

DISTRIBUTION AND HABITAT ECOLOGY OF CHUKAR PARTRIDGE *ALECTORIS CHUKAR* (GRAY) IN GARHWAL HIMALAYA, UTTARANCHAL

MANISH KUKRETI AND M. S. BISHT

Department of Zoology, HNB Garhwal University Campus

Pauri, Uttaranchal, India - 246 001.

ABSTRACT

A study was conducted on the Chukar partridge *Alectoris chukar* in Pauri district of Garhwal, Uttaranchal from October 2002 to December 2003 and information on distribution, density, group size and habitat characteristics were collected. Chukar partridges were sighted between 700 to 1940 m altitude with overall 8.55 individuals per sighting and 5.88 group size. Chukar prefers open sparsely scrub-covered steep slopes adjacent to agricultural fields.

INTRODUCTION

The Chukar partridge *Alectoris chukar* (Gray) is a bird of open, sparsely scrub-covered hillsides. It is widespread in southern Europe, the Middle East and Asia and, as a sport bird introduced in many countries like South America, Columbia, Britain, Hawaii and New Zealand (Galbreath and Moreland, 1953; Christensen, 1954; Molini, 1976; Cramp and Simmons, 1980; Carmi- Winkler *et. al.*, 1987; Madge and McGowan, 2002). In the Indian sub continent, Chukar partridges are found at altitudes between 1200 and 5000 m (Ali and Ripley, 1983) along the western Himalaya. In the hills of Garhwal Himalaya, it is commonly known as "Chakor" in vernacular language and, also considered as a sport and pest species. No attempts have been made so far for its management because lacking the baseline data on ecology and behaviour of this species. Our present knowledge on distribution, ecology and behaviour of Chukar is still based on accounts written long ago (Hume and Marshall, 1879). In this paper, we report information on distribution, status, group size along with data on habitat characteristics.

MATERIAL AND METHODS

From October 2002 to December 2003, a survey on distribution and habitat characteristics of Chukar partridge *Alectoris chukar* was carried out in Pauri, Kot and Kaljikhil blocks (29° 30' N, 30° 15' E) of Pauri Garhwal district, Uttaranchal. After collection of the secondary information

on occurrence of Chukar partridge from local people viz., ladies (who regularly visit in the forests for fuel and fodder collection), hunters and forest personnel; potential sites were visited for 3 to 5 days. The trail walks and point count methods (Javed and Kaul, 2002) were used to collect data on sightings of Chukar, group size and habitat characteristics (altitude, slope, aspect and vegetation). Distance of human habitation and agricultural fields, and presence of anthropogenic pressure (grazing, grass cutting, fire and hunting) of each site were also recorded. Using the focal point plot method (10 m radius), percent of forest, shrub, grass and rock covers were also estimated at each site.

RESULTS AND DISCUSSION

Detail of sightings of Chukar partridge and habitat characteristics are presented in Table 1 and 2. In spite of a small area (17 km²) is surveyed, sightings of Chukar at 12 sites/localities suggest common occurrence in Garhwal Himalaya. A total of 368 Chukars (cumulative of all sites) were sighted in 36 visits at Ranshi, Lwali, Khandunsain Parsundakhal, Maitakund, Kanskhet, Sakinikhet, Banganikhal, Bheti, Taklana, Uphhada, and Agrora (Figure 1) with an overall 8.55 ± 1.37 birds per sighting. Maximum number of birds (14 Chukars in single sighting) was observed at Bheti whereas minimum number (4 birds per sighting) was recorded at Kanskhet and Sakinkhet. The birds were observed in groups of 2 to 14 birds and average group size was recorded 5.88 ± 0.75 . The birds were sighted between 720 to 1940 m altitudes range and, prefer all aspects from North to West slopes with 32 to 60 degree inclination. The birds inhabit open forests having 27.08% canopy cover, 44.01% scrub and 42.25% grass cover. Anthropogenic activities viz., cattle grazing, mowing, forests fires and hunting were recorded at each site. The perennial shrubs like *Rhus*, *Rubus*, *Berberis*, *Eupatorium*, *Rumex* etc provide protection and food to the birds. The leave, flowers, fruits and seeds of these shrubs constitute important dietary constituents of Chukar. Molini (1976) also described importance of shrubs and suggested that 40 to 50% of shrub cover is optimum for Chukar habitats. Chukars use the rocks as roosting and resting habitats.

A wide spread distribution of Chukar partridge in the Western Himalaya was reported Hume and Marshall (1879) and Ali and Ripley (1983). Present study also suggests common occurrence of Chukar in suitable habitats in Pauri district of Garhwal Himalaya. Information on habitat characteristics reveals that Chukar is a bird of disturbed habitats present near the human habitations and agricultural fields. Anthropogenic activities, e.g., cattle grazing, mowing, forest fires and hunting were recorded at all sites (Table 2). Young *et al* (1987) and Shanti Bhusan (2005) reported that the regular disturbances are necessary for maintenance of habitats as mowing and fires bring good growth of vegetation and food in the next year.

Campus, Pauri for providing necessary facilities and, to local people for secondary information on occurrence of Chukar partridges in the study area.

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