OBSERVATION ON THE BLACK FRANCOLIN *FRANCOLINUS FRANCOLINUS* IN THE MANDAL VALLEY OF GARHWAL HIMALAYA, INDIA

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ABSTRACT

The present study was conducted to assess the population status and monthly variation of the Black Francolin (*Francolinus francolinus*) in the Mandal Valley of Garhwal Himalaya, Uttarakhand, India, from July 2025 to February 2026. Regular field observations were carried out through transect and trail walks to document sightings, population size, age composition and group occurrence. During the study period, a total of 475 individuals were recorded from 146 sightings, comprising 435 adults and 40 young individuals. Considerable monthly variation was observed in the recorded population. The total number of individuals increased from 51 in July 2025 to 105 in August, followed by a gradual decline during September–November. The highest monthly population was recorded in December (114 individuals), whereas the lowest was recorded in January 2026 (8 individuals). The population subsequently increased to 46 individuals in February. Young individuals were recorded only during July and August, with 18 and 22 individuals, respectively. The mean monthly population was 59.38 ± 13.28 individuals, while the mean number of adults and young individuals was 54.38 ± 12.52 and 5.00 ± 3.30, respectively (Mean ± SE). The observations indicate pronounced temporal variation in the population and age composition of Black Francolin in the study area. The findings provide baseline information on the monthly population pattern of the species in the Mandal Valley and may contribute to future ecological monitoring and conservation studies.

Keywords: Black Francolin, *Francolinus francolinus*, Population, Monthly variation, Group size, Garhwal Himalaya, Uttarakhand.

INTRODUCTION

The Black francolin is one of the most common species of the family Phasianidae found in India, were its distribution is confined to the cultivated and barren land from mandal valley. It habitats scrub jungle near cultivation in extremely arid area. It is typically found in pair but coveys of four to six birds are also known. In

the Indian sub-continent, Black francolins have been reported (Ali & Ripley, 1983). In the hills of Garhwal Himalaya, Black francolin is a common sport bird and also considered as pest species because of its close association to the crop fields and feeding habits on young sprouting seeds of wheat and barley crops (Pal *et al*., 2016)**.** Till date, no attempt is made to conserve and manage this bird. Our knowledge on its distribution, ecology, breeding biology and behavior is varying scanty (Baker, 1928; Johnsgard, 1973). Present communication deals with adequate information on the sightings, population, seasonal variation and group size of Black francolin from Garhwal Himalaya, Uttarakhand.

METHODS

Intensive study was carried out on residential populations of Black francolin in wild for Eight months (July 2025 to February2026) at Mandal valley, district Chamoli, Garhwal Himalaya. The study site lies between 1660 and 1950 meters altitude on North-East facing slope. The study site lies comprised of mixed temperate forest of *Quaricus, Rhododendron, Myrica, Cedrus,* etc. The maximum and minimum temperature varies from 10.2℃ to 23.8℃ and 4.2℃ to 15.8℃ respectively from January to June and July to December. During the study period, regular visits for 8- 10 days were made every month to record information on sightings, group size and population variation of Black francolin. Using Transect/trail walks method (Javed & Kaul, 2002)**,** data were collected on total number of francolin sighted, number of groups, the maximum number of individuals (adults and young) in a group, biotic pressure etc. In the study site, many trails were laid by local people who daily visit the area to fodder and fuel collection, cattle grazing etc. Information on the habits and range of the birds was obtained by speaking with the local villagers and from published literature.

RESULT

Monthly observations revealed considerable variation in the population of Black Francolin (*Francolinus francolinus*) in the Mandal Valley during the study period from July 2025 to February 2026. A total of 475 individuals were recorded during 146 sightings. Of these, 435 were adults and 40 were young, indicating a predominance of adult individuals in the observed population.

The monthly population showed marked fluctuations throughout the study period. The total number of individuals recorded was 51 in July 2025, which increased substantially to 105 in August. The population subsequently declined to 79 individuals in September, followed by 51 in October and 21 in November. The highest monthly population was recorded in December, with 114 individuals**,** whereas the lowest population was observed in January 2026, with only 8 individuals. The population increased again to 46 individuals in February 2026.

The adult population also exhibited considerable monthly variation. Adult numbers increased from 33 individuals in July to 83 in August, followed by 79 in September and 51 in October. A further decline was observed in November, when only 21 adults were recorded. The maximum number of adults (114**)** was recorded in December, whereas the minimum (8) occurred in January 2026. In February, the adult population increased to 46 individuals.

Young individuals were recorded only during July and August, with 18 and 22 individuals, respectively. No young birds were recorded from September 2025 through February 2026. The mean monthly population was 59.38 ± 13.28**,** while the mean number of adults was 54.38 ± 12.52 and that of young individuals was 5.00 ± 3.30 (Mean ± SE).

Overall, the observations indicate pronounced monthly variation in the recorded Black Francolin population, with the highest abundance during December and the lowest during January. The presence of young individuals during July and August suggests a period of juvenile occurrence during the early part of the observation period. The observed monthly differences in population composition and abundance indicate temporal variation in the local population of Black Francolin in the Mandal Valley.

Table: **Monthly comparison of adult and young population from July 2025 to February 2026.**

Month	Adult	Young	Total
July 2025	33	18	51
August	83	22	105
September	79	0	79
October	51	0	51
November	21	0	21
December	114	0	114
January 2026	8	0	8
February	46	0	46
Mean ± SE	**54.38 ± 12.52**	**5.00 ± 3.30**	**59.38 ± 13.28**

DISCUSSION

The present study provides information on the monthly population pattern and age composition of Black Francolin (*Francolinus francolinus*) in the Mandal Valley of Garhwal Himalaya, Uttarakhand. The observations recorded during July 2025 to February 2026 indicate considerable temporal variation in the number of individuals observed in the study area. A total of 475 individuals were recorded from 146 sightings, including 435 adults and 40 young individuals. The predominance of adults in the observations suggests that adult birds constituted the major component of the recorded population during the study period.

Marked monthly fluctuations were observed in the population. The number of individuals increased from 51 in July to 105 in August and subsequently declined during September, October and November. (Ali & Ripley, 1983). The highest population was recorded in December, when 114 individuals were observed, whereas the lowest number was recorded in January 2026, with only 8 individuals. The population increased again in February, reaching 46 individuals. Such variation in monthly observations may reflect temporal changes in the distribution and detestability of birds within the study area. However, the present dataset alone does not establish the specific causes of these fluctuations.

The occurrence of young birds was restricted to the first two months of the study. Eighteen young individuals were recorded in July and 22 in August, while no young individuals were recorded from September to February. This pattern indicates that young birds were particularly represented during the early part of the observation period. The occurrence of young individuals during July and August may be relevant to understanding the seasonal population structure of the species in the study area (Kukreti *et al*., 2016). However, because observations were conducted for only eight months and young birds were not recorded in the subsequent months, further year-round monitoring would be necessary to determine the breeding and recruitment pattern more precisely (Priscilla & Jasmine, 2002)**.**

The study area is situated at an elevation of approximately 1660–1950 m and comprises mixed temperate vegetation, including *Quercus*, *Rhododendron*, *Myrica* and *Cedrus*. The species was observed in an area influenced by cultivation and human activities such as fodder and fuel collection and cattle grazing. These habitat characteristics and anthropogenic activities are relevant to the local occurrence and distribution of Black Francolin. The present observations therefore provide useful baseline information for understanding the species' occurrence in the Mandal Valley.

The mean monthly population recorded during the study was 59.38 ± 13.28 individuals, with an adult mean of 54.38 ± 12.52 and a young mean of 5.00 ± 3.30 (Mean ± SE). The relatively large variation in monthly observations indicates that the number of birds encountered was not uniform throughout the study period. Nevertheless, these values represent observed population counts rather than an estimate of the absolute population size of the species in the entire Mandal Valley.

Overall, the findings demonstrate clear monthly variation in the observed population and age composition of Black Francolin in the Mandal Valley. The higher observations during August and December and the marked decline during January highlight the need for continued systematic monitoring. Long-term studies incorporating repeated transects, habitat variables, breeding observations and seasonal comparisons would provide a stronger

basis for determining the factors responsible for population fluctuations and for developing appropriate conservation and management strategies for Black Francolin in the Garhwal Himalaya.

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