Recollections
Indian Spotted Eagle
Common Swift in Sri Lanka
Contents

167 Recollections on illustrating The Ripley Guide
John C. Anderton

176 Breeding ecology of the Indian Spotted Eagle Clanga hastata around Belgaum, India
Niranjani Sant, Rahul Prabhukhanolkar, Vidhyadhar Shelke & Shridhar Shelke

Correspondence

185 A review of recent occurrences of Blyth’s Kingfisher Alcedo hercules from Arunachal Pradesh
Tajum Yomcha, Awadhesh Kumar & Anurag Vishwakarma

188 A Siberian Rubythroat Calliope calliope from the Andaman Islands
G. Gokulakrishnan, C. Sivaperuman & D. Sekhar

190 Collared Pratincole Glareola pratincola in the Telangana and Andhra Pradesh region
John Peters & M. V. N. Vinay

191 Review of Common Redstart Phoenicurus phoenicurus sightings in India and first record from Kangan, Kashmir Valley, India
Khursheed Ahmad, Irfan Jeelani, Rifat Ara Wani, Intesar Suhail

192 Turtles in the diet of White-throated Kingfisher Halcyon smyrnensis Pranav Gokhale

193 Four additions to the avifauna of Himachal Pradesh: Greater Flamingo Phoenicopterus roseus, Siberian Rubythroat Calliope calliope, Rufous Woodpecker Micropterus brachyurus, and Great Hornbill Buceros bicornis
C. Abhinav, Virender Sharma & Himanshu C

195 The Common Swift Apus apus—a new bird for Sri Lanka, and the need for a re-evaluation of the species in the Maldives
Ragupathy Kannan & Bopitiya Ganegama Pavan Thilina Saranga

198 A Common Ringed Plover Charadrius hiaticula at Sambhar Lake, and its status in Rajasthan
Harkirat Singh Sangha

198A Glossy Ibis Plegadis falcinellus breeding in Rajasthan, India
Anil Kumar Sharma, Rekha Bhawnani & Anil Kumar Tripathi

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

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

Address for correspondence:
One Friday morning in 1989, while I was reconnecting with the staff of the Division of Birds in the Smithsonian’s National Museum of Natural History, an ornithologist whom I had not met before asked me if I would be interested in working on a new guide to the birds of India. That ornithologist was S. Dillon Ripley’s Scientific Assistant, Bruce M. Beehler.

I was 27 years old; I had not travelled in Asia. I had heard of bulbuls only because there were introduced North American populations of the Red-Whiskered. I had no idea what a drongo was, let alone a prinia or a baza.

The world has changed radically since *Birds of South Asia: The Ripley Guide* was first proposed. Those were the early days of the desktop computer, essentially a data-storage and word-processing device; typewriters were part of Ripley’s office equipment, and the Internet and search engines were many years in the future. Cameras were bulky and heavy and the visual resources for Indian birds were very slim indeed. So the only evidence of the existence of the Rusty-throated (Mishmi) Wren-babbler *Spaeleornis badeigularis* was a single specimen in the Smithsonian’s collection. Ripley had collected it in 1947 in Arunachal, but no other records had emerged since; some had even disputed the validity of the species. Today many wonderful field photos of this bird can be found at the click of a keyboard, thanks to dedicated Indian birders.

Illustrating the entire avifauna of any landmass is a daunting task; for one as large and diverse as India’s, it is frightening unless you are as clueless as I was at the outset. The region has over 1,400 species presenting complex seasonal and regional variation, amounting to over 2,500 taxa (scientifically identified forms). In the end, I illustrated perhaps half of them, and found that, for the reasons discussed herein, it was best to focus on the complex groups special to the region and forgo trying to see everything for the sake of a long list. As wonderful as the shorebirds and waterfowl are, the babblers, bulbuls, warblers, and woodpeckers demanded the attention.

The biggest concern is that nothing significant is left out—any distinct plumage, whether age-related, seasonal, or geographic. This means that comprehensive specimen collections representing all regions of the Subcontinent had to be surveyed and loans secured. Museum collections are the cornerstone of field guide production: specimens are a hard record of what a bird looks like in any given location, and provides the illustrator with true colour, detail, and scale that cannot be conveyed in photographs. Such an operation, inevitably, has spinoffs—purging the literature of erroneous records (Pied Triller in the Andamans); finding new species that had lain unnoticed in museum drawers (Nicobar Scops Owl); and even revealing systematic scientific fraud, leading to the rediscovery of a species believed extinct (Robert Meinertzhagen and the Forest Owlet). All of these issues, and more, are addressed in senior author Pamela Rasmussen’s article in *Indian Birds* (2005).

The main challenge for the illustrator is to show all of the field marks essential for identification while keeping focus on the bird’s appearance as a living creature under natural circumstances. When recording field observations, in words or sketches, the focus should be to capture all those things that are missed by references such as published accounts, museum skins, photographs, and the work of other illustrators. From this perspective, I decided early on to put my efforts into observation rather than photography, which can take one’s attention off the subject in the pursuit of the perfect image. There were many, many birds I would not have observed had I attempted to get a picture, such as the Long-billed Wren Babbler and the Large-billed Thrush, two very peculiar birds, almost unique to India, that

---

*Bulbul crests on a specimen, and in real life. The Black-crested Bulbul on the left, and the Himalayan Bulbul on the right.*
tend to pop up rarely and unpredictably. Good luck if you actually go seek them out.

Armed with the only existing Indian bird guide, John Henry Dick’s plates for an aborted project bound as the A Pictorial Guide to the Birds of the Indian Subcontinent (Ali & Ripley 1983), I was unprepared for the whimsical and sometimes comical ornamentation and behaviour of Indian birds. Crests that were pressed flat and looked the same in Black-crested and Himalayan Bulbuls specimens were seen in life to be an upright and mobile “finger” in the former and a crazy forward-curdled “cowlick” in the latter [167]. Some birds looked so loopy at first encounter that I struggled to get them on paper. Witness the Hair-crested Drongo, with its velvet-black plumage setting off the metallic sheen of the wings and hackles; long crown filaments; heavy sickle bill; and bizarre outer tail feathers rolled up and over at the corners.

I quickly adopted the use of small pocket-sized notebooks and ballpoint pens (as they don’t smudge and the points don’t break) to jot these observations down on the spot; also to describe vocalizations and soft-part colours before the impression faded from memory. Immediacy was everything as that is what dead museum skins lack. Skins are useful for colour and size, but even patterns get seriously distorted. The big black blotches on the back of a specimen of the Striated Grassbird are arranged in the living bird into graphic black stripes, looking like lines drawn with a chisel-point marker. Little doodles and notes recorded that effect. Such drawings are often not much to boast over—drawing, standing up with gloves on, in the cold damp mists of Darjeeling will not likely produce a masterpiece—but they are vital.

It is also important for an illustrator keep in mind how detail registers under field conditions. Certain kinds of detail can be irrelevant even if technically correct—to this day I regret the degree of accenting on some of my illustrations that impedes the “field look” of the bird, as in my figure of the Yellow-billed Babbler *Argya affinis*, which underplays the strange blank “halo” around the eye because I elaborated the facial feather tracts too much. Similarly, outlining all of the flight feathers in an illustration of a soaring honey buzzard will undermine the impact of the diagnostic wing bands. These are examples of the detail of the museum skin in hand outweighing the more important representation of the bird in life.

The standard preparation of museum skins to lay on the back with bill pointed forward has disastrous effects on aspects of the plumage. Several of India’s dizzying range of pied woodpeckers are identified by the pattern of red vs black at the rear of the head; this area is collapsed in specimens. My early encounters with the Crimson-breasted Woodpecker and its sympatric larger edition, the Darjeeling Woodpecker, revealed distinctions in nuchal pattern that for the life of me I could not dig out of the skins. Those critical field marks found their way into the plate and text; as did observations on the rounded forehead of the Small Scrubwren versus the sloping forehead of the nearly identical Large Scrubwren for *The Birds of New Guinea*. Those characteristics are not apparent in museum skins. Conversely, I was heartened to confirm in the field (again in New Guinea) the white trim on the secondaries of the Brown-breasted Gerygone, that I had depicted based on museum skins before I had seen the bird in life.

Using published illustrations as references has to be approached with caution, however refined and authoritative they may seem. Some are incorrect because they are based on written descriptions rather than skins—especially in the case of remote and highly localized forms, such as those occurring on the Andaman and Nicobar Islands. Securing specimens for such locations is a major challenge, especially in the context of a comprehensive publication, and this sometimes leads to shortcuts. I recall a published description of a pitta from an island off New Guinea that was misleading because the author had apparently neglected to turn the museum skins over to examine the backs. Such vast projects as a field guide present multiple opportunities for exhaustion, and such mistakes are inevitable.
Bulboclonius moniligerus — drawn from life — Top Slip, Anamalais.

168. Ceylon Frogmouths study, Top Slip, Anamalais.
White-bellied Woodpecker, life study, Top Slip, Anamalais.
Jungle Babbler, life studies.
At times illustrators are subject to more insidious influences. For example, the difficult-to-identify reed warblers *Acrocephalus* sp., which inhabit dense and forbidding grassy habitats, are frequently shown in hand-held photos taken at banding operations (for obvious reasons: it’s hard to get field photos in that habitat). These, to be sure, are useful for colouration and pattern, but birds under such stress often raise their crown feathers and puff their throats in uncharacteristic ways; and of course typical posture is not represented. I have been thrown by illustrations based on such references even for birds that I know well. The Thick-billed Warbler *Arundinax aedon* in life doesn’t look much like a typical reed warbler. Its swollen pale bill reminds an American birder of a tagaver, and its build and carriage are more like that of a small babbler, such as the Buff-breasted. To liken it in an illustration to the “other” reed warblers misses its species-character. But it can look like one in a hand-held photo.

The communal energy of Indian birds was a constant source of amazement and confusion. I remember picking through thick undergrowth in Sikkim when suddenly the bamboo began to boil with activity and buzzing chatter; I was in the midst of a feeding flock of such insane activity that when it was over, all I could recall was a black throat here, a rufous crown there, along with a beady white eye and cinnamon cheek. Was it all on the same bird? Or was that spread over four species? It took several repeats of the experience before I sorted it all out to a mix of parrotbills, tits, warblers, babblers, fantails, and so on. The thrill of the experience never faded: I loved watching the quivering waves through the bamboo move away, reverse course, and waft back around me. With all that commotion, it seemed improbable that the participants were not burning more energy than they were taking in.

I do take advantage in illustration of multiple-figure species-complexes to suggest differing aspects of behaviour. My illustration of the four forms of the Black-throated Parrotbill on Plate 140 of *The Ripley Guide* was designed to reflect the acrobatic demeanor of this species, so often at the core of the frenetic feeding parties in the Himalayan foothills. Similarly, with the need for multiple figures of the Indian Black Robin on Plate 118, I could be sure one had the hyper-cocked tail so typical of this species.

There is something deeply touching about watching a string of Jungle Babblers cross a path, gather up together, and preen each other with such closeness that their wings drape over one another; all the while bleating like dog squeaky toys. Once in Peniyar Tiger Preserve I watched a large flock of many dozens of them squeal, strut, and distend their plumage to absurd proportions over some contentious issue I never did identify (sketch in recollection later that day, 170). I could not resist getting poetic in descriptions when it was necessary: Jungle Babblers always made me think of dust bunnies with googly eyes. Like they had been left to fade on a sunny windowsill.

The Gray-headed Bulbul looked like another victim of the sunny windowsill, with its green-gold against silver, and a funny pinched crown, waxy yellow bill, and beady white eye. I could not help note its overall similarity to South-east Asia’s Black-headed Bulbul, as if one had been dipped in bleach. The Nepal Cutia looked to me like a football (an American one) painted like an American Kestrel.

I loved the Greater Racket-tailed Drongos always seeming to lead the perimeter of mixed feeding flocks. The song of an invisible Spot-winged Ground Thrush drifting out mysteriously from the undergrowth of the Sri Lankan forest, sounding like a drunken, lost soul. Abbot’s Babblers popping out of ground cover onto low branches to stir up a vocal party as the sun was about to dip below the horizon. The air being torn by the wings of a pair of Great Indian Hornbills passing overhead. And the Spotted Forktail, with its spangled black & white plumage and elegantly arced and forked pied tail, seeming to put in feathers the glitter of the cascading mountain streams it forages among.

Such are the things that can’t be put in a field guide. I made the effort to record such impressions in sketches and notes, knowing well that they were outside the scope of the project. These are experiences one hopes others will have if a field guide is successful in leading its readers into their own deeper explorations. And this is why an illustrator must do his/her best to make the bird look alive and sensitively characterized; in short, a subject worth looking for.

I was fortunate to be able to sequentially work along ranges in a way that I was struck by the way a bird that was treated (at that time) as a single species, such as the Black-crested Bulbul, was in fact different in the Western Ghats (short ragged crest; scarlet throat; yellow eye) from that in the Himalayas (long narrow crest, black throat; yellow eye), and again in Sri Lanka (no crest; yellow throat; dark eye). These are now treated as distinct species. Mid-20th-century tendencies to gloss over such distinctions and “lump” forms into single species can lead an illustrator to miss something when the same old names are repeated on local checklists. The attitude of some birders “Oh, I’ve seen that one already”—can lead to a distinct form being missed. The White-bellied Shortwing (as it was known at the time) is a different bird on either side of the Palghat Gap in the Western Ghats. Now they are known as the White-bellied Sholakili to the north, and the Nilgiri Sholakili to the south. Work is ongoing. Similar speciation can be seen in the complex of small laughingthrushes *Montecincia* sp., and the Indian Blackbird, among others, in the same region.

Everything I have learned about the differentiation of species across geographic ranges was drawn from India’s astonishing diversity of habitats and the abruptness with which they can change—think of the way the dankly tropical Western Ghats rise starkly above the thorn scrub of Tamil Nadu to produce an isolated range full of bird species found nowhere else in the world.

At times the variation of a species over its range is subtler and not a candidate to be chopped up into regional forms, and can present a bigger challenge to field identification. Most Himalayan species that are distributed widely through the range are more saturated in colour in the damp east (e.g., Darjeeling) than in the arid west (e.g., Uttarakhand). This is known as a cline. Sudden “breaks” in the cline can occur at ridges or gaps, as in the brown-headed form of the Chestnut-crowned Laughingthrush to the west of the Singalila Ridge (western West Bengal), and the black-chinned, silvery-cheeked form to the east. The same species breaks up into other isolated forms in the North-eastern Hills. The Black-throated Parrotbill exhibits similar regional variation. Within the spectrum of such variation over a range, distinct species can go unrecognized. The Streaked Laughingthrush is dusty gray in the western Himalayas, and more coppery in the east; but the uniformly chocolate-brown Bhutan Laughingthrush was long passed off as the dark easternmost end of that same cline.
Jerdon's Baza, life studies, Sinharaja, Sri Lanka.
Regional variation can run in parallel between difficult-to-separate species, such as the widely distributed Jungle and Plain Prinias, creating a nightmare for birders: five figures for each species were required in The Ripley Guide to adequately cover these warblers. Seasonal (breeding vs. non-breeding) variation is in the mix in that case. The Ultramarine Flycatcher and the Little Pied Flycatcher are broadly sympatric in the Himalayas. The females are similarly drab, but can be distinguished in the western Himalayas by the rufous rump of the Little Pied. Gradually to the east, the females of both species sport this feature, making separating them much more difficult.

A particularly knotty case is presented by Tickell’s Flycatcher, which is brightest and most richly coloured in Sri Lanka, becoming gradually paler and drabber as it ranges northwards and eastwards. In the northern Eastern Ghats it seems to meld seamlessly into the Pale-chinned Flycatcher, and the long-held belief that Tickell’s Flycatcher ranges through north-eastern India into South-east Asia was shown to be based on misidentified specimens of blue flycatcher species in the northeast Indian regions (Assam and the hill states)—these were in fact Large Blue and Hill Blue Flycatchers.

The carryover of identification standards from one part of the world to another, encouraged by far-flung forms being “lumped”, can then muddy the waters. In the early 1990s I encountered birders in India equipped with Philip Round’s The Birds of Thailand, a fine new volume to be sure, but one which made it that much more difficult to identify similar species, such as blue flycatchers, in extralimital India. The “Tickell’s Blue Flycatcher” of South-east Asia is disjunct from the “real” one of peninsular India (the species was first described from Sri Lanka) and it took a reappraisal of the avifauna (by Dr. Rasmussen) in museum collections (NOT the literature or sight records) to make that clear.

On that first day in 1989, discussing the new India guide, “four or five years” was suggested as a production period. The Birds of South Asia: The Ripley Guide was published in 2005, sixteen years later. By that time I had already been handed, again by Dr. Beehler, the task of “updating” the plates of his 1986 The Birds of New Guinea. “Four or five years” were again to stretch out over a decade as just sampling the holdings of the American Museum of Natural History made immediately clear. Throw a gap into a mountain range, or an island into a bay, find a new bird.

Birds, as do all organisms, reflect their immediate circumstances in their appearance, vocalizations and behaviour. I remember Bruce advising me when I started to poke into the Indian collections of the Smithsonian: “Ignore the name on the tag. It’s the location that matters.” The raw, broken mountain ranges of New Guinea, surrounded by narrow and repeatedly pinched lowlands cross-cut by rivers, was a laboratory for everything I had learned in India about speciation reflecting geography. What were bumpy gradients with local “niche”s in Indian birds were a kaleidoscopic mosaic in the (largely) younger and less weathered topography of New Guinea and its birds.

It has been a thrill in the years since to watch the energetic documentation in photographs of the birds of India by their compatriot humans. Species that were almost spectres back in the 1990s, such as the Wedge-billed Babbler or the Spotted Elachura, are now richly represented in authentic field images. Back in the 1990s, working from skins on a peculiar species that I had failed to see in the field, such as the Brown Parrotbill, I felt like I was working in the dark. Photos posted on the web in recent years make clear how much I missed the mark on that one, and many others.

A constant sense of discovery is also to be found in the reappraisal of relationships between bird genera and families through genetic research. When I read on Wikipedia that shrike-babblers (genus Pteruthius) are now allied with the New World vireos (Vireonidae), I thought “of course.” Same build, same unhurried working of the canopy. It is a good fit.

The breakup of such “wastebasket” groups as the babblers into more rigorous taxonomic relationships has been gratifying to follow, and no doubt many more adjustments are in the offing. Other changes have not gone down so well with me. The reallocation of the small chats (such as wheatears, bushchats, bush robins, Indian Robin, and the like) into affiliation with the flycatchers and away from the true thrushes feels right. But it seems like the whistling thrushes (Myophonus), with their chest-out, head-back “military cadet” stance and their bouncy carriage, should stay with the “real” thrushes, such as Turdus. But that’s sentiment on my part. The research suggests otherwise.

India is graced with a phenomenal diversity of intensely alive birds over-endowed with personality, and the subcontinent’s position on the southern aspect of Asia serves to concentrate a staggering influx of migrants in the winter. The region fills up with wagtails, warblers, pipits, and more in the winter, providing almost an ornithological cross-section of Asia. The Himalaya offers some of the most spectacular pheasants in the world, and the greatest diversity of such groups as tree creepers, rock pigeons, long-tailed tits, and rosefinches, among many others. Wherever else I have travelled, I have never had experiences quite on a par with those that are etched in my mind from Sikkim in 1991, Buxa Tiger Reserve in 1992, and the Nilgiris in 1993. India is ornithological sensory overload.

I remember being asked by a colleague in Australia about India’s raptors years later. I tried to recall them off the top of my head; every few seconds another plate from The Ripley Guide would appear in my mind’s eye as one group after another would come back to me. A half dozen Aquila at least; another half dozen buzzards; oh, and a dozen Accipiter. Don’t forget the half-dozen harriers. Or the serpent eagles. The honey buzzards, kites, or the White-eyed Buzzard. Osprey, sea-eagles, booted eagles, hawk-eagles, Snake Eagle, and Black Eagle. Oh, and the baza [171]. And the vultures and the falcons. There seemed to be no end to it.

After the appearance of The Birds of New Guinea in 2015, it was difficult for me to look back on my older work for The Ripley Guide, some of which reaches back to 1993: over such a long period (25 years) of continuous work, one becomes better at balancing field impressions against the hard detail of the museum skins; at capturing the open textures of living plumage; and using light and shadow to grace the subject into a natural presence rather than a hard graphic or sculpturesque one. It is also a challenge to prevent the compressed and compacted effect of museum specimen preparation from being felt in one’s drawings as they go into the book. Final work is typically done with the museum skin in hand and the living bird on the other side of the planet.
During the extended production of *The Ripley Guide*, the digital universe expanded into e-mail and the Internet, while traditional prepress methods of colour separation and image-editing fell into the hands of virtually anyone, designer or not, through the miracle of desktop scanners and Photoshop. In the early 1990s, participating illustrators would demonstrate finished work, or ask for clarification on a problem, by snail-mailing a colour Xerox; within a decade that would become a jpeg-attachment of a scan to an e-mail. Such technological revolutions serve to make many aspects of field guide production much more efficient. I felt these benefits constantly in *The Birds of New Guinea*. A photo of a specimen of the Mountain Thrush from Goodenough Island, taken next to a skin of its mainland relative and a measuring stick, could be zipped to me in Washington, DC from a collection in Brisbane, Australia, in a day. Many thanks to the museum support staffers that enthusiastically make this possible.

On the other hand, access to tools like Photoshop means that editing and corrections can be inexpertly done. In the final years of production, *The Ripley Guide* had grown to such proportions that it was clear that it would need two volumes. The coverage had been expanded to Afghanistan (though not a part of the Subcontinent, it was a region seriously neglected by the literature). The finished plates inevitably came to be cut up to be spread over more, less crowded pages. It was a major operation to ensure that each redesigned page would feature one artist’s work and hold to scale, while retaining a good presentation. I redesigned the entire body into 180 new plates, although, in the end, Lynx Ediciones held only loosely to my compositions. So the printed book contains very few examples of any of the artists’ finished work. For my own, only Plates 95 (Broadbills and pittas) and 180 (Maggies and treepies) are close to what I actually composed.

I developed over my years of field guide illustration an almost subconscious habit of arranging figures on a plate with a geographical bias—north-western forms at top left and south-eastern at bottom right. This can obviously be completely undone when original compositions are digitally recomposed by another hand.

On the other hand, digital recomposition also makes much easier the addition of plumages or taxa as revealed by new research, keeping field guides current. Through Facebook’s Indian Birders, I have been drawn back into a circle that I left long ago, and compelled to pull out *The Ripley Guide* when I am trying to clarify a thread concerning a bird’s identification. This has made me realize that the book holds up well, including my illustrations that previously made me cringe. It is a handsome volume and a thorough one, largely due to the industry of Dr. Rasmussen. I am grateful to have played a central role in it, and I hope the birders in India find it useful in discovering their extraordinary avifauna.

References
Breeding ecology of the Indian Spotted Eagle *Clanga hastata* around Belgaum, India

Niranjan Sant, Rahul Prabhukhanolkar, Vidhyadhar Shelke & Shridhar Shelke


Niranjan Sant, 27 Adarshnagar, Cross no: 1, Vadgaon, Belgaum, Karnataka, India. E-mail: niranjansant@yahoo.co.uk,
Rahul Prabhukhanolkar, Mhadei Research Center, H No.762, 1st Cross, Bhagyanagar, Belgaum, Karnataka, India. E-mail: pkrahul85@gmail.com,
Vidhyadhar Shelke, Shelke Medicals, Bazar Galli, Vadgaon, Belgaum, Karnataka, India.
Shridhar Shelke, Shelke Medicals, Bazar Galli, Vadgaon, Belgaum, Karnataka, India.

Abstract

The Indian Spotted Eagle *Clanga hastata*, is a widespread species in the lowlands of the Indian Subcontinent, but occurs in low densities. We have been monitoring breeding pairs of this eagle in the Belgaum region, Karnataka, India, since 2009, where it uses only a small part (10.6 sq. km) of the total available habitat (30 sq. km), for breeding. Of the 36 nesting attempts tracked, 16 birds fledged from 15 nests, and 12 of them were successfully raised, providing a 33% breeding success. Rodents formed 90% of the Indian Spotted Eagle’s prey-base; the male hunting nearly three times oftener than the female, for feeding their young. We recorded seven different vocalisations during the breeding season. The most potent threat is the loss of habitat due to rapid urbanization, apart from electrocution and loss of nesting trees. Local authorities should take action for the conservation of this species.

Introduction

Long-term monitoring of raptors provides valuable insights into ecology, environmental change and the management of natural resources (Lindenmayer et al. 2012). The Indian Spotted Eagle *Clanga hastata* (hereinafter, ISE) is a widespread species in the lowlands of the Indian Subcontinent where it occurs in low densities and is listed as Vulnerable under the IUCN Red List of Threatened Species (Rasmussen & Anderton 2012; BirdLife International 2020). There are no reports of long-term monitoring of this species.

Prakash (1996), Sharma & Chanda (2010), and Shivprakash et al. (2006) have studied the breeding biology of the ISE in India in general, while, we have studied it in Belgaum, Karnataka (Sant et al. 2013, 2017), in particular. Additionally, there are casual historical (and contemporary) reports of the species’ nests, or records of its breeding (Anderson 1875; Jesse 1903; Davidson 1908; Whymper 1908; Chakdar et al. 2017).

This paper is an extension of the work done by Sant et al. (2013, 2017), and is based on ten-years (2009–2018) of monitoring the ISE population in Belgaum. It intends to fill in the gaps on the ecology of this species. Here we are presenting, observations and insights on diverse ecological parameters including habitat, nesting, breeding success, hunting behavior and diet, acoustics, and threats.

Study site

This study was conducted in the south-eastern part (15.82°N, 74.53°E, c.750 m asl) of Belgaum town, in north-western Karnataka, lying in the outer zone of the Western Ghats, as they gently descend to the Deccan Plateau (Fig. 1). Belgaum is a municipal corporation and the fourth-largest city in the state. It receives an average annual rainfall of 1,250–1,350 mm, and the temperature ranges between 8°C and 40°C. The ISE’s breeding habitat is located on the eastern edge of the city, quite close to human settlements. On the southern side of Belgaum city is a hill with an old fort on top, and a small village at its base. The nesting area is three kilometers from this hill, and less than a kilometer from human settlements. The area is mostly cultivated; paddy being the main crop, though cereals, and mustard, are also grown in winter. A rain-fed stream, ‘Ballari’, and its small tributaries, drain the area. Large trees of Mango *Mangifera indica*, Arjun *Terminalia arjuna*, Jamun *Syzigium cumini*, Gular *Ficus racemose*, and Eucalyptus sp., stand on the banks of the stream and its tributaries. Big trees of the aforementioned species are also scattered in the fields.

Methodology

In the summer of 2009, we stumbled upon the active nest of an ISE on 27 April, which already held a nestling [172]. On 15 July...
we located one more nest in the same locality, which held two, almost grown-up, nestlings. This indicated that these eagles were breeding in this locality regularly and we decided to monitor their nesting activity from 2011. We used binoculars (8x40) and telephoto lenses (600 mm, 800 mm) to document the important ISE activities during their breeding and non-breeding season. We maintained a distance of 30-50 m from the bird and the nest site and took all precautions not to disturb the nesting pairs (Barve et al. 2020a,b).

The documentation presented here is based on the observations from this area: five days every week for the last ten years, representing c.2,400 days of consolidated observations on the ISE. The observation time was in the mornings (0630–0900 h) and a few times in the evening (1530–1900 h). On 20 occasions, our team observed the nests site from dawn to dusk during periods of active breeding and feeding.

The study area is approximately 10 sq. km. Sentinel 2 data1 for 20 January 2018 was acquired for an assessment of the land cover types in the study area. January was the preferred month for acquisition of satellite data as at this time of the year there is a standing crop in most of the fields. This data was clipped to an area of 42 sq. km around the nests, with the northern bound based on the urban expansion area of the city of Belgaum, and the southern bound based on the agricultural landscape and the distance to which the eagles travelled for foraging and other activities.

At the beginning of the breeding season (February), existing and established nesting sites were visited multiple times, to find out the status of these nests: whether active, or not, and to note the presence of ISE pairs. Team members made multiple attempts to search new nesting sites in the potential habitat adjoining the study area. The new nest sites were located by following the birds carrying nesting materials. All the nest trees were marked with GPS and we measured biometric parameters (GBH, tree height, and height of the nest).

During breeding season (February–September), our observations were concentrated at the various nest sites. We did not check the clutch size so as not to disturb the birds (Barve et al. 2020a,b). Each author kept a watch on the ISE’s activities at different nesting sites. We collected dropped pellets below the active nests, during breeding season, to analyze diet composition and to verify if it was similar to the field observations. The collection of pellets was possible only in the beginning of the nesting season. Due to onset of monsoon in the later period, we could not gather the pellets due to water logging around the nesting trees. However, we could not collect pellets during rainy season, instead, we photo-documented all the prey deliveries during the observation period. Pellets were collected in a privately owned agricultural land and not part of any revenue land, reserve forests, or protected areas.

During non-breeding season, whenever we encountered an ISE, we spent time observing its behaviour. We made efforts to identify new individuals of ISE by comparing their images with those of the breeding birds.

Broad guidelines given by Barve et al. (2020b), to study the nesting biology of Indian birds, were followed with due precautions, in this entire observational study and documentation. HD videos (1080P) of ISE calling were shot in the natural environment (no call recordings were played back on any devices to get the ISE’s response). ISE calls in WAV format were extracted.

![ISE Habitat in Belgaum region](image)

**Fig. 2.** Google Earth image showing the Indian Spotted Eagle’s current habitat, nests, and potential habitat in the Belgaum region.

---

1 Sentinel 2 is a 12-band satellite data with a 10 m spatial resolution. This is useful to map medium to fine resolution landscapes (Phiri et al. 2020).
and cleaned in Raven Pro 1.5 software to generate spectrograms for further acoustic analysis.

Results
Local distribution
We observed that the ISE restricts its activity to a limited area in a bigger landscape. All ISEs, during breeding and non-breeding seasons, including a few wintering birds (about 20 were counted in January 2015), were only using an area spread over 10.6 sq. km area (shown by green outline in the Google map), though the surrounding habitat did not show any occurrence of the ISE. As we could not see any physical difference in this habitat (see satellite images Figs 2, 3), it is unclear why ISEs were not utilizing the surrounding, potentially suitable habitat covering about >30 sq. km. Entire ISE habitat and all documented nesting sites in the region are in privately owned agricultural land abutting city limits – with no protected areas or reserved forests in the near vicinity.

Breeding success
From 2009 to 2018, we documented 36 nesting attempts of which 12 (33%) were successful in fledging the chicks. As we did not check the clutch size, we consider it successful when the young eagles took to wings. Except in 2010 when we observed two fledglings at one nest site, all the other nests had only one chick per year. Out of 15 failed attempts, three chicks died within two weeks of hatching and ten attempts failed during incubation period. Even though the incubation period is 38–42 days, we observed, eagles incubating for nearly 60 days before abandoning the nest. All nests were placed in mature trees (Tree height: 12.98±2.98 m, DBH: 3.96±0.955 m), mostly Terminalia arjuna (91%), and the nests were placed higher up (Nest height: 10.86 m ±3.14 m). Despite that, three nests were abandoned due to human disturbances. At one site the nest tree was cut, at another, the lower branches were cut, and at a third, a fire was lit under the nest tree to harvest honey. All these incidents occurred during incubation period. Why the other nests failed is unknown. It was also observed that few pairs commenced nesting activity—both the birds built the nest, mated, but suddenly abandoned the nesting attempt and left the habitat without any plausible reason (no egg was laid). Such attempts at nesting are also documented in the table (see Sant et al. 2013, 2017 for details of observations at nests). Juveniles are last seen with parents until October end and they move out of the nesting area after that.

Fig. 3. Sentinel 2 satellite image showing the Indian Spotted Eagle’s current habitat, nests, and potential habitat in the Belgaum region.
Hunting and diet: Field observations

Eagles in this area predominantly prey upon rodents (Table 2). We witnessed 95 hunting attempts out of which, the eagles succeeded 71 times in catching the prey, and we observed 193 prey deliveries to nests. During active nesting periods, males brought 141 prey items to nests, whereas females brought 52. It was documented that females involved in polygyny did all the hunting during the nesting season (Sant et al. 2017)
We have observed three distinct hunting methods used by ISEs during breeding and non-breeding seasons.

1. ISEs mostly perched high on treetops looking around for prey, or doing so while soaring. If the prey was out in the open, they swooped down and caught the prey. When the prey was not directly visible, they seem to locate it by watching the movements of the grass as the prey moved. After locating the movement, they flew towards it and then for a moment they would remain on the wings and then swooped down on it with legs stretched out (See 178–187).

2. If the prey escaped in the grass or bush, they adopted the flushing technique. They would spread their wings and jump around the grass clump, as soon as prey tries to escape; they used their legs to catch it. As soon as the prey is caught, the ISEs bit the neck/vertebra and killed it.

3. On a couple of occasions we observed an eagle playing the waiting game. We saw it swooping down, but the prey escaped in a burrow. The eagle waited for 42 min for it to come out, but ultimately gave up.

Eagles also took advantage of flooded paddies. When incessant rain flooded paddy fields, rodents would come out of their burrows and try to escape to the higher grounds by swimming towards bunds or small bushes. ISEs caught these rodents by directly pouncing on them in the water. On three occasions, we observed ISEs catching shrews that were swimming in flooded paddy fields [188].
A couple of times, ISEs also caught a frog by dropped down and catching it directly before bringing it to the nest. Twice we also recorded juvenile birds trying to learn hunting skills by snatching a stone, or a twig.

During the breeding season, ISEs hunted mostly around the nesting tree, within a radius of c.300 m. One particular female hunted directly from the nest while incubating, as well as for the first four weeks after her eggs hatched (Sant et al. 2013).

**Diet: Pellet analysis**

Pellet analysis was done to cross verify the field observations. 600+ bone samples and biological material were isolated from 16 pellets and identified three rodent species (Table 3; 189–190), and was used for prey identification following Talmale & Pradhan (2009), and Talmale et al. (2014).

[Table 3. List of rodents identified from the pellets]

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Species</th>
<th>Number of bones</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bandicota bengalensis</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>Mus booduga</td>
<td>09</td>
</tr>
<tr>
<td>3</td>
<td>Millardia meloda</td>
<td>01</td>
</tr>
<tr>
<td>Total No. of bone samples studied from 16 pellets</td>
<td>24</td>
<td></td>
</tr>
</tbody>
</table>

Along with this, bird remains (claws and feathers), pieces of reptile skin, and more than 15 scales of fishes (freshwater) were observed in two pellets. Identification of further parts was not possible, but their presence suggests a wider range of prey in their diet.

**Interaction with other raptors**

The ISE habitat in the region is also occupied by several other resident and migratory birds of prey—most of which also feeding on rodents. By the time ISEs start their breeding by the end of March, most of the wintering raptors have departed. ISEs have different responses to these birds of prey. With smaller birds of prey, we did not see any interaction with the ISE, and the larger Oriental Honey Buzzards *Pernis ptilorhynchus* were ignored whenever they approached or flew past. Only once it was observed that, during nest building, when a male ISE had brought the rodent to the nest and was sitting with it in its beak, a Brahminy Kite *Haliastur indus* suddenly swooped on it from above and snatched the rodent even before the ISE could react. The ISE did not try to snatch it back.

ISEs are very wary of larger *Aquila/Clanga* species eagles, and their response is to avoid them. The moment they see a Greater Spotted Eagle *C. clanga*, a Tawny Eagle *Aquila rapax*, or a Steppe Eagle *A. nipalensis* flying nearby, they immediately fly off. We have observed Tawny Eagles and Greater Spotted Eagles pirating from ISEs. The moment these raptors approached an ISE, it dropped the prey or left it on the ground and flew away. Most of such encounters were observed in winter.

During nesting time, if the larger Tawny- or Greater Spotted Eagle, approached the nest, or flew past the nest tree, the female ISE called frantically from the nest, aggressively posturing while facing the intruder; it kept calling till the intruder flew away. At such times we also observed the male ISE fly in and perch on the nest tree or another tree beside it. We did not see the pair chasing away these large raptors. However, they are quite aggressive towards kites and crows. As soon as a kite or crow is seen around the nest, the female calls. If the kite or crow flies past the nest, the male follows it for quite some distance.

We saw a very different kind of interaction with Changeable Hawk Eagle *Nisaetus cirrhatus*. Once a juvenile of that species perched on a tree that was very close to the nest tree. The female ISE was incubating. When she saw this eagle, she became very alert but did not call, but kept constantly looking in the direction of the Changeable Hawk Eagle. The male too came and perched on a nearby tree; monitoring the hawk eagle until it flew away. A similar response was given to a Bonelli’s Eagle *A. fasciata* that flew past the active nest.

**Vocalisation**

While the ISE is mostly silent during the non-breeding season, very frequent vocalising was observed from February onwards, as the breeding season started. We recorded seven vocalisations (Figs. 4–11) that indicate a vocal diversity of calling frequency that ranged from 1.6 kHz to 4.8 kHz. Some of the calls also show two to four multiple harmonics.
The actively used ISE habitat is reducing every year at the northern and the southern peripheries, as the southward urban sprawl and the northward village limits are expanding. Within a decade, more than 40 ha on the northern periphery and more than 13 ha on the southern are lost due to disturbance and land use change. This poses a severe threat on this restricted breeding habitat of the ISE.

The overhead electricity wires pose a threat to the eagles. On 28 November 2013, we were dismayed to see an ISE getting electrocuted, while on 10 January 2015, a farmer showed us another carcass. A proposed national highway bypass will dissect the ISE’s habitat (Fig. 11). One tree that was used actively for nesting was destroyed in 2019 in the process of highway demarcation and land leveling [191]. Rampant cutting of these large trees for fuel wood with a chainsaw has become a regular practice in the region. These factors may not be conducive / favorable enough for ISE pairs to continue breeding here, and hence the future of ISE population is not so bright in the region.

Based on this primary assessment, the forest department, agriculture department, town planning city corporation, and the local biodiversity management committee, need to come together for preparation and implementation of ISE conservation action plan. The known nesting trees shall be adopted by the forest department by giving due compensation to the owners and an appropriate MOU signed between them to protect the nesting trees. A joint effort is required for ISE conservation in the region, as the existing habitat is privately owned agricultural fields just on the periphery of the expanding city.

Other threats that may be affecting raptors worldwide, connected to prey poisoning, may not be happening in this region. We conducted an oral survey with the farmers and confirmed that they do not use any rodenticide to keep the rodent population in check, which is beneficial to ISEs for whom rodents form the dominant prey item.

Future work
More studies are urgently needed to understand the functional variations on why ISEs prefer this small agricultural zone despite potential habitat existing in adjoining areas. In a rapidly expanding town, salvaging those areas as breeding territories may be required when this area is getting degraded. This might involve studying the cropping pattern, use of rodenticides, and density of specific trees for nesting.

We also do not have any idea about the dispersal of the young birds, as they do not seem to be establishing breeding
territories around this area. Hence, some satellite telemetry studies need to be conducted to understand the dispersal ability of young birds and how soon they start breeding.

Conclusion
ISEs can breed in reasonably high densities in small, conducive, open agricultural habitats with tall trees and high rodent densities like ours (six nests in 10 sq. km.) maintaining an effective breeding success of 33%. They mostly rear a single nestling; exceptionally two. Though 7–8 new individuals are observed at the beginning of every breeding season, only the established pairs stay put, while the other birds disperse—probably indicating a saturated habitat.

Acknowledgments
We sincerely thank the farmers in the region for letting us observe the ISE nests. We appreciate the efforts taken by Pranay Rao and Nirav Bhat for helping with the draft manuscript, and their suggestions. We thank Madhura Niphadkar, ATREE, for the preliminary analysis on the satellite imagery. We appreciate the efforts taken by Tushar Lad, and Praveenkumar Raika, Pavan Kolajigouda, of GSS college Belgaum, for dissection of ISE pallets, and S. S. Talmale of Zoological Survey of India, Pune, for pellet analysis and bone examination. We thank Madhura Niphadkar, ATREE, for the preliminary analysis on the satellite imagery. We appreciate the efforts taken by Pranay Rao and Nirav Bhat for helping with the draft manuscript, and their suggestions.

References
Correspondence

A review of recent occurrences of Blyth’s Kingfisher *Alcedo hercules* from Arunachal Pradesh

Blyth’s Kingfisher *Alcedo hercules* is a riverine species that is widespread across South-east Asia. It extends its range into north-eastern India, the eastern Himalayas till about extreme eastern Nepal (Rasmussen & Anderton 2012; Woodall 2020). Listed as Near Threatened under the IUCN’s Red List of Threatened Species (BirdLife International 2016), this species exists in low numbers, as a result of its narrow habitat requirements, and is likely to be declining as a result of habitat loss and fragmentation (BirdLife International 2020). Though it is listed as ‘rare’ in north-eastern India (Woodall 2020), Rasmussen & Anderton (2012) indicated it as ‘fairly common’ in Arunachal Pradesh, up to an altitude of 1,200 m. Grimmett et al. (2019) map seven patches in Arunachal Pradesh as its range. However, sight records of Blyth’s Kingfisher in India are generally rare, and hill streams of Arunachal Pradesh form an important habitat for this species in its Indian range.

Among 107 eBird records (https://ebird.org/india/species/blykin1) of Blyth’s Kingfisher across its range, 39 are from India of which 35 are from Arunachal Pradesh. In contrast, amongst the 34 specimens listed in http://portal.vertnet.org/, 23 are from India and only three are from Arunachal Pradesh; 15 additional are from areas along the border with Assam (old localities could lie in either of the present states). We compile (Table 1) all known published, and online records of Blyth’s Kingfisher (49 records) to provide an insight into the past and recent records through this note. We map (Fig. 1) the records that have location precision and the site numbers (27 sites) are included in the table for cross-reference. Most photographic and sighting records in recent years have been mainly from Namdapha National Park and the West Kameng region (Eagle Nest Wildlife Sanctuary, Pakke Tiger Reserve)—clearly attributed to better coverage by visiting birdwatchers, to birdwatching hotspots. Our aim is to highlight recent sight records to aid in the conservation of Blyth’s Kingfisher across its known distributional range in north-eastern India.

### Table 1. Sight records of Blyth’s Kingfisher reported from various locations of Arunachal Pradesh from 1987 to 2020

<table>
<thead>
<tr>
<th>Date</th>
<th>Site</th>
<th>District</th>
<th>Coordinates</th>
<th>Site #</th>
<th>Remarks</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>Namdapha NP</td>
<td>Changlang</td>
<td>27°53'N 96.44'E</td>
<td>NA</td>
<td>Seen</td>
<td>Athreya (1996)</td>
</tr>
<tr>
<td>31/03/96</td>
<td>Namdapha NP</td>
<td>Changlang</td>
<td>27°53'N 96.44'E</td>
<td>2</td>
<td>Seen</td>
<td>Bura (1996)</td>
</tr>
<tr>
<td>1997</td>
<td>Namdapha NP</td>
<td>Changlang</td>
<td>NA</td>
<td>Seen</td>
<td></td>
<td>Athreya et al. (1997); Rahman (2012)</td>
</tr>
<tr>
<td>20/06/01</td>
<td>Laungka Nala, Namdapha NP</td>
<td>Changlang</td>
<td>27°48'N 96.45'E</td>
<td>3</td>
<td>Heard</td>
<td>Biran &amp; Pawar (2004); Rahman (2012)</td>
</tr>
<tr>
<td>06/03/03</td>
<td>Namdapha NP</td>
<td>Changlang</td>
<td>27°44'N 96.6'E</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29/03/06</td>
<td>Nampong, Jairampur, Namdapha NP</td>
<td>Changlang</td>
<td>27°29'N 96.06'E</td>
<td>5</td>
<td>Flying across the river</td>
<td>Praveen &amp; Dahi (2007)</td>
</tr>
<tr>
<td>30/03/06</td>
<td>Manmao, Jairampur, Namdapha NP</td>
<td>Changlang</td>
<td>27°25'N 95.99'E</td>
<td>6</td>
<td>Perched</td>
<td>Praveen (2006b), Praveen &amp; Dahi (2007)</td>
</tr>
<tr>
<td>01/12/06</td>
<td>Doimara Bridge, West Kameng</td>
<td>26°98'N 92.4'E</td>
<td>18</td>
<td>Seen</td>
<td>Rahman (2012)</td>
<td></td>
</tr>
<tr>
<td>26/01/07</td>
<td>Eaglenest WLS, West Kameng</td>
<td>27°04'N 92.4'E</td>
<td>17</td>
<td>Seen</td>
<td>Nitu pers. comm. (2007), Rahman (2012)</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>Namdapha NP</td>
<td>Changlang</td>
<td>NA</td>
<td>Seen</td>
<td></td>
<td>Srivasan et al. (2010)</td>
</tr>
<tr>
<td>14/04/10</td>
<td>Doimara River, Eaglenest WLS, West Kameng</td>
<td>26°98'N 92.4'E</td>
<td>18</td>
<td>Photo</td>
<td>Flack (2010), Kennewell (2010), Rahman (2012)</td>
<td></td>
</tr>
<tr>
<td>02/09/10</td>
<td>Doimara River, Eaglenest WLS, West Kameng</td>
<td>26°98'N 92.4'E</td>
<td>18</td>
<td>Seen</td>
<td>Rahman (2012)</td>
<td></td>
</tr>
<tr>
<td>29/03/10</td>
<td>Bompu Khellong, West Kameng</td>
<td>27°02'N 92.4'E</td>
<td>19</td>
<td>Seen</td>
<td>Paal (2010)</td>
<td></td>
</tr>
<tr>
<td>20/02/12</td>
<td>Eaglenest WLS, West Kameng</td>
<td>NA</td>
<td>Photo</td>
<td>Bunting (2012)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10/02/13</td>
<td>Eaglenest WLS, West Kameng</td>
<td>NA</td>
<td>Photo</td>
<td>Ekins (2013)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28/03/13</td>
<td>Eaglenest WLS, West Kameng</td>
<td>NA</td>
<td>Photo</td>
<td>Bonpo (2013)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23/10/13</td>
<td>Manmao, Jairampur, Changlang</td>
<td>27°23'N 95.92'E</td>
<td>8</td>
<td>Seen</td>
<td>Singhal (2013)</td>
<td></td>
</tr>
<tr>
<td>05/03/14</td>
<td>Deban River, Namdapha National Park, Changlang</td>
<td>NA</td>
<td>Photo</td>
<td>Kuriakose (2014)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26/04/15</td>
<td>West Kameng</td>
<td>NA</td>
<td>Photo</td>
<td>Islam (2015)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26/04/15</td>
<td>Nameri Lama, West Kameng</td>
<td>27°13'N 92.54'E</td>
<td>20</td>
<td>Seen</td>
<td>Dixit &amp; Dalvi (2015)</td>
<td></td>
</tr>
<tr>
<td>05/05/15</td>
<td>Sessa Orchid Sanctuary, West Kameng</td>
<td>27°13'N 92.54'E</td>
<td>20</td>
<td>Seen</td>
<td>Schweinhart (2015)</td>
<td></td>
</tr>
<tr>
<td>09/04/15</td>
<td>Sessa Orchid Sanctuary, West Kameng</td>
<td>27°17'N 92.56'E</td>
<td>21</td>
<td>Seen</td>
<td>Campbell (2015)</td>
<td></td>
</tr>
</tbody>
</table>
Table 1. Sight records of Blyth’s Kingfisher reported from various locations of Arunachal Pradesh from 1987 to 2020

<table>
<thead>
<tr>
<th>Date</th>
<th>Site</th>
<th>District</th>
<th>Coordinates</th>
<th>Site #</th>
<th>Remarks</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>17/05/15</td>
<td>Near Suba West Kameng</td>
<td>Kameng</td>
<td>27.29°N 92.8°E</td>
<td>22</td>
<td>Seen</td>
<td>Palliser (2015)</td>
</tr>
<tr>
<td>26/01/15</td>
<td>Wakro Lohit</td>
<td>West Siang</td>
<td>27.77°N 96.32°E</td>
<td>27</td>
<td>Seen</td>
<td>Surya (2015)</td>
</tr>
<tr>
<td>26/02/17</td>
<td>Pangin Area East Siang</td>
<td></td>
<td>28.2°N 94.98°E</td>
<td>26</td>
<td>Photo</td>
<td>Dhar (2017)</td>
</tr>
<tr>
<td>20/11/18</td>
<td>Disi Village, Basar</td>
<td>West Siang</td>
<td>27.93°N 94.73°E</td>
<td>25</td>
<td>Photo</td>
<td>This work</td>
</tr>
<tr>
<td>27/04/18</td>
<td>Pakke WLS Pakke</td>
<td>Kessang</td>
<td>26.98°N 92.91°E</td>
<td>10</td>
<td>Seen</td>
<td>Stanton (2018)</td>
</tr>
<tr>
<td>30/03/18</td>
<td>Pakke WLS Pakke</td>
<td>Kessang</td>
<td>26.98°N 92.91°E</td>
<td>10</td>
<td>Photo</td>
<td>Vyas et al. (2018)</td>
</tr>
<tr>
<td>27/04/18</td>
<td>Pakke WLS Pakke</td>
<td>Kessang</td>
<td>NA</td>
<td>NA</td>
<td>Photo</td>
<td>Shaw (2018)</td>
</tr>
<tr>
<td>14/06/18</td>
<td>Pakke WLS Pakke</td>
<td>Kessang</td>
<td>27.08°N 92.8°E</td>
<td>11</td>
<td>Seen</td>
<td>Naik &amp; Munshi (2018)</td>
</tr>
<tr>
<td>29/10/18</td>
<td>Pakke WLS Pakke</td>
<td>Kessang</td>
<td>NA</td>
<td>NA</td>
<td>Photo</td>
<td>Gaiwad (2018)</td>
</tr>
<tr>
<td>30/03/18</td>
<td>Pakke Tiger Reserve</td>
<td>Kessang</td>
<td>26.94°N 92.98°E</td>
<td>12</td>
<td>Photo</td>
<td>Pradhan (2018)</td>
</tr>
</tbody>
</table>

Abbreviations: NP=National Park; WLS=Wildlife Sanctuary

Table 1. Sight records of Blyth’s Kingfisher reported from various locations of Arunachal Pradesh from 1987 to 2020

<table>
<thead>
<tr>
<th>Date</th>
<th>Site</th>
<th>District</th>
<th>Coordinates</th>
<th>Site #</th>
<th>Remarks</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>28/11/2018</td>
<td>Pakke, Talle WLS</td>
<td>Lower Subansiri</td>
<td>27.54°N 95.89°E</td>
<td>24</td>
<td>Seen</td>
<td>Pratim (2018, 2019)</td>
</tr>
<tr>
<td>24/02/19</td>
<td>Namdapha NP (Deban)</td>
<td>Changlang</td>
<td>27.49°N 96.39°E</td>
<td>9</td>
<td>Seen</td>
<td>Sharm (2019)</td>
</tr>
<tr>
<td>21/02/19</td>
<td>Namdapha NP (Deban)</td>
<td>Changlang</td>
<td>27.49°N 96.39°E</td>
<td>9</td>
<td>Seen</td>
<td>Deb (2019)</td>
</tr>
<tr>
<td>01/03/19</td>
<td>Pakke Jungle camp</td>
<td>Pakke</td>
<td>26.98°N 93.03°E</td>
<td>13</td>
<td>Seen</td>
<td>Menon &amp; Thakoor (2019)</td>
</tr>
<tr>
<td>08/04/19</td>
<td>Pakke WLS Pakke</td>
<td>Kessang</td>
<td>26.98°N 92.91°E</td>
<td>10</td>
<td>Seen</td>
<td>Vijairaghavan (2019)</td>
</tr>
<tr>
<td>01/03/19</td>
<td>Pakke WLS Pakke</td>
<td>Kessang</td>
<td>26.98°N 92.91°E</td>
<td>10</td>
<td>Seen</td>
<td>Naik (2019)</td>
</tr>
<tr>
<td>22/02/19</td>
<td>Pakke WLS Pakke</td>
<td>Kessang</td>
<td>26.98°N 92.91°E</td>
<td>10</td>
<td>Seen</td>
<td>Kothiala (2018)</td>
</tr>
<tr>
<td>10/11/19</td>
<td>Pakke WLS Pakke</td>
<td>Kessang</td>
<td>27.08°N 92.8°E</td>
<td>11</td>
<td>Photo</td>
<td>Thangaraj (2018)</td>
</tr>
<tr>
<td>23/02/20</td>
<td>Pakke Jungle camp</td>
<td>Pakke</td>
<td>26.99°N 93.02°E</td>
<td>14</td>
<td>Seen</td>
<td>Srinivas et al., 2020</td>
</tr>
</tbody>
</table>

Fig. 1. Distribution of Blyth’s Kingfisher in Arunachal Pradesh with districts and sites marked. Map: d-maps.com.
On 20 November 2018, when the authors were on a routine birding trip to Disi (27.90°N, 94.73°E), a remote village in the Basar circle of the newly created district of Lepa Rada, two different individual adult Blyth’s Kingfishers were photographed by the first author. The individuals were roosting on boulders in Kidi River, close to the village. In total, three different individuals were sighted on a 5 km walk. Also, a burrow nest was observed during the visit, which was presumed to be of this species, indicating that they might be breeding in the area. The surrounding tropical semi-evergreen forest, has a prevalence of species such as *Terminalia myriocarpa*, *Shorea assamica*, *Bischofia javanica*, *Altingia excelsa*, *Anthecephallus chinensis*, and *Ficus drupacea* (Singh et al. 2002). However, the habitat was quite disturbed with wet rice cultivation along the Kidi River, and there was huge logging activity in the nearby forests. Villagers were fishing in the river using traditional methods of fishing. This is the first report of the species from Lepa Rada District.

The sight records of this species from a new area in central Arunachal Pradesh indicate a population in that part of the state as well, while its presence in eight low-lying districts indicates that appropriate habitats for the species still exist. More focused conservation efforts may be expended in the conservation of these limited habitats that hold this rare kingfisher within Arunachal Pradesh.

The authors wish to acknowledge Tomo Basar, President GRK (a nature conservation society based in Basar), Toba Riba a teacher by profession and our guide, and the people of Disi village. Also special thanks to Murali Krishna, Assistant Professor Department of Wildlife Science, Amity University, Noida for reviewing this paper.

References


Avibase – the world bird database, Assessable on 20 November 2015 at http://avibase.bsc-eoc.org/species.jsp?avibaseid=56A1C8E5B82959EF.


A Siberian Rubythroat *Calliope calliope* from the Andaman Islands

The Siberian Rubythroat *Calliope calliope* occurs in the Central-, and Eastern Palearctic, western-, northern-, and north-eastern China, Northern Korea, northern Japan. It migrates to southern Asia, southern China, Taiwan, and the Philippines (Collar 2005; Robson 2008). It has been recorded on passage in eastern Tonkin, and is a vagrant to peninsular Malaysia, and Singapore (Robson 2008).

On 27 April 2020, during the dry, summer season, DS photographed a Siberian Rubythroat in Parnashala, Rangat (12.52°N, 92.90°E), Middle Andaman [195, 196]. The bird was observed for about an hour at the same location, and photographed. The bird had a white supercilium, a red throat that was bordered in black and white, and was light brown overhead. It could be clearly distinguished from the Himalayan Rubythroat *C. p. pectoralis* by its white sub-moustachial stripe, which is absent in the latter, and light brown upper parts (vs grey in Himalayan). The Chinese Rubythroat *C. p. tschebaiewi* is also grey above, and in the latter, and light brown upper parts (vs grey in Himalayan). The Chinese Rubythroat *C. p. tschebaiewi* from the Nicobar Islands, and Javan Pond Heron *Ardeola speciosa* and Zappey’s Flycatcher *Cyanoptila cumatilis* from the Andaman and Javan Pond Heron *Ardeola speciosa* and Zappey’s Flycatcher *Cyanoptila cumatilis* from the Andaman Islands. The Chinese Rubythroat *C. p. tschebaiewi* is also grey above, and has white tail tips and white tail bases – all absent in our bird.

According to the available literature, the Siberian Rubythroat has not been reported from the Andaman Islands (Davidar et al. 2008; Pande et al. 2011; Sivaperuman et al. 2018). Over the last decade, twenty-two taxa with a primarily eastern range (Table 1) have been reported by several authors (10 South Andaman Island, 3 Great Nicobar Island, 3 Narcondam Island, 1 Kamorta Island, 1 North Andaman Island, 1 Middle Andaman Island, 1 Little Andaman Island, 1 Neil Island, and 1 Katchal Island) . This record further amplifies the point that most easterly migrants that reach the north-eastern Indian Subcontinent, and South-east Asia, often turn up in the Andaman & Nicobar Islands as vagrants. We are grateful to Kailash Chandra, Director, Zoological Survey of India, for encouragement and providing necessary facilities. The authors thank Satya Prakash Singh, IFS, Divisional Forest Officer, Middle Andaman, for his support and cooperation. GK is grateful to Goutham Bharati, Sudhanshu Dixit, Lakshmi Narayana, and an anonymous referee for their useful guidance and for suggestions towards improvement of this note.

References


<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Date</th>
<th>Sighting Location</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Blue-and-white Flycatcher</td>
<td>05 March 2012</td>
<td>Kalipur, South Andaman</td>
<td>Rajeshkumar et al. 2014</td>
</tr>
<tr>
<td>5.</td>
<td>Sykes’s Short-toed Lark</td>
<td>15 December 2013</td>
<td>Landfall Island Wildlife Sanctuary, North Andaman</td>
<td>Kumar et al. 2014</td>
</tr>
<tr>
<td>7.</td>
<td>Chinese Egret</td>
<td>17 March 2015</td>
<td>Sippighat, South Andaman</td>
<td>Sivaperuman et al. 2016a</td>
</tr>
<tr>
<td>9.</td>
<td>Wedge-tailed Shearwater</td>
<td>19 May 2015</td>
<td>Buniyabab, South Andaman</td>
<td>Rajeshkumar et al. 2015</td>
</tr>
<tr>
<td>11.</td>
<td>Jerdon’s Baza</td>
<td>14 February 2016</td>
<td>Shastri Nagar, Great Nicobar Island</td>
<td>Sivaperuman &amp; Gokulakrishnan 2017</td>
</tr>
<tr>
<td>12.</td>
<td>Grey-tailed Tattler</td>
<td>10 November 2016</td>
<td>Katchal, Nancowry group of Islands</td>
<td>Gokulakrishnan et al. 2018b</td>
</tr>
<tr>
<td>15.</td>
<td>Zappey’s Flycatcher</td>
<td>27 December 2017</td>
<td>Galathea, Great Nicobar Island</td>
<td>Gokulakrishnan et al. 2018a</td>
</tr>
<tr>
<td>16.</td>
<td>Chinese Paradise Flycatcher</td>
<td>15 February 2018</td>
<td>Kalatang, South Andaman</td>
<td>Grundsten et al. 2018</td>
</tr>
<tr>
<td>17.</td>
<td>Yellow-breasted Bunting</td>
<td>09 March 2018</td>
<td>Garacharma, South Andaman</td>
<td>Gokulakrishnan et al. 2018c</td>
</tr>
<tr>
<td>18.</td>
<td>Chestnut-cheeked Starling</td>
<td>13 December 2018</td>
<td>Indira Bazar, South Andaman</td>
<td>Gokulakrishnan 2018</td>
</tr>
<tr>
<td>20.</td>
<td>White-browed Crake</td>
<td>02 December 2019</td>
<td>Sippighat, South Andaman</td>
<td>Shaktivel et al. 2020</td>
</tr>
<tr>
<td>21.</td>
<td>Yellow-browed Bunting</td>
<td>01 December 2019</td>
<td>Ograbraj, South Andaman</td>
<td>Paul et al. 2020</td>
</tr>
<tr>
<td>22.</td>
<td>Siberian Rubythroat</td>
<td>27 April 2020</td>
<td>Parnashala, Ranet, Middle Andaman</td>
<td>This work</td>
</tr>
</tbody>
</table>


**Collared Pratincole *Glareola pratincola* in the Telangana and Andhra Pradesh region**

On 28 December 2019, at Osman Sagar Lake (17.38° N, 78.30° E) around 800 h a flock of brownish birds was spotted on the dry lakebed; the birds had a forked tail, and a black facial ring that surrounds the throat.

The flock consisted of eight birds. When we approached for better observation, the entire flock flew about 30 m farther from us. We followed the flock and observed that two of the birds were resting on the ground, while the others were moving around. After capturing images [197–199], the birds were identified as pratincoles, presumably Oriental Pratincoles *Pratincola maldivarum* as they are the more regular species (https://ebird.org/barchart?r=L31695248&yr=all&m=) in the region. After a couple of minutes, the entire flock flew towards the other side of the lake.

When we analysed the photographs and referred identification guides (Driessens & Svensson 2005; Grimmett et al. 2011), we found several field ID features matching a Collared Pratincole *G. pratincola*, but none of them matching an Oriental Pratincole, as listed below.

1. Tail-fork and projection: Tail appears to project well beyond wing tips. In the second, it still appears to project beyond wing tips. A diagnostic character for Collared [198,199]
2. Tail pattern: Outer tail feathers looks long and tail fork is also deep which is diagnostic of Collared [197, 198]
3. Nostril shape: slit-shaped, a supporting character for Collared [197]
4. Colour of upper parts: Sandy brown that is okay for Collared.

The Collared Pratincole is mostly a migratory bird. It breeds in the Mediterranean region, Middle East, South-west Asia, Afghanistan, southern Europe, Pakistan, and north-western India. It has occurred in several peninsular Indian states (eBird 2020)—with specimens, or clear photographs from Odisha (Karuthedathu et al. 2014), Maharasthra (Abdulali 1970; Patil et al. 2019), Karnataka (Sadagopan 2014), and Tamil Nadu (Abdulali 1956). It has not been reported during the mid-winter census from either Andhra Pradesh or Telangana between 1987–1996 (Pittie & Taher 2004). There is one prior report from Kolleru (Lakshmi et al. 2015), however details are unavailable to ascertain the veracity of its identification, or whether it actually referred to an Oriental Pratincole when they were considered as one species. Another detailed study of wetlands in Srikakulam (Sravana Kumar et al. 2014) also did not yield this species despite its proximity to Odisha, from where there are confirmed records. Hence, ours appears to be the first definitive report of this species from Telangana.

**References**


Review of Common Redstart *Phoenicurus phoenicurus* sightings in India and first record from Kangan, Kashmir Valley, India

The Common Redstart *Phoenicurus phoenicurus* is a passage migrant in northern Balochistan and Chitral, while it’s a vagrant to India (Ripley 1982; Rasmussen & Anderton 2012; Praveen et al. 2020). Two subspecies of Common Redstart exist, the nominate is found all over Europe, reaching into Siberia, and the south-eastern subspecies *P. p. samamisicus* is distributed from the Crimean Peninsula through Turkey, the Middle East, into Central Asia (Collar & Christie 2020; Snow & Perrins 1998).

Here, we present a review of sightings of the Common Redstart in India, and report on the first sighting of a Common Redstart in Kangan town in the Kashmir Valley, Union Territory of Jammu & Kashmir.

On 12 April 2020, while surveying for research work on the Ibisbill *Ibidorhyncha struthersii* along River Sindh at Kangan (34.15°N, 74.54°E), we spotted a bird, in the bushes on the river bank, some 20 m away. At first sight, we thought it was a Black Redstart *P. ochruros* but soon the bird perched in the open and we could clearly see that it was not a Black Redstart, as it had a prominent white band across its forehead. We clicked some photographs and observed the bird carefully [200]. Besides the prominent white band across its forehead and extending beyond its eyes, it had a grey crown and mantle, a black throat that did not extend onto its breast, orange underparts, and a white belly.

We collated past reports of the Common Redstart in India, chronologically, in Table 1. After the first reports in Ladakh in 1982, it is clear that more birdwatchers are reporting this bird in recent years from that area and there are ten confirmed reports from the country rendering it no longer a vagrant. However, apart from a single photograph of a possible male Common Redstart from Nishat, Srinagar, Kashmir Valley, on 10 February 2020 (Haris 2020), there are no other reports from Kashmir Valley (Suhail et al. 2020) and, hence, our’s seems to be the first definitive one.

We thank Asad R. Rahmani for his valuable suggestions in an earlier version of the manuscript. We thank an anonymous reviewer, and Praveeen J., for improving the manuscript and providing some references.

### Table 1. Sighting records of the Common Redstart *Phoenicurus phoenicurus* in India

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Location</th>
<th>No. Of Birds</th>
<th>Sex</th>
<th>Date</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Thikse, Leh, Ladakh</td>
<td>03</td>
<td>Male</td>
<td>05 May 1982</td>
<td>Delany et al. (2014)</td>
</tr>
<tr>
<td>2</td>
<td>Thikse, Leh, Ladakh</td>
<td>03</td>
<td>Male</td>
<td>06 May 1982</td>
<td>Delany et al. (2014)</td>
</tr>
<tr>
<td>3</td>
<td>Thikse, Leh, Ladakh</td>
<td>03</td>
<td>Male</td>
<td>25 May 1982</td>
<td>Delany et al. (2014)</td>
</tr>
<tr>
<td>4</td>
<td>Tangtse, Leh, Ladakh</td>
<td>01</td>
<td>Male</td>
<td>August 2018</td>
<td>Namgail (2018)</td>
</tr>
<tr>
<td>5</td>
<td>Diskit, Leh</td>
<td>01</td>
<td>Male</td>
<td>17 May 2019</td>
<td>Anonymous (2019a)</td>
</tr>
<tr>
<td>6</td>
<td>Spangmik, Pangong Leh, Ladakh</td>
<td>01</td>
<td>Male</td>
<td>20 May 2019</td>
<td>Anonymous (2019b)</td>
</tr>
<tr>
<td>7</td>
<td>Leh, Ladakh</td>
<td>01</td>
<td>Male</td>
<td>18 June 2019</td>
<td>Ghosh (2019)</td>
</tr>
<tr>
<td>8</td>
<td>Thol Bird Sanctuary, Ahmedabad,</td>
<td>01</td>
<td>Male of samamisicus ssp.</td>
<td>December 2019</td>
<td>Bhat (2018)</td>
</tr>
<tr>
<td>9</td>
<td>Boris Gilgit-Baltistan</td>
<td>01</td>
<td>Male</td>
<td>25 December 2019</td>
<td>Imran (2019)</td>
</tr>
<tr>
<td>10</td>
<td>Kangan, Kashmir Valley</td>
<td>01</td>
<td>Male</td>
<td>12 April 2020</td>
<td>This work</td>
</tr>
</tbody>
</table>
Turtles in the diet of White-throated Kingfisher Halcyon smyrnensis

On 01 July 2015, at 1700 h, at Chiplun (17.52°N, 73.52°E), Ratnagiri District, Maharashtra, I noticed a White-throated Kingfisher Halcyon smyrnensis carrying something unusual in its beak; to my disbelief, it was a turtle. I approached closer to get a better view, however the bird flew off with the lifeless turtle. Looking at the photographs [201] I realised that the turtle was actually a hatchling of the Indian Flapshell Turtle Lissemys punctata. This widespread turtle species lacks a hard shell and is a member of the soft-shell turtle group. It grows to a size of 35 cm (Bhupathy 1989).

The White-throated Kingfisher feeds on a variety of arthropods, reptiles, amphibians, fishes, birds, and occasionally small mammals (Ali & Ripley 2001; Woodall & Kirwan 2020b). A turtle in the diet of a White-throated Kingfisher has not been formally documented from across its distribution range, but I was able to find four online images of this species with a turtle in its bill, the Indian Flapshell turtle Lissemys punctata (Sahu 2019; Singh 2019) and the Western Caspian Turtle Mauremys rivulata (Eni 2012; Meir 2017). This clearly shows that the White-throated Kingfisher can possibly feed on the hatchlings of the soft-shell, and the hard-shell turtles. Apart from the White-throated Kingfisher, the Belted Kingfisher Megaceryle alcyon and the Buff-breasted Kingfisher Tanyosiptera sylva are also known to feed on the turtles (Schadleib 2012; Woodall & Kirwan 2020a).

References


201. The White-throated Kingfisher holding an Indian Flapshell Turtle hatchling.

References


Pranav Gokhale

Wildlife Institute of India, Post Box # 18, Chandrabani, Dehradun 248001, Uttarakhand, India.

E-mail: pranav@wii.gov.in; pranavgokhale1@gmail.com
Four additions to the avifauna of Himachal Pradesh: Greater Flamingo *Phoenicopterus roseus*, Siberian Rubythroat *Calliope calliope*, Rufous Woodpecker *Micropterus brachyurus*, and Great Hornbill *Buceros bicornis*

Himachal Pradesh is rich in avifauna. More than half of the total species of birds found in India have been reported from the state (Praveen et al. 2020; Dhadwal 2019). CA has been extensively exploring Pong Lake (also known as Maharana Pratap Sagar), a designated Ramsar Site. It is a large man-made reservoir, on the Beas River in Kangra District, with an area of 156.62 sq. km and follows an annual cycle of filling-up in the monsoons, and gradually draining off thereafter (Abhinav et al. 2018). VS and HC frequently explore Colonel Sher Jung National Park, and locations around Renuka Ji and Paonta Sahib in Sirmaur District. Colonel Sher Jung National Park (27.88 sq. km) was previously known as Simbalbara National Park, and is located in the lower Shivalik region of Sirmaur District in southern Himachal Pradesh. It comprises moist Sal *Shorea robusta* forests and northern dry mixed deciduous forests (Abhinav et al. 2019). We report here four birds that were first recorded by us in Himachal Pradesh, in chronological order.

Greater Flamingo *Phoenicopterus roseus*

On 13 November 2016, CA, Vijay Guleria, Geeta Goswami, and Rajiv Das visited the Guglara area of Pong Lake (32.07°N, 76.00°E), which is located near Jawali town. While CA was scanning geese on the flats around the lake, he noticed a flamingo. It was identified as Greater Flamingo *Phoenicopterus roseus* as it was large in size, with very long neck and legs, and a salmon pink bill with black distal half. The Lesser Flamingo *P. minor* is smaller in size, with shorter legs and neck, and the bill is darker and more prominently kinked. It was an immature bird, as evident by its light brownish head and upper neck, and dark brown wing coverts and back, without any pink in plumage [202]. After this sighting, it was regularly seen in Nagrota Surian throughout the winter season. Initially, only one individual was seen, but later, after February, another immature individual joined it. While they were at Pong Lake, their brownish colour in the plumage almost disappeared and they became all white, except for the flight feathers and bare parts. There was a hint of pink on their mantles and backs. The last sighting of these two individuals was on 09 April 2017, by CA [203]. There was no further sighting of this species in subsequent winters.

Siberian Rubythroat *Calliope calliope*

On 20 February 2018, VS was birding around Renuka Lake, Renuka Ji Wildlife Sanctuary, in Sirmaur District. The Lake is surrounded by well-forested hills. At one place, near the eastern end of the lake (30.61°N, 77.47°E; c.400 m asl), VS saw a rubythroat in a patch of vegetation dominated by *Justicia adhatoda* and *ipomea* sp. It was identified as Siberian Rubythroat *Calliope calliope* because of prominent white moustachial stripe, absence of any black breast band, and paler upperparts and tail—in comparison with the Himalayan Rubythroat *C. pectoralis* and the Chinese Rubythroat *C. tschebaiwei*. Next morning, VS saw it again at the same location, and took a few photographs [204]. The bird was not seen during subsequent visits to the place that season. There were two more records of a Siberian Rubythroat during the next winter season. VS recorded it at the same spot on 03 November 2018, and on 19 January 2019, near the lake, about 300 m away from the previous location.
It is a fairly common passage migrant, and a winter visitor, mainly to the Himalayan foothills and the duars, from Uttarakhand to Assam Valley and the southern Assam Hills. It can also be seen in the west, as far as Rajasthan and rarely southwards to Tamil Nadu (Rasmussen & Anderton 2012). Grimmett et al. (2011) do not show any record from Himachal Pradesh. Dhadwal (2020) included the Siberian Rubythroat, probably on the basis of these records from Sirmaur, which are the first for the state. These records were not unexpected, as the place is close to Uttarakhand, where the bird is known to winter. The nearest records of this species are from Asan Conservation Reserve, including one photographic record by HC (Chaudhary 2019; eBird 2020b). The records in November and January suggest that the bird was probably wintering at Renuka Ji. Grimmett et al. (2011) have not plotted any record from the Union Territory of Jammu and Kashmir, the Union Territory of Ladakh, and Punjab; however it was recently reported from Jammu, and Chandigarh (eBird 2020c).

Rufous Woodpecker *Micropterus brachyurus*

On 27 April 2019, VS saw an unfamiliar woodpecker, near an earthen dam in the Marusiddh beat of Colonel Sher Jung National Park (30.43°N, 77.49°E; c.460 m asl). It was rufous-brown in colour and showed barring, which was most prominent on wings and tail. It was photographed and identified as a male Rufous Woodpecker *Micropterus brachyurus* (ear coverts had reddish patches). A pair was seen on 02 June 2019 and again on 22 June 2019 at the same location. One female Rufous Woodpecker was again seen at same location on 18 June 2020 [205].

The Rufous Woodpecker is a common resident along the Himalaya and its foothills, from western Uttarakhand to Arunachal Pradesh, throughout the north-eastern parts of the Indian Subcontinent, eastern India, and in the west, from southern Gujarat, through the Western Ghats to the southern parts of Eastern Ghats (Grimmett et al. 1998; Rasmussen & Anderton 2012). Navarro & Dubash (1967) reported ‘Western Rufous Woodpecker’ from Narkanda, Shimla District from an altitude of more than 3,000 m. In India, Rufous Woodpecker is mainly seen below 1,000 m, and rarely up to 1,500 m (Grimmett et al. 1998). Its occurrence at such an altitude is unlikely and probably this could be a case of confusion with similarly named species, Rufous-bellied Woodpecker *Dendrocopos hypemythus*. Sharma et al. (2009) reported the Rufous Woodpecker as a ‘less common winter migrant’ at Simbalbar National Park. This is a dubious record as the species is known to be a resident in its range and the present records of the species are from summer. Moreover, their checklist includes several doubtful and erroneous records for the region, like Blue-fronted Robin *Cinclidium frontale*, Tytler’s Leaf Warbler *Phylloscopus tytleri*, Himalayan Cuckoo *Cuculus saturatus*, and Plain Leaf Warbler *Phylloscopus neglectus*. Bhargav et al. (2007) did not encounter the species during their avian surveys in Simbalbar National Park. Grimmett et al. (2011), and Dhadwal & Kanwar (2018) do not mention any record from Himachal Pradesh. Thus the present records are the first confirmed records for the state, apart from being the western-most records from India (Grimmett et al. 2011; eBird 2020c). These records are not unexpected, as the species is an uncommon resident in the Dehra Dun Valley of Uttarakhand, which is not far away from Simbalbar (Singh 2000). The nearest records are from the Asan Conservation Reserve, Dehradun District, Uttarakhand (eBird 2020c). The species has not been recorded from the Union Territory of Jammu and Kashmir, the Union Territory of Ladakh, and Punjab (Grimmett et al. 2011; eBird 2020c).

Great Hornbill *Buceros bicornis*

On 24 June 2020, HC visited Colonel Sher Jung National Park. At 1630 h, he stopped his vehicle on seeing a large hornbill roughly halfway between the inner and outer Forest Rest Houses (30.45°N, 77.52°E; c.610 m asl); the area was dominated by Sal. It was a male Great Hornbill *Buceros bicornis*—unmistakable in
The Great Hornbill is resident in the Himalaya from Uttarakhand to Arunachal Pradesh, the lower parts of the South Assam Hills, and disjunctly, in the Western Ghats, southwards of Mumbai (Rasmussen & Anderton 2012). There has been no record of this species from the Union Territory of Ladakh, and Punjab and disjunctly, in the Western Ghats, southwards of Mumbai (Rasmussen & Anderton 2012). There has been no record of this species from the Union Territory of Jammu and Kashmir, the Union Territory of Ladakh, and Punjab.

There has been no record of this species from the Union Territory of Jammu and Kashmir, the Union Territory of Ladakh, and Punjab.

Thus the present record was not unexpected.

The Great Hornbill is resident in the Himalaya from Uttarakhand to Arunachal Pradesh, the lower parts of the South Assam Hills, and disjunctly, in the Western Ghats, southwards of Mumbai (Rasmussen & Anderton 2012). There has been no record of this species from the Union Territory of Ladakh, and Punjab and disjunctly, in the Western Ghats, southwards of Mumbai (Rasmussen & Anderton 2012). There has been no record of this species from the Union Territory of Jammu and Kashmir, the Union Territory of Ladakh, and Punjab.

Thus the present record was not unexpected.

The Great Hornbill is resident in the Himalaya from Uttarakhand to Arunachal Pradesh, the lower parts of the South Assam Hills, and disjunctly, in the Western Ghats, southwards of Mumbai (Rasmussen & Anderton 2012). There has been no record of this species from the Union Territory of Ladakh, and Punjab and disjunctly, in the Western Ghats, southwards of Mumbai (Rasmussen & Anderton 2012). There has been no record of this species from the Union Territory of Jammu and Kashmir, the Union Territory of Ladakh, and Punjab.

Thus the present record was not unexpected.

The Great Hornbill is resident in the Himalaya from Uttarakhand to Arunachal Pradesh, the lower parts of the South Assam Hills, and disjunctly, in the Western Ghats, southwards of Mumbai (Rasmussen & Anderton 2012). There has been no record of this species from the Union Territory of Ladakh, and Punjab and disjunctly, in the Western Ghats, southwards of Mumbai (Rasmussen & Anderton 2012). There has been no record of this species from the Union Territory of Jammu and Kashmir, the Union Territory of Ladakh, and Punjab.

Thus the present record was not unexpected.

The Great Hornbill is resident in the Himalaya from Uttarakhand to Arunachal Pradesh, the lower parts of the South Assam Hills, and disjunctly, in the Western Ghats, southwards of Mumbai (Rasmussen & Anderton 2012). There has been no record of this species from the Union Territory of Ladakh, and Punjab and disjunctly, in the Western Ghats, southwards of Mumbai (Rasmussen & Anderton 2012). There has been no record of this species from the Union Territory of Jammu and Kashmir, the Union Territory of Ladakh, and Punjab.
than a month later, on the evening of 30 September 2020, the bird, presumably the same seen over a month earlier, banked enough times for him to see the upper parts and rule out a white rump. When he saw it yet again the next morning (01 October 2020) flying with Indian House Swifts and Asian Palm Swifts *Cypsiurus balasiensis*, he called BG to come and take photographs [207A-E]. Since then, the species has been seen and photographed [207F] by three other birdwatchers. As of 05 October 2020, the bird was still around in the same area.

The bird was larger than the Indian House Swift [207A]. It appeared dark black with whitish chin, forehead, and lores; and it had a deeply forked tail [207B, C, E, F]. The upper parts appeared uniformly dark with no white on the rump [207D] as in Indian House Swift and Blyth’s Swift *A. leuconyx* (Chantler & Driessens 1995). We ruled out the Asian Palm Swift based on the larger size, much darker overall colour, and the more robust (versus slim) appearance; and also by the angular, more broad-based and less bow-shaped wings. The flight was also more strong, swift, and direct, and less fluttery than in Palm Swifts. In fact, the shape and flight of the Common Swift was more swallow-like than the swifts it often accompanied, reminding RK vaguely of the North American Purple Martin *Progne subis*. We also ruled out Pallid Swift *A. pallidus* based on the very dark
colour, and lack of any scaly or barred feather pattern (Ahmed & Adriaens 2010). More specifically, the median coverts were very dark with sharply defined pale edges [207F]. Also, the undertail coverts seem to have some pale fringes [207F], which is typical of Common Swift (Vivek Govind Kumar, pers. comm., 12 October 2020). Besides, the predominantly Mediterranean and Middle-eastern distribution of the Pallid Swift makes it far less likely to occur in Sri Lanka relative to the Common Swift. RK is familiar with the Common Swift based on his birding travels in Europe and Africa.

Based on our photographs, we are unable to establish with certainty if the bird(s) we saw belonged to the nominate subspecies A. a. apus or A. a. pekinensis. However, the fact that the whitish throat extends to forehead across lore [207D, 207F], suggests A. a. pekinensis. Moreover, the area around the eye appears darker than the adjacent primary- and secondary coverts, creating a saddle-backed appearance [207D]. This combination of features is also strongly suggestive of the eastern pekinensis subspecies (Vivek Govind Kumar, pers. comm.).

There is some evidence that Common Swifts in the eastern extremity of their breeding range (eastern China) migrate westwards to the Middle East before heading southward to Africa (Pierce et al. 2015; The Beijing Swift Project 2020). This arc-shaped autumn migratory route may explain the dearth of records in India, south of the Himalaya (only 14 in eBird, all from southern India—see review in Aju & Sreenath 2020), and the absence of records in Sri Lanka, making our record unusual and noteworthy.

Rasmussen & Anderton’s (2012) assertion that the species is a ‘widespread migrant through … Maldives’ was apparently based on Ash & Shafeeg (1995) who reported that it is “a regular winter visitor, ix-ix and iv-v…”. Ash & Shafeeg cited Phillips (1964), Ali & Ripley (1987), and Strickland & Jenner (1978). However, Ali & Ripley (1987) called it a ‘straggler’ in Maldives, citing Phillips (1964), who, from a 12-month stay in Addu Atoll, May 1958–April 1959, reported just one bird, on 01 November 1958; Strickland & Jenner (1978), compiling observations of several people made between 1962 and 1976, indicated that the species is ‘a regular winter visitor, with records between September and November’. The provenance of the April–May records from the Maldives, mentioned by Ash & Shafeeg (1995) is unclear, therefore throwing in doubt the two-way migration through the Maldives reported by Rasmussen & Anderton (2012). Charles Anderson (pers. comm.) says those spring reports were either errors or unconfirmed verbal reports, and reported to RK (in litt., e-mail dated 07 October 2020) that based on his records, the Common Swift is ‘an uncommon but regular autumn migrant and possible winter visitor, mostly during September to December’. Considering that all 14 eBird records from India, south of the Himalaya, were from the peninsula, eight in winter and the rest in autumn, it is probable that at least some Common Swifts migrate in autumn through the southern portion of the Indian Subcontinent, and the Indian Ocean, as do Amur Falcons Falco amurensis (see Anderson 2009). It is also likely that Common Swifts are under-reported everywhere in the Indian Subcontinent, especially during their brief transit periods, being overlooked as Indian House Swifts or Asian Palm Swifts.

In light of our above review of the published literature, we feel that the migratory route of the Common Swift, plus its status in the Maldives, is nebulous. It seems unlikely that the birds, especially those from eastern China, would do a tortuous, roughly S-shaped, fall migratory route by heading westwards, avoiding much of mainland South Asia, to Afghanistan, and then pivot southward to the Maldives (avoiding Sri Lanka) before heading southwest to southern Africa. We found only one eBird report, dated 17 March 2019, from the Maldives (Steibl 2019). It included notes on a ‘completely brown swift’ that were not convincing regarding species identification. If indeed the species is a ‘widespread migrant’ or ‘regular winter visitor’ to Maldives, as claimed by some aforementioned authors, then it is reasonable to expect a few more records than just the one reported by Phillips (1964) during his year-long stay there. It is also conceivable that there would be more reliable records in eBird from the heavily visited Maldives. We urge future researchers to review the true status of the species in the Maldives and its migratory trajectory over the Indian subcontinent.

RK thanks Professors Suneetha Gunawickrama and K. L. Wasantha Kumara for hosting him at the University of Ruhuna, V. Santharam for help with obtaining literature, and Moditha Kodikara Arachchi, Charles Anderson, J. Praveen, V. M. Nagarajan, Kumaran Sadasivam, and K. Dipu for useful discussions on identification and distribution. Moditha permitted us to use his photograph. Vivek Govind Kumar, Charles Anderson, and an anonymous reviewer polished the manuscript with their suggestions.

References
A Common Ringed Plover *Charadrius hiaticula* at Sambhar Lake, and its status in Rajasthan

The Common Ringed Plover *Charadrius hiaticula* is a winter visitor to the coasts of Pakistan (mainly Sind), southern India, Sri Lanka, and the Maldives, straggling (or overlooked) elsewhere on coasts; it’s a passage migrant through south-western and north-eastern Afghanistan, eastern Pakistan, and north-western India (Rasmussen & Anderton 2012). It is generally considered rare in northern India (Grimmett et al. 2011), or a straggler, ‘possibly sometimes confused by observers with Little Ringed Plover, and in immature plumage with Lesser Sand Plover’ (Ali & Ripley 1980).

On 19 May 2019, at 0910 h, while birding on a satellite wetland of the Sambhar Lake, Rajasthan, I spotted a Common Ringed Plover in breeding plumage, in a small flock of Little Ringed Plovers *C. dubius*, and identified as such by its larger size, and the absence of an obvious eye-ring. Fortunately, the bird was confiding and continued foraging even when approached quite close and I was able to observe it for about 10–12 min. Gaurav Sharma, a photographer from Sambhar town, photographed another bird [208] in breeding plumage on 07 May 2020 at the salt pans of Sambhar. He observed the bird for two–three days. The species has not been previously recorded from Sambhar Lake (Adam 1873,1874; Sangha 2009).

There are reports of its occurrence from the eastern parts of Rajasthan (Fig. 1). A bird in breeding plumage was observed on 17 February 2016 at Soonwal Lake in Sawai Madhopur District (Rowland 2017); the members of a birding group reported another on 02 December 2011 (Forsyth & Lindie 2011); and a third was photographed in non-breeding plumage at Bharatpur on 16 February 2019 (Holt 2019).

Its inclusion in the Bombay Natural History Society’s Envis Center Rajasthan checklist (Anonymous 2015), and in Vyas (2013), is obviously based on Grimmett et al. (2011) and Kazmierczak (2000), who indicated only one record from Bharatpur in their respective distribution maps, but the season of its occurrence is unspecified and the source of the information is not known. In the bare checklist of Keoladeo National Park at Bharatpur it was included by Vijayan (1994)

The above records of the species indicate that it uncommonly occurs on wetlands in Rajasthan (Fig.1) during winter or spring passage. Perhaps it has been overlooked in the past.

References


— Harkirat Singh Sangha

B-27, Gautam Marg, Hanuman Nagar, Jaipur 302021, India. E-mail: harkirat.sangha@gmail.com

---

fig:01 Sightings of the Common Ringed Plover from eastern Rajasthan.
Glossy Ibis *Plegadis falcinellus* breeding in Rajasthan, India

AKS observes the breeding colony of Black-headed Ibis *Threskiornis melanocephalus* regularly at the Nehru Talai heronry (25.30°N, 74.63°E), in Bhilwara, Rajasthan. This wetland is situated in a highly populated part of Bhilwara city. At 0800 h on 17 June 2020, AKS saw a Glossy Ibis *Plegadis falcinellus* on an Acacia nilotica tree; it was incubating an egg, and adding some material to its nest. He saw another nest of the Glossy Ibis on another Acacia, just 3 m away. Both nests were c.5 m above the ground. Other nesting birds of this heronry were the Black-headed Ibis, the Asian Openbill *Anastomus oscitans*, and the Black-crowned Night Herons *Nycticorax nycticorax*. They had constructed 105, 46, and 87 nests respectively. Glossy Ibis nests were placed c.10 m away from the nests of other birds in the heronry. The diameter at the outer rim of the Glossy ibis’s nest was 28 cm, that of its cup was 08 cm, and its depth was 04 cm. Nest was primarily made by sticks. Besides the plant material, a small quantity of threads and pieces of plastic bags were also incorporated in the nest.

One of the nests was abandoned after a few days, but the other had an egg in it. A hatching was seen in this nest on 08 July [209], indicating an incubation period, assuming it was the same egg, of at least 21 days. For 17 days (08–24 July), the fledgling was seen in its nest. For 9 days (24 July–01 August), it perched around its empty nest and receiving food from their parents. Then for another 12 days (01–12 August), it was seen feeding in a shallow area of this wetland, near the nesting site. By the end of August (24 August), the Glossy Ibis abandoned the feeding site; only a few juveniles of Black headed Ibis were seen feeding here.

From 02 August onwards, we began to see some Glossy Ibis adults and juveniles (15 birds) [210] that were feeding in the shallow area of the wetland. The Glossy Ibis fledgling mostly foraged around this island. Since it was younger than other juveniles it had less pigmentation and seemed to lack the ability to fly long distances, and hence it was easy to identify from the other juveniles. The island of this wetland had dense vegetation, which screened the nests on the inner side from our view. Though it’s highly likely that they also fledged out from the same wetland, we cannot be certain of this fact.

Post breeding, most Black-headed Ibis nests in this heronry completely deteriorate due to the close-packed nests, wherein, sometimes one stick is part of two, or more, nests! Each nest of that species contains two or three nestlings and by the time they fledge, the nests’ sticks become loose and fall down. Late nesting birds of the same species use the remains of the nests. Unlike these nests, the empty nests of Glossy Ibis remained intact.

The Glossy Ibis is a common species in Rajasthan, and is seen throughout the year (SoIB 2020). It is surprising that no other record of its breeding exists from the state despite deep searches into www.ebird.org, www.indianaturnerwatch.net, www.inaturalsit.org, www.orientalbirdimages.org, and published literature in Pittie (2020), as well as discussions with other birdwatchers from Rajasthan. It has, however, been reported breeding, from September to October, in the neighbouring state of Gujarat (Tiwari & Rahmani 1998).

While we did the study, the *Indian BIRDS’* new guidelines (Barve et al. 2020) for conducting research on the nesting biology of birds had not been published. However, we reviewed our methods to ascertain we followed all their guidelines. Visits were in the late mornings and afternoons, and as AKS was studying heronry birds, he had all the necessary monitoring equipment always in hand. Visits were made once in 3–4 days to minimize impact. While we measured, or estimated, some of the nest parameters, like tree species, height of the nest from ground, GPS location, distance between nests, distance from tree axis, or distance from nests of other heronry birds, a nest’s physical parameters like nest size, cup diameter, cup depth, or nesting materials were documented after the nestlings had fledged out. Hence, every care was taken to ensure that the breeding birds were not disturbed.

We are thankful to Satish Sharma, retired ACF, Forest Department of Rajasthan, for his valuable suggestions.

References


– Anil Kumar Sharma [AKS]. Rekha Bhawnani & Anil Kumar Tripathi

All authors: Aquatic Ecology and Biodiversity Research Lab, MLV Government College Bhilwara, Rajasthan, India. Anil Kumar Sharma. E-mail: anilkumarrsharma@gmail.com Rekha Bhawnani. E-mail: rekhabhawnani90@hotmail.com Anil Kumar Tripathi. E-mail: anilt Tripathi@gmail.com