Indian BIRDS

Little Cormorant Band-bellied Crake Grey-streaked Flycatcher



Date of Publication: 2 May 2025 ISSN 0973-1407

EDITOR EMERITUS: Aasheesh Pittie

CHIEF EDITOR: Praveen J editors.indianbirds@gmail.com

EDITORS: Puja Sharma, Pritam Baruah

EDITORIAL BOARD Komal Agrawal, Hem Sagar Baral, C. Abhinav, Anwaruddin Choudhury, Sayam Chowdhury, Prasad Ganpule, Girish Jathar, Ragupathy Kannan, Azan Karam, Amarjeet Kaur, Monica Kaushik, Muzaffar A. Kichloo, Taej Mundkur, Harkirat Singh Sangha, C. Sashikumar, Ghazala Shahabuddin, Parveen Shaikh, Manoj Sharma, Ashwin Viswanathan, Deepal Warakagoda LAYOUT & COVER DESIGN: Sindu Graphics

OFFICE: P. Rambabu

New Ornis Foundation

Registration No. 314/2004

FOUNDER TRUSTEES Zafar Futehally (1920–2013) Aasheesh Pittie, V. Santharam

TRUSTEES Aasheesh Pittie, V. Santharam, Taej Mundkur, S. Subramanya, Suhel Quader, Praveen J., Rajah Jayapal

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 birdwatching 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).

Bank details for advertisements & donations: Name: New Ornis Foundation Bank: Canara Bank Branch: Banjara Hills Branch, Hyderabad Account No: 1181201000865 IFSC: CNRB0001181

New Ornis Foundation 9966702121.wa.e5a@waicici



PDFs of both, individual papers, and entire issues can be downloaded from www.indianbirds.in

Address for correspondence: New Ornis Foundation, 2nd Flr, BBR Forum, Rd. No. 2, Banjara Hills, Hyderabad 500034, India.

CONTENTS

- Breeding ecology of the Little Cormorant Microcarbo niger in northern Bangladesh Allama Shibli Sadik, Muntasir Akash, Mohammad Shamsuddoha, Rima Akter, Ashis Kumar Datta, M. Monirul H. Khan & Md. Kamrul Hasan Recoveries of marked birds from Ujjani Reservoir, Maharashtra Omkar Joshi, Tuhina Katti, Aarohi Natu, Pavithra Ganesh & P Sathiyaselvam Correspondence The Band-bellied Crake Zapornia paykullii from Chidiyatapu, Andaman and Nicobar 13 Islands: An addition to the South Asian avifauna Jabili U Grey-streaked Flycatcher *Muscicapa greseisticta* from South Andaman, Andaman and Nicobar Islands: An addition to the avifauna of South Asia 14 Ashwin Mohan, S. Krishnan & Adithi Muralidhar European Greenfinch Chloris chloris from Jammu & Kashmir: An addition to the 16 avifauna of India Sheikh Riyaz, Uttam Mahatha, Ansar Ahmad, Irfan Jeelani, Ishfaq Majeed, Ritu Chatterjee & Bilal Dar Addition of the European Roller Coracias garrulus to the avifauna of Bhutan 17 Gyeltshen, Sangay Chedup, Tendel Wangdi & Rinchen Dorji Isabelline Wheatear Oenanthe isabellina for Bangladesh - A new species 18 for the country Shahriar Kabir & Riedoan I. Riyad The Stork-billed Kingfisher Pelargopsis capensis feeding on Caryota urens fruits 19 The Ashy Bulbul Hemixos flavala in Sirmaur, Himachal Pradesh, India 20 Iqbal Ali Khan, Ankit Vikrant & C. Abhinav House Sparrows Passer domesticus occupying Streak-throated Swallow 21 Petrochelidon fluvicola nests Manohar Pawar, Anil Sarsavan & Lakhan Yadav The Black-headed Bunting Emberiza melanocephala in Chirang District, Assam 22 Aniket Pawar & Sachin Ranade Additions to the avifauna of Himachal Pradesh, India 23 C. Abhinav, Amir Jaspa, Piyush Dogra & Ankush Dhiman Frog in the diet of an Orange Minivet Pericrocotus flammeus 26 Saleem Hameed & Rohan K. Menzies On pelagic seabird bycatch incident in tuna longline at Lakshadweep 27 Aju K. R., Sreenath K. R & Sobhana K. S. Spot-bellied Eagle-Owl Ketupa nipalensis breeding in Pench Tiger Reserve, 27
 - Maharashtra Prabhu Nath Shukla, Shrikant Purushottam Dhoble, Pravin Ramesh Lele, Eshaan Chaitanya Rao & Virendra Kumar Mishra
- 29 The Tawny Fish-Owl *Ketupa flavipes* from Manas National Park and its status in the Brahmaputra Valley *Koushik Rajbongshi, Leons Mathew Abraham, Jonmani Kalita, Karan Barman &*
- 29 Dhritiman Das The Chestnut-headed Bee-eater Merops leschenaulti from Punjab, India Gurpartap Singh & Karmannye Chaudhary
- 31 Fledgling success in a Painted Stork Mycteria leucocephala colony in Rajasthan, India Anil Kumar Sharma, Rekha Bhawnani & Anil Kumar Tripathi
- 32 The Blyth's Swift Apus leuconyx from Jammu & Kashmir, India Hemant Kumar & Gurpartap Singh

32A Book review Living with Birds Aasheesh Pittie

FRONT COVER: Kentish Plover from Kistareddypet Lake in Hyderabad, Telangana. Photographer: Rajashekar Muddam

BACK COVER: European Greenfinch from Srinagar, Jammu & Kashmir. PHOTOGRAPHER: Ansar Ahmad

Breeding ecology of the Little Cormorant *Microcarbo niger* in northern Bangladesh

Allama Shibli Sadik, Muntasir Akash, Mohammad Shamsuddoha, Rima Akter, Ashis Kumar Datta, M. Monirul H. Khan & Md. Kamrul Hasan

Sadik, A. S., Akash, M., Shamshuddoha, M., Akter, R., Datta A. K., Khan, M. M. H., Hasan, K.M., 2025. Breeding ecology of the Little Cormorant *Microcarbo* niger in northern Bangladesh. *Indian BIRDS* 21 (1): 1–8

Allama Shibli Sadik, Forest Department, Dhaka, 1207, Bangladesh. E-mail address: shibli.ju@gmail.com [Corresponding Author]

Muntasir Akash, Department of Zoology, Faculty of Biological Sciences, University of Dhaka, Dhaka 1000, Bangladesh

Mohammad Shamsuddoha and Rima Akter, Status Distribution and Conservation of Colonial Waterbirds in Bangladesh Project, Wildlife Center, Gazipur 1700, Bangladesh

Ashis Kumar Datta, M. Monirul H. Khan, and Md. Kamrul Hasan, Department of Zoology, Faculty of Biological Sciences, Jahangirnagar University, Savar 1342, Bangladesh

Manuscript received on 15 November 2024.

Abstract

From 2017 to 2023, we conducted a study on the breeding ecology of the Little Cormorant *Microcarbo niger* across north and northeast Bangladesh. Employing direct observations and passive camera-trapping, we identified 186 active colony sites: 147 breeding and 39 night-roosting colonies. The breeding colonies were primarily observed in heavy human-use wetlands, with the highest colony concentrations around the Ganges tributaries (56 colonies) and the Haor Basin (46 colonies). Of the 22,892 nests we counted, 42.12 % were in the Haor Basin and 26.69 % in the Ganges tributaries. Nest construction took place between May and August, while breeding occurred between May and October. Nest diameters, for 42 nests, ranged between 23–31 cm, and each held 3–5 eggs. Of these, 27 nests produced at least one fledgling. The average length of eggs, for 83 eggs, was 4.35 ± 0.18 cm and the average breadth was 2.84 ± 0.07 cm on average. The incubation period lasted 24–29 days, with fledging occurring after 35–45 days. Nest counts exhibited a strong positive association with both tree numbers and average tree height per colony site. However, there was no significant regional differentiation nor did cormorants show any preference for native trees. The study highlights the species' adaptive plasticity in semi-natural and peri-urban wetlands. The findings emphasize the importance of tree height, proximity to water, and nesting site integrity for breeding success, underscoring the role of preserving groves in Bangladesh's human-modified wetlands.

Introduction

The Little Cormorant Microcarbo niger is a small waterbird of the cormorant family Phalacrocoracidae. Spread across South and Southeast Asia, it is one of three cormorant species in Bangladesh (Siddiqui et al. 2008; IUCN Bangladesh 2015). Little Cormorants are highly versatile and can thrive in various aquatic habitats. According to Grimmett et al. (2011), Little Cormorants are colonial nesters that frequently build shared or single colonies at village edges. These colonies are typically developed in trees or big shrubs near or above water bodies, protecting them from terrestrial predators and providing access to feeding places (Kazmierczak 2000). The Little Cormorant typically breeds during the monsoon season, generally between June and October. During the breeding period, males approach females with courtship actions such as wing fluttering, neck stretching, and vocalizations (Naher et al. 2009). Nests are constructed of simple plant materials, such as twigs, leaves and other plant materials (Ali & Ripley 1983). Females usually lay 3-5 eggs per clutch. The bluish-white eggs are incubated by both parents for 15 to 21 days (Naher et al. 2009). The timing of breeding ensures abundant food for the offspring's survival and growth (Naher 2014). Food supply, predation pressure are reported to impact the Little Cormorants' breeding success. Human activities like habitat degradation, pollution, and hunting threaten breeding colonies. Conservation is vital for protecting these areas and ensuring the species' survival (Naher 2014).

Great Cormorants *Phalacrocorax carbo* and Socotra Cormorants *P. nigrogularis,* have been studied for a long time in other locations (Lorentsen et al. 2022). In Bangladesh, there

are studies on the Little Cormorant's population and breeding biology (Naher & Sarker 2004; Naher et al. 2009). According to Naher and Sarker (2004), in the Brahmaputra-Ganges-Meghna confluence, breeding activity spans between May and October. The major nesting trees include exotic and native trees, such as *Albizzia procera*, *Mangifera indica*, *Ficus* spp., *Strebulus asper*, and *Cocos nucifera*. Naher et al. (2009) mentioned bamboo groves (*Bambusa* spp.) to be the highly preferred nesting sites of Little Cormorants in northern Bangladesh, adjacent to North Bengal, India (Fig. 1).

However, no comprehensive study has been carried out in the country regarding the spatial distribution of colony sites and the plant species association with the species' nesting activity. Understanding the Little Cormorant's breeding ecology might help address knowledge gaps on understudied species and provide critical information for wetland conservation efforts. To that end, in this study, we examined the spatial distribution of Little Cormorants and their nest-site association with plants. We further provided a detailed account of its breeding biology based on observations carried out in northern and north-eastern Bangladesh.

Material and Methods

The research was conducted in 24 districts (second-order administrative units) (Fig. 1). The study area includes a vast expanse of cultivated lands and wetlands. It also contains two Ramsar sites (the Tanguar and the Hakaluki Haor), two major rivers (the Ganges and the Brahmaputra), and eight Important Bird Areas. Data collection was carried out between March 2017 and December 2023, totalling 345 field days (13–15 days per

district). In addition to field visits and semi-structured focusgrouped discussions, media reports (print, electronic, and social media), eBird checklists, and networking with various citizen scientists were also attempted to identify colony locations. All field visits were conducted by the first author between 2017 and 2023.

Upon identifying a colony, the number of nesting sites, nesting adults, number of nests, stage of nesting, and nesting trees were counted. Independent colonies were defined if they were distinct from neighbouring nest clusters for at least 400 m or separated from other groups by a significant habitat discontinuity (Watts & Watts 2018). Field observations were made using a pair of binoculars, a spotting scope, GPS, measuring tape, scale, and digital slide calipers. Tree height was measured with a laser rangefinder (Trupulse 200x laser). Breeding activity of selected pairs was monitored with close circuit cameras (Tapo C310 129E) upon the availability of electricity, otherwise with passive infrared camera traps (GardePro and Scout guard). If any young/chicks or at least one adult were in the nest, the nest was categorized as active or occupied (Bibby 2000). Population estimates were done on the total count of active nests during a breeding season (May-October). A census was conducted during the peak of their nesting period to determine the number and distribution of nests. Active nests were counted by a team of observers who moved systematically through the colony, recording the tree number, tree species, nest height, and number of nests. Each tree containing a nest was marked with a unique number tag. Every tree examined was marked with tree marking paint to avoid repeated counts. The coordinates of all nesting sites are mapped with ArcGIS 10.5 software.

Barve et al. (2020) was used as the guideline for visiting the cormorant nests. Morphometric measurement of nest building, clutch size, nesting successes, and breeding successes followed Katuwal et al. (2022). These were extracted and calculated from 42 marked nests located in the districts of Naogaon, Sylhet, Sunamganj, and Moulvibazar. We installed a total of 14 camera traps but got detailed information on nest building, incubation, hatching, fledgling, etc., from six camera traps. We did not get information from the rest due to camera thefts and camera malfunctions.

To assess the association between cormorant nests colony size and various habitat variables, we fit a regression model with the number of nests per colony site (No. of Nest) as the response variable, and 1) trees per colony site (No. of Trees), 2) the average height of trees per colony site (Average Height), 3) tree type (categorical, Exotic or Native), and 4) region (categorical, Teesta tributaries, Chalan Beel, Haor Basin, northern Bangladesh near



Fig. 1. Distribution map of the colony sites and key habitats of colonial waterbirds in the study area i.e., 24 districts of Rajshahi (Ganges tributaries), Rangpur (Teesta tributaries), Mymensingh (Northern Bangladesh), and Sylhet Divisions (Haor Basin).

south-central Meghalaya (India), and Ganges tributaries; based on the distribution of waterbodies) as explanatory variables. When plotted for visualization, and tested for variance-to-mean ratio, the response variable appeared extremely right-tailed and over-dispersed (score 1.6) respectively. Following Zuur & Ieno (2016) we fit the regression with a negative binomial error structure. According to Zuur & leno (2016) we first checked the Pearson's correlation coefficient (cutoff value, r = |0.7|) and the Variance Inflation Factor (VIF > |3|) for correlation between our numerical explanatory variables. To avoid plugging in outliers in the modelling, we used 136 colonies that had up to 100 nests. We hypothesized that there would be a positive association between colony size and the number and height of nesting trees (indicators of healthy village and/or peri-urban groves). We also hypothesized that colony size would be negatively associated with exotic trees and positively associated with native tree species and a positive relationship with density of waterbodies. The full model was No. of Nests ~ No. of Trees + Average Height + Tree Type + Region (https://github.com/lynx025/Little-Cormorant-Breeding-Biology.git).

Results

Status, distribution and abundance

A total of 247 colony sites were identified, of which 186 were active colony sites and the rest were abandoned (Fig. 1). Of the active colony sites, 79% (n = 147) were breeding colonies, but the remaining colony sites, 21% (n = 39), were used for roosting. The age of the active nesting sites ranged from 2 to 150 years old (19.78 \pm 27.99, n = 147), except for one colony site at Nilphamari District which was reported to be up to 200 years old by the locals.

The highest number of active breeding colonies was identified in the Rajshahi Division or the Ganges tributaries (n = 56), followed by the Sylhet Division or the Haor Basin (n = 46), the Rangpur Division or the Teesta tributaries (n = 32), and very few colonies in the Mymensingh Division or northern Bangladesh bordering Meghalaya, India (n = 20) (Fig. 1). Among the four divisions, the highest percentage of nests was found in the Sylhet Division (42.1%, n = 9,641), followed by Rajshahi (26.7%, n = 1000

6,111), Mymensingh (19.4%, n = 4,447), and Rangpur (11.8%, n = 2,693) (Fig. 2A).

A total of 22,892 nests were counted in 147 colonies, and all of them were associated with human settlement and surrounding human-dominated wetlands. The colony size exhibited significant variation, ranging from 3 to 2,005 nests (155.72 \pm 276.40) per colony (Fig. 2B).

Nesting site characteristics

The highest number of nesting sites and nests was counted in paddy field-dominated habitats (91 colonies and 10,400 nests) and other wetland habitats (30 colonies and 9,777 nests). Of 147 colonies, only ten were in a single-species colony, and the rest of them were in mixed-species colonies associated with egrets, herons *Egretta/Ardea* sp., darters *Anhinga* sp., and storks *Anastomus* sp. A total of 22,892 nests were counted in 147 colonies, and all of them were associated with human settlement.

Inferences from modelling

Results indicate that the number of trees per colony site significantly and positively correlates with the number of nests ($\beta = 0.08$, SE = 0.02, p < 0.001, Fig. 3A), as does the average tree height per colony site ($\beta = 0.10$, SE = 0.03, p < 0.01 Fig. 3B). The effect of exotic tree types was negative but non-significant ($\beta = -0.10$, SE = 0.17, p = 0.548). Among regions, none showed significant associations with nest numbers, although the Ganges region showed a trend toward fewer nests compared to the reference region ($\beta = -1.09$, SE = 0.44, p = 0.14). These findings highlight structural tree characteristics as key predictors of Little Cormorant nesting, while regional differences and tree type appear less influential (Table 1). Fig. 3 shows the relationship between the number of nests per colony and the variables with significant effects.

A total of 2,276 plants of 48 plant species were identified at 147 cormorant colonies (Table 2). Plant species were both exotic and native. The most preferred exotic species were Mahagoni *Swietenia mahagoni* (30.04%, n = 6,876), False Ashoka *Polyalthia longifolia* (4.83%, n = 1,107), Raintree



Fig. 2. No. of active breeding colonies (A) and total nests (B) observed in the districts of four regions surveyed during the study period.



Fig. 3. Inferred positive and significant relationship between the no. of nests per colony site and the no. of trees (A), and the average tree height (m) per colony site (B)

Brunfelsia sp. (3.23%, n = 740), Silk Tree Albizia sp. (2.54%, n = 581). Of the native trees, the Burflower-tree Anthocephalus indicus (4.12%, n = 945), Indian Tamarind Tamarindus indica (2.17%, n = 498), Bamboo Bambusa spp. cluster (21.14%, n = 4,840), Mango Mangifera indica, (9.48%, n = 2,171), Kures Dalbergia reniformis (7.57%, n = 1,734), and Sacred Barna Crateva religiosa (1.07%, n = 451) were most preferred by cormorants and the least used tree was Coconut Cocos nucifera 0.01%, n = 3). Generally, cormorants preferred tall trees for their nests, with an average height of 5–15.28 m (9.85 ± 2.28, n = 2,276). The lowest height of the cormorant nesting site was 3.6 m observed for a colony at a Bamboo Bambusa spp. cluster, and the highest height was 22 m observed for the colony at an Indian Tamarind tree. Table 2 provides a detailed account of colony per tree species.

Table 1. Summary of the negative binomial regression to test for an association between the number of nests per colony and colony site characteristics. The modelling was based on the nest counts of 136 colonies observed between 2017 and 2023 in Bangladesh.

Parameter	Coefficients (log scale)	Standard error	95% confidence interval		Z- value	P- value
			lower	upper		
Intercept	2.51	0.34	1.85	3.20	7.43	< 0.001
No. of trees per colony site	0.08	0.02	0.04	0.12	5.02	< 0.001
Tree type [exotic]	-0.10	0.17	-0.43	0.23	-0.60	0.548
Average tree height per colony site	0.10	0.03	0.02	0.13	2.81	0.005
Region [Ganges]	-1.09	0.44	-1.95	-0.20	-2.47	0.14
Region [Haor]	-0.28	0.28	-0.84	0.22	-1.03	0.304
Region [North Bangladesh]	-0.14	0.36	-0.83	0.53	-0.41	0.684
Region [Teesta]	-0.20	0.29	-0.78	0.34	-0.69	0.491

Table 2. Nesting tree/plant species preferences bas and tree species	ed on the total o	ount of nests
Plant species	No. trees/ plants	No. of nests
Akashmoni Acacia auriculiformis	40	384
Arjan <i>Terminalia arjuna</i>	39	288
Ata Annona squamosa	2	18
Babla Acacia nilotica	8	13
Bakul <i>Mimusops elengi</i>	2	37
Bamboos <i>Bambusa</i> sp.	464	4840
Barun <i>Crateva religiosa</i>	21	451
Boroi Ziziphus mauritiana	2	22
Bot <i>Ficus</i> sp.	11	274
Chalta Dillenia indica	4	50
Coconut Cocos nucifera	3	3
Debdaru Polyalthia longifolia	65	1107
Domur Ficus glomerata	3	41
Khajur Phoenix dactylifera	10	27
Kodbel Limonia acidissima	1	19
Koroch Dalbergia reniformis	196	1734
Koroi <i>Albizai</i> sp.	29	581
Kuma Lepisanthes senegalensis	3	44
Lichu <i>Litchi chinensis</i>	1	14
Mahagoni <i>Swietenia mahagoni</i>	556	6876
Mahua <i>Madhuca longifolia</i>	1	3
Mango <i>Mangifera indica</i>	339	2171
Minzium Acacia mangium	12	56

 Table 2. Nesting tree/plant species preferences based on the total count of nests and tree species

Plant species	No. trees/ plants	No. of nests
Neem Azadirachta indica	7	65
Epil <i>Leucaena leucocephala</i>	3	45
Eucalyptus <i>Eucalyptus</i> sp.	12	74
Gab Diospyros discolor	1	7
Ghora Neem Azadirachta indica	1	6
Ghoraneem Melia azedarach	3	27
Hijal Barringtonia acutangula	4	30
Jackfruit Artocarpus heterophyllus	36	170
Jalpai Elaeocarpus serratus	1	4
Jam <i>Syzygium cumini</i>	33	258
Jarul Lagerstroemia sp.	8	34
Jiga <i>Lannea coromandelica</i>	2	11
Joytun Olea europaea	1	10
Kadam Anthocephalus indicus	137	945
Pakur Ficus rumphii	24	330
Pitali Trewia nudiflora	40	358
Pitraj Aphanamixis polystachya	2	17
Raintree Brunfelsia sp.	48	740
Shatim Alstonia scholaris	2	19
Shegun Tectona grandis	1	14
Shimul Bombax ceiba	2	16
Showra Streblus asper	9	67
Supari Areca catechu	28	29
Tal Borassus flabellifer	7	65
Tetul Tamarindus indica	52	498

Breeding ecology

Breeding occurred between May and October. Nest construction began in May and continued until August. The nest size was about 27.2 \pm 2.11 cm (n = 42), but the inner part or cup size was 14.1 \pm 0.97 cm (n = 42). Male and female cormorants, upon formation of pairs, participated in copulation and together built rather simple oval nests composed of twigs, grasses, and different plant materials in trees or shrubs.

They laid 3–5 eggs, with the interval of laying being 1–3 days. Table 3 details the clutch size observed in these 42 nests. The oval to elongated eggs were white or bluish-white but became brownish when incubated for some days. The length and diameter of the egg varied from 3.46–4.67 cm and 2.71–3.02 cm, respectively. The egg was incubated by both parents, which took around 24–29 days. This shared incubation allowed one parent to guard the nest while the other foraged for food. The incubation/hatching success was 75% and 61% of the eggs laid resulted in successful fledging (Table 3).

Table 3. The fate of nest, eggs and breedingobserved during the survey period	success of the Little C	Cormorant
Item/Criteria	Number	(%)
Number of nests examined	42	-
Number of eggs counted	167	-
Number of eggs lost to predation	7	4
Number of eggs to unhatched	16	10
Number of eggs lost by storm	19	11
Total egg mortality	42	25
Total number of successfully hatched eggs (hatching success)	125 (eggs/chicks)	75
Nest with eggs destroyed by storm	2	5
Nest Predation	2	5
Nest with fledgling destroyed by storm	3	2
Total number of nests with viable fledgling	35 nests	83
Number of chicks/fledglings lost by storm/ fallen from the nests	19 chicks/fledgling	15
Fledgling predation	4	3
Total fledgling mortality	23	18
Total number of survived fledglings	102	82
Overall/final breeding success (Number of individuals survived success- fully in ratio to clutch size or total eggs laid)	-	61

The Little Cormorant chicks were altricial. Chicks remained in the nests until 19 to 23 days post hatching, at which time they began to move from the nest in the tree regularly for the next 9–12 days, returning to the nest for feeding. Both parents fed the chicks by regurgitating partially digested food into their mouths. The fledglings were fed on small fish at the age of about 20 days, and as they grew, they were given larger prey items [1 A–F]. Fledglings became completely independent after about 31–40 days. Predation attempts by Rats *Bandicota* sp. and Fishing Cats *Prionailurus viverrinus* on cormorant eggs and chicks were observed during the study period [2 A-D].

Discussion

Understanding the habitat preferences of common waterbirds such as the Little Cormorant is crucial for wetland conservation and management. Little Cormorants are known to be relatively tolerant of human presence and can often be seen in urban and rural water bodies. These anecdotes matched our field observations as well as inferences made from modelling. The cormorants did not show any regional-level differences in nest number per colony site or exhibit any dependence on native trees.

Cormorants were frequently observed nesting in mixedspecies colonies, usually in trees or big bushes (bamboo, palm) near or overhanging water. This behaviour was reported by Smythies (1953), Ali & Ripley (1987), and Begum (1997). Our investigation found 147 active nesting sites, 137 of which were mixed-species colonies associated with egrets, herons *Egretta/ Ardea* sp., darters *Anhinga* sp., and storks *Anastomus* sp. This colonial nesting, both mixed and mono-species, provides added protection from predators through the collective vigilance of the colony. Little Cormorants are known to use the same nesting sites repeatedly if the conditions remain favourable (Ali & Futehally



1. Small (A, B, C and D) and large (E and F) food items of the chicks of Little Cormorant observed in the Sylhet Division of the Haor Basin Region.

1967). We found seven colony sites that are said to have been used for more than 100 years. Nesting in colonies also helps predator deterrence due to the 'safety in numbers' effect. In our observation, the breeding season started in May and continued to October, but the peak breeding period occurred from July to August. Similar observations were observed by Whistler et al. (1949), Smythies (1953), Begum (1997), and Siriwannichkul (1981) in India, Myanmar, Bangladesh, and Thailand respectively. The breeding season, however, may vary geographically but generally coincides with the monsoon season. In Kerala, India, for instance, the breeding season for Little Cormorants typically extends from February to July (Jayson 2001) with the peak breeding period between June to August (Roshnath & Sinu 2017; Girija et al. 2021).

We documented a large diversity of trees at colony sites

compared to previous studies. This was likely due to the large spatial extent of our study area. Observing eight colony sites in Bangladesh, Naher (2014) reported ten different species used as a nesting substrate; all of the species were found to be used in this study as well. However, Naher (2014) found bamboo as the most preferred nesting tree, with nesting heights ranging from 8.84 to 10.66 m. In this study, the Mahagoni appeared to be the most preferred tree species. Furthermore, there is no significant effect of whether the tree species is native or exotic on the number of nest sites of cormorants.

All breeding colonies were within or very near to a human settlement. Although since in the non-breeding season, these birds do spend the night outside of the human settlement, it is unclear whether their preference for nesting near human settlements is because of fewer predators or because of other



All photos: Allama Shibli Sadik

2. Predation on Little Cormorant chicks captured in camera traps. Top Row (A and B): before and during predation by the Rat *Bandicota* sp. Bottom row (C and D): before and during predation by the Fishing Cat *Prionailurus viverrinus*. Both events were captured in the Halla Haor, Barlekha, and Moulvibazar. The latter event was reported by Sadik & Akash (2024).

habitat characteristics (Watts & Watts 2018). These observations, coupled with the modelling estimated effect of the number of trees and average height of trees per colony site demonstrates the importance of saving groves of tall trees in villages and periurban area for wetland birds.

Our observations on the nest-building period in Little Cormorants were similar to those of Ali & Ripley (1967) and Naher et al. (2009). However, Begum (1997) observed it to be 4 to 6 days. According to Naher et al. (2009), the outer diameter of the nests was $19-45 \text{ cm} (27.15 \pm 5.8, n = 20)$, but the inner diameter of the cup ranged from $9-20 \text{ cm} (14.3 \pm 2.8, n = 20)$. The clutch size of $3-5 \text{ eggs} (3.97\pm 0.52, n = 42)$ matched the description of Siddiqui et al. (2008). However larger clutches of $2-6 (3.75\pm 0.8, n = 20)$ eggs was observed by Naher *et al.* (2009). The interval of laying eggs was 1-3 days, and the same observation was made by Naher et al. (2009) and Begum (1997). The clutch size is normally two to five eggs, sometimes up to seven eggs (Whistler 1949; Ali and Ripley 1968; Ali 1977; Barnes 1981).

Several studies have mentioned egg-colour variation in Little Cormorants. Newly laid eggs are bluish-white and become brownish or yellowish as incubation continues (Naher et al. 2009); eggs have also been reported to be pale green (Jerdon 1862) or white or bluish-white (Barners 1981; Begum 1997). The mean dimension of eggs was reported to be 4.3x2.8 cm and 4.5x3.0 cm by Naher et al. (2009), 4.48x2.9 cm by Ali & Ripley (1968), 4.5x2.9 cm by Siddiqui et al. (2008), and 4.4x2.8 cm by Begum (1997). The same observations were made by Naher et al. (2009), Begum (1997), and Ali & Ripley (1987). Several studies reported the incubation period of Little Cormorants to be 22–26 days (Siriwannichkul 1981; Begum 1997; Kopciewicz et al. 1999). All of these findings matched with our observations. In contrast to Naher et al. (2009), who reported the incubation period of 14 to 21 days, our data showed that incubation generally took 24 to 25 days and in some cases 29 days.

We observed an egg mortality rate of 25% in ratio to clutch size. Earlier studies showed 13.74% egg mortality (Naher et al. 2009) and 36.82% (Begum 1997). In our study, the incubation/hatching success was 75% (n = 125). Hatching success was reported to be 86.26% by Naher et al. (2009), 63.15% by Begum (1997), and 80% by (Kopciewicz et al. 1999). The fledgling period was between 17–29 days in the study of Naher et al. (2009), 35–42 days in Siriwannichkul (1981) and 39–45 days (Begum 1997) in comparison to our observation of 31–40 days.

We documented a 15% mortality due to falls from the nest or food competition between young and 3% mortality due to predation by mammalian predators (Table 3). Fledgling mortality due to similar reasons was reported (Subramanya & Manu 1996; Kopciewicz et al. 1999; Jayson 2001). Naher et al. (2009) reported a mortality rate of 23.3% due to destruction by locals. Begum (1997) reported 25% mortality due to predation (12.5%) and other natural causes (12.5%). Nesting colonies of Little Cormorants are vulnerable to predation by aerial predators (crows, kites), snakes, and rats (Jayson 2001).

Little Cormorants are not considered globally threatened, although nesting habitat deterioration, poison baits, and commercial hunting are impacting their populations (IUCN Bangladesh 2015). These waterbirds, along with other ardeid species, are indicators of the health of human-dominated wetlands (Sarlin et al. 2022). Conservation measures, thus, may involve the protection of crucial breeding and foraging sites, as well as the prevention of hunting, chick theft, and poisoning. Conservation efforts should thus be directed at limiting disturbances in crucial breeding areas to avoid colony abandonment. To ensure shared space with humans, buffer zones can be established around major nesting places. Pollution reduction in water bodies is also essential for maintaining healthy fish populations and overall ecosystem health. Raising awareness in local communities is further recommended for the conservation and protection of habitats for the Little Cormorant and other waterbirds.

Acknowledgements

The authors are grateful to Bangladesh Forest Department for providing permission to carry out the research (Memo No: Ban/SUFAL/IGM/17/2020/1627) and necessary financial support through SUFAL Innovation grant funding. Special thanks to the people of the surveyed district for their cooperation during the fieldwork.

References

- Ali, S., & Futehally, L., 1967. *Common birds*, 1st ed. National Book Trust, New Delhi. Pp. i–xii, 1–117+7.
- Ali, S., & Ripley, S. D., 1983. Handbook of the birds of India and Pakistan. Compact edition. Oxford University Press and BNHS, Mumbai. 32 (9): 10.
- Ali, S., & Ripley, S. D., 1987. Compact handbook of the birds of India and Pakistan together with those of Bangladesh, Nepal, Bhutan and Sri Lanka, 2nd ed. Oxford University Press, Delhi. Pp. i–xlii, 1 l., 1–737, 52 ll.
- Barve, S., Raman, T. R. S., Datta, A., & Jathar, G., 2020. Guidelines for conducting research on the nesting biology of Indian birds. *Indian Birds* 16 (1): 10–11.
- Begum, A. R., 1997. The breeding biology and daily activities of little cormorant, *Phalacrocorax niger* (Vieillot). M.Sc. Thesis (unpublished). Dept. of Zoology, University of Dhaka
- Bibby, C. J., Burgess, N. D., Hill, D. A., & Mustoe, S. H. 2000. Bird Census Techniques, 2 2nd ed. Academic Press, London. Pp. 1–302.
- Girija, G., Sivakumar, A.K., Varghese, R. M., & Anushreedha, S.S., 2021. Report of Heronry Count 2021 (Thiruvananthapuram District). WWF India / Kerala State Office, Kerala. Pp. 1–20.
- Grimmett. R., Inskipp. C., & Inskipp. T., 2011. Birds of the Indian Subcontinent. New

Delhi, Oxford University Press. Pp.1-528.

IUCN Bangladesh, 2015. Red List of Bangladesh, Vol. 3, Birds. IUCN, International Union for Conservation of Nature, Bangladesh Country Office, Dhaka, Bangladesh. Pp. 1–676.

- Jayson, E. A., 2001. Structure, composition and conservation of birds in Mangalavanam Mangroves, Cochin, Kerala. Zoos' Print Journal 16 (5): 471–478.
- Katuwal, H. B., Sundar, K. G., Zhang, M., Rimal, B., Baral, H. S., Sharma, H. P., Ghimire, P., Hughes, A. C., & Quan, R.-C., 2022. Factors affecting the breeding ecology of the globally threatened Lesser Adjutant (*Leptoptilos javanicus*) in agricultural landscapes of Nepal. *Avian Conservation and Ecology* 17 (2): 15. DOI: https://doi. org/10.5751/ACE-02235-170215
- Kazmierczak, K., 2000. A field guide to the birds of India, Sri Lanka, Pakistan, Nepal, Bhutan, Bangladesh and the Maldives, 1st ed. Pica Press / Christopher Helm, London. Pp. 1–352.
- Kopciewicz, P., Nitecki, C., Bzoma, S., & Stempniewicz, L., 1999. Breeding success of cormorants *Phalacrocorax carbo sinensis* in the colony at Katy Rybackie (N Poland). In: 23rd Annual Meeting and Workshops. Pp. 12.
- Lorentsen, S.-H., Anker-Nilssen, T., Barrett, R. T., & Systad, G. H., 2022. Population status, breeding biology and diet of Norwegian Great Cormorants. *Ardea* 109 (3): 299–312.
- Naher, H., 2014. Nesting colonies of Little Cormorant (*Phalacrocorax niger*) in different study areas of Bangladesh. *Bangladesh Journal of Zoology* 42 (1): 35–44.
- Naher, H., & Sarker, N. J., 2004. Population Ecology of the Little Cormorant, Phalacrocorax niger in a colony. *Ecoprint: An International Journal of Ecology* 11 (1): 65–68.
- Naher, H., Sarker, N. J., Rahman, M. K., & Khan, S. I., 2009. Breeding biology of the Little Cormorant *Phalacrocorax niger* (Pelecaniformes: Phlacrocoracidae) in Bangladesh. *Journal of Threatened Taxa* 221–225.
- Roshnath, R., & Sinu, P.A., 2017. Nesting tree characteristics of heronry birds of urban ecosystems in peninsular India: implications for habitat management. *Current Zoology* 63 (6): 599–605.
- Sadik, S, & Akash, M., 2024. A treetop diner: camera trapping reveals novel arboreal foraging by fishing cats on colonial nesting birds in Bangladesh. Mammalia 88 (2): 100–105.
- Sarlin, P. J., Morris, S., Morris, S., Morris, S., & Joseph, P., 2022. Heronries on a populous urban agglomeration and suburbs on the southwest coast of India: Nesting species and nesting trees. *Romanian J Biol Zoology* 67 (1–2): 57–72.
- Siddiqui, K. U., Islam, M. A., Kabir, S. M. H., Ahmad, M., Ahmed, A. T. A., Rahman, A. K. A., Haque, E. U., Ahmed, Z. U., Begum, Z. N. T., Hassan, M. A., Khondker, M., & Rahman, M. M., 2008. *Encyclopedia of flora and fauna of Bangladesh: birds*, 1st ed. Asiatic Society of Bangladesh, Dhaka, Bangladesh. Vol. 26 of 28 vols. Pp. i–xl, 1–662.
- Siriwannichkul, O., 1981. Food habits and breeding biology of little cormorant (*Phalacrocorax niger*). Kasetsart Univ. Bangkok. Thailand, 68pp.
- Smythies, B. E., 1953. The birds of Burma, 2nd (Revised). Oliver and Boyd [Ltd], Edinburgh, London, United Kingdom. Pp. i–xliii, 1–668.
- Subramanya, S., & Manu, K., 1996. Saving the Spot-billed Pelican a successful experiment. *Hornbill* 2: 2–6.
- Watts, B. D., & Watts, M. U., 2018. Assessing the status and distribution of nesting herons in urban areas of lower Tidewater, Virginia (2018 breeding season). Center for Conservation Biology Technical Report Series, CCBTR-18-11. College of William and Mary & Virginia Commonwealth University, Williamsburg, VA. 9 pp.
- Whistler, H., Kinnear, N. B., Grönvold, H., & Green, R., 1949. Popular handbook of Indian birds. Gurney and Jackson, Vol. 98. Webpage URL:
- Zuur, A. F., & Ieno, E. N., 2016. A protocol for conducting and presenting results of regression type analyses. *Methods in Ecology and Evolution* 7 (6): 636–645. DOI: https://doi.org/10.1111/2041-210X.12577.



Recoveries of marked birds from Ujjani Reservoir, Maharashtra

Omkar Joshi, Tuhina Katti, Aarohi Natu, Pavithra Ganesh & P Sathiyaselvam

Joshi, O., Katti, T., Natu, A., Ganesh, P., & Sathiyaselvam, P. 2025. Recoveries of marked birds from Ujjani Reservoir, Maharashtra *Indian BIRDS* 21 (1): 9–12. Omkar Joshi, E-mail: jomkar91@gmail.com [Corresponding author] Tuhina Katti, E-mail: tuhina.katti@gmail.com. Aarohi Natu, E-mail: aarohinatu@gmail.com. Pavithra Ganesh, E-mail: pavithraganeshav@gmail.com. P. Sathiyaselvam, E-mail: bnhs.sathiyaselvam@bnhs.org.

All authors, Hornbill House, S.B.S. Road, Dr. Salim Ali Chowk, Mumbai – 400001, Maharashtra, India. Manuscript received on 26 November 2024.

Despite the advent of technology-driven satellite telemetry studies, traditional bird ringing continues to be an essential method in ornithological studies. We can learn much about the migration patterns, longevity, survival rates, breeding and natal dispersal, and population dynamics of birds by capturing, tagging, and tracking individual birds (Rahmani 2017). For both landscape level as well as site-specific conservation, information obtained through ringing studies about site fidelity, population movements, migratory routes, stop-over sites, and habitat usage are especially helpful (Spina 1999; Anderson & Green 2009).

Ujjani Reservoir (18.074°N, 75.120°E) is created by Ujjani dam built across the Bhima River in Solapur, Pune, and Ahmednagar districts of Maharashtra, India. The shallow water areas of the reservoir, especially near Kumbhargaon (18.265°N, 74.805°E), attract large congregations of shorebirds, ducks, and flamingos. It is identified as an Important Bird Area (IBA) that regularly supports more than 20,000 waterbirds, as well as a potential Ramsar site due to its importance for bird and wetland conservation (Rahmani et. al. 2016). The islands in the reservoir also provides nest sites for River Tern *Sterna aurantia*, Little Tern *Sternula albifrons*, and Small Pratincole *Glareola lactea* (Bharucha & Gogte 1990; Chavan & Kumbhar 2020).

Despite its importance for waterbirds, including resident birds, local migrants and trans-national migrants of the Central Asian Flyway (CAF), no ringing studies have been carried out to identify the migratory paths of birds visiting Ujjani. In the year 2022–2023, we carried out bird ringing near the villages of Kumbhargaon and Shah (18.118°N, 75.089°E), both on the banks of the reservoir. All captured shorebirds were ringed on their right tarsus in even years and left tarsus in odd years with a metal engraved ring from the BNHS with a unique number on it. In addition, each bird was marked with two colour flags on its opposite leg-a white flag with red numbers engraved and a plain white flag-following the protocol followed here in the BNHS [3]. For the terns, in addition to the metal rings, they also were marked with a single white flag with red engraving [4]. Details of the individual tag and ring numbers are available from the corresponding author on request. Standard protocols for ringing were followed and data about age, sex, moult and morphometric measurements were taken before releasing the bird. A total of 533 individuals of 48 resident and migratory species were marked during the study, fuller details are being prepared (Joshi et al. in prep).



3. A Black-winged Stilt marked as per East Asian Australasian Flyway Protocol at Ujjani Reservoir.



4. A River Tern marked with metal ring and plastic flag at Ujjani Reservoir.

In this communication, we summarise re-sightings and recaptures and movement information generated in the last two years, till December 2024 (Table 1). We also included two instances where birds marked elsewhere, were recorded in our study area. There have been many re-sightings of the bird in the immediate neighbourhood of the ringing sites, and these are not listed here.

Kentish Plover Anarhvnchus alexandrinus: In India, we have two subspecies of the Kentish Plover, the nominate and



75.000

80.000

the seebohmi. The nominate subspecies is known to breed in

northern Indian subcontinent extending further north into Central

Asia and west towards West Asia while the seebohmi is, till date,

considered a resident or a local migrant in peninsular India and

Sri Lanka (del Hoyo et al. 2023). Here, we report two instances

where we photographed Kentish Plovers, marked elsewhere,

from the banks of the Ujjani reservoir (Figure 1, Table 2). The

first individual was marked from Point Calimere, Tamil Nadu

(10.298°N, 79.798°E) while the second one was marked from Pulicat Lake, Andhra Pradesh (13.647°N, 80.155°E), both marked as a part of the migration studies of the BNHS. Both were identified as the nominate subspecies at the site of ringing and we had no way to verify the same from the photographs. Birdwatchers have reported nesting of the Kentish Plover on the exposed reservoir banks during April and May (Datta Nagare, pers. comm., May 2022), and the breeding population is likely to be seebohmi based on range as they have been reported breeding as far as the Vidarbha region of Maharashtra (Kasambe 2007). However, it remains unclear whether these marked individuals bred in the area or were using Ujjani as a stopover during their northward migration to breeding grounds within India or further north. There has been just one instance of capture-recapture of an individual within India; a ringed bird from Karera, Madhya Pradesh in 1985 was recovered from Alakol region in Kazakhstan in 1987 (Balachandran et al. 2018).

> River Tern Sterna aurantia: A species generally consider resident in the river systems in India but facing threats in its breeding grounds and hence listed as Vulnerable under the IUCN (BirdLife International 2020). A chick marked at Ujjani Reservoir was resighted *c.*100 km away at Walki dam near Ahmednagar (Table 2). These provide the first local documentation of



10



Figure 2: Dispersal of birds marked in Ujjani Reservoir

movement for this species. Another chick marked at Shah Island was recaptured on Chincholi Island, c.30 km from its hatching site in the same reservoir, along with the breeding pairs of River

Table 2. Capture and recovery information of birds from Uijani Reservoir, Maharashtra

Tern (Table 2). We were not able to ascertain if this individual was breeding at the time.

Black-winged Stilt Himantopus himantopus: Widely distributed across India, with two populations, a resident and with migratory populations arriving from regions north of India during the northern winter (Maleko et al 2023). A chick was marked at Ujjani Dam and resighted c.250 km away at Virar, near Palghar beach in Maharashtra after just 45 days (Figure 2, Table 2). However, another chick marked at Ujjani Dam was resighted after 18 months at the same place (Figure 2, Table 2).

There are three known mark-recapture instances recorded for this species involving Indian sites. These include one bird ringed from Bharatpur, Rajasthan in March 1969 and recovered in Khyber Pakhtunkhwa, Pakistan, in April 1969. Another bird, ringed at the same location in April 1973, was recovered in Khyber Pakhtunkhwa in March 1980. Additionally, a bird ringed from Bharatpur in October 1970 was recovered near the Caspian Sea in Russia in September 1975 (Balachandran et al 2018).

Wood Sandpiper Tringa glareola: A long-distance migratory wader that uses inland and coastal wetlands across India. It breeds in northern Eurasia and migrates to regions south including Africa, South Asia, and Southeast Asia for the nonbreeding season (Rasmussen & Anderton 2012).

One individual marked at Ujjani Dam in April 2022, was recaptured one year later at the exact same place (Table 2). Another individual marked at same place was resignted a bit upstream in the reservoir after two years (Table 2).

Balachandran et al. (2018) documented several ringing recoveries of the species. Two birds ringed in West Bengal in April 1967 were later recovered in the Aral Sea and Magadanskaya, Russia, in May 1967. Another bird, ringed in Mandapam in February 1986, was found in Yakutia, Russia, in May of the same year. Among the birds ringed in Bharatpur, two individuals marked in March 1972 were recovered in Ahal, Turkmenistan, in October 1973, while another was recovered from Karagandy,

	able 2. capture and recovery information of birds non-opjain reservoir, manardshad						
SI No	Species	Capture date	Recovery date	Days since capture	Capture Site	Recovery Site	Distance of Recovery Site (km)
1	Black-winged Stilt <i>Himantopus himantopus</i>	05 May 2024	18 June 2023	45	Kumbhargaon, Ujjani Reservoir	Virar, Near Mumbai, Maharashtra	250 km
2	Black-winged Stilt <i>Himantopus himantopus</i>	10 June 2022	16 December 2023	554	Kumbhargaon, Ujjani Reservoir	Kumbhargaon, Ujjani Reservoir	0 km
3	Pacific Golden Plover <i>Pluvialis fulva</i>	07 April 2023	25 August 2023	140	Kumbhargaon, Ujjani Reservoir	Kumbhargaon, Ujjani Reservoir	0 km
4	Kentish Plover <i>Anarhynchus alexandrinus</i>	29 November 2021	17 May 2022	169	Point Calimere, Tamil Nadu	Ujjani Reservoir	<i>c.</i> 1,000km
5	Kentish Plover <i>Anarhynchus alexandrinus</i>	31 December 2022	13 February 2024	409	Pulicat lake, Andhra Pradesh	Kumbhargaon, Ujjani Reservoir	<i>c</i> .800km
6	Wood Sandpiper <i>Tringa glareola</i>	12 April 2022	06 March 2023	328	Kumbhargaon, Ujjani Reservoir	Kumbhargaon, Ujjani Reservoir	0 km
7	Wood Sandpiper <i>Tringa glareola</i>	27 November 2022	30 November 2024	734	Kumbhargaon, Ujjani Reservoir	Bhigwan, Ujjani Reservoir	5km
8	River Tern <i>Sterna aurantia</i>	12 June 2022	30 December 2022	201	Shah, Ujjani Reservoir	Walki, Near Ahmednagar, Maharashtra	100km
9	River Tern <i>Sterna aurantia</i>	12 June 2022	06 April 2023	298	Shah, Ujjani Reservoir	Kumbhargaon, Ujjani Reservoir	40km

Kazakhstan, in May 1967. Additionally, six birds were recovered from the Ob River region in Tyumen and Khanty-Mansi, with one found along the Ob Delta in Russia. Eight birds ringed in Bihar and West Bengal were later recovered in the Central Siberian Plateau and Magadan region of Russia. Within India, birds ringed in Bharatpur were recovered in Chennai, Vellore, and Thanjavur in Tamil Nadu, as well as Mahbubnagar in Telangana.

Pacific Golden Plover *Pluvialis fulva*: A migratory shorebird whose Asian populations spend the northern winter in the coastal wetlands, and grasslands of India after breeding in the Arctic tundra, arrive by September–October and departs by March–April (Rasmussen & Anderton 2012).

The Pacific Golden Plover is a passage migrant to the Ujjani reservoir. Up to 20–25 birds are often seen during August– September and March–April while being absent during the intervening months. Two individuals were marked during their northern migration in spring were resignted during their southward migration in autumn, during the subsequent season (Table 2).

Conclusions

Our study offers some insights into the connectivity of Ujjani reservoir with surrounding habitats, including other wetlands, reservoirs, and coastal areas, and how migratory birds are utilising this wetland. It is clear that this wetland is offering multiple uses for individual waterbirds—as breeding sites, wintering habitats, as well as stop-over sites during migration.

It also appears that the local breeding population of River Terns and Black-winged Stilts may be the source population for the neighbouring wetlands and we demonstrated that they disperse locally after breeding. Continued sustenance of this resident population requires the management of Ujjani reservoir as well as the wetlands in the immediate neighbourhood.

While previous ringing studies have demonstrated the transnational migration of Wood Sandpipers to several sites in northern Asia, here, we demonstrated evidence of their non-breeding site fidelity across a period of two years. The wetlands of the northern Deccan may be serving as important non-breeding habitat for these shorebirds during the winter months.

While it was known that Pacific Golden Plovers are passage migrants through the Deccan, our studies demonstrated that the individuals tend to use the same stop-over sites during their onward and return migration. This is important as wetlands in the northern Deccan tend to dry-up early during harsh summers and may have an impact on the return migration of such waders.

Ujjani Reservoir is managed by the state irrigation department and lacks legal protection. Our observations indicate that shallow water areas of the wetland are drying-up by the second half of March due to extraction of water for irrigation. This results in a reduction of critical feeding sites, and risks forcing birds to leave the area before they may be able to build adequate energy reserves for migration. It may perhaps be crucial to maintain a minimum water level in the reservoir during the northern summer months for offering feeding and nesting sites for the birds. Additionally, disturbances like trampling by grazing livestock, free-ranging dogs, and discarded fishing nets on temporary islands used by ground-nesting waterbirds may compromise the breeding success of resident species. Designating and managing parts of the reservoir as a bird sanctuary could potentially strengthen management of the wetland to mitigate these issues (Bharucha & Gogte 1990).

Acknowledgements

We thank Dr. Bivash Pandav, former Director of BNHS, for the opportunity to conduct this study. Our gratitude extends to the Mangrove Foundation and Maharashtra Forest Department for funding and permission. Special thanks to Mr. Datta Nagare and his team for local support, Dr. S Balachandran, Mr. Sivakumar, and the bird watchers for providing ringing and resighting information.

References

- Anderson, G.Q.A. & Green, R.E. 2009. The value of ringing for bird conservation. *Ringing & Migration* 24 (3): 205–212.
- Balachandran, S., Katti, T., & Manakadan, R. 2018. Indian Bird Migration Atlas. Oxford University Press, New Delhi.
- Bharucha, E. K., & Gogte, P. P., 1990. Avian profile of a man-modified aquatic ecosystem in the backwaters of the Ujjani Dam. *Journal of the Bombay Natural History Society* 87: 73–90.
- BirdLife International, 2020. Species factsheet: River Tern *Sterna aurantia*. https:// datazone.birdlife.org/species/factsheet/river-tern-sterna-aurantia [Accessed on 01 March 2025.]
- Chavan S. & Kumbhar, A., 2020. Breeding Ecology of River Tern (*Sterna aurantia*) at Ujjani-Bhigwan Reservoir Bird Sanctuary near Pune-Solapur Highway, India. *Asian Journal of Conservation Biology* 9 (2): 352–358.
- del Hoyo, J., Wiersma, P., Kirwan, G. M., Collar, N., Boesman, P. F. D., & Sharpe. C. J., 2023. Kentish Plover (*Anarhynchus alexandrinus*), version 1.2. In Birds of the World (B. K. Keeney, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. https:// doi.org/10.2173/bow.kenplo1.01.2
- Maleko, P. N., Billerman, S. M. & Pyle, P., 2023. Black-winged Stilt (*Himantopus himantopus*), version 2.0. In Birds of the World (S. M. Billerman, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.bkwsti.02
- Rahmani, A. R., Islam, M. Z. & Kasambe, R. M., 2016. Important Bird and Biodiversity Areas in India: Priority Sites for Conservation (Revised and updated). Bombay Natural History Society, Indian Bird Conservation Network, Royal Society for the Protection of Birds and BirdLife International (U.K.). Pp. 1992 + xii
- Rahmani, A. R., 2017. The importance of bird ringing. *Hornbill* (2): 12–15.
 Rasmussen, P. C., & Anderton, J. C., 2012. *Birds of South Asia: the Ripley guide: attributes and status*, 2nd ed. Smithsonian Institution and Lynx Edicions.,
- Washington, D.C. and Barcelona. Vol. 2 of 2 vols. Pp. 1–683.
- Spina, F., 1999. Value of ringing information for bird conservation in Europe. *Ringing & Migration* 19 (Sup1): 29–40.

With the compliments of

G.B.K. CHARITABLE TRUST

Unit No. T-6C, Phoenix House, S. B. Marg, Lower Parel, Mumbai 400013, India.

Correspondence

The Band-bellied Crake *Zapornia paykullii* from Chidiyatapu, Andaman and Nicobar Islands: An addition to the South Asian avifauna

On the morning of 19 April 2024, I was guiding a birding tour group near Chidiyatapu forest (11.624°N, 92.676°E), South Andaman District, Andaman and Nicobar Islands, India. We were birding in a forest patch with flowing stream nearby. At 0710h, I spotted a crake-like bird on the road. One of our group members was able to take few photographs of it **[5–8]**. My initial field impression was that of a Slaty-legged Crake *Rallina eurizonoides*, a rare bird in the islands (Raman et al. 2013; Dalvi et al. 2022). However, after checking the photographs, I came to a conclusion that it is probably a Band-bellied Crake *Zapornia paykullii* due to its red legs **[7–8]** and strikingly-banded belly **[6]**. I also referred to photographs in www.ebird.org and *Birds of the World* (Taylor & Bonan 2020) and compared with that of the Slaty-legged Crake. Subsequently, I consulted others (see acknowledgements) who agreed with my identification.

The Band-bellied Crake breeds in eastern Asia and winters in Southeast Asia to as far south as the islands of Sumatra, Java, and Borneo. Hence, a vagrant during migration in the Andaman & Nicobar Islands is always a possibility. However, this is the first report for India and South Asia and there are other crakes in Andamans. Hence, a brief description of this individual's plumage and reasons for eliminating other similar crakes is needed.



5. Band-bellied Crake showing bars on underparts, undertail and red legs.



ALL: Devendra Vartal

6. Band-bellied Crake reddish face and paler throat and supercilium



7. Band-bellied Crake front view.



8. Band-bellied Crake showing red legs.

The crake had brown upperparts, reddish face turning paler at the sides of the neck, and again turning richer on the flanks and upper breast. The iris was red with a broad, paler chestnut supercilium that merged with the pale chestnut on the sides of the neck. The bill was horny in colour while the legs were red. The most striking feature in this bird was the black-and-white banded lower breast, belly, and under tail. The bands started with a thin white band followed by a thick black band, after which the black and white bands were nearly of equal width and both bands broadening towards the tail. All bars appeared to be black rather than dark-brown and hence this bird was possibly an adult male.

The resident and endemic Andaman Crake R. canningi with its green bill, dark chestnut plumage, unbarred undertail coverts, and slate-coloured legs could be easily told apart from my bird. The shape of its bill, being more pointed, is also different from my bird which showed a more swollen distal half. The Slatylegged Crake is more similar but its feet are greyish-slaty, has more richer upperparts, and does not show the white and black markings on the wing coverts, a feature visible in my bird [5]. The Red-legged Crake R. fasciata, known from the Nicobar Islands (Dalvi et al. 2022), is also similar with red legs, but the start of barring is higher in the breast and is more rich chestnut all over its face, including the crown. The Red-legged Crake typically shows more white spots on the wings than the Band-bellied Crake and also has white spots in its primaries, which is absent in my bird. Great Nicobar Island has an undescribed crake (Rajeshkumar et al. 2012), which has orange-red legs, but available photographs show a pale-yellow bill and rather thickset legs, unlike my bird. Hence, all visible features are indicative of a Band-bellied Crake, eliminating other similar crakes.

In its regular range, the Band-bellied Crake prefers wet grass and paddyfields as well as grassy hummocks with bushes or small trees, in meadows and swamps (Taylor & Bonan 2020). Considering this is an April record, this particular bird might have been on its return migration to its breeding grounds in northeastern Asia. Overall, a scarce bird, very little information is available on its migratory habits. There are very few observation records from its wintering range in Southeast Asia (eBird 2024); in fact, except for a long-staying bird in Singapore in 2018, there are only two other April records of this species in the 21st century from the entire world! This makes our record of this little-known species, rather special.

I would like to thank Devendra Vartak for photographing the bird and G. Shaktivel and Shashank Dalvi for helping me with the identification.

References

- Dalvi, S., Dixit, S., Dharwadkar, O., & Thackeray, T., 2022. The Red-legged Crake Rallina fasciata—a new species for the Indian Subcontinent, and the Slaty-legged Crake Rallina eurizonoides—a new species for the Nicobar Islands. Indian Birds 17 (6): 161–164.
- eBird, 2024. Webpage URL: https://ebird.org/map/babcra1. [Accessed on 15 November 2024.]
- Rajeshkumar, S., Ragunathan, C., & Rasmussen, P. C., 2012. An apparently new species of *Rallina* crake from Great Nicobar Island, India. *BirdingASIA* 17: 44–46.
- Raman, T. R. S., Mudappa, D., Khan, T., Mistry, U., Saxena, A., Varma, K., Ekka, N., Lenin, J., & Whitaker, R., 2013. An expedition to Narcondam: observations of marine and terrestrial fauna including the island-endemic hornbill. *Current Science* 105 (3): 346–360.
- Taylor, B., & Bonan, A., 2020. Band-bellied Crake (Zapornia paykullii), version 1.0. In: Birds of the World. (J. del Hoyo, A. Elliott, J. Sargatal, & D. A. Christie, eds). Ithaca, NY, USA: Cornell Lab of Ornithology.

Jabili U.
 Birdline, Port Blair, South Andamans, Andaman and Nicobar Islands, 744101, India.
 E-mail: Jabili.rao7@gmail.com

Grey-streaked Flycatcher *Muscicapa greseisticta* from South Andaman, Andaman and Nicobar Islands: An addition to the avifauna of South Asia

The Grey-streaked Flycatcher *Muscicapa greseisticta* (hereinafter, GSFC) is a migratory old-world flycatcher that breeds in parts of north-eastern China, eastern Mongolia, North Korea, and south-eastern Russia (Clement 2020). Its non-breeding range primarily extends from Taiwan and Philippines through North Borneo, Sulawesi, and western Papua, up till the Lesser Sunda islands. There exist a few records from beyond the western edge of its main non-breeding range from Vietnam, Singapore, Malaysia, Thailand, and Cocos (Keeling) islands, where it is considered a vagrant (eBird 2024).

On 08 November, 2024, starting at 1515 h, we were birding on the path to the top of Mount Harriet (Mount Manipur) in South Andaman, Andaman and Nicobar Islands. Upon reaching the highest point of the peak (11.720°N, 92.733°E, c.365 m) at 1630 h, we spotted a flycatcher atop an 8–10 m tall tree [9]. Being at an elevated position, we observed the bird almost at eye-level. It was almost dusk, and light was fading. The bird was observed sallying periodically from the same perch for about 5–7 minutes, after which it took off to a neighboring tree but returning to its earlier perch ten minutes later. It remained on its perch but occasionally sallied. After another 5–7 minutes, it flew away, not to be seen again. The most distinct feature observed through binoculars was bold and well-defined streaking on clean whitish flanks, breast and to some extent on the belly. There was no brownish wash or buff coloration on the underparts which appeared clean white.

We discussed the oddity of the streaked plumage as we compared to other Muscicapid flycatchers that we were familiar with and were possible in the region. At first, we considered the Dark-sided Flycatcher Muscicapa sibrica (hereinafter, DSFC) and the Asian Brown Flycatcher M. dauurica (hereinafter, ABFC). These two flycatchers are known from the Andaman and Nicobar Islands, and we had already seen three ABFCs during the past one week on the islands; however, none of them had shown any prominent streaking on the underparts. We noted later that the Brown-streaked Flycatcher M. williamsoni (hereinafter, BSFC), a recent split from the ABFC, also needs to be taken into account. The bird we observed looked quite different compared to the DSFC subspecies (qulmergi & cacabata) of the Himalaya; which we are familiar with. These birds (both first-year and adults) tend to have very dark underparts with a brown wash and darker ill-defined streaking, if not blotches, on the flanks and the breast, with a prominent white band running from the lower breast to the belly. However, the bird that we observed did not show any of these features. The ABFC never shows very strong, well-defined streaking as in the bird that we observed. The Spotted Flycatcher M. striata can show thin distinct streaking on the underparts. However, being familiar with that species, and absence of distinctive features of that species like streaky forehead and crown, concolorous lores with rest of face, long tail extending much beyond the tip of the folded primaries, and slim and elongated overall appearance helped us easily eliminate that species.



9. Grey-streaked Flycatcher as sighted atop a tree.

After a literature search, we realized that the bird must be a GSFC (Robson 2000). Below, we compare the plumage and structural characteristics of the observed bird with two other 'streaked' Muscicapidae flycatchers, and argue that ours is a GSFC. Our comparisons are based on a thorough inspection of the photographic database on eBird along with relevant literature (Alström & Hirschfeld 1991; Bradshaw et al. 1991) and personal communications (Dave Bakewell, in litt., e-mail dated 11 November 2024; Craig Robson, in litt., e-mail dated 12 November 2024; James Eaton, in litt., e-mail dated 24 November 2024). The flycatchers considered are BSFC, GSFC, and the nominate subspecies of DSFC (hereinafter, just DSFC); all known to winter in Southeast Asia.



10. Grey-streaked Flycatcher showing a distinct and pale wing-bar and well-separated streaking on uniformly whitish underparts.



3 oth: S. Krishnan

11. Grey-streaked Flycatcher showing pale loral and sub-moustachial regions.

Aging: The first-winter individuals of these three flycatchers show clear pale tips to the greater coverts giving the appearance of a distinct wing-bar. Since our sighting is in late autumn and it is expected that only the greater coverts are retained after the post-juvenile molt, the observed individual showing a very distinct wing-bar is a first-winter bird **[10]**.

Underparts' streaking: A crucial diagnostic feature for the GSFC is the nature of the streaking on the underparts. The streaking is well-defined and distinct (with clear separation between individual streaks) on uniformly whitish underparts, as opposed to inconspicuous, weak, smudged streaking on light brown underparts in the BSFC. For the DSFC, the streaking is typically more conspicuous than the BSFC, but the nature of the streaking is again unlike the GSFC. The DSFC also shows a browner wash on the sides of the breast and flanks with some diffuse but broad streaks. Some nominate DSFC can show more distinct and bolder streaks near the breast, but the flanks always have a brownish wash and the streaking smudges out. This gives the appearance of a whitish band on a brown background running from the breast to the belly and the vent. The individual observed by us had strong, very distinct, and finer streaking throughout the flanks and breast, on otherwise fairly uniform whitish underparts, pointing towards it being GSFC [10, 11]. It is interesting to note that there is evidence of unusually distinctly streaked DSFC and such birds can be very difficult to separate from GSFC (Alström

& Hirschfeld 1991). However, Bradshaw et al. (1991) mentions, even in such birds, the streaking is never so distinct or extensive as on GSFC; the streaking on DSFC being against a brown background as opposed to a white background on GSFC; like in our case.

Loral and sub-moustachial region: Existing photographs of the BSFC seem to show very little or no pale colouration in the loral and sub-moustachial regions. However, the loral and submoustachial regions of GSFC are much paler, as in our bird. Such pale colouration can also be seen in DSFC, but it typically shows buff lores as opposed to more whitish lores in the GSFC; a feature captured well in our photographs [3]. Note that this feature seems to be somewhat dependent on the angle of viewing. Also, the loral spot and sub-moustachial stripe are very distinct in our bird [3].

Length of tail and folded primaries: The BSFC seems to have relatively long tail feathers, judged by how much they extend beyond the tip of the undertail coverts and the tip of the folded primaries. The bird that we observed, however, showed a comparatively shorter tail, fitting GSFC. The above feature also seems to give the impression of longer wings that reaches of the tips of the folded primaries for a perched GSFC compared to a BSFC. The tips of the folded primaries reach closer to the tip of the tail in a GSFC as evident in the given photograph [10, 11], pointing towards the bird being either a GSFC or a DSFC. There is a good amount of overlap for this feature between GSFC and DSFC and hence it is only useful to eliminate BSFC.

Tips of greater coverts (wing-bar): The extent of white or brown colouration of the tips of the greater coverts seems to be different in the first-cycle birds of the three species. However, this feature seems to depend more strongly on the brightness level of the surroundings. If the light is bright and falling on the bird, the colouration of the tips of the greater coverts invariably appears whitish in all species. However, in more diffused light conditions, like in our observation, the colour tones of the greater coverts can appear buff. Typically, both BSFC and DSFC seem to show buffish tips to the greater coverts, whereas the GSFC tends to show whitish tips. One of the photographs [10] captures this feature well. It is unlikely that buffish tips will seem whitish in low light or in a grazing angle of view. However, the quality of the photograph precludes a more definitive statement in this regard, and can at best be treated as supportive.

It must be noted that other features like the extent of white in the eye-ring, and the extent of streaking in the sub-moustachial stripe, which have been pointed out in literature (Alström & Hirschfeld 1991), are not discussed here as there seems to exist much variability in those features based on our analysis of photographs on eBird. In addition, our photographs have failed to capture such finer details. Also, the DSFC and the BSFC, at times, tend to show dark centers to some of the undertail coverts, which are often concealed in the field. For the GSFC, it is claimed that the undertail coverts do not show dark centers, but basal half may be dark tinged (Alström & Hirschfeld 1991). However, this feature is therefore not useful in our case.

In summary, underpart streaking and the ground colour of the underparts along with the colours of the loral and submoustachial region should establish our bird as a GSFC with other visible features not contradicting what is expected in a GSFC.



Figure 1: eBird range map (Fink et al. 2023) for the Grey-streaked Flycatcher showing areas where the species is estimated to occur within at least one week within each of three defined seasons. Out-of-range sightings, including ours, are marked.

There are no previous records of GSFC from India or South Asia. The nearest record of this bird is from southern Thailand, close to Malaysia, at an aerial distance of **c**.1000 km westwards (95% of the distance being over sea) from our site of observation. Thus, our record is the first for India, and globally the westernmost for this species. Given its known range (Fig. 1), vagrancy in the eastern and north-eastern parts of South Asia is to be expected. Birdwatchers visiting these areas must also look out for other migratory vagrants which have a large wintering range in Southeast Asia.

References

- Alström, P., & Hirschfeld, E., 1991. Field identification of Brown, Siberian and Greystreaked Flycatchers. *Birding World* 4: 271–278.
- Bradshaw, C., Jepson, P. J., & Lindsey, N. J., 1991. Identification of brown flycatchers. British Birds 84 (12): 527–542.
- Clement, P., 2020. Gray-streaked Flycatcher (*Muscicapa griseisticta*), In: In Birds of the World. (J. del Hoyo, A. Elliot, J. Sargatal, D. A. Christie, & E. de Juana, eds). Ithaca, NY, USA: Cornell Lab of Ornithology. https://doi.org/10.2173/bow.gysfly1.01.
- eBird, 2024. Webpage URL: https://ebird.org/map/gysfly1. [Accessed on 07 September 2024.]
- Robson, C., 2000. *A field guide to the birds of South-East Asia*, 1st ed. New Holland Publishers (UK) Ltd., London. Pp. 1–504.
- Fink, D., Auer, T., Johnston, A., Strimas-Mackey, M., Ligocki, S., Robinson, O., Hochachka, W., Jaromczyk, L., Crowley, C., Dunham, K., Stillman, A., Davies, I., Rodewald, A., Ruiz-Gutierrez, V., & Wood, C. 2023. eBird Status and Trends, Data Version: 2022; Released: 2023. Cornell Lab of Ornithology, Ithaca, New York. https://doi.org/10.2173/ebirdst.2022

 Ashwin Mohan, S. Krishnan & Adithi Muralidhar
 Ashwin Mohan, Institute of Chemical Technology, Nathalal Parekh Marg, Matunga, Mumbai 400019, Maharashtra, India.
 E-mail: ashwinat8848@gmail.com [Corresponding author.]
 S. Krishnan, Indian Institute of Technology, Powai, Mumbai 400076, Maharashtra, India.
 E-mail: siva.krishnan@gmail.com
 Adithi Muralidhar, Homi Bhabha Centre for Science Education, Tata Institute of
 Fundamental Research, V. N. Purav Marg, Mankhurd, Mumbai400088, Maharashtra, India.

E-mail: adits.mdhar@gmail.com

European Greenfinch *Chloris chloris* from Jammu & Kashmir: An addition to the avifauna of India

The European Greenfinch *Chloris chloris* is a medium sized broadheaded bird in the finch family Fringillidae. It is widespread across Europe, northern Africa, and parts of central and southwestern Asia (Clement & de Juana 2020). While primarily resident, some northern populations migrate south during the northern winter influenced by seasonal changes. In Asia, the European Greenfinch's range extends till about Central Asia to northern Iran, with rare passage migrants observed in western China (Xinjiang), western Mongolia to eastern Russia (eBird 2025).

On 10 February 2025, at 0930 h, while birding at Botanical Garden, Srinagar (34.091°N, 74.884°E; c.1,600 m asl), Jammu & Kashmir, India, SR observed a flock of Yellow-breasted Greenfinch C. spinoides perched on a Chinar tree Platanus sp. One of the individuals appeared slightly bigger than the rest of the flock, so he took some photographs and shared them with AA and IJ, who identified the bird as a European Greenfinch based on its slightly larger size, with an overall greenish-yellow plumage, a stout conical pinkish bill, and distinct yellow patches on its primaries and tail [12]. Incidentally, on the same day and location, at 1650 h, UM, RC and BD saw a bird in flight which seemed like a Greenfinch but perceptibly bigger in size. They took some photographs [13] from a distance with the intention to identify the species. Since the bird was new to them, it could not be identified in the field. Eventually a few more photographs were taken but the bird flew away, chased by a Himalayan Bulbul Pynonotus leucogenys. It was later identified as an adult male European Greenfinch by its completely unstreaked appearance with bright colours and lack of obvious black on the base of primaries. These observations were followed by AA, IJ, and IM on the very next day, when the bird was again seen perching with a flock of Yellow-breasted Greenfinches establishing its presence and making it a first record for India (Praveen & Jayapal 2025) as well as Jammu & Kashmir (Kichloo et al. 2024). The bird was present for a few more days giving excellent opportunities to photograph [14-15] and several birders reported the species till 15 February 2025.



12. European Greenfinch showing yellow on primaries.



Uttam Mahatha

3 oth: Sheikh Riyaz

13. European Greenfinch showing no black at the base of yellow primaries.



14. European Greenfinch showing yellowish-green forehead.



15. European Greenfinch feeding on the ground.

The closest known breeding populations of European Greenfinch are found in Taiikistan, eastern Kyrgyzstan, and Afghanistan (Rasmussen & Anderton 2012). Given that vagrancy of this species has been reported in China and other parts of Central Asia, it is likely that this individual dispersed southward from its regular range. The nearest records of this species in Indian subcontinent are from Hanna Lake (Pakistan Historical Records 2019) and Golain Valley (Mosavi 2024), both locations in Pakistan. Though subspecies identification is difficult, the expected population that would occur here is C. c. turkestanica which is a winter visitor to Afghanistan (Rasmussen & Anderton 2012), and has more yellowish-green forehead like in our bird [14]. The current record not only adds a new species to India's avifauna but also highlights the importance of continuous monitoring and documentation to understand avian distribution changes, especially in the context of environmental changes in the region.

References

- Clement, P., & de Juana, E., 2020. European Greenfinch (*Chloris chloris*), version 1.0. In: *Birds of the World*. (J. del Hoyo, A. Elliott, J. Sargatal, D. A. Christie, & E. de Juana, eds). Ithaca, NY, USA: Cornell Lab of Ornithology. https://doi.org/10.2173/ bow.eurgre1.01.
- eBird, 2025. Webpage URL: https://ebird.org/map/eurgre1. [Accessed on 20 August 2024.]
- Kichloo, M. A., Sharma, N., Suhail, I., Shagoo, P., & Kumar, P., 2024. A checklist of the birds of Jammu & Kashmir, India. *Indian Birds* 19 (6): 163–180. DOI: https://doi. org/10.5281/ZENODO.10401432.
- Mosavi, A., 2024. Webpage URL: https://ebird.org/checklist/S205873623. [Accessed on 22 March 2025.].
- Pakistan Historical Records, 2019. Webpage URL: https://ebird.org/checklist/S71833833. [Accessed on 23 March 2025.]
- Praveen, J., & Jayapal, R., 2025. Checklist of the birds of India (v9.0). Webpage URL: http://www.indianbirds.in/india/. [Accessed on 20 March 2025.]
- Rasmussen, P. C., & Anderton, J. C., 2012. Birds of South Asia: the Ripley guide: attributes and status, 2nd ed. Smithsonian Institution and Lynx Edicions., Washington, D.C. and Barcelona. Vol. 2 of 2 vols. Pp. 1–683.
 - Sheikh Riyaz, Uttam Mahatha, Ansar Ahmad, Irfan Jeelani, Ishfaq Majeed, Ritu Chatterjee & Bilal Dar

Sheikh Riyaz, Brane Nishat, Srinagar, Jammu & Kashmir, India. E-mail: ahmad.sheikh.riyaz@gmail.com [SR] [Corresponding author] Uttam Mahatha, Kolkata, West Bengal, India. [UM] E-mail: chithidish@gmail.com Ansar Ahmad, Danpora Brane Nishat, Srinagar, Jammu & Kashmir, India. [AA] E-mail: ansarsilenteyes@gmail.com Irfan Jeelani, Kangan Ganderbal, Jammu & Kashmir, India. [UJ] E-mail: irfanjeelani23@gmail.com Ishfaq Majeed, Danpora Brane Nishat Srinagar, Jammu & Kashmir, India. [IM] E-mail: ishihamdani6@gmail.com Ritu Chatterjee, Kolkata, West Bengal, India. [RC] E-mail: seasonrc@gmail.com

Bilal Dar, Budgam, Jammu & Kashmir, India. [BD] E-mail: darb0703@gmail.com

Addition of the European Roller *Coracias garrulus* to the avifauna of Bhutan

The European Roller Coracias garrulus breeds in Europe (primarily eastern Europe), extreme north-western Africa, and western Asia. Almost its entire population winters in sub-Saharan Africa (Fry et al. 2020). In India, this species is a passage migrant from August to November, when large numbers pass through northwestern and western India and smaller numbers through the south (SoIB 2023). Additionally, there are a few wintering records from western India, and it is also known to breed in Kashmir (Rasmussen & Anderton 2012). In peninsular states like Maharashtra, Goa, Karnataka, and Kerala, sightings have been consistently reported since 1998, particularly between September and November each year (Narayanan et al. 2008; Kasambe et al. 2013; eBird 2024). The easternmost records in India are from the Andaman Islands, where it was first recorded on 31 October 2009 (Rajan & Pramod 2011) and more recently on 19 November 2016 (Mohanty 2016). The easternmost record in mainland India is from Nadia District, West Bengal, on 07 October 2017 (Birdwatcher's Society of Bengal 2017). The first and only confirmed record from Nepal was on 29 August 2021, at Kekighan in the Annapurna Conservation Area (29.180°N, 83.970°E; c.3,780 m asl) (Gurung & Baral 2022).

On 20 October 2017, a European Roller was observed at a paddy field in Tangmachu, Lhuentse, eastern Bhutan (27.597°N, 91.196°E; *c*.1,550 m asl) (Fig. 1), perched on an electric line **[16]**. Photographs of the bird were taken using a Canon DSLR equipped with a Tamron 75–300 mm lens. These photos were subsequently shared with the Facebook citizen science group *Birds of Bhutan* for identification and verification of prior records. Sherub, an ornithologist from the Ugyen Wangchuck Institute for Conservation and Environmental Research Training (UWIFORT) in Lamai Goenpa, Bumthang, and Tim Inskipp confirmed the

identification, and that this observation marked a new record for Bhutan. The sighting location is part of the Minjey Wetland Important Bird Area (BirdLife International 2024).



Gyeltshen

16. European Roller, 20 October 2017, Tangmachu, Lhuentse, Bhutan.



Fig. 1. Relative location of European Roller sighting in Bhutan.

Since this sighting of the European Roller, the authors have continued monitoring and documenting incidental bird sightings in the area. Despite consistent efforts, the species was not observed in later years, concluding it was a vagrant to the region. This rare occurrence might have been influenced by atypical weather conditions or changes in habitat availability along its migration path. Although the species has experienced population declines in Europe due to habitat loss, intensified agricultural activities, and pesticide use (Rodríguez-Ruiz et al. 2019), its capacity to appear as a vagrant in far-flung regions underscores its adaptability and resilience.

The authors thank Sherub and Tim Inskipp for confirming the species and its first record in Bhutan.

References

- BirdLife International, 2024. Species factsheet: Coracias garrulus. Webpage URL: https://datazone.birdlife.org/species/factsheet/european-roller-coracias-garrulus [Accessed on 29 May 2024.]
- Birdwatcher's Society of Bengal, 2017. Webpage URL: https://ebird.org/checklist/ S39969569 [Accessed on 18 January 2025.]
- eBird, 2024. Species Map: European Roller. Webpage URL: https://ebird.org/map/ eurrol1 [Accessed on 18 January 2025.]
- Fry, H., Boesman, P. F. D., Kirwan, G. M., & Sharpe, C. J., 2020. European Roller (*Coracias garrulus*), version 1.0. In *Birds of the World* (J. del Hoyo, A. Elliott, J. Sargatal, D. A. Christie, and E. de Juana, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.eurrol1.01

- Gurung, R. B., & Baral, R., 2022. The first record of European roller Coracias garrulus for Nepal. Nepalese Journal of Zoology, 6 (2): 53–54. https://doi.org/10.3126/njz. v6i2.51886
- Kasambe, R., Surve, S., & Khan, N., 2013. Recent sight records of the European Roller in Maharashtra. *MISTNET* 14(4).
- Mohanty, N., 2016. Webpage URL: https://ebird.org/checklist/S32675852 [Accessed on 18 January 2025.]
- Narayanan, S. P., Sajith, K. M., Pillai, A. P., Narendran, M. M., & Sreekumar, B., 2008. Records of European Roller *Coracias garrulus* from southern Peninsular India, including the first sighting from Kerala. *Indian BIRDS* 4 (1): 2–5
- Rajan, P., & Pramod, P., 2011. First records of European Roller *Coracias garrulus* from the Andaman Islands, India. *BirdingASIA* 16: 106–107.
- Rasmussen, P. C., & Anderton, J. C., 2012. Birds of South Asia: the Ripley guide: attributes and status. 2nd ed. Washington, D.C. and Barcelona: Smithsonian Institution and Lynx Edicions. Vol. 2 of 2 vols. Pp. 1–683.
- Rodríguez-Ruiz, J., Mougeot, F., Parejo, D., Puente, J. D. L., Bermejo, A., & Avilés, J. M., 2019. Important areas for the conservation of the European Roller Coracias garrulus during the non-breeding season in southern Africa. Bird Conservation International 29 (1): 159–175. https://doi.org/10.1017/S095927091800014X
- SoIB, 2023. State of India's Birds factsheet: European Roller Coracias garrulus (India) https://stateofindiasbirds.in/species/eurrol1 [Accessed on 14 January 2025.]
 - Gyeltshen, Sangay Chedup, Tendel Wangdi & Rinchen Dorji Gyeltshen, Divisional Forest Office, Mongar, Department of Forests and Park Services, Royal Government of Bhutan

Sangay Chedup, Divisional Forest Office, Mongar, Department of Forests and Park Services, Royal Government of Bhutan. E-mail: sangaychedup16@gmail.com [Corresponding author] Tendel Wangdi, Divisional Forest Office Mongar, Department of Forests and Park Services, Royal Government of Bhutan

Rinchen Dorji, Department of Forests and Park Services, Royal Government of Bhutan

Isabelline Wheatear *Oenanthe isabellina* for Bangladesh – A new species for the country

Isabelline Wheatear *Oenanthe isabellina* is known to breed in Afghanistan and western Pakistan in South Asia and its wintering range is primarily in Pakistan and north-western India, however, it is also known to occur east, with scattered records especially on passage from Nepal, Bhutan and Arunachal Pradesh in India, and further south from south-western and southern India, Sri Lanka, as well as Maldives in autumn passage (Kazmierczak 2000; Grimmett et al. 2011; Rasmussen & Anderton 2012a). It breeds in expansive stony plateaus, valleys, gullies and winters in semidesert with scattered bushes, preferring sandier substrates (Rasmussen & Anderton 2012b).

On 16 October, 2024 at 1400 h, we spotted an Isabelline Wheatear at Kuakata, Patuakhali in south-western Bangladesh [17, 18]. The bird was first observed on the shore next to the open sea over some large concrete blocks which have been placed to protect the shoreline from tidal water. The area is just beside the road built over the dike called Paschim Beribandh (21.822°N, 90.108°E; 4 m asl). The bird was observed feeding on small insects over the concrete blocks and at the adjacent sandy beach. While foraging, it was observed running with its head pointed downwards and would usually pause with an upright stance. The individual was photographed and later identified based on features, such as, an overall sandy-brown appearance, uniform buff colour, showing a long distinctive supercilium which was wider and whiter in front of eye, blackish loral eye-stripe, almost uniform buff primaries, white rump, and prominent white base and side of the tail (Grimmett et al. 1998). The bird was distinguished from other wheatears, such as, Desert Wheatear O. deserti and Northern Wheatear O. oenanthe, by its uniformly buff wing-coverts, contrasting blackish alula and broad pale fringes to greater coverts and tertials. The larger bill, longer legs, and lankier structure in

appearance separated it from the similar Northern Wheatear in first-winter plumage. When the bird was flushed, it showed a narrow white rump with a less-pronounced shape of a black inverse 'T' on the tail, formed by black central tail feathers and a broader black terminal tail-bar. This terminal bar extended further up the tail compared to Northern Wheatear but was less than as compared to the Desert Wheatear which shows twothirds of the tail as black.



17. Isabelline Wheatear showing characteristic tail pattern.



18. Isabelline Wheatear showing uniform buff wing coverts.

The bird was present at the location until, at least, 27 October 2024; however, it was not found after this date despite two more visits to this location, and has not been reported from the area thereafter. The nearest sightings of Isabelline Wheatear to our Bangladesh record are from India, from Rajarghat wetlands, North 24 Parganas District in West Bengal dated 13 April 2019 (Roychoudhury 2019), which is **c**.190 km north-west; and another from Deepor Beel, Kamroup Metropolitan District in Assam (Willoughby 2018), dated 12 March 2018, which is c.500 km north-east. There are no previous records of Isabelline Wheater for Bangladesh, and therefore, our record appears to be the first record of the species for the country (Siddiqui et al. 2008; Thompson & Chowdhury 2023).

Kuakata has recently emerged as a notable hotspot for local rarities in Bangladesh, and also producing three of the country's significant first bird records, namely, the Amur Paradise-Flycatcher *Terpsiphone incei*, the Spotted Flycatcher *Muscicapa striata*, and the Oriental Plover *Anarhynchus veredus* (Chowdhury 2016; Ahmed & Jannat 2020), which were first sighted at this location. Kuakata is a coastal beach with a small mangrove patch on the bank of the Galachipa River and the Bay of Bengal. This area may serve as a regular stopover for long-distance migrants or vagrants, as it is the last landmass, including natural mangrove habitat, before the open expanse of sea, and this potentially explains the occurrence of unusual or rare sightings.

We would like to thank Abdul M. Shah for helping with the identification of the species and Shahad A. Raju for accompanying us and helping with field observations.

References

- Ahmed, S., & Jannat, K., 2020. First record of Oriental Plover Charadrius veredus for Bangladesh. BirdingASIA 33:138–139.
- Chowdhury, S. U., 2016. Recent Rarities. Banglar Pakhi Bangladesh Bird Club Newsletter 19–20.
- Grimmett, R., Inskipp, C., & Inskipp, T., 1998. *Birds of the Indian Subcontinent*, 1st ed. Christopher Helm, A & C Black, London. Pp. 1–888.
- Grimmett, R., Inskipp, C., & Inskipp, T., 2011. Birds of the Indian Subcontinent, 2nd ed. Oxford University Press & Christopher Helm, London. Pp. 1–528.
- Kazmierczak, K., 2000. A field guide to the birds of India, Sri Lanka, Pakistan, Nepal, Bhutan, Bangladesh and the Maldives, 1st ed. Om Book Service, New Delhi. Pp. 1–352.
- Rasmussen, P. C., & Anderton, J. C., 2012a. Birds of South Asia: the Ripley guide: field guide, 2nd ed. Smithsonian Institution and Lynx Edicions., Washington, D.C. and Barcelona. Vol. 1 of 2 vols. Pp. 1–378.
- Rasmussen, P. C., & Anderton, J. C., 2012b. Birds of South Asia: the Ripley guide: attributes and status, 2nd ed. Smithsonian Institution and Lynx Edicions., Washington, D.C. and Barcelona. Vol. 2 of 2 vols. Pp. 1–683.
- Roychoudhury, S., 2019. Webpage URL: https://ebird.org/checklist/S54932297. [Accessed on 16 March 2025].
- Siddiqui, K. U., Islam, M. A., Kabir, S. M. H., Ahmad, M., Ahmed, A. T. A., Rahman, A. K. A., Haque, E. U., Ahmed, Z. U., Begum, Z. N. T., Hassan, M. A., Khondker, M., & Rahman, M. M., 2008. *Encyclopedia of flora and fauna of Bangladesh: birds*, 1st ed. Asiatic Society of Bangladesh, Dhaka, Bangladesh. Vol. 26 of 28 vols. Pp. i–xl, 1–662.
- Thompson, P. M., & Chowdhury, S. U., 2023. Webpage URL: https://www.facebook. com/groups/2403154788/permalink/10160984384199789. [Accessed on 16 March 2025].
- Willoughby, P., 2018. Webpage URL: https://ebird.org/checklist/S44685482. [Accessed on 16 March 2025.]

- Shahriar Kabir & Riedoan I. Riyad

Shahriar Kabir, Lecturer, Chemistry, Govt. Brojomohun College, Barishal 8200, Bangladesh. E-mail: rush.manutd@gmail.com [SK]

Riedoan I. Riyad, MBBS (Intern), Sir Salimullah Medical College & Mitford Hospital, Mitford Road, Dhaka 1100, Bangladesh. E-mail: riedoan56@gmail.com [RR]

The Stork-billed Kingfisher *Pelargopsis capensis* feeding on *Caryota urens* fruits

The Stork-billed Kingfisher *Pelargopsis capensis* is widely distributed across the tropical regions of the Indian subcontinent and Southeast Asia (Biswas et al. 2014). Stork-billed Kingfishers are typically found in well-wooded areas near water bodies such as rivers, lakes, and coastal regions. The Stork-billed Kingfisher is primarily piscivorous, but has a diverse diet of frogs, crabs, and occasionally rodents and young birds. Its hunting strategy involves perching quietly and patiently above water or on a branch until it spots potential prey (Billerman et al. 2020).

On a recent bird watching trip to Poomala Dam (10.601°N, 76.242°E) reservoir in Kerala, India, I noticed a pair of Stork-billed Kingfishers feeding on the fruits of *Caryota urens*, commonly known as fishtail palm. The pair was perched on a dried palm leaf, flying to the cluster of fruits, pulling the fruit from the palm frond and returning to their perch to consume it. They returned to the cluster of fruits every two to three minutes for over an hour. This unusual sighting aroused my curiosity and I scheduled a field visit to the same place for a week starting from 04 July 2024 to 09 July 2024, to observe their feeding behaviour for a week, every day, from morning to evening [19]. I observed this unique feeding behaviour only in the mornings.



19. Stork-billed Kingfisher feeding on Caryota urens fruit.

The fruits of the fishtail palm are small, red, containing a single seed, and the fruits hang down from the top of the tree in a cluster. The fruits contain sharp crystals that can cause irritation and chemical burns; *urens* mean burning. The fruit has a human skin-irritating nature due to the presence of oxalic acid, and it also contains anti-nutritional substances such as phytate, tannin and saponin. It is reported that these seeds are rich in starch and basic sugars, including glucose, fructose, and sucrose (Perumpuli et al. 2022).

A number of frugivorous avian species that have been documented to feed on palm fruits. For example, Green Imperial Pigeon *Ducula aenea* (Santharam 1996), Malabar Pied Hornbill *Anthracoceros coronatus* (Iyer 2023), and Narcondom Hornbill *Rhyticeros narcondami* (Naniwadekar et al. 2022) in India, and Lineated Barbet *Psilopogon lineata* and 20 other species in Malaysia (Wee 2010; 2017). More than half of the diet of Palmnut Vulture *Gypohierax angolensis* are palm fruits (Kemp & Kirwan 2020). Though there are a variety of birds species that feed on palm fruits, there are no published reports of Stork-billed Kingfishers, or in fact any Kingfisher *spp.*, feeding on *Caryota urens* or other palm fruits. It will be interesting to know whether this behaviour is seen in other parts of this species' extensive range.

References

- Iyer, B., 2023, Malabar Pied Hornbill: From Forest to Fragments, RoundGlass Sustain. Website URL: https://roundglasssustain.com/photo-stories/malabar-pied-hornbillhabitat [Accessed on 27 July 27 2024].
- Biswas, J. K., Sarker, N. J., Ahsan, M. F., & Rahman, M. M., 2014. Activity patterns of Pied Kingfisher (*Ceryle rudis*) and Stork-billed Kingfisher (*Pelargopsis capensis*) at the Chittagong university campus, Bangladesh. *Bangladesh Journal of Zoology* 42 (2): 191–203.
- Kemp, A. C. & Kirwan, G. M. 2020. Palm-nut Vulture (*Gypohierax angolensis*), version 1.0. In Birds of the World (J. del Hoyo, A. Elliott, J. Sargatal, D. A. Christie, and E. de Juana, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA.
- Naniwadekar, R., Ghuman, S., Gopal, A., & Page, N., 2022, Fruit exocarp removal: a unique foraging behaviour in Narcondam Hornbills. *Hornbill Natural History and Conservation* 38 (3): 38–40.
- Perumpuli, P., Singharathne, S., & Wanninayaka, I. P., 2022. *Caryota urens*: Value Addition, Nutritional and Medicinal Values. *Food Research* 6 (2): 489–500.
- Santharam, V., 1996. Birds of Periyar Tiger Reserve and random notes. Sago Palm fruits in the diet of Jerdon's Imperial Pigeon. *Newsletter for Birdwatchers* 36 (3): 54.
- Wee, Y. C., 2010. Lineated Barbet feeding on fishtail palm fruits. Website: https:// besgroup.org/2010/03/30/lineated-barbet-feeding-on-fishtail-palm-fruits/ [Accessed on 27 July 2024].

Wee, Y. C., 2017. Palms and the birds they attract. Website URL: https://besgroup. org/2017/07/18/palms-and-the-birds-they-attract [Accessed on 27 July 2024]. - S. S. Suresh

11 F, Capital green, SKVC road, Trichur 680011. Kerala, India. E-mail: dr.s.s.suresh@gmail.com

The Ashy Bulbul *Hemixos flavala* in Sirmaur, Himachal Pradesh, India

The Ashy Bulbul *Hemixos flavala* is a distinctive, crested bulbul that is a common resident of broadleaved forests, adjacent plantation and forest edges in the Himalayan foothills from 300–1,600 m asl (Grimmett et. al. 1998; Rasmussen & Anderton 2012).

On 28 March 2016, AV was hiking down a dense broadleaved forest that eventually descended into a stream on the eastern slope of the Nahan Ridge (30.563°N, 77.319°E; *c*.750 m asl) in Sirmaur District, Himachal Pradesh. This stream was flanked by thickly forested mountain slopes on both sides. The dense forest understory was dotted with many natural springs that form large pools of water. Around 1230 h, some unfamiliar bird calls were heard while walking along the river bank. The source of the sound was traced to two bulbuls that were perched high in the tree canopy. The birds had a black bill and black face mask that strongly contrasted against the white throat. The underparts looked pale. These features helped identify the species as Ashy Bulbul.

On 21 December 2022, at 0900 h, IAK sighted a single Ashy Bulbul near Nahan, Sirmaur District, Himachal Pradesh. This observation unfolded in the course of a journey from Dehradun to Chandigarh, during a brief tea break at a road check-post near Nahan (30.550°N, 77.284°E; c.932 m asl). At this time, the resonating call of a Blue Whistling-Thrush *Myophonus caeruleus* perched on a nearby tree beside a small water stream was heard. Intrigued by the melodious call, attention was drawn towards a tree where the Ashy Bulbul was eventually spotted and photographed **[20]**. It showed prominent olive-yellow wingpatch, a black head and white throat, and was unmistakable. Later on, IAK and CA discussed the significance of the record and decided to document it.



20. Ashy Bulbul near Nahan, Sirmaur District on 21 December 2022.

Grimmett et al. (1998) mentioned the range of the species from Uttarakhand east to Arunachal Pradesh, and north-eastern India. Ali & Ripley (1987) mentioned that its range starts from the region between Shimla and Mussoorie, while Rasmussen & Anderton (2012) mentioned that it is local in Himachal Pradesh. Grimmett et al. (2011) depicted a single record from southern half of Himachal Pradesh in the illustrated map of the species. Koelz (1936a, b) collected two specimens during breeding season from Kukti [=Kugti], Chamba District on 05 July 1936 which are catalogued at the Field Museum of Natural History (FMNH), Chicago, USA (FMNH 237025 and FMNH 237026) and were labelled as Ashy Bulbul [21]. These records seemed quite unusual as the average elevation of Kugti village is 2,600 m asl, and the species is usually found below 1,600 m asl, and maximum up to 2,200 m asl. Kugti is located in north-western Himachal Pradesh, and is c.250 km from the Uttarakhand border with Himachal Pradesh, which is approximately the presently known western-most breeding range of the species. The FMNH was contacted for more information on the specimens, and it was found that the specimens were of nestlings which made verifying the species by physical features difficult (Mary Hennen, in litt., e-mail dated 16 September 2024). Later, a specimen of adult male Black Bulbul Hypsipetes leucocephalus (FMNH 236978) was located in the collection of FMNH, which was obtained from the same location, i.e., Kugti, and date, i,e, 05 July 1936, by the same collector, with a notation that stated, 'parent of two nestlings' (John Bates, in litt., e-mail dated 17 September 2024; Koelz 1936c). John Bates further commented that the probable misidentification of the nestlings might have been the result of the specimens getting separated from the adult specimen during cataloguing decades ago, and that this error has been fixed in the database and the collection.



21. Two specimens of nestlings (FMNH 237025 and FMNH 237026) catalogued at FMNH, Chicago, USA.

It is not clear whether Koelz's nestling specimens (FMNH 237025 and FMNH 237026) were the basis of inclusion of Himachal Pradesh in the distribution of the species by Rasmussen & Anderton (2012). This record appears to be different from the record mentioned in Ali & Ripley (1987) and Grimmett et al. (2011), as the latter two records originate from southern Himachal Pradesh, whereas Kugti is located in the north-western part of the State. We could not find any published record or specimen from southern Himachal Pradesh (Pittie 2024; GBIF 2024; VertNet 2024). No specimen could be found from Himachal Pradesh at the Natural History Museum, London, UK (Mark Adams, in litt., e-mail dated 29 April 2024). We could not find any other records in eBird, Facebook groups, or other social media. The species is not listed in Dhadwal (2019). The two Nahan records documented in this note confirm the presence of Ashy Bulbul in Himachal Pradesh and the record by IAK appears to be the first photographic record from the state.

We thank Mary Hennen and John Bates from FMNH for checking the specimens from Himachal Pradesh and providing

the respective details and photographs; and Mark Adams for confirming that there is no specimen of Ashy Bulbul from the state in NHM.

References

- Ali, S., & Ripley, S. D., 1987. Compact handbook of the birds of India and Pakistan together with those of Bangladesh, Nepal, Bhutan and Sri Lanka. 2nd ed. Delhi: Oxford University Press. Pp. i–xlii, 1 l., 1–737, 52 ll.
- Dhadwal, D. S., 2019. *Birds of Himachal Pradesh (Passerine)*. India: Published by the author. Vol. 2 of 2 vols. Pp. 1–340.
- GBIF, 2024. Website URL: https://www.gbif.org/. [Accessed on 09 November 2024]. Grimmett, R., Inskipp, C., & Inskipp, T., 1998. *Birds of the Indian Subcontinent*. 1st ed.
- Gimmeter, K., inskipp, C., & inskipp, T. 1998. Birds of the Indian Subcontinent. Tst ed. London: Christopher Helm, A & C Black. Pp. 1–888.
- Grimmett, R., Inskipp, C., & Inskipp, T., 2011. *Birds of the Indian Subcontinent*. 2nd ed. London: Oxford University Press & Christopher Helm. Pp. 1–528.
- Koelz, W. N., 1936a. Website URL: https://collections-zoology.fieldmuseum.org/ catalogue/1490366. [Accessed on 09 November 2024].
- Koelz, W. N., 1936b. Website URL: https://collections-zoology.fieldmuseum.org/ catalogue/1490367. [Accessed on 09 November 2024].
- Koelz, W. N., 1936c. Website URL: https://collections-zoology.fieldmuseum.org/ catalogue/1490319. [Accessed on 09 November 2024].
- Pittie, A., 2024. Bibliography of South Asian Ornithology. URL: http://www. southasiaornith.in. [Accessed on 15 September 2024].
- Rasmussen, P. C., & Anderton, J. C., 2012. *Birds of South Asia: the Ripley guide*. 2nd ed. Washington, D. C., and Barcelona: Smithsonian Institution and Lynx Edicions. 2 vols. Pp. 1–378; 1–683.
- VertNet 2024. Website URL: https://vertnet.org/. [Accessed on 09 November 2024].

– Iqbal Ali Khan, Ankit Vikrant & C. Abhinav

Iqbal Ali Khan, Ph.D. Scholar, Zoological Survey of Indian, Dehradun 248195, Uttarakhand, India. E-mail: khanbbt555@gmail.com [IAK] Ankit Vikrant, Department of Space, Earth and Environment, Chalmers University of Technology, Maskingränd 2, 412 58 Gothenburg, Sweden.

E-mail: ankitvikrant74@gmail.com [AV]

C. Abhinav, Village & P.O. Ghurkari, Kangra 176001, Himachal Pradesh, India.

E-mail: drabhinav.c@gmail.com [CA] [Corresponding Author]

House Sparrows *Passer domesticus* occupying Streakthroated Swallow *Petrochelidon fluvicola* nests

Many birds are known to compete for nesting sites with other species, or reuse old nests of other species (Raju 1981; Jha 2001). In North America, House Sparrows Passer domesticus have been documented re-using old nests of swallows such as Barn Swallow Hirundo rustica, Cliff Swallow Petrochelidon pyrrhonota, Bank Swallow Riparia riparia, Eastern Phoebe Sayornis phoebe, and American Robin Turdus migratorius (Campbell et al. 2007) or even usurp active nests (Leasure et al. 2010). However, such behavior has not been reported widely from the Indian subcontinent. Here we report House Sparrows occupying nests in an active Streak-throated Swallow Petrochelidon fluvicola colony. On 14 March 2024, we observed five pairs of House Sparrows breeding in old Streak-throated Swallows nests under the Rapta Bridge (22.603°N, 80.361°E) on Narmada River in Mandla Madhya Pradesh, India [22]. We observed male House Sparrows visiting the colony and ejecting nesting materials from Streakthroated Swallow nests. However, whether those nests were active or inactive could not be determined.

The sparrows not only took over the nests, but also usurped nesting materials like feathers, which the swallows had collected to line their nests. The sparrows then broadened the entrance to the nesting cavities. Out of 196 swallow nests, five were occupied by House Sparrows. Out of these five nests, two contained eggs, but none of these attempts were successful in producing young. This observation highlights the adaptive nature of House Sparrows who may be benefiting not only from the nests themselves but also the precarious nest location of the swallows. Why the sparrows did not breed successfully in this location remains unknown but warrants a follow up study.



22. A pair of House Sparrows in the Streak-throated Swallow colony.

We thank Foundation for Ecological Security for providing the necessary facilities.

References

- Campbell, W., Dawe, N. K., McTaggart-Cowan, I., Cooper, J. M., Kaiser, G. W., & McNall, M. C., 2007. Birds of British Columbia, Volume 4: Wood Warblers through Old World Sparrows. UBC Press.
- Jha, A., 2001. Competition between Jungle Myna Acridotheres fuscus and Lesser Golden Backed Woodpecker Dinopium benghalense for a nest hole. Journal of the Bombay Natural History Society 98 (1): 115.
- Leasure, D. R., Kannan, R., & James, D. A., 2010. House Sparrows Associated with Reduced Cliff Swallow Nesting Success. *The Wilson Journal of Ornithology* 122 (1): 135–138. DOI: https://doi.org/10.1676/09-061.1.
- Raju, A. S. R., 1981. Competition for nest occupation the parakeet and the owlet. Mayura 2 (2): 6–8.

— Manohar Pawar, Anil Sarsavan & Lakhan Yadav Manohar Pawar, Foundation for Ecological Security, Mandla, Madhya Pradesh, India E-mail: pawarmanohar1988@gmail.com [Corresponding Author] Anil Sarsavan, Foundation for Ecological Security, Mandla, Madhya Pradesh, India Lakhan Yadav, Govt. Post Graduate College, Rampura, Neemach, Madhya Pradesh, India

The Black-headed Bunting *Emberiza melanocephala* in Chirang District, Assam

The Black-headed Bunting *Emberiza melanocephala* is a common non-breeding winter visitor in west and central India. It is commonly recorded during winter in Gujarat, Rajasthan, Maharashtra, northern Karnataka, and Madhya Pradesh while being a passage migrant in Pakistan as well as Punjab, Himachal Pradesh, Haryana, and Jammu (Rasmussen & Anderton 2012; eBird 2024). Our recent observation of a Black-headed Bunting flock at Bengtol Road in Chirang District, Assam, India, over a two-month period marks a noteworthy record. While previous studies have reported the species in various areas of north-eastern India, prolonged observation for months at a single site has not occurred.

During a routine bird survey on 31 January 2024 along the Bongaigaon to Gelephu (Bhutan) highway, a small flock of passerine birds was observed in the Chirang district by AP at 0745 h near Bengtol Road (26.575°N, 90.518°E). It was a flock of ten birds where three individuals were male with characteristic yellow underparts, black heads, black cheeks, and contrasting throats **[23]**. The birds were present for almost two months (Table 1). During our first sighting and across February, the flock was observed foraging on the grains in the harvested paddy fields along with Paddyfield Pipit *Anthus rufulus*, while in March, they were noted perching on bushes and bamboo thickets.



23. Black-headed Bunting at Bengtol Road.

Table 1. Observations of Black-headed Bunting at the Bengtol Road, Chirang District, Assam				
Date	Observation	Remarks		
31 January 2024	A small flock of 10 individuals with three males	First sighting		
29 February 2024	A large flock of c.60 individuals	Individuals of different sizes seen		
27 March 2024	Two flocks in the same area, total c.30–40 birds	Flocks were feeding & resting on bamboo thickets		
15 April 2024	No sighting of the species	Potential migration back to breeding grounds		

Sightings of Black-headed Bunting in north-eastern India are scarce, with only six records available in eBird and iNaturalist (Table 2). No other records were found on social media. In recent years this species has been sighted outside its regular range in South Asia many times, including Bangladesh (Chowdhury 2011), West Bengal (Adhurya et al. 2016), and Nepal (Baral & Neupane 2022). This species has been recorded as a vagrant as far away as Southeast Asia, Borneo, the east coast of China, and even Japan (eBird 2024).

Table 2. Records of Black-headed Bunting from north-eastern India				
Date	District & State	Count	Reference	
12 April 2008	West Kameng, Arunachal Pradesh	1	Colenutt (2008)	
01 November 2017	Bishnupur, Manipur	1	Singh (2017)	
20 October 2023	Sonitpur, Assam	2	Saikia (2023)	
14 November 2023	Baksa, Assam	1	Modak (2023)	
04 January 2024	Baksa, Assam	1	Das (2024)	
16 January 2024	Kokrajhar, Assam	10	Chanda (2024)	

This record from the Chirang District is the first documentation of the species residing in Assam for a long period – two months. The flock's extended presence in the area during February and March suggests it may have spent part of the winter there or used the site for prolonged stopover during migration. These eastern records challenge existing knowledge of the species' distribution and migration patterns, raising questions about potential alternate migratory routes, wintering grounds, and a broader range than previously understood. Future efforts, such as tagging and ringing of individuals at these newly documented sites, could provide valuable insights into their migratory behavior and breeding locations. The authors are thankful to the Bombay Natural History Society, India, and the Royal Society for the Protection of Birds, United Kingdom, for support and encouragement.

References

- Adhurya, S., Adhurya, S., Roy, S., & Roy, U. S., 2016. Report on range extension of eight lesser-known avian species from Durgapur Ecoregion, West Bengal, India. *Annals* of *Experimental Biology*, 3: 1–6.
- Baral, M., & Neupane, A., 2022. Photographic evidence for *Emberiza melanocephala* Scopoli, 1769, *Trochalopteron squamatum* (Gould, 1835) and *Lonchura malacca* (Linnaeus, 1766) (Aves: Passeriformes) in the Pokhara Valley of Kaski district, Nepal. *Journal of Animal Diversity*, 4 (2): 91–96.
- Chanda, S., 2024. Webpage URL: https://ebird.org/checklist/S160138322. [Accessed on 30 March 2024.]
- Chowdhury, S. U., 2011. Some significant avifaunal records from Bangladesh, including first record of Black-headed Bunting *Emberiza melanocephala*. *Forktail*, 27: 85–86.
- Colenutt, S., 2008. Webpage URL: https://ebird.org/checklist/S75847713 [Accessed on 30 March 2024.]
- Das, R., 2024. Webpage URL: https://ebird.org/checklist/S158015165 [Accessed on 30 March 2024.]
- eBird, 2024. Black-headed Bunting range map. Webpage URL: https://ebird.org/map/ blhbun1 [Accessed on 15 December 2024.]
- Modak, A., 2023. Webpage URL: https://www.inaturalist.org/observations/191823508 [Accessed on 30 March 2024.]
- Rasmussen, P. C., & Anderton, J. C., 2012. Birds of South Asia: the Ripley guide: attributes and status. 2nd ed. Washington, D.C. and Barcelona: Smithsonian Institution and Lynx Edicions. Vol. 2 of 2 vols. Pp. 1–683.
- Saikia, C., 2023. Webpage URL: https://ebird.org/checklist/S152795803 [Accessed on 30 March 2024.]
- Singh, E. P., 2017. Webpage URL: https://www.inaturalist.org/observations/36667999 [Accessed on 30 March 2024.]

– Aniket Pawar & Sachin Ranade

Aniket Pawar, Vulture Conservation Breeding Center, Belguri, Rani, Kamrup, 781131 Assam. E-mail: a.pawar@bnhs.org Sachin Ranade, Vulture Conservation Breeding Center, Belguri, Rani, Kamrup, 781131 Assam. E-mail: s.ranade@bnhs.org

Additions to the avifauna of Himachal Pradesh, India

The northern Indian state of Himachal Pradesh has a wide variety of habitats and hence, is rich in avian biodiversity. In this note, we report, in chronological order, five new taxa for Himachal Pradesh with photographs. They are from Nagrota Surian (near Pong Lake, Kangra District; 32.040°N, 76.060°E; c.435 m asl) and Lahaul (Lahaul & Spiti District). These birds were not reported by den Besten (2004), Dhadwal & Kanwar (2018), Dhadwal (2019), and no previous confirmed records of these birds were found in Pittie (2024), Grimmett et al. (2011), eBird, Facebook groups, and other online forums.

Peregrine Falcon (Red-capped) Falco peregrinus babylonicus

On 09 November 2017, CA visited Nagrota Surian, located on the northeastern side of Pong Lake. There are vast flats around the lake, which are partially cultivated. While driving in these flats, CA saw a small raptor sitting on a lump of soil at 1030 h **[24]**. It allowed a close approach and gave ample time for observations and photographs. It was a little larger than Common Kestrel *Falco tinnunculus* but smaller than Shaheen Peregrine Falcon *F. peregrinus peregrinator,* also seen earlier this morning. Its face had a rufous wash and prominent white supercilia that met at the nape. The fore crown was pale, while the hind crown was rufous brown. It had a prominent dark brown moustachial stripe. The cheeks and throat were white and had a slight rufous wash. The beak had a black tip. The upperparts were dark with narrow pale borders of the feathers. The underparts were white with a slight rufous wash, mainly on the flanks, and were finely streaked, except in the central belly and flanks, which were boldly streaked. The primaries were long, reaching the tail tip. Its feet were strong. Based on the above features, CA identified it as an immature Peregrine Falcon (Red-capped) *F. p. babylonicus*, one of India's three subspecies of Peregrine Falcon.

Differentiating an adult *babylonicus* from a typical *peregrinator* and *calidus* is straightforward. However, differentiating a juvenile *babylonicus* from a juvenile *calidus* is difficult (Bhatt & Ganpule 2017). The images were sent to Prasad Ganpule (in litt. e-mail dated 15 November 2017 and 09 August 2024), and Nirav Bhatt (in litt. e-mail dated 10 August 2024), and both confirmed it as an immature *babylonicus*. The identification by them was based on the typical dense streaking on the belly with sparse streaking on the upper breast and lower belly, the presence of some rufous on the cheeks and flanks, and a yellow eye-ring and a pale yellow cere (both would usually be greyish in *calidus* at this stage). All these features agree with those given in Bhatt & Ganpule (2017) for identifying juvenile *babylonicus*.

The taxonomy of the *babylonicus* is unsettled, and it is currently placed under Peregrine Falcon F. peregrinus as a subspecies (White et al. 2020; Praveen et al. 2024). Bhatt & Ganpule (2017) provides details on this taxon. It is also known as Red-naped Shaheen and is an uncommon to rare winter visitor to the desert and semi-desert habitats of western India, mainly to Gujarat and Delhi, but straggling eastwards to the Gangetic Plains, Bengal, northern Madhya Pradesh in Central India and even north-western Karnataka (Rasmussen & Anderton 2012; Bhatt & Ganpule 2017). Naoroji (2006) mentioned its range to be west of Dalhousie, which is near the western border of Himachal Pradesh, and in the distribution map, depicted its range in the surrounding states of Punjab, Haryana, Uttarakhand and Union Territories of Jammu & Kashmir and Ladakh, but not in Himachal Pradesh. The location of a record of babylonicus is mentioned as Kishapur, Himachal Pradesh. However, the location given in Vertnet (Koelz 1931) is in Pakistan. The present record is the first for Himachal Pradesh.



24. Peregrine Falcon (Red-capped) at Pong Lake on 09 November 2017.

Black-headed Ibis Threskiornis melanocephalus

On 04 September 2020 morning, AD was birding along the shoreline of Pong Lake near Nagrota Surian. At 0700 h, an ibis was observed, which looked different from the Glossy Ibis *Pleqadis falcinellus* and Red-naped Ibis *Pseudibis papillosa*, both

of which have been recorded from Pong Lake. It was completely white, except for black on the head, hindneck, and near tail, and a black bill and legs **[25]**. It was immediately identified as Blackheaded Ibis *Threskiornis melanocephalus*. It was an immature bird, as the front of the neck was white, and the head and hindneck were not completely black. It was feeding close to the shoreline. AD also saw it the next day at the same spot; however, CA and PD could not locate it even after an extensive search on 06 September 2020 and subsequent visits.

The Black-headed Ibis is a widespread resident of India except in the Himalaya (Rasmussen & Anderton 2012; eBird 2024a). A record from a place between Una and Amb is there on eBird dated 20 March 2019 (Lath 2019), but there is no supporting evidence. The observer was contacted through eBird for details of the sighting, but no reply was received. Similarly, there are two more records from Solan District from later dates. However, both lack supporting evidence and are from hill forests, which are not a suitable habitat for the species (Sikarwar 2021; Mahajan 2022). Thus, the present record is the first confirmed record for Himachal Pradesh. However, it was not unexpected as it is commonly seen in the plains of the surrounding states of Punjab, Haryana, Uttarakhand, and Jammu & Kashmir (Grimmett et al. 2011; eBird 2024a).



Black-headed Ibis at Pong Lake on 04 September 2020.

Turkestan / Asian Short-toed Lark Alaudala heinei/ cheleensis

The Turkestan Short-toed Lark *Alaudala heinei* (hereinafter TSTL) was previously named Lesser Short-toed Lark and was treated as conspecific with the Mediterranean Short-toed Lark *A. rufescens* and sometimes with the Asian Short-toed Lark *A. cheleensis* (hereinafter ASTL). Currently there is no clarity regarding the identification features to separate these two species (Christian 2019; Ganpule 2019). There are very few records from India of individuals that belong to this pair of species, and they are considered rare winter migrants or vagrants to India (Grimmett et al. 2011; Rasmussen & Anderton 2012; Christian 2019). Praveen et al. (2024) included TSTL in the Indian checklist based on the specimens collected from Sirsa, Haryana (Hume 1870; Sharpe 1890).

On 07 November 2020, CA and PD visited Nagrota Surian near Pong Lake. While birding in the flats around the Lake, we reached a place with short dry grass that was c.500 m away from the shore. Eurasian Skylarks *A. arvensis* and Sand Larks *A. raytal* were feeding in this patch. We came across a sandy-buff lark that looked different from the others. It fed close to the two other species, making their differences stand out [26]. It had a long primary projection, like the Eurasian Skylark, but it was considerably smaller and more compact. Four primary tips were visible beyond the tertials. The bill was short and stout, unlike the other two species. It appeared slightly larger than the Sand Lark. The Greater Short-toed Lark Calandrella brachydactyla and Hume's Short-toed Lark C. acutirostris were ruled out by the absence of dark patch on the sides of the breast and the presence of well-marked streaking on underparts of this bird. We identified it as TSTL/ASTL, as safely separating these two is difficult based on the present knowledge of plumage. However, based on the range given by Alström & Donald (2023) and the inclusion of the former in the Indian Checklist, the bird is likely a TSTL. There is considerable overlap in the identification features used for separating a Sand Lark from TSTL/ASTL. There is no single diagnostic feature that can separate these two in the field. We consulted Christian (2019) and Ganpule (2019) for identification. The images were sent to Prasad Ganpule, who confirmed the identity and further commented that the plumage lacks the greyish tinge of Sand Lark, and the face pattern also looked slightly stronger than Sand Lark (Prasad Ganpule in litt. e-mail dated 07 November 2020). The bird was not seen again on subsequent visits. However, it cannot be ruled out that the bird was wintering in the vicinity of the lake as there is a vast suitable habitat in the Pong Lake area, and this species can be easily overlooked due to its superficial similarity with other larks.

On 31 January 2022, AJ visited Jasrath in Lahaul (32.636°N, 76.855°E; c.2,800 m asl). The area was covered with snow, as Lahaul receives heavy snowfall during winter. A bird was seen feeding on the roof of a traditional kuccha house and photographed [27]. The roofs were free from snow as people regularly clear their roofs from snow. Dried grass for feeding domestic animals is also stored on the roofs. The place was not visited again. The photos revealed a sandy buff lark, with prominent streaking on the white underparts. The primary projection was long, and four primary tips were visible. The bill was short and stout. The tail looked longer than the Sand Lark, an important differentiating feature between these two (Ganpule 2019). The images were sent to Ashwin Viswanathan and CA, who confirmed it as TSTL/ASTL based on the above features. Later, Prasad Ganpule also confirmed it in litt. e-mail dated 09 August 2024. Per Alström (in litt. e-mail dated 26 November 2024) believes both birds are Turkestan Short-toed Lark due to the primary spacing.



26. Turkestan / Asian Short-toed Lark at Pong Lake on 07 November 2020.

C. Abhinav



27. Turkestan / Asian Short-toed Lark at Jasrath, Lahaul on 31 January 2022.

The TSTL is largely migratory, while the ASTL is a resident in much of its range, except for the northernmost populations, which may migrate a short distance to winter in the southern parts of their breeding range (Alström et al. 2023). The nonbreeding distribution is poorly understood, partly because of confusion with the former species. Except for the records from Haryana and West Bengal, all the recent records of this pair are from Rajasthan (Christian 2019). Apart from being the first records from Himachal Pradesh, these two records add to the scarce records of this pair from India.

White-winged Tern Chlidonias leucopterus

PD visited Nagrota Surian for birding on 30 August 2021. While driving in the flats, PD noticed a tern with blackish underparts flying near the shore **[28]**. PD clicked a few photographs of the tern. The underwings were almost black, with disjunct patches of white. The belly also had patches of white and black. The black in the ear coverts extended below the level of the eye. By these features it was identified as White-winged Tern *Childonias leucopterus* in moult. It was easily differentiated from all the terns found in India by the black in underparts and underwings. Whiskered Tern *C. hybrida*, Black Tern *C. niger*, and Black-bellied Tern *Sterna acuticauda* have black underparts, but their underwings are not black (Grimmett et al. 2011). It kept flying along the shoreline and soon went out of sight. CA visited the location on the same evening but failed to relocate the bird. It was not seen again on subsequent visits.

White-winged Tern is a scarce non-breeding winter visitor to extreme southern India and a passage migrant throughout most of the region, mainly the coasts of the Indian Peninsula, South Andaman, and the north-western Himalayas (Rasmussen & Anderton 2012). Five birds were reported during the annual Asian Waterfowl Census in January 1991 from Himachal Pradesh (Perennou & Mundkur 1991; Inskipp 2006). However, the bird is known to winter in coastal regions, not in the Himalayas, and a sighting of five birds during mid-winter is unlikely. Moreover, identifying this species in winter plumage is difficult and there are high chances of misidentification, especially by less experienced birders, who are frequently involved during censuses. There have been records from the surrounding states of Punjab, Haryana, Uttarakhand, and Union Territories of Ladakh and Jammu & Kashmir (Grimmett et al. 2011; eBird 2024b). Most migrant reports are in spring, when identification is obvious, probably overlooked in fall (Rasmussen & Anderton 2012). This fall season record, apart from being the first record for Himachal Pradesh, adds to the scarce records of this species in northern India.



28. White-winged Tern at Pong Lake on 30 August 2021.

Eurasian Jackdaw Corvus monedula

On O9 May 2024, AJ was birding at Udaipur in Lahaul. A crowlike bird came **[29]** and settled on the roadside, near the market (32.727°N, 76.658°E; *c*.2,650 m asl). It stayed there for five minutes, and a few photographs were clicked. It was much smaller than the Large-billed Crow *Corvus macrorhynchos* and had a short, stout bill. The iris was distinctly pale. The flattish forecrown was blackish, while the nape and side of the head were contrastingly grey. By these features, it was identified as Eurasian Jackdaw *Corvus monedula*. The brownish-tinged plumage suggested that it was not an adult bird. CA visited the place the next day, but the bird could not be relocated, and there were no further sightings.

The Eurasian Jackdaw is a resident of Kashmir and winters in Ladakh, occasionally reaching the plains of Punjab (Grimmett et al. 2011; Rasmussen & Anderton 2012). Humes (1889) mentioned its sighting during summer in the hills, as far east as the Beas River valley (probably Kullu District), and suspected its breeding between these two in suitable locations. No further details were given. Oates (1889) repeated the same statement. However, Whistler (1923) concluded that there was no evidence that Eurasian Jackdaws ever bred in the Punjab Territory (which included Himachal Pradesh at that time). Whistler (1926), after mentioning this error in the breeding range, stated, "In any case, the occurrence must have been exceptional as in the course of six visits to Kullu, both summer and winter, I have never met with a single Jackdaw." All the subsequent works have ignored this record by Humes (Baker 1922; Baker 1932; Ali & Riley 1987; Grimmett et al. 2011; Rasmussen & Anderton 2012). Thus, the present record is the first confirmed record from Himachal Pradesh.



29. Eurasian Jackdaw at Udaipur, Lahaul on 09 May 2024

25

CA thanks Prasad Ganpule for confirming the identification and commenting on the Peregrine Falcon (Red-capped) and TSTL/ASTL and Nirav Bhatt for confirming the former.

References

- Ali, S., & Ripley, S. D., 1987. Compact handbook of the birds of India and Pakistan together with those of Bangladesh, Nepal, Bhutan and Sri Lanka. 2nd ed. Delhi: Oxford University Press. Pp. i–xlii, 1 l., 1–737, 52 ll.
- Alström, P., Gombobaatar, S., & Donald, P. F., 2023. Asian Short-toed Lark (Alaudala cheleensis), version 2.0. In Birds of the World (Rodewald, P. G., & Keeney, B. K., Editors). Cornell Lab of Ornithology, Ithaca, New York, USA. Website URL: https:// doi.org/10.2173/bow.lstlar2.02 [Accessed on 01 June 2024.]
- Baker, E. C. S., 1922. The fauna of British India, including Ceylon and Burma. Birds. Vol. I. London; Calcutta; Bombay: Taylor and Francis; Thacker, Spink, & Co.; Thacker & Co. Pp. i-xxiii+1, 1–479.
- Baker, E. C. S., 1932. The nidification of birds of the Indian empire [Corvidae-Cinclidae]. Vol. I. London: Taylor & Francis. Pp. i-xxiii, 1–470.
- Bhatt, N., & Ganpule, P., 2017. The identification of the Red-naped Shaheen Falco peregrinus babyloniocus, its separation from F.p.calidus, in the field, and its status and distribution in north-western India. Indian BIRDS 13 (4): 85–92.
- Christian, C., 2019. Status of Asian/Lesser Short-toed Larks Alaudala cheleensis/ rufescens in India. Indian BIRDS 15 (3): 81–84
- den Besten, J. W., 2004. Birds of Kangra. 1st ed. Dharamsala & New Delhi: Moonpeak Publishers & Mosaic Books. Pp. 1–176.
- Dhadwal, D. S., & Kanwar, B., 2018. Birds of Himachal Pradesh. (Non-Passerine -Volume 1). Published by the author. Pp. 1–301.
- Dhadwal, D. S., 2019. *Birds of Himachal Pradesh (Passerine Volume II)*. India: Published by the author. Vol. 2 of 2 vols. Pp. 1–340.
- eBird 2024a. Species: Black-headed Ibis. Website URL: https://ebird.org/map/blhibi1 [Accessed on 01 June 2024.]
- eBird 2024b. Species: White-winged Tern. Website URL: https://ebird.org/map/whwter [Accessed on 01 June 2024.]
- Ganpule, P., 2019. Field identification of Sand Lark Alaudala raytal and Lesser/Asian Short-toed Lark Alaudala rufescens /cheleensis: An unacknowledged pitfall. Indian BIRDS 15 (4): 97–111.
- Grimmett, R., Inskipp, C., & Inskipp, T., 2011. *Birds of the Indian Subcontinent*. 2nd ed. London: Oxford University Press & Christopher Helm. Pp. 1–528.
- Hume, A., 1870. Letters, announcements, &c. ["Your readers will be familiar with the beautiful figure of *Ruticilla rufigularis*, Moore..."]. *Ibis* 12 (4): 530–532.
- Hume, A. O., 1889. The Nests and Eggs of Indian Birds. Vol. I. London: R.H. Porter. Pp. i-x, 1 l., 1–397.
- Inskipp, T., 2006. More on the distribution of the White-winged Tern *Chlidonias leucopterus*. *Indian Birds*. 1 (6): 143–144.
- Koelz, W. N, 1931. Website URL: http://portal.vertnet.org/o/ummz/birds?id=b6a353a7f924-11e2-b158-782bcb84bc75 [Accessed on 10 August 2024.]
- Lath, V., 2019. Website URL: https://ebird.org/checklist/S54044223 [Accessed on 01 August 2024.]
- Mahajan, V., 2022. Website URL: https://ebird.org/checklist/S103143127 [Accessed on 01 August 2024.]
- Naoroji, R., 2006. Birds of prey of the Indian Subcontinent. 1st ed. New Delhi: Om Books International. Pp. 1–692.
- Oates, E. W., 1889. The fauna of British India, including Ceylon and Burma (Birds). Vol. I. London: Taylor and Francis. Pp. i-xx, 1–556.
- Perennou, C., & Mundkur, T., 1991. Asian waterfowl census 1991, mid-winter waterfowl counts, January 1991. Slimbridge: International Waterfowl and Wetlands Bureau, and Kuala Lumpur: Asian Wetland Bureau.
- Pittie, A., 2004. Bibliography of South Asian Ornithology. Website URL: http://www. southasiaornith.in [Accessed on 01 June 2024.]
- Praveen J., & Jayapal, R., 2024. Checklist of the birds of India (v8.4). Website URL: http://www.indianbirds.in/india/ [Accessed on 01 June 2024.]
- Rasmussen, P. C., & Anderton, J. C., 2012. *Birds of South Asia: the Ripley guide*. 2nd ed. Washington, D.C. and Barcelona: Smithsonian Institution and Lynx Edicions. 2 vols. Pp. 1–378; 1–683.
- Sikarwar, D. S., 2021. Website URL: https://ebird.org/checklist/S98350549 [Accessed on 01 August 2024.]
- Sharpe, R. B., 1890. Catalogue of the Passeriformes, or Perching Birds, in the collection of the British Museum. Sturniformes, Containing the Families Artamidæ, Sturnidæ, Ploceidæ, Alaudidæ. Also the Families Atrichiidæ and Menuridæ. London: British Museum of Natural History. Vol. 13 of 27 vols. Pp.

i–xvi, 1–701.

- Whistler, H., 1923. A note on the Corvidae of the Punjab. *Journal of the Bombay Natural History Society.* 29: (1) 157–168.
- Whistler, H., 1926. A note on the birds of Kulu. *Journal of the Bombay Natural History Society* 31 (2): 458–485.
- White, C. M., Clum, N. J., Cade, T. J., & Hunt, W. G., 2020. Peregrine Falcon (*Falco peregrinus*), version 1.0. In *Birds of the World* (Billerman, S. M., Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. Website URL: https://doi.org/10.2173/bow.perfal.01 [Accessed on 01 June 2024.]

– C. Abhinav, Amir Jaspa, Piyush Dogra & Ankush Dhiman
 C. Abhinav, Village Ghurkari, Kangra District, 176001, Himachal Pradesh, India.
 E-mail: drabhinav.c@gmail.com [CA] [Corresponding author]
 Amir Jaspa, Village Jasrath, Lahaul & Spiti District, 175139, Himachal Pradesh, India.
 E-mail: spider00001@gmail.com [AJ]
 Piyush Dogra, House No. 338 D, Civil Bazar, Dharamsala, Kangra District, 17625,
 Himachal Pradesh, India.
 E-mail: piyushdogra83@gmail.com [PD]
 Ankush Dhiman, V.P.O Kaled, Tehsil Nagrota Bagwan, Kangra District, 176056,
 Himachal Pradesh, India.

Frog in the diet of an Orange Minivet *Pericrocotus flammeus*

The genus *Pericrocotus* contains 15 minivet species within the cuckooshrike family Campephagidae. All *Pericrocotus* species are predominantly insectivorous with a few species recorded feeding on buds, fruits, and occasionally seeds (Winkler et al. 2020). Minivets are gregarious and generally feed on insects in mixed-species flocks. Here, we present the first photographic evidence of an Orange Minivet *P. flammeus* hunting and feeding on a vertebrate.



30. Orange Minivet Pericrocrotus flammeus feeding on a frog.

On 20 October 2024, at approximately 1700 h at Shola Shack Ecostay (11.864°N, 75.956°E) in Wayanad, Kerala, India we observed a male Orange Minivet fly into an *Erythrina* tree and catch a frog. The minivet then flew into an *Evodia roxburghiana*, perched on an exposed section of the branch, and began striking the frog against the branch **[30]** similar to behaviour seen in kingfishers with their prey. The minivet then carried the frog away from the tree and out of sight to likely feed on it. The frog appeared to be a Variable Bush Frog *Raorchestes akroparallagi* based on the coloration and other features. The photograph to identify the frog is at Research Grade status on iNaturalist (Menzies 2024). This record adds to the dietary and foraging information of the Orange Minivet. Additionally, it calls for more attention to the diets of minivet species in general, which have long been thought to be almost exclusively insectivorous.

References

- Menzies R., 2024. Webpage URL: https://www.inaturalist.org/observations/250259247 [Accessed on 01 December 2024.]
- Winkler, D. W., Billerman, S. M., & Lovette, I. J. 2020, Cuckooshrikes (Campephagidae), version 1.0. In Birds of the World (S. M. Billerman, B. K. Keeney, P. G. Rodewald,

and T. S. Schulenberg, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.campep2.01

 – Saleem Hameed & Rohan K. Menzies Saleem Hameed, 111 Nidhi Apartments, 40 Netaji Road, Fraser Town, Bengaluru – 560005, Karnataka, INDIA.
 Rohan K. Menzies, Nature Conservation Foundation (NCF), No. 361, 'Hari Hara', 5th Main Road, Kodigehalli, Bengaluru – 560097, Karnataka. INDIA.
 E-mail: rohanmenzies@ncf-india.org [Corresponding author]

On pelagic seabird bycatch incident in tuna longline at Lakshadweep

Seabird bycatch, where birds are accidentally caught in fishery equipment is well studied across various oceanic provinces (Croxall et al. 2012; Pott & Wiedenfeld 2017). Over the years, this research has highlighted high seabird mortality caused by various fishing gears such as long lines, gill nets and trawls (Anderson et al. 2011; Žydelis et al. 2013). Indian offshore waters have many species of seabirds (Praveen et al. 2013) as they migrate in and out of the region from both the northern and southern hemispheres (Karuthedathu et al. 2013; Mondreti et al. 2020). Here we document two incidents of seabird bycatch from tuna fishing at Kavaratti Island (10.565 °N, 72.642°E), Lakshadweep, India on 11 July 2019.

A Frigatebird Freqata sp. was one of at least two potential Frigatebirds trapped on a longline offshore. One bird was released at the incident site, and hence its definite identity cannot be established. The other one was injured and taken by the fishermen to the island. The injured bird [31] was identified as an adult Great Frigatebird Fregata minor based on its black head and white underparts without any tawny plumage. The amount of white, starting from the throat, indicates it was a female. The blackish throat is restricted and the bill is fairly long indicating that it is neither Lesser- F. ariel nor Christmas Island Frigatebird F. andrewsi. Additionally, the pinkish bill indicated it was not the smaller subspecies F. m. listeri from Christmas Island, Cocos (Keeling) and north-west Australia, but the western Indian Ocean breeding F. m. aldabrensis. The bird had lost some of its retrices (tail feathers) and primaries (flight feathers) in the accident and was not able to fly. We saw the bird perching free in the courtyard of one of the fisher's houses. It was yet to gain the lost feathers but was later released.

Great Frigatebirds breed in the Chagos archipelago as well as various other islands across the southern Indian ocean and make non-breeding movements across the tropical Indian and Pacific Oceans (Carr 2015), however this record is likely the first documentation of this species in the Lakshadweep islands.

Seabirds are one of the most threatened groups globally



31. A Great Frigatebird rescued from longline fishing equipment.

and are valuable indicators of the health of marine ecosystems. Fisheries bycatch fall among the greatest threats to many of these species, along with invasive predators, disease, pollution and changing climate (Croxall et al, 2012). A global review of the gaps in information regarding seabird bycatch showed that there is a lack of data from the Indian region on this aspect and hence our record is useful. Other known records of seabird bycatch from Indian Ocean waters include a Pomarine Skua Stercorarius pomarinus ensnared on a longline fishing thread and a Persian Shearwater Puffinus persicus entangled on a net (Karuthedathu et al. 2013). The Lakshadweep islands are frequently and regularly visited by migratory seabirds (Aju et al. 2021). Dedicated projects on seabird assessment and their fishery interaction in Indian waters guided by a National Action Plan on Seabird Bycatch can effectively set a future course on the comprehensive studies on Indian seabirds. The authors acknowledge the Director, Central Marine Fisheries Research Institute for the support given to the work. We are grateful to David James and Dipu Karuthedathu for confirming the identity of the species.

References

- Aju K. R, Sreenath K. R, Joshi K. K, & Gopalakrishnan, A., 2021. An updated ornithology of the Lakshadweep Islands. *Indian Birds* 17 (2): 33–47.
- Anderson, O. R., Small, C. J., Croxall, J. P., Dunn, E. K., Sullivan, B. J., Yates, O., & Black, A., 2011. Global seabird bycatch in longline fisheries. *Endangered Species Research* 14 (2): 91–106.
- Carr, P., 2015. Birds of the British Indian Ocean Territory, Chagos Archipelago, central Indian Ocean. *Indian Birds* 10 (3 & 4): 57–70.
- Croxall, J. P., Butchart, S. H., Lascelles, B. E. N., Stattersfield, A. J., Sullivan, B. E. N., Symes, A., & Taylor, P., 2012. Seabird conservation status, threats and priority actions: a global assessment. *Bird Conservation International* 22 (1): 1–34.
- Karuthedathu, D., Praveen, J., & Palot, M. J., 2013. Recent trends in marine bird monitoring in India. *Journal of the Bombay Natural History Society* 109 (1 & 2): 53-59 (2012).
- Mondreti, R., Davidar, P., Ryan, P. G., Thiebot, J.-B., & Gremillet, D., 2020. Seabird and cetacean occurrence in the Bay of Bengal associated with marine productivity and commercial fishing effort. *Marine Ornithology* 48: 91–101.
- Pott, C., & Wiedenfeld, D. A., 2017. Information gaps limit our understanding of seabird bycatch in global fisheries. *Biological Conservation* 210: 192–204.
- Praveen, J., Jayapal, R., & Pittie, A., 2013. Notes on Indian rarities–1: Seabirds. Indian Birds 8 (5): 113–125.
- Žydelis, R., Small, C., & French, G., 2013. The incidental catch of seabirds in gillnet fisheries: a global review. *Biological Conservation* 162: 76–88.

– Aju K. R., Sreenath K. R & Sobhana K. S.

Aju K.R., School of Marine Sciences, Cochin University of Science and Technology, Kochi - 682 022, Kerala, India E-mail: ajukrajuifs@gmail.com

Sreenath K. R., ICAR-Central Marine Fisheries Research Institute, Kochi - 682 018, Kerala, India. Sobhana K. S., ICAR-Central Marine Fisheries Research Institute, Kochi - 682 018, Kerala, India.

Spot-bellied Eagle-Owl *Ketupa nipalensis* breeding in Pench Tiger Reserve, Maharashtra

The Spot-bellied Eagle-Owl *Ketupa nipalensis* is a large, mostly nocturnal owl found in tropical evergreen, tropical moist deciduous, and tropical & subtropical broad-leaved forests (del Hoyo et al. 1999; Srinivasan 2013) of India and south-eastern Asia. In India, its primary range spans from the subtropical Himalaya of Uttarakhand to north-eastern India and the Western Ghats (from Goa to Kerala). It is also found, although uncommonly, in the Eastern Ghats, eastern Gujarat, and the Western Ghats of Maharashtra (Whistler & Kinnear 1935; Nandini 2005; Grimmett et al. 2011; Srinivasan 2013; Palei et al. 2018; Sharma & Nafees 2018; Kanthariya 2019). The field guides Grimmett et al. (2011) and Rasmussen & Anderton (2012) considered it absent from Central India. However, since the mid-1990s, it has been recorded at several places in Central India (Table 1).

Table 1. Places with records of Spot-bellied Eagle-Owl from Central India				
Place	State	Date of first record	Remarks	
Bori Wildlife Sanctuary	Madhya Pradesh	Unknown	First mentioned in Mehta (1998) and then recorded on 09 May 2004 (Jayapal et al. 2005)	
Pench Tiger Reserve	Madhya Pradesh	Unknown	First mentioned in Sen & Dungriyal (2004) and then recorded on 18 April 2004 (Jayapal et al. 2005). Many subsequent records (Majumder et al. 2011; Rai 2018; eBird 2024).	
Achanakmar Tiger Reserve	Chhattisgarh	Unknown	Mentioned in Chandra (2014).	
Kanha Tiger Reserve	Madhya Pradesh	February 1994	First mentioned in D'Cunha & Ali (2001). Many subsequent records (Deshmukh 2008; eBird 2024).	
Kanger Valley National Park	Chhattisgarh	24 July 2018	Breeding record (Bharos et al. 2019).	

On 10 June 2023, Ishita Khemariya, Deepali Sharma, and K.D. Kuklare (member of STPF, Special Tiger Protection Force) recorded a pair of Spot-bellied Eagle-Owls during a bird survey. The location was Arjuna Nala, CN 659, Surewani Beat of Nagalwadi Buffer Range (21.540°N, 79.001°E) of Pench Tiger Reserve, eastern Maharashtra. Thereafter, both individuals were frequently recorded on subsequent days. The location is close to Surewani village, and its habitat is tall and dense, moist deciduous forest. The only other owls recorded near the Spot-bellied Eagle-Owl location were the Jungle Owlet Glaucidium radiatum and Indian Scops-Owl Otus bakkamoena. On 16 June 2023, Srikant Dhoble recorded a juvenile, an offspring of the adult pair, at the same location. The juvenile was seen outside of the nest [32]. Thereafter, the juvenile was frequently recorded on subsequent days. This is the second breeding record in Central India after being recorded breeding in July 2018 at Kanger Valley National Park (Bharos et al. 2019).



32. Juvenile Spot-bellied Eagle-Owl, Pench Tiger Reserve, 16 June 2023.

The owls were seen eating snakes, small birds, mice, and insects. During the day, the owls roosted on large trees, particularly *Terminalia arjuna* and *Ficus bengalensis* (Banyan tree), often occupying the same tree for the entire day. These sightings reconfirm that the Spot-bellied Eagle Owl is a breeding resident in Central India. It also raises the possibility that this species could be widely distributed in Central India in suitable habitat but has largely gone undetected.

References

- Bharos, A. M. K., Mandavia, A., & Naidu, R., 2019. First breeding record of spot-bellied eagle owl (*Bubo nipalensis*) and sighting of Indian blue robin (*Luscinia brunnea*) from Bastar division, Chhattisgarh, India. *Cheetal* 56 (2): 21–28.
- Chandra, K., 2014. Fauna of Achanakmar Amarkantak Biosphere Reserve, Chhattisgarh and Madhya Pradesh. *Conservation Area Series* 49: 1–292
- Chandra, K., & Boaz, A., 2018. Fauna of Achanakmar Tiger Reserve, Chhattisgarh. Report Published by the State Forest Research and Training Institute, Forest Department Chhattisgarh & Zoological Survey of India, Pp 1–486.
- Chandra, K., Mahabal, A., Gupta, R. P., & Nema, D. K., 2006. Avifauna of Kanha Tiger Reserve, Madhya Pradesh. Records of Zoological Survey of India. Occ. Paper No. 250. Kolkata: The Director, Zoological Survey of India.
- D'Cunha, E. P. E., & Ali, R., 2001. Additional list of the birds of Kanha National Park, Madhya Pradesh. *Journal of the Bombay Natural History Society*. 98 (2): 283–287.
- Deshmukh, A. J., 2008. Photographic record of the Spot-bellied Eagle-Owl Bubo nipalensis from Kanha National Park, Madhya Pradesh, India. Indian BIRDS 4 (1): 18.
- eBird, 2024. Species Map: Spot-bellied Eagle-Owl. https://ebird.org/map/sbeowl1 [Accessed on 23 December 2024.]
- Grimmett. R., Inskipp. C. & Inskipp. T., 2011. Birds of the Indian Subcontinent. New Delhi, Oxford University Press. Pp.1–528.
- Jayapal, R., Qureshi, Q., & Chellam, R., 2005. Some significant records of birds from the central Indian highlands of Madhya Pradesh. *Indian BIRDS* 1(5): 98–102.
- Kanthariya, D., 2019. Sighting of Spot-bellied Eagle Owl *Bubo nipalensis* in Shoolpaneshwar Wildlife Sanctuary: an addition to the avifauna of Gujarat. *Flamingo* XVII(2):8–9.
- Majumder, A., Sankar, K., & Sykes, B. R., 2011. Records of the Spot-bellied Eagle Owl Bubo nipalensis in Madhya Pradesh, India. BirdingASIA 15: 76.
- Mehta, P., 1998. The effect of forestry practices on bird species diversity in Satpura Hill Ranges. Unpublished Ph.D. thesis submitted to Saurashtra University (Wildlife Institute of India, Dehra Dun).
- Nandini, R., 2005. Predation by Spot-bellied Eagle-Owl *Bubo nipalensis* on Mouse Deer *Moschiola meminna*. *Indian BIRDS* 1 (5): 119–120.
- Palei, N. C., Palei, H. S., Rath, B. P., & Mishra, A. K., 2018. Spot-bellied Eagle-owl: Range extension of the Spot-bellied Eagle Owl *Bubo nipalensis* Hodgson, 1836 (Strigiformes: Strigidae) in Odisha, eastern India. *Bird-o-soar. 18. In: Zoo's Print* 33(6): 6–8.
- Rai, K., 2018. Spot-bellied Eagle Owl Bubo nipalensis in Vidarbha region, Maharashtra, India. Indian BIRDS 14 (4): 126–127.
- Rasmussen, P. C., & Anderton, J. C., 2012. *Birds of South Asia: the Ripley guide*. 2nd ed. 2 vols. Washington, D.C. and Barcelona: Smithsonian Institution and Lynx Edicions. Pp. 1–378; 1–683.
- Sharma, M., & Nafees, M., 2018. Spot-bellied Eagle-Owl *Bubo nipalensis* feeding on Indian flying fox *Pteropus giganteus*. *Indian BIRDS* 14 (2): 59.
- Srinivasan, S., 2013. Spot-bellied Eagle Owl Bubo nipalensis in northern Eastern Ghats, Andhra Pradesh, India. Indian BIRDS 8 (4): 106–107.
- Whistler, H., & Kinnear, N. B., 1935. The Vernay Scientific Survey of the Eastern Ghats. (Ornithological Section). Part XII. *Journal of Bombay Natural History Society*. 38 (2): 232–240.

– Prabhu Nath Shukla, Shrikant Purushottam Dhoble, Pravin Ramesh Lele, Eshaan Chaitanya Rao & Virendra Kumar Mishra Prabhu Nath Shuskla, Maharashtra State Forest Department, Maharashtra, India

Shrikant Purushottam Dhoble, Maharashtra State Forest Department, Maharashtra, India Pravin Ramesh Lele, Maharashtra State Forest Department, Maharashtra, India Eshaan Chaitanya Rao, Maharashtra State Forest Department, Maharashtra, India Virendra Kumar Mishra, Institute of Environment and Sustainable Development, Banaras Hindu University, Varanasi, Uttar Pradesh, 221005, India. E-mail: virendra78@gmail.com

[Corresponding author]

28

The Tawny Fish-Owl Ketupa flavipes from Manas National Park and its status in the Brahmaputra Valley

On 02 April 2024, during fieldwork near the Beki River at Mothanguri (26.768°N, 90.971°E; c.130 m asl) in Manas National Park, we photographed a large owl perched on a Lali tree Walsura robusta at 1100 h on a rainy day. We initially identified the bird as the Brown Fish-Owl Ketupa zeylonensis. After scrutinizing the picture further with the help of experts and field guides (Grimmett et al. 2011), we concluded that it was a Tawny Fish-Owl K. flavipes [33]. Unlike the Brown Fish-Owl, the bird had an unstreaked orange-rufous facial disc, which shows a streaked buffy facial disc. It had prominent ear tufts and greenishgrey cere and bill. Its tarsi were partially feathered, unlike the Brown Fish-Owl, which has bare tarsi. We observed the bird for nearly two minutes before it flew away. The habitat was moist deciduous forest featuring tree species such as Walsura robusta, Terminalia bellirica, Sterculia villosa, Duabanga grandiflora, and Dysoxylum binectariferum.



33. Tawny Fish-Owl near the Beki River in Manas National Park.

The Tawny Fish-Owl is distributed widely across the Himalayas, eastern Indochina, southern China, and Taiwan, and it is usually found in old-growth broadleaf forests near fast-flowing streams (Hong 2013; Holt et al. 2020). According to Rasmussen & Anderton (2012), in India, it is found in the Himalayan foothills from Himachal Pradesh to north-eastern India, including the Khasi Hills in Meghalaya, the Mizo Hills (also known as Lushai Hills) in Mizoram and Manipur. There are many records in eBird from the Himalayan foothills in Uttarakhand, Nepal, Bhutan, and Arunachal Pradesh (Chhophel 2023; eBird 2024). It has been recorded as high as 2,450 m asl from Arunachal Pradesh (Bhattacharya et al. 2021). In the Brahmaputra Valley, this species is primarily observed in the plains near the foothills, with regular sightings between 280–400 m asl along the banks of the Noa-Dihing River in Namdapha National Park (eBird 2024). Ritschard & Marques (2007) reported this species from the Bhalukpong plains, close to the Arunachal Pradesh and Assam border at c.100 m asl. Published records of the owl from the banks of the Brahmaputra River in the plains are scarce, with only two confirmed sightings in eBird (Siang Expedition 2022; Vishwanathan & Prashak 2022). Additionally, Baruah & Sharma (1999) mentions that the bird is a rare resident in the semi-evergreen forest, swampy forest, and riparian forest of Kaziranga National Park, whereas Choudhury (2006a) mentions that it is a rare resident in the Dibru-Saikhowa

National Park. Chowdhury (2006b) also mentions its presence in Manas National Park, but no photographic evidence is provided. Ours is the first record with photographs from Manas National Park and the foothill-adjacent plains of the Brahmaputra north bank in lower Assam.

We extend my heartfelt gratitude to the Assam Forest Department for permitting us to enter the park. We deeply appreciate the support provided by the forest guards, whose assistance was invaluable. Special thanks go to Ginu George, Ashwin Viswanathan, and Subramanian Venkataramani for their help in identifying the bird.

References

Barua, M., & Sharma, P., 1999. Birds of Kaziranga National Park, India. Forktail (15): 47–60.

- Bhattacharya, M., Adhikari, B. S., & Gopi, G. V., 2021. Tawny Fish-owl Ketupa flavipes Hodgson, 1836 (Aves: Strigiformes: Strigidae): recent record from Arunachal Pradesh, India. Journal of Threatened Taxa, 13 (2): 17837–17840.
- Chhophel, S., Wangda, K., Penjor, T., & Dorji, K., 2023. Avifaunal diversity of Tsirang District with a new country record for Bhutan. *Journal of Threatened Taxa* 15 (8): 23681–23695.
- Choudhury, A., 2006a. Birds of Dibru-Saikhowa National Park and Biosphere Reserve, Assam, India. *Indian BIRDS* 2 (4): 95–105.
- Choudhury, A., 2006b. Birds of Manas National Park. Gibbon Books, Guwahati. eBird, 2024. Tawny Fish Owl range map. Webpage URL: https://ebird.org/map/tafowl1
- [Accessed on 26 December 2024.]
- Grimmett. R., Inskipp. C., & Inskipp. T., 2011. Birds of the Indian Subcontinent. New Delhi, Oxford University Press. Pp.1–528.
- Hong, S. Y., Sun, Y. H., Wu, H. J., & Chen, C. C., 2013. Spatial distribution of the Tawny Fish-owl *Ketupa flavipes* shaped by natural and man-made factors in Taiwan. *Forktail* 29 (1): 48–51.
- Holt, D. W., Berkley, R., Deppe, C., Enríquez, P. L., Petersen, J. L., Rangel Salazar, J. L., Segars, K. P., Wood, K. L., & Marks J. S., 2020. Tawny Fish-Owl (*Ketupa flavipes*), version 1.0. In *Birds of the World* (J. del Hoyo, A. Elliott, J. Sargatal, D. A. Christie, and E. de Juana, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi. org/10.2173/bow.tafowl1.01
- Ritschard, M., & Marques, D., 2007. Tawny Fish-Owl *Ketupa flavipes* in Arunachal Pradesh, India. *Indian BIRDS* 3 (3): 108.
- Siang Expedition, 2022. Webpage URL: https://ebird.org/checklist/S131517734 [Accessed on 26 December 2024.]
- Vishwanathan, A., & Prakash, A., 2022. Webpage URL: https://ebird.org/checklist/ S110733020 [Accessed on 26 December 2024.]
- Koushik Rajbongshi, Leons Mathew Abraham, Jonmani Kalita, Karan Barman & Dhritiman Das

Koushik Rajbongshi, Aaranyak, 13 Tayab Ali Lane, Beltola, Guwahati, 781028, Assam, India. E-mail: koushik@aaranyak.org [Corresponding author]

- Leons Mathew Abraham, Pygmy Hog Research & Breeding Center, Indira Nagar,
- Basistha, Guwahati, 781029, Assam, India. Jonmani Kalita, Aaranyak, 13 Tayab Ali Lane, Beltola, Guwahati, 781028, Assam, India.
- Karan Barman, Fatasil Manpara, Guwahati, 781025, Assam, India.

Dhritiman Das, Pygmy Hog Conservation Programme-Durrell Wildlife Conservation Trust, Indira Nagar, Basistha, Guwahati 781029, Assam, India.

The Chestnut-headed Bee-eater *Merops leschenaulti* from Punjab, India

The Chestnut-headed Bee-eater *Merops leschenaulti* is found in open areas within wooded country up to 1,500 m asl in the Indian subcontinent (Rasmussen & Anderton 2012). In this note, we report the first photographs of Chestnut-headed Bee-eater from Punjab, India, obtained in Haripur, Rupnagar District, and review its status in the state.

On 16 May 2021, KC visited his family's farm in the hills above Haripur village (30.944°N, 76.677°E; c.390 m asl), Rupnagar District, Punjab. KC saw four Chestnut-headed Beeeaters and photographed one perched on a thin branch of a bush **[34]**. A few Asian Green Bee-eaters *M. orientalis* were also flying around, seemingly, in search of food. Chestnut-headed Bee-eater was separated from Asian Green Bee-eater by the chestnut crown and nape, yellow throat, and absence of long tail-streamers. This individual flew off after a while, and KC didn't follow it. On another visit to the farm on 17 May 2023, KC came across five Chestnut-headed Bee-eaters. One was perched on an electric wire with an Asian Green Bee-eater [35] and could be easily differentiated from the latter.



34. Chestnut-headed Bee-eater, Haripur, Punjab.



35. Chestnut-headed Bee-eater (left) and Asian Green Bee-eater, Haripur, Punjab.

On both occasions, 4–5 birds were seen, but no breeding behaviour like mating or presence outside nesting holes was noted. The bee-eaters were catching insects from a pond. They were seen feeding on water striders and dragonfly nymphs. The Bee-eaters were diving in the water to catch the nymphs. They would dive in and come out with each bird remaining submerged only for a fraction of a second. Sometimes, the tips of their wings and tails remained above the surface. This was observed using binoculars, and no photographs were obtained. The birds were present from April to June during the years that they were observed. This falls within their overall breeding season from February to June (Ali & Ripley 1983). Thus, we deduce that they could possibly be breeding here.

As per Rasmussen & Anderton (2012), the Chestnutheaded Bee-eater is mainly a summer visitor to the base and foothills of Himalaya from Uttarakhand to Arunachal Pradesh and the Brahmaputra valley of Assam, but in this range, a few are present in winters too. However, its presence in the Shivalik Hills region of northern Haryana, near Punjab, is documented (Kalsi et al. 2019; eBird 2024), c.35 km southeast of our sighting location. Distributions maps in Grimmett et al. (2011) and Rasmussen & Anderton (2012) do not show their presence in Himachal Pradesh, but their presence and breeding are now known (Abhinav & Singh 2023). From Jammu & Kashmir, the only confirmed record of this species is a photograph from Roop Nagar, Jammu (Sharma 2019). However, there is an older record from the Rajouri District of Jammu & Kashmir (Shawl 1996), but no photo or field notes are available with the observer (Tahir Shawl in litt., WhatsApp message dated 04 August 2024).

For Punjab, a list of birds issued by PUNENVIS (2005) included Chestnut-headed Bee-eater in a column with the heading, 'Recorded in 2001-2002.' However, no other details were provided. Kumar et al. (2006) mention Chestnut-headed Bee-eater from Shahnehar & Talwara (Hoshiarpur District), Dhar & Dunera (Pathankot District), and Rupnagar. However, no supporting details are provided. The locations in the above two references are in the Shivalik foothills, where suitable summer habitat for the species is found. Kaur & Brraich (2021) reported the species from Nangal, Punjab (again a location in the Shivalik foothills), but without any details. Abhinav & Singh (2023) did not consider this record because the "list includes several erroneous records." No records were found in the specimen database of the Global Biodiversity Information Facility (GBIF). We found no photographs from Punjab on social media (Facebook, Instagram) and citizen science platforms (eBird, iNaturalist). Thus, the observations presented in this work are the only photographic records of the Chestnut-headed Bee-eater in Punjab and also underscore their presence during a period and in a habitat suitable for breeding.

References

- Abhinav, C. & Singh, H., 2023. Breeding of Chestnut-headed Bee-eater *Merops leschenaulti* in Mandi, Himachal Pradesh and its status in the state. *Indian BIRDS* 19 (4): 107–109.
- Ali, S., & Ripley, S. D., 1983. Handbook of the birds of India and Pakistan together with those of Bangladesh, Nepal, Bhutan and Sri Lanka. 2nd ed. Delhi: (Sponsored by Bombay Natural History Society.) Oxford University Press. Vol. 4 of 10 vols. Pp. i–xvi, 1–267.
- Grimmett, R., Inskipp, C., & Inskipp, T., 2011. *Birds of the Indian Subcontinent*. London: Oxford University Press & Christopher Helm. pp. 1–528.
- Kalsi, R. S., Sharma, S. C., & Choudhary, J. R., 2019. Birds of Haryana: A Field Guide. Panipat, Haryana, India: Unique Publications. Pp. 1–602.
- Kaur, R., & Brraich, O. S., 2021. Abundance and diversity of threatened birds in Nangal Wetland, Punjab, India. *Journal of Threatened Taxa* 13 (12): 19733– 19742. Website URL: https://www.threatenedtaxa.org/index.php/JoTT/article/ view/4062/8082 [Accessed on 03 August 2024.]
- Kumar, A., Mehta, H. S., Mahabal, A., Lal, M., Nautiyal, A. K., & Sharma, G., 2006. Class: Aves (pp. 717–744). In: *Biodiversity in the Shivalik ecosystem of Punjab*. Jerath, N., Puja., & Chadha. J. (eds.). Dehra Dun: Bishen Singh Mahendra Pal Singh.
- PUNENVIS, 2005. List of birds. Database (list of flora and fauna of Punjab), State Environment Issues, ENVIS Centre, Punjab. Webpage URL: https://punenvis.nic. in/show_file.aspx?linkid=annexure42-533218808.doc [Accessed on 02 August 2024.]
- Rasmussen, P. C., & Anderton, J. C., 2012. *Birds of South Asia: the Ripley guide*. 2nd ed. Washington, D. C., and Barcelona: Smithsonian Institution and Lynx Edicions. 2 vols. pp. 1–378; 1–683.
- Sharma, A., 2019. Webpage URL: https://ebird.org/checklist/S54358624 [Accessed on 03 August 2024.]
- Shawl, T., 1996. Birds of Rajouri. Newsletter for Birdwatchers 36: 69-70. Webpage URL: https://archive.org/details/NLBW36_4/page/n9/mode/2up?view=theater [Accessed on 03 August 2024.]

- Gurpartap Singh & Karmannye Chaudhary

Gurpartap Singh, 1969, Sector 64, Mohali, District Sahibzada Ajit Singh Nagar, 160062, Punjab, India. E-mail: prof.gurpartap.singh@gmail.com [GPS] [Corresponding author] Karmannye Chaudhary, #A-12, Uppal Marble Arch, Manimajra, Chandigarh 160101, India. E-mail: karmannyechaudhary@gmail.com [KC]

3oth: Karmannye Chaudhary

Fledgling success in a Painted Stork Mycteria leucocephala colony in Rajasthan, India

The Painted Stork Mycteria leucocephala is a widespread resident wetland bird of the Indian Subcontinent (Ali & Ripley 1987). Painted Storks are largely piscivorous, and occupy a high trophic level in aquatic food chains (Kalam & Urfi 2008). Here we report on the nesting ecology and fledging success of a colony of Painted Storks.

The Mataji pond of Chawandiya village (25.190°N, 74.460°E) is likely the largest breeding site for Painted Storks in Bhilwara District, Rajasthan, India. Many Babool Vachellia nilotica trees near this pond offer excellent nesting sites for the birds. From July 2023 to January 2024, we opportunistically tracked all 187 stork nests from nest initiation in July to when all fledglings left the nest in late January (Fig 1). We followed all guidelines in Barve et al. (2020) for our observations.



Fig 1: Phenology of Painted Stork nesting at Mataji pond 2023-2024

Most nests were located in the upper canopy of the nesting tree. 84% (157/187) of the nests had three hatchlings while the rest 1-2 hatchlings. Potentially due to staggered egg laying, there appeared to be a lag of 4-5 days in the hatching of all eggs. Based on visual estimation of nestlings from four nests, in nests with two or three nestlings, the smallest nestling was about one-third of the size of the largest nestling around 15 days after the first nestling hatched. Thus, based on size, the first, second, and third nestlings were referred to as large, medium and small respectively. In the nestling stage, both parents fed fish to the nestlings. The amount of food provisioned differed between the largest and smallest nestlings. Out of 157 nests with three nestlings, we directly observed the adults feeding the small nestling in only 45 (29%) of the nests. Most food brought by the parents was delivered to the large and medium nestlings due to their larger size and stronger begging. Table 1 outlines all documented metrics for the colony.

Table 1. Metrics of nesting biology of Painted Storks at Mataji pond in 2023–24			
Metric	Observation		
Number of Nests	187		
Number of nests with two nestlings	30		
Number of nests with three nestlings	157		
Total number of nestlings across all nests	521		
Total number of dead nestlings	112 (21% of hatchlings)		
Fledging success	409 (79% of total hatchlings)		



36. Remains of a dead nestling in Painted Stork nest.



37. A nestling death due to ejection from the nest

As the water levels in the Mataji pond dropped and prey likely dwindled, the large and medium offspring followed the parents to the foraging grounds leaving the small nestlings to starve in the nest. Out of the 157 nests with three nestlings that we tracked, only 45 fledged all three young. We found dead nestlings in 112 nests [36]. Several nestlings were also pushed out of the nest by the larger fledglings [37]. Dead nestlings were observed being scavenged by House Crow Corvus splendens. We are unsure why the parents were unable to raise all three nestlings in most cases. However, siblicide, infanticide, and brood reduction due to resource availability, are well known causes of nestling mortality in many birds in general, and other storks such as White Stork Ciconia ciconia and Black Stork C. nigra in particular (Mock 1987; Zieliński 2002; Jovani & Tella 2004; Komdeur 2005; Djerdali et al. 2016).

We are grateful to Vikas Saxena for providing incredibly helpful comments and suggestions that have enriched this article.

References

- Ali, S., & Ripley, S. D., 1987. Compact handbook of the birds of India and Pakistan together with those of Bangladesh, Nepal, Bhutan and Sri Lanka, 2nd ed. Oxford University Press, Delhi. Pp. i-xlii, 1 l., 1-737, 52 ll.
- Barve, S., Raman, T. R. S., Datta, A., & Jathar, G., 2020. Guidelines for conducting research on the nesting biology of Indian birds. Indian Birds 16 (1): 10-11.
- Djerdali, S., Guerrero-Casado, J., & Tortosa, F. S., 2016. The effects of colony size interacting with extra food supply on the breeding success of the White Stork (Ciconia ciconia). Journal of Ornithology 157 (4): 941-947.
- Jovani, R., & Tella, J. L., 2004. Age related environmental sensitivity and weather mediated nestling mortality in white storks Ciconia ciconia. Ecography 27 (5): 611-618.
- Kalam, A., & Urfi, A. J., 2008. Foraging behaviour and prey size of the Painted Stork. Journal of Zoology 274 (2): 198-204.

Komdeur, J., 2005. More than MOCKing birds: evolution of parental infanticide and siblicide. *Trends in Ecology & Evolution* 20 (6): 296–297.

Mock, D. W., 1987. Siblicide, parent-offspring conflict, and unequal parental investment by egrets and herons. *Behavioral Ecology and Sociobiology* 20 (4): 247–256. Zieliński, P., 2002. Brood reduction and parental infanticide—are the White Stork

Ciconia ciconia and the Black Stork *C. nigra* exceptional? *Acta Ornithologica* 37 (2): 113–119.

 Anil Kumar Sharma, Rekha Bhawnani & Anil Kumar Tripathi Anil Kumar Sharma, Dr. Bhimrao Ambedkar Government PG College, Nimbahera, Rajasthan,

312601, India

E-mail: anilkumarsharma031995@gmail.com [Corresponding Author] Rekha Bhawnani, C.C.R. PG College, Muzaffarnagar (UP), 251001. India. Anil Kumar Tripathi, M.L.V. Government College, Bhilwara, Rajasthan, 311001, India.

The Blyth's Swift Apus leuconyx from Jammu & Kashmir, India

On 17 March 2024, at about 0830 h, while birdwatching near Temple Kanjli between Malhar and Dhaggar (32.728°N, 75.685°E; 2,527 m asl) in Kathua district, Jammu & Kashmir, India, HK observed about thirty *Apodidae* swifts flying in the sky. A few photos were clicked. To ascertain the bird's identity, the photographs were posted on the *Ask IDs of Indian Birds* Facebook group. The bird was identified in the group as Blyth's Swift *Apus leuconyx* [38].



38. Blyth's Swift, Kathua district, Jammu & Kashmir.

Ali & Ripley (1983) describe this bird "as a deeply fork-tailed swift, blackish brown above with a broad white rump-patch; squamated or mottled black and white below, with whitish chin and throat." The forked tail is not visible in the above photograph because of the angle of sight. The squamation (mottling) on the underparts is also not clearly visible as the photo was taken from afar. However, the white rump-patch and the whitish chin and throat are clearly visible. Little Swift *A. affinis* can look similar because it too has a white rump-patch, but that species has a square tail (though not possible to compare here) and an obvious rounded white throat-patch.

Blyth's Swift occurs in the breeding season along the outer Himalayas between c.600 and c.3,600 m asl from Murree Hills (Pakistan) and Kashmir eastwards to the north-east including Nepal, Sikkim, Assam Hills and Bhutan (Ali & Ripley 1983; Leader et al. 2023). The breeding period is from February to August, both months included (Baker 1934).

Although Blyth's Swift has been included in the checklist of birds of Jammu & Kashmir, no photographic evidence or specimen exists (Kichloo et al. 2024). Its presence in the region, however, is supported by ornithological literature. Lawrence (1895) was the first to suggest that it is likely to occur in Kashmir, but the earliest recorded mention was by Ward (1907). Osmaston (1927) noted occasional sightings of the species in flight at higher elevations in the Great Himalayan Range. Bates & Lowther (1952) included it in the breeding birds of Kashmir. More recently, Price & Jamdar (1990), recorded the species in the Overa Wildlife Sanctuary in Anantnag district, while Awan et al. (2010, 2012) documented it from Muzaffarabad in Pakistan Administered Kashmir. Grimmett et al. (2011) and Rasmussen & Anderton (2012) included Jammu & Kashmir in this species' summer/breeding range on their distribution maps. Before the present record, the most recent observation was from Aru Valley (above Mondlan) in Anantnag district on 24 July 2022 (Eaton et al. 2022). The present sighting, therefore, is the first photographic record of Blyth's Swift in Jammu & Kashmir.

References

- Ali, S., & Ripley, S. D., 1983. Handbook of the birds of India and Pakistan together with those of Bangladesh, Nepal, Bhutan and Sri Lanka. 2nd ed. Delhi: Oxford University Press. Vol. 4 of 10 vols. Pp. i–xvi, 1–267.
- Awan, M. N., Ali, H., & Lee, D. C. 2012. An annotated checklist of birds and conservation issues in Salkhala Game Reserve, an isolated Important Bird Area in Azad Kashmir, Pakistan. *Forktail* 28: 38–43.
- Awan, M. N., Rafique, S. M., & Chaudry, M. I., 2010. Changes to the checklist of the birds of Muzaffarabad city, Azad Jammu and Kashmir, Pakistan. *Podoces* 4 (2): 117–123.
- Baker, E. C. S., 1934. The Nidification of birds of the Indian Empire. London: Taylor and Francis. Vol. 3 of 4 vols. pp. i–vii, 1–568.
- Bates, R. S. P., & Lowther, E. H. N., 1952. Breeding Birds of Kashmir. London: Oxford University Press. pp. i–xxiii, 1–367.
- Eaton, J., Hoit, M., & Graham, R., 2022. Webpage URL: https://ebird.org/checklist/ S120118972. [Accessed on 07 November 2024.]
- Grimmett, R., Inskipp, C., & Inskipp, T., 2011. Birds of the Indian Subcontinent. 2nd ed. London: Oxford University Press & Christopher Helm. Pp. 1–528.
- Kichloo, A. M., Sharma, N., Suhail, I., Shagoo, P., & Kumar, P., 2024. A checklist of the birds of Jammu & Kashmir, India. *Indian BIRDS* 19 (6): 163–180.

Lawrence, W. R., 1895. The valley of Kashmir. H. Frowde, London. Pp. 1-467.

- Leader, P. J., Zyskowski, K., Bird, B., Khot, R., van Grouw, H., & Praveen J., 2020. Status of 'Fork-tailed Swift' Apus pacificus complex in India. Indian BIRDS 16 (5): 135–139.
- Osmaston, B. B., 1927. The birds of Kashmir Part II. *Journal of the Bombay Natural History Society* 32(1): 134–153.
- Price, T., & Jamdar, N., 1990. The breeding birds of Overa Wildlife Sanctuary, Kashmir. Journal of the Bombay Natural History Society 87 (1): 1–15.
- Rasmussen, P. C., & Anderton, J. C., 2012. Birds of South Asia: The Ripley guide. 2nd ed. Washington, D.C. and Barcelona: Smithsonian Institution and Lynx Edicions. 2 vols. Pp. 1–378; 1–683.
- Ward, A. E., 1907. Birds of the provinces of Kashmir and Jammu and adjacent districts. Part III. Journal of the Bombay Natural History Society 17(3): 723–729.

 Hemant Kumar & Gurpartap Singh Hemant Kumar, Billawar, District Kathua, Jammu & Kashmir, India. E-mail: hemantzyx@gmail.com [HK] Gurpartap Singh, 1969, Sector 64, Mohali 160062, Punjab, India.
 E-mail: prof.gurpartap.singh@gmail.com [GPS][Corresponding author]



Book review



Living with Birds By Asad Rahmani

Published by Juggernaut Books 2024. Rs. 599/-

Pp. 1–350.

first met Dr Rahmani in 1981, but a December 1983 incident, when he was a guest of honour on a Birdwatchers' Society of Andhra Pradesh's field trip to Manjira Reservoir, remains fresh in my mind. "In an informal discussion after birding that day, he spoke of his work on the Great Indian Bustard in Maharashtra and also cleared many of the members' doubts" [Mayura 4 (4): 79 (1984)]. I had been reading Elliot Howard's classic Territory in Bird Life (John Murray, 1920), borrowed from the Bombay Natural History Society's (hereinafter, BNHS) fabulous library and, while sitting cross-legged on the ground in front of him (along with some other 'youngsters'), asked a convoluted question about territoriality in Great Indian Bustards. I only remember the beginning of his answer, "That is a very good question!"

Since then, our lives have criss-crossed innumerable times all over India, especially in the BNHS. There are so many incidents from his time with the BNHS, which are narrated in this book, that are also part of the history I grew up alongside; so many people he speaks about with whom I too have interacted, that reviewing this work sends me down a rabbit-hole of ricocheting memories. It would not be wrong to presume that there are innumerable Indians who have had similar experiences with the genial Dr Rahmani, as have I.

There is no doubt in my mind that the ornithological history of post-independent India can safely be divided into two distinct periods. The first of the diminutive Dr Sálim Ali (1896–1987), who strode across the ornithological landscape like a colossus, and his larger-than-life achievements in collating our knowledge of birds and making them the most popular of natural history subjects through his books. The second of Dr Asad Rafi Rahmani who spearheaded a conservation movement based on widespread public networking, documentation, and synthesis, simultaneously engaging country-wide with every type of government agency responsible for administration and policy. Both worked from 'Hornbill House,' the haloed precincts of the BNHS. The former strengthening its reputation of being the primary custodian of ornithological knowledge / information, while the latter leveraging its scientific temperament, its public outreach, image, and connect, and its international exposure to garner field ornithological data to support, inform, propose, and fructify government policy and sustainable, on-the-ground conservation. Whatever they achieved

and how their ways of working overlapped in all facets of the game, they had just one common goal, that of protecting, preserving, and popularizing the ornithological diversity of India. Ali wrote about his life in *The Fall of a Sparrow* (Oxford University Press, 1985), and now, Rahmani has written about his.

If you are a birder, an ornithologist, a naturalist, a conservationist, or even one who aspires to lead or build institutions, or work with people selflessly, then Living with Birds is for you. It is full of stories about people and places and animals and birds. It is soaked in Rahmani's rare subcutaneous guiddity ingrained from a lifetime spent in the field, working close to the life sustaining Earth. It is replete with tales of his fellow travellers who have, wittingly or unwittingly, enriched his life-and he makes those moments and episodes central in the telling of his own evolution. It's countrywide canvas is astounding; so too the emulatory humbleness that shines in his spontaneous responses to situations involving all types of people. It is deeply introspective and scorchingly frank in self-censure, and Rahmani's capacity to make amends to those he felt he'd wronged, is endearingly special. The sensitive portrayal of friends he has lost is deeply felt. His support and encouragement of students is a masterclass in the art and science of andragogy.

The poignancy and frailty of human relationships are dealt with great tenderness in many places in the book, but the most cathartic for me are: Dr Sálim Ali mourning the assassination of Indira Gandhi (pp. 84–87); Rahmani's bonhomie with the late Ravi Sankaran, recorded with heart-breaking brevity (pp. 95, 162); his bond with BNHS's iconic chowkidar, Uma Pratap Singh (p. 135); and his deep respect for the unique and legendary bird trapper, Ali Hussain (pp. 188–192).

Some of Rahmani's pithy observations that I take away include: "...fieldwork is not for everyone" (p. 56); "We generally see what we want to see. Similarly, people who are not interested in birds often do not hear a bird's song, while a keen birdwatcher may hear it even against a noisy background" (p. 66); "Teaching was hard work but also a great way to gain knowledge" (p. 108); and "India is so tiger-centric that, sometimes, it looks like no other species matter" (p. 114).

I have deliberately not mentioned details from the book, be they about institutions, people, or conservation issues. This is because there are so many, and readers will relate to or take away whatever is relevant or impressionable to them. Also, if I were to do so, it would distract from what Rahmani has to say, and that would be a disservice to an amazing tale, from an extraordinary era in India's conservation history, told by a key player of the times. Rahmani's inscape is filled with his love for reading and books-he laments "the crumbling of reading habits in India" (p. 25); India's wild heartland; and people who care about the world and its creatures. Living with Birds is an enjoyable, educative, and inspirational deep dive into a life lived for India's wilderness. It is moot whether it sufficiently covers the prodigious achievements of Rahmani-his scholarly output, his mentorship, his institution building, his endless enquiry in the lives of non-human life, his lifelong bond with "books...landscape or species" (p. 291). It is, undoubtedly, a must read!

If there is one thing that would augment a second edition, it would be a detailed index, so vital in a book that goes beyond personal history to being a chronicle of India's conservation history of the past six decades and is full of people, places, institutions, and the other index-populating paraphernalia.





Pitti Engineering Limited [Formerly Pitti Laminations Limited] (An ISO 9001-2008 certified company) Manufacturers of Electrical steel laminations, motor core, sub-assemblies, die-cast rotors, press tools, and machining of metal components . Regd. Office: 6-3-648/401, 4th Floor, Padmaja Landmark, Somajiguda, Hyderabad 500082, Telangana, India. Phones: 23312770, 23312774, 23312768, Fax: 23393985. E-mail: info@pitti.in, Website: www.Pitti.in, CIN: L29253TG1983PLC004141