HABITAT ANALYSES OF CHEER PHEASANT (*CATREUS WALLICHII*) IN MARGALLA HILLS

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Abstract

Suitability of habitat of Cheer pheasant (***Catreus wallichii***) was assessed by conducting intensive surveys in Margalla Hills. It was found that suitable habitat lies in the lower parts of subtropical pine forests and upper parts of transition zone where grassy terraced cliffs are found, which constitute the northern ridge of the Hills. Although most of the best cheer pheasant habitats are mostly disturbed by human activities, yet the habitat along the ridge is ideal and will remain so.

Introduction

The cheer pheasant was previously found throughout the Hazara District (Baker 1930, Delacour 1977) and has been recorded from the Margalla Hills in two locations near Bharakau in 1970 (Roberts 1970). Since then none have been recorded despite intensive surveys in 1977 (Mirza et, al. 1978) and (Severinghaus et, al. 1979). Margalla Hills comprising an area of 12,000 hectares constitute steep, limestone ridges lying in the north of Islamabad. The climate is warm and dry with heavy monsoons in July and August. The disappearance of cheer pheasant has been due to overgrazing and unrestricted hunting (Masud 1978). With the declaration of Margalla Hills as National Park hunting and grazing has been banned and vegetation is being restored by natural regeneration, aerial reseeding and artificial planting so it is expected that cheer pheasant could once again survive in Margalla Hills.

Review of Literature

The limited distribution of Cheer pheasant in the World indicates its preference for a particular habitat. No detailed studies of its wild habitat requirements have been carried out but some observations (Hume and Marshall 1879, Whistler 1926, Osmaston 1927, Baker 1930, Delacour 1977, Gaston and Singh 1980 and Lelliott 1981) indicate the following main features for the habitat:–

(i) Altitude ranging between 1200 – 3250 meters.
(ii) Steep slopes with broken cliffs.
(iii) Scattered trees.
(iv) Scrub patches.
(v) Tall grass cover.

Lelliott (1981) reported to have found the cheer pheasant in grassy clearings in coniferous forest above 3,000 meters in India and Nepal where the birds were not restricted to broken cliffs.

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Hume and Marshall (1979), Gaston and Singh (1980) and Lelliott (1981) found the cheer pheasants in the vicinity of human habitations suggesting that the birds prefer mixture of forest and grasslands and the requirements can be maintained by burning, cutting and grazing. Mirza (1980) attributed the decline of the bird due to hunting and habitat destruction by goats and cattle.

Habitat Zoning in Margalla Hills

On the basis of physiographic features five habitat types were delineated in the Margalla Hills:–

(i) Subtropical dry thorn forest;
(ii) Open thorn scrub;
(iii) Cliff ledge scrub;
(iv) Transition zone scrub;
(v) Subtropical pine forest.

Each of the habitat was assessed for its suitability for cheer pheasant as follows:–

(i) **Subtropical dry thorn forest**

This is the natural cover on the lower slopes of the hills and in the bottom of the valleys. Due to extensive aerial reseeding and abandonment of grazing regeneration of *Acacia modesta* is coming up. Although the trees are smaller but vegetation is quite dense.

(ii) **Open thorn scrub**

This type of vegetation is found on hot, exposed south facing slopes and heavily grazed areas. It is characterized by open low scrub dominated by *Dodonaea viscosa*. Erosion is very common and ground cover has been eliminated due to overgrazing. However, due to protection afforded, this type is gradually converting to sub-tropical thorn forest.

(iii) **Cliff ledge scrub**

Steep, broken cliffs at middle altitudes are common in the area. Scattered scrub and long grass is common where disturbance is minimum and slopes are other than south facing. These areas provide ideal habitat for cheer pheasants but most of the area is below 1000 meters which is too low for cheer pheasants and the only natural trees available are figs (Ficus spp.)

(iv) **Transition zone scrub**

It lies between the thorn forest and pine forest. This habitat is found in all the valleys but is extensive in two, viz., Dhok Jiwan and Pir Sohawa. It is not ideal

habitat for cheer pheasant because it is mostly restricted to less precipitous slopes and has relatively little grass cover. This habitat is patchy and interspersed with cliff ledge scrub on steeper slopes and with pine forest on northern aspects.

(v) **Subtropical Pine Forest**

It is the charactristic forest type of the Himalayan foothills in Pakistan between 1200 and 2500 meters (Beg 1975). The undergrowth is stunted and is typical of pine forests. The pine forest is found only east of Pir Sohawa, above 1200 meters. Below this patches are found. This is open woodland with grassy floor and is ideal cheer pheasant habitat especially where the ground is broken up by cliffs.

Habitat Survey

Intensive survey in the Margalla Hills were conducted by visiting every compartment and to assess their suitability for cheer pheasants. While surveying the following factors were considered:–

(a) Availability of cliff ledge scrub(zone iii).
(b) Availability of transition zone scrub(zone iv).
(c) Availability of subtropical pine forest(zone v).
(d) Biotic interference in the form of cultivation, grazing etc.
(c) Availability of water in the valleys.

RESULTS

COMPARTMENT NOS.		CRITERIA SATISFIED	DRAW BACKS
3, 4, 5, 6.	(Military Farm)	a, b, c, d.	e
8, 9.	(" ")	a, b, c, d.	e
10, 11.	(" ")	a, b, c, d.	d
12, 13.	(" ")	a, b, c, d.	e
14, 15	(" ")	a, b, c, d.	e
16, 17.	(" ")	b, d, e.	a, c.
18, 19.	(" ")	a, d, e.	b, c.
3, 4, 5.	(Reserve forest)	a, b, d.	c, e.
10, 11, 12, 13,	(" ")	a, d.	b, c, e.
14, 15.	(" ")	e	a, b, c, d.
16.	(" ")	a, d, e.	b, c.
17.	(" ")	a, e.	b, c, d.
18, 19, 20.	(" ")	a, b, c, d.	e

None of the compartments provide ideal habitat for cheer pheasant and certain areas are absolutely unsuitable for example, 10, 11, 12, 13, 14, 15 and 17 Reserve Forests.

However, sufficient undistributed habitat of all the three types is found in compartment Nos. 3, 4, 5, 6, 8, 9, 10, 11, 12 and 13 Military Farms and 16, 18, 19 and 20 Reserve Forests.

On Western side there is not enough pine forest and on eastern side disturbance is increasingly heavy. Compartment No.8 and 9 Military Farms in Dara Gagra provide the excellent habitat for cheer pheasant. On account of heavy disturbance in Dara Nurpur compartment Nos. 10 and 11 Military Farms are suitable. Therefore, four valleys have been found to contain good habitat for cheer pheasant (Dara Jangla, Ratta Hottar, Nurpur and Gagra) while two others are adequate (Dhok Jiwan and Dara Kamni).

Conclusion

The above results indicate that the suitable vegetation for cheer pheasant in Margalla Hills lies in the lower parts of the subtropical pine zone and upper parts of the transition where-ever well grassed terraced cliffs are found. In general this habitat lies near the main ridge of the hills above 900 meters.

With this conclusion, there are two main problems. Firstly there is no evidence whether these areas were previously frequented by cheer pheasants or not.. Secondly, the habitat is gradually changing and may become unsuitable. Cheer pheasant is essentially a grass pheasant (Whistler 1926) and grass habitats are often to be maintained by burning and cutting. Although it applies to the subtropical thorn forest which is quite dense but now due to protection situation is different in case of pine forest zone, which is patchy and has an open shrub layer. In the north of the ridge on overgrazed hill sides, cheer pheasant may show a preference for disturbed habitats by moving away to the north. Thus the habitat along the ridge is ideal for cheer pheasant and hopefully will remain so.

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