

Winter birds of the Gya-Miru Wildlife Sanctuary, Ladakh, Jammu and Kashmir, India

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Abstract

A survey of the winter birds of the Gya-Miru Wildlife Sanctuary in the Trans-Himalayan region of Ladakh, India was carried out between December 2002 and March 2003. 30 species were recorded, constituting 60% of the total resident species in Ladakh excluding Nubra Valley, and 10% of the total birds recorded in Ladakh (11% of the post-1960 records). 29 species (97%) of the birds recorded breed in Ladakh, while one, Mallard *Anas platyrhynchos* is a passage migrant. The most noteworthy sightings were four species of pheasants (Phasianidae) and two of owls (Strigidae). A preliminary assessment of the potential threats to the birds in the reserve was made. This is the first avifaunal survey of the reserve, and has implications for assessing the importance of the area for bird protection.

Introduction

Ladakh is located in the western Himalaya and harbours a unique diversity of avian species. A total of 276 bird species have been reported from the area (310 species prior to 1960; Pfister 2004). The Indus Valley in Ladakh has been identified as an important migratory route for birds that migrate between central Asia in the Palaearctic region and the Indian sub-continent (Ali and Ripley 1983; Williams and Delany 1986). The vast marshlands around lakes and along the shores of the mighty Indus River in eastern Ladakh provide critical habitat for breeding migrant species such as the highly endangered Black-necked Crane *Grus nigricollis* (Pfister 2004). Besides, there are myriad resident species that are adapted to the cold and harsh environment of the region (Mallon 1987).

Although, the summer-visiting and migratory birds of Ladakh are relatively well known (Williams and Delany 1985, 1986; Hussain 1986; Holmes 1986; Pfister 2004), the breeding birds that are resident year-round have received less attention (Mallon 1987). Recognising this fact, I conducted a survey of the resident winter birds of the Gya-Miru Wildlife Sanctuary. Almost nothing is known about the faunal status of this reserve.

Study area

The proposed Gya-Miru Wildlife Sanctuary (GMWS; 33°N, 78°E) is located at the western fringe of the Tibetan Plateau, and

has close ecological affinities with Tibet. The area receives low annual precipitation of about 150mm (Hartmann 1983). The proposed reserve is located c.60km from Leh, the capital city of Ladakh, and encompasses an area of c.340km². Altitude within the reserve ranges from 3,900–5,700m. The area is bounded on the south by Tso Kar, a brackish lake, which has been identified as an important breeding area for rare bird species such as the Black-necked Crane (Gujja et al. 2003; Pfister 2004).

Besides the diverse assemblage of birds, the reserve harbours mammals such as the Tibetan Argali *Ovis ammon*, Ladakh Urial *Ovis vignei*, Blue Sheep *Pseudois nayaur*, Snow Leopard *Uncia uncia*, Tibetan Wolf *Canis lupus*, Wild Dog *Cuon alpinus*, Eurasian Lynx *Lynx lynx*, Red Fox *Vulpes vulpes* and myriad small mammals (Namgail 2003). Trees such as poplar *Populus* spp. and willow *Salix* spp. are confined to the river valleys, and the most common vegetation includes *Caragana*, *Artemisia* and *Eurotia* spp. The proposed reserve has a human population of about 1,000, and is grazed by their domestic livestock such as yak, horse, donkey, cow, sheep and goat (Namgail et al. 2004).

Methods

The survey was carried out in conjunction with an ecological study of the Tibetan argali between December 2002 and March 2003. Birds were observed while walking on permanent trails on the mountain slopes and along the valleys. Most of the observations were made in the Tsabra and Khemer catchments to the south of Gya Village, although a special 3-day effort was made to cover the northern parts of the reserve in late February 2003. In addition, all the birds within the limits of the reserve were recorded while driving to and from Leh.

Results

Thirty bird species were recorded at the peak of winter (see list below). The most frequently sighted species were Golden Eagle *Aquila chrysaetos*, Bearded Vulture *Gypaetus barbatus*, Red-billed Chough *Pyrrhocorax pyrrhocorax*, Yellow-billed Chough *P. graculus*, Horned Lark *Eremophila alpestris* and Robin Accentor *Prunella rubeculoides*. Horned Larks were found in exaltations of up to 30 birds on stony slopes, while Robin Accentors

occurred in smaller flocks (1-5 birds) usually amongst the shrubs along the Tsabra Stream and near livestock corrals.

The most noteworthy sightings however were those of pheasants (Phasianidae) and owls (Strigidae). Four species of the former were recorded: Tibetan Snowcock *Tetraogallus tibetanus*, Himalayan Snowcock *T. himalayensis*, Chukor *Alectoris chukar* and Tibetan Partridge *Perdix hodgsoniae*. Tibetan Partridges were found in small flocks of up to ten birds, usually feeding amongst *Caragana* sp. bushes along the streambed of Tsabra, but all above 4,300m. During the study, I came across ten dried-up corpses of this species, perhaps having died in the summer or the previous winter, but I could not determine the cause of death. The two snowcocks were rare in the area, while the Chukar Partridges were abundant near villages, often feeding on fallow agricultural fields.

Two species of owl, Little Owl *Athene noctua* and Eurasian Eagle Owl *Bubo bubo* were recorded during the survey. The latter was seen roosting on a sandy cliff near our camp at an altitude of 4,600m. I recovered partially eaten parts of the Tibetan woolly hare *Lepus oiostolus* from the base of this roosting site. Little Owl was observed often perched on jutting stone slabs on mountain slopes during the day. The observations also included a non-resident species: Mallard *Anas platyrhynchos*. A pair was seen in the icy-stream close to Lato Village.

Discussion

The 30 bird species recorded in the GMWS constitute about 10% of the total birds recorded in Ladakh (11% of the post-1960 records; Pfister 2004), and about 60% of the total resident species (Mallon 1987). Nevertheless, Mallon (1987) could not survey certain areas such as the Nubra Valley. Although migrants pass through Ladakh almost throughout the year (Williams and Delany 1985), all the species, except one, recorded in the area are known to breed in Ladakh (Pfister, 2004). The Mallard in general is a passage migrant (Pfister *in litt.* 2005). Most of the resident species in Ladakh are altitudinal migrants. Within GMWS, species like the Chukar, Tibetan Snowfinch and Great Rosefinch begin descending to lower valleys and villages from early October. They were

observed in the villages during the winter survey, but were not seen near these settlements during a summer visit. According to a popular belief, the Tibetan Snowfinch descending early is a harbinger of a severe winter.

Gya-Miru, being a transition zone between the rugged mountains of central Ladakh in the west and the vast plains of the Tibetan Plateau in the east, perhaps harbours a relatively high diversity of birds. A comprehensive survey in the area, encompassing different seasons will shed light on this aspect. In any case, it is one of the few places in Ladakh, where both Himalayan and Tibetan snowcocks co-exist. The former is mostly restricted to western Ladakh and the latter to the eastern part (Pfister 2004). Furthermore, Tibetan Partridges were observed only in the Tsubra Catchment just to the south of the Gya Village. Within Indian limits, the species is known to be restricted to eastern Ladakh (Ali and Ripley 1974), and GMWS perhaps marks the western boundary of its distribution in Ladakh, as it was not seen further west and below 4,000m (Mallon 1987).

Apart from the winter birds, the Gya-Miru may also be important for migratory birds, as it has marshlands especially along the streams. Local people mentioned about an area in the northern part of the GMWS where they see Black-necked Crane. If true, this might add a new location to the list of areas, which the species visits in Ladakh. Nevertheless, one cannot rule out the possibility that the local people were mistakenly referring to the Black Stork *Ciconia nigra*, which migrates through Ladakh (Pfister *in litt.* 2005).

Potential threats to the birds: The death of the Tibetan Partridges could be attributed to two potential factors: severe winter and/or avian disease. According to the locals, the previous winter was mild, which leaves disease as a plausible cause for the deaths. Avian disease may be an important source of mortality of birds in Ladakh (during an ecological survey in the summer of 2004 in the Hanle River Basin, I came upon about 50 corpses of Horned Lark; Namgail, unpubl. data). Such high mortality of birds in summer, when resources are abundant suggests of disease as an important cause of mortality. Such issues must be investigated immediately, as there is a high chance of any disease spreading wide because of Ladakh being an important area

for migratory birds.

Secondly, the local people collect *Caragana* and *Artemisia* bushes for firewood during winter (Pers. obs.). The impact of such extractions on the area's avian community is however not known. But it is possible that such activities affect the population of birds such as the Tibetan Partridge that forage amongst the bushes along the streambed. Furthermore, the reserve is grazed by c.8,000 domestic livestock, and the effect of livestock grazing, on birds, especially ground-nesting birds needs to be researched.

Apart from these, the livestock herders despise the Golden Eagle as it occasionally lifts lambs and kids; seven such incidences were reported during the study period. However, no incidence of retaliation or persecution was reported from the area, unlike in the case of depredation by mammalian predators. Furthermore, the Golden Eagle's feathers are used to fletch traditional arrows. Since archery is a prominent sport amongst the Ladakhis, there might be unreported incidences of killing the bird for its feathers. For example, as per anecdotal information, the bird is occasionally killed for the purpose elsewhere in Ladakh, but no such incidences occurred in Gya-Miru (Tashi Gyatso, verbally, 2003). Finally, catching birds such as Chukar to supplement the family larder was common in the past, but is currently discouraged due to the implementation of conservation laws.

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References

Ali, Salim and S. D. Ripley. 1983. *Handbook of the birds of India and Pakistan together with those of Bangladesh, Nepal, Bhutan and Ceylon*. 10 vols. Bombay: Oxford University Press.

- Grimmett, R., C. Inskipp & T. Inskipp. 1999. *Pocket guide to the birds of the Indian subcontinent*. New Delhi: Oxford University Press.
- Gujja, B., A. Chatterjee, P. Gautam & P. Chandan. 2003. Wetlands and lakes at the top of the world. *Mountain Research and Development* 23: 219-221.
- Hartmann, H. 1983. Pflanzengesellschaften entlang der Kashmirroute in Ladakh. *Jb. Ver. Schutz der Bergwelt*, 131-37.
- Holmes, P. R. 1986. The avifauna of the Suru River Valley, Ladakh. *Forktail* 2: 21-41.
- Hussain, S. A. 1986. Status of Black-necked Crane in Ladakh. Problems and prospects. *J. Bombay Nat. Hist. Soc.* 82: 449-458.
- Mallon, D. P. 1987. The winter birds of Ladakh. *Forktail* 3: 27-41.
- Namgail, T. 2003. Gya-Miru: last refuge of the endangered Tibetan argali. *Sanctuary Asia* 23: 16-21.
- Namgail, T., J. L. Fox & Y. V. Bhatnagar. 2004. Argali and livestock: friends or foes? Nature of interaction between argali and domestic sheep and goats in a prospective Trans-Himalayan wildlife reserve. Technical Report submitted to the International Snow Leopard Trust, Seattle.
- Pfister, O. 2004. *Birds and mammals of Ladakh*. New Delhi: Oxford University Press.
- Williams, C. and S. Delany. 1985. Migration through the Northwest Himalaya - some results of the Southampton University Ladakh Expeditions, Part 1. *Bull. O.B.C.* 2: 10-14.
- Williams, C. and S. Delany. 1986. Migration through the Northwest Himalaya - some results of the Southampton University Ladakh Expeditions, Part 2. *Bull. O.B.C.* 3: 11-16.
- List of winter birds observed between December 2002 and March 2003 in the proposed Gya-Miru Wildlife Sanctuary, Ladakh, India.
- Mallard *Anas platyrhynchos* Lato, PM*.
Golden Eagle *Aquila chrysaetos*: Khemer, R.
Himalayan Griffon *Gyps himalayensis*: Puyul, R*.
Bearded Vulture *Gypaetus barbatus* Khemer, R.
Common Kestrel *Falco tinnunculus*: Nilung, SV*.
Tibetan Snowcock *Tetraogallus tibetanus* Fidpo, R*.
Himalayan Snowcock *Tetraogallus himalayensis* Paktse, R*.
Chukor *Alectoris chukar* Gya, R.
Tibetan Partridge *Perdix hodgsoniae* Paktse, R.
Rock Pigeon *Columba livia* Gya, R.
Hill Pigeon *Columba rupestris* Gya, R.
Snow Pigeon *Columba leuconota* Miru, R*.
Eurasian Eagle-Owl *Bubo bubo* Paktse, R.
Little Owl *Athene noctua* Fidpo, R*.
Horned Lark *Eremophila alpestris*: Tsubra, R.
Robin Accentor *Prunella rubeculoides* Paktse, R.
Brown Accentor *Prunella fulvescens* Miru, R*.
White-throated Dipper *Cinclus cinclus* Lato, R*.

Guldenstadt's Redstart *Phoenicurus erythrogaster* Miru, R*.
 Fire-fronted Serin *Serinus pusillus* Puyul, R*.
 Black-headed Mountain-Finch *Leucosticte brandti* Ngayul, R*.
 Mongolian Finch *Bucanetes mongolicus* Miru, R.
 Common Great Rosefinch *Carpodacus rubicilla* Nilung, R.

House Sparrow *Passer domesticus* Gya, R.
 Tibetan Snowfinch *Montifringilla adamsi* Kotsang, R.
 Black-billed Magpie *Pica pica*: Miru, R.
 Red-billed Chough *Pyrhcorax pyrrhcorax*: Khemer, R.
 Yellow-billed Chough *Pyrhcorax graculus*: Tsabra, R.

Carrion Crow *Corvus corone*: Miru, R*.
 Common Raven *Corvus corax*: Khemer, R*.

R=resident.

SV=summer visitor.

PM=passage migrant.

* Seen on less than five occasions.

^aLocation of the first sighting.

Birds seen on a trek in the Chanshal Pass, Himachal Pradesh

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Trekking has never been my cup of tea and I was in two minds when I agreed to accompany the Rishi Valley School team, which ran short of an escort to go with the students on a trek to the Pabbar Valley in Himachal Pradesh. In two minds because I always felt that I may not be able to actively pursue my interest in birds while on a trek where one was expected to walk a pre-determined distance each day and also as I was not sure if I would be able to keep pace with the more energetic children. But on the other hand, I had the whole vacation ahead of me with nothing planned out and the prospect of baking in the summer heat of Chennai loomed large. The trek promised a lot of snow and freezing temperatures. So why not take a chance? Better to freeze than bake, I thought. Now, in retrospect, I feel my choice was a wise one as I came back from the trek refreshed with a lot of wonderful memories and experiences and also with a lot of interesting birds on my list. I also realized that I was not as bad a trekker as I had been rating myself!

Ok, why did I title this piece a trek to Chanshal Pass whereas I am writing about Pabbar Valley trek? The answer is simple. The trek was to Chanshal Pass (4,220m) and beyond and the base camp was at Larot. To reach this, one had to take the road from Shimla going to Chirgaon via Kufri, Karapathar, Jubbal, Hatkoti, and Rohru, a distance of over 150km, due east of Shimla. The last 30km or so of the bus journey passes through the Pabbar Valley and in fact the road goes all along the Pabbar River. So we did pass through the Pabbar Valley but we went trekking up along the higher reaches. Our trek took us to the Uttaranchal border.

The journey commenced in Delhi on the hot afternoon of 18.iv.2004. We, a group of 22 students and two teachers, took a chartered bus from ISBT area and proceeded to Larot. The 17-hour journey

was uneventful and somewhat tiring. But by dawn the next morning, I began my vigil for birds and managed to see quite a few before reaching our destination. The bus was traversing through a mixed habitat of tall forest – mostly coniferous – and scattered settlements with orchards of apple and other fruit trees along a steep hillside. As the bus passed along the Pabbar River, more birds could be noticed. Several Brown Dippers *Cinclus pallasii* were noticed perched or flying over the waters below us. At regular interval there were White-capped Chaimarrornis *leucocephalus* and Plumbeous Redstarts *Rhyacornis fuliginosus*, also on the riverside rocks.

The last leg took us across the river and up a hill, a good climb of some 1,500m or so. The vegetation changed to a more temperate type with conifer trees, and it became cooler. There were orchards and scattered houses. The road was bumpy and dusty. The road we had travelled all along the river now showed as a ribbon far below us and the denuded hillside bore marks of a couple major landslides in the not too distant past. Above us, the skies were clear and blue and there were hilltops with traces of snow on their tops. Eventually we reached the base camp, a three-storey building made of wood atop the hill offering good views all around. As we climbed down, we felt refreshed by the views and the clear mountain air.

The day was meant for acclimatization as we were already at 2,500m and over the next week we were to touch 4,200m. After a wash and breakfast I went around familiarizing myself with the birds. Immediately around the camp, I could see a few birds and also heard several – some of which I was able to identify based on my earlier experiences. Grey Bushchat *Saxicola ferrea* was the most conspicuous bird in the vicinity. The Common Cuckoo *Cuculus canorus* was heard calling and on occasions the male was

seen perched on an exposed perch with wings drooped as it sang. A lovely bird that caught my attention was the Rock Bunting *Emberiza cia*. That evening we had a taste of what the trek was going to be as we panted uphill on an uneven, rock-strewn track through the tiny village.

On 20th morning, we set off after breakfast on the first leg of the trek. We could clearly witness the rampant clearing of the forest – tree felling by burning of trees at the base to weaken them and later claiming them as fallen wood all along. We noticed flocks of sheep herded uphill for grazing in the alpine pastures. We climbed over 800m that morning, the trail being steep in places and gradual in certain stretches. We took about 4½ hours to cover the 5km distance. Towards the end, we were passing through a continuous forest stretch. The campsite at Maduie was in a forest clearing. The forest was open, comprising mostly Deodar trees and occasional maple or other hardwood trees. There was no undergrowth except along streams that carried snowmelt. *Rhododendron* clumps were now common in open meadows and they were coming into bloom with their purplish pink/blue flowers. That evening there was snowfall and rains in the neighbourhood and the night temperatures plummeted.

I was a free the next day and so while others went exploring the hill behind the camp, I went around looking for birds. The bird life was not very rich either in terms of number or variety but nevertheless proved interesting for me as I saw several 'lifers'.

On the morning of the 22nd we trekked to the highest point of the trek – the Chanshal Pass. This involved an initial steep climb along stony streambeds till we crossed the treeline and reached the open meadows. A few flowers were beginning to appear in the otherwise seemingly sterile landscape. At the end of the open meadow overlooking the deep valley over 1500m in depth stood a