community through various methods for conservation of cranes in district Karak. The study also reports to the wildlife conservators and high officials that habitat protection is suggested to be very helpful in the conservation of crane species at district Karak.

Keywords: Threats to cranes, Migratory routs, Different methods for hunting of cranes in district Karak

Introduction

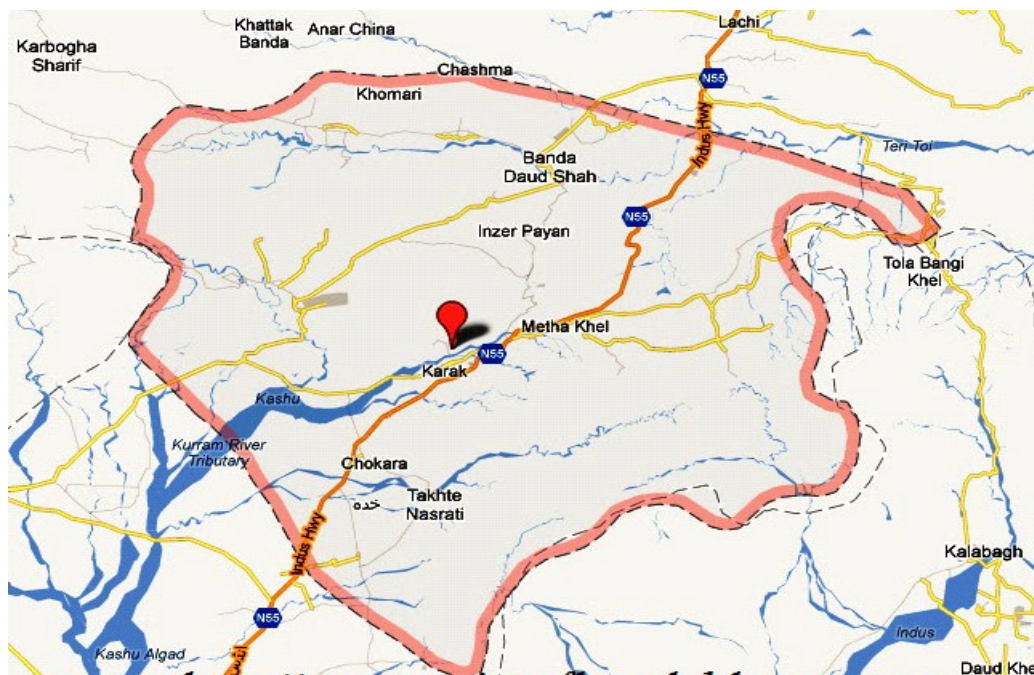
Cranes are large and attractive Creature of nature with long neck, legs and life-span. It is a group of birds that can lift the human spirit as a few other wild animals can do (Landfried, 1991). Cranes species not only demonstrate the connection with their habitat but also the attitude of human toward nature. Up to now 15 cranes species are reported from all over the world which lives on five different continents (Harris and Mirande, 2013). Which are Brogila, black-crown crane, blacked-necked, blue crane, red crown crane, Siberian wattled crane, white napped crane, whooping crane, sand-hill crane, demoiselle crane, Eurasian crane, gray crown crane, hooded crane and red crown crane (Ali, 1997). In Pakistan out of fifteen only four cranes species have been reported which are Demoiselle cranes, Eurasian crane, Siberian crane and Sarus crane (Sorokin *et al.*, 2009).

The critically endangered Siberian Crane has badly suffered from human encroachment including loss of Habitat (wetland), and illegal hunting. The hunting is thought to be the primary factor of their declination in all over its wintering range in western and central Asia. (Sorokin *et al.*, 2009). Hunting is a significant concern for the migratory populations of Demoiselle and Eurasian cranes that migrate through Afghanistan and Pakistan. Data for 2001 indicated that more than 4500 Demoiselles specimens were captured alive through traditional hunting practices and about 100 are shot for food in the Pakistan (Khan, 2004). In western part of KP (Khyber Pakhtunkhwa) catching live crane is a favorite activity. In this area crane hunting is a local tradition and a symbol of social status. As many as 5000 cranes of all three species (10-15% of the total population of migrating cranes) are shot or captured in Pakistan in a single season (Ahmad and Shah 1991, ; Jan and Ahmad, 1995). Similarly the farming activity greatly influences the migratory cranes habitat especially in wintering ground. The conversion of wintering habitat into farm land of common cranes in Palaearctics region suffers the migratory population badly (Viejo *et al.*, 1999). Threats to cranes population are geographically different which are continuously increasing because there is no effective approaches for the conservation of cranes (Perveen, 2012).

Keeping in mind the importance of cranes species from the above literature, it is needed to conserve it, protect its habitats and ban for illegal hunting of crane species. This study investigated the threats, causes of hunting, methods of hunting and migratory routs of cranes species and also accomplished awareness campaigns in three different campuses of local community for the conservation of cranes species in district Karak.

Study Area

The study was carried out in district Karak, a district of Khyber Pakhtunkhwa, Pakistan. District Karak lies from 70-40° to 70-30° North latitude and 32-48° to 33-23° East longitude having total area of 3,372 km² at elevation of 600 to 1,482 m. It is situated to the south of Kohat District and on the north side of Bannu and Lakki Marwat districts on the main Indus Highway between Peshawar and Karachi. It is 123 km from the provincial capital Peshawar.



Map of district Karak, Pakistan

Data Collection

Survey was conducted in the communities residing in Karak from October to November in 2010, using semi-structured questionnaires. Information was collected from hunters, local communities and captive crane breeders. Information on various aspects relating to threats to crane species, hunting session and hunting methods were collected through questioner. Along with the questionnaire survey in local communities, three campuses were also visited for data collection. Besides this the documentary film “crane of the sub-continent and hunter of Pakistan” watched to the local communities to know the status of cranes in past in district Karak. To know the real status of cranes declination the data analyzed and expressed in graphs.

Results and discussion

Status of Demoiselle and Eurasian in district Karak

This study found that only two cranes species i-e Demoiselle and Eurasian, visited Karak during their migration period, the remaining two Sarus cranes is thought to be the irregular visitor of the wetlands. This information was supported by another report that three species of crane migrate through Pakistan to reach their wintering grounds, including the Common Crane, the Demoiselle crane and the Siberian Crane (Johnsgard, 1983). According to the study degradation rate of cranes in district Karak is very high, which is also reported by another study that Siberian crane is no more observed in Pakistan since late nineteen eighty (UNEP/CMS, 1995). According to the respondents migratory flocks of cranes decrease 95% in last 15-20 year. During the migration periods rarely 5-9 flocks passed through this route. The number of individual in each flock was not greater than 5-11. While in past the flocks number were more than 30-50 in each flock. Similar study was reported that due to the degradation of water shed areas, which serve as a habitat for crane species, its population declined in recent years (Liu et al., 2003). Mostly flocks now pass over D.I.Khan instead of Karak. But the captive population increased many folds. The number of individual and breeding pair also increased in study area.

Threats to cranes species

This study determined that cranes have three major threats in study area, which are hunting, loss of habitat and use of pesticides as shown in Figure 01. Like other southern part of KP, hunting is found to be the basic reason of cranes degradation as compare to other factors in the study area. Hunting of cranes is thought to be a sign of local tradition. The same threat was also reported by another researcher that over exploitation of the crane species is one of the major threats leading to the population decline (Harwich, 2001). During the hunting season proper camps are established near the resting grounds of the crane species. Most of the traditional hunters from the whole district came there and hunt cranes. Similar activities are reported by another study in Lakki Marwat and Bannu (Khan, 1990; Farooq, 1992).

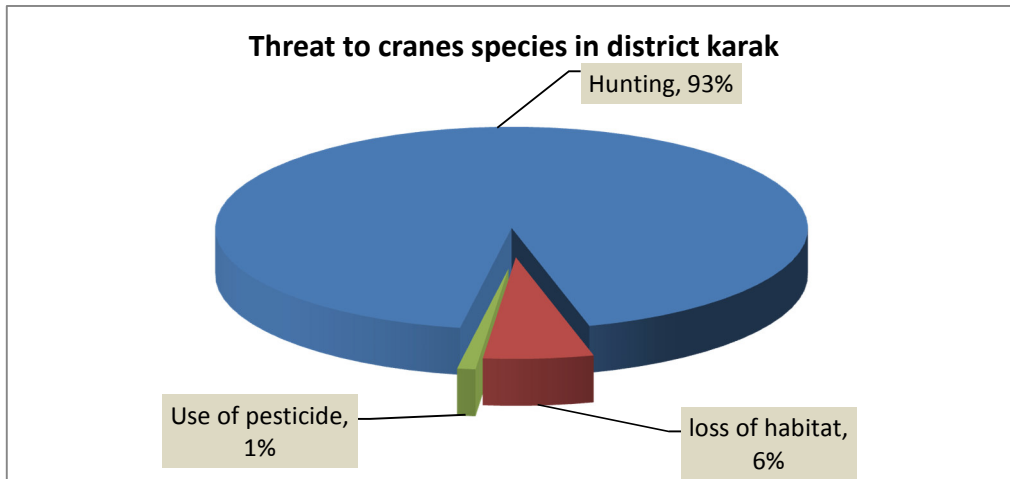


Figure 01: Ratio of threats to cranes in study area.

Hunting reasons

It was found that the basic reason of cranes hunting and trapping was just a recreational activity for the hunters. . Most of the hunters considered that it is symbol of pride and honor, so they hunt and keep the crane as pets. The only domestic use of the crane species noticed in the area was its occasional use as a food local friends party “Sobat”. Economic incentives gained from the hunting and commercial trade was negligible. Normally they are gifted to their friends.

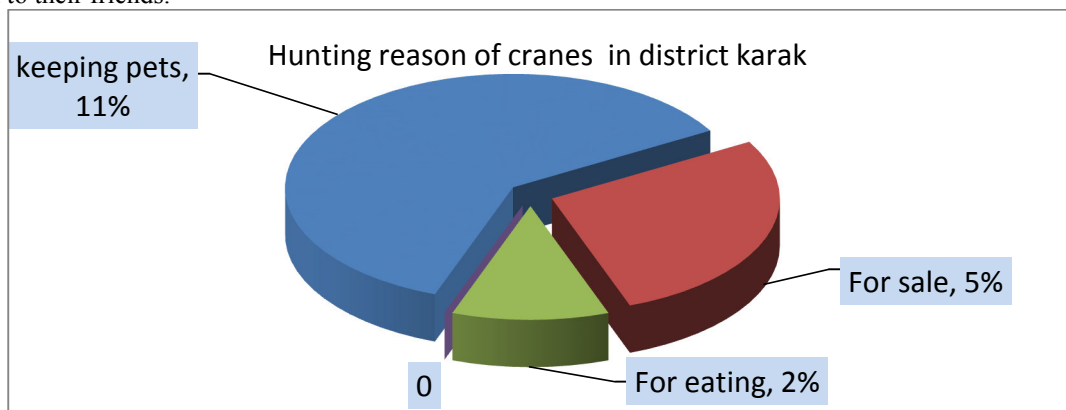


Figure 02: Reasons for cranes hunting

Hunting methods

Use of the Soya as a hunting tool was practiced by most of the hunters. While infrequent use of the gunfire was also reported from the study area. The same results were also reported live capturing and shooting cause a serious damage to the population of the crane species across its resting stages in Pakistan (Robert 1987).

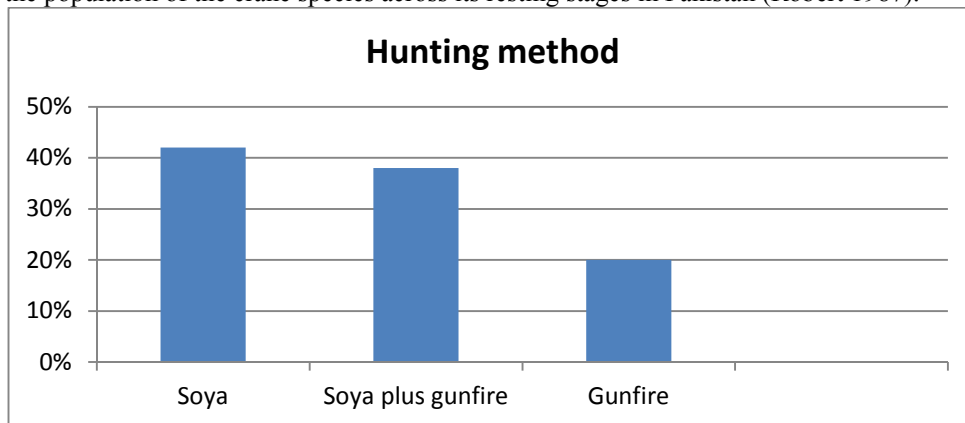


Figure 3: Ratio of hunting method used in study area.

Average seasonal catch of cranes

The ratio of average catch of cranes was reported very less as compare to past and other southern part of KP. The most likely reason of this decline is change of the migration route over study area. According to research study the average catch of cranes over the last five years was not greater than 25 Demoiselle and 15 Eurasian cranes. While in past this number was more than 100.

Effective approach for crane conservation

Cranes degradation is a serious issue in study area. Wildlife department is present in study area but their role is not satisfactory toward cranes conservation. There is no restriction on hunting, neither any awareness program for community about the cranes ecological importance and values. According to the respondents the concerned wildlife department and the local Jerga system can play a key role in conservation of the cranes species in the study area.

Discussion

Hunting of cranes is more fun than anything else in District Karak, this was also recorded by Perveen et al., 2012. Various kinds of threats to cranes were also realized by the early workers (Stehn, 2009). Like the number of hunters increases rapidly by each year, which increases the capturing or shooting ratio of cranes. Second important threats to cranes migration is the habitat degradation. The habitat of cranes and their migration paths are highly polluted with domestic and industrial untreated sewage.

Besides agricultural expansion, river canalizations, deforestation, and road building, is destroying many of the breeding wetlands, which support more than a quarter of the crane population, this is in accordance with (USGS, 2006). It is alarming that threats to cranes population are continuously increasing because there is no effective conservation on overall basis. According to Harris and Mirande (2013) Cranes face the most severe threats in Asia and Sub-Saharan Africa, with large human populations, intensive land use, and economic development often poorly integrated with environmental protection.

Conclusion

Cranes species are under immense hunting pressure that leads to a serious decline their population in the district Karak. The uncontrolled hunting has compromised the survival of these species in the study area. Use of the gunfire for hunting can make the situation worst for these migratory cranes species as there is no check and balance on use or the type of guns. In last two decade 97 percent cranes changes their route from the study area, due to which cranes flocks are rarely seen. Therefore now hunters travel to the adjacent district (D.I khan, Bannu, Lakki Marwat) for hunting during migration season.

Recommendation

A comprehensive awareness campaigns in general and seminars as well as workshops in particular should be launch to increase the understanding and conservation importance of these species among local communities. Illegal hunting should be banned in the area. The wildlife department should be more vigilant and active to reinforce the wildlife laws. Gunfire should be strongly discouraged. Captive breeding program should be initiated and promoted to increase captive population. Awareness program should be initiated about cranes importance and its conservation. Local community should be motivated to participate in conservation activity.

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