Indian Birds

Vol. 2 No. 6 November-December 2006

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Bird Watchers' Society of Andhra Pradesh: Honorary Secretary, P.O. Box 45, Banjara Hills, Hyderabad 500034, India. Website: www.bsaponline.org. Email: cbraoin@gmail.com Publish: Mayura; Pitta.

Madras Naturalists' Society: Honorary Secretary, No. 8, Janaki Avenue, Abhirampuram, Chennai 600018, India. Website: www.blackbuck.org. Email: info@blackbuck.org. Publish: Blackbuck.

Institute of Bird Studies & Natural History: Director, Rishi Valley, Chittoor District, India 517352. Email: birds@rishivalley.org. Conduct: Home Study Course in Ornithology.

Oriental Bird Club: P.O. Box 324, Bedford, MK42 0WG, U.K. Website: www.orientalbirdclub.org. Publish: Forktail; OBC Bulletin.

Wetlands International-South Asia: A-25, 2nd Floor, Defence Colony, New Delhi 110024, India. Website: www.wetlands.org

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Saving Asia's threatened birds: www.birdlife.net/action/science/species/asia_strategy/index.html
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Indian Birds

ISSN 0973-1407

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Subscription information
Six issues will be published annually in February, April, June, August, October, and December.

Type	Annual	3-year
Individual	Rs. 100	Rs. 300
Student (Up to 10th)	Rs. 75	Rs. 225
Institution	Rs. 300	Rs. 900
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Aims & Objectives

- To publish a newsletter that will provide a platform to birdwatchers for publishing notes and observations primarily on birds of South Asia.
- To promote awareness of bird watching amongst the general public.
- To establish and maintain links/ liaison with other associations or organized bodies in India or abroad whose objectives are in keeping with the objectives of the Trust (i.e. to support amateur birdwatchers with cash / kind for projects in ornithology).

Indian Birds

Vol. 2 No. 6. November–December 2006 Date of publication: 30 January 2007

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Front cover: Kentish Plover *Charadrius alexandrinus* (46 x 61 cm watercolour, 2006). Artist: Nicolás Fernández. Nicolas is a self-taught artist. He likes Irish music, plays the Uilleann pipes, lives in Galicia (NW Spain), and likes owls and shorebirds.

Potential geographic distribution of the Bugun Liocichla *Liocichla bugunorum*, a poorly-known species from north-eastern India

A. Townsend Peterson and Monica Papeş

Peterson, A. T. & Papeş , M. 2006. Potential geographic distribution of the Bugun Liocichla *Liocichla bugunorum*, a poorly-known species from north-eastern India. *Indian Birds* 2 (6): 146–149.

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The Bugun Liocichla *Liocichla bugunorum* is a recently-described species known from a minuscule area in north-eastern India. Based on the ecological characteristics of the three known occurrence points, we present three models of the species' possible distribution in surrounding regions. We present these models as maps of the region, in the hope that they might serve as a guide in the discovery of more populations.

Introduction

The Bugun Liocichla *Liocichla bugunorum* was described in 2006 based on observations, photographs, and feathers collected over 10 years of effort, representing an intriguing and distinct new species (Athreya 2006). The species, in addition to the remote situation of its range, is clearly not common—indeed, only a very small number of individuals were detected in spite of extensive searches. Given the extremely small known population, the decision was made not to collect a full scientific specimen to serve as a type, which will clearly be the object of controversy.

The technique of ecological niche modeling (ENM) is a means of reconstructing ecological and potential geographic distributions based on incomplete known point-occurrence data (Guisan & Zimmermann 2000, Soberón & Peterson 2005). The technique focuses on characterizing the ecological regime under which the species is known to occur, permitting an educated interpolation of likely presence or absence among known occurrence points. As such, ENM is a possible means of educating searches for elements of biodiversity, and offers hypotheses as to distributional areas of species (Soberón & Peterson 2004), and indeed has proven useful in applications to poorly-known species in the past (Raxworthy et al. 2003b, Bourg et al. 2005).

In this brief contribution, we analyze the known occurrences of the species in relation to digital, remotely-sensed data layers describing landscapes in the region. We use three ENM techniques to develop predictions of other possible occurrence sites for the species. Our hope is that these analyses may prove helpful in guiding future searches for the species, which may provide a more complete view of the geographic distribution of the species.

Methods

Ecological niche modeling is a technique that attempts to use known distributional information to build a hypothesis regarding the ecological requirements of species, at least at coarse spatial scales and as they relate to geographic distributions and limits (Soberón and Peterson 2005). The technique is based conceptually on early, geographic conceptualizations of ecological niches of species, effectively as the suite of environmental conditions within which the species is able to maintain populations without immigrational subsidy (Grinnell 1917). In a modern manifestation, known occurrences are related to digital electronic data layers summarizing relevant aspects of environmental factors, and complex computational algorithms used to detect nonrandom associations between occurrences and the environmental factors. Here, we use two evolutionary computing approaches (GARP & Maxent, see below), as well as a very simple, distance-based approach, to develop three predictions of the potential distributional area of this little-known species.

We used the three GPS-based occurrence records provided in the original description of the species (Athreya 2006) as representative of the little that is known of the species. To characterize environments across the region, we used 13 digital maps ("coverages") summarizing aspects of topography (elevation, slope, aspect, and compound topographic index, from the US Geological Survey's GTOPO30, native resolution 0.5 x 0.5 km, and Hydro-1K, native resolution 1x1 km, data sets) and remotely-sensed data layers as follows. We used 16-day composite images from every second month during 2005 of the Normalized Difference Vegetation Index (NDVI) from the NASA-MODIS/Terra data set (native resolution 500x500 m) (Justice et al. 1998), as well as difference maps between each consecutive pair of these coverages. NDVI vegetation indices are sensitive to photosynthetic activity (Tucker 1979), so these data sets provide an excellent description of spectral aspects of land cover and plant phenology, aspects of landscapes that should be relevant to bird distributions. All geographic data were resampled to 250 m resolution for analysis.

For ENM development, and given the vanishingly small sample sizes involved, we used three approaches. First, we used a simple approach based on distances in ecological space from known points of occurrence (Ferreira de Siqueira et al. Submitted). Here, in the 13-dimensional space described above, we calculated the Euclidean distance from all points in the

region to the nearest (in ecological space) of the three known occurrence points. Appropriate landscapes, under this method, are taken as those areas showing shortest ecological distances from known occurrence points.

Second, we used the Genetic Algorithm for Rule-set Prediction (GARP) (Stockwell & Peters 1999) for ENM development. GARP uses an evolutionary computing genetic algorithm to search for non-random associations between environmental variables and known occurrences of species, as contrasted with environmental characteristics across the overall study area. In replicate GARP analyses, we input all three points, using two for model development and one for filtering best subsets of replicate models (Anderson et al. 2003). In particular, we produced replicate models until we had 20 that were able to predict the one filtering point as present; these models were summed to produce a final prediction of potential distributions.

Finally, we submitted the three occurrence points to the Maxent program, an evolutionary-computing approach based on the principle of maximum entropy (Phillips et al. 2004, Phillips et al. 2006). Maxent models produce output that takes the form of a probability surface with real-number values ranging 0–100. We used default settings and automatic feature selection in our analyses. To summarize the overall pattern of prediction of these three models, we averaged the predictions of the three—to balance their relative contributions, we rescaled Maxent predictions (0–100) to between zero and ten, and binned the Euclidean distances into ten categories of distance from known points of occurrence.

Because only three occurrence points were available for the liocichla, we did not attempt a validation of model predictions, nor did we attempt any data manipulations aimed at identifying key environmental dimensions in the distributional ecology of the species—sample sizes were quite simply too small to allow such analyses. Rather, we present this perspective on environmental similarity to known occurrences of the species on the species' native range, in the hope of guiding future efforts to encounter additional populations of this species. Because of the small sample sizes available, similarly, we have avoided extending our predictions broadly in space, as we are certainly obtaining models that have little predictive ability beyond the immediate vicinity of the known distributional areas.

Results

The three analytical methods each produced a somewhat different view of ecological similarity of the north-eastern Indian landscape to the known occurrences of the Bugun Liocichla (Figure 1). The sparsest picture of suitability was from the GARP model, which predicted most of the landscape of the region as unsuitable, and identified only a few areas as relatively similar ecologically to the known occurrence sites. The distance-based model was somewhat broader in its predictions, whereas the Maxent model showed a more homogeneously suitable picture of the landscape.

We then identified areas in which the three models agreed in predicting high potential for presence of the species (Figure 2). Here, we see relatively broad areas depicted as likely suitable for the species, including in particular areas north and west of the sites where the species was found. Suitable areas extend into neighboring Bhutan and China. Of particular interest for future searches would be the areas of Bomdilla, Dengan La, and between Poshing La and Lagam, as these are relatively extensive areas that apparently match the ecological profile of the sites where the species was encountered.

Discussion

This paper, using remotely-sensed imagery and high-end computing, may seem out of place in a regional bird journal. However, the recent description of the Bugun Liocichla as a bird species new to science (Athreya 2006) in this journal is similarly unusual, particularly given the unusual decision not to collect a full specimen to serve as a holotype and permanent documentation of this newly discovered element of biodiversity. In general, although we congratulate the describer of the Bugun Liocichla on the thoroughness of his description, we consider full, information-rich type specimens to be a critical part of taxonomy as a science, as do most members of the systematic ornithological community (Banks et al. 1993). As the decision not to collect a full specimen as a type apparently hinged on the rarity of the species and its apparent critical endangerment (Athreya 2006), we offer this analysis as a means of broadening the knowledge of the species' distribution.

ENM approaches have been explored previously for discovery of unknown elements of biodiversity. A previous analysis used ENM approaches to anticipate the existence of several previously unknown chameleon species in Madagascar (Raxworthy et al. 2003a), as well to guide discovery of unknown populations of rare plant species (Bourg et al. 2005; Ferreira de Siqueira et al. Submitted). Indeed, more generally, a broad suite of previous studies demonstrates the predictive ability of these methodologies (Guisan & Zimmermann 2000; Elith & Burgman 2002; Elith et al. 2006) in anticipating species' geographic distributions.

In the case of the Bugun Liocichla, we present our analyses and distributional predictions in the hope that they can assist in assembling a more complete picture of the geographic and ecological distribution of the species. Once additional populations are documented, we hope that the status of the species can be established more firmly, and that this description can be strengthened via the existence of a series of specimens to permit detailed scientific study. Surveys for more Bugun Liocichlas might, most profitably, be focused in the areas indicated in the maps provided herein.

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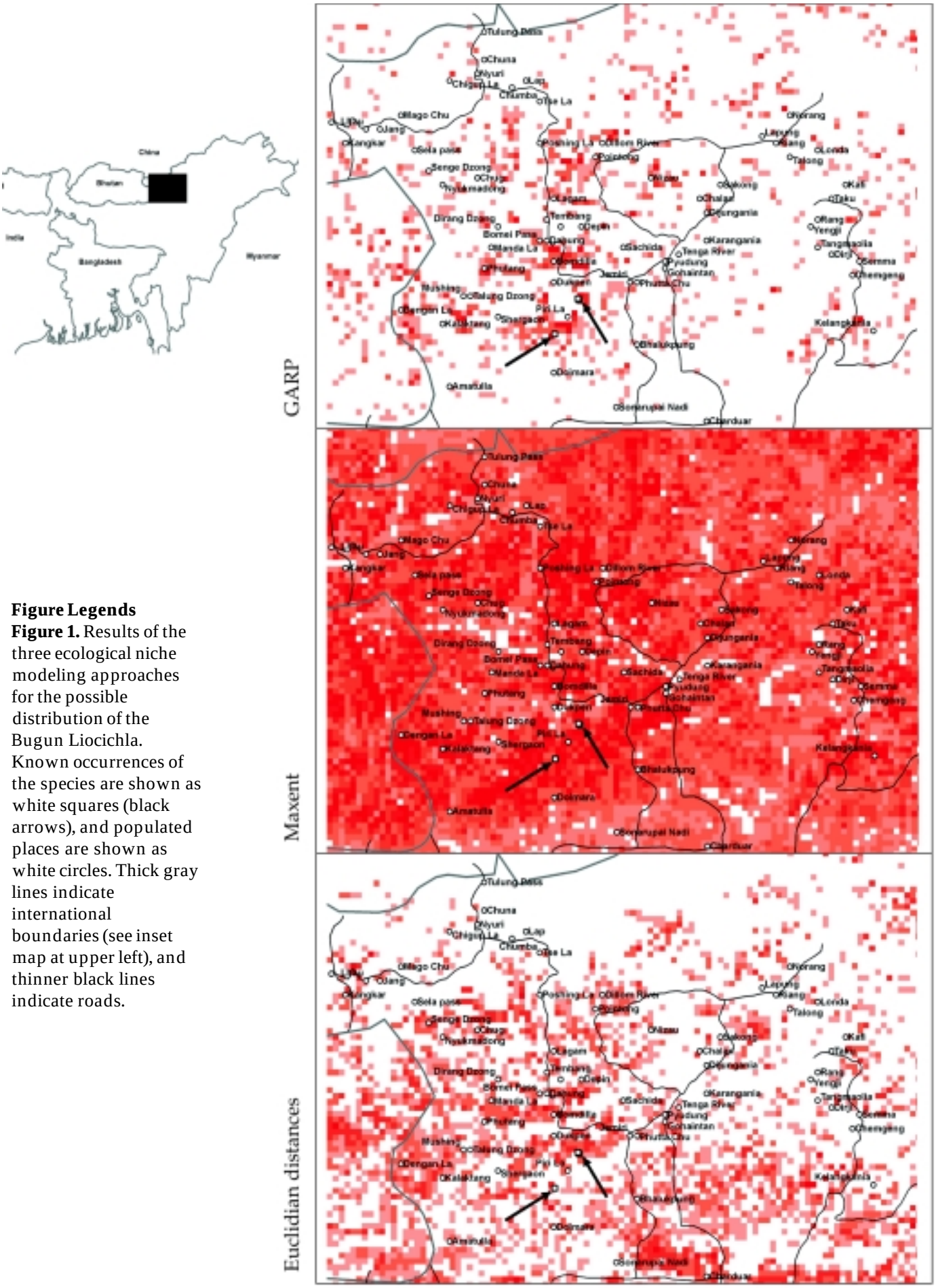

Figure Legends

Figure 1. Results of the three ecological niche modeling approaches for the possible distribution of the Bugun Liocichla. Known occurrences of the species are shown as white squares (black arrows), and populated places are shown as white circles. Thick gray lines indicate international boundaries (see inset map at upper left), and thinner black lines indicate roads.

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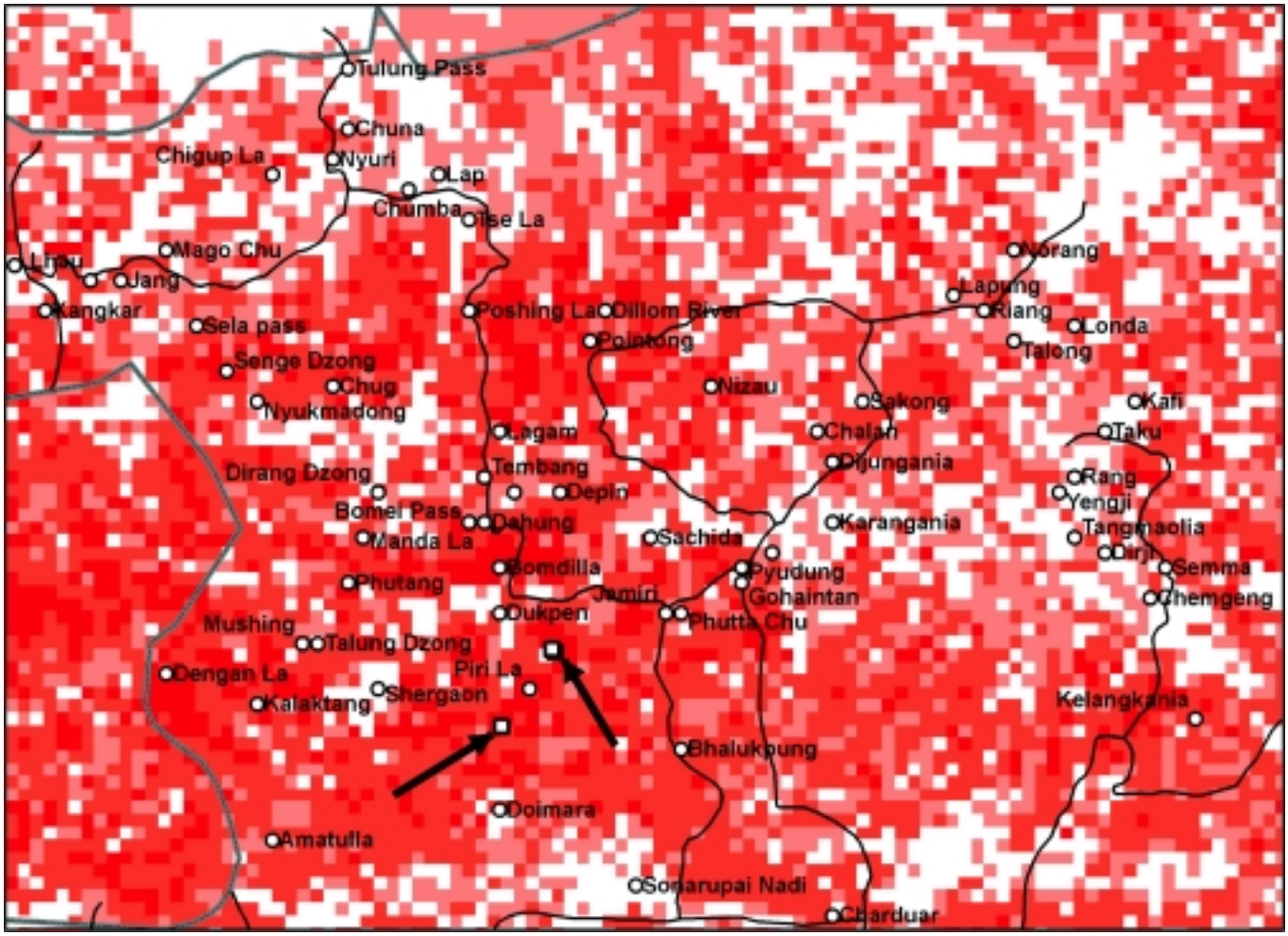

Figure 2. Consensus (average) of the three ecological niche modeling approaches for the possible distribution of the Bugun Liocichla. Known occurrences of the species are shown as white squares (black arrows), and populated places are shown as white circles. Thick gray lines indicate international boundaries (see inset map in Figure 1), and thinner black lines indicate roads.

Breeding of the Oriental White Ibis *Threskiornis melanocephalus* at Kumarakom heronry (Kerala, India)

S. Prasanth Narayanan, B. Sreekumar & Lalitha Vijayan

Narayanan, S.P., Sreekumar, B. & Vijayan, L. 2006. Breeding of the Oriental White Ibis *Threskiornis melanocephalus* at Kumarakom heronry (Kerala, India). *Indian Birds* 2 (6): 150–151.

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Kumarakom heronry at Kerala Tourism Development Corporation (KTDC) Tourist Complex of Kumarakom, Kottayam, is an important site for breeding waterbirds such as Darter *Anhinga melanogaster*, Little Cormorant *Phalacrocorax niger*, Indian Shag *Phalacrocorax fuscicollis*, Little Egret *Egretta garzetta*, Median Egret *Mesophoyx intermedia*, Large Egret *Casmerodius albus*, Indian Pond-Heron *Ardeola grayii*, Black-crowned Night-Heron *Nycticorax nycticorax* and Purple Heron *Ardea cinerea* in Kerala, from the time it was first 'discovered' by Neelakantan (1984). A recent study in the colonial nesting waterbirds in Kumarakom revealed the presence of a large breeding colony of near threatened Oriental White Ibises *Threskiornis melanocephalus* (BirdLife International, 2001). Nesting of the Oriental White Ibis is a new addition to the nesting of birds at Kumarakom and a breeding range-extension of the species into Kerala in recent years. This area formerly known as the Baker Estate, measures 112 acres. Situated 14 km west of Kottayam town, and at the eastern fringe of Vembanad Lake, a Ramsar Site and one of the biggest estuaries in the south-west coast of India. The Tourist Complex lies between 76^0 25' - 76^0 26' E and 9^0 37' - 9^0 38' N. Sixty-four nests of the Oriental White Ibis were found in this heronry during July – September 2004. Earlier nesting of Oriental White Ibis was not recorded from this part. This is the second nesting report of this species from Kerala. First nesting report was by Balakrishnan & Thomas (2004) from Panamaram heronry of Wayanad district; seven nests were reported during 2002 and 2003. During the first week of June the Oriental White Ibis population was less in the heronry but the species was found to be very common in the nearby paddy fields. Towards the middle of the month its number increased to 128. Although the birds in breeding plumage were spotted in the locality, they spent more time inside the heronry than other periods.

Five nests of the Oriental White Ibis were found on 08.vi.2004, in a mangrove tree *Sonneratia caseolaris* overgrown with a mangrove associate *Flagellaria indica* [a climber with disjunct distribution in the west coast of India (Pradeep 2002)] standing in the marsh. These five nests were found on the same tree along with a nest of the Large Egret. On 14.vi.2004 another 27 nests were found in the marsh built on an exotic mangrove associate *Annona glabra* covered with *Flagellaria indica.* Total 64 nests of Oriental White Ibises were found at the site from first of week of July to September. Every week its number was also noted, their highest count was 208 and the lowest was 37. They were present at a mean density of 103 ± 22.88 in the heronry (July 87.75 ± 29.45, August 120.10 ± 53.38). In the meantime 37 nestlings and 14 juveniles were observed from the heronry. Ali (1984) and Ali & Ripley (2001) have reported the nesting season of Oriental White Ibis in south India from November to March, the present observations indicate a nesting season which is different from the earlier reports.

Oriental White Ibis used one mangrove species *Sonneratia caseolaris* and three mangrove associates *Hibiscus tiliaceus, Annona glabra, Flagellaria indica* for nesting. The mean height of the trees the species used to build nest was 02.59 ± 01.66m from the water level. Where as in Wayanad, they used to nest in bamboos of the genus *Bambusa* with a mean height of the nests being 7 ± 0.45m (see Balakrishnan and Thomas 2004, for details), which was more than that of the present nesting area. According to Burger (1985) nesting in marshes reduces the effect of mammalian predation this may be the reason for the use of short trees in the marshland here in Kumarakom heronry for nesting compared to the Wayanad; but Kumarakom heronry does not have such potential terrestrial mammalian predators. Interestingly all these trees or plants except *Sonneratia caseolaris* are seen in the dykes also, but they did not prefer the plants standing on the dykes. This may have been due to increased human pressure. They deserted the nest close to the dykes at the approach of man and later the eggs in the nests were predated by the House Crow *Corvus splendens*, especially during the August. Thus, local people and tourists often became a great threat to the breeding birds in the heronry. On 28.vii.2004; 21 nests built in the marsh were found totally destroyed and later, clues of the human interference in the marsh towards the nesting site were obtained from the site. According to Donazar et al. (1994), predation was usual in ibis colonies, which are very susceptible to human disturbance in breeding colonies.

We heard the call of chicks, observed foraging trips made by Oriental White Ibis and bringing of nesting material from interior part of the marsh by the birds, especially in the central part and low levels of marsh and other inaccessible places. The nests built in those parts are not included in the report and hence the actual number of nests in the area may well have been higher than the number reported here. Mukherjee et al. (2002) faced similar problem when studying the status and breeding of the Sarus Crane *Grus antigone* in Gujarat.

Apart from the, Oriental White Ibis, another near threatened bird, the Darter is also found to breed in great concentration at

the site. Unfortunately, the site does not have the protected status. The KTDC is not taking care to protect the land and often clears the pure stands of *Phragmites karka,* where most of the Purple Herons, Median Egrets and Black-crowned Night-Herons used to nest, to get better view of birds in the name of tourism. In 1989 the Wildlife Advisory Board of Kerala, recommended the Government to declare the Baker Estate as a Bird Sanctuary. However, against the scientific advice, 13 hectares of the land was given to a venture company. The company cleared the mangrove and converted it into a lawn and constructed a tourist jetty. With this, a species of mangrove called *Kandelia candel* was totally wiped out (Ramachandran and Mohanan 1990). Considering these problems at the site, we strongly recommend that this heronry must be protected as a bird sanctuary.

Acknowledgements

We are grateful to Dr. V. S. Vijayan, Director, Salim Ali Centre for Ornithology and Natural History (SACON) for funding the study, Dr. A. P. Thomas, Director, School of Environmental Sciences, Mahatma Gandhi University, Kottayam, Kerala for the support and help. We also extend our sincere thanks to the anonymous referee and all those who helped in the work.

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New site record of the Yellow-throated Bulbul *Pycnonotus xantholaemus* from the Western Ghats of Tamil Nadu (India)

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The southern Indian endemic Yellow-throated Bulbul *Pycnonotus xantholaemus* (Ali & Ripley 1987; BirdLife International 2001) was recorded at the Anuvavi Subramaniar temple (11°03.5'N 76°50.9'E; 690 m a.s.l.), in the Coimbatore district of Tamil Nadu (India). The species is included in the Vulnerable (Vu) category of the *Red Data Book* (BirdLife International 2006). The locality where the species was sighted is a small village called Peiyathadakam, which is situated 22 km southwest of Coimbatore city. This area is a junction of an offshoot of the Western Ghats and the plains of Coimbatore. These plains are a mosaic of cultivation and comprise small and large-scale brick factories. Anuvavi Subramaniar temple is situated on the northern slope of the above mentioned offshoot, found about 3 km south of the Coimbatore–Anaikatty road. Thorny bushes and exotic *Prosopis juliflora* shrubs dominate lower areas of the hill, but the vicinity of the temple has a degrading patch of evergreen and semi-evergreen trees, which includes *Ficus* spp. Habitat above the temple is rocky with scrub vegetation, a 'typical' habitat of Yellow-throated Bulbul. This species also frequents a variety of other habitats ranging from open, sparse thorn-scrub and dense scrub jungle to mixed dry and moist-deciduous forest with dense undergrowth, generally on boulder-strewn hillsides, around rocky outcrops or on isolated hillocks, from 600 m to 1,200 m (Subramanya 2004; Subramanya et al. in press; BirdLife International 2006).

We visited the temple on Tamil New Year (14.iv.2005). Two medium-sized banyan trees *Ficus bengalensis* grow along the boundary of the temple. These were fruiting, attracting many birds and even though it was not a bird watching trip, we did

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some casual bird watching near these trees at 16:00 hrs. Species sighted included Small Green Barbet *Megalaima viridis*, Tailorbird *Orthotomus sutorius*, Oriental Magpie Robin *Copsychus saularis*, three species of bulbuls, namely Red-whiskered *Pycnonotus jocosus*, Red-vented *P. cafer* and White-browed *P. luteolus*. House Crows *Corvus splendens* were the majority species. All the species were observed foraging actively on the fruits and the insects found on the banyan tree. We noted a single bird, perched on a branch in the middle of the banyan's canopy, with a yellow throat and under-tail coverts, grey breast, pale greyish under parts, and devoid of eyebrows. We identified it through a 300 mm camera lens as a Yellow-throated Bulbul *Pycnonotus xantholaemus*. Meanwhile, one of us (A.B.) photographed the bird. We double-checked the pictures with field guides (Ali & Ripley 1987; Grimmett et al. 1999).

After a few minutes, the bulbul flew towards the scrubby rocky upper part of the hill slope. That day being a celebration, with huge crowds, we had to turn back. In all, we saw the bird twice on this occasion. First was an individual right above our heads, the second two birds in flight—they took off from a small evergreen patch dominated by a *Ficus* sp.

Two of us (A.B. and S.N.) visited the same place subsequently on 1.v.2005 and surveyed the area from 07:00 hrs to 11:30 hrs. We noticed an interesting feeding hierarchy among birds on the fruiting banyan tree. Yellow-throated Bulbuls visited it only twice, but other species immediately chased them away. House Crows were not common this time, unlike the previous occasion. Nevertheless, Red-whiskered and Red-vented Bulbuls chased away the White-browed and Yellow-throated Bulbuls.

This is a first record of Yellow-throated Bulbul from this part of the Western Ghats. It is also the seventh species of bulbul (Pycnonotidae) recorded from the nearby Anaikatty and adjacent hilly areas (Nirmala 2002). Prior to these sightings, this species has been recorded from the Siruvani range and Monkey Falls (at Indira Gandhi Wildlife Sanctuary) in Coimbatore district (P. Balakrishnan, *verbally*; BirdLife International 2006). Earlier, the Yellow-throated Bulbul has been reported from 12 different locations in Tamil Nadu (Table 1). Subramanya et al. (in press) state that it is recorded from 73 localities of southern India, with all recent records from hills south of 16°N and east of 76°E. It appears to be locally common, but seems to be declining. Recent surveys of 18 localities found that it had completely disappeared from six historical sites (BirdLife International 2006). According to Subramanya (2004) and Subramanya et al. (in press) this species can be found wherever its typical, preferred habitat exists—hence it occurs on most inland hills of southern India, including parts of the Eastern Ghats, and inland hills of Andhra Pradesh and Karnataka. On the Western Ghats, Subramanya (2004) mentions that it is present only on the drier eastern hill slopes, where it has been sighted at a couple of localities. Anuvavi Subramaniar temple is also situated in the eastern part of the Western Ghats. Kannan (1993), Subramanian (2001), Beisenherz (2004), Thejaswi (2004), Praveen & Namassivayan (2006) have reported its presence from different parts of the Western Ghats.

Acknowledgements

We extend our thanks to our friends in Salim Ali Centre for Ornithology and Natural History, especially J. Ranjini for providing the references. We are also grateful to S. Subaramanya for his valuable comments and corrections on the manuscript.

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Table 1. Records of Yellow-throated Bulbul *Pycnonotus xantholaemus* from Tamil Nadu (India)

Sl No.	Site	District	Location
1	Vallamalai Temple	Vellore	12°55'N 79°7'E
2	Gingi hills (Muttanadu Forest Range & Gingi Fort)	South Arcot	12°14'N 79°23'E
3	Chitteri Hills	Dharmapuri	11°49'N 78°28'E
4	Shevroy Hills (Yercaud)	Salem	11°47'N 78°12'E
5	Sankaridrug (Sankariurga)	Salem	11°00'N 76°58'E
6	Sirvani range (Siruvani)	Coimbatore	11°00'N 76°58'E
7	Monkey Falls (Indira Gandhi Wildlife Sanctuary)	Coimbatore	10°30'N 77°00'E
8	Mavinahalla (Mudumalai Wildlife Sanctuary)	Nilgiri	11°32'N 76°38'E
9	Pachamalai Hills (Manalodai Reserved Forest)	Tiruchirappalli	11° 15'N 78°30'E
10	Bodinayakanur	Theni	10°01'N 77°21'E
11	Lower Palani Hills	Madurai or Madura	09°49'N 77°49'E
12	Meghamalai Hills	Kambam	09°31'N–10°10'N 77°20'E–77°40'E

Source: http://www.birdlife.org. Extracted on 2006 [This work includes Mamandur forests and Penchalakona Hills of Andhra Pradesh state, within Tamil Nadu (p. 1970), which is an error and is therefore not included in the above table.]; Subramnian (2001); Rajaram (2005).

Notes on the breeding of Striolated Bunting *Emberiza striolata* near Pune, Maharashtra (India)

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(Photos by Satish Pande)

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Pande, S., Pawashe, A. & Joshi, V. 2006. Note on the breeding of Striolated Bunting *Emberiza striolata* near Pune, Maharashtra (India). *Indian Birds* 2 (6): 153–156.

Striolated Bunting *Emberiza striolata* is recorded in north-west India up to southern Uttar Pradesh (Etawah), central Madhya Pradesh (Sagar) and central Maharashtra (Daulatabad) (Ali & Ripley 1974). Pande et al. (2003) reported its occurrence in Maharashtra up to Sangli district. The darker upper mandible and yellow lower mandible of this bunting are diagnostic. Since the Striolated Buntings are distinctly dimorphic, the respective roles of both sexes in nidification can be correctly monitored. In this paper, we record the breeding of the Striolated Bunting in Maharashtra.

Status, occurrence and earlier nesting records from the study area

Striolated Buntings are resident in a small area in the Saswad environs near Pune (Maharashtra), inhabiting dry stony country where the vegetation is predominantly scrub, comprising of euphorbia and acacia species, intermingled with areas of cropland. They are present year round and are best seen at noon near water holes. Since 1991, we have recorded seven nests of these buntings near Saswad, Sonori, Dive and Bapdeo Ghat, all within 28 km of Pune and a few kilometers from one another.

Portrait of Striolated Bunting *Emberiza striolata*

Of the seven nests recorded, the birds abandoned three nests. The termites destroyed one, which was built on an active termite mound, even while the bunting was incubating and, red ants devoured the three eggs it contained. A Grey Shrike

Adult feeding young

Lanius meridionalis predated three eggs from one nest while a monitor lizard *Varanus bengalensis* dispatched another clutch of three from another nest. From the seventh nest, an unknown predator devoured all the chicks, soon after they hatched. All seven nests were unsuccessful.

Period of observation and ambient parameters during nesting period

A pair of Striolated Buntings was observed building a nest on 2.x.2005 near Saswad in Bapdeo Ghat (18°24'99''N 73°54'19''E), a winding uphill road, near Pune. We observed this nest closely from 2.x.2005–12.xi.2005. Twenty-five visits were made and 65 hours spent in observation. The timings of sunrise and sunset on 15.x.2005 (day of egg laying) and 11.xi.2005 (day of fledging) were 06:35 hrs and 18:14 hrs and, 06:46 hrs and 17:59 hrs respectively, with 11 hours 21 minutes to 11 hours 13 minutes of sunlight. In the early part of nesting a few spells of rain occurred. Mornings were foggy and cloudy and the day cold with temperatures ranging from 17°C–32°C in the early stage of nesting and 13°C–28°C in the later part.

Nest building

The nest had already been partially built when we first spotted it. The pair was very vocal. It was their song that attracted our attention.

The male and the female both brought about 4–5 cm long and up to 1.5 cm thick dry twigs in their beaks, to make the nest. Six to seven twigs were brought over 10–15 minutes, after which the buntings took a break for 15 minutes or more. The nest was completed on 3.x.2005. The nest was built by the roadside in a crevice 30 cm above the level of the road, under a shallow rock that jutted from the earth cutting. We counted an average of 38 vehicles (motorbikes, scooters, small tempos, vans, trucks and buses) passing on this road in one hour in the morning between 7:00–8:00 hrs, and within five feet of the nest. The buntings were quite oblivious of the traffic, which waned from noon. However, on 4.x.2005 the buntings abandoned the nest.

We observed them building a second nest by the roadside on 5– and 6.x.2005, about 70 m from the first location, in a shallow ledge of the earth cutting, about 120 cm above the level of the road. This nest was also abandoned on 7.x.2005. Since we could not spot any other Striolated Buntings at that location, we assumed that it was the same pair engaged in breeding activity. The pair did not visit the discarded nests again.

Construction of a third nest began on 8.x.2005, again by the roadside, at a distance of about 20 m from the second nest. This was completed on 10.x.2005. This time the pair was slightly less vocal than before. Again, both birds participated in nest building. The nest was on a ledge (380 mm x 390 mm), which was 120 cm above the level of the road, on a 'U' turn in an earth cutting. The untidy nest cup was 120 mm x 90 mm. It was 23 mm deep and was made of dry, thin as well as stout, short twigs, and was lined with soft grass inflorescence and a feather or two. A perfect overhang sheltered it from the top. Like the previous nests, this too faced north and did not receive direct sunlight at any time. There were brief spells of rain later, but the nest was so well protected that it remained dry.

Egg-laying, incubation and hatching

In all, three eggs were laid asynchronously, one every day, from 13–15.x.2005, between 07:05 hrs and 07:09 hrs. The hen flew away briefly after an egg was laid. The eggs weighed 2 g each and were 18 mm x 13.5 mm in size. They were oval, with one end narrow, grayish in colour, streaked, blotched and clouded with brown, more densely on the broad end. The size of 15 eggs, given by Ali & Ripley (1974) on the authority of Baker, was 20 mm x 15 mm.

Incubation began on 15.x.2005 after the third and final egg was laid. Only the female was seen to incubate. The male did not feed her at the nest and was rarely seen around the nest during incubation. The female sat low in the nest and the streaks on her crown and back offered excellent camouflage. Locating the bird on the nest was quite difficult even for those who knew the nest location. The female left the nest briefly after long spells of incubation lasting up to four hours. She incubated all night.

All eggs hatched synchronously on 28.x.2005. The incubation period lasted for 14 days. The female actually warmed the eggs for 329 hours, being inattentive only for seven hours, or 2% of the overall incubation period of 336 hours.

Nestlings and their brooding

The altricial nestlings, covered with grey natal down, appeared like balls of fur. Their eyes opened on the fourth day after

Regurgitating grain for young

Grain visible in crop of young

hatching. They were devoid of flight or tail feathers. The young were only brooded on the first day and were not fed. Both parents started feeding the nestlings from the second day. The male came to feed them after an average of every three visits of the female. The average feeding frequency was 28 min. All the chicks were fed at least three times whenever a parent arrived with food. The male was wary while approaching the nest but the female directly flew to the nestlings. During feeding, the parents were completely silent.

Feeding

The feeding of chicks by male and female parents was always by regurgitation of swallowed food. During the entire period, from hatching of eggs until fledging, the parents never visited the nest with food visibly held in the beak. This method may serve two purposes. One, the food may be already semi-digested and easier for the chicks to process. Two, predators are not attracted to the parents since they do not hold any visible prey in their beaks when they approach the nest. Still photography with zoom lenses and video-photography confirmed that up to the eighth day from hatching the feed consisted of only regurgitated seeds that may have been wet and sticky due to digestive fluid mixed from the parental gut.

Another confirmation of the diet was actual visualization of the seeds in the gut of the chicks, since the overlying skin that was taut over the distended crop after feeding was semi-transparent and revealed the seeds within their crop.

During the first four days, the parents sometimes swallowed the fecal sacs of the chicks. At other times, the fecal sacs were discarded away from the nest.

Striolated Buntings are usually graminivorous birds. A remarkable change in the diet given to the chicks was seen from the ninth day. Inspection of the semi-transparent skin of the chicks revealed the presence of green non-hairy caterpillars in their crop. Interestingly, the caterpillars were also fed by regurgitation. This transient and subtle switchover to insect diet is immensely helpful at the feathering stage of the chicks.

Serial biometry of chicks

On the fourth day from hatching all the three chicks weighed 2.5 g.

On the eighth day, they weighed 4 g. Their weights had doubled in eight days when they were fed only seeds.

On the twelfth day, after insect diet was started, the three chicks weighed 12 g, 12 g and 11.5 g. Their weights had tripled in just five days. On day twelve, the various biometric parameters of the three chicks were as follows:

Wing chord—52 mm, 53 mm and 50 mm. Tarsus—17 mm, 17 mm and 16 mm. Tail—25 mm, 25 mm and 24 mm. Beak—9 mm, 8 mm and 7 mm.

On day fourteen: Wing chord—52 mm, 53 mm and 50 mm. Tarsus—17 mm, 17 mm and 16 mm. Tail—28 mm, 27 mm and 26 mm. Beak—9 mm, 8 mm and 7 mm. Weight—13 g, 13 g and 11.5 g. Ten primary and ten tail feathers are present.

Adult birds have the following biometric parameters in mm. (Ali 1974, on the authority of Hugh Whistler): Size—140 mm. Wing chord: Male—73–85 mm; Female—72–80 mm; Tail: Male—56–65 mm; Female—56–63 mm. Bill from skull—11–13 mm; Tarsus—15–16 mm; Males are larger than females.

Fledging

All the three chicks fledged one by one on 12.xi.2005, from 07:00 hrs until 09:00 hrs. Both the parents induced them to come out of the nest by uttering special harsh and subdued calls. As soon as the chick left the nest, it was escorted to the nearest evergreen thicket and fed there. The chicks also uttered low volume chirps. The chicks took flight but were clumsy and unsteady on the wing but hopped effortlessly. They preferred to hop and in case of any unexpected movement stayed still relying on their cryptic coloration. One more observation that is interesting was that the droppings of the chicks until the day prior to fledging were encased in gelatinous fecal sacs, but from the day of fledging, the droppings were loose and not covered in fecal sacs and freely

Adult removing fecal sac

splashed hither and thither. Both parents did post-fledging feeding of the chicks but the chicks also started gleaning seeds by themselves a few hours after fledging. Observing the chicks after they took refuge in thick bushes was difficult. We did not pursue the observations since a Sirkeer Malkoha *Taccocua leschenaultii*[1] was seen near the nest and we feared that our scrutiny might draw the attention of this predator to the fledglings.

Biometric correlation with post-fledging behaviour

At the time of fledging, the chicks had assumed wing pattern like adults but some down persisted amidst the feathers, especially on the head and crown. The stripes on the crown were very faint. At fledging the beak and tarsus of the chicks had attained almost 100 % growth hence the excellent hopping ability. The wing chord and tail of the fledglings had attained 66.3 % and 46.7 % of adult size respectively, explaining their clumsy flight.

Conclusion

Breeding records and breeding biology of the Striolated Bunting from peninsular India are presented in this paper and are supported by photographs. Striolated Buntings may, as in the above case build multiple nests before finally laying the eggs. Nest is built by both sexes in three days. Eggs are laid in asynchronous manner, every 24 hours and three eggs are usually laid, but hatching is synchronous on the same day, indicating that incubation begins after the last egg is laid. Female incubates alone. Clutch size of three was observed in three nests. Incubation period is 14 days and fledging period is 15 days. Seeds and grain constitute the initial diet of the chicks followed by a switch over to insects and grub from the eighth day when flight feathers develop. Feeding by both parents is by regurgitation. Overall nesting success is poor. Of the ten nesting attempts observed since 1991, five nests were abandoned before eggs were laid; all eggs were predated in three nests; nestlings were predated from one nest; one nest was 100% successful.

Caterpillar visible in crop of young

Mixed diet visible in crop of young

Acknowledgements

We thank the Forest Department for allowing us to study the buntings. We thank Niranjan Sant, Shivkumar Pednekar and Premsagar Mestry for assistance during field visits. Prashant Deshpande provided necessary video photography equipment.

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[1] As per Rasmussen & Anderton (2005).

Of birds and places

Suchitra Ghosh & N. N. Chatterjea

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2–10.x.2003: Rathwadhab, Corbett Tiger Reserve (29°39'49"N 78°51'26"E, 685 m a.s.l.)

Rathwadhab, though a part of Corbett Tiger Reserve is not as well known as Dhikala, Bijrani or Jhirna—few people come here. The place is on the Kotdwar–Maidaban bus route and remains open all round the year. The facilities at the century-old forest rest house (FRH) are pretty basic. The FRH has extensive grounds and overlooks agricultural fields, and the Mandal River beyond them. A couple of *Prunus cerasoides* trees in front of the verandah and a *Ficus religiosa* at the back of the building attract the birds. Human habitation, largely, is on the northern side of the river, which receives the sun and is outside the reserve forest. The slope facing north, which is within the reserve, is covered predominantly with sal *Shorea robusta* and among its associates, *Mallotus philippensis* is very common. We walked up to Mognukhal, which was about half-way to Kanda FRH (1,019 m); sal was present all along the route and as far as we could see. The other tree that you often notice in the area is mohul *Pyrus pashia*. In some places there are oak *Quercus leucotrichophora* (we presume).

This was our third visit to the place. Earlier we were there on 28–30.ix.1998 and 18–26.x.1999. We mention this because in 1998 we saw Rosy Minivet *Pericrocotus roseus* quite often but none in 1999 and a large number of them in 2003. In fact, in 2003 they outnumbered the other minivets, such as, Scarlet *P. flammeus* and Long-tailed Minivet *P. ethologus*, which were rare. In 1999, we saw a large number of Long-tailed Minivets besides the Scarlet Minivet.

In their *Compact handbook*, Ali & Ripley say of the Rosy Minivet, "gregarious after the breeding season", which is principally in May and June. We wonder why we saw the bird in 1998 and 2003 and not between 18–26.x.1999. The bird is a partial migrant. However, what are the factors that start them to their winter quarters.

Lantana has colonized much of the open spaces that perhaps once upon a time were under forest cover. The plant may have a detrimental effect on the land but it attracts a host of butterflies to its nectar and such birds as Ashy Bulbul *Hemixos flavala*, among others, that feed on its fruit. Lantana grows in the sunny areas. But in the shade *Eupatorium adenophorum* (*E. glandulosum*), a native of Mexico, has established itself well. The borders of the metalled road are full of *Ageratum conyzoides*. Our own *Clerodendrum viscosum* grows in large patches where it has found a foothold—but has not dislodged the exotic weeds. The Mandal River once had plenty of fish. However, indiscriminate fishing and use of explosives have diminished their populations.

We like the place because you can walk around as you please along the motor road with the jungle on both sides of you. Vehicular traffic is minimal. Therefore, you can walk and watch birds in peace. Sometimes you may come across mammals, such as, yellow-throated marten, wild boar and spotted deer. People say they often see leopard *Panthera pardus*, which we did not. The people we met there made our stay pleasant because they were kind to us and did not hesitate to extend a helping hand when we needed it. Besides, the place is free of the boisterous lot that descends in hordes to Dhikala. It is relatively easier to obtain a reply, and a permit, from the Kotdwar office of Corbett Tiger Reserve, than from Ramnagar. The latter treats you with cavalier disdain and never replies your letter (even when a self-addressed stamped envelop is provided) or your fax and the woman who picks up the telephone has an exasperating habit of disconnecting the line the moment you ask "Corbett National Park?" (It is possible that my Corbett is different from her "Carbet"!)

11–15.x.2003: Kanwashram, via Kalol Ghati from Kotdwar (29°47'18"N 78°27'36"E, 516 m a.s.l.)

The tourist lodge, established in 1957, is in a derelict state. However, much of the accommodation is inhabitable except a cottage, a double-room and two dormitories comprising ten beds. The manager gave us the double-room and very kindly provided us with meals. The lodge (without any neighbours) is about one and a half kilometres away from human habitations (Kanwashram proper), which makes all the difference. As the sun sets, you hear the sawing of leopard, which seems so close to you even when the animal is some distance away. One night around 02:00 hrs a lone tusker *Elephus maximus* climbed up the bridleway and gained the campus of the forest department adjacent to the lodge. Fortunately, he only damaged a cowshed and did not harm anybody, possibly because of the noise that people made to drive him away. There were so many langur *Semnopithecus entellus* that have taken over much of the abandoned lodges, and the canteen, in the campus. We thought anyone wanting to study them would find the place ideally suitable. People told us that during summer you might see ghoral *Nemorhaedus goral* on the hill slope opposite the lodge. The bird that interested us most was the Wallcreeper *Tichodroma muraria*, foraging along the banks of Malini River. We saw it everyday and watched it as long as we could—truly a pretty bird.

16–19.x.2003: Saneh Forest Rest House, Lansdowne Forest Division (29°41'24"N 78°31'46"E, 307 m a.s.l.)

We did not plan, but had thought of visiting Saneh in Katri range. So from Kanwashram we telephoned the office of the Divisional Forest Officer (DFO), Lansdowne Forest Division, at Kotdwar, who very kindly permitted us to occupy one room of the Saneh FRH. We are ever so grateful to him because

when we mentioned that collecting the permit from his office at Kotdwar would entail us a long detour he asked us to move to Saneh and that he would dispatch the permit to the FRH office of Saneh, which he did. We wonder how many DFOs would accommodate birdwatchers as he did.

This also is a very old FRH close to rivers Kho and Katri. Perhaps when it was built, nearly one hundred years ago, the place did not have many human habitations. At present, there are people living around the FRH—engaged primarily in agriculture—which has taken away its character of a jungle. Even with so many people around, wild elephants come to feed on the crop. Many came while we were there and people had a trying time driving them away. However, when you move away from the village area, there are places where you may see some birds, but ensure you do not bump into a wild pachyderm. The FRH has a number of lofty barna trees the likes of which we had not seen. *Sida acuta* covered the road verge; we have nowhere seen this plant covering so much of an area in such profusion.

Kaluchaur is a 9 km trek that entails fording a river at two or three places. There is a fair-weather road to Kaluchaur, but is not done up for traffic as a matter of routine (between November and June). However, if you are game for the trek, it may be worthwhile a visit to the place which also has an FRH. When we were there Dr A. J. T. Jonhsingh of WII, Dehradun, had come with his pupils and they went there one morning and came back the same evening.

20–25.x.2003: Kishenpur Sanctuary, Dudwa National Park, Mailani-Kheri (28°17'13"N 80°21'12"E 165 m a.s.l.)

The Range Forest Officer, who is a friend, and a host par excellence, took us around to such places as Jhadital and Marha (we may have got the spelling wrong). Jadhital is a large water body set in a well-wooded area that attracts a variety of water birds. Here we saw *c.*20 Ferruginous Pochard *Aythya nyroca*, and a few breeding pairs of Darter *Anhinga melanogaster*, among other birds. The *tal* is worth a visit, if you are somewhere in the area. Marha has what we would call very wild habitat though there is a temple within the FRH grounds. You, however, require a thick skin to go round the place because it is infested with mosquitoes. The people attached to the temple continually burn something or the other to keep the tormentors at bay. The place has dense bamboo brakes and a variety of broad-leaved trees. We found the habitat very interesting. The warden also extended his help, which added to pleasure of seeing Marha.

Table 1. Checklist of birds seen

Key: 1=Rathuadhab; 2=Kanwashram; 3=Saneh; 4=Kishenpur Sanctuary.

Species*	1	2	3	4
Little Grebe *Tachybaptus ruficollis*				+
Little Cormorant *Phalacrocorax niger*				+
Indian Shag *Phalacrocorax fuscicollis*				+
Darter *Anhinga melanogaster*				+
Little Egret *Egretta garzetta*			+	+
Grey Heron *Ardea cinerea*				+
Purple Heron *Ardea purpurea*				+
Large Egret *Casmerodius albus*				+
Cattle Egret *Bubulcus ibis*				+
Indian Pond Heron *Ardeola grayii*		+	+	+
Black Bittern *Dupetor flavicollis*				+
Asian Openbill-Stork *Anastomus oscitans*				+
Lesser Adjutant-Stork *Leptoptilos javanicus*				+
Black Ibis *Pseudibis papillosa*				+
Lesser Whistling-Duck *Dendrocygna javanica*				+
Cotton Teal *Nettapus coromandelianus*				+
Gadwall *Anas strepera*				+
Northern Shoveller *Anas clypeata*				+
Common Pochard *Aythya ferina*				+
Ferruginous Pochard *Aythya nyroca*				+
Oriental Honey-Buzzard *Pernis ptilorhynchus*	+		+	
Black-shouldered Kite *Elanus caeruleus*				+
Black Kite *Milvus migrans*	+		+	
Egyptian Vulture *Neophron percnopterus*			+	
Red-headed Vulture *Sarcogyps calvus*		+		
Crested Serpent-Eagle *Spilornis cheela*	+			+
Shikra *Accipiter badius*	+	+	+	+
Rufous-bellied eagle *Hieraaetus kienerii*		+		
Changeable Hawk-Eagle *Spizaetus cirrhatus*	+			
Grey Francolin *Francolinus pondicerianus*		+		+
Red Jungle Fowl *Gallus gallus*	+	+	+	+
Kaleej Pheasant *Lophura leucomelanos*	+			
Indian Peafowl *Pavo cristatus*	+	+	+	+
White-breasted Waterhen *Amaurornis phoenicurus*				+
Common Moorhen *Gallinula chloropus*				+
Common Coot *Fulica atra*				+
Pheasant-tailed Jacana *Hydrophasianus chirurgus*				+
Bronzed-winged Jacana *Metopidius indicus*				+
Little Ringed Plover *Charadrius dubius*			+	
River Lapwing *Vanellus duvaucelii*			+	
Red-wattled Lapwing *Vanellus indicus*	+	+	+	+
Common Greenshank *Tringa nebularia*		+	+	+
Green Sandpiper *Tringa ochropus*		+		
Wood Sandpiper *Tringa glareola*			+	
Common Sandpiper *Actitis hypoleucos*			+	
Blue Rock Pigeon *Columba livia*	+			
Spotted Dove *Streptopelia chinensis*	+	+	+	+
Eurasian Collared Dove *Streptopelia decaocto*	+	+	+	+
Yellow-legged Green-Pigeon *Treron phoenicoptera*				+
Green Imperial-Pigeon *Ducula aenea*				+
Rose-ringed Parakeet *Psittacula krameri*		+	+	+
Slaty-headed Parakeet *Psittacula himalayana*	+	+		
Plum-headed Parakeet *Psittacula cyanocephala*			+	+
Brainfever Bird *Hierococcyx varius*	+			+
Asian Koel *Eudynamys scolopacea*		+		
Greater Coucal *Centropus sinensis*			+	+
Asian Barred Owlet *Glaucidium cuculoides*	+		+	+
Jungle Owlet *Glaucidium radiatum*		+		+
Spotted Owlet *Athene brama*			+	+
House Swift *Apus affinis*	+			
Small Blue Kingfisher *Alcedo atthis*	+	+	+	+
Stork-billed Kingfisher *Halcyon capensis*			+	+
White-breasted Kingfisher *Halcyon smyrnensis*	+	+	+	+
Greater Pied Kingfisher *Megaceryle lugubris*	+	+		
Lesser Pied Kingfisher *Ceryle rudis*			+	
Blue-bearded Bee-eater *Nyctyornis athertoni*			+	

Species*	1	2	3	4
Small Bee-eater *Merops orientalis*	+	+		+
Chestnut-headed Bee-eater *Merops leschenaulti*	+	+		
Indian Roller *Coracias benghalensis*			+	+
Oriental Broad-bill Roller *Eurystomus orientalis*	+			
Common Hoopoe *Upupa epops*	+			+
Indian Grey Hornbill *Ocyceros birostris*			+	+
Oriental Pied Hornbill *Anthracoceros albirostris*			+	
Lineated Barbet *Megalaima lineata*	+	+		+
Blue-throated Barbet *Megalaima asiatica*	+	+		
Coppersmith Barbet *Megalaima haemacephala*	+	+		+
Speckled Piculet *Picumnus innominatus*	+			
Grey-capped Pigmy Woodpecker *Dendrocopos canicapillus*	+			
Rufous-bellied Woodpecker *Dendrocopos hyperythrus*	+			
Black-naped Green Woodpecker *Picus canus*	+			+
Small Yellow-naped Woodpecker *Picus chlorolophus*	+			
Large Yellow-naped Woodpecker *Picus flavinucha*	+			
Lesser Golden-backed Woodpecker *Dinopium benghalense*		+		+
Greater Golden-backed Woodpecker *Chrysocolaptes lucidus*	+	+	+	
Sand Martin *Riparia riparia*	+			
Red-rumped Swallow *Hirundo daurica*		+	+	+
White Wagtail *Motacilla alba dukhunensis*	+	+	+	+
White Wagtail *M .a. leucopsis*		+	+	
White Wagtail *M. a. alboides*			+	
White Wagtail *M. a. personata*			+	
Large Pied Wagtail *Motacilla maderaspatensis*		+	+	
Citrine Wagtail *Motacilla citreola*			+	
Yellow Wagtail *Motacilla flava*			+	
Grey Wagtail *Motacilla cinerea*	+	+		
Rosy Minivet *Pericrocotus roseus*	+			
Long-tailed Minivet *Pericrocotus ethologus*	+			
Scarlet Minivet *Pericrocotus flammeus*	+			
Pied Flycatcher-Shrike *Hemipus picatus*	+			
Black-crested Bulbul *Pycnonotus melanicterus*	+	+		
Red-whiskered Bulbul *Pycnonotus jocosus*	+	+	+	+
Himalayan Bulbul *Pycnonotus leucogenys*	+		+	
Red-vented Bulbul *Pycnonotus cafer*	+	+	+	+
Brown-eared Bulbul *Hemixos flavala*	+			
Black Bulbul *Hypsipetes leucocephalus*	+			
Common Iora *Aegithina tiphia*	+	+	+	
Gold-fronted Chloropsis *Chloropsis aurifrons*		+		
Brown Shrike *Lanius cristatus*		+		
Rufous-backed Shrike *Lanius schach*	+			
Grey-backed Shrike *Lanius tephronotus*		+		
Blue Rock-Thrush *Monticola solitarius*		+		
Blue Whistling-Thrush *Myophonus caeruleus*	+	+	+	
Orange-headed Thrush *Zoothera citrina*	+			
Oriental Magpie Robin *Copsychus saularis*	+	+	+	+
White-rumped Shama *Copsychus malabaricus*	+			+
Indian Robin *Saxicoloides fulicata*	+	+	+	
Plumbeous Redstart *Rhyacornis fuliginosus*	+			
Black Redstart *Phoenicurus ochruros*		+		
Spotted Forktail *Enicurus maculates*	+			
Common Stonechat *Saxicola torquata*	+			
Pied Bushchat *Saxicola caprata*				+
Grey Bushchat *Saxicola ferrea*	+		+	+
Indian Chat *Cercomela fusca*		+		
White-throated Laughing Thrush *Garrulax monileger*	+			
White-crested Laughing Thrush *Garrulax leucolophus*	+			
Rusty-cheeked Scimitar-Babbler *Pomatorhinus erythrogenys*	+			
Black-chinned Babbler *Stachyris pyrrhops*	+			

Species*	1	2	3	4
Rufous-bellied Babbler *Dumetia hyperythra*				+
Jungle Babbler *Turdoides striatus*	+	+	+	+
Red-billed Leiothrix *Leiothrix lutea*	+			
Blue-winged Minla *Minla cyanouroptera*	+			
Quaker Tit-Babbler *Alcippe poioicephala*	+			
White-bellied Yuhina *Yuhina xantholeuca*	+			
Brown Prinia *Prinia crinigera*		+		
Franklin's Prinia *Prinia hodgsonii*	+	+	+	+
Yellow-bellied Prinia *Prinia flaviventris*		+		
Plain Prinia *Prinia inornata*	+	+		
Blyth's Reed Warbler *Acrocephalus dumetorum*	+	+		+
Common Tailor Bird *Orthotomus sutorius*	+	+		+
Common Chiffchaff *Phylloscopus collybita*	+	+		+
Yellow-browed Warbler *Phylloscopus inornatus*	+	+	+	+
Hume's Warbler *Phylloscopus humei*			+	
Western Crowned Warbler *Phylloscopus occipitalis*	+			
Grey-headed Flycatcher Warbler *Seicercus xanthoschistos*	+	+	+	
Common Lesser Whitethroat *Sylvia curruca*	+			
Sooty Flycatcher *Muscicapa sibirica*	+	+		
Red-throated Flycatcher *Ficedula parva*	+	+	+	+
Little Pied Flycatcher *Ficedula westermanni*	+			
Ultramarine Flycatcher *Ficedula superciliaris*				+
Verditer Flycatcher *Eumyias thalassina*	+	+	+	+
Rufous-bellied Niltava *Niltava sundara*	+			
Pale Blue-Flycatcher *Cyornis unicolor*	-	+	-	-
Grey-headed Flycatcher *Culicicapa ceylonensis*	+	+		+
Asian Paradise-Flycatcher *Terpsiphone paradisi*	+			+
Black-naped Monarch-Flycatcher *Hypothymis azurea*	+			+
White-throated Fantail Flycatcher *Rhipidura albicollis*	+	+		
Red-headed Tit *Aegithalos concinnus*	+			
Great Tit *Parus major*	+			+
Black-lored Yellow Tit *Parus xanthogenys*	+			
Black-spotted Yellow Tit *Parus spilonotus*	+			
Chestnut-bellied Nuthatch *Sitta castanea*	+			
Velvet-fronted Nuthatch *Sitta frontalis*	+			
Wall Creeper *Tichodroma muraria*	-	+	-	-
Tickell's Flowerpecker *Dicaeum erythrorhynchos*	+		+	
Purple Sunbird *Nectarinia asiatica*			+	+
Crimson Sunbird *Aethopyga siparaja*	+	+	+	
Oriental White-eye *Zosterops palpebrosus*	+	+	+	+
White-rumped Munia *Lonchura striata*	+			
Spotted Munia *Lonchura punctulata*	+	+		
House Sparrow *Passer domesticus*	+	+	+	+
Baya Weaver *Ploceus philippinus*		+		
Asian Pied Sterling *Sturnus contra*				+
Common Myna *Acridotheres tristis*	+	+		+
Eurasian Golden Oriole *Oriolus oriolus*				+
Black-headed Oriole *Oriolus xanthornus*		+	+	+
Maroon Oriole *Oriolus traillii*	+			
Black Drongo *Dicrurus macrocercus*				+
Ashy Drongo *Dicrurus leucophaeus*				+
White-bellied Drongo *Dicrurus caerulescens*				+
Bronzed Drongo *Dicrurus aeneus*	+	+		+
Spangled Drongo *Dicrurus hottentottus*	+	+		
Greater Racket-tailed Drongo *Dicrurus paradiseus*				+
Red-billed Blue Magpie *Urocissa erythrorhyncha*	+			
Red-billed Chough *Pyrrhocorax Pyrrhocorax*			+	
Indian Tree-pie *Dendrocitta vagabunda*		+	+	+
Grey Treepie *Dendrocitta formosae*	+		+	
House Crow *Corvus splendens*				+
Jungle Crow *Corvus macrorhynchos*		+	+	+

Sri Lanka: 6–14 August 2005

Govind Kumar

Kumar, G. 2006. Sri Lanka: 6–14 August 2005. *Indian Birds* 2 (6): 160–166.
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This is a brief account of a family holiday in Sri Lanka from 6–14.viii.2005. The trip was pre-booked with Jetwing Eco Holidays on the Internet and Ajanthan Shantiratnam expertly took care of all arrangements relating to accommodation, transport, food and guiding.

The primary purpose of our trip was to see as many of the endemic birds as possible while taking in some of the ancient Buddhist culture and the beautiful Sri Lankan countryside.

We recorded 146 birds, 15 mammals, 10 reptiles and amphibians, 25 butterflies and an arachnid in nine days. (To maintain flow of text, scientific names are only in the appended tables.) Highlights included Red-faced Malkoha, Sri Lanka Blue Magpie, Sri Lanka Starling, Ashy-headed Laughingthrush, Sri Lanka Whistling-Thrush and the endemic rhino-horned and kangaroo lizards. We were able to see 30 out of the 33 Sri Lankan endemics (based on Pamela Rasmussen's new taxonomy) missing out on Serendib Scops-Owl *Otus thilohoffmanni* and Sri Lanka Scaly Thrush *Zoothera imbricata* and only hearing Sri Lanka Spurfowl *Galloperdix bicalcarata*.

Guide

Our guide was Lester Perera, one of Sri Lanka's top birders and her leading bird artist. Lester proved to be a superb birder and a fine all-round naturalist. He was great at birdcalls and knew several good sites for all the endemics.

Itinerary

5.viii.2005: Chennai–Colombo by Sri Lankan Airlines. Overnight at Tamarind Tree Hotel, Negombo.
6.viii.2005: Negombo–Sinharaja by way of Ratnapura. Overnight at Martins Lodge.
7.viii.2005: Sinharaja. Overnight at Martins Lodge.
8.viii.2005: Sinharaja–Kitulgala. Overnight at Kitulgala Forest Rest House.
9.viii.2005: Kitulgala–Nuwara Eliya. Overnight at St. Andrews Hotel, Nuwara Eliya.
10.vii.2005: Nuwara Eliya–Horton Plains–Kandy. Overnight at Hilltop Hotel, Kandy.
11.viii.2005: Kandy–Sigiriya. Overnight at 'The Teak Forest', Sigiriya
12.viii.2005: Sigiriya–Polonarruwa–Dambulla. Overnight at 'The Teak Forest'.
13.viii.2005: Sigiriya–Pinnewala–Colombo. Overnight at Taj Samudra.
14.viii.2005: Colombo–Chennai by Sri Lankan Airlines.

Journal

Day one (6.viii.2005)

Arrived Katunayake at 00:20 hrs. Met by Lester Perera and Kalaivanan who was to be our driver for the trip. Transferred to Tamarind Tree Hotel, Negombo, for a few hours rest.

Awoke to the calls of Purple-rumped Sunbird, Common Tailorbird and Asian Koel. Birds in the hotel garden included Tickell's Flowerpecker, Oriental Magpie-Robin, White-breasted Kingfisher, Rose-ringed Parakeet, White-headed Babbler (race *taprobanus*, with more yellow on the bill than southern Indian birds), Loten's Sunbird, White-bellied Drongo (race *leucopygialis*, with white restricted to lower belly and undertail coverts), Lesser Golden-backed Woodpecker (a pair of the crimson-backed race *psarodes*), Red-vented Bulbul, Common Myna, Indian Jungle and House Crows and Brown-headed Barbet. Little Egret and Indian Pond Heron flew over the grounds.

Drove to Sinharaja after breakfast, stopping at Ratnapura to buy bottled water and medicines. Hill forest on the Ratnapura–Sinharaja road provided good views of Peregrine (Shaheen) Falcon, a party of seven Sri Lanka Swallows on a wire with all-rufous under parts, a pair of Black-headed Cuckooshrike, Spotted Dove, Sri Lanka Small Barbet and Gold-fronted Chloropsis. Heard Yellow-fronted Barbet in the area. Nearing Sinharaja, we saw a single purple-faced leaf monkey on a roadside tree.

Arrived Sinharaja at 12:00 hrs. Birded the area near the stream running close to the park office at the entrance. Our park guide, Sena, said there was a Spot-winged Thrush in the vicinity but we failed to see it. We saw many Legge's Flowerpeckers, Indian Shag, Red-vented Bulbul and a water monitor in the area, while waiting for Lester to get our entrance tickets and before transferring to the jeep that was to take us to Martins Lodge.

Birds seen on the jeep ride to Martins included three White-rumped Munias (one carrying nest material), Tickell's Flowerpecker, Black Bulbul and Yellow-browed Bulbul. Arriving at Martins, we had reasonable views of a pair of Sri Lanka Hill Munias and saw two Green Imperial-Pigeons flying overhead. Sri Lanka Hanging-Parrot was common near Martins and a pair was seen eating the fruit of a palm tree in

the garden. The birds were identical to *Loriculus vernalis* of southern India, in jizz and plumage, but for the orange-red fore crown.

We had a Black Eagle circling overhead after lunch and when Lester mimicked the shrill squealing call of a small mammal in distress, the raptor came in low to investigate and we enjoyed great eye-level views of the bird with the prominent 'fingers' on the long wings.

A hen Sri Lanka Junglefowl with chicks came to take scraps from the Martins Lodge kitchen.

We birded the logging track to the research station for about a kilometer. Soon Lester heard an approaching feeding flock. Sri Lanka Rufous Babblers were the flock leaders and the dominant species with 40 birds being seen. Small parties of Layard's Parakeet and Sri Lanka Crested Drongo followed. Layard's Parakeet was distinctly short-tailed with a lovely emerald hind collar and a nasal call not unlike Malabar Parakeet. Crested Drongos appeared to 'marshal' and control the movement and direction of the feeding flocks. About 15 birds were seen including two sub-adults.

Lester then whispered, "Look out for the malkoha. It will turn up any time now" and sure enough a pair of stunning Red-faced Malkohas then put in an appearance. There was another scramble as a Sri Lanka Starling, and then four more, were located in the canopy of the tree that held the malkohas. To round off we had a gorgeous single Blue Magpie at the tail end of the flock. Other birds in the flock included Small Yellow-naped Woodpecker, Malabar Trogon, Yellow-browed Bulbul and Scarlet Minivet.

Another feeding flock further up the trail produced four Red-Faced Malkohas, Small Yellow-naped Woodpecker, Malabar Trogon, Yellow-browed Bulbul, Velvet-fronted Nuthatch, the distinctive, crestless, Black-crested Bulbul and many more Sri Lanka Rufous Babblers.

Other sightings this afternoon included two Sri Lanka Wood-Pigeons, 15–20 Black-headed Babblers in low trailside bushes, located by their churring contact calls, three grizzled giant squirrels (much darker coat than the southern Indian race and in fact very much like malabar giant squirrel) and a multitude of brilliant butterflies.

Back at Martins, we had several Black Bulbuls, Yellow-fronted Barbet, three distant Sri Lanka Hill Mynas on a pine tree, and three Emerald Doves.

Around 17:00 hrs Lester heard Spot-winged Thrush and soon located a pair in leaf litter by a stream directly below Martins garden. The birds had a thin high-pitched call and irregular spotting on the primaries.

We set off at about 18:30 hrs to try for Chestnut-backed Owlet at a site close to Martins, but despite hearing the bird, we could not see it and at 20:00 hrs, we called it quits—trudging back to Martins for dinner in total darkness.

Day two (7.viii.2005)

One Blue Magpie in Martins garden at 07:00 hrs.

Birded the trail from Martins to the research station encountering three feeding flocks in about three hours. Two of these had the subtly coloured, restricted range endemic Ashy-headed Laughingthrush and we were able to count 45-50 birds.

We had great views of a pair of Sri Lanka Wood-Pigeon feeding on fruit on the Mulawella Nature Trail. Also saw two Sri Lanka Scimitar Babblers, single males of Tickell's Blue-Flycatcher and Black-naped Monarch, a Small Yellow-naped Woodpecker, ten Black-headed Babblers, three Malabar Trogons (two males and a female), Black Bulbul (race *humei*), Black-crested Bulbul, Yellow-browed Bulbul, Tickell's Flowerpecker, a solitary Red-faced Malkoha, several Sri Lanka Rufous Babblers and Layard's Parakeets, Sri Lanka Crested Drongo and a single Sri Lanka Grey Hornbill. Sri Lanka Junglefowl and Sri Lanka Spurfowl both appeared to be widespread at Sinharaja judging by the frequent calls, but proved difficult to see.

We also saw kangaroo lizard, giant wood spider, green vine snake and Oliver's bronzeback snake. At the research station, we tried long and hard for Sri Lanka Scaly Thrush but to no avail. We however had close up views of a party of four Blue Magpies (two sub-adults) eating an enormous grey earthworm not far from the station. Three Sri Lanka Hill Mynas flew into a tall bare tree and we had good look at the wattles set well back at the rear of the crown and heard its diagnostic call. A pair of Sri Lanka Junglefowl came right up to the makeshift kitchen at the station to take scraps.

We saw a small troop of purple-faced leaf monkeys at the entrance to the core area of the reserve.

Relaxing at Martins after lunch, we had singles of Rufous-bellied and Black Eagle, Indian Swiftlets and Red-vented Bulbul with small parties of Sri Lanka Hanging-Parrot flying about. Heard Spot-winged Thrush and Common Iora. The best bird was a single Sri Lanka Grey Hornbill in a tree in the Martins garden.

We set off at about 16:00 hrs along the road to the village. We had a party of seven Pompadour Green-Pigeons and a male Legge's Flowerpecker at the village. Also, saw ruddy mongoose, grizzled giant squirrel, Layard's squirrel and a blue oakleaf butterfly.

After nightfall, we walked back up the trail to Martins spotlighting at a few likely sites for Serendib Scops-Owl and Chestnut-backed Owlet. However, we heard no night birds at all and returned to Martins disconsolate.

Day three (8.viii.2005)

Left Sinharaja after breakfast for Kitulgala. Birds seen en route included a male Black-naped Monarch, three Green Imperial-Pigeons, a male Legge's Flowerpecker, two Purple-rumped Sunbirds, a Changeable Hawk-Eagle and two White-rumped Munias.

Reached Kitulgala at 12:30 hrs. It was an incredibly humid and sweltering afternoon. After an eminently forgettable lunch, we set off for the Kelani Forest Reserve on the other side of the river by crossing a rope bridge that swayed alarmingly at every step. Once we were safely across, we birded the riverside plantations before climbing higher into the forest.

Birdlife was varied and interesting. We saw Yellow-fronted and Brown-headed Barbets, Stork-billed and White-breasted Kingfishers, Crested and White-bellied Drongos, Tickell's Flowerpecker, Purple-rumped Sunbird, Indian Jungle Crow, Layard's and Rose-ringed Parakeets, Sri Lanka

Hanging-Parrot, White-headed and Sri Lanka Rufous Babblers, Indian Shag, Spotted and Emerald Doves, Southern Hill Myna, Red-vented, Black and Yellow-browed Bulbuls, Lesser Golden-backed Woodpecker (race *psarodes*), Small Yellow-naped Woodpecker, Pied Flycatcher-Shrike, Black-headed Oriole, Sri Lanka Scimitar Babbler and Black-naped Monarch.

We added three endemics to our list at Kitulgala. First, a Brown-capped Babbler came to within eight feet, in light scrubby undergrowth, in response to Lester's brief tape playback. The bird continued singing sweetly (reminiscent of Spotted Babbler *Pellorneum ruficeps*) long after we had moved on.

Then Lester located a Chestnut-backed Owlet on an exposed horizontal branch of a tree in a grove bordering the forest. This beautiful little owl, with finely marked plumage, gave excellent frontal and rear views and responded very quickly to Lester's playback. It kept calling for a long while thereafter.

Finally, a pair of Sri Lanka Coucals was located in bushes *c.*10 m across the water. We had good views of this shy endemic through binoculars. Its bill appeared ivory yellow and not apple green as depicted in field guide illustrations.

However, we had no luck with Sri Lanka Spurfowl, despite checking out a very promising site *c.*2 km uphill from the bridge. The birds approached very close and called frequently but kept out of sight. This species is widespread but is extremely difficult to see.

We returned to the rest house, crossing the river by dugout canoe. We saw several Alpine Swifts, Brown-backed Needletail-Swifts, Indian Swiftlets and a solitary Black Eagle overhead.

Day four (9.viii.2005)

After breakfast, we left for Nuwara Eliya by way of Hatton. Birded a forested valley near Hatton, seeing Chestnut-headed Bee-eater, Yellow-fronted Barbet, Indian Robin, a flock of Tawny-bellied Babblers, Ashy Prinia, Oriental White Eye, Lesser Golden-backed Woodpecker, Scarlet Minivet, Pied Bushchat, Indian Jungle Crow, Oriental Magpie-Robin, White-bellied Drongo and Spotted Dove. Sri Lanka Swallow and Indian Swiftlets hawked insects over the valley. Toque macaque and giant squirrel were also seen. Reached Nuwara Eliya at 12:30 hrs and after lunch at an Indian restaurant, checked into the charming St Andrews Hotel.

Birded the hotel grounds and soon added two montane endemics. Sri Lanka White-eye appeared to be common and we noted the darker upper parts and close up, the broken eye-ring. The beautifully marked Yellow-eared Bulbul was also common and we saw up to five birds. We also saw Grey-headed Canary Flycatcher, Spotted Munia, Grey Tit, Oriental Magpie-Robin, Sri Lanka Swallow, Common Myna, Indian Jungle Crow, Tickell's Flowerpecker and Common Myna.

After tea, we visited Victoria Park, well known to birders worldwide as the best wintering site for Pied Thrush and Kashmir Flycatcher. Lester showed us several regular spots for both species within the rather ragged-looking park and we took notes and made plans for a winter visit. We also saw Sri Lanka White-eye, White-breasted Kingfisher, White-breasted Waterhen and dusky striped squirrel in the park and a White-bellied Sea-Eagle being mobbed by a Indian Jungle Crow.

Returning to St Andrews, we birded the cloud forest trail above the hotel looking for Sri Lanka Spurfowl. We saw a pair of Yellow-eared Bulbuls and a female rhino-horned lizard but little else. Then we had a windfall. Lester was his usual amazing self and conjured up a fantastic male Sri Lanka Whistling-Thrush after a very brief tape playback. The bird initially appeared black and dumpy in profile when perched in hillside shrubbery but in good light we could see the brilliant blue powdering in the plumage and had prolonged views at very close range. A sharp single note was heard a few times. After this unexpected encounter with Sri Lanka's rarest and most elusive endemic, we cancelled plans for a 04:30 hrs departure for Horton Plains and the well known Arrenga pool site the next morning and instead opted to leave with a packed breakfast at 06.30 hrs.

Day five (10.viii.2005)

En route to Horton Plains National Park, we had three Hill Swallows and a pair of muntjac in a dairy farm pasture. We saw the scat of leopard on the winding mountain road. Of note was a splendid male Sri Lanka Junglefowl crossing the road ahead of our vehicle.

It was cold and windy in the national park and we had to wear warm clothing. We birded the road leading up to the 'Arrenga Pool'. Had brief views of a pair of Crimson-backed Woodpecker, Grey Tit, a solitary Sri Lanka Wood-Pigeon perched up in a tree, Sri Lanka White-eye, Yellow-eared Bulbul, Black-headed Babbler, Velvet-fronted Nuthatch and dusky striped squirrel.

Then Lester patiently teased out a single Sri Lanka Bush-Warbler skulking and creeping about in roadside vegetation and we had fine views. Soon thereafter, we had a Dusky-blue Flycatcher. A subtly coloured bird with a bright blue forehead, it sang sweetly in response to Lester's tape and gave excellent views at 5 m.

We stopped at all the roadside pools to look for otter but had no luck. The landscape changed to gently undulating moorland dotted with thick stunted forest patches here and there. The resemblance to the shola vegetation of the Nilgiris could not have been more striking.

This habitat produced Black-shouldered Kite, Pied Bush Chat, Zitting Cisticola, Paddyfield Pipit and Common Tailorbird. We also saw a distant group of four sambar and also a couple of very tame ones that came to take scraps.

We had nine Hill Swallows on a wire behind the restaurant adjoining the park office.

After a cup of refreshing tea at the restaurant, we returned to Nuwara Eliya, abandoning a visit to the Brown Wood Owl site at the Surrey Tea Estate in Welimada as it would have meant a delay of three hours. Shikra was seen en route.

Birds seen on the margins of the Nuwara Eliya Lake included Red-wattled Lapwing, Paddyfield Pipit, Little Grebe, Indian Shag and Indian Pond Heron.

Reached Kandy in time for lunch at a riverside restaurant. Had good views of Stork-billed Kingfisher, White-breasted Kingfisher, Black-crowned Night-Heron, Indian Pond Heron, Little Egret, Indian Shag, Brown-headed Barbet and Common

Tailorbird while waiting for lunch.

Checked into the Hilltop Hotel, which had a very aggressive resident troop of 20+ toque macaques. After a round of shopping, we drove to a point above town for a birds' eye-view of the lake and the ceremonial Perahera procession. We saw Alexandrine Parakeet and Greater Coucal here. Around 19:00 hrs we watched in utter amazement as an endless phalanx of Indian flying foxes started streaming out of roosting trees in the Royal Peradeniya Botanical Gardens and spreading out over Kandy and its surrounds. This fantastic spectacle lasted for almost one hour ten minutes, with no indication of a slow down and there must have been many thousands of animals.

Day six (11.viii.2005)

Visited the Temple of the Tooth in Kandy, after breakfast. Sri Lanka Small Barbet was very common. Also seen were Alexandrine Parakeet, Indian Robin and Oriental Magpie-Robin. Left for Sigiriya in the Dry Zone by way of Dambulla, visiting a spice garden at Ranweli en route.

Saw several species of waterbirds along the river on the outskirts of Kandy. Large, Intermediate and Little Egrets, Indian Pond Heron and Black-crowned Black-crowned Night-Heron, Red-wattled Lapwing, Asian Openbill-Stork, Indian Shag and White-breasted Waterhen in large numbers.

Reached the Teak Forest Lodge in Sigiriya by 13:00 hrs and relaxed in wooden cottages supported on stilts. The resort grounds had good scrub vegetation and quite a few trees.

Birds were numerous and very active even in the middle of the day and we saw two Paradise Flycatchers (rufous coloured), a White-browed Fantail-Flycatcher, three Small Minivets, two Black-headed Orioles, five White-browed Bulbuls (this species was bolder than in southern India, and frequently perched out in the open), four Common Ioras, a pair of Purple Sunbirds, three Jerdon's Chloropsis, four Franklin's Prinias, a Large Cuckooshrike, a Purple-rumped Sunbird, two White-bellied Drongo (race *insularis* with more white in the belly than the Wet Zone *leucopygialis*), Black-headed Babbler (this species occurs in both climatic zones and a wide variety of habitats in Sri Lanka) and Tickell's Flowerpecker.

A wetland close to the resort had a good selection of birds. We recorded 20 species in under an hour. Large, Cattle and Little Egrets, Purple, Grey, Indian Pond and Black-crowed Night-Herons, Wood Sandpiper, Little, Indian and Large Cormorants, Little Ringed Plover, Red-wattled lapwing, Black-winged Stilt, Purple Moorhen, Plain Prinia, Paddyfield Pipit, Common, White-breasted and Stork-billed Kingfishers, Brahminy Kite, Asian Palm-Swift and Crested Tree-Swift were seen.

After lunch and a bit of rest, we headed for the Sigiriya Rock Fortress at 15:30 hrs. A party of five Indian Peafowl was seen en route.

The ruins leading up the foot of the rock had White-browed Fantail-Flycatcher, Indian Robin, Black-headed Cuckooshrike, Small Bee-eater, Brown-headed Barbet, Sri Lanka Woodshrike, Jerdon's Bush-Lark, toque macaque and Sri Lanka grey langur.

Climbing the rock was a fantastic experience and getting to the top a signal achievement for all four of us, considering that we were in poor physical condition. The view from the top was well worth the arduous climb.

Large numbers of House Swift visible while ascending the rock and several nests located. Also encountered a troop of very aggressive toque macaques.

Before returning to our hotel, we spent around forty-five minutes birding the very promising scrub jungle in the Sigiriya Sanctuary, near the heritage site. White-rumped Shama, Jerdon's Nightjar and Drongo Cuckoo were seen but there was no sign of our target birds—Sri Lanka Grey Hornbill and Crimson-backed Woodpecker.

After dinner, we set off at 22:00 hrs to try for Brown Fish Owl in the wetland near Teak Forest Lodge. We walked across a dry part of the tank bed for about 700 m and then climbed up the tank bund. It was an extremely windy night and we heard golden jackals call from close. No sign of the fish owl but there was a thrilling moment when a fishing cat crossed the bund just ahead of us, giving fleeting views, courtesy Lester's spotlight.

The grounds also held slender loris, according to the owner Kamal, but despite persistent spotlighting, we could not see it. We heard Indian and Jerdon's Nightjars and Collared Scops-Owl.

Day seven (12.viii.2005)

A quick morning visit to the wetland produced 13 Darters and seven Oriental White Ibiswhile the garden had White-bellied Drongo and Jerdon's Chloropsis. After breakfast, we set off for the ancient Buddhist city of Polonnaruwa, crossing Minneriya National Park, famous for its seasonal elephant herds. A large tank in the national park held several Spot-billed Pelican, Grey Heron, Large Egret and Asian Openbill-Stork with a White-bellied Sea-Eagle and two Brahminy Kites flying low over the water. A painted-lipped lizard crossed the road in front of our vehicle and we had Indian Roller and Pompadour Green-Pigeon on roadside trees. On the outskirts of Polonnaruwa, we had three White-necked Storks.

After admiring the exhibits in the excellent museum, we drove alongside the vast Parakramabahu Samudra reservoir seeing Brahminy Kite, Little Grebe, all three species of cormorant and Asian Koel.

The next couple of hours were spent exploring parts of the ancient ruined city. Pompadour Green-Pigeon, Shikra, Small Minivet, Small Bee-eater, toque macaque and Sri Lanka grey langur were seen while 23 Spot-billed Pelicans, three Painted Storks, 50 Asian Openbill-Storks and 11 White-necked Storks wheeled overhead on developing thermals, as the mercury rose steadily. A small pool of water held Indian Pond Heron, Red-wattled Lapwing and Intermediate, Large and Little Egrets.

Soon it was too hot to walk barefoot and after a refreshing drink of coconut milk, we returned to Teak Forest Lodge.

In the evening, we visited the Dambulla Cave Temples to see the famed rock frescoes. Many House Swifts were at their nests and toque macaques ubiquitous. We then made a second trip to the Sigiriya Sanctuary to try for Blue-eared Kingfisher. We had excellent views of a pair of Brown-capped Babblers in the undergrowth and were able to see Sri Lanka Woodshrike up close. Also seen were White-rumped Shama,

Pompadour Green-Pigeon, Lesser Golden-backed Woodpecker, Sri Lanka Small Barbet, Brown-headed Barbet, Common Iora, Jerdon's Chloropsis, Common and White-breasted Kingfishers, Common Myna and kangaroo lizard. The resident pair of Peregrine (Shaheen) Falcons circled overhead, occasionally swooping and diving along the cliff face of the massive rock. We again searched for Brown Fish Owl at a few known sites along the moat outside the fortress, but with little success. We had good views of a low flying Crested Serpent Eagle.

Day eight (13.viii.2005)

We left 'Teak Forest' early with packed breakfasts. A perched Changeable-Hawk-Eagle was seen on the outskirts of Sigiriya. We arrived at the Elephant orphanage in Pinnewala at 10:00 hrs in time for the morning feeding session. It was a great experience seeing so many pachyderms close up and touching some of the calves. The extraordinarily hairy and rough surface of the elephant's skin was a revelation.

Alexandrine and Rose-ringed Parakeets, White-breasted Kingfisher, Common Myna, Black-headed Oriole, Lesser Golden-backed Woodpecker and Indian Roller were seen.

We then moved to the nearby river to wait for all 89 elephants to arrive for their morning bath. It was a great spectacle as the giants arrived and then splashed about in the water, with some crossing over to the far side for a mud bath.

Riverside birds included Common Sandpiper, Grey Heron, Little Cormorant, Little Egret and Asian Palm-Swift. Arrived in Colombo at 13:00 hrs and checked into the Taj Samudra, on the impressive Galle Face, after lunch at a restaurant in town. Several Spot-billed Pelicans were soaring overhead.

Day nine (14.viii.2005)

Drove around Colombo, after breakfast, seeing the sights and visiting the national museum. The roads were virtually empty in the aftermath of the assassination of Sri Lanka's foreign minister, Lakshman Kadirgamar, on the 13.viii.2005. We were extremely anxious and had even contemplated skipping Colombo and taking an early flight out of Negombo, but thankfully, our fears were unfounded and there were no visible signs of any problem, except for the odd security blockade in parts of the town.

Lake Beira was particularly tranquil with a little temple in the centre and many Spot-billed Pelicans, egrets and Pond Herons on the water. After a round of shopping for local handicrafts and clothing, we had an excellent meal at Shanmugha's restaurant. Arrived early at Katunayake only to find, to our utter dismay, that our flight was delayed indefinitely. We finally took off around midnight and reached Chennai by 02:00 hrs on 15.viii.2005.

References

Pittie, A. & Dickinson, E. C. 2006. The correct name of the Sri Lankan Woodpigeon and the citation for its original description. *Bulletin of the British Ornithologists' Club* 126 (3): 196-199.

Rasmussen, P. C. & Anderton, J. C. 2005. *Birds of South Asia. The Ripley guide.* Two vols. Washington, D.C. and Barcelona: Smithsonian Institution and Lynx Edicions.

Appendices

Trip list 1: Birds

(Taxonomy and nomenclature follow Manakadan & Pittie 2002, except where indicated with an asterisk, when Rasmussen & Anderton 2005 is followed.)

1. Little Grebe *Tachybaptus ruficollis*: Polonnaruwa.
2. Spot-billed Pelican *Pelecanus onocrotalus*: Minneriya / Polonnaruwa / Colombo.
3. Little Cormorant *Phalacrocorax nigricollis*: Kandy.
4. Indian Shag *P. fuscicollis*: Sigiriya.
5. Great Cormorant *P. carbo*: Polonnaruwa.
6. Darter *Anhinga melanogaster*: Sigiriya.
7. Little Egret *Egretta garzetta*: Sigiriya.
8. Grey Heron *Ardea cinerea*: Sigiriya.
9. Purple Heron *A. purpurea*: Sigiriya.
10. Large Egret *Casmerodius albus*: Polonnaruwa / Sigiriya.
11. Median Egret *Mesophoyx intermedius*: Polonnaruwa.
12. Cattle Egret *Bubulcus ibis*: Sigiriya.
13. Indian Pond-Heron *Ardeola grayii*: Kandy.
14. Black-crowned Night-Heron *Nycticorax nycticorax*: Kandy.
15. Painted Stork *Mycteria leucocephala*: Polonnaruwa.
16. Asian Openbill-Stork *Anastomus oscitans*: Kandy / Polonnaruwa.
17. White-necked Stork *Ciconia episcopus*: Minneriya / Polonnaruwa.
18. Oriental White Ibis *Threskiornis melanocephalus*: Sigiriya.
19. Black-shouldered Kite *Elanus caeruleus*: Horton Plains.
20. Brahminy Kite *Haliastur indus*: Polonnaruwa / Colombo.
21. White-bellied Sea-Eagle *Haliaetus leucogaster*: Nuwara Eliya / Minneriya.
22. Crested Serpent-Eagle *Spilornis cheela*: Sigiriya.
23. Crested Goshawk *Accipiter trivirgatus*: Sinharaja.
24. Shikra *A. badius*: Polonnaruwa.
25. Besra Sparrowhawk *A. virgatus.*
26. Black Eagle *Ictinaetus malayensis*: Sinharaja.
27. Rufous-bellied Eagle *Hieraaetus kienerii*: Sinharaja.
28. Changeable Hawk-Eagle *Spizaetus cirrhatus*: Sigiriya.
29. Peregrine (Shaheen) Falcon *Falco peregrinus peregrinator*: Sigiriya / Sinharaja.
30. Sri Lanka Spurfowl *Galloperdix bicalcarata*: Kitulgala / Sinharaja.
31. Indian Peafowl *Pavo cristatus*: Sigiriya.
32. Sri Lanka Junglefowl *Gallus lafayetii*: Sinharaja / Horton Plains.
33. White-breasted Waterhen *Amaurornis phoenicurus*: Victoria Park.
34. Purple Moorhen *Porphyrio porphyrio*: Sigiriya.
35. Little Ringed Plover *Charadrius dubius*: Sigiriya.
36. Red-wattled Lapwing *Vanellus indicus*: Nuwara Eliya.
37. Wood Sandpiper *Tringa glareola*: Sigiriya.
38. Common Sandpiper *Actitis hypoleucos*: Pinnewala.
39. Black-winged Stilt *Himantopus himantopus*: Sigiriya.
40. Sri Lanka Wood-Pigeon *Columba torringtoniae*[2]: Sinharaja / Horton Plains.
41. Spotted Dove *Streptopelia chinensis*: Countrywide.

[1] Pittie & Dickinson 2006.

42. Emerald Dove *Chalcophaps indica*: Sinharaja.
43. Pompadour Green-Pigeon *Treron pompadora*: Sinharaja / Sigiriya / Minneriya.
44. Green Imperial-Pigeon *Ducula aenea*: Sinharaja.
45. Sri Lanka Hanging-Parrot *Loriculus beryllinus*: Sinharaja.
46. Alexandrine Parakeet *Psittacula eupatria*: Kandy.
47. Rose-ringed Parakeet *P. krameri*: Negombo / Kandy.
48. Plum-headed Parakeet *P. cyanocephala.*
49. Layard's Parakeet *P. calthropae*: Sinharaja / Hatton.
50. Drongo Cuckoo *Surniculus lugubris*: Sigiriya.
51. Asian Koel *Eudynamys scolopacea*: Negombo / Colombo.
52. Red-faced Malkoha *Phaenicophaeus pyrrhocephalus*: Sinharaja.
53. Greater Coucal *Centropus sinensis*: Kandy.
54. Sri Lanka Coucal *C. chlororhynchus**: Kitulgala.
55. Collared Scops-Owl *Otus bakkamoena*: Sigiriya.
56. Chestnut-backed Owlet *Glaucidium castanonotum*: Kitulgala.
57. Sri Lanka Frogmouth *Batrachostomus moniliger*: Sinharaja.
58. Jerdon's Nightjar *Caprimulgus atripennis*: Sigiriya.
59. Common Indian Nightjar *C. asiaticus*: Sigiriya.
60. Indian Swiftlet *Aerodramus unicolor**: Sinharaja / Sigiriya.
61. Brown-backed Needletail-Swift *Hirundapus giganteus*: Kitulgala.
62. Asian Palm-Swift *Cypsiurus balasiensis*: Countrywide.
63. Alpine Swift *Tachymarptis melba*: Kitulgala.
64. House Swift *Apus affinis*: Sigiriya.
65. Crested Tree-Swift *Hemiprocne coronata*: Sigiriya.
66. Malabar Trogon *Harpactes fasciatus*: Sinharaja.
67. Small Blue Kingfisher *Alcedo atthis*: Sigiriya.
68. Stork-billed Kingfisher *Pelargopsis capensis**: Kandy / Kitulgala.
69. White-breasted Kingfisher *Halcyon smyrnensis*: Countrywide.
70. Small Bee-eater *Merops orientalis*: Sigiriya.
71. Chestnut-headed Bee-eater *M. leschenaulti*: Hatton.
72. Indian Roller *Coracias benghalensis*: Pinnewala.
73. Sri Lanka Grey Hornbill *Ocyceros gingalensis*: Sinharaja.
74. Brown-headed Barbet *Megalaima zeylanica*: Sigiriya / Kandy.
75. Yellow-fronted Barbet *M. flavifrons*: Sinharaja / Hatton.
76. Sri Lanka Small Barbet *M. rubricapillus**: Kandy.
77. Small Yellow-naped Woodpecker *Picus chlorolophus*: Sinharaja / Kitulgala.
78. Lesser Golden-backed Woodpecker *Dinopium benghalense*: Negombo / Kitulgala.
79. Crimson-backed Woodpecker *Chrysocolaptes stricklandi**: Horton Plains.
80. Jerdon's Bush-Lark *Mirafra affinis*: Sigiriya.
81. Hill Swallow *Hirundo domicola**: Nuwara Eliya / Horton Plains.
82. Sri Lanka Swallow *H. hyperythra**: Sinharaja.
83. Paddyfield Pipit *Anthus rufulus*: Nuwara Eliya / Horton Plains.
84. Large Cuckooshrike *Coracina macei*: Sigiriya.
85. Black-headed Cuckooshrike *C. melanoptera*: Sinharaja.
86. Small Minivet *Pericrocotus cinnamomeus*: Sigiriya.
87. Scarlet Minivet *P. flammeus*: Sinharaja.
88. Pied Flycatcher-Shrike *Hemipus picatus*: Kitulgala.
89. Sri Lanka Woodshrike *Tephrodornis affinis**: Sigiriya.
90. Black-crested Bulbul *Pycnonotus melanicterus*: Sinharaja.
91. Red-vented Bulbul *P. cafer*: Countrywide.
92. Yellow-eared Bulbul *P. penicillatus*: Nuwara Eliya.
93. White-browed Bulbul *P. luteolus*: Sigiriya.
94. Yellow-browed Bulbul *Iole indica*: Sinharaja.
95. Black Bulbul *Hypsipetes leucocephalus*: Sinharaja.
96. Common Iora *Aegithina tiphia*: Sinharaja / Sigiriya.
97. Jerdon's Chloropsis *Chloropsis jerdoni*: Sigiriya.
98. Gold-fronted Chloropsis *C. aurifrons*: Sinharaja.
99. Sri Lanka Whistling-Thrush *Myophonus blighi*: Nuwara Eliya.
100. Spot-winged Thrush *Zoothera spiloptera*: Sinharaja.
101. Oriental Magpie-Robin *Copsychus saularis*: Countrywide.
102. White-rumped Shama *C. malabaricus*: Sigiriya.
103. Indian Robin *Saxicoloides fulicata*: Sigiriya / Polonnaruwa.
104. Pied Bushchat *Saxicola caprata*: Horton Plains.
105. Ashy-headed Laughingthrush *Garrulax cinereifrons*: Sinharaja.
106. Brown-capped Babbler *Pellorneum fuscocapillum*: Kitulgala / Sigiriya.
107. Sri Lanka Scimitar Babbler *Pomatorhinus melanurus**: Sinharaja / Kitulgala.
108. Black-headed Babbler *Rhopocichla atriceps*: Sinharaja / Kitulgala / Sigiriya.
109. Sri Lanka Rufous Babbler *Turdoides rufescens*: Sinharaja / Kitulgala.
110. White-headed Babbler *T. affinis*: Negombo / Sigiriya.
111. Zitting Cisticola* *Cisticola juncidis*: Horton Plains.
112. Franklin's Prinia *Prinia hodgsonii*: Sigiriya.
113. Ashy Prinia *P. socialis*: Hatton.
114. Plain Prinia *P. inornata*: Sigiriya.
115. Sri Lanka Bush-Warbler *Elaphrornis palliseri**: Horton Plains.
116. Common Tailorbird *Orthotomus sutorius*: Negombo.
117. Dusky-blue Flycatcher *Eumyias sordidus*: Horton Plains.
118. Tickell's Blue-Flycatcher *Cyornis tickelliae*: Sinharaja.
119. Grey-headed Flycatcher *Culicicapa ceylonensis*: Nuwara Eliya.
120. Asian Paradise-Flycatcher *Terpsiphone paradisi*: Sigiriya.
121. Black-naped Monarch-Flycatcher *Hypothymis azurea*: Sinharaja.
122. White-browed Fantail-Flycatcher *Rhipidura aureola*: Sigiriya.
123. Great Tit *Parus major*: Nuwara Eliya.
124. Velvet-fronted Nuthatch *Sitta frontalis*: Sinharaja.
125. Legge's Flowerpecker *Dicaeum vincens*: Sinharaja.
126. Tickell's Flowerpecker *D. erythrorhynchos*: Sinharaja / Sigiriya.
127. Purple-rumped Sunbird *Leptocoma zeylonica**: Sigiriya / Negombo.
128. Purple Sunbird *Cinnyris asiatica**: Sigiriya.
129. Loten's Sunbird *C. lotenia**: Negombo.
130. Sri Lanka White-eye *Zosterops ceylonensis*: Nuwara Eliya / Horton Plains.

131. Oriental White-eye *Z. palpebrosus*: Hatton.
132. White-rumped Munia *Lonchura striata*: Sinharaja.
133. Black-throated Munia *L. kelaarti*: Sinharaja.
134. Spotted Munia *L. punctulata*: Nuwara Eliya.
135. House Sparrow *Passer domesticus*: Negombo.
136. Sri Lanka Starling *Sturnus albofrontatus*: Sinharaja.
137. Common Myna *Acridotheres tristis*: Countrywide.
138. Sri Lanka Myna *Gracula ptilogenys*: Sinharaja.
139. Southern Hill-Myna *G. indica*: Kitulgala.
140. Black-headed Oriole *Oriolus xanthornus*: Sigiriya.
141. White-bellied Drongo *Dicrurus leucophaeus*: Countrywide.
142. Sri Lanka Crested Drongo *D. lophorhinus**: Sinharaja.
143. Ashy Woodswallow *Artamus fuscus*: Countrywide.
144. Sri Lanka Blue Magpie *Urocissa ornata*: Sinharaja.
145. House Crow *Corvus splendens*: Negombo.
146. Indian Jungle Crow *C. culminatus**: Negombo.

Trip list 2: Butterflies (from Sinharaja)

1. Plum judy *Abisara echerius*.
2. Common albatross *Appias albina*.
3. Angled pierrot *Caleta decidia*.
4. Common tiger *Danaus genutia*.
5. Common crow *Euploea core*.
6. Great crow *E. phaenareta*.
7. Three spot grass yellow *Eurema blanda*.
8. Tailed jay *Graphium agamemnon*.
9. Common bluebottle *G. sarpedon*.
10. Ceylon tree nymph *Idea iasonia*.
11. Common cerulean *Jamides celeno*.
12. Chocolate soldier *Junonia iphita*.
13. Blue oakleaf *Kallima philarchus*.
14. Commander *Moduza procris*.
15. Common bushbrown *Mycalesis perseus*.
16. Common sailor *Neptis hylas*.
17. Gladeye bushbrown *Nissanga patnia*.
18. Common rose *Pachliopta aristolochiae*.
19. Crimson rose *Pachliopta hector*.
20. Red helen *Papilio helenus*.
21. Blue mormon *Papilio polymnestor*.
22. Clipper *Parthenos sylvia*.
23. Red pierrot *Talicada nyseus*.
24. Tawny coster *Telchinia violae*.
25. White four-ring *Ypthima ceylonica*.

Trip list 3: Reptiles

1. Green vine snake *Ahaetulla nasuta*: Sinharaja.
2. Green garden lizard *Calotes calotes*: Sinharaja.
3. Painted-lip lizard *Calotes ceylonensis*: Minneriya National Park. Endemic.
4. Common garden lizard *Calotes versicolor*: Sigiriya.
5. Rhino-horned lizard *Ceratophora stoddartii*: Nuwara Eliya. Endemic.
6. Oliver's bronzeback *Dendrelaphis oliveri*: Sinharaja. Endemic.
7. Corrugated water frog *Limnonectes corrugatus*: Sinharaja.
8. Kangaroo lizard *Octocryptis wiegmanni*: Sinharaja. Endemic.
9. Land monitor *Varanus bengalensis*: Sigiriya.
10. Water monitor *Varanus salvator*: Sinharaja.

Trip list 4: Mammals

1. Sri Lanka grey langur *Semnopithecus priam*: Sigiriya. Endemic.
2. Purple-faced leaf monkey *Trachypithecus vetulus*: Sinharaja. Endemic.
3. Toque macaque *Macaca sinica*: Sigiriya. Endemic.
4. Sambar *Cervus unicolor*: Horton Plains.
5. Muntjac *Muntiacus muntjak*: Horton Plains.
6. Ruddy mongoose *Herpestes smithii*: Sinharaja.
7. Fishing cat *Felis viverrina*: Sigiriya.
8. Golden jackal *Canis aureus*: Sigiriya.
9. Indian flying fox *Pteropus giganteus*: Kandy.
10. Ceylon giant squirrel *Ratufa macroura*: Sinharaja / Dry Zone.
11. Dusky striped squirrel *Funambulus sublineatus*: Horton Plains.
12. Layard's squirrel *Funambulus layardi*: Sinharaja.
13. Three-striped palm squirrel *Funambulus palmarum*: Negombo.
14. Indian pipistrelle *Pipistrellus cormandra*: Sigiriya.
15. Leopard *Panthera pardus*: Horton Plains: Scat on road.

Sewree birds

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Ali, B. 2006. Sewree birds. *Indian Birds* 2 (6): 166–168.
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As the rains recede and the onslaught of October's heat begins in Mumbai (Maharashtra, India), an amazing change over occurs at Sewree.

Another, buzzing, metropolis starts taking shape. The vast emptiness of algae–covered slush beach starts getting dotted with winged visitors. Flamingos and waders invade the busy metro of Mumbai.

Known initially to a small coterie of birdwatchers and now to an ever-growing number of non-birders, Sewree has gained popularity as a 'flamingo destination'. The Bombay Natural History Society has conducted here a few popular "flamingo watch" camps for the citizens of the city for the past couple of years—a visual treat even to the uninitiated. The label of "Flamingo Bay" though, does no justice to this immensely diverse metro of birds.

Sewree is a cove of marshland protected from the direct lashing of the Arabian Sea. It is partly covered by mangrove and a large expanse of open marsh leading into the sea. The viewing gallery for this splendid gathering of waders is the pier, used by small fisher folk and boats needing repair, also areas near the Colgate factory. Its approach is a turn off the Port Trust road, which comes from Wadala IMAX and goes past the eastern side of Sewree station towards south Mumbai.

The cove receives a lot of effluent from the various factories that surround it. Probably a contributing factor to the algal growth required by the Lesser Flamingoes.

There are mussel collectors at low tide, skiers of the marshes, pushing their marsh boards, searching for their prized commodity.

I have been a regular visitor to Sewree, gazing at the vast marsh in sublime respect and enthusiasm. Over the years there have been fluctuations in the number of species and individuals.

This is a feeding ground for masses of migrants. Some stay, while others use it as a staging ground. Waves of passage migrants coming or leaving on the way to their wintering or breeding areas.

Each species is a character playing its part in the cycle of life on the mudflats.

Lesser Flamingoes *Phoenicopterus minor*, dressed in pink, can at times give the cove a pinkish appearance, balanced on dainty long legs, necks stretched out, beaks filtering the shallow waters for food. Once we watched the bunched group of flamingoes in a tight circle, heads held high, beaks pointed towards the sky, legs tip-toeing to an unheard flamingo beat, in breeding display. On another occasion we were privy to some tender moments, watching a sub-adult who seemed to have his beak locked with an adult's and wouldn't let go; we figured the younger bird was being fed. A number of questions about flamingo behavior arose in our minds. [This is not a question but a statement.]

A few Greater Flamingoes *P. ruber* can be seen taller and whiter than the Lesser, filtering out their preferred food of crustaceans.

Black-tailed Godwits *Limosa limosa*: large birds with long legs and long bill. Clumsy as they move along probing for food in the mangroves or along the waterfront of the receding, oncoming tide or the little rivulets carrying the oozing water back to the sea. Their head and neck jerking like a pneumatic drill as they pull out food from the depths of the squelch. Their formations in the air a treat to watch, striking wing patterns, black tail, and legs in tow extended beyond the tail. Jet planes in formation, zipping across the expanse.

Sand plovers *Charadrius* sp., represented by Lesser *C. mongolus* and Greater *C. leschenaultii*. The stance of a wrestler, head extended wings akimbo, body held parallel to the ground poised to charge their prey; their daintier relatives, the Little Ringed Plovers *C. dubius* will stir the ground with a little shake of the leg and tempt their victim's curiosity.

Little Ringed and Kentish Plover *C. alexandrinus* seem to be passage migrants here, using these grounds as halts on their journeys. The Little Ringed are smartly dressed in their black aprons, white forehead and black hair band. Kentish have white neck collars and a snow-white underbelly, looking like small snowy fluff balls.

Curlew Sandpipers *Calidris ferruginea* and Broad-billed Sandpipers *Limicola falcinellus*, with their down-curved bills, are busily digging on their left and right. With the coming of March, as they ready to take off to their breeding grounds, Curlew Sandpipers blush to a deep brick red, while Broad-billed acquire a crown of stripes.

Terek Sandpipers *Xenus cinereus*, with beaks that are funnily up-curved, pink if the muck allows a glimpse, have yellow legs seemingly uncomfortably placed in the hind part of the body giving their gait a funny waddle.

Curlews *Numenius arquata* and Whimbrels *N. phaeopus*, closely related species, find this squelchy feeding ground paradise. Large birds with long down curved unwieldy beaks that are coordinated dexterously to pull out juicy worms, polycheates and other arthropods from the depths of the marsh.

Little Stints *Calidris minuta*, perhaps the most numerous of all the waders here and smaller than most, are hunched close to the ground picking away at food at a rapid pace.

Redshanks *Tringa totanus* are usually in good numbers; daddy long legs in bright red, go about their business in a jumpy flirty way. Straight dainty beaks on a well proportioned body.

Greenshanks *T. nebulria*, with green legs and stout dagger like beaks, are slightly bigger than the redshanks. Once I witnessed their unique feeding behavior. Three to four birds lined up near the water line, with heads held low and beaks parallel to the ground, and then they ran a short distance with beaks skimming the surface for food. One of the birds got its beak caught in the muck and tripped head over heels, tumbling a couple of times before recovering.

Grey Plovers *Pluvialis squatarola* and Golden Plovers *P. fulva*, larger denizens of the plover family, are seen in moderate numbers. They are Identified by their black armpits while Golden look more like bright-eyed chickens of nervous temperament.

Avocets *Recurvirostra avosetta* too come here attractively dressed in black and white, dainty up curved beaks scan left and right, skimming the surface to pick off food.

Pintails *Anas acuta* float on the shallow calm waters feeding at will.

Herons and egrets too find this place attractive, a number of species abound each with their unique wait-and-stab feeding method. The more visible Large *Casmerodius albus*, Intermediate *Mesophoyx intermedia*, Little *Egretta grazetta*, and Reef Herons *E. gularis* sometimes can be caught a mixed feeding community. There are also numerous Green Herons *Butorides striatus* slinking from pool to pool, in their quest for food. Grey Herons *Ardea cinerea* and Purple Herons *A. purpurea* are regular fixtures with their wait-and-watch technique, or seen lazily flying with heavy wing beats. There are many Pond Herons adding to the heron family's numbers.

Then there are the aerial acrobats like the gulls and terns.

The gulls found here are usually Brown- *Larus brunnicephalus* and Black-headed *L. ridibundus*, told apart by the white markings on the 'hands' of the former. They become easier to tell apart as they adorn breeding plumages. The adult black headed in breeding plumage has a very uniform dark brown hood compared to a lighter uneven brownish hood of the brown headed.

Terns are numerous. The small Whiskered Tern *Childonias hybridus* is dainty in flight and fishing habits. Gull-billed Terns *Gelochelidon nilotica* arrive in large numbers. They sometimes have a few Lesser Crested Terns (Sterna bengalensis) with them. Then there is the beautiful Caspian Tern *Sterna caspia* with its dagger like stout red bill, perceptibly larger than the rest.

There are always the aerobatic kites looking for that dropped morsel. Handsome Brahminy Kites *Haliastur Indus* in their rufous attire and white aprons do regular rounds.

Ospreys *Pandion haliaetus*, with amazing fishing ability and powerful flight are constant companions. Picking up fish at will from the shallow waters and then sitting on a distant outpost, devouring it in peace.

Lurking on the transmission towers, Peregrine Falcons *Falco peregrinus* bide their time before swooping down on some unfortunate victim. The grace and speed compel you to follow their flight whatever your sensibilities.

As winter fades into summer and temperatures rise, it's time for these migrants to leave for their breeding grounds. Another change is in the offing as all ready themselves for the journey.

There is a sudden urgency in flight. Large groups take to the air zigzagging around the mudflats in a united frenzy. Individuals are seen stretching their wings and performing sudden leaps in the air. Mock battles ensue for territory. Costumes undergo change.

Lesser Sand Plovers smarten up in a red wash on their breast bordered by a black band. The godwits also turn up in a splash of red. The gulls and terns too undergo changes to their plumages.

So one is witness to breeding plumages and their intermediary stages.

Then slowly as March warmth raises into April heat these colonizers start departing.

Another season seems to be ending leaving behind stragglers, residents and the flamingoes that stay on till the monsoon.

As of now there is a veil of uncertainty hanging over the existence of Sewree bay. The state government has planned a sea link between Sewree and Uran, which is to start where the jetty and marsh are today. How will it affect the bay life? Will the flamingoes still come here? Will the passage migrants get affected? Will the cycle of life on the bay continue unaltered? Questions abound.

P.S: The flamingoes have been late this year (2006) and are still to arrive in numbers though a few have been sighted. This could be due to late breeding in Kachchh, though we have no confirmation on their breeding status this year.

The Sarus Crane *Grus antigone* is on its way out

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Khacher, L. 2006. The Sarus Crane *Grus antigone* is on its way out. *Indian Birds* 2 (6): 168–169.
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In the first International Crane Workshop at Bharatpur, I had been the odd man out, demanding that the Sarus Crane *Grus antigone* should be accorded top priority, where conservation action would be initiated. At that time, everyone else was top beat since there had been the largest ever concentration of nesting pairs in the Keoladeo Ghana National Park (Rajasthan, India). To me this was something not to be exulting about; rather the red lights were blinking to warn of problems ahead. Such large birds as Sarus just cannot nest successfully in close communities since there would be tensions between the adults for space and between the young birds for food to sustain the physical growth needed to reach a height of near six feet within a matter of three months. This concentration would not have mattered had the pairs been nesting successfully and uniformly throughout Sarus country, as they were wont in the mid-1900s. This was unfortunately not happening and the large concentration in the protected wetland was due to the high degree of disturbance outside. Road-side ditches, which until the 1950s invariably had pairs nesting, were being encroached by cultivation, and pairs that traditionally enjoyed total protection in agriculture were denied that secure niche. A farmer-crane interaction with negative overtones had started and the cranes were retreating. I suspect more and more pairs were raising either one chick or none at all. That they continued to be visible and confiding through the second half of the last century was entirely because Sarus are long lived and no one molested the adult birds—so most birdwatchers were lulled into a false sense of security. However, nesting pairs were interfered with and each year fewer and fewer young birds were being added to the crane population. Few can honestly say they were prepared for the sudden crash. I am not sure there is sufficient concern even today. We have here a repeat of what happened to the vultures.

In Gujarat, there are several areas where, during rains, the highest numbers of nesting pairs have been identified. We are lucky to have keen scientists and amateurs pursuing the fate of the magnificent birds. Unhappily and to the best of my knowledge, apart from much-publicized censuses, the managers of our wildlife do not have any blueprint for future action. What is very urgently needed is to have a very concerted drive to ensure that as many of the nesting pairs as possible are fully protected. Native farmers, on whose lands the pairs nest, should be associated with the entire exercise and, if need be, some form of compensation should be paid for potential and real damage to crops and in appreciation for extending hospitality to the nesting pairs. The large band of enthusiastic amateur birdwatchers in the state too should be

marshaled to assist the authorities in locating nesting pairs not only in the two key districts of Ahmedabad and Kheda, but in isolated locations across the state. Here is a wild creature that would lend itself to full publicity. In addition to this highly publicized program, we must now take a leaf from the International Crane Foundation (ICF) USA, and start a captive rearing program. It has been shown that by removing one egg from a nest, the parents are not disturbed and continue to incubate the remaining egg. If the egg is removed at the onset, a third egg may be laid! By removing one egg, the chances of both hatchlings successfully reaching adulthood is increased. Crane siblings are extremely competitive and as often as not, the younger chick does not survive unless the wetland is large enough and each parent can lead one offspring to forage at a distance from the other.

The immediate official response to any suggestion of starting a captive rearing program would be negative! The Sarus is a Schedule-I species and so it cannot be interfered with in the wild. Taking eggs from wild nesting pairs would be flouting conservation laws regardless that such birds are unsuccessful in hatching their eggs, or if they do, are unable to raise even one chick. I can understand the objection, lest any free for all take place. As I visualize it, government gives statutory recognition to a group undertaking the responsibility to start rearing cranes in captivity. The wildlife department would be represented on the board and there would be continual monitoring of the work in progress. The model provided by the ICF should be followed and, one of their representatives should be co-opted on the board of management. Their experience and expertise would be essential to any programme initiated in India. The entire programme must be in full public view and as many concerned birdwatchers as possible should be integrated into it.

Unlike the Whooping Crane *Grus americana*, which the ICF helped save from the very brink of extinction, the Sarus is a resident species with local movements dictated by the availability of water. The American bird is a long distance migrant, which must have resulted in considerable problems, particularly in getting the captive reared birds to integrate with the wild population. For us, this would not be a problem at all. Each year in summer when the water bodies are at their lowest, Sarus collect in the perennial wetlands where young birds start pairing. Captive reared youngsters would be introduced to these natural gatherings. Conceivably, individuals from the captive reared group would partner wild youngsters and the newly formed pair may find a wetland of their choice, even taking up residence in water bodies forming part of landscaping in many of the new housing societies coming up. What ever they do, our main concern should be to see that as many young birds are added to the population as possible.

Even as the highly scientific programme is initiated to raise as many young as possible, a parallel effort has to be initiated where the pairs nesting in traditional locations are given public protection, and imaginative awareness programmes need to be developed involving the communities concerned, the neighborhood schools, etc., and provide intensive media coverage. Sarus have survived into the present century because they enjoyed high sentiment and it is this sentiment, which needs to be kept alive, avoiding dependence only on wildlife legislation. It may also be seriously considered to artificially feed each pair so that the juveniles grow strong. If the feeding is done be the children of the community, all the better. Wetlands, where summer congregations occur, should be highlighted and grain and other nitrogenous feeds should be provided. Many of the farm houses coming up are landscaped with water as a central feature. Such properties should be registered and pairs of Sarus given them. Soon we would have a semi-feral population strengthening the beleaguered wild one.

If we cannot stem the decline of Sarus Cranes in Gujarat, Rajasthan and Uttar Pradesh, I fail to see how we can ever succeed in saving so many other species on the brink of extinction.

First sighting of Black Stork *Ciconia nigra* and Ashy Minivet *Pericrocotus divaricatus* from Meghalaya, north-east India

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Lahkar, B. P., Ahmed, M. F., Praveen J., Singha, H. J. 2006. First sighting of Black Stork *Ciconia nigra* and Ashy Minivet *Pericrocotus divaricatus* from Meghalaya, north-east India. *Indian Birds* 2 (6): 169–170.

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The Nokrek National Park (25°20'–25°29'N 90°13'–90°35'E) is located in Garo Hills (Meghalaya, India), spread over parts of three districts, namely, West Garo Hills, East Garo Hills and South Garo Hills. Nokrek was declared as a national park in 1997, covering an area of 47.48 km^2. The park area acts as the core area of Nokrek Biosphere Reserve (total area: 820 km^2). The national park area has been acquired by outright purchase of land from local communities by the Government of Meghalaya.

A bird survey of this little known protected area was carried out from October 2001 to May 2002 as a part of the Important Bird Areas (IBA) program of the Bombay Natural History Society (BNHS) (Lahkar et al. 2002). This is a note reporting the sightings of two rare species in north-east India that were seen during this survey.

Black Stork *Ciconia nigra*

On 7.i.2002 at 16:30 hrs, we (B.P.L. & P.J.) saw a lone stork in flight at Jatragre (25°25´N 90°27´E, *c*.412 m a.s.l.) near Chokpot, in the southern range of Nokrek National Park. The bird had white under parts, black neck and under wing with distinct red bill and legs, which left no doubt that it, was an adult of this species. This was the first sighting of Black Stork from the state of Meghalaya (Choudhury 1998; Ali & Ripley 1987).

According to forest personnel and local people, there was no wetland close by. Perhaps, the rivers that flow out of the hills get wide and shallow in the plains, becoming a suitable feeding site for a large water bird like this stork. The bird might be foraging in such areas and was looking out for its roost. It could also well be that an individual strayed from the neighbouring lowlands of Bangladesh (Kazmierczak 2000) or perhaps it was en route to the lowlands of Assam's plains.

Ashy Minivet *Pericrocotus divaricatus*

On 28.x.2001 at 08:10 hrs, we (H.J.S., B.P.L. & M.F.A.) saw a single female minivet in the northern range of Nokrek National Park near Daribok (25°29´N 90º19´E). It was in a mixed flock of White-spectacled Flycatcher-Warbler *Seicercus affinis*, Grey-headed Flycatcher *Culicicapa ceylonensis*, Streaked Spiderhunter *Arachnothera magna*, Rufous-bellied Bulbul *Hypsipetes mcclellandii*, Black-faced Flycatcher-Warbler *Abroscopus schisticeps* and Brown-eared Bulbul *Hemixos flavala*.

On 5.i.2002, we (BPL & PJ) saw another female minivet at 16:20 hrs, in a forest patch along the Dareng River (25°26´N 90º26´E), in the southern range of Nokrek. The bird actively foraged in a mixed flock of Black-crested Bulbul *Pycnonotus melanicterus* and Brown-eared Bulbul.

Ashy Minivet can be readily separated from other minivets by its grey-toned coloration (with no red or yellow). The white forehead and under parts, grey back and black tail with white outer rectrices were clearly noted during both the sightings. The Ashy Minivet can be confused with a female Rosy Minivet *P. roseus*, which is found in the region and is considered more common than the former. However, during our observations we neither saw any pale yellow under parts nor the dull olive-yellow rump present in the female Rosy Minivet. Perhaps the only other minivet that needs to be taken into account is the female of Swinhoe's Minivet *P. cantonensis* (formerly conspecific with *P. roseus*). However, the lack of yellow in the wing was clearly noted on both the occasions, confirming our identification.

The status of Ashy Minivet in India is little known—it is perhaps one of the most erratic winter visitors, appearing in small numbers all over the country. This additional record extends the distribution to the Garo Hills of Meghalaya.

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Sightings of Ferruginous Duck *Aythya nyroca* from Vadakara, north Kerala

Praveen J., Sathyan Meppayur & Job K. Joseph

Praveen, J., Meppayur, S. & Joseph, J.K. 2006. Sightings of Ferruginous Duck *Aythya nyroca* from Vadakara, north Kerala, India. *Indian Birds* 2 (6): 170–171.

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On 4.x.1999, we were watching shorebirds on the sandbanks of Vadakara (11°60'N 75°58'E) when one of us spotted a duck amidst a flock of waders. Its overall colouration was dark and blackish. A closer look showed that the head, nape, back and wings were dark chocolate brown. There was a hint of buff-brown patch visible on the face at certain angles which stood out on otherwise dark features. At rest, the under tail coverts were a clear white patch. The bird was very wary, taking wing at the slightest disturbance and settling at a distance. In flight, the trailing-edge of the upper wing was dark brown with a prominent broad white wing-bar extended from the tip to the base of the wing. Under wing and belly was whitish. Later a few fishermen flushed it and to our surprise the duck flew directly to the sea. The size and colour were characteristic of a pochard (*Aythya* spp.) and we tentatively concluded in the field that it could be a Ferruginous Duck *Aythya nyroca*.

One of us (SM) got to see the same species (always single) on two occasions in subsequent years—on 10.x.2000 flying across the estuary towards the sea and on 30.xi.2002 resting on the banks and taking wing at the slightest disturbance and flying directly to the sea—hence the bird got nick-named, "The Sea Duck".

The identification of this elusive "sea duck" remained inconclusive for a long time. It was only after referring to the recent, well-illustrated field guides (Grimmett et al. 1999,

Kazmierczak 2000, Mullarney et al. 2001), and having gained more field experience with *Aythya* species that we could confirm the identification as *Aythya nyroca*. The key field marks, which helped in identifying the species, were the broad white wing-bar on the upper wing and pure white under tail coverts and white belly, which eliminated all other similar species. The characteristic "white-eye" of the adult male was absent indicating the bird was a female or an immature bird.

Though included in *Birds of Kerala* (Ali 1969), there has been no recent report of this species from the state (C. Sashikumar, verbally, iv.2005). However, Ali & Ripley (2001) state, corroborating our sighting, "In coastal areas, and in the Kerala backwaters, often spends the daytime riding on the sea beyond the surf, safe from disturbance by passing boats, flighting inland at dusk to feed in outlying tanks and paddy fields and returning to the diurnal refuge at dawn".

Globally, there has been a decline in its population and it has been classified as a Near-threatened species (Kazmierczak 2000). It is perhaps one of the rarest wintering ducks in southern India.

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White-bellied Sea-Eagle *Haliaeetus leucogaster* preying on salt-water crocodile *Crocodylus porosus* hatchling

Gopi G. V. & Bivash Pandav

Gopi G. V. & Pandav, B. 2006. White-bellied Sea-Eagle *Haliaeetus leucogaster* preying on salt-water crocodile *Crocodylus porosus*. *Indian Birds* 2 (6): 171.

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White-bellied Sea-Eagle *Haliaeetus leucogaster* affects seacoast, tidal creeks and estuaries and is seen occasionally inland along tidal rivers and at fresh water lakes (Ali & Ripley 1978). Bhitarkanika mangrove ecosystem along the eastern coast of India harbours mangrove forests, rivers, creeks, estuaries, sand bars and mud flats hosting a small resident population of 10–15 White-bellied Sea-Eagles. On 29.xii.2005, we were rowing back on Bhitarkanika River, after nest monitoring of a nearby Painted Stork *Mycteria leucocephala* colony near Gunakar *ghat* in the Bhitarkanika forest block. When we reached closer to Balijore Creek around noon, we spotted an adult White-bellied Sea-Eagle perching atop a tall *Sonneratia apetala* tree on the riverbank. The tide was receding at that time exposing both the sides of the mud-bank to sunlight—an ideal time to watch many crocodiles basking. Then, the White-bellied Sea-Eagle started hovering along the course of the river for about 30 seconds and all of a sudden, it dashed towards the exposed mud bank and picked up something in its talons. When it flew towards us, we saw a live crocodile hatchling in the powerful talons of the eagle.

White-bellied Sea-Eagles predominantly feed on sea snakes (Hydrophirinae), and to large extent fishes, some of which are of considerable size. It has also been reported to take crabs, rats and dead fish cast overboard from fishing boats. There have been occasional reports of it lifting domestic duck and piglets (Ali & Ripley 1978; Dharmakumarsinjhi & Khacher 1956). del Hoyo et al. (1994) also report rabbits, fruit bats, seagulls (Laridae), cormorants (Phalacrocoracidae) and gannets (Sulidae) in its diet. Murthy & Rao (1989) observed White-bellied Sea-Eagles feeding on dog-faced water snake *Cerberus rhynchops* and a large-sized wart snake *Achrochordus granulatus*. However, there have been no previous reports of White-bellied Sea-Eagle preying on a salt-water crocodile hatchling and this is probably the first observation of this kind.

Acknowledgements

This observation was made during our fieldwork for Bhitarkanika heronry project. We thank Orissa Forest Department for logistic support and necessary permissions. We thank Mr Bijoy and Mr Khirodh for their services during fieldwork.

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Himalayan Griffon *Gyps himalayensis* feeding on chir pine *Pinus roxburghii* needles

Vidyadhar M. Atkore & Sabyasachi Dasgupta

Atkore, V. M. & Dasgupta, S. 2006. Himalayan Griffon *Gyps himalayensis* feeding on chir pine *Pinus roxburghii* needles. *Indian Birds* 2 (6): 172.

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As part of a wildlife assessment program in the western Himalaya, we undertook a status survey of birds along the Bhagirathi River valley in Uttaranchal during October–November 2005. On 28.xi.2005, we saw a Himalayan Griffon *Gyps himalayensis* feeding on needles of chir pine *Pinus roxburghii* at about 08:55 hrs, along one of our monitoring trails between Dhauldhar and Badni villages, the former being situated around 15 km from Deoprayag town. The altitude of the trail ranged between 1038–1088 m. The vegetation was mainly chir pine mixed with scrub, with species like *Cordia myxa*, *Lantana camara*, and *Carrisa* sp. On that particular morning, we saw a vulture perched on top of a chir pine at about 10–12 m from us on the trek. As the day was clear with no mist in the air and the morning sun was behind us, we had a clear view of the vulture. The bird was quite large with a greyish head and cream-coloured ruff; its bill was noticeably yellowish and there were striking whitish streaks on the under parts. We confirmed the identity of the vulture as a Himalayan Griffon from Grimmett et al. (1998). Even as the bird was basking, it plucked a few chir pine needles and started feeding on the more tender needles. This lasted for about five minutes. Since vultures are known to feed mainly on carrion, we wonder if this unusual behavior of feeding on vegetative matter helps the bird in procuring nutrient supplement and / or roughage to aid in digestion, as practised by mammalian carnivores.

Acknowledgements

We thank H.N.B. Garhwal University, Srinagar, Uttaranchal for financial support. We sincerely thank Rajah Jayapal, Rashid Raza and Priya Balasubramaniam for their valuable guidance and comments.

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Grey-headed Lapwings *Vanellus cinereus* extend range into coastal Tamil Nadu, India

V. Santharam, Rauf Ali & Paco Prieto

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In recent years, sightings of Grey-headed lapwing *Vanellus cinereus*, have become frequent in coastal Tamil Nadu. We summarise all the recent sightings below:

Pallikaranai (South-east of Chennai)

In early 2003, *c*17 birds were observed here (A. Rajaram, verbally).

11.xii.2003: Four birds in mixed group with other waders (Ramachandran 2004).

26.xii.2003: 30+ birds seen (Ramachandran 2004).

26.i.2004: 28 birds seen. (V. Santharam, pers. obs.)

In January 2004, 35–40 birds were seen on three occasions (K. V. Sudhakar & K. Sathasivam, verbally).

19.xii.2004: 80 birds seen (Rajaram 2005).

24.i.2005: 80 birds seen (V. Santharam, pers. obs.).

Pallikaranai is a marshy area with open grassy patches and reed beds. The birds were seen in open grassy meadows.

The earliest sightings in the vicinity of Chennai date back to 1987 at Adyar Estuary (Santharam 2003b). Twelve birds were seen around Machlipatnam, Krishna district, Andhra Pradesh in February 2001 and a few more birds were sighted on later dates up to April 2001. (Conroy 2003).

Kaliveli

Sundar (2000) reported a single bird from Kaliveli in January 1997. The species was filmed here in 2003 during the preparation of a documentary film on Kaliveli by FERAL (V. Srinivas, verbally).

Point Calimere

On a recent visit to Point Calimere on 11.i.2004, RA and PP, along with Shantikar Reddy and Aurosylle Bystrom, saw a flock of around 20 birds at Ramya Lake. These birds were with *c*40 Red-wattled Lapwing *Vanellus indicus* and a few Greenshank *Tringa nebularia*, and contained males, females and juveniles. The list maintained here by the forest department does not mention this lapwing. This is probably the most southern record for this species.

Discussion

The Grey-headed Lapwing is a conspicuous and easily identified species, and it would be interesting to plot any further increases of its range over time.

Two of the wetlands in this note are threatened. Pallikaranai was an extensive wetland about 50 km^2 or more once, but is now greatly fragmented and disturbed. It forms part of an extensive network of over 90 wetlands whose runoff it drained. The typical habitat consists of *Typha* reeds, often over 3 m in height, open grassy patches and pools of water. Over a hundred species of birds have been recorded here since 1978 (Santharam 2003a). However in recent years reckless and thoughtless "development" of the area for building housing colonies, industrial and educational institutions, railway yard and garbage dump have caused irreparable damage to the ecosystem. Not only has the city lost a valuable wildlife habitat, but also a reliable source for recharging ground water.

Kalivelli tank and Yedayanthittu estuary are part of the Kalivelli wetlands, which are situated about 20 km to the north of Pondicherry along the East Coast. The wetland swamps cover an area of about 70 km^2. This tank forms an important wintering site for birds among the migratory habitats along the East Coast, and is part of the flyway leading to Point Calimere and Sri Lanka. During winter (October–March), 71 species of water birds have been recorded here, the total number exceeding 60,000 birds. These include threatened species such as the Spot-billed Pelican *Pelecanus philippinus*, and large populations of the Greater Flamingo *Phoenicopterus ruber*. It fits many of the criteria required to become a Ramsar site.

There are strong commercial interests opposing its declaration as a sanctuary. Salt mining and shrimp farming interests have encroached on the wetland. Industrial concerns wish to acquire the land to establish salt production units, and a thermal power plant has apparently also been suggested.

Salim Ali proposed Kalivelli as a bird sanctuary in 1983. No action has been taken on this proposal; district officials who act against the shrimp farmers and attempt to have it declared a sanctuary get transferred.

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An instance of the Asian Koel *Eudynamys scolopacea* destroying the nest of a Black-headed Oriole *Oriolus xanthornus*

Vinaya Kumar Sethi, Vivek Saxena and Dinesh Bhatt

Sethi, V. K., Saxena, V. & Bhatt, D. 2006. An instance of the Asian Koel *Eudynamys scolopacea* destroying the nest of a Black-headed Oriole *Oriolus xanthornus*. *Indian Birds* 2 (6): 173–174.

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On the morning of 7.v.2005, we were observing birds in agricultural fields (one out of four habitat elements we are studying for avian biodiversity estimation) of Haridwar district (29°55'N 78°8'E), Uttaranchal (India). On the margin of one agricultural field, in a mango tree *Mangifera indica*, there was a nest of a Black-headed Oriole *Oriolus xanthornus* that had been under our observations since its commencement. One individual of the pair was sitting in the nest, in an incubating posture, and the other individual was perched on a nearby branch of the same tree. Suddenly we heard very harsh and continuous calls from the tree where Black-headed Oriole was nesting. We reached the tree and noted that the Black-headed Oriole, which was outside the nest, was very fidgety. It was hopping from one branch to another and spreading its wings while calling. Through binoculars, we saw that the Black-headed Oriole's calls were directed towards a female Asian Koel *Eudynamys scolopacea* that was sitting in an adjacent jackfruit tree *Arthocarpus heterophyllus*. After a minute or so, the incubating Black-headed Oriole also started producing the harsh calls like that of the other bird. Unexpectedly, the Asian Koel attacked the incubating Black-headed Oriole and chased it off the nest. Consequently, the Black-headed Orioles, which were by now, extremely agitated, aggressively attacked the Asian Koel, though keeping at least two feet away from her. Meanwhile, the latter, reached the nest and was warily inspecting it. The next moment it held the edge

of the nest in its beak and shook it vigorously, dislodging two eggs that fell out of the nest. It then dismantled the nest until it had completely lost its striking cup shape. All this was done even while the orioles attacked it in vain. The koel then flew from the tree, producing 18–20 syllables of its water bubbling call. The Black-headed Orioles chased it for a long distance, but later returned to the nest site.

During this year's breeding season (evening of 12.vi.2006) we observed a single Black-headed Oriole chasing a female Asian Koel from its nesting site (orchards within Matri Sadan Ashram, Haridwar) indicating the possibility that the Black-headed Oriole could be one of the host species of the Asian Koel.

Asian Koel is a well-known brood parasite. However, not all its hosts are known (Desholm & Wegeberg 1997). In the Indian Subcontinent, House Crow *Corvus splendens* and Large-billed Crow *Corvus macrorhynchos* are its usual hosts (Grimmett et al. 1998). Additionally, orioles have also been reported as occasional hosts (Ali & Ripley 1969). In Malaysia, Black-collared Starling *Sturnus nigricollis* and five species of Myna (Sturnidae) (Glenister 1959) and in Australia, 21 avian species have been reported as hosts of the Asian Koel (Brooker & Brooker 1989).

In the present observation, the behaviour of the Asian Koel seems quite strange. Neither did it lay eggs in the oriole's nest nor feed upon its eggs. Is it possible that the Asian Koel tried to deposit its egg(s) in the nest of Black-headed Oriole but due to vigilance could not—hence its aggression?

Acknowledgements

We thank authorities of Matri Sadan Ashram and Mr. Madan Kumar for allowing us to conduct field studies in their premises.

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New records on the wintering range of Variable Wheatear *Oenanthe picata opistholeuca* from northern India

Arun P. Singh

Singh, A. P. 2006. New records on the wintering range of Variable Wheatear *Oenanthe picata opistholeuca* from northern India. *Indian Birds* 2 (6): 174–175.

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The Variable Wheatear *Oenanthe picata* occurs as three regional forms, *O. p. capistrata*, *O. p. picata* and *O. p. opistholeuca*, variously considered as morphs or distinct species that have different ranges and require further taxonomic study. The species is known to occur as a summer visitor (March–September) to Afghanistan, northern Pakistan and Kashmir, 600–3,300 m (mainly 1,800–2,400 m) and winters in southern Afghanistan, eastern Pakistan and western India, straggling into Nepal, and the Indian states of western Madhya Pradesh and northern Maharashtra. Its habitat includes barren rocky country, along steep riverbanks, sparsely vegetated stony plains, ravines and sand dunes, old fields and around settlements, from sea level to 12,000 m, where it is locally abundant. The male of the race *opistholeuca* is entirely black apart from rump, base of tail and vent, female is dark brown in place of black. Its wintering range has been depicted as the northern areas of Pakistan (see map) and does not include any part of India (Rasmussen & Anderton 2005).

However, I have three sightings of *O. p. opistholeuca* from northern India within the last two decades. These sightings are from the low-lying areas of Himachal Pradesh and Uttaranchal (see map), as described below.

1. Tons River valley (30°21'N 78°00'E) adjoining the New Forest campus, Dehradun valley, Uttaranchal. A male was observed feeding on a dry riverbed in scrub along a ravine on 3.i.1987 and 8.i.1987 (Singh 2000).
2. Bairchha village (31°08'N 76°40'E), Nalagarh district, Solan, Himachal Pradesh. The site is located at the base of the Himalayan foothills and bordering Punjab. Here a male was recorded feeding on the ground, perching on large boulders in open, dry scrub during peak winter (January 1990). It was observed for about a week at the same place.
3. New Forest (30°21'N 78°01'E), Dehradun, Uttaranchal. A female was recorded in the Forest Research Institute, main building (a large structure) and its front lawns (big) from January to February 2006 (peak winter) at one place. For foraging, it preferred to remain within the reach of the building that it chose as a shelter for hiding upon threat perceived from raptors like Shikra *Accipiter badius* and for roosting.

The call '*check-check*', was heard at times. Here it's habitat was shared with Brown Rock-Chat, *Cercomela fusca*.

These observations suggest that during peak winter, the range of *O. p. opistholeuca* extends to the lower west Himalayan foothills of India.

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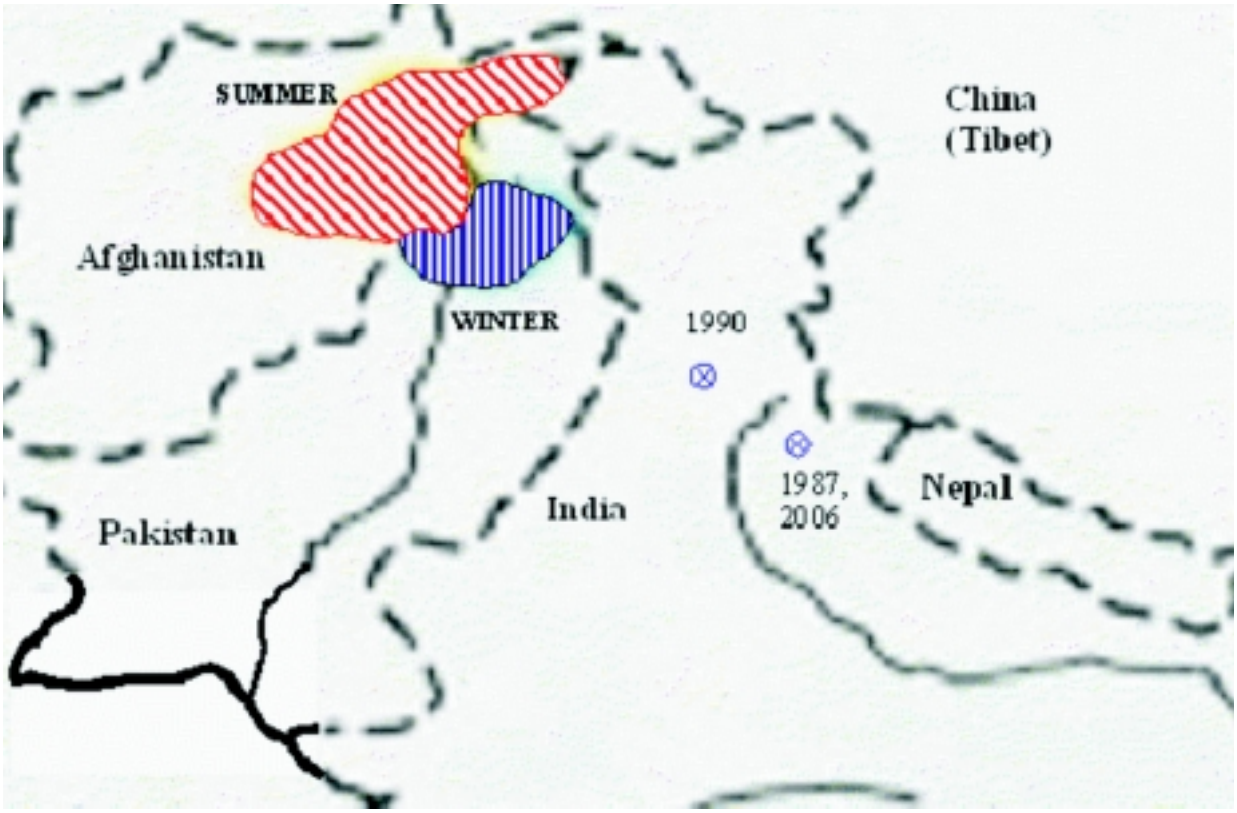

Map depicting the distribution range of Denanthe picata opistholeuca (source: Rasmussen & Anderton, 2005) in the Indian Sub-continent along with sites where it has also been recorded in India during winter.

Addition of Grey-headed Starling *Sturnus malabaricus* to the avifauna of Keoladeo National Park, India

Taej Mundkur, Laxmikant Mudgal & Alan Martin

(Photo by Taej Mundkur)

Mundkur, T., Mudgal, L. & Martin, A. 2006. Addition of Grey-headed Starling *Sturnus malabaricus* to the avifauna of Keoladeo National Park, India. *Indian Birds* 2 (5): 175–176.

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On the morning of 21.x.2005, we briefly visited Keoladeo National Park at Bharatpur in Rajasthan state, and were observing and photographing birds along the stretch of the main road where there are a large number of trees that form a canopy. In an *Acacia nilotica* tree while observing a flock of Common Myna *Acridotheres tristis* and Bank Myna *Acridotheres ginginianus* feeding noisily, we noticed a single Grey-headed Starling *Sturnus malabaricus* with the group.

The bird was observed clearly for a short while and it was photographed. The photographs confirm that the bird had a distinctive grey head and upperparts, lighter forehead, rufous under parts and a chestnut and grey tail. From this it is clear that it is the northern race of the Grey-headed Starling *S. m. malabaricus*.

The species has not been listed from Bharatpur (Grewal & Sahgal 2006) but has been recorded within a radius of a few hundred kilometres in other parts of Rajasthan including: Sariska Tiger Reserve (Sankar et al. 1993) where they record it as abundant, July to October and otherwise rare, Ranthambore (Wildlywise 2006). Further south in the state of Rajasthan, it is recorded from Dungarpur (Saxena 2003) and nearby in the southern part of Mount Abu in the late 1800s by Butler (1875, 1876), though Sangha & Devarshi (2006) did not find it there more recently. It is recorded to the north in the Delhi area, with few observations during March, April and September recently summarised by Harvey et al. (2006). (It is also recorded in neighbouring Madhya Pradesh (Dhar, Hoshangabad and Mandla) by Hobcroft (2006) and Indian Holidays (2006).

Grimmett et al. (1998), record the Grey-headed Starling as a resident in the NE subcontinent and a winter visitor to central and west India, with scattered records elsewhere, while Harvey et al (2006) consider it an irregular passage migrant between wintering quarters in the peninsula and breeding grounds in the Himalayan foothills.

Our observation of the bird in Keoladeo, foraging with other mynas in lightly wooded country, fits in well with the general habits and habitats reported by Grimmett et al. (1998) of the bird feeding in flocks with other starlings and myna, taking nectar, berries, figs and fruit in lightly wooded country, groves, young forest plantations and sometimes around villages and towns.

If the Grey-headed Starling is a regular migrant to this region of the peninsula, it is surprising that it has not been recorded in a site as well watched as Keoladeo National Park.

Acknowledgements

We are grateful to Dhirendra Devarshi, G Gopakumar, Bill Harvey and Aasheesh Pittie for tracking down information on the distribution of the species in the region.

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Grey-headed Starling *Sturnus malabaricus*

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Recoveries from the *Newsletter for Birdwatchers* (1968)—15

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Futehally, Z. 2006. Recoveries from the *Newsletter for Birdwatchers* (1968)—15. *Indian Birds* 2 (6): 176–178.

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My bound volume of the *Newsletter*'s eighth volume is surprisingly thin. The only issues I have are of February, March, April and August. The ones I have are without the usual printed cover page, with only the cyclostyled shield with sketches of birds, owls, swallows, little ringed plover, and an especially attractive one of a pair of Bar-headed Geese by T. J. Roberts. However, there are so many worthwhile articles in this limited number that I will deal with them instead of going on a hunt for the rest.

The father and son team of the Flemings, long time residents in Nepal, are well known for the work they have done on the ornithology of that mountain country. Robert L. Fleming Jr., in a scholarly article on the birds of Pulchowk writes, "Pulchowk, a heavily forested hill on the SE edge of the Kathmandu Valley is a favourite place for bird enthusiasts. Last week my father, Dr R. L. Fleming Sr., and I spent several hours observing bird life between 6,500 ft. and 7,500 ft. elevation. The forest at this height is mainly broad-leaved evergreen with three species of oak (*Quercus* spp.) predominant. The understorey includes daphne and rhingal bamboo. The air rings with the calls of Black Bulbuls and Black-capped Sibias [see Louis Werner in *Newsletter* Vol. 7 (11)]."

He writes about the sprightly Black-faced Flycatcher-Warbler *Abroscopus schisticeps*, referring to their remarkable

tameness, which made it possible for him to watch several individuals from as close as 2 m. "We noted that the 'wing-flip' and the 'tail-fan' occur simultaneously and at the rate of about one per second."

"The tail-fan seems to be more vigorous than the wing-flip. Occasionally they hover beside a leaf but rarely for more than a second." Fleming says he found them in medium-sized bushes, which differs from Salim Ali's observation, "Usually seen high up in the foliage canopy".

An interesting observation about a group of 14 Chestnut-headed Babblers *Alcippe castaneceps* seen in central Nepal was that they remained in groups of their own kind while further east they were usually in small parties of mixed species. The careful notes of the Fleming family, over many years in Nepal, have been greatly appreciated.

There have been occasional reports about female birds feeding not only their own young but also the progeny of others of the same species. Jungle Babblers *Turdoides striata* are well known for looking after their nephews and nieces. D. N. Mathew reported the case of a full-grown Black-headed Oriole *Oriolus xanthornus* moving from tree-to-tree, looking for caterpillars, spiders, etc., under leaves. A fledgling followed at a distance of 2 m, calling frequently. The adult would collect food and, unless the chick was very near, swallow it. Curiously, the youngster was able to forage on its own, but if it saw the older bird collect some food, it would beg and, was often rewarded! The author was not sure whether the older bird was the parent of the younger one and enquired whether there were any reports of communal feeding among orioles.

Among the people who followed Salim Ali's advice to establish branches of the Birdwatchers' Field Club of India, was Joseph George. He reported, "Field outings were organized once a month or oftener. The average attendance was six, which was considered very encouraging in a small town like Roorkee. A rare bird seen was the Terek Sandpiper. Nest boxes installed in gardens and school premises were taken by Black-headed Myna, Roller, and Spotted Owlet."

In February a team of birdwatchers, sponsored by the Fauna and Flora Preservation Society, London, led by Sir Hugh Elliot, Secretary General of the IUCN, landed in our garden in Andheri, Bombay, like a swarm of locusts and demanded breakfast, which was provided by our ever-willing servant Paul Isaee. I accompanied the group on their visit to the Gir Sanctuary. I wrote later in the *Newsletter*, "We in India have got used to the Coppersmith *Megalaima haemacephala* and seldom take time to admire its elegant colouring, but our friends from temperate lands were quite overcome by the sight of the bird tonking away from the top of a bare teak tree. Another delightful bird, much appreciated, was our Golden-backed Woodpecker *Dinopium benghalense* whose golden and scarlet colours and merry laughter enlivens the somber setting of a dry teak forest." Incidentally, reports by this group about their visit to the Gir played an important part in the setting up of the Gir research station with the assistance of the Smithsonian Institution.

I must have run out of material because I see that I copied an extract from Gilbert White's *Natural History and Antiquities of Selborne*, August 1778. Few books are so fascinating and simultaneously so educative. Reading the account of the qualities required of an ornithologist I wonder whether I was the right person to edit the *NLBW*. Gilbert White writes, "A good ornithologist should be able to distinguish birds, by their air, as well as by their colours and shapes, on the ground as well as on the wing, and in the bush as well as in the hand, for though it must not be said that every species of bird has a manner peculiar to itself, yet there is somewhat in most genera at least that at first sight discriminates them and enables a judicious observer to pronounce upon them with some certainty."

"Thus, kites and buzzards sail round in circles with wings expanded and motionless, and it is from their gliding manner that the former are still called in the north of England gleads, from the Saxon word glidan, to glide. The kestrel or wind-hover has a peculiar mode of hanging in the air in one place, his wings all the while being briskly agitated. Hen Harriers fly low over heaths or fields of corn and beat the ground regularly like a pointer or setting-dog. Owls move in a buoyant manner as if lighter than the air, they seem to want ballast...Magpies and jays flutter with powerless wings and make no dispatch, herons seem encumbered with too much sail for their light bodies, but these vast hollow wings are necessary in carrying burthens such as large fishes and the like…" Our readers would like more of this I am sure but time is running out.

As I have often remarked, Stewart Melluish was one of the most dependable supporters of our *Newsletter* in its early days. In his letter of 24.i.1968, he said he was disappointed to miss our AGM, but hoped that we would approve of the way he spent that day: "My activities were in sympathy with your interests and those of your society...

"The objective was to follow up a hunch about Glossy Ibises. There appears to be a conspiracy among writers of Indian birds to deny to the south-east of the country the regular occurrence of many species which are in fact quite common visitors, and to assume that occasional vagrants are singular rarities. A good instance of the penchant is that of the Black-tailed Godwit; "common…south to Bombay (Salsette), less common to very rare in the peninsula and Ceylon" says Ripley; perhaps he got this idea from the Vernay surveyors who put the bird family in square brackets and wrote, "This species is however so rare in central and southern India that it could not be included in the Presidency list until a more positive record is forthcoming." The Bar-tailed Godwit they ignore altogether and Ripley restricts it West Pakistan, western India and Ceylon; which is precisely the same range he allows the Whimbrel. Now both the Black-tailed Godwit and the Whimbrel commonly winter on the Madras coast and the Bar-tailed Godwit is not impossibly rare (I saw a single bird last Sunday at Pulicat). These are merely examples of what seems to be a trend in the literature of the Indian avifauna—due probably, more to a paucity of human observers and correspondence than to any genuine lack of birds—a tendency to underestimate the quantity and variety of migrants, which regularly or sporadically reach the south-eastern seaboard. This is not a thing for which the authorities should be censured. The distribution of birds is not a static phenomenon and for want of observers they must often rely on out of date records or make assumptions from the absence of any. But it means that on the question of range of some

species the field is wide open for discoveries." What Stewart says has been confirmed by present birdwatchers who so often succeed in extending the range of species mentioned in the books. Salim Ali himself used to advise not to treat anything written as gospel truth. What Stewart says about the possibility of the Glossy Ibis occasionally reaching the south-eastern seaboard of India has probably already been confirmed by later day birders.

A flight down memory lane—1: Half a century of birds!

Lavkumar Khacher

Khacher, L. 2006. A flight down memory lane—1: Half a century of birds! *Indian Birds* 2 (6): 178–179.
Lavkumar Khacher, [Please fill in your postal address.]

I had anticipated spending the remaining years reading about experiences of other, younger people, but your editor persistently called for articles. Had he not been someone I have admired for his dedication and maturity, I would not have responded and in time, his exhortations would have faded away. Apart from having a high respect for him, there is a small degree of personal vanity involved, because in a small measure, he is a product of my endeavors; as he confided in me, he was an active member of the Nature Club of his school, which Captain N.S. Tyabji (Retd.), a very respected member of WWF-India, had started in Hyderabad. The Nature Clubs were part of the Youth Education Movement that I had the privilege to initiate in 1976 for WWF-India. Besides, he was very persuasive, explaining how my years of experience would "enrich" the contents of *Indian Birds*. Flattery is terribly and I succumbed to it! Besides what did I have to lose since, at my age, memories are the only things that are there apart from the aches and pains of a faltering body; old people also love to talk about the wonderful world of their younger years, amusingly oblivious of the fact that if today's world is a trifle wanting, it is because of the acts of omissions and commissions of our generation. Of course the world was a far better place for birdwatchers when I was a youth, than what it is today, and perhaps, I may be doing a service to the cause of bird conservation if I not only wrote about those halcyon days, but also attempted to show where we had failed in conserving it. If nothing else, there will be something to keep me occupied, enjoying what I am doing.

Actually, in measuring back from 2006 gets my math wrong; I had done some of my most exciting and active birdwatching in the 1940s through to 1960. Taking into account the bird rich years of my early childhood—when birds were every where, even right inside homes, it would be correct to say that it has been a full life time of birds. In those early years of the last century, almost every one was aware of birds: sparrows, mynahs, doves, pigeons, parakeets, koels, wagtails, pariah kites, vultures, owlets and barn owls, and not to forget the ubiquitous and rascally house crows. Peafowl freely entered compounds and Sarus Crane *Grus antigone* were affectionately referred to as "the couple" (*beladi*). Every cool season saw the arrival of skeins of Demoiselle Crane *Grus virgo*, flighting from a daytime waterside resting place, to fan out across the countryside to glean grain fallen in stubble of harvested millets and sorghum. When I think of it, every one was familiar with a surprising number of species. For those from families of country gentlemen, who enjoyed *shikar*, the repertoire of familiar species went up exponentially: ducks, snipe, partridges (now known as 'francolin'), bustards and the several birds of prey were casually referred to! I am sure many of today's well informed birdwatchers would be happy to be able to list as many species as we did as children. It was not surprising then that there were such knowledgeable birdwatchers of the likes of Dharmakumarsinhji, Sálim Ali, Humayun Abdulali and a galaxy of British ornithologists, all within the span of one generation. Growing up among such luminaries could not but have had some influence on my young and highly receptive mind. That I have not been able to achieve far more as a naturalist is what I greatly regret.

The opportunities and the encouragement were there. Sheer lethargy is what I would accept. As a student at the Delhi University in the late 1940s, I had been commissioned to write a serial on ducks of the Delhi region! I am proud of my full length articles on birdwatching in the Garhwal region of the Himalaya and on the trek into Tibet in 1954 being accepted for publication in the *Journal of the Bombay Natural History Society*. I keep on asking myself why there were not more papers by me since then? The reason why I am mentioning this is to emphasize, for the legions of bright young bird watchers of today, not to be casual. Salim Ali invariably insisted that I, "maintain a regular diary with meticulous notes," recording everything, howsoever insignificant. How I wish I had followed his advice! Where are the once familiar birds? Even crows are missing around my Rajkot home! I have explanations for the declines in populations of most birds, but without records over the years, they can be accepted, at best, as well informed conjectures. Given the wonderful binoculars and telescopes backed up by high quality cameras, the young birdwatcher of today must not be casual as so many of the earlier generation were. Another piece of advice which Sálim Ali gave was to take a harder look at the surroundings of every bird and not limit observations to the bird itself. We will not be able to help the birds if the habitats they have evolved in are destroyed. A couple of days ago my friend, Himmatsinhji, phoned up from Kachchh and lamented that we had been rather myopic in focusing on the species and not paying much attention to the habitat. He was referring to the degradation of the grasslands of his native area, pointing out that in the end, the cattle herders were under great stress,

because of which the very fabric of Kachchh's pastoral society was being torn asunder. The Great Indian Bustard and the Lesser Florican would need to be highlighted along with the magnificent, large-horned cattle of the area. Indian birds need native Indian flora and if there can be one essence of so many years of concern for conservation of wildlife, there has to be an informed stand against widespread introduction of exotic plants and monoculture practices.

Redeeming indigenous nomenclature of birds[1]

S. Theodore Baskaran

Baskaran, S. T. 2006. Redeeming indigenous nomenclature of birds. *Indian Birds* 2 (6): 179–180.
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A few months ago I was in Kodaikanal and I visited a single room library that opens three days in a week. Rummaging through the stacks, I hit upon a treasure. In the early 1930s, a certain Edward G. Nichols who lived in Madurai kept careful notes of the birds he sighted in Madurai and Kodaikanal and published the list in two installments in the *Journal of the Bombay Natural History Society* (Nichols 1937, 1944a,b, 1945). These reprints are bound and kept in the library.

What's new? You may ask. Nichols did not merely prepare the checklist; he went a step further and documented the Tamil names of these birds. The person who helped him in recording the local names was P. Bonnel, a Tamilian from Tirunelveli; later he was in the faculty of the Madras Christian College and was professor emeritus when I was a student. Because of his passion for birds, he was known as 'Paradise Bird Bonnel'.

What Nichols did is significant because the Tamil names of birds are disappearing due to a lack of usage. I believe that for the conservation movement to be successful, particularly bird conservation, we have to retrieve indigenous nomenclature. Not just the names of birds, but of the other creatures as well...of mammals, reptiles and so on. For instance, the Tamil name for King Cobra '*karunagam*' has already gone out of vogue and a translation of the two words in the English name has taken over. If you go the old museums, you will see the original Tamil name on the label.

Before proceeding further I must make it clear that I am not into language politics here but only into conservation and how that cause can be furthered, by redeeming traditional names.

The concepts and ideas concerning Tamil nomenclature would apply to other languages also—such as Telugu, Kannada, and Malayalam—since all have been subjected to the distortions brought in by colonialism. The British derisively referred to these languages as 'vernacular', a word from a root which means 'slave'. Of these languages I am familiar only with Tamil: so I will restrict my observations to this language.

What is happening now in this front? As a short cut, translators, who have a condescending attitude to local language, even if it is their mother tongue, translate the English name and use it in Tamil? However in the rural areas, the original Tamil names are used. So you already have a Diglossia problem, in having two sets of names, creating confusion for people and researchers. When we use the translated name, it does not make any sense to the people.

The English names themselves are a recent creation, often concocted from the point of view of the British, Like 'Indian Robin' or 'The Grey-headed Flycatcher'. Do you see why in India, bird watching as a hobby is restricted largely to the English-speaking crowd? Most of the Tamil names are a single word like *kuyil* (koel) or *kili* (parakeet). Ponderous, compound names such as 'Malabar whistling thrush' will not be part of popular culture. It will not find a place in popular imagination.

For all the creatures, both birds and mammals that we have been with for hundreds of years, there are local names. These names are not just sounds. They are little capsules of knowledge. Some of them describe the behaviour of the bird, some its appearance while others the habitat. Large Pied Wagtail which frequents the *dhobi ghats* is called *Vannathi kuruvi* (Washer-woman bird); Hill Myna is *Naiyandi kuruvi* for its propensity to mimic. While walking in Periyar sanctuary, our guide pointed to a Ruby-throated Bulbul and called it *Manikandan* (Jewell-throated). But the best I have come across is the Tamil name for Shama—it is called *Solaipadi* (the one that sings in the shola. The Tamil word *solai* is the root of the term Shola). Early taxonomists have coined scientific names of some species around the Tamil names.

But there are also 'problems' with Tamil names arising from regional dialects. One species is known by different names in different regions of Tamil Nadu; Pitta, which is known by four names, is a good example. Similarly, different species of birds of one or more genera are known by just one name—quails and partridges are examples.

Some of the bird names have been in parlance for hundreds of years. In Tamil literature, there are lexicons, called *nigandu* that have come down from 8th to 10th century AD.

There are at least three *nigandus*, in which there are lists of birds, animals and trees, among other things. Many names of birds also occur in inscriptions.

My observation is that many of these traditional names are still in vogue in rural areas. It is in the urban area that they have gone out of parlance. Many Tamil names of birds that have gone out of use in India, survive in Sri Lanka. In fact G.

[1] Based on a paper read at the Bird Fair Conference at Gandhigram, Tamil Nadu on 4.ii.2006]

M. Henry in his *Guide to the birds of Ceylon* (1971) provides these names. So it is necessary to redeem these names and bring them back into use. New names may spell disaster. As the saying goes, "Every innovation disturbs more by its novelty than benefits by its utility."

There have been sporadic attempts at making a checklist of birds with their names in Tamil. M. Krishnan used the traditional names in the Tamil essays he wrote. In 1956 the Government of Tamil Nadu brought out *Kalaikalanjiyam*, a ten-volume Tamil encyclopedia. All the entries on birds, by M. Krishnan and P. Bonnel (yes…the 'Paradise Bird') had traditional Tamil names. The Tamil names in Salim Ali's *Book of Indian birds* are replete with errors and even after pointing these out, each new edition carries the same names.

The next attempt was in 1968 when M. A. Badshah of the Indian Forest Service published, through the department, *A checklist of birds of Tamil Nadu*. He records in the preface of the book, "I have been collecting the Tamil names ever since I started service in the early thirties but still I am not satisfied with the material I have gathered. My ambition was to prepare a more comprehensive list of birds but I feared that life will not allow me to go on indefinitely on this errand and therefore I have decided to publish whatever I have collected and leave the rest to the coming generation."

How can we carry the message of bird conservation to people unless we retrieve the traditional nomenclature? If a researcher is familiar with these names, then she can delve into ancient or medieval literature and arrive at the provenance of bird species in traditional ethnic literature.

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Sirkeer Malkoha *Taccocua leschenaultii*: its habitat and origin of name

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Singh, B. 2006. Sirkeer Malkoha *Taccocua leschenaultii*: its habitat and origin of name. *Indian Birds* 2 (6): 180–181.
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Though published in 2004, my copy of *Buceros* (vol. 9 no. 2), devoted exclusively to Aasheesh Pittie's "A dictionary of scientific bird names originating from the Indian region", arrived almost a year later. The subject was so well introduced that there was no putting away the slim volume till I read it through, from cover to cover, in one sitting. The background to the origin of most names is fascinating.

But what intrigued me was my name in the list of "acknowledgements" at the end. And with that hangs this tale of unraveling the origin of the name of one Indian bird. Aasheesh had come across the word "Sarkanda" (*Typha angustifolia*) in the text of one of my articles. So he wanted to know all about Sarkanda, especially whether there was any association between Sarkanda and the name "Sirkeer" of a malkhoa?

I told Aasheesh about this bush of reeds, each five to eight feet tall, and some 20 to 50 reeds in unison, constituting one unit. In the Punjab of pre-1947, when it comprised the better part of contemporary Pakistan and all of Himachal, Haryana and the Union Territory of Chandigarh, the Sarkanda grew in profusion on the fringes of the sandy beds of rivers and seasonal streams. Now it is a less common sight because of excessive commercial exploitation.

Each reed is topped with a 9 to 12 inches long, delicate, compact and feathery plume. The plume flowers from December to February and when seen on a sunny day and in a gentle breeze, the sight of flowers shimmering like silver tinsel is most attractive. To be standing on a prominence above a riverbed full of the shimmering sea of Sarkanda-in-flower on a full moon night was an experience fit for the Gods. On a lesser scale and with effort it is there for the taking even now.

During the monsoons, a long and soft green sheath covers each reed. Sarkanda bushes also grew in thick clusters on the banks of agricultural irrigation channels and acted as most effective soil-binders. Among the trees that dotted the banks of these channels were kikar (*Acacia arabica*) and wild date palm (*Phoenix sylvestris*). Such a setting was invariably a favorites site for breeding colonies of the weaver birds (Ploceidae). The Black Francolin *Francolinus francolinus* and the Crow-pheasant *Centropus sinensis* also favoured the Sarkanda bush, mainly as a roost, though the Black Francolin occasionally also nested in it.

Sarkanda also grew in the Gangetic plain, on the arid fringes of the Thar Desert, and in the foothills and ravines all along the Shivaliks. It formed a thick, continuous belt on either side of the international border with Pakistan from Jammu to Gurdaspur (Punjab) and again in parts of Rajasthan.

Along this border, where human presence was minimal, the Sarkanda jungle was home to a large presence of Grey *F. pondicerianus* and Black Francolin, wild boar *Sus scrofa*, nilgai *Bocelaphus tragocamelus*, golden jackal *Canis aureus* and occasionally an enterprising leopard *Panthera pardus* as well!

In the Jammu–Pathankot region, I had on many an occasion in 1959–1960 and again in 1969–1972 come across the Sirkeer Malkoha around Sarkanda bushes. These observations now stand clearly validated by the distribution maps for this species in Kazmierczak (2000) and Grewal et al. (2002).

When the bush dried up in March–April, the reeds were harvested and used for making stools, easy chairs and screens and mats of varying sizes. The reeds were held in place with strips of unprocessed jute. The finished mats were called "sirkee" and in the plural, "sirkian". At times these sirkees were even lined with home-spun cotton sheets on one side to make them more durable and effective. In rural homesteads, sirkees were used as curtains on doors, as floor covering and even as space partition screens. They were also used on the floorboard and sides of bullock-carts to prevent the harvested grain from spilling during transportation to the grain markets.

The dictionary text in Pittie (2004) for "Sirkee" (p. 22) also mentions, "*Centropus sirkee* J. E. Gray, 1831 (No locality=Cawnpore)". And that throws up an interesting hypothesis. Major-General Thomas Hardwicke, F.R.S., F.L.S., retired from the Bengal Presidency Army in 1823 and returned "home". His was the first comprehensive collection of Indian fauna and flora, which he gifted to The Natural History Museum (British Museum), which displayed it in 1825. He had also prepared in manuscript a book, *Illustrations of Indian Zoology*, which was edited by J. E. Gray (the curator) and published by the museum in two volumes in 1830-1835. To Hardwicke's title was added a sub-title "Chiefly from the Collection of Maj-General Thomas Hardwicke".

The General had also gifted all his field notes and his huge collection of paintings, drawings and sketches of natural history objects to the Museum. J. E. Gray, as curator, must have had full access to field notes which probably were the base-line data used by Gray for the description of the Sirkee in 1831?

In all probability, General Harwicke's entry on the Sirkee must have been from Cawnpore (now Kanpur) for two reasons. Firstly, Kanpur-Allahabad region even now has abundant Sarkanda growth. And secondly, for a while the General was indeed stationed at the Fatehgarh cantonment (still in existence), which today is about an hour's drive from Kanpur, en route Allahabad.

Incidentally, the General had also made his field notes available to Latham around 1809. Yet no one has either credited him for the first book on India's natural history nor as pioneer of Indian natural history, per se. Others even claimed some of his first descriptions of species despite evidence to the contrary in the minutes of the Linnaean Society. My advocacy of this historical injustice is unfortunately seen as one general trying to promote another!

This account will be incomplete without recalling a most unusual encounter I had with one Sirkeer Malkoha. On the second day of the war with Pakistan in December 1971, four Sabre jets of the P.A.F. targeted the only bridge over the Chenab River at Akhnoor (on the Jammu–Poonch road) at about 15:30 hrs. I was mid-way on the bridge, when rockets and bombs straddled it. A few very close misses! We sped away the fastest we could and on exiting the bridge, drove the jeep into the first available depression off the road beam.

The idea was to abandon the jeep and get as far away from it as possible. For having missed the prime target, the P.A.F. pilots would next take an easy, sitting duck such as a jeep, strafing it with machine guns. So the driver and I, leaping from the jeep, ran towards a clump of Sarkanda bushes some 50 m away. Once inside, I came to an abrupt halt (the driver almost knocking me over) because a Sirkeer Malkoha was understandably, terribly agitated when I dislodged him from his mid day roost, and in such unseemly haste!

Though mortally scared of the Sabres still circling overhead, I burst out laughing as I saw that Malkoha taxi away and take off in the bid, "everyone for himself". My driver was puzzled at my mirth, when in fact we both were in blue funk!

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Book reviews

Ragupathy Kannan

Birdsong: A natural history by Don Stap, Scribner (publ.), 261 pages, $16.00 Hard cover.

No sound of nature has captured man's ear and soul as much as birdsong. Whether it is the twittering of a chipping sparrow or the ethereal fluty whistles of a hermit thrush, birdsongs have made humans pause and reflect with awe over the millennia. Poets over the ages have waxed eloquent on these avian virtuosos, but only recently have these sounds been examined from the objective perspective of scientists.

For the past fifty-odd years, birdsongs have been a favorite field of study for many competent field biologists. However, the cornucopia of information revealed from their enquiries is largely locked away in scientific journals or in erudite ornithological tomes and thus is veiled from the public eye. Don Stap's *Birdsong* brings this finally within the purview of the amateur naturalist and backyard birdwatcher. Even those who are not scientifically inclined would benefit from this book's ability to present the science of birdsong in more easily readable prose.

What makes birds sing? What is unique about their anatomy that enables them to sing? Has birdsong evolved to attract mates or to delineate territories? Is the song learned after hatching or is it innately programmed in the genes? Do birds of the same kind establish a social hierarchy based on their singing prowess and repertoires? Why don't all birds sing? How did songbirds evolve? These are some of the many fascinating questions that are addressed in this book.

Stap centers the account on the life story of America's leading bioacoustic expert, Don Kroodsma, as he journeys the globe with his voice recorder to unravel the mysteries of birdsong. Stap's book is as informative and entertaining as his *Parrot without a name*, an account of the search for the last few new bird species on earth.

When Kroodsma started his career in the late 1960s, the prevailing wisdoms about birdsong were established largely by controlled laboratory studies. The leading expert then was Peter Marler, whose pioneering lab work rearing chicks exposed to recorded birdsongs at different stages after hatching, lead to the conclusion that song was learned during a brief critical period after hatching. After this critical time-window, Marler and his colleagues said, learning stopped.

Nevertheless, Kroodsma, the quintessential field biologist, had misgivings about lab research. He challenged the established dogma and did some ground-breaking field investigations that shook traditional notions. He took the gutsy decision of basing his entire doctoral work on banding and recapturing baby Bewick's Wrens after they dispersed from their nests, to find out where they learned their songs. His project proved that although these wrens learned their father's songs initially, they replaced those dialects with new ones they learned in the neighbourhoods to which they dispersed. Different Bewick's Wrens, therefore, sang different dialects of the same song depending on the prevailing dialect in their new neighbourhoods. Clearly, this flexibility helps them match their songs with those of the males in their new environs. Learning does not cease but rather continues even beyond the critical period. This landmark study highlighted for the first time the importance of field studies in interpreting birdsongs. It heralded a great career in which Kroodsma made significant strides in our understanding of avian vocalizations. Many of his studies were done by himself, but there were some interesting collaborations: His paper on the astonishing repertoire of the Brown Thrasher (2,000 songs!) was co-authored with his mother-in-law.

Stap's most informative chapter is the one that provides a synopsis of what is known about birdsongs. The reader is flooded, but not overwhelmed, by a deluge of fascinating factoids. The syrinx (voice box) of some song birds is divided laterally, with each half controlled independently, making birds essentially duet with themselves as they sing; songs are the driving force in territory making (muted red winged blackbirds lose their territories to rival males); hormones govern the development of song (castrated males don't sing, and testosterone given to females make some sing like males); female Black-headed Grosbeaks imitate a rival male's song when the male partner has been absent from nest for long, ostensibly to lure him back to defend the nest from the perceived rival male; call notes are important to alert mixed feeding flocks of potential predators, but some birds use them to deceive and distract another bird from a prey item; the song template is acquired at birth but the song itself is learned, as was demonstrated by increased heart beat of sparrow babies exposed to their own song; birds with high frequency songs, like the Blackburnian Warbler, perch higher up the canopy because these songs don't travel well and thus the higher perch enables them to disperse the songs through fewer obstacles. Facts like these flow rich and smooth throughout the book. The book is riveting, especially to any reader with a flair for natural history.

The chapter also educates the reader on the importance of song repertoires (number of songs a bird can sing). Males with larger repertoires are not only associated with better health (in the form of less parasites, etc.), but also more mates, earlier nesting and, incredibly, better offspring survival.

The aforementioned studies have involved a lot of lab work, and Kroodsma, naturally, is skeptical about some of these findings. Do controlled lab studies reflect what is actually happening out there? In his words, "To experiment first is human, to describe first, divine." This controversy illustrates how ripe the field of birdsong is despite the decades of inquiry.

The book's educational value to birdwatchers is immense. Many of us (even seasoned birdwatchers) use songs and calls to identify birds, but then we move on, paying scant attention to subtle variations in notes. Any bird watcher who has wondered about the different songs of the Chestnut-sided Warbler will learn that it uses them in different social contexts; and the earliest risers who have pondered over the pre-dawn songs of Chipping Sparrows would know that these songs might be used to establish male dominance.

Stap ends the book with a big section devoted to how Kroodsma discovered that sub oscines (non-songbirds) also learn songs. This finding, stemming from months of painstaking work with Bellbirds in Central America, goes contrary to long-held belief that only oscines (songbirds) learn their songs, whereas the sub oscines use only their innate voices. Unfortunately, this study is yet to be published and thus has little scientific credibility. Stap makes this mistake of giving undue importance to unpublished observations earlier in the book too: Evidence that western and eastern populations of the Marsh Wren may be different species, albeit tantalizing, have not passed scientific muster.

The only other hindrance in this book is the lack of a bibliographic section. The book piques curiosity but does not satiate it. Readers wanting more information on a particular study are left on their own to ferret it. In addition, none of the chapters or parts of the book is titled and one does not get a feeling of direction. Barring these minor blemishes, the book is a boon to amateur naturalists and serious pursuers of natural history. *Birdsong* has surely given more meaning to one of nature's most ancient sounds.

Correspondence

The British and Indian natural history

The March–April 2006 issue of *Indian Birds* carried an interesting article on the birds of Mount Abu Sanctuary and a delightful account by Lt. Gen. Baljit Singh about his sojourn at Subathu. There was also that charming letter penned by Lavkumar Khacher in the May–June 2006 issue. Popular writing is a genre that should never fade into oblivion and every *Indian Birds* issue should ideally carry scientific papers and ones for lighter reading.

Both Lavkumar Khacher and Lt. Gen. Baljit Singh are eminent figures who have made worthy contributions towards the conservation movement. I recall my acquaintance with the latter when I was a speaker at the first workshop organised at the National Defence Academy, some years ago, to impart the message of wildlife conservation to officers of the Indian Army. He was the prime mover in initiating this programme for the Army and he received scientific support from the Bombay Natural History Society (BNHS)—where Bittu Sahgal was a key promoter of the programme.

Before Independence, Army Officers played a stellar role in contributing towards the study of birds, butterflies, mammals, snakes, and other animals and plants. They were mainly British and a few Indians too. It was Surgeon-Major Thomas Jerdon who pioneered the first book on birds in 1862 with his monumental 'Birds of India'. Many other eminent names stand out from the ranks of the officers—Lt. Col. Tickell, Col. Sykes, Major Magrath, Captain Whitehead, Lt. Col. Rattray, Col. Bailey, Lt. Barnes and others. There was a Brigadier-General Betham who wrote extensively on the birds of Simla in the *Journal* of the BNHS. The explorations of Col. Bailey, who was a part of the now censured Younghusband expedition to Tibet, have been documented by Charles Allen in 'A Mountain in Tibet'. Army officers stationed in the remote corners of the Empire supplied crucial information on the distribution and migration of birds.

Towards the demise of the British era, you had books from the pioneer of bird photography - Lt. Col. R.S.P. Bates. The last Chief of the 'old' Indian Army, Field Marshal Auchinleck, was nick-named 'The Auk' and was a keen bird watcher and member of the BNHS. Another officer who stayed on in India was General 'Bill' Williams of the Engineers, who was an avid bird enthusiast. One of Field Marshal Slim's senior commanders, Lt. Gen. A.F. Christison used to send observations from the field during World War II. Many British Army officers and ranks took an enthusiastic part in decimating India's wildlife, notably the lion, particularly in the early British period. However, in the later era, many officers used to abide by the game laws and sporting codes of conduct.

Today, one observes that there are only a handful of dedicated naturalists in our Army. The pages of the BNHS' *Journal*, which used to be filled with observations on birds from diverse regions of India by British officers of prestigious British and Indian regiments like the Guides and the Gurkhas, now rarely carries any notes by Indian officers. One blessing though, is that unlike the British officers who were hooked on *shikar*, most of our Indian officers, apart from some black sheep, have no interest in hunting or in the outdoors for that matter!

My father enjoyed the description of the Abu jungles in the article on the birds of Mt. Abu. As a young Corporal in the old Sixth Bombay Battalion of the NCC, in 1953, he and his comrades had been attending a circle camp and had done some gruelling labour to construct a road around the Naki Lake area. He remembers Abu as being thickly forested and recalls meeting a local armed with a spear and long dagger who explained that he needed protection against the bears in the area. Leopards were abundant and they saw a dead leopard, recently shot, displayed in one of the prominent shops of the station.

A British Army officer, who had served in a record number of Indian Army regiments and hunted extensively in the western and central parts of India in and around the 1880s, chronicled his experiences, and vehement and amusing views, in an interesting little book that I had the opportunity to peruse. When his regiment was quartered near Abu, he was asked to rid the area of some marauding bears that had terrorised the locals, which he set about doing in earnest. He also mentioned that tigers were frequent in the area.

We look forward to more issues of this splendid publication, *Indian Birds.*

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29.vii.2006

Plumage of some birds in Kumaon

Birdwatching in Kumaon last year (2005) gave me the opportunity to observe a number of Himalayan birds for the first time. It was also interesting for me to see how distinct a number of common species are in this region. For instance, the Hoopoe *Upupa epops* is much lighter there (*U. e. epops*) than its counterpart in southern India (*U. e. ceylonensis*) and the Jungle Crow *Corvus* [*macrorhynchos*] *japonensis* has an entirely different call from *C.* [*m.*] *culminatus*.

All the Red-vented Bulbuls *Pycnonotus cafer* I saw had brown cheeks. The birds match the illustration of the race *humayuni* in Grimmett et al.; however, the Ali & Ripley (1987) do not mention this characteristic for this race. Is the Kumaon brown-cheeked form *humayuni*? [**Editors' note:** The race in the lower Himalayas is *P. c. intermedius*, which has brownish cheeks (auriculars). *P. c. humayuni* does not have this. The illustrations in Grimmett et al. (1999) and surprisingly Grimmett & Inskipp (2003) seem incorrect. Though *humayuni* is present in N and NW India, its plumage is different from *intermedius*. Abdulali (1982) states that "In addition to the brown ear coverts and the black of the head grading into the brown back, they [*intermedius*] can be distinguished from *humayuni* by their longer and more distinct crest feathers."]

The male Crimson Sunbirds *Aethopyga siparaja* were as striking as one expects from the illustrations in the above books. I saw these birds visiting hibiscus flowers a number of times at close quarters. Curiously, I could never see the yellow rump shown prominently in the plates. I think that the yellow rump is not easily visible in the field, and birdwatchers should be aware of that fact.

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Errata

***Indian Birds* 2 (5) September–October 2006.**

Page 126: Text in the column 'Comments' for serial number 42 'Brown Dipper' are meant for serial number 43 'Alpine Accentor'.

Page 132, column one, line 13: "his 18th century ornithological journal" should read, "his 19th century ornithological journal."

Inside back cover and back cover: The following photographs were taken by Harkirat S. Sangha and not by R. Naoroji. 'Lady with Rufous-necked Hornbill head-dress', 'White-throated Redstart' and 'Collared Owlet'.

Editorial

This has been a signal year for *Indian Birds*. The icing on the cake being, the publication of Ramana Athreya's paper describing a new species for science, the exquisite Bugun Liocichla *Liocichla bugunorum*. For a fledgling publication, that was a big step indeed. In some ways, it was a leap of faith for Ramana, who was adamant from the outset to publish his astounding discovery in an Indian publication. When he chose *Indian Birds*, we had two main concerns. One, that the paper be rigorously refereed and two that it is given the publicity it deserved. We sent it for review to Edward C. Dickinson, Pamela Rasmussen and Jochen Martens, all of who responded rapidly to our requests. BirdLife International's Richard Thomas handled publicity with unbelievable efficiency. The results of his untiring efforts being published in over 130 English (and other languages) newspapers and magazines, in hard copy and on the Internet. Some of these included the *New York Times*, *Time*, the popular *Sun*, besides media coverage in Russian, Finnish, Chinese, etc. Our own website (www.indianbirds.in) saw an unprecedented 78,000 hits during the month. Ramana's paper was hit over 17,000 times (and perhaps downloaded too!). For this, we thank O. C. Naveein and his team, who handle our website, for uploading the paper in time to meet the press deadlines.

Another first for *Indian Birds* was the reprint of a paper on taxonomy in its May–June 2006 issue. The ready cooperation of the authors and the editor of British Birds made this possible.

As an editor, I am generally concerned about two or three aspects of *Indian Birds*. The first is a good stock of manuscripts, which really feels like a solid bank balance, the factual paucity of hard currency for printing *Indian Birds* notwithstanding. We are well provisioned at the moment, in that department, and are in the process of increasing the number of pages to accommodate more notes. The second is the quality of manuscripts that arrive for publication. The rare, well-written one, which follows our 'instructions to authors' explicitly, is a joy to receive. The third is the cost of publication and postage! Now that we've switched over to glossy paper and colour, costs have soared free of any restrictive budgetary gravitational force. We birders are a passionate lot and I am sure that with your support *Indian Birds* will not only endure but also thrive.

During 2006 we published 79 papers, short notes, opinions, articles, reviews and letters to the editor.

Beginning with this issue, we take the pleasure of welcoming the veteran ornithologist, Lavkumar Khacher's column, "A flight down memory lane". In his own inimitable style he distills the experiences of several decades' involvement with birds in India—hindsight to benefit contemporary and future Indian ornithology.

Several persons helped in producing *Indian Birds* in 2006 and it is with great pleasure that I acknowledge their behind-the-scenes contributions—whether as sponsors, layout experts, referees, photographers, artists, or office help—here: Ramana Athreya, Maan Barua, Anwaruddin Choudhury, Edward Dickinson, Nicolas Fernandez, G.B.K. Charitable Trust, Ganesh, Anwar Hussain, Jairam, R. Jayapal, Jochen Martens, Taej Mundkur, Rishad Naoroji, B. M. Parasharya, Pitti Laminations Ltd., Suhel Quader, S. Ramakrishnan, P. Rambabu, Pamela Rasmussen, V. Santharam, Sumit Sen, The Serenity Trust, L. Shyamal, S. Subramanya, K. Gopi Sundar, and Suresh V. I would also like to thank here all our authors and subscribers for supporting *Indian Birds* and my colleagues at New Ornis Foundation for allowing me a free hand with *Indian Birds*.

As *Indian Birds* steps into its third year, I wish you days full of birds and the joy they unknowingly bring to our lives.

—Aasheesh Pittie

Back Cover photographs by Clement Francis
Top: Purple Moorhen *Porphyrio porphyrio*
Bottom: Alexandrine Parakeet *Psittacula eupatria*