



IJEAST

INTERNATIONAL JOURNAL
OF ENGINEERING APPLIED SCIENCE
AND TECHNOLOGY



VOLUME : 6 ISSUE : 6 Print / Issue Publication Date: 10-Jan-2022



ISSN : 2455-2143



DOI : 10.33564/IJEAST.2021.v06i06.031

Indexed In



WWW.IJEAST.COM

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CURRENT STATUS OF PHEASANT IN PAKISTAN AND THEIR CONSERVATION

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Abstract: Pheasants are most beautiful and colorful birds in the world. They refer to any member of the subfamily phasianidae in the order Galliformes. Out of 50 species 5 are found in Pakistan i.e. Monal, (*Lophopus impejanus*) koklass (*Pucrasia macrolopha*), Kalij (*Lophura leucomelana*) Cheer pheasant (*Catreus wallichi*) and Western Tragopan (*Tragopan melanocephalus*). Yellow pheasant and red pheasants are introduced in outer countries for the sake of money. One pair of red pheasant specie in (25,000) rupees They are found mainly in the KPK, extending eastwards into Kaghan and Azad Kashmir, few in Pallas Valley and Ayubia National Park, coniferous forests of Chitral, Dir, Swat, Hazara, Azad Kashmir and Gilgit, swat, Kohistan etc. Altitude range varies from species to species i.e. Monal (2000-2400m), Koklass (2200-2500m), Kalij (1200-1100 ft), and Western Tragopan (1750-3600 ft). The Western Tragopan is considered as the rarest of all living pheasants. Dhodial Pheasant in Pakistan's Khyber Pakhtunkhwa and Asia's largest Pheasantry, established four decades ago next to the Karakoram Highway that connects Pakistan with China. Named after the small town in the province's Mansehra district, it sprawls across 12.5 acres and is home to around 4,000 birds, representing 38 of the 50 pheasant species in the world. Six are indigenous species, found largely in the Himalayas. Dhodial Pheasantry is a Pheasantry and breeding center for several species of pheasants situated in Mansehra District, Pakistan. Dhodial Pheasantry holds captive 38 of the 52 species of pheasants found in the world.

Key words: pheasants, Dhodial Pheasantry, Monal, koklass cheer Kalij western tragopan pheasants

I. INTRODUCTION

Birds are of great economic importance to the human society. They play an important role in controlling population of different insects and pests. They play the role of scavengers and pollinating agents and also help's in dispersal of seeds of different vegetations [1] Pheasants are most beautiful and colorful birds in the world. They refer to any member of the subfamily phasianidae in the order Galliformes. [3] They have 50 species belong to 16 genera. Five species i.e. Monal, (*Lophopus impejanus*) koklass (*Pucrasia macrolopha*), Kalij (*Lophura leucomelana*) Cheer pheasant (*Catreus wallichi*) and

western Tragopan (*Tragopan melanocephalus*) are found in Pakistan while four (4) species i.e. Monal, Koklass, Kalij and Western horned Tragopan are found in the study areas of Kaghan valley.[2][4] Yellow pheasant and red pheasants are introduced in outer countries. [6]

There are similarities and variations in body color among the male and female members of the same species and the species belonging to other genera. Pheasants belong to families that include some of the most beautiful birds in the world, Birds such as the golden pheasant famous in the Chinese art, have delighted and benefited for humans. [5] The order Galliformes the pheasants comprise a very huge family and would recognize most of these a "game birds" because of their extremely palatable with flesh generally large size short rounded wings with swift and often noisy flight and so forth.[13]

Not all the phasianides are brightly colored, the only the true pheasants of the tribe phasianini, that is the western horned Tragopan, Monal, Kalij, Koklass and the Cheer. Though these are not closely related and infect belong to 5 separate Genera.[8] All these pheasants are forest dwellers but occupy distinct ecological niches. Some true pheasants are the resident species of Himalayas, mainly Hazara, Swat, Chitral, Murree Hills, Kashmir and some part of Northern Areas of Pakistan. They inhabit an altitudinal range of 1,000 meters to 4,000 meters and shift their zones according to the seasons i.e. they go higher up with the increase in temperature and snow melt and come down with the decrease in temperature and snowfall. Coniferous forests are the natural abode of the species. [14]

All pheasant's species are either threatened or vulnerable due to habitat disturbances in most of their native range, according to the IUCN Red data book over one third of total species of pheasants are officially listed as endanger of extinction from their native habitat. Pheasants have always been a source of attraction for human beings the reason behind this attraction and interest is their protein. Pheasants therefore yield significant importance and economic benefits to human population. [2]

II. SPECIES FOUND IN PAKISTAN

1) Monal (*Lophopus impejanus*):

The monals are large pheasants, in which the sexes are highly dimorphic, iridescent plumage is extensive in males excepting the under parts, which are velvety black. Males also

have bare, bright blue orbital skin and crests of varying size and shape. The bill is long and highly curved, with the upper mandible strongly overlapping the lower one. The wing is rounded. During winter this species can be located at the lower end of its altitude. [3] The Himalayan Monal is found mainly in the N.W.F.P, extending eastwards into Kaghan and Azad Kashmir. Sizeable populations are found in Pallas Valley and Ayubia National Park. These birds are limited in coniferous forests of Chitral, Dir, Swat, Hazara, Azad Kashmir and Gilgit. The Himalayan Monal occupies range between 2400m to 4000m and as low as 2000m in winter. Nesting is mainly starting in the May up to the last week of June reported from NWFP. Mostly they built nests at an altitude ranging from 2300m to 2700m, in wooded habitats particularly in bushes, tree hole or a rock having less under growth. Females usually take the major part in chick rearing but males have also been reported to rear young ones.[2][3]The incubation period for Monal is between 26-29 days. In captivity, females lay another clutch when the first is removed or unsuccessfully [1]



Fig:1 Monal pheasant male has multicolored plumage while the female, as in other pheasants, is more subdued in color. [1]

2) Koklass (Pucrasia macrolopha):

Koklass has ten subspecies, two of which occur in Pakistan. Western Koklass (*P. macrolopha castea*) has a distribution ranging from Afghanistan in the west to districts Swat and Kohistan in NWFP. Kashmir Koklass (*P. macrolopha biddulphi*) has a distribution that slightly overlaps with the western subspecies in districts Swat and Kohistan, but extends eastward across Saran and Kaghan Valleys into Kashmir. [5] Koklass reaches an altitude range, between 2,200m and 2500m, during winter and summer migrations.

In winter Koklass mostly desire habitats which are snow free. The breeding period of Koklass lasts from April to June. However, in Kashmir and Khyber Pakhtunkhwa eggs have been found in nests as late as 15 July. These birds build nests early and lay eggs in mid- May through June. [6]Thick bushes and water resource sites are commonly selected for nesting sites. Incubation is mostly done by females and lasts 26-27 days with male nearby. The young fly within a few days of hatching .Both subspecies demonstrate the greatest altitude range of the Pakistan family Phasidae. They are found as low as 6,000 ft and as high as 11,000 ft. Within the National Park, Koklass, together with a diverse wildlife community, have been protected from hunting and their habitat protected from degradation. [13]



Fig: 02 Koklass pheasant; Males have a silver-plumed body, maroon breast stripe, white neck patch, and dark greenish-black head topped with a long crest that, when erect, gives it the profile of a startled rabbit. Females are streaky brown with a faded version of the male's white patch and breast stripe; note her short crest, Buffy eyebrow, white throat bordered by dark.[6]

Western Tragopan (Tragopan melanocephalus):

The western Tragopan or western horned Tragopan is a medium-sized brightly plumed pheasant found along the Himalayas from north-eastern districts of Khyber Pakhtunkhwa province in northern Pakistan. Five species are present from Kohistan, Kaghan valley, Kishtwar, Chamba, Kulu. They are found from an altitude of 1750 m to 3600 m, going up higher in summer. Their preferred habitat is temperate, sub-alpine and broad-leaved forest. It inhabits upper temperate forests between 2400 and 3600m in summer, and in winter, dense coniferous and broad-leaved forests between 2000 to 2800m elevations. [7] The Western Tragopan is mostly arboreal but feeds on the ground. They mostly feed on leaves, shoots, seeds, but also consume insects another invertebrates. The breeding season is May-June. They build their nests in low tree hollows. Current Status: The Western Tragopan is considered as the rarest of all living pheasants. Their range is very restricted. In Himachal Pradesh, this bird is locally called Jujurana which means King of Birds. The world population is estimated at less than 5000 individuals, including a captive population. CITES has listed this species in Appendix I in order to discourage selling of its feather [16] [17]



Fig: 04 Male western Tragopan is bright dark, grey and black in color, with numerous white spots, each spot bordered with black and deep crimson patches on the sides and back of the neck. Females have pale brownish-grey upper parts finely vermiculated and spotted with black, and most of the feathers have black patches and central white streaks [17]

Kalij (Lophura leucomelana):

The Kalij pheasant is a pheasant found in forests and thickets, especially in tropical to montane forest habitats in the Himalayan foothills, from Pakistan to western Thailand. Beginning in the western edge of the species' range, the white-crested Kalij occurs from 1200 to 11 000 ft, but is most common between 3000 and 7000 ft, and may be found lower in winter and higher in summer hamiltonii) has the most southerly distribution. It extends from the Siran and Kaghan Valleys in Hazara district into the Margalla hills just north of the capital Islamabad where it is relatively common [7] It extends into Azad Kashmir, with good population in Ayubia National Park, where at least 30 breeding pairs are present. Males are rather variable depending on the subspecies involved, but all have an at least partially glossy bluish-black plumage, while females are overall brownish in color [8] The nine subspecies of Kalij pheasants recognized by Delacour occur over an extremely wide range of habitats and elevations, from nearly sea level to at least 11 000 ft, and in a variety [9] One Of the two low altitude species found in the NWFP, the White Crested Kalij (*L. leucomela* L. l. *leucomelanos* – nominate – forests of Nepal, L. l. *melanota*– black-backed Kalij pheasant – Sikkim and western Bhutan, L. l. *oatesi*– Oates' Kalij pheasant – southern Myanmar, L. l. *lathami* – Horsfield's pheasant – eastern Bhutan and northern India to Myanmar, L. l. *crawfurdi* – Crawford's pheasant – southeastern Myanmar to peninsular Thailand, L. l. *williamsi* – Williams' Kalij pheasant – western Myanmar, L. l. *lineata* – lineated pheasant – southern Myanmar to northwestern Thailand, L. l. *moffitti* – black Kalij pheasant – central Myanmar The breeding seasons of the many subspecies of the Kalij are almost as diverse as their habitats, but invariably include the period April and May. The white-crested Kalij is said to breed from March to June, the Nepal Kalij from April to June, the black-backed Kalij from March to May, and the black breasted from February to October but mostly in April-May and in July-August

Cheer pheasant (Catreus wallichi):

The cheer pheasant (*Catreus wallichi*) is also known as wallichi pheasant or cheer pheasant is a vulnerable species of the pheasant family, Phasianidae. It is the only member in the genus *Catreus*. The cheer pheasant *Catreus wallichi* (hereafter referred to as cheer) is distributed throughout the southern foothills of the western Himalayas, occurring in northern Pakistan. Pakistan marks the western limit of the distribution of cheer which, historically, extended to the mountains of Khyber Pakhtoon Khawa and Azad Kashmir. [14] The breeding season apparently extends from late April to early June, with nesting in lower altitudes often beginning near the end of April, and some birds as late as early June at the highest elevations. Clutch-sizes are relatively large, with 9 to 10 apparently being the usual size, but as many as 13 or 14 have sometimes been reported from nests in the wild. In captivity, the birds lay clutches of from 9 to 12 eggs and from 15 to 25 eggs in a season. The incubation period is 26 days. The cheer pheasant, an elusive wild bird, has been successfully reintroduced in the natural forests of Pakistan, a testament to the incessant efforts for the conservation of this threatened species in the country. [11] The Wildlife Department of Khyber Pakhtunkhwa recently avowed to explore study and understand the vulnerable population of this pheasant in the forests of Mansehra district. Taimur Ali Shah, Divisional Wildlife Officer, Mansehra district gave an update on the situation and stated that they have successfully explored a thriving population of around 15 to 20 pairs of pheasants in the wild. [11] A few pairs of the rare cheer pheasants were released from Dhodial Pheasantry into the surrounding forest area around three years ago. The released birds have now grown into a flock of around 20 pairs and sedulously to introduce the cheer pheasant into the wild, the Wildlife Department of Khyber Pakhtunkhwa and Dhodial Pheasantry, their unmitigated efforts for over thirty years finally showed tangible results. Yellow pheasant and red pheasants are introduced in outer countries for the sake of money. One pair of red pheasant specie in which 25,000 rupees. [3]



Fig: 04 Kalij pheasant (*Lophura leucomelana*) distinctive pheasant with bare red facial skin, a backward-pointing crest, and a vertically compressed tail. Males are iridescent black, golden and silver. Females are grayish-brown. [8]

Fig: A large, pale pheasant with a long tail. The male is pale gray, barred throughout, with thick black bands on the tail, a rust-colored lower back, and a dark belly. The female is browner with white streaks on the body, white bars on the tail, a rust-colored belly, and black spots on the breast. [3]



Table:

Reason of decrease	Frequency	% age
Hunting	28	56
Habitat destruction	10	20
Population expansion	07	14
Naturally	05	8.33
Total	50	100

Table 1: Reveals that majority 56% of the respondents were in opinion that hunting was main cause of pheasant decrease whereas 20%, 14% and 8.33% of the respondents gave opinion that habitat destruction, population increase and natural calamities are the reasons of pheasant decrease in the area.[17]

III. CONSERVATION STATUS

Dhodial Pheasantry: A happy tale of conservation in Pakistan’s Khyber Pakhtunkhwa and Asia’s largest Pheasantry, established four decades ago next to the Karakoram Highway that connects Pakistan with China. Named after the small town in the province’s Mansehra district, it sprawls across 12.5 acres and is home to around 4,000 birds, representing 38 of the 50 pheasant species in the world Six are indigenous species, found largely in the Himalayas. Purpose: Dhodial Pheasantry is a Pheasantry and breeding center for several species of pheasants situated in Mansehra District, Pakistan. It has been set up for the purposes of research, conservation, tourism, and education. [11] The Pheasantry has around 250 exhibits providing shelter to around 4,000 birds. Mansehra district gave an update on the situation and stated that they have successfully explored a thriving population of around 15 to 20 pairs of pheasants in the wild. Dhodial Pheasantry holds captive 38 of the 52 species of pheasants found in the world. Some of these include: Bar-tailed pheasant. [12] The Western Tragopan is considered as the rarest of all living pheasants. In Himachal Pradesh, this bird is locally called Jujurana which means King of Birds. The world population is estimated at less than 5000 individuals, including a captive population. CITES has listed this species in Appendix I in order to discourage selling of its feather. Dhodial Pheasantry takes step to conserve pheasant species in Pakistan. [8] Monal pheasant species is threatened

due to poaching and other anthropogenic factors. In the western Himalayas, the local Monal population responded negatively to human disturbance involving hydroelectric power development. [14]

IV. CONCLUSION:

Research study has shown estimate that 65% of pheasant population has decreased in the recent times due to hunting pressure, secondly encroachment is the main cause of loss of habitat which is interlinked with the decline in the population of pheasants species, to conserve these spp. strict action are necessary. The wildlife statuses among the pheasants found in the area are endangered and is near to extinction. The Khyber Pakhtunkhwa wildlife departments have declared species of pheasants protected under the wildlife act of 1975. Dhodial Pheasantry a happy tale of conservation in Pakistan’s Khyber Pakhtunkhwa and Asia’s largest Pheasantry and breeding center for several species of pheasants situated in Mansehra District, Pakistan

V. RECOMMENDATIONS:

Awareness should be created among the peoples through school conservation clubs. Communities’ organizations play key role in conservation and sustainable development of natural resources. The initiative to well support meeting and workshop at community level to enlist the support of local community for wildlife management. Publicity boards carrying conservational notes, slogans and information related to wildlife may be prepared and erected at various sites. Conservation of wildlife may be done at community level by constructing and organizing the conservation and development works through village conservation fund. A strong print and electronic media campaign or derive may play sublime role regarding the conservation of pheasants in these areas. If possible constant awareness programmes may be launched through local media from time to time. Education campaigns should be carried out in order to educate masses about the importance status and conservation of natural resources. [18]

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