

The Southampton University Ladakh Expeditions 1976–1982: Full details of nine species previously unrecorded in India and four second records

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Introduction

Graduate students from Southampton University in England participated in four late twentieth century ornithological expeditions to Ladakh in the north-western Himalaya of Jammu & Kashmir state, India (Table 1).

The expeditions were organised soon after the area opened up to visitors following over 30 years of war and civil unrest. The avifauna of Ladakh was not unknown at the time, following the nineteenth century Yarkand Mission (Sharpe 1891) and collecting expeditions by B. B. Osmaston (Osmaston 1925,

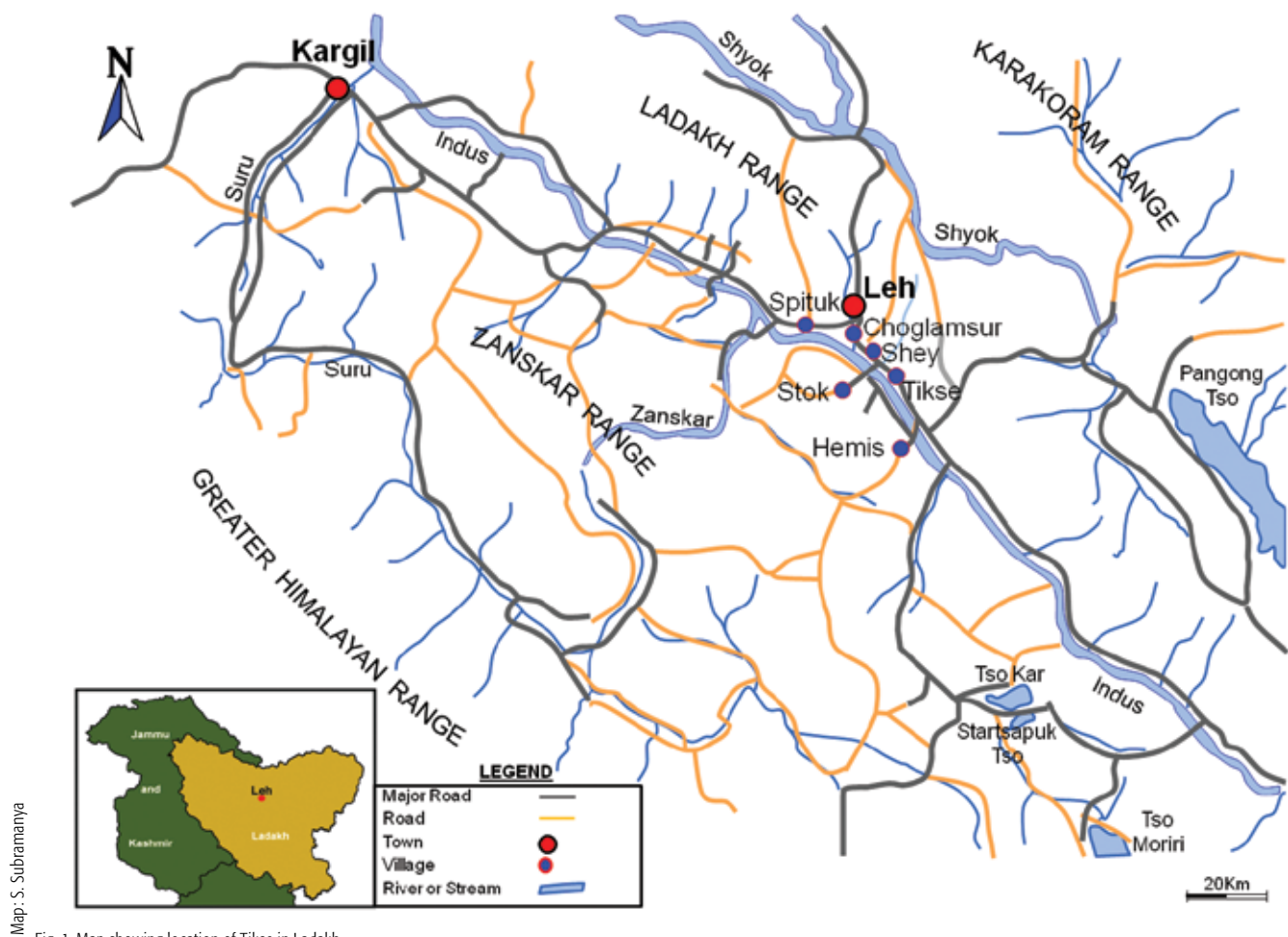


Fig. 1. Map showing location of Tikse in Ladakh

Table 1. Details of dates, personnel and publications relating to the four Southampton University Ladakh expeditions			
Start date	End date	Participant ornithologists	References
July 1976	September 1976	Denby, Phillips	Denby & Phillips. 1977
July 1977	October 1977	Delany, Williams	Williams & Delany 1979
July 1980	December 1980	Delany, Denby, Norton	Delany et al. 1982
July 1981	July 1982	Delany, Denby, Elliott, Garbutt, Sulston, Williams	Williams & Delany 1983

1926, 1927, 1930), Walter Koelz (Koelz 1937, 1939, 1940), and R. Meinertzhagen (Meinertzhagen 1927). These early studies all took place in the summer months and the Southampton University expeditions were interested in extending the knowledge of birds in Ladakh using modern methods of observation and trapping, and especially in studying the nature and scale of bird migration through and within the Himalaya.

The first three expeditions included the summer breeding season of most bird species and remained in Ladakh for the autumn migration period. The final expedition lasted an entire year and collected data in all seasons. By intensively observing and trapping migrants in a systematic way, the expeditions aimed to increase knowledge of the nature of bird migration within and across the Himalaya. The expeditions also aimed to contribute to the understanding of the extent to which massive mountain ranges act as barriers to migration, by recording the variety and numbers of long-distance migrants. They also aimed to record the nature and scale of altitudinal migration within Ladakh in a detailed and systematic way.

recent monograph on the birds of South Asia (Rasmussen & Anderton 2012). The present paper provides full details of the four species observed by the expeditions that had not at the time been recorded on the Indian Subcontinent, and the five additional species previously unrecorded in India. Details of four species with only one previous record in India have also been included.

The ornithological sections of the reports and other material related to the expeditions have also been made available online at: birds.garbuttconsult.ch/ladakh

Study area

The latter three Southampton University expeditions were based for much of their duration in the Upper Indus Valley, at the Forestry Department Plantation on the north bank of the Indus River in the village of Tikse, 18 km south-east of Leh, at an altitude of 3,300 m [1].

To the north of Tikse, the Ladakh range of the Himalaya rises to an altitude of 6,000 m within 20 km, and 25 km to the south the Zaskar Range forms a comparable high-altitude barrier, also



Photo: Charles Williams

1. The Forestry Department plantation at Tikse, looking south-west towards the river Indus and the Zaskar range of the Himalayas from Tikse monastery. The location of the Forestry department hut is indicated with an arrow.

parallel to the river, reaching an altitude of 6,200 m (Photo 1). Eighty kilometres to the north of Tikse, the Great Karakoram range reaches an altitude of 6,500 m and the Great Himalaya range reaches a similar altitude 150 km to the south. These four ranges, and the river between them, traverse Ladakh in a roughly north-west to south-east direction, presenting what is assumed to be a significant physical barrier to bird migration in spring and autumn (Mead *et al.* 2007).

Tikse is the south-easternmost of a series of similar plantations extending to the north-west through plantations in Shey, Choglamsur, and Spituk along a 20 km stretch of the Indus River. The Tikse plantation covers an area of about one square kilometre at an altitude of 3,300 m on the northern floodplain of the river. Braided river channels flow through the plantation and the water level varies, being generally high enough to flood the entire plantation in July and August when swelled by meltwater, but dropping through the autumn to a single narrow (and frozen) channel on the southern edge of the plantation in winter.

Vegetation in the Tikse plantation was dominated by young willow *Salix* and poplar *Populus* trees with extensive thickets of sea buckthorn *Hippophae rhamnoides* and *Myricaria*. The plantation at Tikse is one of the most extensive areas of tree and scrub habitat in the Upper Indus Valley and its oasis-like position in a cultivated valley-bottom, amid thousands of square kilometres of arid mountains, explains its attraction to passing migrants in need of rest, food, and shelter.

Methods

All, except one, of the species previously unrecorded in India were trapped or observed during a constant-effort mist netting and migration watching programme run throughout the autumn migration periods in 1977, 1980, and 1981, the winter of 1981–1982, and the spring migration period of 1982. During these periods, the Tikse forestry hut was operated in a similar way to a British bird observatory. About 100–130 m of mist nets were opened at dawn and closed in the late morning each day, and bird observations were carried out throughout the hours of daylight, seven days a week. Afternoons and evenings were usually spent visiting adjacent parts of the Indus Valley and the nets were opened again in the evenings when weather conditions were suitable. A detailed daily log of observations at Tikse and elsewhere in the Upper Indus Valley was recorded. All trapped birds were individually marked with rings provided by the Bombay Natural History Society, had their weight and wing length measured and, if appropriate, their state of moult recorded. Full measurements, including wing formulae, were taken of all rare and unexpected

species that were trapped, and full descriptions and, if possible, photographs (colour transparencies) were taken of these species both in the hand and in the field. For identification, ageing and sexing of birds in the hand, Svensson (1975), and the Williamson *Warbler Guides* (1974, 1976a, 1976b) were indispensable, and we had an appropriate selection of the available field guides to assist with field identification. The ten volumes of Ali & Ripley's *Handbook* (1964–1974) were consulted, together with numerous other papers and reference works, as preparation before each expedition, but comprehensive reference works of a more portable nature only became available after the expeditions, with the publication of Ripley's *Synopsis* in 1982.

Results

In total, 231 species were observed in Ladakh on the four expeditions, of which well over half, an estimated 140 species (90 non-passerines and 50 passerines) were long-distance passage migrants that do not habitually breed in Ladakh. About half of these long-distance passage migrants (71 species) had not previously been recorded in Ladakh.

Altogether, 13 species, all of them long-distance passage migrants, constituted first or second records for India. Table 2 lists the number and status of records of these 13 species recorded by the Southampton University expeditions. As birders and ornithologists with many years' experience in Europe and beyond, we had previous knowledge of all but one, Black-browed Reed Warbler *Acrocephalus bistrigiceps*, of these species. The species accounts that follow provide full details of these records, including field descriptions transcribed directly from observers' notebooks.

In total, 7,623 individual birds of 69 species were trapped and ringed at Tikse on the three later expeditions. Seven of the 13 species listed in Table 2 were recorded by the trapping programme. In the species accounts that follow, biometric data and wing formulae are provided in Tables 3 and 4 respectively. Where more than one individual of a species was trapped, the full details of the description taken are only given for the first bird, along with any differences shown by those trapped subsequently.

Of the species in Table 2, one lacks substantial supporting data. The previous status in India of Eurasian Linnet *Carduelis cannabina* was unrecognised at the time and only limited data were collected. Two other groups of British birders in Ladakh, in 1982, independently recorded Eurasian Linnets in June and July, as far as we are aware, without supporting descriptions or photographs, and the presence of this species in three locations in Ladakh at that time seems beyond question (see below).

Table 2. Number and status of records of species previously unrecorded in India or constituting second records. The numbers refer to the number of individuals seen or captured by the expeditions

Species	First Indian Sub-continent	First India	Second India	Ringed: full biometrics, description, photographs	Field description
Corn Crake	–	–	1	–	1
Little Gull	–	–	2	–	2
European Turtledove	–	–	2	–	1
Lesser Grey Shrike	–	2	–	–	1
Great Reed Warbler	–	1	–	1	–
Black-browed Reed Warbler	1	1	–	1	–
Sedge Warbler	2	2	–	2	–
Garden Warbler	3	3	–	3	–
Barred Warbler	–	–	2	2	–
Song Thrush	1	1	–	1	–
Common Redstart	–	3	–	2	–
Eurasian Linnet	–	1	–	–	–
Yellowhammer	–	1	–	–	1

Corn Crane *Crex crex*

A Corn Crane was seen in the Tikse plantation by David Garbutt on the morning of 19 September 1981. It was flushed at a range of about 6 m and flew in a wide arc before dropping low into the edge of a small reed bed. The following description was taken: "Short-billed large rail, about the size of a Moorhen *Gallinula chloropus*. Long dangling legs in flight. Upper parts appear greyer than under parts; pale sandy coloured below and streaked black on mantle. Primaries and secondaries black with paler edges. Wing coverts rusty brown. Tail short."

Previous and subsequent records: A record from Oudh [=Avadh], Uttar Pradesh, was considered unreliable by Hume (1878) because no specimen was preserved. A female was collected in Gilgit, in October 1879 or 1880 (Scully 1881), and Zugmayer collected one in September 1906 at the Kisu La, near Pangong Lake, in the outer plateau area of Ladakh, disputed by China and India, and now controlled by China (Vaurie 1972). Our 1981 record could thus be considered a first for India, but we have included it as a second. There have been two records since, in the Andaman Islands in January 2007 (Pande 2007), and in eastern Ladakh, at Tso Moriri Lake in September 2012, when an excellent photograph was taken (Prasad 2012).

Little Gull *Larus minutus*

A first winter bird was seen at Choglamsur on 27 and 28 August 1980. Diagnostic points of the description taken at the time were its small size (compared with a Common Tern *Sterna hirundo*, which mobbed it), rather blunt wings with diagonal dark bars, a dark terminal band on the slightly cleft white tail, grey mantle and buoyant tern-like flight. On 29 August 1981, another juvenile was recorded at Tikse.

Previous and subsequent records: Assuming that the two 1980 records referred to the same individual, these were the second and third records for the Indian Subcontinent, the first having been collected by Walter Koelz at Spituk, 7 km west of Choglamsur, on 21 September 1936 (Vaurie 1972). After the end of the 1981–1982 expedition, on a visit by expedition members to Baltistan, two juvenile Little Gulls were seen on the Indus River near Skardu on 22 August 1982, with a single individual at the same location the next day on 23rd.

European Turtle Dove *Streptopelia turtur*

Two European Turtle Doves were recorded from the Tikse plantation in the spring of 1982, on 8 May and 24 May. Charles Williams took the following description of the first individual: "Smaller and slighter than Rufous Turtledove *Streptopelia orientalis* (initially mistaken for Collared Dove [Eurasian Collared Dove *S. decaocto*]). Paler under parts than Rufous Turtledove and dark feather centres less prominent on wing coverts. Rump only slightly greyer than back. Necklace black and white, with three big black stripes and relatively wide, pale borders. Close view but light fading."

Previous and subsequent records: The species was reported by Ripley (1982) as a straggler to Gilgit and Balochistan, but no details of any records were given. Pfister (2004) describes it as a rare passage migrant/vagrant, and mentions records in the Shey–Tikse areas (probably ours) and near Hundar, but no dates or other details are given.

Lesser Grey Shrike *Lanius minor*

Two Lesser Grey Shrikes were recorded in the spring of 1982, on 24 May at Tikse and 21 June at Shey. The following notes were taken of the first observation: "Size approx as *L. schach*; Black mask extends to crown above bill, clear white chin and throat; breast, belly and flanks pale buff; tail black with white outer feathers, wing feathers black with white patch at primary bases; crown, mantle and rump pale grey. Wing patches prominent in flight, forming a crescent over the primary bases, and bigger and clearer than *L. schach*, even when at rest."

Previous and subsequent records: Ripley (1982) mentioned two records from Pakistan in Quetta and Chaman, but the 1982 Tikse and Shey records appear to have been the first records for India.

Great Reed Warbler *Acrocephalus arundinaceus*

An adult was trapped and ringed at Tikse on 16 August 1977 [2, 3]. It was probably the eastern form, *Acrocephalus arundinaceus zarudnyi*, but the plumage was very worn, preventing conclusive sub-species identification.

Tables 3 and 4 summarise the measurements that were taken and the wing formula.

Description

Soft parts: Upper mandible very dark brown, lower mandible: basal half very dark brown, distal half pinkish grey, yellowish at very tip. Legs: outer surfaces pinkish grey, inner yellowish grey, soles greenish. Centre of toe scales bluish grey. Mouth orange-red, iris warm mid brown.



2. Adult Great Reed Warbler.



Photo: Charles Williams

3. Adult Great Reed Warbler.

Upper parts: Colour much as autumn adult *Acrocephalus scirpaceus*, dull mid brown, slightly greyer on the crown than rest of upper parts. Rump appears blotched with grey due to worn and faded feather tips. Accidental moult of fourth inner tail feather on right side – at moult stage 3.

Under parts: Chin and belly white; upper breast, flanks, under wing coverts and under tail coverts warm buff.

Identification: The superficially similar Clamorous Reed Warbler *A. stentoreus* was excluded on the basis of measurements and wing formula, as described in Williamson (1974). Clamorous Reed Warbler has an even longer bill than Great Reed (range

23.5–28 mm; our bird was 22 mm). It also has a considerably more rounded tail (Tail difference 13–17 mm; our bird was at the lower end of Great Reed Warbler at 5 mm). Finally, the wing formula was typical of Great Reed Warbler, having emarginations on the third primary only (Clamorous Reed 3rd, 4th, and 5th) and the wing point formed by the 2nd and 3rd primaries (Clamorous Reed 3rd and 4th). Thick-billed Warbler *A. aedon* has a thicker, shorter bill and much rounder wing and tail.

Previous and subsequent records: This appears to have been the first record for India. There is one, earlier record from the Indian Subcontinent at Kalat, north Balochistan in October (Ripley 1982). Subsequent to our record, an individual ringed at Kazakhstan SSR, Chimkent O, Kizilkumsky region (42°59'N, 68°25'E) on 25 May 1989, was captured and re-ringed on 9 December 1990 at Senpukur, Baj Bay (c. 22°15'N, 88°12'E), 16 km west-south-west of Kolkata (Ali & Ripley 2001).

Black-browed Reed Warbler *Acrocephalus bistrigiceps*

A juvenile Black-browed Reed Warbler was trapped and ringed at Tikse on 12 October 1980 [4]. It was identified using a combination of measurements, wing formula, and plumage characteristics—particularly the broad, creamy supercilia surmounted by slightly narrower, heavy black 'brows'. Tables 3 and 4 summarise the measurements that were taken and the wing formula. The wing formula was close, but not identical to the average described by Williamson (1974), and the measurements (demonstrating its small size) and plumage characteristics indicate that identification was beyond doubt.

Description

Soft parts: Iris dark brown; upper mandible dark horn, lower mandible: basal half pinkish, distal half pinkish with a horn coloured patch on either side, cutting edges

Table 3. Biometric data of species trapped at Tikse

Date	Species and Ring number	Age/ Sex	Wing mm	Bill length (to skull) mm	Bill width mm	Bill depth mm	Tarsus mm	Tail mm	Tail difference mm	Weight gm
16 August 1977	Great Reed Warbler AB72343	Adult	91 abraded	22.0	6 at nostrils	5.5 at nostrils	32	72	5	25.1
12 October 1980	Black-browed Reed Warbler Z9405	Juvenile	52	14.5	4	3	19.5	45	10	7.9
20 September 1981	Sedge Warbler Z34164	Juvenile	68	15.5	4.5	3	20.5	46	7.5	10.4
11 October 1981	Sedge Warbler Z34536	Juvenile	67	16	4	3	22	47.5	8	12.9
26 September 1980	Garden Warbler A161496	Juvenile	79	16	4	4	21.5	55	2	17.4
09 October 1980	Garden Warbler A161700	Juvenile	77	14	4	4	20	55	4	17.4
10 September 1981	Garden Warbler Z18482	Juvenile	81	14	5	4	20.5	58	4	16.9
18 September 1980	Barred Warbler AB80281	Juvenile	87	18	6	5	25	71.5	5.5	27.3
23 September 1981	Barred Warbler B46692	Juvenile	87	17	6	5	23.5	69	4	22.0
14 December 1981	Song Thrush B56009	Juvenile	120	22	7	6	33	87	-	72
05 May 1982	Common Redstart A201463	Juv male	79	13	5	4	20	58	-	13.7
06 May 1982	Common Redstart A201467	Juv male	83	13	5	4	22	63	-	15.0

Table 4. Wing formula measurements of species trapped at Tikse

Date	Species And ring number	Primaries										Secondaries	Emargination / Notch	
		1 from pc	2	3	4	5	6	7	8	9	10			
16 August 1977	Great Reed Warbler AB72343	-9	0	0	1.5	5	9	12.5	16	19	23	25	E3, N(2)	17.5
12 October 1980	Black-browed Reed Warbler Z9405	+2.5	6.5	1	0	0	2	4	5.5	7	9	-	E345	
20 September 1981	Sedge Warbler Z34164	-3.5	2.5	0	2.5	5	7.5	9.5	12	14.5	17	19.5	E3	
11 October 1981	Sedge Warbler Z34536	-2	1.5	0	3	5	7.5	10	12	14.5	17	18	E3	
26 September 1980	Garden Warbler A161496	-5.5	1.5	0	3.5	7	9.5	12	15	17.5	21	21	E345	
09 October 1980	Garden Warbler A161700	-4	1.5	0	1.5	6	9	11	13.5	16	18.5	22	E345	
10 September 1981	Garden Warbler Z18482	-6.5	2	0	3	7.5	9	12.5	15.5	18	21	24	E34(5)	
18 September 1980	Barred Warbler AB80281	-6	0	0	1	4	7	10	12.5	15.5	18	20	E345	
23 September 1981	Barred Warbler B46692	-4.5	0	0	1.5	4	7	10	13	16	18.5	21	E34(5)	
05 May 1982	Common Redstart A201463	-	=5-6	0	(0)	-	-	-	-	-	-	-	E345	
06 May 1982	Common Redstart A201467	+8	7	0	0.5	4	8.5	12.5	15	18	19	21.5	E345, N(2)	20

yellowish. Legs and feet grey, tarsi with pinkish tinge; soles ochre.

Upper parts: Crown warm mid-brown at front, greyish olive brown at rear; very broad cream supercilia from nostrils, over lores and over and behind eyes, ending over rear of ear coverts. Above supercilium is a slightly narrower, very prominent black streak from above lores and all along supercilium to its end; ear coverts rufous buff; nape, mantle and lesser coverts olive brown; rump more rufous; greater coverts, median coverts, primary coverts, bastard wing, primaries, secondaries and tertials all have



4. Juvenile Black-browed Reed Warbler.



Photos: John Norton

4a. Black-browed Reed Warbler.

blackish brown centres and rufous brown fringes, greater and median coverts have broad rufous brown tips; tail feathers very dark brown, outer webs broadly fringed rufous brown, the tips narrowly paler.

Under parts: Chin white, malar region with creamy suffusion, lower throat, upper breast, flanks and vent creamy buff, belly white with creamy wash, axillaries and under wing coverts creamy with greyish wash towards rear.

Previous and subsequent records: This is a species which breeds in eastern Asia and winters predominantly in South-east Asia, and at the time of the record it was thought to have been recorded in Assam, Manipur, and Bengal (Ripley 1982). Rasmussen & Anderton (2005) considered these records to be hypothetical. In the second edition of their book (2012), however, they included a series of records from <http://orientalbirdimages.org/> comprising a singing bird in April 2009 near Kolkata, a series of seven records near Kolkata in March 2011, and one in the Andaman Islands in March 2012. They also considered records from NE and S Bangladesh to be valid. Inskipp & Inskipp (1985) detailed individuals wintering in Nepal in each of 1981, 1982 and 1983, and the bird at Tikse, in the autumn of 1980, appears to have been the first record for the Indian Subcontinent.

Sedge Warbler *Acrocephalus schoenobaenus*

Two juvenile Sedge Warblers were trapped and ringed at Tikse in the autumn of 1981, on 20 September [5] and 11 October [6]. Tables 3 and 4 summarise the measurements that were taken and the wing formula of each bird.

20 September 1981: Description

Soft parts: Upper mandible very dark brown, lower mandible ochre at tip, central portion grey, basal half pink.

Legs and feet purplish grey with green tinge, especially on feet; Soles ochre, eye dark brown, gape orange.

Head: Broad, creamy supercilium from above lores to the same distance behind eye; narrow blackish streak below supercilium, lores greyish-brown, ear coverts mottled mid-brown.

Upper parts: Feathers of crown, nape, mantle, lesser, median and greater coverts black centred with mid-brown fringes. Rump feathers unstreaked, warm, almost yellowish brown, lacking dark centres. Upper tail coverts similar to rump, with slightly darker brown feather centres. Tail feathers dark brown, paler, greyish at tips and on outer webs of outer pair. Tertials and greater coverts brown centred with creamy-buff fringes. Secondaries dark brown centred with narrow brown fringes and small whitish tips.



Photo: Clare Siskion

5. Sedge Warbler trapped on 20 September 1981.

Photo: Clare Sulston



6. Sedge Warbler trapped on 11 October 1981.

Primaries dark brown centred with very narrow brown fringes and small whitish tips to inner seven. Primary coverts dark brown with slight warm brown fringes. Bastard wing – large feather similar to primary coverts, small feather with marked creamy edges.

Under parts: Chin and belly white; throat, upper breast, flanks and vent creamy; legs to vent brownish; under wing coverts greyish white.

11 October 1981: Description

This bird was darker and had more olive tones in the plumage. The ear coverts were described as “mottled ginger & pale olive brown.” It lacked the small whitish tips on the secondaries and inner primaries and had a gorget of small spots below the throat. It was carrying noticeable deposits of sub-cutaneous fat.

Identification: Eastern Moustached Warbler *Acrocephalus melanogonon mimica* is very similar in appearance to Sedge Warbler, but was excluded on differences in measurements, wing formula and colouration, as summarised in Williamson (1974). Eastern Moustached Warbler shows a different head pattern (shorter, broader, whiter supercilium and small moustachial stripe) and the flanks and under tail coverts are washed with pinkish-brown, not yellowish. Moustached Warbler is shorter-winged than Sedge Warbler; *mimica* having a wing length in the range of 59–67 mm (our birds were 67 and 68 mm). The tail length of *mimica* is, however, longer on average than Sedge (49–60 mm) and our birds were 46 and 47.5 mm. Eastern Moustached Warbler has a more rounded tail than Sedge Warbler (Tail difference 9–12 mm) and as with tail length, our birds fell within the range of Sedge Warbler at 7.5 and 8 mm. The wing formula of our birds also fitted Sedge Warbler, the main differences being that they were emarginated only on the third primary (Moustached is also emarginated on 4th and 5th) and had the wing point formed by the third



Photo: John Norton

7. Garden Warbler: 26 September 1980.

primary (Moustached wing is more rounded, the point formed by the 4th or 4th–5th primaries).

These were the first, and so far the only records of Sedge Warbler for the Indian Subcontinent.

Garden Warbler *Sylvia borin*

Three juvenile Garden Warblers were trapped and ringed at Tikse in the autumns of 1980 and 1981, on 26 September and 9 October 1980, and 10 September 1981. All were readily identified by a combination of plumage characteristics, measurements and wing formula. Tables 3 and 4 summarise the measurements that were taken and the wing formula of each bird.

26 September 1980: Description [7]

Soft parts: Upper mandible very dark grey, bluish at base; Lower mandible very dark grey at tip, pinkish in centre, bluish on cutting edges; legs dark blueish grey, soles with ochre tinge; Iris very dark brown.

Head: Very short, whitish supercilium immediately above eye; ear coverts suffused grey.

Upper parts: Crown, nape, mantle, rump and wing coverts rather uniform mid-brown. Rectrices and remiges darker brown.

Under parts: Chin white, throat and breast cream-white, belly and vent white. Flanks olive-buff. Under wing coverts creamy buff.

9 October 1980: Description

This bird differed from the previous individual in having a whitish eye-ring, above the eye only. The lores, malar region and a collar immediately behind the ear coverts were distinctly grey, the feathers being brown with grey tips. This grey area extended to the sides of the upper breast. The under wing coverts were a very warm creamy buff.

10 September 1981 [8]

See biometric and wing formula data (Tables 3 and 4).

Photo: Claire Sulston



8. Garden Warbler: 10 September 1981.

These were the first records of Garden Warbler for the Indian Subcontinent, and none have been recorded since.

Barred Warbler *Sylvia nisoria*

Two juvenile Barred Warblers were trapped and ringed at Tikse, on 18 September 1980 and 23 September 1981. Both were readily identified by a combination of plumage characteristics, measurements and wing formula. Tables 3 and 4 summarise the measurements that were taken and the wing formula of each bird.

18 September 1980: Description [9]

Soft parts: Iris pale greenish grey; upper mandible, distal half dark horn, basal half brownish horn, cutting edges greyish; lower mandible, basal half pinkish grey, distal half horn, greyish in centre; legs and feet bluish grey, soles ochre.

Upper parts: Crown greyish brown, browner on forehead and over eye; eye ring brown above, cream below; nape and mantle darkish grey-brown; rump and lesser coverts similar, but edged sandy-buff; bastard wing, primary, median and greater coverts dark brown, edged greyish buff, warmer on greater coverts; primaries, secondaries and tertials dark greyish brown, tipped and faintly edged greyish buff; axillaries greyish with creamy suffusion towards body; Tail feathers dark brownish grey, the outer pair with very narrow white outer edges and small thorn-shaped white patches at tips of inner webs.

Under parts: Chin, throat and belly white, breast and flanks white, suffused creamy buff, under tail coverts whitish, barred grey, the grey barring formed by dark feather centres. Considerable deposits of sub-cutaneous fat on belly and throat.

Photo: John Norton



9. Barred Warbler: 18 September 1980.

23 September 1981: Description [10]

The 1981 bird was a greyer looking individual, differing from the 1980 bird in its pale greyish-brown eyes, the barring on the under tail coverts extending a little up the flanks, and having slight white inner edges to the second outermost tail feathers.

Previous and subsequent records: There are two previous records of Barred Warbler for the Indian Subcontinent, one of them from Ladakh. Biddulph collected one in Gilgit on 6 September 1869 (Kinnear 1931), and the other was shot in the Shyok Valley in northern Ladakh on 2 July 1930 (Sillem 1934). Holmes (1986) trapped a Juvenile on 2 September 1983 in the scrub below Kun peak in the Suru Valley, constituting the fifth record for the Indian



10. Barred Warbler: 2 September 1981.

Photo: Claire Sulston

subcontinent and the fourth for Ladakh. It was the third record in Ladakh in three years, suggesting the possibility that the species is a regular migrant.

Song Thrush *Turdus philomelos*

An individual first seen by Clive Denby on 24 November 1981 remained in the Tikse area for three weeks, being observed again on 25 and 28 November, and 6, 7, 12, 13 and 14 December [11, 12]. The bird was trapped and ringed on 14 December 1981 and the following description was taken. This superseded the field description that had already been obtained. Table 3 summarises the measurements that were recorded.

Description:

Soft parts: Iris blackish brown. Upper mandible horn, yellowish at cutting edges; lower mandible horn at centre of base and tip, yellow along cutting edges and in median portion, with pinkish patch on median portion where yellow joins horn; legs pinkish brown, purplish on the joints with yellow at tibio-tarsal joint; soles ochre, gape yellowish orange.

Head: Lores mid-grey; Supercilium indistinct, greyish-white, extending from above eye and fading out to rear of ear coverts; ear coverts mottled cream, mid-brown and blackish, distinctly darker along margins, especially the upper and rear margins; tiny feathers form fairly conspicuous whitish eye ring.

Upper parts: Crown and mantle mid earth brown, nape slightly greyer; rump and upper tail coverts mid brownish-grey with olive tinge; tail dark rufous brown, especially rufous on outer webs; lesser and median coverts warm mid-brown, medians with broad



11. Song Thrush: 14 December 1981.



Photos: Clare Sulston

12. Song Thrush: 14 December 1981.

creamy-buff tips extending up feather shafts, greater coverts warm dark brown with tips as median coverts, primary coverts—outer webs warm rufous brown, inner webs dark blackish brown; bastard wing—inner webs blackish brown, outer webs mid-brown; primaries blackish brown with narrow rufous fringes and pale creamy patches at base of inner webs; secondaries dark brown with slight rufous tinge.

Under parts: Chin white, bordered by small, elongated, blackish spots and a white area between these spots and the ear coverts; throat creamy white with distinct blackish oval spots; breast warm creamy buff with blackish heart-shaped spots; belly and flanks white with blackish oval and heart-shaped spots. Note – where spots appear heart-shaped it is due to the feather tips being spread. Vent feathers white with pale buffy brown fringes at feather bases; axillaries and under wing coverts warm orangey buff.

Call when flying off—a quiet but penetrating “*tsip*.”

Subsequent records: This was the first record of Song Thrush for the Indian Subcontinent, but it has been seen subsequently near Bharatpur (Rasmussen & Anderton 2005, 2012).

Common Redstart *Phoenicurus phoenicurus*

Single juvenile males were trapped at Tikse on 5 and 6 May 1982 and a third was seen on 25 May. Tables 3 and 4 summarise the measurements and the wing formulae of the two trapped birds [13, 14].



13. Common Redstart.



14. Common Redstart.

Photos: Clare Sulston

5 May: Description

Soft parts: Iris chocolate brown; Upper mandible black, lower mandible black with yellow basal quarter; legs and feet brownish horn, soles dull ochre.

Upper parts: Crown, nape and mantle mid "battleship" grey with narrow brown feather tips; lores and area immediately over base of bill black, fore crown white, extending in a patch to above and behind eye; rump, upper tail coverts and tail orange, central pair of tail feathers very dark brown; lesser and median coverts dark brownish centred, appearing mid-grey due to broad grey fringes; bastard wing, primary coverts, greater coverts, tertials, secondaries and primaries dark brown with paler brown fringes, these fringes inclining to rufous on greater coverts and carpal covert.

Under parts: Chin and throat black, feathers narrowly tipped white; breast and flanks orange with white feather tips; belly white; vent washed-out orange; axillaries and under wing coverts washed-out orange.

6 May: Description

Differed from the previous day's bird in more prominent white tips to the throat feathers and less distinct white patch on the fore crown.

Previous and subsequent records: Ripley (1982) described the Common Redstart as a passage migrant in northern Balochistan and Chitral, but these were the first records for India.

Eurasian Linnet *Carduelis cannabina*

A female individual of this extremely distinctive finch was seen and heard clearly on 1 July 1982 at Sungdo, 25 km south of Tikse between Hemis and the Gongmaru La. The observers are very familiar with the species but did not realise the significance of the record at the time, and no notes were taken. A second individual, which preceded ours by three days, and so constituted the first record, was reported by visiting British birders Richard Fairbanks, Dave Mills and Nick Preston. It was seen in Stok on 27 June 1982. Craig Robson, Rodney Martins and James Wolstencroft reported a further six individuals above Leh on 6 July 1982.

Previous and subsequent records: Ripley (1982) described the Linnet as a winter visitor to Pakistan, mentioning seven districts where it has been recorded, but he made no mention of records for India. Pfister (2004) described the species as a sporadic vagrant to Ladakh in June–July and mentioned records in the lower Stok Valley and above Leh (probably those detailed above), but no dates or other details were given. A more recent record was reported by den Besten (2004) who saw the species in Kangra, Himachal Pradesh.

Yellowhammer *Emberiza citrinella*

A male Yellowhammer was seen in the Tikse plantation by Simon Delany early on 4 December 1981 with a roosting flock of at least 25 Pine Buntings *Emberiza leucocephalos*. The two typical calls of the species were heard, a nasal "chiz" and the flight call, a rapidly repeated "tip-tip-tip." It was sitting in full view no more than five metres away and uttered a distinctive "chiz" call soon after being located. It was seen from the side for about half a minute, and then briefly from the rear as it turned, then flew off. The following features were noted: "Bright lemon yellow crown, superciliary area, cheeks, chin, throat, breast and belly. Indistinct head pattern formed by narrow blackish margins to ear



Photo: Clare Sulston

14. Bird-ringing station at Tikse, Ladakh.

coverts, dark line through eye and (indistinctly) above superciliary area. Dense chestnut streaks on flanks nearly join across breast. Nape, mantle and wing coverts warm mid brown with blackish streaking. Rump chestnut, tail and remiges blackish, outer pair of tail feathers appearing white in flight. Indistinct buffish bar formed by tips to greater coverts, and even less distinct one on median coverts. Size and structure identical to the Pine Buntings it was with."

Previous and subsequent records: This was the first record for India, but in February 1924, a hybrid *citrinella* / *leucocephalos* was collected at Urak in northern Balochistan (Ticehurst 1934). The first record for the Indian Subcontinent was observed by T. Baker, R. Mills and N. Preston on 25 February 1981, less than ten months before the Tikse record, in Kagbeni, Nepal (Inskipp & Inskipp 1985). Since the 1981 records, at least two male Yellowhammers were recorded with Pine Buntings above Dharamshala in Himachal Pradesh on four dates in late January 2012, following a period of unusually heavy snowfall (Sharma *et al.* 2013).

Discussion

Table 5 lists the known breeding and wintering ranges of the 13 species recorded for the first or second time in India by the Southampton University expeditions. They can be broken down into three categories:

- Eight species on migration routes between sub-Saharan Africa and Asia (Corn Crane, European Turtle Dove, Lesser Grey Shrike, Great Reed Warbler, Sedge Warbler, Garden Warbler, Barred Warbler and Common Redstart).

- Four species whose migrations largely remain within the Palearctic region, and which occurred well to the south and east of their known, normal ranges (Little Gull, Song Thrush, Eurasian Linnet and Yellowhammer).
- One species, (Black-browed Reed Warbler) a long way west of its known range, and separated from it by the Tibetan Plateau and the vast complex of mountains and deserts in Central Asia.

A majority of the birds recorded at Tikse were probably local breeders and altitudinal migrants, with a good number and variety of Palearctic species migrating through the Himalayas to wintering grounds in lowland India. The variety of Palearctic–African migrants was remarkable. Ten more Palearctic–African migrant species were observed in addition to the eight detailed in this paper, although numbers of most of these were low and it remains uncertain whether they were vagrants, or whether they were using established migration routes. There were also three records of Honey Buzzards (*Pernis* sp.) that may have been European Honey Buzzard *Pernis apivorus* (another African-wintering species) but observations were not sufficiently detailed to separate them safely from Oriental (or Crested) Honey Buzzard *Pernis ptilorhynchus*. We therefore recommend that future observers should pay special attention to any records of Honey Buzzards in Ladakh.

Two of the warbler species, the Sedge Warbler trapped on 11 October 1981, and the Barred Warbler trapped on 18 September 1980 were carrying substantial deposits of sub-cutaneous fat, suggesting that they were able to find sufficient food at Tikse, or somewhere not very distant, to engage in refuelling along the route of their migration. In the light of this, the perception of

Table 5. Known breeding and wintering ranges of rarities recorded at Tikse 1977-1982
 [Source: Summarized from BirdLife International website: <http://www.birdlife.org/datazone/home>]

Species	Breeding range	Wintering range	Notes on Ladakh records
Corn Crake	Europe, W & Central Asia	Southern and East Africa	Palaearctic-African migrant recorded in autumn
Little Gull	NE Europe to Central & E Asia	E Asia, SW Asia, S and W Europe	Migrant within Palaearctic, well south of expected route
European Turtle Dove	Europe, W & Central Asia	Sub-Saharan Africa N of equator	Palaearctic-African migrant recorded in spring
Lesser Grey Shrike	S & E Europe to Central Asia	Southern Africa	Palaearctic-African migrant recorded in spring
Great Reed Warbler	Mid-latitude Europe and Asia	Sub-Saharan Africa, SE Asia	Palaearctic-African migrant recorded in autumn
Black-browed Reed Warbler	East Asia	South-east Asia	Autumn migrant well west of known area of distribution
Sedge Warbler	Europe, W & Central Asia	Sub-Saharan Africa	Palaearctic-African migrant recorded in autumn
Garden Warbler	Europe, W & Central Asia	Sub-Saharan Africa	Palaearctic-African migrant recorded in autumn
Barred Warbler	Central & E Europe to Central Asia	East Africa	Palaearctic-African migrant recorded in autumn
Song Thrush	Europe to Central Asia	S & W Europe, N Africa, Middle East	Migrant within Palaearctic, wintering c. 2000 km east of known wintering range
Common Redstart	Europe, W & Central Asia	Sub-Saharan Africa N of equator	Palaearctic-African migrant recorded in spring
Eurasian Linnet	Europe, N Africa, W & Central Asia	S Europe, N Africa, W & Central Asia	Migrant within Palaearctic, recorded in summer about 1000 km south of known regular breeding range
Yellowhammer	Europe, W & Central Asia	Europe to S Central Asia	Migrant within Palaearctic, wintering c. 1000 km south of known regular wintering range

the Himalayan ranges as a hostile barrier to migration may be exaggerated, and the number and variety of migrants that we observed and trapped would support the view that long-distance migrants, in some numbers, regularly traverse these ranges.

As well as the four intra-Palaearctic migrant species mentioned so far, an additional 14 were observed by the expeditions. It seems a regular occurrence for birds migrating west and south from Siberia and Central Asia to stray into the Himalayas.

Finally, two other warbler species that winter predominantly in South-east Asia, like Black-browed Reed Warbler, were trapped and ringed in small numbers at Tikse, namely Dusky Warbler *Phylloscopus fuscatus* and Yellow-browed warbler *Phylloscopus inornatus*. These seem likely to have been individuals from the western extremity of the breeding ranges heading for western parts of the winter ranges in north-eastern India.

Considerably more work is needed to better understand the number and variety of individuals and species migrating through the Himalayas, the routes they use, and the importance of vegetated valley bottoms as staging areas.

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