

15.0 Status, Distribution and Management of Galliformes in Uttarakhand

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Introduction

Uttarakhand is India's youngest mountain state, carved out of erstwhile Uttar Pradesh on 9th November 2000, and spreads over 53,483 km² (1.67% of India's geographical area). The state has diverse habitats ranging from the snow bound peaks of the Himalayas, the highest being Nanda Devi (7,817 m), to the sub-tropical terai region. This diversity has also contributed immensely to the diversity of flora and fauna of the state. As per the biogeographical classification by the Wildlife Institute of India, the state represents the Biogeographic Zones 2B Western Himalaya and 7B Shiwaliks (Rodgers *et al.* 2000)

Uttarakhand has a rich conservation history. Forests are an integral part of the ecological assets of the state. The state's recorded forest area is 34,650 km² which is 64.8% of the state's geographical area and 4.5% of the national forest area. Its forest cover is 24,465 km² which represents 45.74% of the geographical area of the state and 3.61% of the forest cover of the country.

As its commitment to conservation of this valuable natural resource, the state has set aside over 12% of its geographical area (26.6% of its forest area) as National Parks (NP) and Wildlife Sanctuaries (WS), which is way above the national average. The details of the Protected Areas (PA) of the state are printed in the Table 1 and 2.

Uttarakhand is a rich in avifauna. Of the 1,248 species of birds reported from India, over 621 have been reported from Uttarakhand (Mohan and Sinha 2003). Of these, galliformes have pride of place. In the present conservation scenario that is essentially "large mammal" centric, little information is available on the actual conservation status of a group of birds such as the Galliformes from Uttarakhand. Most of the information is secondary and often based on anecdotal evidences. However, within these limitations, an attempt is being made to make an assessment of the status of these species in the state.

Table 1 : National Parks and Wildlife Sanctuaries of Uttarakhand

	Name of National Park (NP) / Wildlife Sanctuary (WS)	Year of Estt.	Area (km ²)	Climatic/ Altitudinal Zone
1	Corbett NP	1936	521	Tropical.
2	Rajaji N.	1983	820	Tropical
3	Nanda Devi NP	1982	630	Alpine
4	Valley of Flowers NP.	1982	87	Alpine
5	Gangotri NP.	1989	1,553	Alpine
6	Govind NP	1990	472	Alpine, Subalpine, Temperate
7	Kedarnath WS	1972	957	Alpine, Subalpine, Temperate
8	Govind WS	1955	481	Alpine, Subalpine, Temperate
9	Banog WS	1993	11	Temperate
10	Binsar WS	1988	46	Temperate
11	Askot WS	1986	600	Subtropical to Temperate
12	Sonanadi WS	1987	301	Tropical.
TOTAL			6479	



Table 2 : Conservation Reserves of Uttarakhand

S. No	Name of Conservation Reserve (CR)	Year of Estt.	Area (km ²)	Climatic/ Altitudinal Zone
1	Jhilmil Tal CR	2005	37.83	Tropical
2	Asan Wetland CR	2005	4.44	Tropical
TOTAL			42.37	

Status and distribution of Galliformes in Uttarakhand:

The Red Junglefowl (*Gallus gallus*)

In Uttarakhand, the sal forests of the terai are the main stronghold of the Red Junglefowl distribution. While commonly seen in Corbett NP and Rajaji NP and the Sona Nadi WS, it is also fairly abundant in other forest tracts of the terai region in the state. There is no detailed information about their population status in the state. Towards the forest edges, the species can be seen occurring in close proximity to human habitations, which in turn has raised concerns about the interbreeding of the wild with domesticated varieties. The Wildlife Institute of India (WII), Dehradun has initiated a project to evaluate the genetic diversity and other ecological and behavioural aspects of the species in Uttarakhand.

The Indian Peafowl (*Pavo cristatus*)

Although no population estimates are available, the species is abundant in the terai region of the state. It is seen in good numbers in PAs such as the Corbett NP and Rajaji NP. The Jhirna-Kalagarh road is one of the best places to see large number of these birds during an early morning or late evening drive through the forests. It is also seen in good numbers on forest edges close to human habitations. Due to its religious connotations, the species is generally tolerated, despite occasional complaints about its damage to crops.

The Himalayan Monal (*Lophophorus impejanus*)

The Himalayan Monal is the State Bird of Uttarakhand and it has a significant presence in the Nanda Devi NP, Valley of Flowers NP, Govind NP, Gangotri NP, Kedarnath WS, Askot WS, and Govind WS. It is also reported from the Chakrata, Badrinath, Bageshwar and Pithoragarh Forest Divisions. The Kedarnath WS in particular, has several excellent locations for sighting of this beautiful bird. Shokharkah, near Tungnath is one such site where patient waiting is usually rewarded by sightings of upto 20-30 individuals in one evening. Encounter rate for monal in this area ranges from 0.7 to 1.2/ km walk and the density estimate ranges from 5 to 20 pairs/km² (Sathyakumar *et al.* 1992). Madhmaheshwar in Kedarnath WS and nearby areas are also good areas for

sighting of monals. In Nanda Devi NP, the encounter rate for monal range from 0.75 to 2.28/km walk (Sathyakumar 2004).

Kalij Pheasant (*Lophura leucomelanos*)

Of the five sub species of Kalij distributed along the Indian mountain states, Uttarakhand is home to the White crested Kalij (*L.l.hamiltonii*). The species exhibits a wide altitudinal distribution, from about 200 to 2,800 m. Thus, in several places it is sympatric to the Red Junglefowl. The species is common in the temperate forest areas of the state, with Kedarnath WS, Binsar WS, Govind NP & WS and Askot WS some of the prominent areas bearing good populations. The Mandal-Chopta road in Kedarnath WS is one of the best places to sight this bird. Abundance estimates for Kalij in this area are 8.6 birds/km walk and 16 to 17 birds/km² (Sathyakumar *et al.* 1992). It is also seen easily on the foothills and hill sides of the Corbett Tiger Reserve.

Cheer Pheasant (*Caterus wallichi*)

The cheer pheasant generally occurs in small and isolated populations. In Uttarakhand, the species is generally rare, reported infrequently from open grassy and scrubby tracts on steep hillsides between 1,500 to 2,500 m. Areas near Lansdowne in Pauri Garhwal district report occasional sightings of the bird. Other areas from where the species has been reported includes parts of Nanda Devi Biosphere Reserve, Kedarnath WS, Govind NP & WS, Tehri and Uttarkashi Forest Divisions. The species continues to be rare with very limited information on its status.

Koklass Pheasant (*Pucrasia macrolopha*)

This species occurs in well forested tracts between 2,500 - 3,300 m in temperate forests. In Uttarakhand, the Chopta-Mandal road stretch and the forest tracts around Tungnath are well known locations to spot the bird. Green (1986) estimated koklass density as five birds/km² in Shokharkah area in Kedarnath WS. Other notable areas for the species include parts of Uttarkashi, Tehri and Bageshwar Forest Divisions and the Binsar, Govind WS & NP. In Dibrugeta, Nanda Devi NP, the abundance of Koklass was estimated as 3 calling males/ station during spring 2003 (Sathyakumar, 2004).

**Satyr Trogon** (*Trogon satyra*)

The main stronghold of the Satyr Trogon is the Eastern Himalayas. However, the species is also reported from parts of Uttarakhand. Sightings are extremely rare and have been confined to some reports from the Pithoragarh, Almora and Bageshwar Forest Divisions and the Askot WS.

Snow Partridge (*Lerwa lerwa*)

The snow partridge, as its name suggests, generally occurs close to the snowline. It can be seen in good numbers, upto 25-30 individuals in places such as the Govind WS, Valley of Flowers NP, Nanda Devi NP and Kedarnath WS. It is also sighted in the high altitude areas of the Uttarkashi and Bageshwar Forest Divisions.

The Himalayan Snowcock (*Tetraogallus himalayensis*)

More common than the Snow partridge, it occurs in Alpine pastures near the snowline and bare stony ridges and steep slopes but uncommon below the 4000 m. This species is restricted to the Trans-Himalayan tracts of Uttarakhand largely in Nanda Devi Biosphere Reserve and Gangotri landscape. In Nanda Devi NP, the encounter rate for this species was 1.33/km walk (Sathyakumar, 2004).

Chukar (*Alectoris chukar*)

The Chukar partridge is well distributed in Uttarakhand and it is fairly common in some localities. It occurs mainly in open and rocky hill slopes and stony ravines, often near a water source. They exhibit a altitudinal movement from about 1,200 m to 4,000 m in the Uttarakhand Himalayas.

Black Francolin (*Francolinus francolinus*)

The Black Francolin is a common bird of the hillsides in Uttarakhand. It is seen around tall grasses and scrub, abandoned agricultural lands near villages. Best seen in the Corbett NP, it is often more heard than seen, its loud, harsh call distinctly reminding others of its presence.

Tibetan partridge (*Perdix hodgsoniae*)

This species is occasionally reported from the Trans-Himalayan region of the Nanda Devi Biosphere Reserve and Uttarkashi Forest Division, where it inhabits rocky slopes with *Caragana* shrubs. Its status in Uttarakhand is best described as rare.

Hill Partridge (*Arborophila torqueola*)

This species is best reported from the hill slopes and ravines

of oak forests in Uttarakhand. It is fairly common, though no scientific estimation of its status is available.

Rufous-throated Partridge (*Arborophila rufogularis*)

The species looks similar to and its range also sometimes overlaps that of the Hill Partridge. It is locally common in well forested patches of the state such as Binsar WS, Askot WS and in Pithoragarh and Bageshwar Forest Divisions.

Himalayan Quail (*Ophrysia superciliosa*)

This remains the endearing mystery of the galliformes in Uttarakhand. The species was last reported in 1890 but it is believed to still survive somewhere in Uttarakhand. The Banog WS in Mussorie provides protection to one of the last known sites of this species. Since then, many attempts have been made to establish the presence of the species, including more recently by analysing feathers collected from probable sites of occurrence. During the last 10 years, many claims have been made of sightings of the Himalayan Quail, none substantiated. The anticipated re-emergence of the species is the subject of much debate.

Management Concerns:

Despite many of the pheasant species finding protection cover under the provisions of the Wildlife (Protection) Act 1972, their feathers and plumes attract many buyers. One of the major issues for the conservation of Galliformes, especially pheasants, is that the various developmental activities across the state that attract a large number of migrant labour who live virtually unsupervised in many interior areas. They are known to occasionally trap these birds for food, also occasionally for the crest and feathers. The monal crest is proudly worn as traditional attire in some parts of Himachal Pradesh and commands a fancy price. In addition to the core issues of degradation of habitats, their fragmentation is also cause of concern. There is very limited information on the conservation status and requirements of these species, which are seen as indicators of the ecological health of the ecosystem.

Many of these species occur equally outside the PA network as within. Even within the Forest Department, there is a lack of financial and technical resources to implement scientific species management or habitat recovery programmes for such species. The extremely remote and rugged terrain, harsh climatic conditions, along with a severe lack of trained and motivated staff to implement management actions are the constraints for better management in the state.

Cattle rearing is a major economic activity in many parts of the state. This along with grazing by sheep, goat and cattle



in the higher grasslands of the state by migrant graziers and herders from neighbouring states are major concerns for preventing habitat degradation and disturbances to galliformes. Given that the galliformes are ground dwellers, the adverse impacts of heavy grazing on their critical habitats and during breeding season can not be underestimated.

Forest Fires are also an important adversarial influence on Galliformes conservation in the state. Usually, the loss of ground dwelling birdlife during fires is not documented or even less understood but the potential impact on the population of these bird species is grave.

There is no planned Conservation Breeding Programme in place for Galliformes as of now in Uttarakhand but such an exercise is being planned at a suitable site in Kedarnath Wildlife Division.

Galliformes of Uttarakhand hold a great ecological value and also occupy an important place in the cultural ethos and heritage of the state. More concerted efforts, beginning with awareness as the first step, are needed to ensure the continued well being of these beautiful gifts of nature.

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