INDIAN BIRDS

Vol. 4 No. 4 July–August 2008

MigrantWatch
Large-billed Reed-Warbler
Pronunciation of scientific names

INDIAN BIRDS Vol.4 No. 4

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The Northern India Bird Network: http://www.delhibird.com/
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Aims & Objectives

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

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Front cover: Red-billed Leiothrix *Leiothrix lutea.* Corbett Tiger Reserve, India. 1st February, 2009

Photographer: Nikhil Devasar

MigrantWatch: changes and results from the second year

Uttara Mendiratta & Suhel Quader

Mendiratta, U. & Quader, S. 2009. MigrantWatch: changes and results from the second year. Indian Birds 4 (4): 122–126 (2008).
Uttara Mendiratta & Suhel Quader: Citizen Science Programme, National Centre for Biological Sciences, GKVK Campus, Bellary Road, Bangalore 560065, India. Email: *uttara@ncbs.res.in*

MigrantWatch was launched in August 2007 as a collaborative effort to monitor the timing of bird migration in India using a citizen science approach (Quader & Raza 2007). The overarching objective of the project is to investigate possible impacts of climate change on the timing of long-distance bird migration. Data are collected through the participation of volunteers from all over the country, who note migration dates and send this information to a central database.

Volunteer-based ornithology networks have generated information that provides some of the best examples of the impacts of recent climate change on natural systems (Hüppop & Hüppop 2003; Sparks & Mason 2004; Greenwood 2007). The availability of such data is, however, largely restricted to the temperate latitudes, where many migratory birds breed; in contrast, little information is available from important tropical wintering habitats—due in part to poorly developed volunteer networks (Gordo 2007; Jonzén *et al.* 2007; Rosenzweig *et al*. 2007). India, in particular, is an important wintering ground for a large number of migrants, with over 300 species from the Palaearctic region wintering here. The recent growth of interest in birding and bird photography in India (Shyamal 2007) suggests that this is a good time to explore the possibilities of involving volunteers in collecting information relevant to birds and their conservation. MigrantWatch is the first volunteer-based project in India devoted to collecting information on the timing of bird migration. Baseline information collected in the first few years of the project will be used to assess changes in the timing of migration over the medium-to-long term.

MigrantWatch in its second year

MigrantWatch volunteers from across the country have been recording the arrival and presence of Palaearctic migrants since August 2007. Following an assessment of the first year of the project and feedback from participants, MigrantWatch in 2008–2009 carried several new features.

In the first year the project monitored the migration of nine common and widespread species (marked with an asterisk in Table 1). In 2008 this list was extended to include a total of approximately 300 Palaearctic migrants. To be included species must be predominantly winter migrants to the plains and peninsula of the Indian Subcontinent. The full list of species is on the MigrantWatch website (Box 1).

Box 1. About MigrantWatch

MigrantWatch is organised jointly by *Indian Birds* journal and the National Centre for Biological Sciences, Bangalore. MigrantWatch now has new Internet and email addresses:
Web: http://www.migrantwatch.in
Email: *mw@migrantwatch.in*

Postal address:
MigrantWatch
Citizen Science Programme
National Centre for Biological Sciences
GKVK Campus, Bellary Road
Bangalore 560065, India.

Kalyan Varma

Fig. 1a. Bar-headed Goose *Anser indicus*

To help beginning birders choose and identify common migrants, 30 of these species are highlighted on the website, and are accompanied by an online identification guide. These 30 migrants are listed in Table 1 (see also Figs. 1a–1d).

Data collection has been altered slightly. In the first year, participants were asked to submit dates of first sighting (termed Level 1) and to keep a regular record of sightings of migrants through the season (Level 2). In 2008–2009 and henceforth, the key data being collected are First Sighting and Last Sighting dates of each species in the migration season. For the purposes of MigrantWatch, we define a migration season as running from 1st July of one year to 30th June of the following year, although most arrivals are likely to occur between July and November, and most departures between February and April. Participants also have the option to submit sighting dates other than first and last sightings; this can be done for both Palaearctic migrants and other kinds of migrants like Pied Crested Cuckoo *Clamator jacobinus* and Paradise Flycatcher *Terpsiphone paradisi*.

Data entry is through an online login system in which each participant has a separate account, through which First, Last, and General Sightings are submitted for user-specified locations. The entire database can be queried, tabulated, and mapped using tools made available on the website. All data are open access and any person who registers with MigrantWatch can download and use the data.

MigrantWatch participation has now increased to over 700 volunteers, with notable expansion of geographic coverage in some parts of the country, while the coverage of other parts remains poor (Fig. 2).

First arrival data for the 2008–2009 migration season

Between 1st July and 31st December 2008, 303 participants sent in arrival dates for 180 migrant species from across 28 Indian states and union territories. First arrival information for selected species is presented in Figs. 3 and 4. To produce the scatterplots of latitude or sighting in relation to first sighting date, we used only those sighting dates between 1st July and 30th November. Scatterplots are presented for the nine species originally covered in MigrantWatch so that comparable data can be shown for two years (Fig. 3). The relationship between latitude and first sighting date is likely to be best represented by the left edge of the scatter of datapoints in each year. A line representing this edge has been calculated and drawn using quantile regression (i.e., the 0.1th quantile), as described in Quader & Raza (2007).

Maps showing locations of first sighting, colour-coded by sighting date were also produced using sighting dates between 1st July and 30th November (Fig. 4). An additional filter was imposed based on the date that migration began to be monitored at a site. For any species, only those sightings are mapped that come from locations where participants began monitoring migration at most 45 days after the species was first recorded in India. For example, if the first record of a species in India was on 1st July, then only locations monitored from 14th August or earlier contribute points to Fig. 4. This filter has been imposed so that the maps do not contain too many "first" sightings from locations that were monitored from late in the season. The filters imposed here are somewhat arbitrary and, as always, we encourage readers to explore the complete database with their own set of criteria.

Kalyan Varma

Fig. 1b. Brown Shrike *Lanius cristatus*

Acknowledgements

The expanded list of migrant species and the details for highlighted species were compiled with the help of Mike Prince, Sumit Sen, Bikram Grewal, Nikhil Devasar, R. Jaypal, Rashid Raza, Umesh Srinivasan, Praveen J. and Karthik Sunagar. Samira Agnihotri and Pratap Singh have allowed the use of their bird recordings on the website. Tarique Sani and Jatin Chimote (SaniSoft) expanded and improved the login system for users, including data entry and search facilities, building on the base designed by V. Suresh. The current MigrantWatch web pages are hosted on server space generously provided by Kalyan Varma. S. U. Saravanakumar designed publicity material, and images for this and for the website were contributed by Sudhir Shivaram, Kalyan Varma, Vijay Cavale, Mohan Kemparaju, Clement Francis, Nikhil Devasar, V. Suresh, Anand Arya, Nagpur Birds and Girish Arjun Panjabi. Increases in participation are partly due to efforts of participants to distribute publicity material and to write articles in regional and national media; our thanks to Anish Andheria, Karthick B, Praveen Chopra, Pankaj Sekhsaria, Shibi Moses, R Sharada, Abheek Ghosh, C. K. Vishnudas, Aniket Bhatt, Fionna Prins, Navjit Singh, Aditya Chandra Panda, Prateek Panwar, Sunjoy Monga and many other participants. We have received generous and valuable advice and comments from organisations and individuals involved in Citizen Science in the UK, including the British Trust of Ornithology, the Royal Society for Preservation of Birds, the University of Leeds, Nature's Calendar; our thanks to J. C. Biesmeijer, Bill Kunin, Tim Sparks, Kate Lewthwaite, Mark Eaton, David Noble, Mark Grantham, Stephen Baillie, Kate Risely, Andy Musgrove, Dawn Balmer and others at these institutions. M. O. Anand helped with data analysis; Sumit Sinha has never refused a request for help, even with the most tedious jobs. Finally, as always, the most credit must go to MigrantWatch participants for devoting their time and effort to collecting and contributing data for the project.

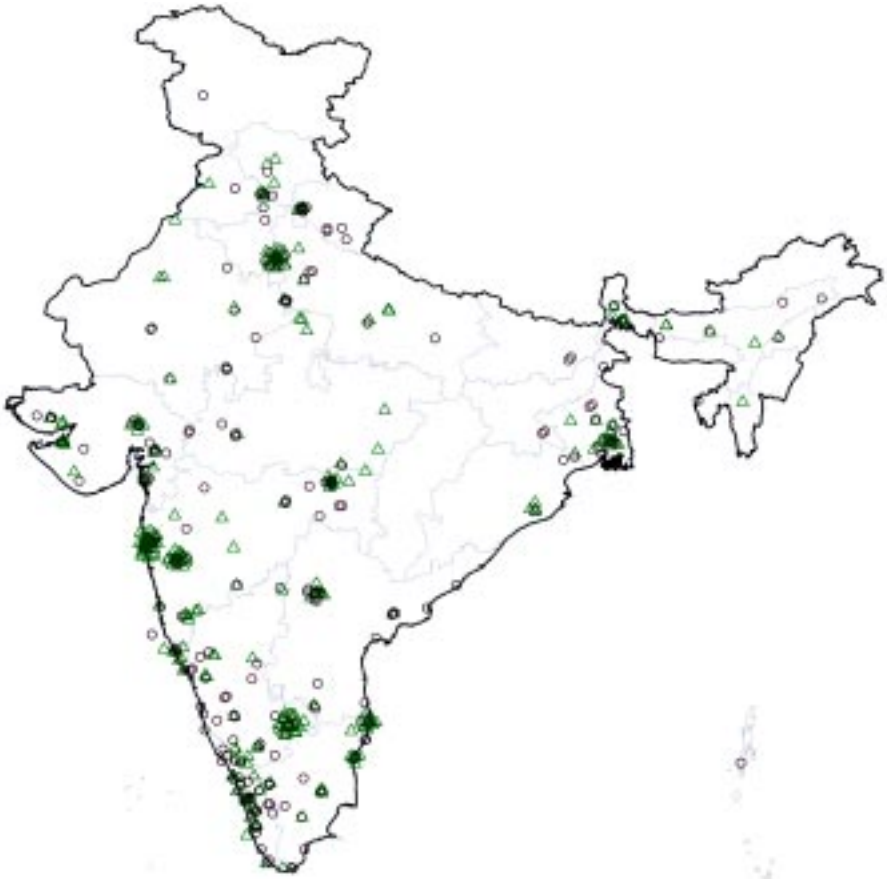

Fig. 2. Map of MigrantWatch participants. Brown circles represent participants who registered between August 2007 and February 2008, while green triangles represent those who registered between March 2008 and February 2009. The location of each part has been moved sightly to better depict clusters.

Sudhir Shivaram

Fig. 1c. Female Common Kestrel *Falco tinnunculus*

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Table 1. List of highlighted species for MigrantWatch 2008-2009 and beyond.

1. Black Stork *Ciconia nigra*
2. Bar-headed Goose *Anser indicus*
3. Brahminy Shelduck *Tadorna ferruginea*
4. Northern Shoveller *Anas clypeata**
5. Northern Pintail *A. acuta*
6. Western Marsh Harrier *Circus aeruginosus**
7. Osprey *Pandion haliaetus*
8. Common Kestrel *Falco tinnunculus*
9. Demoiselle Crane *Grus virgo*
10. Black-tailed Godwit *Limosa limosa*
11. Green Sandpiper *Tringa ochropus*
12. Wood Sandpiper *T. glareola**
13. Common Sandpiper *Actitis hypoleucos*
14. Ruff *Philomachus pugnax*
15. Pallas's Gull/Great Black-headed Gull *Larus ichthyaetus*
16. Eurasian Wryneck *Jynx torquilla*
17. Common Swallow *Hirundo rustica**
18. White Wagtail *Motacilla alba*
19. Grey Wagtail *M. cinerea**
20. Brown Shrike *Lanius cristatus**
21. Blue Rock-thrush *Monticola solitarius*
22. Bluethroat *Luscinia svecica*
23. Black Redstart *Phoenicurus ochruros**
24. Common Stonechat *Saxicola torquata*
25. Blyth's Reed-Warbler *Acrocephalus dumetorum*
26. Greenish Leaf-Warbler *Phylloscopus trochiloides**
27. Red-breasted / Red-throated Flycatcher *Ficedula parva* / *F. albicilla* complex
28. Verditer Flycatcher *Eumyias thalassina*
29. Common Rosefinch *Carpodacus erythrinus*
30. Rosy Starling *Sturnus roseus**

[* = monitored in 2007–2008]

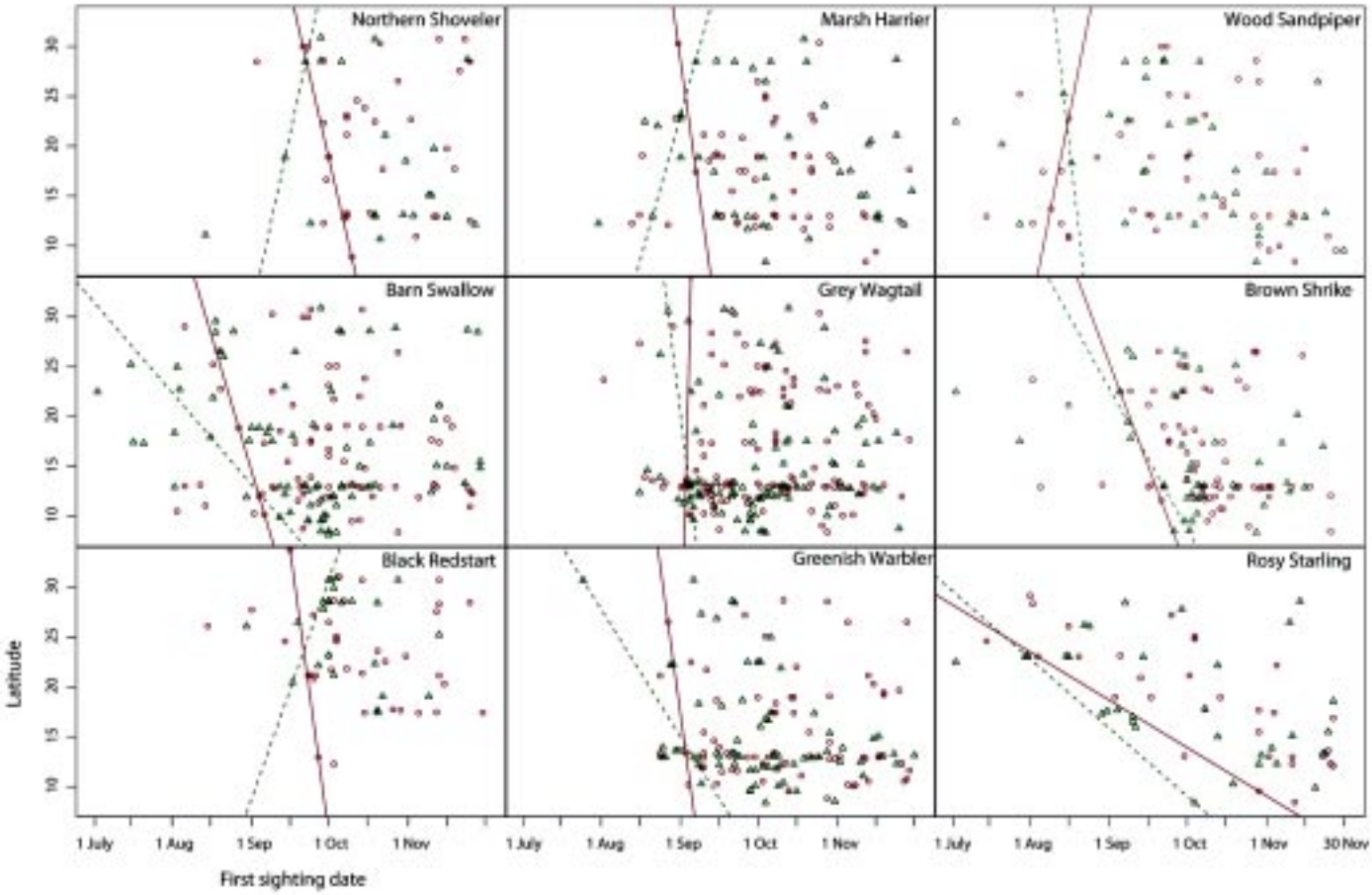

Fig. 3. Scatterplots showing the relationship between latitude and first sighting dates for nine migrant species in 2007 (brown circles) and 2008 (green triangles). Lines (solid brown and dashed green) depict 0.1th quantiles (as described in the text) for 2007 and 2008 respectively.

Sudhir Shivaram

Fig. 1d. Black-tailed Godwit *Limosa limosa*

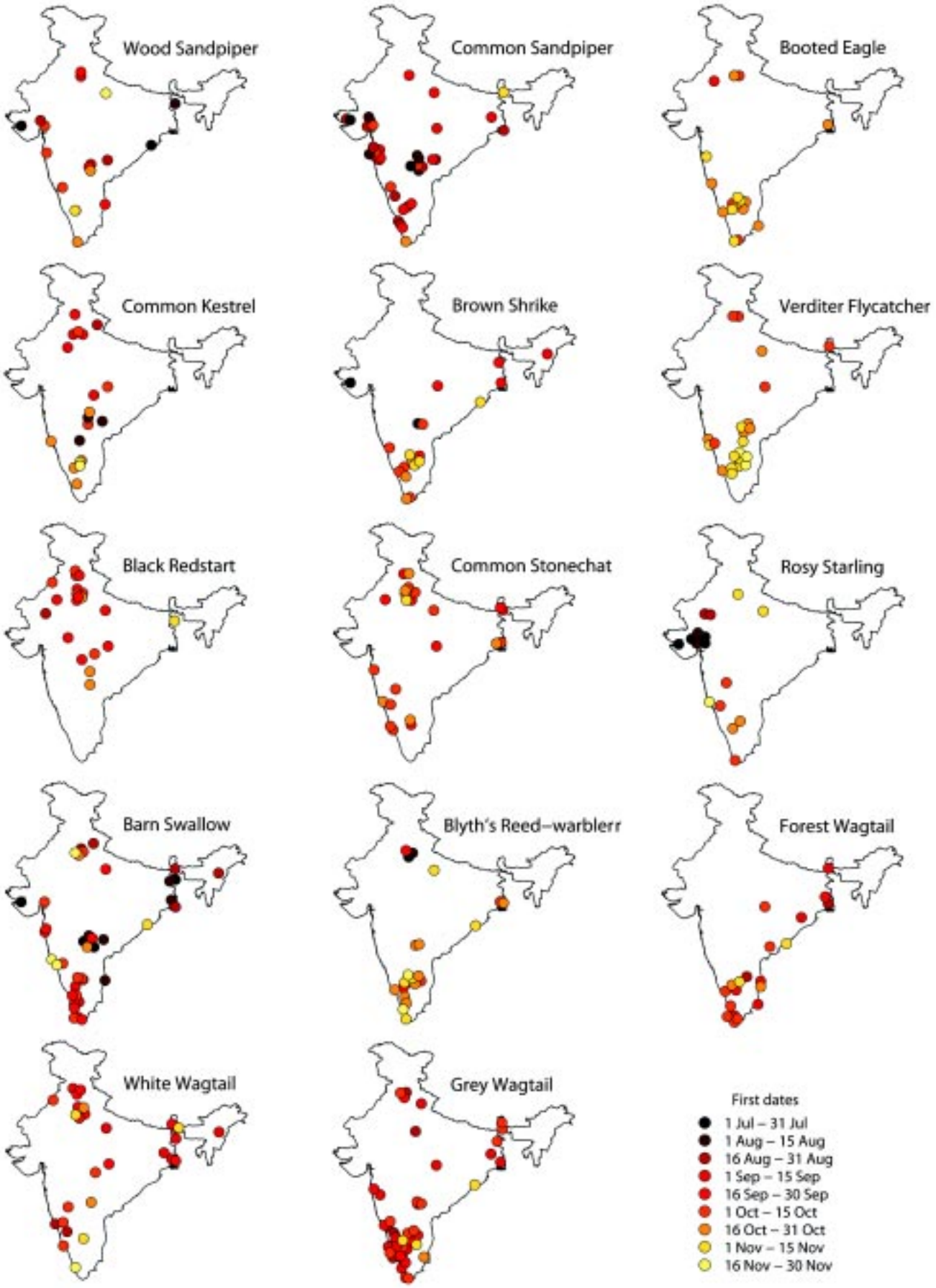

Fig. 4. Maps showing the location of first sightings for selected migrants in 2008, colour-coded by sighting dates. See text for a description of filters used in producing these maps.

Some aspects of the nesting biology of Little Grebe *Tachybaptus ruficollis* at Wular Lake, Kashmir

Mustahson F. Fazili, G. Mustafa Shah, Ulfat Jan & Bilal A. Bhat

Fazili, M. F., Shah, G. M., Jan, U. & Bhat B. A. 2009. Some aspects of the nesting biology of Little Grebe *Tachybaptus ruficollis* at Wular Lake, Kashmir. *Indian Birds* 4 (4): 127–129 (2008).
Mustahson, F. Fazili*, G. Mustafa Shah, Ulfat Jan & Bilal, A. Bhat: Post Graduate Department of Zoology, The University of Kashmir, Srinagar 190006, Kashmir, India. *Corresponding author. Email: *drfaziliwl@yahoo.com*
Mss received on 15th September 2007.

Abstract

Nesting biology of Little Grebe *Tachybaptus ruficollis* was studied at Wular Lake, Kashmir from 1997 to 1999. They are colonial as well as non-colonial nesters. Breeding occurred during May–August. Adult behaviour during nesting is reported. Both sexes constructed floating nests. Nests as well as nest sites are described. Eggs were generally laid daily and their mean measurements are given. Eggs were concealed when left unattended. Hatching and hatching success are reported and parental care is also discussed.

Introduction

Little Grebe *Tachybaptus ruficollis* is the smallest and most widely distributed grebe species of the Indian Subcontinent. It has been least studied among grebes and there are a few fragmentary breeding reports of the species (Bandrof 1968; Bates & Lowther 1952; Broekhuysen 1973; Ali & Ripley 1983; Gurusami 1985). The main objective of our study was to determine the nesting biology of Little Grebe in relation to the ecology of Wular Lake.

Study area

The study was conducted from 1997 to 1999 at Wular Lake (34º25'N, 74º42'E), a Ramsar Site in the Baramulla and Bandipore districts of Jammu & Kashmir, India. The lake has a maximum depth of 5.86 m with an area of 240 km^2 that remains covered with dense growth of free floating and emergent vegetation during the major part of the year. The common species are *Trapa bispinosa*, *Nymphoides peltata*, *Nelumbo nucifera*, *Ceratophyllum demersum*, *Hydrilla verticillata*, *Potamogeton indicus*, *P. lucens*, *Butomus umbellatus*, *Carex* sp., *Phragmites communis*, *P. elephantoides*, *Typha angustata*, *Myriophyllum verticillatum*, *Sparganum ramosum*, *Lemna* sp., and *Saccharum spontaneum*. The dense floating vegetation and reed beds are partitioned by a series of boat channels varying in width between 1–6 m. Besides several springs that are occasionally seen bubbling up to the surface and streams, especially, Erin, Mudhumati, Pohru, Arrah and Ningal Nallah, the lake is mainly and chiefly fed and drained by the River Jehlum. The River Jehlum flows into the Wular on its south-eastern side, near the middle of the lake and leaves the lake at its south-western corner near Sopore (Fig. 1).

Methods

For the present study the lake was divided into ten sites mainly on the basis of different vegetation types, bird habitat preferences and other characteristics. Observations on nesting biology were carried out at five sites (A–E). These areas had dense growth of both free floating and emergent vegetation and less human interference as compared to sites F–J, which had sparse vegetation, high human interference and contained open water, as these were the deepest regions of the lake. To observe the nesting behaviour, the lake was visited regularly during the breeding season, March–October. The activities of birds were recorded on every visit. Nesting site was defined as an area where mating, nest building, adult incubating and brooding occurred.

The nests of birds were generally located in the study sites by wading through reeds in marshy areas and shallow regions. Most searches was done close to boat channels. Any residing place of a bird with one or more eggs was classified as a nest. The nest sites were marked by slender willow stakes, flagged with small strips of white cloth, at an approximate distance of 5 m from the nest in a given direction. Nest numbers were marked

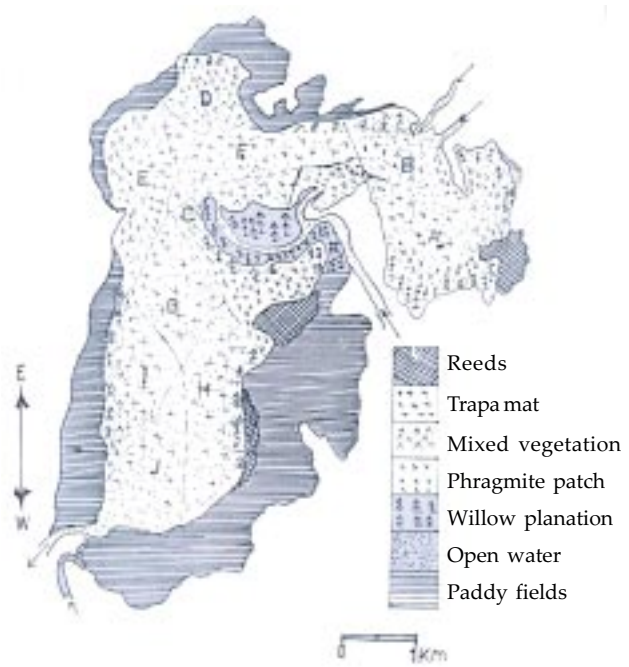

Fig. 1 Sketch of Wular Lake

on the flags with waterproof ink. In some cases plastic numbers were tied to the nest material and placed a few feet away from the nest. When a nest was spotted the following parameters were recorded: location, nesting material, plant species in the immediate vicinity of the nest and, water depth at the nesting site. In addition, at each nest, the type and height of vegetation cover and its condition, shape, size and the position of the nest and concealing arrangements were recorded. During laying, each nest was visited daily and, the newly laid eggs were weighed to an accuracy of 0.1 gm using a 50 gm balance. To determine egg laying and hatching intervals, the eggs were marked with waterproof ink and replaced properly without disturbing the arrangement of other eggs in the nest. Morphometric measurements of eggs were taken to 0.1 mm using Vernier Callipers. The length and width were measured at highest points of the egg, obtained by sliding the callipers gently on the egg.

Much effort was put in to determining hatching dates and causes of losses. Hatching was defined as the time at which all eggs had hatched and hatching success calculations were done in accordance with Mayfield (1975) and Johnson (1979). On hatching, each chick was weighed to nearest 0.1 gm using 50 gm balance or 1 gm using 200 gm balance. Hides were constructed at distances of 7–9 m from the nests to record the behaviour of breeding pairs and chicks. Observations were made in shifts of at least two hours each, from egg laying till nestling fledged. A camera with a 210 mm zoom lens was used for photography. Standard deviation was calculated as per the formula $SD = \sqrt{\sum x^2 / N - 1}$ or $\sqrt{\sum x^2 / N}$ where x is the deviation and N the number of readings.

Results & discussion

Breeding season

The Little Grebe is found in almost all regions of the lake where there is sufficient cover that provides concealment to them. These birds migrate locally, at a micro level, from deeper regions of the lake to shallower ones, at the onset of breeding—generally May–August. During this period they raised a single brood that later dispersed in the lake. Bates & Lowther (1952) and Ali & Ripley (1983) too report a single breeding season extending from May to August but the latter have also reported that two broods are raised. Such a situation was not observed during the present study as both parents took an active role in incubation and rearing of the young for a span of not less than 45 days, so they did not get enough time to begin a second breeding cycle; also the environmental conditions later generally became unfavourable for breeding. Although breeding was generally initiated in May, there were marked variations during the three years of observation, when it was delayed by one month in 1997 due to heavy rains, lake inundation and non-availability of nesting sites. Gorenzal *et al.* (1981) and Shah (1984) report a similar situation during periods of inundation.

Nest: site, construction & structure

After the establishment of territories and pair bonds, birds began to select suitable nest sites that not only provided concealment and support for nests but also protection for nestlings. Colonially nesting Little Grebes chose sites in areas that had a sparse growth of emergent and floating vegetation—for better visibility. Non-colonial nests were located in areas where floating vegetation was dense with occasional emergent reeds. Ali & Ripley (1983), Bates & Lowther (1952) and Shah (1984) have recorded similar types of nest sites. Birds commenced nest building in the last week of April or in the first week of May.

Both members of a pair participated in constructing nests. Fjeldsa (1985) observed a similar pattern of nest building the in Titicaca Flightless Grebe *Rollandia microptera*, as did Himmatsinhji *et al*. (1992) for Great Crested Grebe *Podiceps cristatus*. Nest construction lasted 3–13 days. Early breeders took more time to complete their nests as compared to late breeders. This was probably due to the fact that they had more time available than the latter. Nesting material was also scanty for early breeders, which took more time in nest construction. So far as the elaborateness of the nests was concerned, Little Grebes were fast workers, building in as short a period as three days.

Nests comprised sodden pads of waterweeds, composed of short, decayed twigs. They had a mean diameter of 33.6 cm and a mean depth of 3 cm to hold the eggs. Bates & Lowther (1952) Ali and Ripley (1983) and Shah (1984) reported similar types of nests for Little Grebe, as did Keller (1992) for Great Crested Grebe. Bates & Lowther (1952) have reported the diameter of 20.32–25.4 cm, which may be that of the exposed, or above water portion, rather than that of the entire nest.

Egg: laying, shape & size

The eggs were laid daily, soon after the completion of nests. Peak laying was observed between 20–30 May (Fig. 2). The eggs were glossless pure white with hard shell but the colour changed to chocolate brown over time on contact with decomposing mass of nesting material. The average dimensions of 115 eggs were 36.5 (±1.18) x 25.2 (±0.477) mm. Bates & Lowther (1952) have reported that eggs change from their contact with wet vegetable matter and averaged 36.6 25.1 mm. Ali & Ripley (1983) have also demonstrated colour variation as incubation proceeded but the egg dimensions recorded were 36 x 25 mm. During different years of his investigation of Great Crested Grebe nidification at Lake Druzno, Poland, Goc (1986) reported the mean egg size as 35 x 54.62 mm (129 clutches) and 36.64 x 54.5mm (15 clutches).

The clutch size varied from three to six eggs with an average of 4.73 (±0.91). Incubation was carried out by both the sexes and the incubation period varied from 19 to 23 days with an average of 20.5 (±1.09).

As is well known, Little Grebes cover the eggs with decaying vegetation collected from nest margins when they leave the

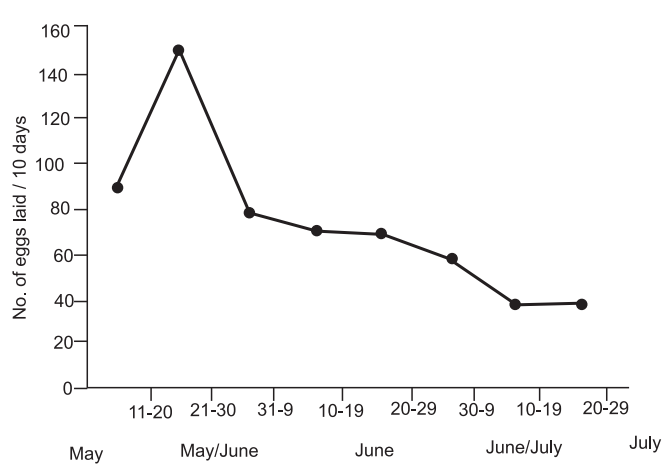

Fig. 2 Peak egg laying in Dabchick

Table 1: Hatching success in relation to month of laying in Dabchick.

Year	Month	No. of eggs	Eggs lost through predation		Eggs lost through desertion and faulty incubation		Hatching success	
			No	%	No	%	No.	%
1997	May	—	—	—	—	—	—	—
	June	99	20	20.20	2	2.02	77	77.78
	July	40	8	20.00	—	—	32	80
1998	May	101	19	18.81	3	2.79	79	78.22
	June	70	5	7.15	—	—	65	92.85
	July	—	—	—	—	—	—	—
1999	May	147	37	25.17	—	110	79	78.85
	June	70	5	7.15	—	—	110	74.83
	July	43	8	18.60	1	2.33	34	79.9
Total	May	248	56	14.51	3	1.21	189	76.20
	June	209	29	6.70	4	1.91	176	84.20
	July	83	16	13.25	1	1.21	66	79.5
G. Total		**540**	**101**	**18.70**	**8**	**1.50**	**431**	**79.8**

nest unattended. Occasionally fresh material was used to hide the eggs. This performs two functions: first, it protects the eggs from predators and second, it helps maintain an optimum temperature in the nest for normal hatching, as these birds prefer to remain off the nest for long periods during daytime.

Hatching & hatching success

Hatching was asynchronous, with eggs hatching in the order they were laid, as incubation starts immediately after the first egg is laid. It took one to one and a half days to a chick to liberate itself, so hatching period from piping to complete liberation was 24–36 hrs and parents had no role in it. The hatching success was 79.8% (Table 1). Hatching success of colonially breeding Little Grebe was lower than non-colonial breeders (Fig. 3) as the effect of predation was higher in former than later. The main predators were man, Black-crowned Night-Heron *Nycticorax nycticorax* and House Crow *Corvus splendens*. Ulenaers & Dhondt (1991) recorded 40% hatching success in Great Crested Grebe. They attributed this to the varied effect of predators and availability of food to the brooding pairs in different study areas in addition to the other ecological factors responsible for hatching of eggs.

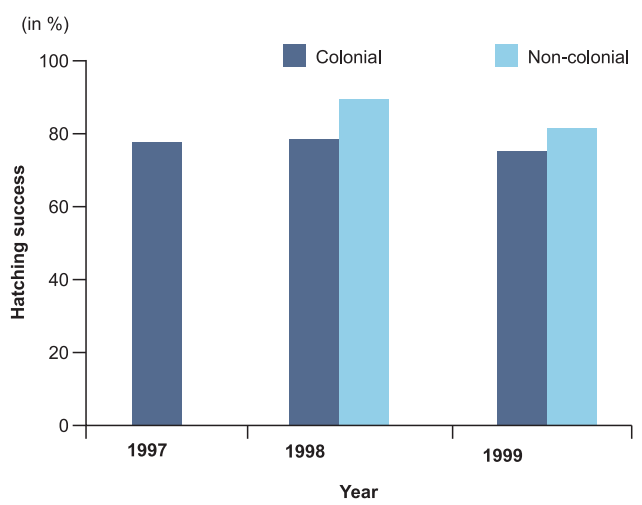

Fig. 3. Hatching success in colonial and non-colonial Little Grebes.

Chicks & parental care

The chicks of Little Grebe weighed, on an average, 10.6 gms. They were precocial and left their nests 4–6 hrs after hatching to follow their parents for feeding. Chicks quickly hid underwater, keeping their beak exposed, on receiving alarm calls from parents.

In Little Grebe bi-parental care of the chicks was noticed during present study, also noted by Bates & Lowther (1952) and Ali & Ripley (1983). This seemed to be beneficial in the sense that chicks are protected from starvation as well as predatory attacks in addition to proper brooding.

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A possible record of Large-billed Reed-Warbler *Acrocephalus orinus* from Kanha Tiger Reserve, central India

David Raju, Praveen J. & Mike Prince

Raju, D., Praveen J., & Prince, M. 2009. A possible record of Large-billed Reed-Warbler *Acrocephalus orinus* from Kanha Tiger Reserve, central India. *Indian Birds* 4 (4): 130–132 (2008).
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Large-billed Reed-Warbler *Acrocephalus orinus* is one of the most enigmatic of Oriental birds. This species was described from a single specimen obtained in the Sutlej Valley near Rampoor, Himachal Pradesh on 13th November 2007 by Allan Octavian Hume (Hume 1869). However, this specimen was later suspected to be an isolated form of Clamorous Reed-Warbler *A. stentoreus* or an aberrant Blyth's Reed-Warbler *A. dumetorum* until it was proved to be a distinct species with compelling mtDNA evidence (Bensch & Pearson 2002). The species entered the front page of newspapers during March 2007 when Philip D. Round announced the trapping of a live individual of this species at Laem Phak Bia Environmental Research and Development Project in Phetchaburi, Thailand on 27th March 2006; this site was *c*. 3,100 km from its type locality (Round *et al*. 2007). A few months later, another specimen was discovered, from India, among the collection of Blyth's Reed-Warbler skins at the Natural History Museum, Tring (U.K.). This bird had been captured in Mussoorie, Uttar Pradesh, in October 1869 (Peter Kennerley *in litt*., May 2008). The Indian birding community also had its time to rejoice when Sumit K. Sen photographed an individual in Chintamani Kar Bird Sanctuary, Narendrapur, West Bengal, India, on 1st April 2007 (Sen 2007). Since then, Philip D. Round has netted one more individual in Thailand, which means that this species has been encountered a mere five times. On only one of these occasions was the species actually observed in the wild, with about 12 minutes of field observation (Sen 2007). This account describes our exciting encounter with a mysterious *Acrocephalus* warbler, which we believe was a Large-billed Reed-Warbler, in Kanha Tiger Reserve (KTR), Madhya Pradesh, central India.

A photograph of the bird was taken during the first week of April 2008 (Fig. 1) on the outskirts of KTR at Banjar Tolla by one of us (DR), using a Nikon D80 and Sigma 300 mm telephoto lens; this picture was sent to PJ and subsequently to MP for confirmation, labelled as "Blyth's Reed-Warbler". The general habitat of the area is predominantly Sal forest but grass, bamboo and mango orchards mainly dominate the locality where the bird was sighted. DR initially believed that the bird was nesting as it frequented a particular bamboo clump during early morning and late evening. The picture was also circulated on the Internet mailing list, delhibirdpix@googlegroups.com. The initial feedback for the photograph was that the bird could be a Clamorous Reed-Warbler although opinions were generally inconclusive. DR had prior experience with Clamorous Reed-Warbler from Kerala and hence was sure that this was not one, considering the size of the bird. The call of the warbler was also found to be similar to Blyth's rather than Clamorous Reed-Warbler, a hard "*chak*" repeated thrice or four times. A structure in the bamboo clumps, which was believed to be a nest, could not be confirmed.

Meanwhile, DR procured Sen's notes of the Kolkata *orinus* and compared them with this particular bird. Two peculiar aspects noted by Sen were also present in the Kanha bird: the relatively pointed tail feathers and the bird's behaviour of frequently fanning its tail (Figs. 2 & 3). The bird fanned its tail almost like a Black-naped Monarch-Flycatcher *Hypothymis azurea,* indulging in this behaviour on every alternate hop—much more frequently than any other *Acrocephalus* warblers.

The next set of pictures taken by DR, from the same locality, did little to clear the air and instead created more confusion! There were other skulking warblers in the area and DR photographed several Sykes's Warblers *Hippolais rama* along with the mystery bird; the hunt almost reached an anticlimax when everyone 'confirmed' some of the better photographs to be actually those of Sykes's Warblers! The likelihood of a 'nest' seemed slim: the behaviour of the warbler suggested that it might have been using the bamboo clumps for roosting. DR

David Raju

Fig. 1: First image from KTR.

David Raju

Figs. 2 & 3: Showing fanned tail, long under-tail coverts and pointed tail feathers.

was able to observe the bird entering the clumps at dusk and leaving at dawn—but no specific nesting or brooding behaviour was noted.

During the third week of April, DR made further forays into the warbler area and took some more photographs. These clearly showed an *Acrocephalus* warbler with a long bill, short wings, long claws, short supercilium and a white crescent below the eye (Figs. 4–8). This bird was a high canopy feeder, at times going up 30 m on sal *Shorea robusta* trees, was very restless, rarely coming down to feed, frequenting trees with good canopy cover and behaved more like a *Phylloscopus* warbler. On 29th April 2008, the bird was seen eating an oak blue *Arhopala* sp., butterfly. The bird was seen frequently chasing tailorbirds, prinias and leaf warblers. DR also suspects that he saw the same species on a mango *Mangifera indica* tree at Kisli gate, 30 km away from the original site. This bird also had the tail fanned most of the time, was feeding mostly in the top canopy, had a large bill with an entirely pale lower mandible and pointed tail feathers. However, no photograph could be taken of this bird but it does indicate that there could have been more individuals around this area.

The final set of photographs, together with details of the sighting history, was circulated among several bird-watchers and ornithologists who were associated with prior sightings and/or documentation of the Large-billed Reed-Warbler. Some of the quotes from them are worthwhile in assessing the chances that this Kanha warbler was indeed the Large-billed Reed-Warbler.

Bill Harvey: "I must say that to me these pictures look much more convincing. They clearly show an *Acrocephalus* with a long bill, very short wings and large claws. These pictures are very similar to the Kolkata ones last year," and, "Indeed these are looking much more encouraging. The very latest six shots from David [DR] show well fanned tails and long claws."

Philip D Round: "I am probably not the person to make any judgment of these since I have not seen Large-billed Reed-Warbler in the field—only in the hand! Also, I am often reluctant to make definitive judgments from photos, even of birds that are much easier to identify than *Acrocephalus*. However, I think these later pictures seem highly plausible for *Acrocephalus orinus*. What else could they be?"

Peter Kennerley: "The bird is clearly an *Acrocephalus*; the long undertail-coverts and rounded tail shape rule out Sykes's and all other *Hippolais* species. I must stress that I have no experience of Large-billed Reed-Warbler, so my comments must be read in this context. However, I agree with that when everything else is eliminated, the only option remaining is Large-billed Reed-Warbler."

The last sighting that DR had of this warbler was on 5th May 2008; perhaps the bird left for its breeding grounds after that.

The likelihood of Large-billed Reed-Warbler at KTR for more than a month also evokes interesting possibilities on its migration and breeding. Two specimens from the nineteenth century were procured during fall migration (October–November) from the upper Sutlej Valley, an important passageway for Palaearctic migrants, indicating birds on passage, presumably breeding in the Palaearctic. The netting of two birds in March in Thailand and the April sighting at Kolkata also suggest an early spring migration and that the bird was perhaps breeding in the northern tropics or sub-tropics (Philip

David Raju

Fig. 4: Note short primary projection, pale lower mandible, white crescent below eye.

David Raju

Fig. 5: Showing pointed tail feathers, white crescent below eye.

D. Round *in litt*., May 2007) or even in the southern Palaearctic. However, it is not clear if the bird at Kanha was on passage and these records do not fit well into this hypothesis. Hence, a slightly different possibility emerges that it could also be a wet-season breeder spending the drier months in southern and eastern India, spreading up to Thailand and moving north with the monsoon to breed (Peter Kennerley *in litt*., May 2007).

What seems likely is that the Large-billed Reed-Warbler could be more widespread than was believed even as late as five years ago. This is perhaps the first instance that this species has been observed in the field for such a long time, giving us a rare opportunity to study its behaviour. We hope that these interesting field observations from Kanha will lead to the discovery of more sites and observations of this presumably endangered species.

David Raju

Fig. 6: Note long claws, all pale lower mandible, long bill.

Acknowledgements

Many thanks to the experts who helped and encouraged us throughout the spring with the photographs and to reach the current conclusion on its identification—Bill Harvey was constantly supportive and helped maintain the enthusiasm, Sumit K. Sen freely shared his prior experience with this species at Kolkata, Philip D. Round and Peter Kennerley kindly sent their comments on the photographs despite busy schedules. All these discussions gave us considerable confidence in publishing what we believe to be a very significant record. DR would like to thank all his naturalist colleagues at Taj Safaris and especially chief naturalist Sarath C. R. for all the motivation and support.

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David Raju

Fig. 7: Note long bill, long claws, pointed tail feathers, pale lower mandible, short wings and white crescent below eye.

David Raju

Fig. 8: Note long claws, pointed tail feathers, all pale lower mandible, long bill.

Counting large gatherings of globally threatened Greater Adjutant *Leptoptilos dubius*

Anwaruddin Choudhury

Choudhury, A. 2009. Counting large gatherings of globally threatened Greater Adjutant *Leptoptilos dubius*. *Indian Birds* 4 (4): 133–135 (2008).
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The Greater Adjutant Stork *Leptoptilos dubius* is a globally threatened bird, which has been listed as 'endangered' by BirdLife International (2007). The species is considered amongst the rarest, and its world population is believed to be less than a thousand. IUCN (2007) puts the world number between 650 and 800. Choudhury (2000) estimated >800 for Assam while Perennou *et al*. (1994) put it as '400 with alarmingly decreasing trend'. The stork ranges from India to Vietnam (BirdLife International 2001). I here report of some recent sightings of large gatherings in Guwahati city (Assam, India), which, I believe, are the largest single congregations recorded in recent decades.

On 21st February 2008, while returning after a session of bird observation at Deepor Beel Bird Sanctuary, on the outskirts of Guwahati, we decided to visit the garbage dumping ground at Paschim Boragaon. This is the main dumping ground now used by the Guwahati Municipal Corporation and I had written to the Commissioner of the Corporation as well as the Chief Executive Officer of Metropolitan Development Authority for its removal. The reason being that it is located within half a kilometer of the sanctuary and a major inlet to the *beel* (*beel*= lake) passes through the site, as a result of which the *beel* waters have also been polluted.

We reached the site around 1300 hrs and counted 35 Greater Adjutants right on the garbage heaps, with Black Kites *Milvus migrans*, House Crows *Corvus splendens*, Cattle Egret *Bubulcas ibis*, dogs and cows. At that time, some storks were seen soaring. At a distance, I noticed a compact 'flock' of many storks, which due to the prevailing haze, I took for Asian Openbills *Anastomus oscitans*. I had noticed a few storks just behind the dump that has become higher than the surroundings and blocks visibility. So I move ahead, *c*. 20 m to make a final count, but run for my vehicle to get away from the stink. To my surprise, beyond the mound of earth and garbage, there was a large flock of 86+ Greater Adjutants. The total count was more than 140—perhaps amongst the largest single gatherings recorded in recent times. Encouraged by the numbers, I moved farther for a closer look at the 'Asian Openbills' in the haze—and am amazed to see that all 90 of them are actually Greater Adjutants! There were a few storks scattered here and there too. My total count on the dumping ground that day was 234 and I may have missed a few. This is excluding the seven birds we saw in the morning in Deepor *beel*. All the birds were adults (Figs. 1–4.)

Lakhan Teron, a birdwatcher staying near Deepor *beel* reported to me that he had counted 313 Greater Adjutants in January 2008 (Lakhan Teron, *verbally*)! Initially I hesitated to

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Fig. 1. Greater Adjutants *Leptoptilus dubius* at the Guwahati Municipal Corporation garbage dumping ground.

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Fig. 2. A large muster of Greater Adjutants *Leptoptilus dubius*.

accept his figures but after counting up to 234 birds that day, I could not doubt his observation.

Other large flockings of this stork recorded in Guwahati city: 254 near RGB College on 30th September 2002; 233 at Borbari dumping ground on 30th September 2005 by Early Birds, a Guwahati-based NGO (Moloy Baruah, *verbally*). The largest single flock recorded in Choudhury (2000) and BirdLife International (2001) was a group of 87 in March 1994 on the banks of the Brahmaputra, also in Guwahati city. In the graveyard of Islampur in Guwahati city, I counted more than 80 birds just after the breeding season, on several occasions between 2002 and 2007. More than half of those were immature birds.

These numbers show that 400, the world population estimate of Perennou *et al*. (1994) was on the lower side. The number of Greater Adjutants is not increasing, but is on a slightly declining trend, as was evident from the loss of nesting trees in the Mandakata-Suktaguri area of Kamrup district and Nagaon town (both in Assam). No new nesting sites begun by those displaced birds could be found. Unnatural causes of mortality were also an issue—the occasional poaching incident by gypsies from northern India (one at Nagaon in 2003), deaths due to electrocution in Guwahati city (at least two during the last five years; a few may remain unreported), *etc*. At the dumping ground itself, at least seven died last year due to suspected incidental poisoning.

Despite these large groups being counted and new nesting sites discovered in Bihar (Arvind Mishra, *verbally*) the Greater Adjutant is not safe. A permanent rescue and rehabilitation centre is required somewhere near Guwahati, for the nestlings and fledgelings that die every year after falling from their nests.

Postscript

On 21st February 2008, my total count of Greater Adjutant at the Paschim Boragaon dumping ground in Guwahati was 234. All those birds were adults, which was apparent due to ongoing

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Fig. 3. The author counted 423 Greater Adjutants *Leptoptilus dubius* on one day!

breeding season. I was intrigued to know the possible total after the breeding season. So I made a trip on 7th September 2008, to the same site. I reached the site around 1230 hrs and could see a good number of immature birds along with adult storks. Counting was a bit difficult, as rain had made the ground slushy in places and the garbage heaps also blocked full view at places. To get a better view I climbed the rear of a truck and started counting through binoculars. The storks were in two large compact flocks. The gap between the flocks was hardly 15 m. Then there was a smaller flock about 20 m away. A few scattered birds were moving about the dump while at least five were flying overhead. The total count exceeded 400 birds! I could count 432 but a safer number would be 423 (414 on the ground in flocks, five in flight and four lone individuals moving about), as a few took off and landed here and there. The break up of 414 on the ground was 320 storks resting in short grass, and flocks of 67 and 27 foraging on garbage. The exact number of immature birds could not be counted (120 could be confirmed), as the complete body of many of the resting storks could not be seen, only their heads jutting out from behind the grass.

After observing the storks I drove straight to the Ulubari market where there were ten birds—two immature birds in the pond, six adults in the marsh by the side of the pond and two circling overhead. Then I visited the Islampur kabrstan (graveyard) where 13 storks including three immature birds were resting and preening atop trees.

The total count in the city on that day was 446, which is in all probability half of the world population of this rare and endangered stork. There were also a few storks reported from the marsh behind Meghdoot cinema hall as well as elsewhere in the city on the same day but those were not included, as those sites were not visited.

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Fig. 4. Greater Adjutant *Leptoptilus dubius*.

Sriharikota Island—new refuge for colonial nesting waterbirds

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Sivakumar, S., Manakadan, R. & David, P. 2009. Sriharikota—new refuge for colonial nesting waterbirds. *Indian Birds* 4 (4): 136–137 (2008).

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Introduction

Sriharikota Island is well known as the spaceport of India, but largely unknown as a refuge for biodiversity having one of the last remaining and largest patch of tropical dry evergreen forest in India. Sriharikota (*c.* 181 km^2) is situated in the southernmost corner of coastal Andhra Pradesh, bounded on the east by the Bay of Bengal and on the west by Pulicat Lake (Fig. 1). The Pulicat Lake's openings into the Bay of Bengal form the northern and southern boundaries of the Island. The island has been under the control of Indian Space Research Organisation (ISRO) since 1970.

The Bombay Natural History Society (BNHS) has carried out detailed studies on various faunal groups of the island (Bombay Natural History Society 1977; Samant & Rao 1996; Rao 1998; Manakadan & Sivakumar 2004a, b; Manakadan *et al.* 2004; Sivakumar & Manakadan 2004; Sivakumar *et al.* 2004). A significant discovery under one of these projects was of three heronries in the island, christened the Madugu, Beripeta and Karimanal heronries (Manakadan & Sivakumar 2004a; Sivakumar & Manakadan 2005). Prior to the discovery of these heronries, the only known breeding sites for colonial waterbirds of Pulicat Lake were three heronries on the mainland, namely, the Nelapattu, Tada (Bolengalupadu) and Vedurupattu-Edhirpattu heronries (Subramanya 2001).

The Sriharikota heronries

The Beripeta heronry is situated in the central part of the Island and consists of riparian forest with tall trees. The colony is occupied almost exclusively by the Painted Stork *Mycteria leucocephala*. At Beripeta, the main colony had *ca.* 150 nests of Painted Storks and the sub-colony (*c.* one kilometre south) had around 100 nests of the same species during the 2005-06 breeding season.

The Madugu heronry is situated in the northern part of the Island with riparian forest-thicket vegetation with dense canebrakes. The exact number of breeding birds and number of species breeding in this heronry could not be determined due to thick growth of vegetation and lack of vantage points to view the entire breeding area. However, 20 pairs of Grey Heron *Ardea cinerea*, 61 egrets (Little *Egretta garzetta* and Intermediate *Mesophoyx intermedia*) and 14 Little Cormorant *Phalacrocorax niger* were recorded during the 2005–2006 breeding season. Other species recorded in the area (but without confirmed breeding records) during the 2001–2002 breeding season were Cattle Egret *Bubulcus* and Black-crowned Night-Heron *Nycticorax nycticorax.*

The Karimanal colony is situated in the southern end of the island. The colony consisted of Painted Stork (100), Grey Heron (6), Large Egret *Casmerodius albus* (6), Intermediate Egret (1), Little Egret (100) and Little Cormorant (300) during the 2001–2002 breeding season. Breeding did not take place in the following years (2002–2003, 2003–2004 and 2004–2005), which were low rainfall years. Breeding was observed again in 2005–2006, but the number of birds and species were significantly less compared to the 2001–2002 season: Painted Stork (40), Grey Heron (25) and Intermediate Egret (2). 15 pairs of Grey Heron and a couple of Little Egret pairs were recorded breeding on an isolated *Ficus bengalensis*, *c.* 200 m east of the Karimanal nesting site.

Discussion

As there had been no reports of the occurrence of heronries during the BNHS projects during the 1970s and 1990s, these heronries must have got established in recent years due to good protection over the years by ISRO. Breeding has been regular in the Beripeta and Madugu areas since the discovery of the three heronries during the 2001–2002 breeding season. Though safe on the island, the birds face hunting risks while foraging in Pulicat Lake and in the wetlands on the mainland. During one of the visits to the Madugu colony, a few dead adult birds were found hanging from the nest-tree with nooses on their legs, which had become entangled in the branches. Besides hunting, the birds are harassed by bonnet macaque *Macaca radiata,* which attempt to steal eggs.

The Karimanal heronry is located in a low-lying area, which gets inundated during good rainfall years. Casuarina was the main nesting tree in this heronry during the 2001–2002 breeding season. However, many of the nesting trees withered by the end of the breeding season probably due to water logging and / or their inability to withstand the impact of bird droppings. Due to low rainfall in the following years, the water dried soon after the monsoon and breeding did not take place till 2004–2005. Breeding was again recorded during 2005–2006 (a high rainfall year), but fewer birds nested due to the scarcity of nesting trees—a small colony getting established on a nearby, isolated *Ficus bengalensis* tree as mentioned earlier.

Regular breeding of Painted Storks and increase in their numbers observed each year in the Beripata colony are positive signs for this Near-threatened species (BirdLife Internationl 2008) in Sriharikota. Judging from the decline of the mainland-based Vedurupattu-Edirpattu heronry (Kannan

et al., in press), which once supported about 200 breeding pairs of the Painted Stork, it is clear that the Painted Storks breeding in the Beripeta and Karimanal heronries comprise of birds that had shifted from Vedurupattu-Edirpattu heronry. Other species such as Little Cormorant, Little Egret and Grey Heron are also probably from Vedurupattu-Edirpattu, and also the Tada (Bolegalupadu) heronry (Kannan *et al*., in press). The Tada heronry will almost certainly be lost within a few years what with only one of the three nesting trees now remaining and human dwellings coming up right under the lone tree (Kannan *et al*., in press). Much better conditions and proximity to Pulicat Lake have enticed the birds to shift to Sriharikota Island.

The future of the heronries of Sriharikota appears bright due to the high security status of the island and the pro-conservation outlook of ISRO officials. The Beripeta colony receives special attention from officials of ISRO as it is relatively closer and accessible to the residential areas and offers a good view from the nearby security watchtower. However, proposed ambitious plans for the expansion of the spaceport are worrying (Manakadan *et al*. 2004). We hope ISRO will be able to judiciously balance space science with conservation of its biodiversity wealth.

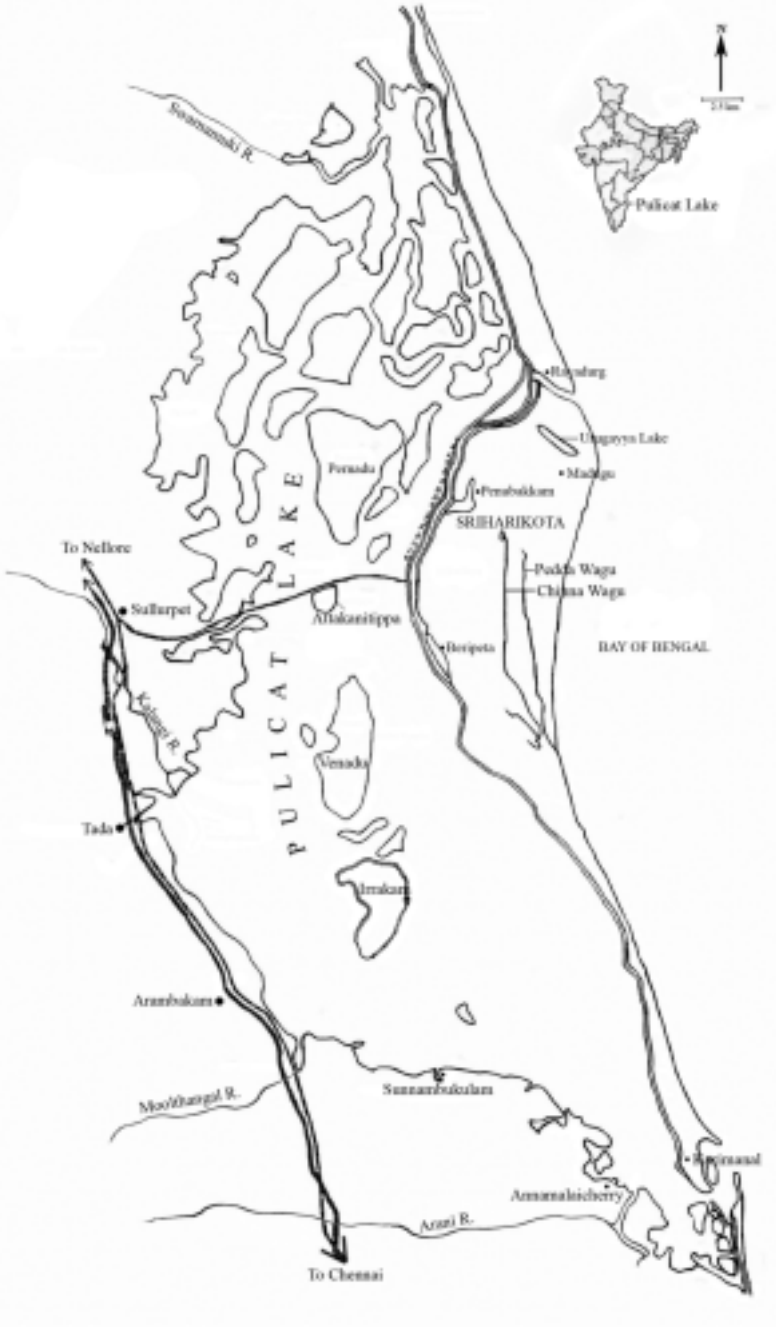

Fig. 1. Sriharikota Island and its adjoining areas.

Acknowledgements

The BNHS is indebted to ISRO for sanction of the projects to the BNHS, and especially to its late Chairman, Prof. Satish Dhawan, one of the stalwarts of ISRO, who initiated the wildlife research and conservation programmes in the Island. These projects have helped document the biodiversity of Sriharikota Island for science and enhanced conservation awareness in the Island.

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—Short notes—

Avifauna of Hosur forest division, Eastern Ghats, southern India

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Govindaraj, K. 2009. Avifauna of Hosur forest division, Eastern Ghats, southern India. *Indian Birds* 4 (4): 138–139 (2008).
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Mss received on 24th October 2007.

The Hosur forest division (Krishnagiri district, Tamil Nadu) forms a part of the Eastern Ghats. It has contiguity with Bannerghatta National Park in the north, Kanakapura Reserve Forest in the west, Dharmapuri Forest Division in the east, and Cauvery Wildlife Sanctuary in the south. The altitude of this area ranges from 400 to 1000 m above msl and then declines gradually towards the south. The area is drained by two rivers, namely, Doddahalla and Chinnar. Doddahalla River runs through the heart of Hosur division while the Chinnar River, which originates at Thally, runs along the eastern foothills of the Melagiri range—both draining into the Cauvery River (Rameshkumar 1994). The reserve forest consists of mixed dry deciduous, dry deciduous, secondary dry deciduous, riverine, and dry thorn forest. The area receives rainfall from both south-western and north-eastern monsoons. The temperature ranges from 10°C to 35°C.

The combination of dry and wet forest types provides ideal habitat for various species of birds. The Cauvery, southern India's largest river, borders the reserve forest and has a long stretch of riverine forest with enormous fruit bearing trees for forest birds. The undulating terrain, with a number of wetlands all over the reserve forest, invites a large number of waterbirds and numerous winter visitors.

This note comprises a preliminary list of birds observed during our elephant habitats survey in Hosur forest division (Rameshkumar 1994). Identification of birds was done based on Grimmett *et al.* (1999) and Ali & Ripley (1987) while their status for Hosur was established using Ali (2002). The common

Appendix: Checklist of birds in Hosur forest division, Eastern Ghats

Species	Status	Species	Status
Little Grebe *Tachybaptus ruficollis*	R	Common Moorhen *Gallinula chloropus*	R
Little Cormorant *Phalacrocorax niger*	R	Common Coot *Fulica atra*	R
Large Cormorant *P. carbo*	R	Little Ringed Plover Charadrius *dubius*	R
Little Egret *Egretta garzetta*	R	Red-wattled Lapwing *Vanellus indicus*	R
Large Egret *Casmerodius albus*	R	Yellow-wattled Lapwing *V. malabaricus*	R
Median Egret *Mesophoyx intermedia*	R	Common Sandpiper *Actitis hypoleucos*	R
Cattle Egret *Bubulcus ibis*	R	Black winged stilt *Himantopus himantopus*	R
Indian Pond-Heron *Ardeola grayii*	R	Blue Rock Pigeon *Columba livia*	R
Grey Heron *Ardea cinerea*	R	Spotted Dove *Streptopelia chinensis*	R
Purple Heron *A. purpurea*	R	Emerald dove *Chalcophaps indica*	R
Painted Stork *Mycteria leucocephala*	R	Green Imperial-Pigeon *Ducula aenea*	R
Oriental White-Ibis *Threskiornis melanocephalus*	R	Rose-ringed Parakeet *Psittacula krameri*	R
Spot-billed Duck *Anas poecilorhyncha*	R	Indian Cuckoo *Cuculus micropterus*	R
Northern Pintail *A. acuta*	W	Asian Koel *Eudynamys scolopacea*	R
Common Teal *A. crecca*	W	Sirkeer Malkoha *Phaenicophaeus leschenaultii*	R
Black-shouldered Kite *Elanus caeruleus*	R	Greater Coucal *Centropus sinensis*	R
Black Kite *Milvus migrans*	R	Brown Fish-Owl *Ketupa zeylonensis*	R
Brahminy Kite *Haliastur indus*	R	Spotted Owlet *Athene brama*	R
Black Eagle *Ictinaetus malayensis*	R	Common Indian Nightjar *Caprimulgus asiaticus*	R
Crested Serpent-Eagle *Spilornis cheela*	R	Indian Jungle Nightjar *C. indicus*	R
Grey Francolin *Francolinus pondicerianus*	R	Asian Palm-Swift *Cypsiurus balasiensis*	R
Red Spurfowl *Galloperdix spadicea*	R	Small Blue Kingfisher *Alcedo atthis*	R
Jungle Bush-Quail *Perdicula asiatica*	R	White-breasted Kingfisher *Halcyon smyrnensis*	R
Grey Junglefowl *Gallus sonneratii*	R	Lesser Pied Kingfisher *Ceryle rudis*	R
Indian Peafowl *Pavo cristatus*	R	Small Green Bee-eater *Merops orientalis*	R
Yellow-legged Buttonquail *Turnix tanki*	R	Blue-tailed Bee-eater *M. philippinus*	R
White-breasted Waterhen *Amaurornis phoenicurus*	R	Chestnut-headed Bee-eater *M. leschenaulti*	R

Indian Roller *Coracias benghalensis*	R
Common Hoopoe *Upupa epops*	R
Indian Grey Hornbill *Ocyceros birostris*	R
White-Cheeked Barbet *Megalaima viridis*	R
Coppersmith Barbet *M. haemacephala*	R
Rufous Woodpecker *Celeus brachyurus*	R
Lesser Golden-backed Woodpecker *Dinopium benghalense*	R
Large Pied Wagtail *Motacilla maderaspatensis*	R
Yellow Wagtail *M. flava*	W
Paddyfield Pipit *Anthus rufulus*	R
Small Minivet *Pericrocotus cinnamomeus*	R
Scarlet Minivet *P. flammeus*	R
Red-whiskered Bulbul *Pycnonotus jocosus*	R
Red-vented Bulbul *P. cafer*	R
White-browed Bulbul *P. luteolus*	R
Common Iora *Aegithina tiphia*	R
Asian Fairy-Blue bird *Irena puella*	R
Brown Shrike *Lanius cristatus*	W
Bay-backed Shrike *L. vittatus*	R
Malabar Whistling-Thrush *Myophonus horsfieldii*	R
Oriental Magpie-Robin *Copsychus saularis*	R
White-rumped Shama *C. malabaricus*	R
Indian Robin *Saxicoloides fulicata*	R
Pied Bushchat *Saxicola caprata*	W
Common Babbler *Turdoides caudatus*	R
Verditer Flycatcher *Eumyias thalassina*	W
Asian Paradise-Flycatcher *Terpsiphone paradisi*	R
Great Tit *Parus major*	R
Purple-rumped Sunbird *Nectarinia zeylonica*	R
Oriental white-eye *Zosterops palpebrosus*	R
House Sparrow *Passer domesticus*	R
Baya Weaver *Ploceus philippinus*	R
Common Myna *Acridotheres tristis*	R
Eurasian Golden Oriole *Oriolus oriolus*	R
Black-headed Oriole *O. xanthornus*	R
Black Drango *Dicrurus macrocercus*	R
Greater Racket-tailled Drongo *D. paradiseus*	R
Indian Treepie *Dendrocitta vagabunda*	R
House Crow *Corvus splendens*	R
Jungle Crow *C. macrorhynchos*	R

Abbreviations: R=Resident; W=Winter migrant

names and scientific names follow Manakadan & Pittie (2001). A total of 94 spp., belonging to 44 families were recorded. Of the 94, 88 were resident and six, winter visitors. The Black Eagle *Ictinaetus malayensis*, Asian Fairly Blue-bird *Irena puella*, Indian Grey Hornbill *Ocyceros birostris* and Malabar Whistling-Thrush *Myophonus horsfieldii* were relatively uncommon and seen in isolated forest patches of Hosur forest division. Further study of the area will definitely add to the list given below.

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Recent sighting of Lesser Kestrel *Falco naumanni* in Nagaland

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Choudhury, A. 2009. Recent sighting of Lesser Kestrel *Falco naumanni* in Nagaland. *Indian Birds* 4 (4): 139–140 (2008).
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The Lesser Kestrel *Falco naumanni* is a globally threatened raptor, which has been listed as 'vulnerable' by BirdLife International (2004). The species has been recorded as a rare winter and passage migrant to north-eastern India (Choudhury 2000; Naoroji 2006). From Nagaland, there is a 100-year-old record by Godwin-Austen (1877). Here, I would like to report a recent sighting of the Lesser Kestrel from Nagaland.

On 26th October 2001, while returning from Saramati at 0740 hrs, via Pungro, I saw seven falcons perched on a powerline, about 13 km south of Kiphire town (25°52′N, 94°48′E; 1,100 m above msl), above the Kiphire–Meluri road (Kiphire district). From a distance, I thought they were Amur Falcons *F. amurensis*—I had seen 20+ in flight, and perched, on 23 October 2001, while going to Saramati, between Jessami (Manipur) and Meluri (25°38′N 94°36′E; Nagaland).

However, when I approached closer, I realised they were slightly larger. With the aid of a 14x monocular, I saw that none of them had reddish feet. At least two of them were adult tiercels, which actually helped me identify the species. The unspotted rufous upper parts were mainly confined to mantle, back and scapulars. The head and wing-panels were bluish grey. Underparts were light orange-buff with a paler

throat. The tail had a black band and there were some dark spots along the flanks. The remaining birds had dark streaks of various shapes on their underparts, indicating that they were falcons.

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Further distribution records of Bar-headed Goose *Anser indicus* in southern Tamil Nadu

A. I. Siddiqui & S. Balachandran

Siddiqui, A. I. & Balachandran, S. 2009. Further distribution records of Bar-headed Goose *Anser indicus* in southern Tamil Nadu. *Indian Birds* 4 (4): 140–141 (2008).

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On the 25th of February 2008 we visited Koonthankulam Bird Sanctuary (8º29′74′N 77º45′49″E), the famous pelicanry and an Important Bird Area (IBA) in Tirunelveli district (Tamil Nadu), as part of a wetland survey undertaken in four districts of Tamil Nadu, through the Environment Stewardship Programme (a voluntary activity of Nuclear Power Corporation of India Limited), to study the distribution of the breeding population of Spot-billed Pelican *Pelecanus philippensis*. In fact, we were a bit disappointed at Koonthankulam due to relatively less number of breeding birds, particularly Spot-billed Pelicans (*c.* 375 nests), when compared to the 1,500 nests counted and monitored monthly, by one of us (SB) in 2006–2007. Mr. Paul Pandian, forest department watcher and an ardent caretaker of the fallen/abandoned chicks of the breeding birds, told us that the pelican numbers would shoot up at dusk. While waiting for dusk, we walked to the nearby Kadankulam wetland where we spotted a gaggle of *c.* 500 Bar-headed Geese *Anser indicus*, and 30 Greater Flamingo *Phoenicopterus roseus.* Kadankulam wetland is situated opposite Koonthankulam Sanctuary, and is a mere kilometre from the adjoining Kadankulam village. A few Bar-headed Geese were also seen in the nearby paddy fields.

Clement Francis

Fig. 1. Bar-headed Geese *Anser indicus*.

While returning from Tirunelveli on 27th February 2008, we decided to survey another little known, but a reasonably large, tank in Nanguneri town in Tirunelveli district. The Nanguneri pond (8º30′34″N 77º39′27″E), with an approximate diameter of 1.7 km, is adjacent to the Kanyakumari–Tirunelveli Highway (NH7). It is a permanent freshwater pond, fed by rain and the Pachaiyaru River that flows in from the nearby Kalakad Hills. It lies at an aerial distance of *c.* 11.7 km (GPS readings) west of Koonthankulam. The two wetlands are *c.* 48–52 km north-east of Kanayakumari, the southern-most point on mainland India. We were pleasantly surprised to spot a variety of birds including 64 Bar-headed Geese and 52 Greater Flamingo.

Bar-headed Goose *Anser indicus* is a winter visitor to mainland India. It breeds in Ladakh (Jammu & Kashmir) and at high elevations in central and southern Asia (Ali & Ripley 1978; Wurdinger 2005). Birds start arriving in October–November, reaching their highest concentrations in December, and start returning in March (Ali & Ripley 1978). It is common in winter in northern India though rare in Gujarat and the Deccan region, with only a few birds reaching Mysore—their southern limit (Ali & Ripley 1978), although Kazmierczak (2000) has shown its southern distribution further south of Mysore. Ali & Ripley (1978) do not record it from Sri Lanka.

Small numbers of Bar-headed Geese were recorded regularly earlier, from several places such as Ramanathapuram district (Balachandran 1990) and Point Calimere (Bombay Natural History Society: unpublished data). The BNHS research team and Nature Club of Bishop Heber College have been recording up to 2,000 birds at Karavetty town (Tamil Nadu) since 1990 (A. Relton, *verbally*). Similarly, its occurrence in a few hundreds at Koonthankulam for the last ten years has been documented by the Tamil Nadu Forest Department. BNHS survey teams have recorded in 2006–2007, 325 Bar-headed Geese at Koonthankulam and 85 at Silaiyam pond, 3 km west of Koonthankulam. This note provides further evidence of the increased range of Bar-headed Geese in southern India.

Acknowledgements

The above survey was part of wetland surveys in four districts of Tamil Nadu to study the distribution of the breeding population of Spot-billed

Pelicans. It was carried out under environment stewardship programme, a voluntary activity of Nuclear Power Corporation of India Limited. We greatly acknowledge the assistance rendered by the other members of the survey team, J. Devprakash of NPCIL, Mumbai and Ramakrishnan of Kudankulam Nuclear Power Project.

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New names proposed in Allan O. Hume's *Nests and eggs of Indian birds: rough draft*

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Pittie, A. 2009. New names proposed in Allan O. Hume's *Nests and eggs of Indian birds: rough draft*. *Indian Birds* 4 (4): 141–142 (2008).
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Allan Octavian Hume (1829–1912) published his *Nests and eggs of Indian Birds: rough draft* in three separate parts over a period of three years: Part I (1873, pp. 1–236), Part II (1874, pp. 237–489+1) and Part III (1875, pp. 491–662). This was a compilation of the information known to him on the nidification of Indian birds up to that time. He called this a "rough draft" as he planned, with its publication, to inform and enthuse his contemporaries so that they would submit updated observations as well as fill the gaps—and subsequently he intended to publish a second edition. "…Mr Hume received the assistance of a devoted body of Indian oologists, and the notes that they gave him are published in Mr. Hume's books…Among the best-known of the contributors were General G. F. L. Marshall and his brother, Colonel C. H. T. Marshall, Colonel C. T. Bingham, Messrs. J. Gammie, L. Mandelli, E. W. Oates, W. Davison, W. Blewitt, R. Thompson, Rhodes Morgan and Miss Cockburn," (Sharpe 1906).

However this was not to be under his hand, and here is the reason, in his own words, "For many years after the first Rough Draft appeared, I went on laboriously accumulating materials for a re-issue, but subsequently circumstances prevented my undertaking the work…Many years ago, during my absence from Simla, a servant broke into my museum and stole thence several cwts. of manuscript, which he sold as waste paper. This manuscript included more or less complete life-histories of some 700 species of birds, and also a certain number of detailed accounts of nidification. All small notes on slips of paper were left, but almost every article written on full-sized foolscap sheets was abstracted. It was not for many months that the theft was discovered, and then very little of the MSS. could be recovered. It thus happens that in the cases of some of the most interesting species, of which I had worked up all

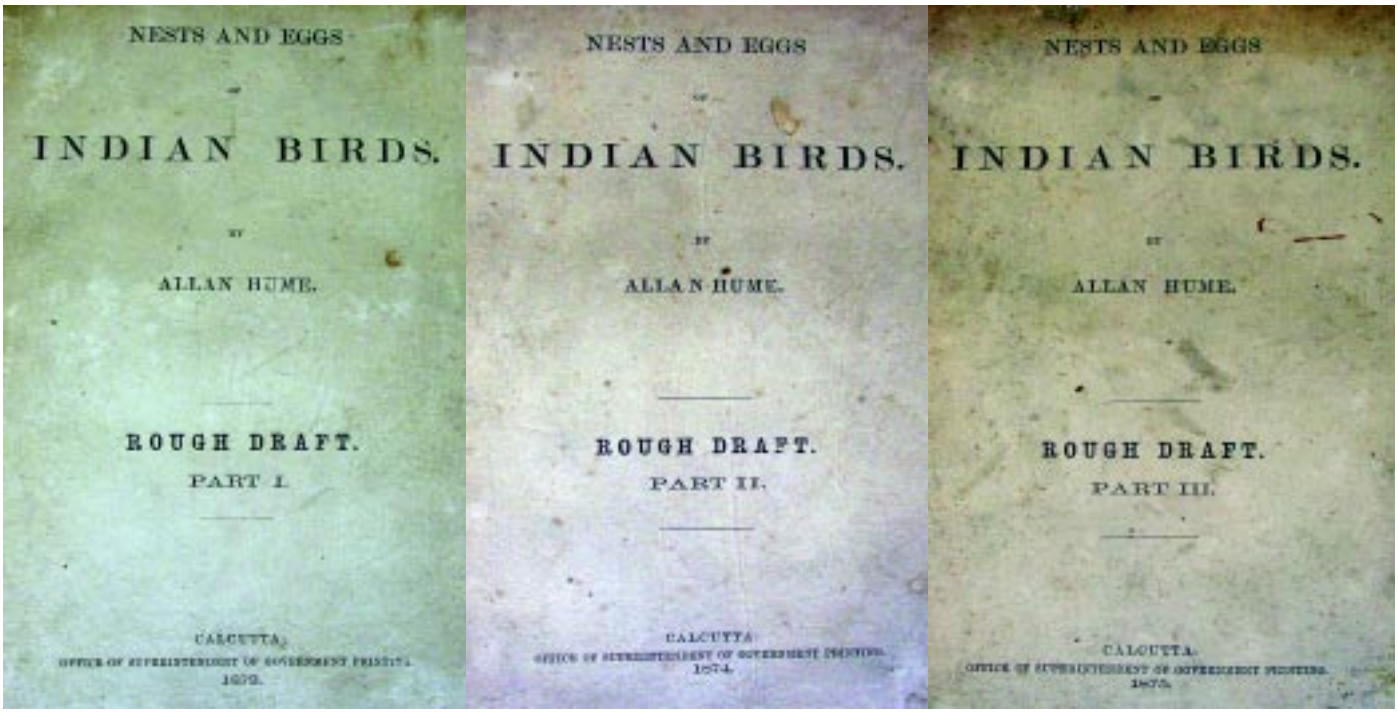

Fig. 1. Nests and eggs of Indian birds: rough draft. Parts I–III. 1st edition.

Table 1. Dating new names in *Nests and eggs of Indian birds: rough draft*

New name	Hume (1873, 1874)	Baker (1922–1930)	Peters (1931–1987)	Ripley (1982)	Dickinson (2003)
Ocyceros	1873—Part I	1873	1873 (Peters 1945)	—	1873
Cyanocincla	1873—Part I	1873	—	—	—
Nymphæus	1874—Part II	1874	—	—	—
Drymoipus terricolor	1874—Part II	**1873**	1874 (Watson *et al.* 1986)	1874	1874
Corvus pseudo-corone	1874—Part II	**1873**	—	—	—
Plocëella	1874—Part II	**1873**	**1873** (Moreau & Greenway 1962)	—	—
Munia Jerdoni	1874—Part II	**1873**	**1873** (Moreau & Greenway 1962)	**1873**	**1873**
Pycnorhamphus	1874—Part II	1874	—	1874	—

Note: Extant names and erroneous dates in bold type.

the notes into a connected whole, nothing, or…only a single isolated note, appears in the text. It is to be greatly regretted, for my work was imperfect enough as it was; and this 'Selection from the Records,' that my Philistine servant saw fit to permit himself, has rendered it a great deal more imperfect still…" (Hume 1889). Hume was justifiably disheartened by the loss of several years' hard work and, I suppose, could not bring himself to continue with it to its logical conclusion. He handed over the entire manuscript to Eugene W. Oates (1845–1911) who edited and published it under Hume's name in 1889–1890.

Though various subsequent authors mentioned the dates of publication of the three parts of the "*Rough draft*" (Baker 1922–1930; Zimmer 1926; Peters 1931–1987; Ripley 1982), a set of the three parts, with their wrappers intact, was hard to come by. Most copies available in libraries or held privately were rebound as single volumes, since the parts were through paginated, meanwhile too often the binders had discarded the wrappers, retaining only the title page provided in part one.

Recently I was lucky to procure a complete set of the three parts in their original wrappers. Each of the three had a date of publication on its wrapper (Fig. 1).

New names

Hume proposed two new generic names in Part I (1873), namely, *Ocyceros* (p. 113) and *Cyanocincla* (p. 226). While the former is in current use (Bucerotidae), the latter has been relegated to the synonymy of *Monticola* (Turdidae). Subsequent authors have dated these correctly (Table 1).

Hume also proposed five new names in Part II (1874), two generic and three specific, namely, *Nymphæus* (p. 322) (= *Rhyacornis*); *Drymoipus terricolor* (p. 349) (= *Prinia inornata terricolor*); *Corvus pseudo-corone* (p. 410) (= *Corvus corone orientalis*); *Munia Jerdoni* (p. 448) (= *Lonchura kelaarti jerdoni*); *Pycnorhamphus* (p. 469) (= *Mycerobas*). For the two specific names in current use, dating should be as per Table 1.

The generic name *Plocëella* (p. 443) (= *Ploceus*) should be credited to E. W. Oates, who proposed it in a letter to Hume, which the latter reprinted, within quotation marks (pp. 442–443), fulfilling the requirement of Art. 50.1.1 of the Code (I.C.Z.N. 1999). The full citation for this should be

'*Plocëella* Oates in Hume, *Nests and eggs of Indian birds: rough draft*, vol. 2, p. 443, 1874: Pegu.'

The type species for the various generic names proposed in Hume's "*Rough draft*" are given in Table 2.

Table 2.

Generic name	Type species in Hume (1873, 1874)
Ocyceros	*ginginianus*, Shaw[1]
Cyanocincla	*cyanus*,Linnaeus[2]
Nymphæus	*fuliginosus*, Vigors[3]
Plocëella	*hypoxanthus*, Daudin[4]
Pycnorhamphus	*icterioides*, Vigors[5]

Acknowledgements

I would like to thank Edward C. Dickinson and Steven Gregory for their invaluable inputs, which improved this note considerably.

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[1] *ginginianus* "Shaw" [1811, p. 36] = *Buceros ginginianus* Latham, 1790, p. 146. = *Buceros birostris* Scopoli, 1786.

[2] [*Turdus*] *cyanus* L[innaeus, 1766]. = *Turdus solitarius* Linnaeus, 1758.

[3] *Phoenicura fuliginosa* Vigors, P. Z. S., 1830–31, P. 35, MCH. 2, 1831, Himalayas.

[4] *Ploceus hypoxanthus* Daudin ["*Ploceus hypoxanthus*" was a combination used by Daudin (see Oates, 1890, p. 180)] = *Loxia hypoxanthus* Sparrman, 1788.

[5] *Coccothraustes icterioides* Vigors, 1831, *Proc. Zool. Soc. London*, p. 8, Himalayas.

—In the news—

Compiled by Praveen J.

A restaurant for vultures

Bird Conservation Nepal (BCN), with support from other organisations like Britain's Royal Society for the Protection of Birds (RSPB) has opened a novel concept, a restaurant for vultures—known as *Community Managed Jatayu Restaurant*. Its main objective is to provide safe food sources for vultures and at the same time improve the livelihood of the local community through tourism promotion and other income generation activities.

The project buys elderly or sick cows from farmers, looks after them humanely and treats them, if necessary, with the safe drug, Meloxicam. Once a cow dies, one of the project staff, mainly villagers, wheels the carcass on a tricycle cart into the vulture restaurant. The 'restaurant' is a big grassy area surrounded by tall, fragrant sal trees. Only the cattle skeletons scattered around break the peaceful scene - and the vultures nestled above. Nepali ornithologists have established it as a place where vultures can eat healthily. Several villagers serve as volunteers on the project committee.

BCN now wants to open more 'vulture restaurants'—and scientists in India too are now showing keen interest in this idea. (*http://www.birdlifenepal.org.*).

'Rare birds yearbook 2009' is out!

The 2008 edition of '*Rare birds yearbook*' was a success according to reviews from all over the globe and on 15th November the totally revised 2009 edition was published. It features 190 Critically Endangered—according to the latest IUCN redlist—birds of the world.

Over 130 photos of the world's rarest birds, taken by both amateur and professional photographers worldwide, have been replaced since last year. A selection of a number of endangered species, illustrated with nice photos, is presented in a special feature. The species texts have been fully updated in the majority of cases and are accompanied by distribution maps. The updated species-per country list can still be found here and the threats to each species are graphically presented in a new, easy layout.

The '*Rare birds yearbook*' is a "Species Champion" which means that a considerable share of sale-proceeds goes to saving the birds it covers. (*http://www.rarebirdsyearbook.com.*).

From the field

David Stanton reported an exciting encounter with a juvenile Great Frigatebird *Fregetta minor* on 23rd August 2008 while paragliding around Anjuna beach, Goa (*OrientalBirding*). Sachin Shurpali reported a single White-bellied Sea Eagle *Haliaeetus leucogaster* in July 2008, from deep inland area of Bhadra Reservoir in Bhadra Tiger Reserve, Karnataka (*BngBirds*). Santosh Martin and friends reported a juvenile Great Indian Bustard *Ardeotis nigriceps* alongside an adult at Siruguppa taluk of Bellary district, northern Karnataka on 23rd July 2008, indicating possible breeding around that area (*BngBirds*). Sumit Sen and others reported a Steppe Buzzard *Buteo buteo vulpinus* from Bhutan in November 2008 at over 3,353 m. They believe the bird could have been migrating (*http://www.kolkatabirds.com*). Chinthaka Kaluthota reported the ringing of a Sand Martin *Riparia riparia* and White-cheeked Tern *Sterna repressa* at Bundala National Park, Sri Lanka, during a ringing session between 9th December 2008 and 14th December 2008 (*http://srilankabirds.blogspot.com*). Jugal Tiwari reported 500 Crab Plovers *Dromas ardeola*, 30 Sociable Lapwings *Vanellus gregarius* and seven Cream-coloured Coursers *Cursorius cursor* from different parts of Gulf of Kutch in Gujarat during November 2008. (*OrientalBirding*). David Stanton reported 21 White-rumped Vultures *Gyps bengalensis* near Beijnath, Kanga Valley, Himachal Pradesh on 21st September 2008 (*OrientalBirding*). Clement Francis and others reported Rufous-tailed Shrike *Lanius [isabellinus] phoenicuroides* in December 2008 from Nandi Hills, Bangalore and later the same got reported from more localities around Bangalore (*Bngbirds*). Sheshadri K. S. shared pictures of Grey-breasted Laughingthrush *Garrulax jerdoni meridionalis*, which he photographed from the higher reaches of Kalakkad-Mundanthurai Tiger Reserve (KMTR) in Tamil Nadu, these being the first photos of the subspecies to be uploaded in OrientalBirdImages. (*www.orientalbirdimages.org*). S. Chandrashekaran reported sighting nearly 200 vultures comprising White-rumped, King *Sarcogyps calvus* and Egyptian *Neophron percnopterus* feeding on carcasses of two feral buffaloes in Sathyamangalam forest division, Tamil Nadu, in December 2008 (*http://www.hindu.com*). On 16th November 2008, P. P. Sreenivasan reported the first breeding record of about ten Painted Storks *Mycteria leucocephala* in Kerala (Thrissur district) (*KeralaBirder*). P. C. Rajeevan and K. V. Uthaman photographed Tufted *Aythya fuligula* and Ferruginous *A. nyroca* Duck at Katampally, Kannur on 2nd December 2008 (*KeralaBirder*). Adesh Shivkar reported a Malabar Trogon *Harpactes fasciatus* (Fig. 1.) in its northern most range at Vansda National Park in Gujarat. He also reported a male Rosy Minivet *Pericrocotus roseus* amongst a minivet flock in November 2008 during the same trip (*BirdsofBombay*). Vaibhav Deshmukh reported an adult Imperial Eagle *Aquila heliaca* near Alibag, Maharashtra on 25th November 2008 (*BirdsofBombay*). Three European Rollers *Coracias garrulus* were photographed in Uran, near Mumbai by Girish Vaze on 25th October 2008 (*http://indianaturewatch.net*). Pratap Singh Sangwan reported a Spotted Creeper *Salpornis spilonotus* from Ranthambore on 24th December 2008 (*Delhibird*). And to cap it all, Sayam U. Chowdhury reported the exciting news of the sighting of eight Spoon-billed Sandpipers *Eurynorhynchus pygmeus*, during Asian Waterbird Census, at Beleka Dia in Sonadia Island, Bangladesh on 29th January 2009 (*AsianWaterBirdCensus*).

Travancore–Cochin Survey: tracing the footsteps of Dr. Sálim Ali

Following in the footsteps of Dr Sálim Ali, who surveyed birds in Kerala for the first time 75 years ago, Kerala Forest and Wildlife Department and Kerala State Biodiversity Board are joining hands in undertaking a repeat bird survey in 2009.

In 1933, it was the Maharaja of the erstwhile Travancore State who initiated the scientific survey of the birds and their

habitats in the State with the involvement of the Bombay Natural History Society (BNHS). Dr Sálim Ali led the survey with the assistance of the then curator of the Thiruvananthapuram Zoo N. G. Pillai. They started the survey on 3rd January 1933, and completed it on 31st December of that same year.

This repeat survey is planning to do exactly what Dr Ali did, sticking to the same dates, periodicity of survey and localities of observation, but using all modern gadgetry and field techniques. Lead by C. Sashikumar, the survey team consists of five full time project staff to study ornithology, vegetation and sociological aspects of the study area.

The survey, which began on 3rd January at Marayur shall end on 31st December 2009. The idea is to compare the findings of 1933 and the situation 75 years later, to study the changes that have come about in the various parameters of bird life and their habitats in Kerala. More details can be gleaned here http://www.hindu.com/2009/01/01/stories/2009010156572200.htm.

International agreements for bird conservation

In an attempt to plug the weak link of conserving migratory birds that are trans-continental, an international agreement have been framed to ensure all nations rally together in the conservation of migratory birds of prey and owls. Strong international measures to protect over 70 species of migratory birds of prey and owls were agreed on 22nd October 2008 at Abu Dhabi. The new measures will help protect migratory raptors from threats such as habitat loss and degradation, persecution, accidental killing, and climate change. Following a joint initiative by the governments of the United Arab Emirates and United Kingdom, a Memorandum of Understanding has been drawn up that will coordinate the protection of migratory birds of prey and owls found in Europe, Africa and Asia. This important agreement will help ensure that migratory birds of prey and owls, including some of the world's most charismatic and threatened species, have a safer passage during their epic annual journeys. More news can be found at http://www.birdlife.org/news/news/2008/10/cms_mou2.html.

Saleel Tambe

Fig. 1. Malabar Trogon *Harpactes fasciatus.*

House Sparrow in airports

Are House Sparrow *Passer domesticus* numbers really going down? As if to add fuel to this dilemma, House Sparrows have colonised many airports around the country. News started to spread from their presence in the newly constructed Bangalore International Airport, which triggered a lot of reaction countrywide, in e-groups, about their strong presence at other airports like Hyderabad and Mangalore. Various hypotheses were floating around on how they find such surroundings easy to adjust to while seemingly having trouble holding on to busy city environs. Speculation also floated around on the possible nuisance their presence creates for airport authorities and the fear that the authorities might take drastic measures that would prompt sparrows to abandon the airports. However, birding groups have gone further and are now appealing to make a pair of House Sparrows as the logo of BIAL airport in Bangalore (*BngBirds, TamilBirds, BirdsofBombay*).

Tracking Bar-headed Geese migration using satellite telemetry

Last year we had the whole world tracking Black-tailed Godwits *Limosa limosa* in the Pacific through Internet, later we had two Black Storks *Ciconia nigra* closer home in Maharashtra. In January 2009, we now have over 60 migratory ducks and geese with transmitters marked in Tamil Nadu and Orissa as a part of multi-national cooperation in studying wild birds and avian influenza. All of them could be tracked daily over the Internet from the following website: *http://www.werc.usgs.gov/sattrack/india/overallmaps.html*. The study of the non-breeding (wintering) grounds for waterfowl allows identification of areas where a broad range of species congregate. These sites of spatial overlap in migratory flyways are associated with a high density of bird species providing conditions that might be conducive to the transmission and outbreak of avian disease.

—Correspondence—

Scientific names: abbreviations and pronunciation

[Ferguson-Lees, J. 2008. Scientific names: abbreviations and pronunciation. *British Birds* 101 (2): 97–99.]
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Like most international journals on ornithology and other natural sciences, *BB* rightly includes scientific names. In an age when English names remain far from standardised (and probably can never be to everyone's satisfaction), the second Latinised word makes it absolutely clear what species is involved and the first demonstrates generic relationships in a way that, say, 'Common Chiffchaff' and 'Willow Warbler' on their own cannot. Familiarity with scientific names also enables English-speaking birdwatchers to know what species are being discussed in journals and books in other languages.

Against this background, I write belatedly to comment on the editorial announcement on 'Abbreviation of scientific names' (*Brit. Birds* 98: 410), which I had overlooked. It included what I regard as a retrograde inconsistency on abbreviations and some inaccurate instructions on pronunciation. I thank Pete Combridge (who drew my attention to the announcement), David Ballance, Paul Castle, Jeremy Greenwood, Nigel Redman, Robin Williamson and, especially, David Christie and Peter Cranswick for encouragement and helpful comments on earlier drafts. British birdwatchers may think that some of the points below are unnecessarily pedantic, but I have often had to use scientific names, particularly in some countries of continental Europe and South America, to discuss bird species with ornithologists unfamiliar with English vernaculars, and conventional pronunciations have proved essential for sensible communication.

Abbreviations

In the mid 1940s, when I began serious birdwatching, some publications, including *The Handbook* and *BB*, used '*Æ*.' and '*Œ*.' as abbreviations for *Ægithalus* and *Œnanthe* (now *Aegithalos* and *Oenanthe*)—which seemed quite logical since ligatures, or diphthongs, could hardly be separated—and also '*Ph*.' and '*ph*.' for all generic and specific names beginning with those two letters. Presumably that was because they represent the single Greek letter ? or ? (*phi*, pronounced 'fy' like 'why'), but in that case why were not *Charadrius* and *chloris*, to take another example, abbreviated to '*Ch*.' and '*ch*.', which similarly represent the single Greek letter ? or ? (*chi*, pronounced 'ky').

Then diphthongs—along with hyphens, diaereses and all other diacritic marks—were ruled out of scientific names by the 1961 edition of the International Code on Zoological Nomenclature; and, at some point, all abbreviations of generic and specific names were reduced to a single letter, which I have always thought much tidier. But the editorial announcement in *BB* for August 2005 stated that, at the beginnings of words, whether in upper or lower case, '*Ph*.', '*Ae*.' and '*Oe*.' (no others) were to be reinstated in *BB* because, to accord with Recommendation 25A of the 1999 ICZN, any abbreviation should be 'unambiguous'. There was, however, still no mention of '*Ch*.' and '*ch*.' and now, of course, the British List includes the Ring-necked Parakeet *Psittacula krameri* where, again, the two letters '*Ps*.' or '*ps*.' represent the single Greek letter ? or ? (*psi*, pronounced 'psigh'). So, it must be asked, why is *BB* not now using the two-letter abbreviations for all three of these Greek letters, not just '*Ph*.' and '*ph*.'?

On the other hand, nearly 80 West Palearctic species have generic or specific scientific names that begin with one or another of those three pairs of letters; thus, all that *BB*'s U-turn achieves is to reduce, but by no means exclude, possibilities of ambiguity. Developing this argument on a global basis, should *BB* now be expecting not only the abbreviation '*Ph*.' to be used for all the 60-odd genera worldwide whose names begin with these two letters, but also for consistency '*Ch*.' for another 60 and '*Ps*.' for a further 40 or so—not to mention all the hundreds of specific names that begin with these three combination letters? Note that I have omitted '*Pt*.' from this argument—even though it involves 22 genera, among them the gadfly-petrels *Pterodroma* and the sandgrouse *Pterocles*—because that represents not one but two Greek letters (which some therefore prefer to pronounce separately), as does the '*Gn*.' of the monospecific South American icterid genus *Gnorimopsar*.

Without at least a second letter, the reader does not necessarily know how any abbreviated generic or specific name will continue—except that the full word is always spelt out elsewhere in the same publication. In some journals, when referring to several species, authors or editors occasionally use two- or even three-letter abbreviations—recent examples in one paper in *Sandgrouse* (29: 98–102) included '*Ay*.' (*Aythya*), '*Ar*.' (*Ardea*), '*An*.' (*Anthus*) and '*Chl*.' (*Chlidonias*)—but these seem awkward and unnecessary, as anyone familiar enough with the scientific names to be using them will have no difficulty in relating a single initial to the full name elsewhere.

Mispronunciations

The editorial announcement in *BB* then indicated that the letters *Ae* and *Oe* at the beginnings of names should both be pronounced like the first 'e' in 'egret', whereas conventional modern usage in Latin, and therefore in scientific names, demands that neither should—wherever it appears in the Latin or 'Latinised' Greek word. (Although many scientific names are derived from classical Greek, they must still be given a Latin form.) As Robin Williamson has emphasised to me, Latin pronunciations as used by the Church and in legal phraseology may bear limited resemblance to each other or to those taught—formerly much more widely—in English schools and those adopted for scientific purposes. But conventions for the last of these categories must follow some general rules, even if minor disagreements remain (for instance, many now pronounce 'v' as 'w'), while problems can be caused by national variations in the pronunciation of consonants. To give two examples, because 'z' and 'c' in Spanish are spoken as 'th', the Rock Bunting *Emberiza cia* tends there to be pronounced 'Ember-ee-tha thee-a', whereas Italians may speak its specific name as 'chee-a'. Such differences could perhaps be avoided by international agreement, but it is the vowel sounds that are arguably the more important for widespread recognition.

To use here simple rather than international phonetics, it should be standard in the Latin of scientific names for *ae* to be pronounced as 'eye' and *oe* as 'oy', while it is the long *i* at the end of a word which should be 'ee' (as in 'deep')—the last not as an emphasised 'eye', which is how many English-speakers interpret the endings of eponymous Latinised names.

Thus, taking *BB*'s examples, *Aegypius* should in fact be pronounced as 'Eye-gip-ee-us' and *Aegithalos* as 'Eye-geeth-ah-los' (each with a hard 'g'), and *Oenanthe* as 'Oy-nanth-eh'; in this last connection, note that Latinised bird names beginning '*oe*' are usually transliterated from Greek words beginning '*oi*' and that '*e*' at the end of a Latin or Latinised word should always be pronounced as a short 'eh' (as in 'aim'). (That English words derived from Latin words beginning with 'ae', or from Latinised versions of Greek words beginning with 'ai', are now pronounced in the English language as if they began with 'ee' is neither here nor there because, when spoken, it is the scientific names of animals and plants that need to be pronounced sufficiently similarly in all languages if ambiguity is really to be avoided.)

The specific name *aedon*, which *BB* also included in its list of '*ae*' examples, is rather different because, before all diacritic marks were discarded by the ICZN, those two letters used to be printed not as a diphthong, but separately with a diaeresis over the *e* (*Acrocephalus aëdon*, *Troglodytes aëdon*). Thus, *aëdon* was (and *aedon* should still be) pronounced, not as 'ee-don' or even 'eye-don', but as three syllables 'ah-eh-don'. The same applies—taking one more of a number of other possible examples—to the four syllables of 'kris-ah-eh-tos' in the Golden Eagle *Aquila chrysaetos*, which used also to have a diaeresis over the '*e*' (like other raptor names which end in *aetos* or *aetus*, all from the Greek for 'eagle').

Rules of pronunciations

Perhaps I may add a few general rules on conventional Latin pronunciation of vowel sounds, confirmed by such readily available works as Allen (1988) and Morwood (1998). First, however, it should be noted that 'Most Latin words have corresponding English word sounds, following the same rules for short and long pronunciation of vowels', but that 'in Latin, unlike English, all syllables in words are pronounced, including the final e and es' (Stone 2005); indeed, *e* is never mute. Thus, *luscinioides* is six syllables with the *u* as in 'put' and all the vowels pronounced individually (giving the ending 'oh-ee-dehs' which is found also in, for example, *trochiloides*). The letters *c* (also *ch*) and *g* should normally be hard, and *s* (also *ps*) soft; *h* should be sounded as in 'hope', and *au* and *ei* pronounced as in 'how' and 'eight'; also, as shown above, *ae* as in 'high' (unless originally with a diaeresis) and *oe* as in 'boy'; but the two-letter combinations of *eu* and *ui* may be separated as 'ay-u' (e.g. *leucoptera*, *arundinaceus*, *Pheucticus*,) and 'oo-ee' (e.g. *Pinguinus*)—though Stone would pronounce these respectively as in 'feud' and 'wee'. (See also reference to *europaeus* below.) To take just two examples, the scientific name of the Chaffinch *Fringilla coelebs*, frequently mispronounced 'Frin-jilla seelebs', should be 'Frin-gilla koylebs' with a hard 'g' and 'c', while *Poecile*, the genus in which certain of the tits are now placed, should be spoken as 'Poykileh'.

Exceptions

There is one group of arguable exceptions to some of the above rules and they involve the eponyms—names honouring people. The 1961 ICZN, in dropping diacritic marks, replaced the two dots of the Germanic umlaut and of the Scandinavian vowels *ä* and *ö* (also *å* and *ø*) with *ae* and *oe* (and, similarly, *ü* with *ue*), thus arriving at the same combinations as the splitting of the former diphthongs. Although I have not seen it formally stated, I believe that the pronunciations of these pairs of letters in such commemorative names should not be 'eye' and 'oy' (see above), but should follow those of the original names as, respectively, 'eh' and the vowel sound in the English word 'bird' (also the '*ue*' as something between 'u' and 'ee'). Thus, such species and races as *kaempferi*, *holboellii* and *rueppelli* should follow the same pronunciations as the north European names to which they relate with 'ee' (or 'ee-ee') on the end. On the other hand, the *oe* in *phoebe* and the soft *ch* in *chapmani*, being based on English names, should both be the same as in English. The same thought may be applied to the pronunciation of the frequent specific name *europaeus* as 'euro-pie-us'. (Moreover, just as every 'c' in Cetti's Warbler *Cettia cetti* should be pronounced as a soft 'ch' sound because François Cetti was an Italian, so the patronymic in Baillon's Crake *Porzana pusilla* should be 'By-yaw', or 'By-yaw(n)s' when the apostrophe and 's' are added—not 'Bay-lon' or, worse, 'Bay-lee-on' as sometimes heard—since Louis François Antoine Baillon was very much a Frenchman.)

In conclusion, it seems relevant to point out that the specific name of the increasingly newsworthy bacterium *Clostridium difficile* is constantly mispronounced on television and radio, even by doctors, as if it were an Anglicised version ('diff-i-seel') of the three-syllabled French word 'dee-fee-seel', whereas it is in fact the neuter form of the Latin adjective *difficilis* (the root also of the English word 'difficult') and should be pronounced as four syllables, 'diff-ick-il-eh'. Perhaps its nickname of 'C. diff.' is safer!

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– James Ferguson-Lees

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Editorial comment

We concede that the reasoning behind the change announced in Brit. Birds 98: 410 had not been fully thought through, and the above letter highlights this fact. After due consideration, we shall return to the system of using a single letter for abbreviation of generic and specific names, the chief reason being that we feel that this provides the greatest clarity and ease of use for readers. The convention of using a single-letter abbreviation was reinstated at the beginning of Vol. 101. The issue of how to pronounce scientific names is one that we intend to expand upon at some point in the future. *Eds BB.*

Pronunciation of scientific names

[Blunt, A. G. 2009. Pronunciation of scientific names. *British Birds* 102 (1): 25–28.]

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James Ferguson-Lees' letter on scientific names (*Brit. Birds* 101: 97–99) and the editorial footnote that *BB* has a future intention to expand on its pronunciation are welcome. It has always struck me as odd that the written form of scientific names is so closely regulated yet we are allowed a virtual free-for-all in the way they are spoken. The result is that our scientific names are anything but 'unambiguous and universal' in their spoken form (Jeffrey 1977).

As both classicist and ecologist, I have observed where scientists and naturalists experience greatest difficulties in their pronunciation of scientific names, and given thought to how those difficulties might be mitigated. The following notes derive

from this experience, and I hope that they contribute something to the debate opened so ably by James Ferguson-Lees.

First, I think that it is important to correct a misconception. The view that 'we do not know how Latin was spoken, so any pronunciation is as good as any other' is simply untrue. We do in fact have a pretty good idea of the pronunciation of both Greek and Latin in their classical periods (e.g. Allen 1987, Janson 2004). Though historical linguists might quibble over details, the basics are well established. What creates problems is that both Greek and Latin, including their pronunciations, evolved for many centuries after their classical periods. We know much less about these later processes, but their legacies are found in many European languages today.

This situation leads to an understandable practice. In the absence of guidance, those voicing scientific names often assimilate their pronunciations to their own languages. Thus native English speakers tend to pronounce *violaceus* as though it were 'violaceous', *niger* as in the name of the river, *major* and *minor* as if they were the standard English words. Examples are legion. English is notoriously inconsistent in the way individual letters, especially vowels, and groups of letters are sounded, and is a poor model in this context. I feel that Stone's (2005) statement, quoted by Ferguson-Lees, that 'most Latin words have corresponding English word sounds, following the same rules for short and long pronunciation of vowels' should be treated cautiously, as it may encourage too great a confidence in pronouncing scientific Latin as if it were English. Native speakers of classical Latin appear to have voiced letters and letter groups consistently. Such an approach is also found in many languages today. But scientific Latin is no more Spanish than it is English; nor is it Italian, nor any other modern language. Our use of Latin and latinised written forms clearly differentiates scientific names from vernacular ones, and my view is that we should seek to maintain this differentiation in the way we pronounce them.

My conclusion from the above is that we should adopt classical Latin pronunciation for scientific names: its rules are widely agreed, largely simple and easily followed. In a handful of cases, dealt with below, we need also to be aware of pronunciations in classical Greek. To keep things simple, we may for scientific Latin safely ignore the occasional subtle variations in classical Latin pronunciation and stick to basic premises. Ferguson-Lees outlined many of these basics. The following notes are intended to amplify his comments by discussion of further letters and letter combinations, plus issues of stress and the pronunciation of latinised personal and place names.

Pronunciation of letters singly and in combination

Letters c and g. Some guides to Latin pronunciation say that these letters should be pronounced as hard consonants *except before e and i*. In classical Latin *c* and *g* were always pronounced hard, and the softening before *e* and *i* represents a later pronunciation shift. Unfortunately, there is no consistency in this later usage: in Italy *ce* and *ci* are pronounced as *cheh* and *chih*, in Castillian Spanish as *theh* and *thih*, in Germanic languages as *tseh* and *tsih*, and in English and French as *seh* and *sih*. Compare how these languages now pronounce Cicero – who would himself have spoken his name as *Kikero*. A further complication is the tendency for some speakers to soften the letters *c* and *g* before *y* as if it were an *i*; see the next paragraph for the origin and pronunciation of the Latin *y*. The simplest solution, therefore, would be to follow classical Latin in retaining a hard *c* and *g* throughout.

Letter y. This is infrequent in Latin, where it is a transliteration of the Greek upsilon (*υ*, *Y*). Its pronunciation should be something like the French *u* in *tu*. It should never be pronounced as in the English *cycle* or *type*. Thus *cyaneus* should sound something like *koo-an-ey-us*.

Letter j. This letter is used instead of *i* in a few places, e.g. when *i* is followed by another vowel and when *i* occurs between two vowels. In these positions *i* and *j* can sometimes be found more or less interchangeably. In terms of pronunciation, we can perhaps best render *j* by the English *y*-sound (the modern *j*-sound as in January appears only in the Middle Ages). Thus *Jynx* (a transliteration of a Greek bird name) is pronounced *yoonks* (certainly not like the English word *jinx*) and *major* is rendered *mah-yor*. The interchangeable usage of *i* and *j* is demonstrated by *Ajaia ajaja*.

Letter v. In classical Latin this was written as a *u* (except in inscriptions) and pronounced as a *w*. Thus *Vanellus* would be pronounced *wa-nell-us*. A good example is *sandvicensis*, where the *w* sound of the place name is represented by *v*. The letter *w* does not exist in Latin.

Letter x. In Latin this is a transliteration of the Greek xi (*ξ*, *Ξ*) and should always be pronounced as *ks*. Thus *Xenus* is pronounced *Ksenus*, and *xanthocollis* as *ksanthocollis*. Modern English usage, which sounds an *x* at the start of a word as a *z* (e.g. *xylophone*), should not be followed.

Letter z. This exists in Latin only in words derived from other languages. It normally represents the Greek letter zeta (*ζ*, *Z*). Though some textbooks suggest that the zeta was pronounced as *dz*, it seems that the Greeks themselves may not have pronounced it in a consistent fashion. My recommendation is therefore the simple solution of pronouncing it as the English *z*.

Letter o. Latin and English have only one symbol for *o*, but Greek has two: the 'small o' omicron (*o*, *O*) and the 'big o' omega (*ω*, *Ω*). In simple terms these approximate to a short and long vowel respectively. In latinised forms of Greek words, the lengths of the *o* vowels must therefore be learnt. For example, in *melanopogon* the first *o* is omicron, the other two are omegas, and pronunciation should reflect this ('*melano-paw-gawn*'). The biggest pitfall for English speakers is the diphthong *oo* pronounced as a single sound. This does not exist as a diphthong in Latin or Greek, and when encountered in a scientific name it may represent a Greek word in which separately voiced omicrons and omegas are found together. Examples include *boops*, in which an omicron is followed by an omega, and the beetle genus *Oodes*, which begins with two omegas. These vowels should be pronounced separately, so that *boops* is something like *boh-awps* (certainly not a rhyme with whoops!), while *Oodes* is pronounced *Aw-aw-des* (not like *oo-des*, or even *oods*). The *oo* in a scientific name may, however, indicate a non-Greek origin such as a personal or place name.

Letter e. Greek again has two letters whereas Latin and English have only one. In simple terms the epsilon (*ε*, *E*) represents a short *e* and the eta (*η*, *H*) a long *e*. Knowledge of the length of an *e* may help speakers to place stress correctly (e.g. *Alopochen* has an eta, which carries a stress). However, the single sound problem of *oo* dealt with above appears to be much rarer with *ee*: the few examples of *ee* I have found in scientific names have a non-classical origin.

Combined letters ch, ph and th. These are transliterations into Latin of the single Greek letters chi (*χ*, *X*), phi (*φ*, *Φ*) and theta (*θ*, *Θ*). In classical Greek they represent the aspirated k, p and t. When absorbed into Latin, however, the *ph* and *th* letter combinations rapidly became pronounced as *f* and *th* (as in *thin*, not *then*) but *ch* retained its pronunciation as *kh* (as in *Khan*). My recommendation is to follow classical Latin for all three combinations. This means that *ch* (in names derived from

Greek) should always be pronounced *kh* (as in *brachyrhynchus*, *schoenobaenus*, *Alopochen*).

Combined letters cc, as in *Accipiter*. This word in classical Latin would be pronounced *Akkipiter*, not *Aksipiter*.

Combined letters sc, as in *rufescens*. In classical Latin these two letters would be sounded separately as *ru-fes-kens*, not *ru-fes-sens*.

Words derived from personal and place names

There are very many of these. Some are genuine Latin words, e.g. *aegyptiacus*, and can be pronounced accordingly. In addition, some of non-Latin origin can be adequately rendered by following the pronunciation rules for classical Latin, e.g. *naumanni*. For some, however, this approach is less satisfactory: for example, *brucei* pronounced *bru-kay-ee* and *leschenaultii* pronounced *les-khen-owl-ti-ee*, as they would be in classical Latin pronunciation, obscure the origins of their names. As far as I can see, the only satisfactory solution is for such pronunciations to follow the sounds of the personal or place names from which they are derived. Ferguson-Lees' example is *Cettia cetti*. In some cases the only implication would be a minor one of shifting stress from one syllable to another. Thus *dougallii*, *hemprichii* and *stewarti* in my approach would be stressed on the first syllable, as are the names from which they are derived, whereas classical Latin rules would expect a stress on the second syllable.

A major drawback of this approach, however, is that the speaker needs to be conversant with pronunciations in several modern languages. Thus *vaillantii*, from Levaillant, would be rendered *vai-awnt-iee* and *audouinii* becomes *oh-dwan-iee*. So far so good; but how about *mlokosiewiczi* or *przewalskii* (mlo-koh-she-vich-ee and pshe-val-ski-ee)? Or what do we do about *Fuchsia* (*Fewks-ia* when used as a scientific name)? I suspect that Bulwer (as in *Bulweria bulwerii*) pronounced his name without a w-sound in the middle, but how can we verify this? Name derivations may also be hard to spot at times: in reading an account of Kaempfer's Woodpecker *Celeus obrieni* recently, I failed to realise for some time that its specific name is derived from O'Brien.

I offer these comments to *BB*'s Editorial Board for their consideration. A solution to pronouncing latinised personal and place names needs to be found, and the rules of classical Latin pronunciation do not on this occasion offer us an adequate solution.

Stress and vowel length

In my experience, the correct placing of stress is one of the commonest difficulties that face those voicing latinised scientific names. Classical Latin has consistent rules for where to apply stress: on a monosyllable, the first syllable of a disyllabic word, and the penultimate syllable of a polysyllabic word if that syllable is 'long' (which is the commoner situation). However, learning these rules may not be a great help, as problems arise:

(a) when the penultimate syllable of a polysyllable is 'short'. In this situation the stress should fall on the *antepenultimate* syllable. Learning what constitutes 'long' and 'short' syllables is not without its complications as it may involve learning specific vowel lengths in specific words;

(b) in compound words derived from classical Greek rather than Latin, of which there are many. To place stress accurately requires breaking down the compound word into its component parts and knowing where stress would be placed on each of the components in classical Greek;

(c) in latinised forms of personal and place names, where the rules for stress in classical Latin may be irrelevant—I have given examples above.

My suggested solution would be for the editors of *BB* to issue an index of scientific names of Western Palaearctic birds using diacritical marks to show where stress should fall. In similar vein, vowel lengths can also be indicated by the use of such marks. Conventional marks widely used in grammars and dictionaries are ʹ for a stressed syllable, ¯ for a long vowel and ˘ for a short vowel.

Final thoughts

I have tried to suggest ways in which the pronunciation of scientific names may be standardised and made more widely intelligible. For some the adoption of my suggestions will mean abandoning personal usages of long standing; for many, especially those who anglicise their pronunciations, the results will sound odd. But there are clear gains to be made. One of the least significant, though personally satisfying, would be the rescue of *Circus*. This genus is not, in fact, derived from the Latin word *circus* at all, but is a latinised transliteration of the Greek ***κιρκος***—a bird of wheeling flight. Pronouncing it *keer-kus* in the classical Latin way would help to separate the genus from any associations with places of public entertainment!

More importantly, I believe that we need a standardised system of pronunciation because I suspect that a lack of clear guidance on this issue is confusing to many and may act as a deterrent from the use of scientific names. The aim of scientific nomenclature is to adopt a unique, unambiguous and universal name for every organism, and its oral transmission is just as important as its written one. For a science with such a large amateur following as the study of birds, a high level of accessibility is particularly important. That the 'unique, unambiguous and universal name' is, for birdwatchers in many countries nowadays, often the English vernacular name is a trend which upholders of the traditional system may wish to ponder.

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Errata

Indian Birds Volume 4 Number 3 (March–April) 2008.

Page 90, column one, tenth line from bottom, read: "Hindustan Salts Limited: www.indiansalt.com/key.html."

Page 93, column one, 20th line from bottom, read: "*Charadrius dubius*" instead of *Charadrius dubious*.

Page 93, column two, eighth line from top, read: "*T. totanus*" instead of *T. tetanus*.

Page 94, column one, 16th line from top, read: "*G. lactea*" instead of *G. lacteal*.

Page 94, column two, 17th line from top, read: "*Hierococcyx varius*" instead of *Hierococcyx various*.

Page 96, column one, eighth line from top, read: "*Turdus unicolor*" instead of *Z. unicolor*.

Page 96, column one, 19th line from top, read: "*Saxicoloides fulicata*" instead of *Saxicola fulicata*.

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General When a bird species is first mentioned, both the English and scientific name must be given, thereafter the English name only. English and scientific names should follow Manakadan, R., & Pittie, A. 2001. Standardised common and scientific names of the birds of the Indian Subcontinent. *Buceros* 6 (1): i-ix, 1-38. Metric units and their international symbols must be used; dates and times should be of the form 1.i.2005 and 13:45hrs respectively. Numbers one to ten should be written in full, except when used with a measurement abbreviation or higher number, thus: five birds, but 5km and 5-15 birds. Numerals are used for all numbers greater than ten: 12, 120, 1,200 and 12,000.

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