7.0 The Himalayan Quail – Extinct or Evasive?

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Introduction

The Himalayan Quail *Ophrysia superciliosa,* is one of the rarest Galliformes species in the world. Despite several surveys, this species has not been recorded with certainty since 1876, and it may have been severely impacted by habitat degradation and hunting. However, it probably remains extant, because thorough surveys are still required; the species may be difficult to detect (favouring dense grass and being reluctant to fly). In addition there is a recent set of possible sightings around Nainital in 2003. Any remaining population is likely to be tiny, and for these reasons it is treated as Critically Endangered (BirdLife International. 2004, IUCN 2006; BirdLife International 2007).

This species is known to the mankind through a dozen specimens procured from Jharipani, Banog and Bhadraj (behind Mussorie) and Sher Ka Danda (Nainital). All these areas are located in the lower Western Himalayan ranges in the state of Uttarakhand in India. Most of these specimens were shot during winter (except once) from the steep grasslands and scrub openings on south facing slope crests between 1,650 and 2,400 m elevation range in the forests of lower Western Himalayan region of Uttarakhand (Ali and Ripley 1987;Shafiq 1997, Shafiq *et al*. 2000; Fuller *et al.* 2000).

Its current distribution is unknown. Between 1945 and 1950 there were apparently reliable reports of this species being shot in east Kumaon near Lohagat village and from the Dailekh district of Nepal (Ripley 1952), and there is another putative sighting near Suwakholi in the Mussoorie hills by Negi (1992) who reported encountering coveys of birds on two occasions in September 1984. However, the descriptions of these birds were very vague and all twentieth century records remain unsubstantiated (Collar *et al*. 2001).

All that is known about the natural history of Himalayan Quail is its size, which is reported to be large for a Quail. It had a relatively longer tail; conspicuous red bill and legs. Bill was thick and short with upper mandible overhanging the lower; legs were short and usually armed with one or more pointed spurs in male; hallux was always present, claws were short, blunt and very strong for scratching food from the ground. Wings were short and rounded; flight was swift and strong but incapable to cover long distances. Generally, encountered in covey of 6-10 heads, it was extremely elusive, never flying except when almost stepped on.

Status

Field investigations during mid 19th century indicated that Himalayan Quail may have been relatively common, but it was reported as rare by the late 1800s. The habitat of Himalayan Quail probably bore some similarities to the habitat of the Cheer Pheasant *Catreus wallichi* which is patchy, suggesting that these birds were probably never present in large numbers (Kaul *et al.* 1998).

The lack of records for over a century, suggests that this species may have become extinct. The unconfirmed reports of its sighting, recent literature reviews, and field investigations, have however kept alive the hope that small populations may still survive in some areas in the lower or middle Himalayan range between Nainital and Mussorie (Hilaluddin and Kaul 2002). There has been a lack of long-term and dedicated surveys to rediscover the Himalayan Quail which makes it difficult to pronounce this species as extinct. It is likely that this species is surviving somewhere in its historical distribution range but has not been located so far for want of dedicated survey effort? Despite its "Critical" status, very few efforts have been made to locate this species within its natural range. In the past, only few attempts were made by Sankaran (1990), Reiger and Waltzhthony (1992), Kaul *et al.* (1998), Hilaluddin *et al.* (2002) and Kalsi *et al.* (2004). The last field effort to locate the elusive Himalayan Quail used satellite data and geographical information system approach (Hilaluddin *et al*. 2002; Kalsi *et al.* 2004). However, none of these surveys were able to establish presence of any Himalayan Quail populations but made some useful pointers.

Habitat and distribution

According to Mackinnon (in Hume and Marshall, 1879-81), the Himalayan Quail was found in long "seed grasses" on the steep slopes of hills, and was made to fly only when flushed by a dog, or trod upon. This is perhaps the only description available and most writers have quoted Hume and Marshall (1879-81) thereafter. However, many people have made deductions about the habitat of the Himalayan Quail.

Baker (1928) thought that the Himalayan Quail occurred in groups of five to ten individuals that lived in high grass where they fed on fallen seeds and could rarely be seen. In the afternoon, they descended into sheltered hollows, sometimes occupying very steep slopes with patches of brushwood. Grant (1896) and Finn (1911) also thought that this bird occurred in coveys of six to ten, and kept close to cover in grass or brushwood. Greenway (1967) was of the opinion that the Himalayan Quail was an extremely shy and retiring bird, that inhabited steep grassy slopes and could be seen only when flushed.

The Himalayan Quail apparently preferred steep slopes with small growing vegetation; as such features allow a flushing bird to escape ground vicinity without any great navigational ability (Reiger and Waltzthony 1990). According to Ali (1977) the Himalayan Quail inhabited long grass and was a skulker, found on steep rugged hillsides cut by wooded and/or stony valleys. He further said that most specimens were obtained during or soon after November when the grass on the open hillsides was taller and provides good cover. Ali (1977) felt that habitat requirements of these birds were very much similar to Cheer Pheasant *Catreus wallichi* and steep slopes, grass and bush vegetation made it difficult to find these small birds.

Kaul (1992) drew a comparison between the Cheer Pheasant (*Catreus wallichii*) and the Himalayan Quail, based on the habitat descriptions of the two species which appeared to be quite similar in literature (Ali and Ripley 1987). Kaul (1992) was of the opinion that if the habitat of the Himalayan Quail was what has been presented in the literature, then the rather limited habitat of steep and scrubby slopes, interspersed with precipitous cliffs between 1,000m and 3,000m altitude, must impose severe restrictions on the distribution of both these species. As open grassy and scrubby areas do not form large contiguous tracts in the Western Himalaya, Cheer Pheasant has always been patchily distributed across its range with populations limited by the availability of suitable habitat. If the Himalayan Quail was a bird of such specialized habitat and given that such areas are not very extant, most populations were probably small and vulnerable to "local extinctions". In the event of identification of areas with Himalayan Quail, and if such areas have habitats similar to ones occupied by Cheer Pheasant, then there is a likelihood that it will not be very large in population (Kaul1992).

Das (1995) believed that the Himalayan Quail was a shy, skulking bird that lived only in very thick undergrowth, heavy tangles of tall grass, hill bamboo and bushes, where it scurried about like a rodent, always under some form of overhead cover. He opined that the Himalayan Quail did not inhabit slopes with a combination of bushes and tall grass (habitat of Cheer Pheasant), but probably lived in adjacent large patches of thick scrub, consisting of bushes, grass and hill-bamboo on slopes, valley bottoms or hollows. His assumptions were based on the colouration and habits of the bird as described in literature.

As admitted by earlier authors, the Himalayan Quail used areas with "seeding grass" quite extensively (Hume and Marshall, 1879-1881). Seeding of grass in the Western Himalayas occurs only during the months of November and early December which also coincided with the period when most Himalayan Quails were shot. Many galliformes species such as Painted Francolin (*Francolinus pictus pallidus*), Cheer Pheasant and White-crested Kalij (*Lophura leucomelana hamiltonii*) feed on grass seeds when available. Therefore, it is quite likely that Himalayan Quail used to visit areas of "seeding grass" for the seed, and were shot there. It would be interesting to know whether the Himalayan Quail continued to stay in such areas once winter approached and the grass has dried? or did they migrate elsewhere? An answer to this question could provide vital clues about which areas that one could consider for a detailed search.. It is likely that the Himalayan Quail spent the winter in either of these areas or probably at lower altitudes in case of bad weather. However, it is also possible that the Himalayan Quail did not spend the whole year in the above mentioned areas, because they would have been located in these habitats otherwise. There has been only one report of a covey (a family of five) that was shot in Jaripani during June, all other cases, the birds were found in winter in the earlier described habitats of tall grass.

In spring, most of the grass was dead and even with fresh shoots sprouting; the grassland by itself becomes incapable of providing adequate shelter to a bird of the size of Himalayan Quail. Therefore, either the bird was migratory and moved to higher altitudes during summer, higher than where, it was seen or shot or it was resident and used other areas, close to these grassy open patches for the rest of the year.

Let us consider a situation where a Himalayan Quail was shot near Sher-ka-Danda in Nainital and another one was

seen in the vicinity (Carwithen 1879). Sher-ka-Danda, as it is now, is a small hillock on the north-eastern side of Nainital. This hillock has a small open grassy patch on the top and the rest of the area, which is rather small, is scrubby followed by extant wooded forest. Open grassy areas are generally created by human pressures such as removal of trees, shrubs and by some form of continual disturbance (grazing, lopping, slashing of shrubs). A century ago, such pressures on Sher-ka-Danda would have been substantially less than what they are now because human population in Nainital was negligible then. Thus, Sher-ka-Danda probably had a very small patch of "seed grass", smaller than what exists there now, and which the Himalayan Quail used a century ago where they were subsequently shot in 1876. It is difficult therefore, to visualize that a species could thrive in such a small habitat. They probably used this particular habitat for only a part of the year when it provided re-sources for the bird (grass seeds, other food material and also sun-shine) and moved somewhere else for the rest of the year. The immediate vicinity of the grassland then was the scrubland and oak forest. Sher-ka-Danda is the highest point of the hill and a species could only move downwards from there, into the oak or scrub habitat close to these grassy patches, or migrate on foot to cross ranges and on to the high mountains in the inner line.

Extinct or Elusive?

Reiger and Waltzthony (1990) made the first comprehensive effort to re-discover the Himalayan Quail and put forward two models for their extinction. Both the models suggest that the Himalayan Quail was a bird which originally lived at low altitudes, even as low as 400m. They were driven to higher altitudes by the increase in human population at low altitudes (due to their technophobic behaviour). The second independent model suggested that the reason for the Himalayan Quail to have moved to higher altitudes was the shifting of vegetation belts from lower altitudes to higher altitudes due to change in temperature following the glaciations in the Pleistocene Age. According to these two models, the mountain Quail kept moving to higher altitudes, and as the hills of the lesser Himalayas do not have many peaks above 2,000 m, the Himalayan Quail formed island populations at these peaks, which later became extinct with increased human pressures.

For a species which has not been seen for more than 100 years it could be safely categorised as 'possibly extinct'. However, what makes Himalayan Quail enigmatic is the fact that even in the last survey efforts to locate Himalayan Quail, the local villagers identified the species from the pictures and descriptions and said that the birds close (?) to Himalayan Quail descriptions did occur in their areas and could be seen. However, no direct or indirect evidences were found after intensive surveys in these locations (Kalsi *et al*. 2004). It is important to know whether appropriate methods or techniques were used in these surveys for the detection of a bird with cryptic colouration and secretive behaviour which lived in a vast area of dense grass. BirdLife International (2004) suggested considering that small population(s) of the species may exist in some remote area, a well-planned survey of apparently suitable habitat (including a revisiting of the sites from which the species was known) needed to be instituted in the lower Himalayan ranges through the use of remote sensing methods and satellite data. Once potential areas were located, ground surveys needed to be organized by a team of competent ornithologists. In an effort to locate the birds, suitable survey techniques should be adopted. A combination of flushing (e.g. trained dogs) and trapping techniques (e.g. grain-baited photo-trap stations) over a few seasons could be employed in selected localities. A systematic programme of questioning of local *shikaris* (hunters), using recent illustrations, was also needed, and a poster-plea could be made throughout the prospective range of this species in Uttarakhand. If the species indeed shared habitat with the Cheer Pheasant (Kaul 1992), surveys should perhaps be targeted at localities for the pheasant nearest to the known localities for the Quail. The call count method employed successfully for the detection and survey of a number of galliformes species cannot be used for the Himalayan Quail since nobody knows about its calls. Survey by Kalsi *et al.* (2004) had short-listed potential sites based on satellite imagery data and carried out intensive field surveys and interviews with local villagers, including old *shikaris* and poster plea.

The past evidences and records weigh heavily in favour of the hypothesis that Himalayan Quail is extinct. This hypothesis is reinforced by three factors – the species has not been seen for over a century, it was always in small numbers and patchily distributed, and the habitats in areas where it was reported from have suffered from heavy human pressures.

Out of the above survey techniques, flushing with trained dogs and grain-baited camera-trap stations remain to be used for the detection of Himalayan Quail. Therefore, before concluding that Himalayan Quail is 'extinct', it will be necessary to conduct a series of dedicated and well-planned surveys at locations short listed by Hilaluddin *et al*. (2002) and Kalsi *et al.* (2004) who had used satellite data. At these locations, intensive surveys should be conducted with trained dogs and grain-baited camera-trap stations. Molecular genetic analysis of feathers / egg shells collected from field and that are suspected to be of the Himalayan Quail needs to be carried out. Until the completion of detailed field surveys as suggested above, we may consider that the Himalayan Quail is elusive and evasive.

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