

STATUS, DISTRIBUTION AND THREATS TO HOUBARA BUSTARD (*CHLAMYDOTIS UNDULATA MACQUEENI*) IN SOUTHERN BELT OF KHYBER PAKHTUNKHWA PAKISTAN

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خلاصہ

Houbara Bustard (تلمور) خیبر پختونخوا کے وسیع و عریض اور دور افتادہ جنوبی صحرائی پٹی میں پایا جاتا ہے۔ تحقیق کے لیے چار منتخب کردہ علاقے، ڈیرہ اسماعیل خان، لکی مروت، بنوں اور ٹانک وسیع و عریض رقبے پر پھیلے ہوئے ہیں جن کے درمیان قابل ذکر زمینی فاصلہ پایا جاتا ہے۔ اس تحقیق کا طریقہ کار دو حصوں میں منقسم ہے۔ ایک حصہ Literature Review پر مشتمل ہے جبکہ دوسرا حصہ Field Survey پر مبنی ہے۔ پہلے حصے یعنی Literature Review میں مواد کے حصول کو ممکن بنایا گیا ہے جبکہ دوسرے حصے میں مقامی لوگوں، قانونی اور غیر قانونی شکار کرنے والوں کے مواجہات شامل کیے گئے ہیں۔ ان چار مساکن میں سے ڈیرہ اسماعیل خان میں سب سے زیادہ 283 پرندوں کی تعداد ریکارڈ کی گئی ہے جبکہ دیگر مساکن، ٹانک میں 114، لکی مروت میں 68 اور بنوں میں 23 پرندوں کی موجودگی پائی گئی ہے۔ ٹانک اور ڈیرہ اسماعیل خان میں Houbara Bustard کی سب سے زیادہ تعداد پائی جاتی ہے۔ ڈیرہ اسماعیل خان Houbara Bustard کا اہم ترین مسکن ہے جہاں بڑی تعداد میں ہر سال ان پرندوں کی افزائش نسل ہوتی ہے۔ یہ علاقہ اس پرندے کی تعداد کو بڑھانے میں کافی حد تک معاون و مددگار ثابت ہو رہا ہے۔ Houbara Bustard کی موجودہ سالوں میں گھٹتی ہوئی آبادی کی کئی وجوہات ہیں جن میں ان کے مساکن کی تباہی، زرعی زمینوں، چراگاہوں میں ان مساکن کی تبدیلی، غیر قانونی شکار اور غیر قانونی طور پر عرب ممالک میں ان کی برآمد جیسے عوامل شامل ہیں۔ تحقیقی نتائج سے یہ پتہ چلتا ہے کہ وقت کے ساتھ ساتھ Houbara Bustard کی آبادی مزید کم ہو رہی ہے۔ مساکن کی تباہی اور غیر قانونی شکار نے ان پرندوں کی تعداد کو مزید کم کرنے میں بنیادی کردار ادا کیا ہے اور اگر اس پرندے کے تحفظ کے لیے مختلف پروگرام شروع نہ کیے گئے تو اس کے معدوم ہونے کے خدشات میں اضافہ ہو سکتا ہے۔

Abstract

Houbara Bustard lives in large areas of remote desert in southern belt of Khyber Pakhtunkhwa. The four selected areas for study, D.I.Khan, Lakki marwat, Bannu and Tank are frequently large and are located in remote areas that are far from each other. The method of the study was consisting of two parts the literature review and field survey. The first step was literature review which was completed and data and credentials were collected. In the second phase the local people, hunters and poachers were interviewed. Among these four habitats, D.I.Khan held the largest number of birds 283, Tank 114, Lakki marwat 68 and Bannu 23. D.I.Khan is an important habitat for the Houbara bustard, sustaining a good reproduction population every year, successfully enough to support increasing numbers. The major causes of the decreased population of Houbara in recent years are habitat loss by grazing, habitat changes to agricultural lands, hunting and trapping to export live birds illegally to Arab countries. The results indicate that the number of houbara bustard is going to decrease. The habitat destruction and illegal hunting are the main reasons of rapid decrease in their number. If no conservation programs are started then this bird will be a danger of extinction.

Key words: Houbara bustard, Status, Distribution, Threats.

Introduction

The Houbara bustard is a medium size bird, which belongs to the family Otidae and considered as a single species which is again divided into three sub-species on the basis of their size, shape, structure and habitat. It was declared a vulnerable species by IUCN and a true long distance migrant bird. It has been reported as opportunistic bird on their feeding bases. (Bahmanpour *et al.*, 2012; Pitra *et al.*, 2004; Collar *et al.*, 1994; Combreau *et al.*, 2011; Islam *et al.*, 2013; Heydari *et al.*, 2010).

Houbara bustard is an opportunistic bird because its food ranging from small plants to leaves and from insects to small snakes to rodents and even to small birds. The bustards adapted to desert and take water through food. Female lay 3-4 eggs, fox in Nag valley of Baluchistan is their nesting predator. Their incubation period lasting up to 24 days and the parental care provided by female. The Asian houbara extend from the east of Egyptian Nile Valley and through to the golf countries to central Asia to Mongolia and then to the Gobi Desert of China. Large amount of resident population of houbara exist across the Middle East into Pakistan. In the past the Asian houbara was once occurred in the Arabian countries but due to the human pressure and the hunting of Arabian royal family only small population stayed in Oman Saudi Arabia and Yemen. The largest number of

houbara present in Kazakhstan accounts for some up to half of the total global population. In the past large number of houbara used to spend winter in the Arabia but now a days they are reduced due to human effect and their large population stayed in Iran, Pakistan and Afghanistan while small population in Iraq and India. Now a days their distribution extend across 24 countries. They are limited in Azerbaijan and Armenia, and regionally absent in Russia and turkey (Axel 1964; Jobson and Small, 2004).

In Pakistan the houbara is mainly found in makran and Nag valley of Baluchistan, Bakar and Jang of Punjab and in Khyber Pakhtunkhwa and mainly found in D. I. KHAN. In Baluchistan the population of houbara is declining at the rate of 10% per annum and the equal rate is estimated for Sindh and some parts of Iran (Nadeem *et al.*, 1999). In the recent decades the houbara is declining rapidly and the main threats are loss of their habitats because the deserts are now a day's largely being used for infrastructure and other industrial development (Tourenq *et al.*, 2005). Falconry is the primitive cultural heritage of the Arabs. The Arabs trained their falcons to hunt houbara because it was the most valued source of food and their entry in each autumn was considered as prize from nature (Bailey *et al.*, 1998). Today, the falconry considered as sports; nevertheless, Houbara leftovers the most favored pit—specially their size, their strength, durability and escaping from predators is the important characteristics which make them a challenging prey for predators that's why peoples use them to train their falcons (Al Kharusi and Al Ameri, 2011).

In Pakistan the main threats to houbara is falconry because Pakistan has been hosting the falconry since 1960. From 1982-3 annually 3,000 to 4,000 houbara were killed in a year and now a day's 5,000 to 6,000 houbara are being killed every year (Nadeem, 1999). Some conservation steps are also taken by the some international communities. The Asian Houbara is registered in the supplements of two global conventions: the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and the Convention on the Conservation of Migratory Species of Wild Animals (CMS). The purpose of this study is to describe present status and threats to Houbara bustard.

Materials and Methods

Study area: The present study was conducted mainly in the four districts of southern Khyber Pakhtunkhwa. It includes the district Dera Ismail Khan, Tank, Lakki marwat, and Bannu. This vary region has all the characteristics of a desert due to sand dunes, scorching heat and dry weather. Summer are hot while winter are moderately cool. The maximum temperature range of 42 to 45 degree Celsius and a minimum temperature range of about 10 to 15 degree Celsius in winter. This vary area is also one of the important habitat for many floral species such as Sheesham, babul and trifolium while the shrubs include reed beds and tamarix and faunal species listed in the IUCN red list like axis deer, blackbuck, hog deer, white-backed vulture, grey partridge, Houbara bustard, black pond turtle, etc.

Collection of data: The research study was conducted in November 2016. Because in early October and February the majority of houbara population still arriving and departure. The first phase of the research was the literature review in which related data were together. In the second phase the local people, hunters and poachers were interviewed during field survey. Some other signs such as feathers, fresh droppings and footprints were also observed and brought in consideration while estimating the previous research workers and D.F.O offices of the concern districts to recognize possible habitats for Houbara bustard.

Determination of status, distribution and threats: In order to identify the status, distribution and threats, a questionnaire was given to each one. The interview was done with wildlife safety guards, experts, volunteers, interested and local people.

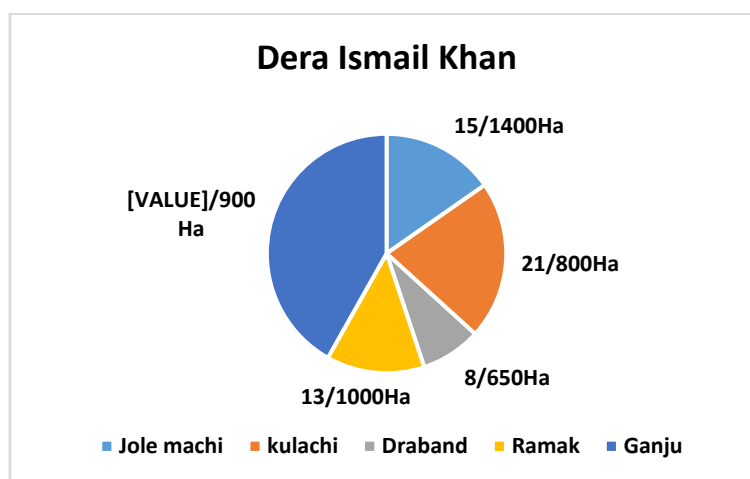
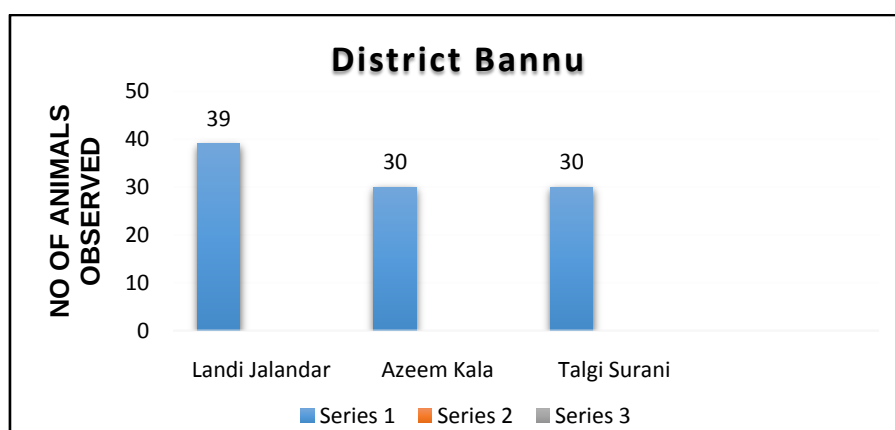
Results and Discussion

This survey was conducted for the purpose to determine the status, distribution and threats of houbara bustard in the southern Khyber Pakhtunkhwa. During this survey 4 different districts of southern Khyber Pakhtunkhwa was surveyed which include D.I.Khan, Lakki marwat, Tank and district bannu. In this four different districts of southern Khyber Pakhtunkhwa total 488 no of houbara bustard observed within 20130 Ha of inaccessible area, 117 of which are distributed in different region of D.I.Khan (Fig. 1), 23 in district bannu (Fig. 2), 68 in Lakki marwat and 114 in Tank respectively (Table 1).

The number of bird is decreasing rapidly due to different threats like hunting for sexual enhancement, habitat destruction, over population and decreasing area. This survey is supported by (Goriup, 1997). Houbara Bustard (*Chlamydotis undulata Macqueeni*) apparently on the way out quickly in all the array states and its population supposed to be much less now than some 10-12 years ago. Rough estimates of the declining rates from fundamental observations in different parts of Baluchistan indicate a declining rate around 10% per annum (Mian, 1984) and an equivalent decline has been suggested for Sind (Surahio, 1985).

Table 1. Number of Houbara bustard per region in District Lakki Marwat and Tank

District Lakki Marwat		
Region	Surveyed Area	Total number of Houbara bustard
Abdul Khel	1200 Ha	22
Sar band	700 Ha	19
Tane darwala	1200 Ha	13
Khero Khel Pakka	1400 Ha	14
District Tank		
Bugera	700 Ha	16
Chenna	13 Ha	39
Gul Imam	950 Ha	27
Sur Damar	1250 Ha	18
Tor Band	830 Ha	14

**Fig.1. Number of Houbara bustard per region of District Dera Ismail Khan****Fig.2. Number of Houbara bustard per region in District Bannu**

This survey also shows that most of the people think that houbara have also a medicinal value and most of the hunter especially Arabs use it for sexual enhancement. Who says that use of falcons to catch the houbara bird before it developed into a sport, falconry was a means of food in a lot of restricted diets of desert-living people. Asian Houbara was the most valued source of food and health (Al Kharusi and Al Ameri, 2011).

The main cause of decreasing number is hunting. Specially hunting through falcons. The same suggestion were also given by (UNESCO, 2014). Falconry is an ancient hobby, according to the United Nations Education, Scientific and Cultural Organization (UNESCO) on its agent List of elusive Cultural Heritage of Humanity. The activity is particularly important within Arabian culture. For hundreds of years, the population of the region have used wild-caught and carefully skilled falcons to hunt pit such houybar spp. and, most sought after of all, Asian Houbara (Bailey *et al.*, 1998). It has always been a notorious subject, most likely due to the great difficulties in counting the birds in their natural habitat, even though globally threatened, it is seemingly moribund in almost every array state.

The some of the factors are the main causes of reduction of this vulnerable bird (Birdlife International, 2014).

- home loss
- disorder and habitat alter due to tourism -
- desertion of usual farming
- interruption from armed activities -
- trouble due to truffle collecting -
- unlawful hunting -
- Collisions with power lines
- Overgrazing
- Predation
- Parasitic disease
- General increase in the number of people
- Desertification and environmental factors

Conclusion

It is concluded that this bird is declining in this region due to different factors, including habitat destruction, hunting etc. Our result validate Birdlife International statement in 2003 about territory destruction as the most important threat to Houbara bustard population.

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