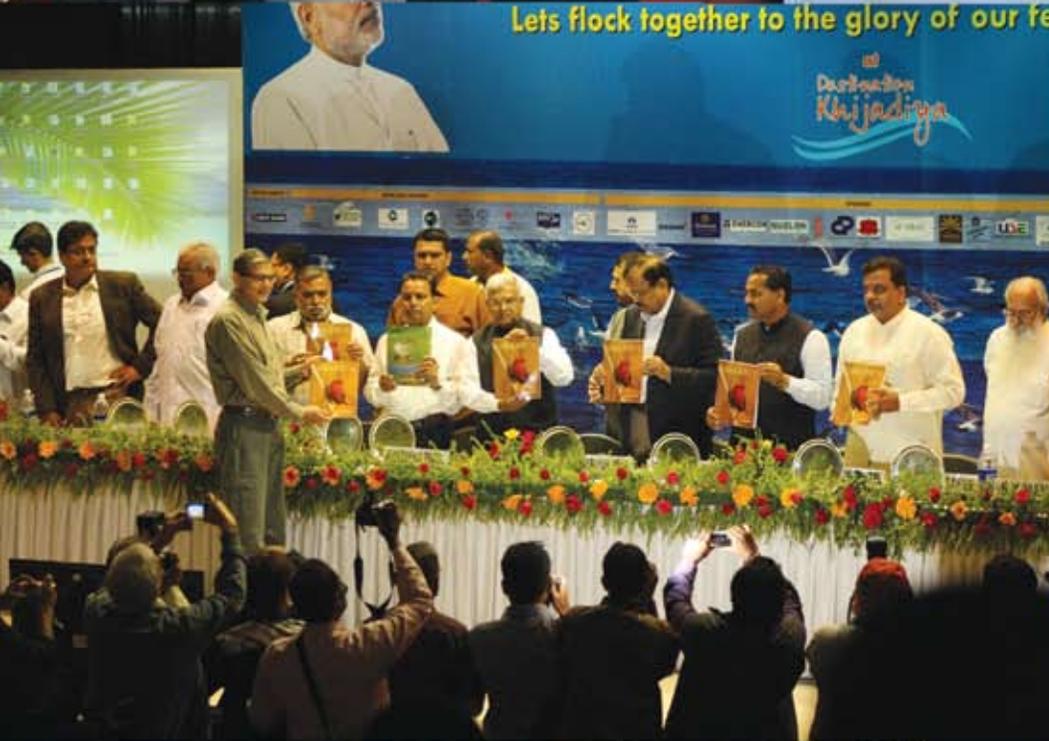


Indian BIRDS

Vol. 7 No. 1



Ladakh
Lesser Fish-Eagle
Short-eared Owl



Indian BIRDS participates in the
Global Bird Watchers' Conference 2010
Jamnagar, Gujarat, India
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Indian BIRDS

www.indianbirds.in

VOL. 7 Nos. 1

DATE OF PUBLICATION: 25 APRIL 2011

ISSN 0973-1407

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- 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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PHOTOGRAPHER: Clement Francis

Threats to habitat and wildlife in Changthang and Rupshu areas of Ladakh: a case study at Hanle

Rishad Naoroji & Harkirat Singh Sangha

Naoroji, R., & Sangha, H. S., 2011. Threats to habitat and wildlife in Changthang and Rupshu areas of Ladakh: a case study at Hanle. *Indian BIRDS* 7 (1): 2–6.

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Introduction

Summer and autumn surveys for raptors were conducted in collaboration with the Indian Army from 1997 to 2003; June/July 2008, and July 2009. The main objective of the surveys was to collect distribution and breeding data on raptors, and list all other bird species in Ladakh (Sangha & Naoroji 2005).

Geographical description of the area

Ladakh is a high, cold desert, situated in the western-most Trans-Himalayan region of India, representing the western extremity of the Tibetan Plateau, and having close ecological and cultural affinities with Tibet (Vaurie 1972). The area is extremely arid, rugged, and mountainous and receives less rainfall than eastern Tibet. The 100,000 km² area of Ladakh is bordered by the Karakoram range in the north and by the main Himalayan range in the south, the Ladakh and Zaskar ranges running between and parallel to these main mountain ranges (Fig. 1). From its source on the Tibetan Plateau, the Indus River flows north-west between the Zaskar and Ladakh ranges, turning south-west 300 km

downstream into northern Pakistan. Eastern Ladakh has several brackish lakes, marshes, barren snow-capped mountains, sand dunes, grasslands, upland bogs, and rivers forming the western extremity of Changthang, the north-western adjunct of the Tibetan Plateau. Altitudes in Changthang average 4,000–5,000 m. Temperatures range from up to 35°C in summer to minus 45°C in winter. Precipitation is less than 100 mm per annum. The flora comprises selected elements from Afghanistan, Siberia, Tibet, and the Himalayan region together with a considerable proportion of endemic species.

Significance of conservation in Ladakh

Despite the harsh environmental and climatic conditions, the avifauna of Ladakh is diverse, displaying Palaearctic, Mediterranean, and Chinese influences. Every trip has enthused us with unexpected migrants and little-known high altitude species. Located between the Palaearctic and Indo-Malayan zoogeographic zones, species from both regions are to be found here. The summer months further attract summer visitors and breeders resulting in more than 300 species recorded so far (Pfister 2001). Some of the species that breed in Ladakh include: Black-necked Crane *Grus nigricollis*, Bar-headed Goose *Anser indicus*, Brahminy Shelduck *Tadorna ferruginea*, Great Crested Grebe *Podiceps cristatus*, Common Tern *Sterna hirundo*, Common Merganser *Mergus merganser*, Brown-headed Gull *Larus brunnecephalus*, Lesser Sand Plover *Charadrius mongolus*, and Common Redshank *Tringa totanus*.

During our surveys (Sangha & Naoroji 2005) 122 bird spp. were recorded including 12 spp. of birds of prey—ten diurnal and two nocturnal. In addition, breeding of Upland Buzzard *Buteo hemilasius* in Ladakh was first documented from the Indian subcontinent (Naoroji & Forsman 2001).

Today Ladakh is an important wildlife destination including the eastern plato comprising the established Changthang Wilderness Area (Kitchloo 1997). Its broad principles include, “protecting and restoring the ecosystem; reducing adverse impacts on wilderness introduced by human culture through education and minimum regulation; harmonize wilderness management with adjacent land management activities using proactive processes where all possible constituents are represented, promote wilderness research and monitoring to expand understanding of ecosystem intricacies and maintain ecological integrity; focus management energy and resources on areas where ecosystem components are threatened and to harmonise wildlife management with adjacent



Fig. 1. Map of Ladakh.

land management activities using proactive processes where all possible constituents are represented," (Kitchloo 1997).

The Ladakhis are innately life respecting, sentient people and sensitive to their environment. Traditionally they have used the natural resources of the region wisely without causing any adverse impact on the environment. However, recent land use changes in the region have already damaged the fragile environment in some areas. It is therefore not surprising that wildlife is becoming scarce even in the remotest areas of Ladakh. For example, Tibetan gazelle *Gazella picticaudata* was abundant, "On the plateau to the south-east of Tso Moriri Lake, on the hills east of Hanle, and in the Indus Valley from Demchok [the frontier village of Ladakh], as far down as Nyima," [Nyoma] (Sterndale 1884). In ten visits, lasting around two weeks, we sighted, only once, on 17 August 2002, three, extremely shy Tibetan gazelle at Hanle (Fig. 2). The Pallas's cat *Otocolobus manul* has also been observed along the north-eastern margin of the marsh at Hanle. The number of breeding pairs of the endangered Black-necked Crane, which have so far bred successfully, is declining (Pfister 1998). The pastures are already degraded and there is continuing heavy pressure on the available pastures. Herdsmen, who earlier co-existed peacefully with wild animals, are becoming hostile and driving wildlife out of some prime natural habitats. The Hanle marsh was formerly the best wildlife habitat in Changthang (Fig. 3).

Livestock take over pastures and marshes

An age-old system of rotational grazing was being practised in Ladakh since aeons. This practice protected the pastures from being overgrazed, besides helping conserve fodder for lean winter months. This system kept the disturbance to the Black-necked Crane's breeding habitats within reasonable limits. Limited livestock grazing is beneficial. It helps to keep the grass short in the crane's breeding areas, eliminating potential cover for predators. Limited grazing activity also helps to up-turn the soil near the droppings and sustains a variety of micro-fauna, thus improving the food availability in the crane's foraging area. Cranes have been observed pecking at, and turning livestock dung (Daniel *et al.* 1987).

Rebo herders, who were once nomadic, have in recent years increased their livestock primarily for high quality Pashmina wool



Fig. 2. Hanle marsh in 1995. The rare Tibetan Gazelle *Gazella picticaudata*, Hanle Valley. Note pristine habitat as opposed to 2009 (see Fig. 8).



Rishad Naorji

Fig. 3. Hanle marsh in 1995. Prime marsh habitat supporting 5–7 pairs of breeding Black-necked Crane *Grus nigricollis*, and at least 4–5 pairs of breeding Upland Buzzard *Buteo hemilasius*.

production, and have thereby imposed tremendous pressure on the available pastures in Ladakh. For example, the Changthang region of Ladakh holds about 14,000 domestic livestock represented mainly by sheep, goats, yaks, and ponies. These animals directly compete with wild ungulates, mainly the Tibetan wild ass *Equus kiang* (kiang), and also Tibetan- antelope *Pantholopus hodgsoni*, and gazelle.

The increasing domestic livestock population has not only driven wildlife out of prime habitat, but also led to overgrazing of pastures, resulting in wind erosion and desertification. The Rebo today have ceased to practise rotational grazing and are only partially nomadic, having permanent summer camps in prime pastureland, thereby creating additional pressure on the land. Domestic livestock are now invading areas that are not their 'natural' habitat, such as marshes and shallow ponds, as in these areas the vegetation is comparatively still intact. At Hanle and Lal Pahari, domestic livestock have been observed grazing on rushes in knee-deep water creating pressure on the breeding Black-necked Crane, Brahminy Shelduck, Bar-headed Goose and other wetland breeding species. The nomads do not deliberately harm the breeding birds but their frequent movement near the nesting sites sometimes forces the incubating birds to leave the clutch, allowing access to aerial and terrestrial predators (Pfister 1998).

Herders are particularly hostile towards the kiang. They chase them on horseback, away from pastures, and set their dogs upon them. At some places, e.g., between Loma and Hanle, barbed wire fencing has been erected around marshes to keep the kiang off grazing areas (Fig. 4). It seems that in the near future confrontations over pasturage between kiang and the herders might become a major conservation issue. It is well known that kiang nibble only the fresh tips of shoots of grasses, sedges and bushes, and then move on. When a herd of yak, sheep, and goats graze through an area, they literally 'clean shave' the landscape, stripping away, and destroying the sparse vegetation.

Shepherds are also aggressive towards the Golden Eagle *Aquila chrysaetos*. Accessible nests are destroyed, discarding Buddhist values of sanctity of all life, as they perceive the species as a threat to their lambs. Increase in human and livestock population is putting pressure on Golden Eagles during the breeding season due to disturbance. Its habit of only very rarely lifting lambs of domestic sheep and goats does not endear it to the local population. However the pressure on Golden Eagles is primarily during the breeding season. The species has no natural enemies.

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Fig. 4. Hanle marsh in 1997. Fencing of Hanle Valley to keep the Kiang out.

Dogs

The large population of commensal dogs attached to settlements and nomads, and the large feral population tended by soldiers (jawans) of the Indian Army and Indo-Tibetan Border Patrol are the biggest threat to the Black-necked Crane. Over the years these canines have multiplied in numbers at most outposts thanks to these free rations. At some outposts as many as 50 dogs have been counted! Egg destruction and chick mortality caused by the dogs represent the biggest threat to the Black-necked Crane population of Ladakh, and are responsible for up to 50 per cent destruction of broods within a productive cycle in Ladakh (Pfister 1998; Col Chacko, *verbally*; and author's observations).

Other human activities

The Jammu and Kashmir government and the Indian Army have inadvertently improved access in Ladakh, particularly throughout Changthang and Rupshu. Motorable tracks have been laid even in extremely remote areas for obvious strategic reasons. This by itself has not had any detrimental effect on the environment. However, road construction work has initiated new development activities in the remotest areas.

Encouraging Tibetan refugees to settle at Hanle is directly creating new threats and disturbances in the area. The Tibetan refugee settlement there has grown in size and numbers thanks to generous foreign aid. The once extensive marsh, drained for agriculture, has shrunk considerably. Furthermore, Hanle River is



Fig. 5. Draining the Hanle marsh in 1997 for Willow plantation by Forest Department reducing nesting and foraging habitat for Black-necked Crane, and foraging habitat for Upland Buzzard, which used to hunt in the marsh and breed on cliffs surrounding the valley.

being diverted to the newly created agriculture fields and willow plantations (Figs. 5 & 6). In Changthang, particularly around Hanle and other marshes, plantations have remained stunted for many years due to salinity of the soil. As more water is diverted, other sections of the marsh will dry up due to lack of sufficient water in the near future. Increased agriculture has also led to fencing of the fields. This rather new practice has fragmented the primary habitat i.e., the marsh, which is vital to the survival of the endangered Black-necked Crane and the Upland Buzzard, as both species depend solely on marshes for foraging, and breeding. Resident populations of these two species are found nowhere else in India except in the Changthang and Rupshu areas of Ladakh. In 2009 only one non-breeding pair was observed instead of the usual four to five pairs, and no Upland Buzzards were breeding on the cliffs surrounding the marsh from which they procured their mammalian prey, primarily rodents, and small birds.

Today Hanle marsh is almost completely dry (Figs. 7 & 8). Some dialogue needs to be initiated between the Ladakh Hill Council, local people, Indian Army and conservation NGOs to ensure that at least 35% of the dried marsh is regenerated into a life supporting, living marsh. This would facilitate breeding of waterbirds and Black-necked Crane during summer as well as being used by a large number of species on migration. All it would mean is diverting water after it has irrigated the grasslands and croplands of the villagers into the remaining portion of the marsh, (before it completely disappears), so that both wildlife and the Rebo benefit. This dialogue should commence as soon as possible.

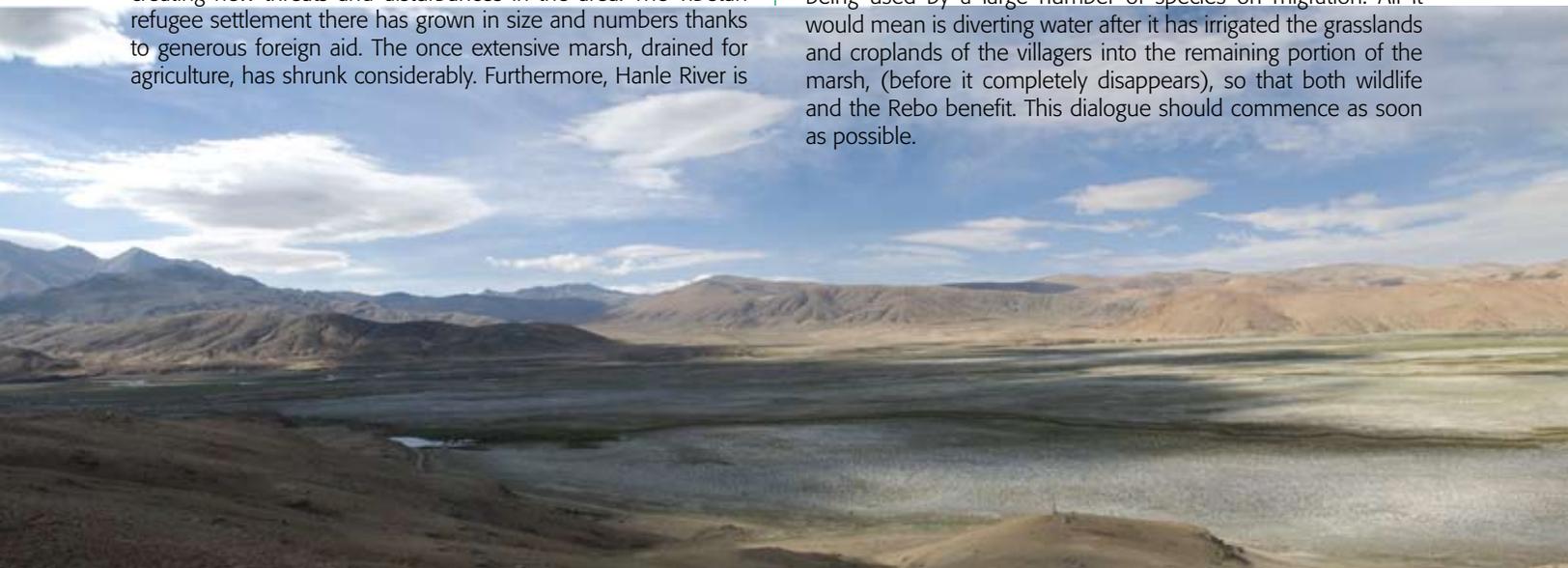


Fig. 7. A panoramic view of Hanle Valley and salt encrusted Hanle marsh in 2009.



Fig 6. Attempts at small scale cultivation, Hanle marsh, 2009.

A list of birds in and around Hanle

Little Cormorant *Phalacrocorax niger*. Hanle bridge.
 Grey Heron *Ardea cinerea*. Hanle—sparse records.
 Bar-headed Goose *Anser indicus*.
 Brahminy Shelduck *Tadorna ferruginea*. (Sangha & Naoroji 2005.) Breeding in Hanle.
 Gadwall *Anas strepera*.
 Mallard *A. platyrhynchos*. (Sangha & Naoroji 2005.)
 Garganey *A. querquedula*. (Sangha & Naoroji 2005.)
 Common Teal *A. crecca*. (Sangha & Naoroji 2005.)
 Common Merganser *Mergus merganser*. 19 at Hanle on 28 August 2000 (Sangha & Naoroji 2005).
 Bearded Vulture *Gypaetus barbatus*. Breeding in Hanle.
 Himalayan Griffon *Gyps himalayensis*.
 Western Marsh-Harrier *Circus aeruginosus*. Hanle, on passage.
 Eurasian Sparrowhawk *Accipiter nisus*. Single passage record at Hanle (Pfister 2004).
 Upland Buzzard *Buteo hemilasius*. Breeding in Hanle.
 Greater Spotted Eagle *Aquila clanga*. On passage.
 Golden Eagle *A. chrysaetos*.
 Common Kestrel *Falco tinnunculus*.
 Merlin *F. columbarius*.
 Eurasian Hobby *F. subbuteo*.
 Saker *F. cherrug*. Suspected breeding; observed mainly in summer, and carrying prey to rocks.
 Tibetan Snowcock *Tetra gallus tibetanus*. (Pfister 2001.)



Fig. 8. Hanle marsh in 2009. Mostly barren salt encrusted Hanle Valley.

Chukor *Alectoris chukar*.
 Tibetan Partridge *Perdix hodgsoniae*. Observed one pair with nine chicks on 28 August 2000 along the Hanle/Chumur road (Sangha & Naoroji 2005).
 Black-necked Crane *Grus nigricollis*. Endangered. Breeding in Hanle.
 Baillon's Crake *Porzana pusilla*.
 Common Moorhen *Gallinula chloropus*.
 Pacific Golden-Plover *Pluvialis fulva*. Hanle Valley.
 Lesser Sand Plover *Charadrius mongolus*. Three birds in breeding plumage at Hanle on 22 July 1999 (Sangha & Naoroji 2005).
 Common Snipe *Gallinago gallinago*.
 Eurasian Curlew *Numenius arquata*. (Pfister 2004.) Observed at Hanle on 24 July 1999 (Sangha & Naoroji 2005).
 Common Redshank *Tringa totanus*. (Sangha & Naoroji 2005.)
 Green Sandpiper *T. ochropus*. (Sangha & Naoroji 2005.)
 Common Sandpiper *Actitis hypoleucos*.
 Little Stint *Calidris minuta*.
 Temminck's Stint *C. temminckii*.
 Dunlin *C. alpina*. Single record. (Pfister 2004).
 Curlew Sandpiper *C. ferruginea*. Lalpahari & Hanle (Pfister 2004).
 Black-winged Stilt *Himantopus himantopus*. Hanle plains, (Pfister 2004; Sangha & Naoroji 2005).
 Pallas's Gull *Larus ichthyaeus*. Lower Hanle River.
 Brown-headed Gull *L. brunnicephalus*. Hanle Valley.
 Black-headed Gull *L. ridibundus*. Along Hanle River.
 Common Tern *Sterna hirundo*. Hanle Valley, wetlands.
 Whiskered Tern *Chlidonias hybridus*. Hanle, in autumn.



Tibetan Sandgrouse *Syrhaptes tibetanus*. Observed at Pongo village, Hanle on 22 July 1999 (Sangha & Naoroji 2005).

Hill Pigeon *Columba rupestris*.

Snow Pigeon *C. leuconota*.

Oriental Turtle-Dove *Streptopelia orientalis*.

Little Brown Dove *S. senegalensis*.

Common Cuckoo *Cuculus canorus*. (Sangha & Naoroji 2005.)

Pallid Scops-Owl *Otus brucei*. (Pfister 2001.)

Eurasian Eagle-Owl *Bubo bubo*.

Little Owl *Athene noctua*. (Pfister 2004; Sangha & Naoroji 2005).

Alpine Swift *Tachymarpis melba*. (Pfister 2004.)

Common Swift *Apus apus*. (Pfister 2004.)

Pacific Swift *A. pacificus*. (Pfister 2001.)

Common Hoopoe *Upupa epops*. Summer.

Long-billed Calandra-Lark *Melanocorypha maxima*. (Sangha & Naoroji 2005.)

Greater Short-toed Lark *Calandrella brachydactyla*. (Pfister 2004.)

Hume's Short-toed Lark *C. acutirostris*. (Pfister 2004.)

Horned Lark *Eremophila alpestris*. (Sangha & Naoroji 2005.)

Eurasian Crag Martin *Hirundo rupestris*. Lalpahari and Hanle (Pfister 2004.)

Common Swallow *H. rustica*. (Pfister 2004.)

Northern House-Martin *Delichon urbica*. (Pfister 2004.)

White Wagtail *Motacilla alba*. (Pfister 2004; Sangha & Naoroji 2005.)

Citrine Wagtail *M. citreola*. (Pfister 2004; Sangha & Naoroji 2005.)

Grey Wagtail *M. cinerea*. Hanle.

Rufous-tailed Shrike *Lanius isabellinus*. Hanle.

Grey-backed Shrike *L. tephronotus*.

White-throated Dipper *Cinclus cinclus*.

Robin Accentor *Prunella rubeculoides*. Hanle?

Blue Rock-Thrush *Monticola solitarius*. Rare in Hanle (Sangha & Naoroji 2005).

Tickell's Thrush *Turdus unicolor*. Observed in spring in Hanle Valley.

Eurasian Blackbird *T. merula*. Around Hanle. Pfister (2001); Sangha & Naoroji (2005).

Himalayan Rubythroat *Luscinia pectoralis*. Side valleys of Hanle (Pfister 2004).

Bluethroat *L. svecica*. Observed during migration, end August (Pfister 2004).

Grandala *Grandala coelicolor*. One sighting at Hanle.

Desert Wheatear *Oenanthe deserti*. Observed breeding all around the marsh.

Tickell's Warbler *Phylloscopus affinis*. Mainly Hanle & adjoining Lalpahari area (Pfister 2004).

Little Bunting *Emberiza pusilla*. A single sight record from Hanle (Pfister 2001).

Red-headed Bunting *E. bruniceps*. A single sight record from Hanle (Pfister 2004).

Fire-fronted Serin *Serinus pusillus*.

Twite *Carduelis flavirostris*.

Hodgson's Mountain-Finch *Leucosticte nemoricola*.

Black-headed Mountain-Finch *L. brandti*. Observed by Pfister (2004), and by authors in most areas of Changthang including Hanle.

Mongolian Finch *Bucanetes mongolicus*. Recorded breeding by Pfister (2004), and fledged young being fed by adults.

Common Rosefinch *Carpodacus erythrinus*. Two birds seen by us at Hanle on 1 July 2001 represent an eastern extension of its range in Ladakh (Sangha & Naoroji 2005).

Streaked Great Rosefinch *C. rubicilloides*. Sighted solely throughout Changthang.

Common Great Rosefinch *C. rubicilla*. Commonly seen at Loma (Sangha & Naoroji 2005) and occasional resident in eastern Ladakh and sighted also at Hanle (Pfister 2004).

Red-fronted Rosefinch *C. puniceus*. (Pfister 2004.) We observed the species east of and above Hanle and at Chushul.

House Sparrow *Passer domesticus*. (Pfister 2004.)

Tibetan Snowfinch *Montifringilla adamsi*. (Pfister 2004; Sangha & Naoroji 2005.)

Mandelli's Snowfinch *Pyrgilauda taczanowskii*. (Pfister 2004.)

Brahminy Starling *Sturnus pagodarum*. (Sangha & Naoroji 2005.)

Rosy Starling *S. roseus*. (Sangha & Naoroji 2005.)

Black Drongo *Dicrurus macrocercus*. Hanle, end September.

Black-billed Magpie *Pica pica*. Earlier rare but now more frequently observed (Sangha & Naoroji 2005).

Hume's Groundpecker *Pseudopodoces humilis*. Observed breeding with chicks in the Hanle Valley on 22 July 1999 (Sangha & Naoroji 2005).

Red-billed Chough *Pyrrhocorax pyrrhocorax*. (Sangha & Naoroji 2005.)

House Crow *Corvus splendens*. (Sangha & Naoroji 2005.)

Prominent mammals observed in and around Hanle

Snow leopard *Uncia uncia*. Endangered. In the hills around Hanle where Bharal *Pseudois naxaur* kills located by RKN.

Pallas's cat *Otocolobus manul*. Near Threatened. Observed hunting in the Hanle marsh and entering a den at base of cliff bordering the marsh by Pankaj Sharma, our team member on 29 June 2003.

Wolf *Canis lupus*. Observed at least on 3 to 4 occasions in vicinity of Hanle Valley.

Red fox *Vulpes vulpes*. Frequently observed hunting in the Hanle Valley and environs. Occasionally seen also in vicinity of Rebo settlements being chased off by dogs.

Tibetan wild dog *Cuon alpinus*. Endangered.

Tibetan fox *V. ferrilata*. Observed twice with pups on 23 July 1999.

Mountain weasel *Mustela altaica*. Observed around Hanle and other areas of Changthang.

Kiang *Equus kiang*. Commonly seen around Hanle and formerly in Hanle Valley. But drainage of Hanle marsh has resulted in Kiang being restricted to periphery of Hanle Valley.

Tibetan gazelle *Procapra picticaudata*. Near threatened IUCN Red List. Observed and photographed by us along edge of Hanle Valley. Pfister (2004) states encountered and known only from the high plateau region around Hanle Valley.

Blue sheep *Pseudois nayaur* or bharal. Frequently seen in the hills and valleys bordering Hanle marsh and opposite Hanle Gompa or monastery in herds from a few individuals up to over twenty. Two to three kills also observed, probably by Snow leopard.

Other mammals observed in and around Hanle Valley were: Himalayan marmot *Marmota bobak*, Stoliczka's mountain vole *Alticola stoliczkanus*, Woolly hare *Lepus oiostolus*, Plateau pika *Ochotona curzoniae*, Ladakh pika *O. ladacensis*.

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On the status of Lesser Fish-Eagle *Ichthyophaga humilis* in southern Kerala

C. Sashikumar, C. K. Vishnudas, S. Raju,
P. A. Vinayan & S. Kannan



Lesser Fish-Eagle *I. humilis* at Parambikulam. 23 November 2009.

Sashikumar, C., Vishnudas, C. K., Raju, S., Vinayan, P. A., & Kannan, S., 2011. On the status of Lesser Fish-Eagle *Ichthyophaga humilis* in southern Kerala. *Indian BIRDS* 7 (1): 7–9.

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Introduction

Lesser Fish-Eagle *Ichthyophaga humilis* is classified as Near Threatened by the IUCN (BirdLife International 2008). In India it is, "Resident. The Himalayas from Kashmir to Arunachal Pradesh, and the hills south of the Brahmaputra... In winter wanders to the plains of Haryana, U.P. and Bihar." (Ripley 1982). Naoroji (2006) describes this species as "... sedentary, winter vagrants do stray into Uttar Pradesh and central India and most unusually in south India along the Kaveri river (sic) near Kanakapura, Karnataka ...".

The first record of the species in Kerala was a photograph taken by Nameer P. O. on 20 January 2006 at Parambikulam Tiger Reserve. Since then there were several records of the species from various parts of southern Kerala (Sashikumar *et al.*, in press). It is still not clear whether this species suddenly expanded its distributional range or has been overlooked by ornithologists, or misidentified as Grey-headed Fish-Eagle *I. ichthyaetus*, which it superficially resembles, and which has a much wider range than *humilis* (Ripley 1982).

We present here records of *I. humilis* from southern Kerala as recorded during the survey, "Along the trail of Sálím Ali," in 2009. We also report the breeding of the species in Kerala.

Methods

An ornithological survey entitled, "Along the trail of Sálím Ali," sponsored by the Kerala Forests and Wildlife Department, was carried out by the authors, following the route of Sálím Ali's "Travancore-Cochin Ornithological Survey" of 1933, in the areas south of the Palghat Gap from Wadakkancheri to Kanyakumari, which formed the erstwhile Princely States of Travancore and Cochin (Ali & Whistler 1935–1937). The duration of our survey was one year, from 1 January 2009 to 31 December 2009. Nineteen base camps of the survey were established, spread over eight southern districts of Kerala, covering different habitats from the coastal plains to the high altitude regions of the Western Ghats, with altitudes ranging from 0 m to 2,530 m. A three-hour line transect, between 0600 hrs and 1100 hrs, was walked on

each field day and the birds observed in fixed distance bands were recorded; a total transect distance of 282.35 km was covered. The overall distance covered during the survey was 1,100 km. Raptors were observed during the transect surveys as well as afterwards. Regular observations were made from vantage points to observe soaring raptors. Birds were observed using 8 x 40 binoculars. Whenever possible, raptors, in flight or perched, were photographed, for later identification. Lesser Fish-Eagle, being a species confined to inland rivers and reservoirs, was given specific attention, and additional time was spent, to ascertain the presence or absence of this species in such habitats.

Results

During the survey there were 14 sightings of Lesser Fish-Eagle, at Mlappara (PTR), Thooakkadavu, Kuriarkutti (both in Parambikulam Tiger Reserve), and Kallada Reservoir in Shendurney Wildlife Sanctuary (Table 1). While we were at Thattakkad Bird Sanctuary, an injured Lesser Fish-Eagle was brought to the sanctuary office on 11 February 2009. After two days of medical treatment it was released (Fig. 2).



Fig. 2. Injured immature Lesser Fish-Eagle *I. humilis*, Thattakkad, 11 February 2009.

Table 1. Summary of Lesser Fish-Eagle sightings

Location, Date	Numbers	Activity	Altitude (m)
Thattakkad Bird Sanctuary			
11 February 2009	1	In captivity, injured, released later	42
Periyar Tiger Reserve			
03 March 2009	1	Fight	935
04 March 2009	2	Soaring, courtship display accompanied by call	
Shendurney Wildlife Sanctuary			
23 March 2009	1	Soaring	375
27 March 2009	2	One at nest (nestling), second perched on a branch nearby	375
Parambikulam Tiger Reserve			
13 November 2009	1	Perched	705
15 November 2009	1	Flight	705
18 November 2009	2	One perched, one in flight	690
21 November 2009	2	Perched, fishing	690
22 November 2009	1	Perched, fishing	696
23 November 2009	1	Perched, fishing	690

Breeding

A nest, with a fledgling, was observed at Umayar (Shendurney Wildlife Sanctuary) on a tree on an islet in the reservoir on 27 March 2009 (Fig. 3). Umayar is about an hour's boat ride across Tenmala reservoir, upstream. At first we saw an eagle carrying a fish in its talons flying towards the islet. The bird perched on the high branch of a 'pala' *Alstonia scholaris*. On closer observation, we saw a well-concealed twig nest in the canopy, close to the perch of the eagle; another eagle was seen sitting inside the nest, and from the distance of about 100 m, this bird looked like a fledgling. The adult bird flew off after about 20 min. The nest was placed at about 20 m height. Both birds were silent during the time of observation.

Vocalisations

At Mlappara, Periyar Tiger Reserve, a pair of eagles was seen soaring high, circling, uttering loud nasal calls. A bird observed at Parambikulam Tiger Reserve also uttered similar calls perched on a branch at 1830 hrs.

Foraging

The bird was observed near reservoirs (Thoonakkadavu in Parambikulam Tiger Reserve and Kallada in Shendurney Wildlife



C. K. Vishnudas

Fig. 3. Lesser Fish-Eagle *I. humilis* at nest, Shendurney, 27 March 2009.

Sanctuary), fast flowing rivers (Mlappara in Periyar Tiger Reserve, Kuriarkutti in Parambikulam Tiger Reserve and Thattakkad) and stagnant pools in the creeks of the reservoirs (Thoonakkadavu). In Parambikulam Tiger Reserve, six sightings were of birds perched on overhanging branch of trees on the reservoir bank at a height of three to five meters above water level in the morning and evening, probably looking for fish. Birds were seen flying from one bank to the opposite after an unsuccessful hunting sortie. Some of the hunting sorties we observed at Parambikulam Tiger Reserve were close to dusk.

Conclusion

Our field study shows that the Lesser Fish-Eagle is a breeding resident in Kerala and not uncommon in southern Kerala. Recent records of the bird from other locations in southern India (Praveen J., *pers. comm.*) underline this factor (see Praveen 2011, p 14–16 in this issue).

Significantly two other species of raptors, Jerdon's Baza *Aviceda jerdoni*, and Mountain Hawk-Eagle *Spizaetus nipalensis* also have two disjunct populations in India. The northern race of Jerdon's Baza, *A. j. jerdoni*, ranges from north-eastern West Bengal, Sikkim, Assam and associated North-East hill states to Arunachal Pradesh (Naoroji 2006), while the southern race *A. j. ceylonensis* in the evergreen habitat of the southern Western Ghats from around Karnataka to south Kerala between 150 m and 1500 m (Naoroji 2006). Similarly, in the case of Mountain Hawk-Eagle, the northern race *S. n. nipalensis* is distributed throughout the Himalayan foothills from Kashmir to Arunachal Pradesh and throughout the north-eastern hill ranges, while the southern *S. n. kelaartii* resides above 600 m in the moist deciduous and evergreen hills of the Western Ghats, extending southward into Sri Lanka (Naoroji 2006). Keeping these patterns of distribution in mind, further research into the morphology and biology of the Lesser Fish-Eagle in Kerala is necessary.

Acknowledgements

We thank Sri T. M. Manoharan, Principal Chief Conservator of Forests and Head of Forest Forces, Kerala Forests and Wildlife Department, who took keen interest at all stages of the survey from planning to execution. We also thank the staff of Kerala Forests and Wildlife Department for extending logistic support.

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On the breeding of Lesser Fish-Eagle *Ichthyophaga humilis* in Cauvery Wildlife Sanctuary, Karnataka

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Introduction

Historically the Lesser Fish-Eagle *Ichthyophaga humilis* has been known to occur only in the Himalayan foothills, and north-eastern India, where it is a breeding resident (Ali & Ripley 1987; Rasmussen & Anderton 2005). However, there have been a few recent sight reports and photographs from riverine habitats in southern India since 2004 (Lethaby 2005; unpublished, online reports in the [bngbirds](http://groups.yahoo.com/group/bngbirds/) (<http://groups.yahoo.com/group/bngbirds/>) & [keralabirder](http://tech.groups.yahoo.com/group/keralabirder/) (<http://tech.groups.yahoo.com/group/keralabirder/>) egroups (see References). Little information exists about the distribution and habitats of Lesser Fish-Eagle in southern India, except for the infrequent sightings by bird watchers. One of its favourite haunts seemed to be the Cauvery River, along its stretch from Ranganathittu till about Hogenekkal, where it has been spotted at several places like Ranganathittu, Muthathi, Bheemeshwari, Doddamakali, and Galibore, some of these locations falling within Cauvery Wildlife Sanctuary. The species has been recorded from this region throughout the year.

In this note, we present observations made over a period of eight weeks, at Cauvery Wildlife Sanctuary, on perhaps the first nesting incidence of this species in Karnataka, and possibly the second from peninsular India. The first nesting record from

this latter region was in March 2009 from Shendurney Wildlife Sanctuary, Kerala (Sashikumar *pers. comm.* June 2009). We also record an instance of fishing by Lesser Fish-Eagle.

Discovery of the nest

On 7 June 2009, while watching birds near Bheemeshwari, in Cauvery Wildlife Sanctuary, around 1625 hrs, we (DK, SH, & VD) noticed a raptor perched on the topmost branch of a dead tree. Its back was towards us, and we had a clear view of its all-dark tail; we easily identified it as an adult Lesser Fish-Eagle. The raptor suddenly became alert and assumed an aggressive posture when a Brahminy Kite *Haliastur indus* soared above it. As soon as the kite went out of the view, the fish-eagle seemed more relaxed on its perch. When the kite reappeared, the fish-eagle took-off in a flash, raced after the intruder and chased it for some distance. It circled a few times over the area before disappearing towards the riverside. This typically 'aggressive' behaviour suggested a possible nest in the vicinity, and after a few minutes of searching, the nest was located. An adult fish-eagle was sitting in the nest, feeding a single chick! The adult was tearing off small pieces of food and feeding the chick. Based on the photographs, the age of the chick was approximated to be six weeks (Fig. 1).



Dinesh Ramarao

Fig. 1. Six-week old juvenile Lesser Fish-Eagle *I. humilis*.

Methodology

Due to practical constraints, continuous monitoring of the nest was not possible, but visits to the nest site were planned at least once a week in the morning or evening during subsequent weeks through July 2009, amounting to 13 field visits with 32 hours of field observation. The monitoring of the nest and the nesting tree was done from two locations.

1. About 40 m away from the nest from the side of the road, and
2. From the riverbank, from where movements of the adults were visible, but the nest was not visible.

For observations we used 10x50 binoculars and 30x50 spotting scope. Digital SLR cameras were used to photograph the nest, chick, and adult birds. We did not want to disturb the nesting pair and so did not construct a hide; ensuring that observations were made from a distance of at least 40 m away from the nesting tree. A concise summary of our observations is presented in **Table 1**.

Details of nest

The nest was 15 m above the ground, in the "Y" fork formed by a branch emerging from the main trunk of a large Arjun tree *Terminalia arjuna* (c. 20–25 m in height) on the banks of Cauvery River. The tree was situated in the forest between a motorable road and the river, approximately 30 m from the road and 10 m from the riverbank. The nest was well hidden and not easily visible from the road or the river. It was built mainly with sticks, and seemed to be about 2 m in diameter and 1 m deep. On 17 June 2009 we noticed that a side of the nest was lost in heavy rains, but the base of the nest was still solid and stable. In spite of the loss, the chick still had enough room to move around the nest.

Once we photographed a piece of blue plastic sheet in the nest (**Fig. 2**). Its purpose was not clear to us and was not seen in the next visit in the nest. The nest always contained ants (? *Camponotus* sp; checked through the scope, and at the base of the tree) and a good amount of time was spent by both adult and chick picking up these ants from the nest and occasionally off the body and throwing them away!



Fig. 2. A rare family portrait (note the plastic sheet in the nest).

One instance of disturbance to the nest was noted, from a troop of bonnet macaque *Macaca radiata*. The troop was passing through the nesting tree and a few primates approached the nest. The chick was in the nest and the female was sitting on a branch near the nest. The female and the chick adopted aggressive postures with open wings (but without calling). The monkeys stopped momentarily and continued at their own pace, moving away from the vicinity of the nest.

Two instances of interaction with other bird species were noted. Once, the chick was alone in the nest and a Common Myna *Acridotheres tristis* came near the nest. The chick called aloud, but neither its parents, who were sitting in the same tree, nor the myna reacted to the same! In the second instance a Brahminy Kite, which flew over the nesting tree, was chased away by the male.

Behaviour of parents and chick

The difference in size of adult birds was quite discernable in the field, and as it is well accepted that female eagles are considerably larger, the bigger bird is henceforth referred to as the female and the smaller one as male.

Some further general observations on behaviour of parent birds are noted below:

Once we observed the male calling around the nesting area and female left the nest a few minutes later. While in the nest, female was heard calling out aloud and the male was heard responding to the same, sometimes even from far away. The adult birds called whenever they approached the nest. During most of our evening (1730 hrs) observations, the adult birds were seen coming down to the riverbank and drinking water (**Fig. 3**). The adult was also observed taking an alert position on the nest on hearing loud or continuous honking of vehicles on the road, or loud shouts of tourists, but the bird never left the nest due to such disturbances.

Table 1. Summary of observations

Approx. age of chick	Date 2009	#Hrs observed	Behaviour of adults; food & feeding pattern	Chick plumage	Chick behaviour	Notes / Observers
6 wk	7 June	1.0	M brought & dropped food in N, then remained near N tree. Responded vocally to F's calls. F mostly in the N feeding, resting, preening, stretching, picking ants, repairing / rearranging leaves / twigs in N. Fed the chick small pieces. Also ate itself in between feeding and later the leftovers. Occasionally called from N. A few times, both parents remained on the N for a few minutes after the M brought food.	Bare head, neck pale grey-brown. Wing pale brown with white blotches / spots. Chest, belly, flanks, under-tail coverts dirty white. Tail very short, blackish. Primaries reaching tip of tail. Rump, back white. Iris dark.	Always in the N. Mostly squatting but sometimes stood while fed. No calls.	VD, DK, SH
	10 June	2.0				
	13 June	4.0				
7 wk	17 June	2.0	Same as above. F occasionally left the N for few hours.	Similar to above, but plumage became 'neater.'	Major activities were resting, feeding, and preening. Walked in the N, stretched wings.	A corner of the N destroyed in heavy rains. But no damage to the central area. DR, SK
8 wk	23 June	3.0	Sometimes fed the chick. Few times, dropped food in the N and did not feed.	Fully feathered. Upper wing darker brown. Upper wing coverts with paler brown edges. Head, chest, upper belly, and flanks dirty pale grey-brown, with paler throat. Lower belly and under tail coverts white. Tail dark with a pale brown base and a darker sub-terminal band. The tip of the tail white. From a distance, flight feathers appeared dark below contrasting with paler whitish under-wing coverts with brown mottling (Fig. 5).	Trying to eat by itself, mostly for small duration. Later fed by parents. Made weak moaning calls. Activities include resting, preening, eating, and walking in N. Occasionally flapped wings, jumped, picked up ants from the N and itself, and bit leaves and branches overhanging N. Wagged tail while preening / standing. Excreted out of the N.	N had a blue coloured plastic sheet. DR, SK, MK, DK, RAK
	24 June	2.5	Adults came to N only for feeding chick, otherwise stayed near N tree. Responded to calls from chick even if away from N.			
9 wk	28 June	6.0	Same behaviour as in previous weeks.	Similar to above, getting neater.	Ate by itself, but struggling to tear the food at times.	When Common Myna came near the N, chick called aloud, but both parents and Myna ignored the call! The F and the chick adopted aggressive postures with open wings when a group of bonnet macaques came near the N. DR, SK, MK, DK, RAK
	2 July	2.0			Other activities similar to above.	
	4 July	3.0				
10 wk	8 July	1.0	Same behaviour as in previous weeks.	Body proportions resembles adult. Plumage getting tidier and more like an adult.	Ate comfortably by itself. Hopped between branches in the N tree, flapping wings.	DR
11 wk	12 July	2.5	Seen landing in N.	Plumage getting tidier and more adult like.	Mostly not seen in N, but on or near the N tree. Seen landing in N but exited soon.	DR
12 wk	15 July	2.5	Seen near N tree.	Same as above.	Flies comfortably. Seen near the N tree. Once seen in the N.	DR, PHL, VD
	26 July	0.5				

Abbreviations: F=female; M=male; N=nest. DK= Dipu Karuthedathu; DR= Dinesh Ramarao; MK=Mohanram K.; PHL= Prakash H. L.; RAK= Raju A. K.; SH= Sreekumar H.; SK= Srikanth Kumar; VD= Vinay Das.

Dinesh Ramarao



Fig. 3. The pair at the evening ritual of drinking from the river.

Food and feeding habits

Other than fish, no other food was seen brought to the nest.

During the first and second week of observation, the food was torn to very small pieces by the female and fed to the chick. The longest feeding session observed was one in which 75–80 such small pieces were given with few small intermittent breaks (feeding session was from 0750 hrs to 0945 hrs). Later in the day, smaller sessions in which 45–50 pieces were fed were observed. The normal pace of eating was observed to be around 5–6 pieces a minute during active feeding sessions, with pace of eating being reduced when chick was satiated or disturbed. During feeding when some pieces fell in the nest during transfer, they were immediately picked up and re-fed to the chick.

On 4 July 2009, we watched an adult fishing at 1730 hrs. Both birds flew from the nesting tree, crossed the river, and perched among the leaves of a tree on the opposite bank. After some time, one of the birds (presumably the male) took off and landed in the shallow water near the perching tree. The bird stayed in water for few minutes, grasping a fish (c. 30 cm long) in its talons, and then hopped on to the sand with the fish (Fig. 4). After a few minutes it took off with the fish and landed on a tree nearby, with the fish held in its claws. Then it flew with the fish towards the nesting tree. Thirty minutes later it came to the nest, dropped the fish in it, and immediately left. The female arrived 20 min later, fed the chick, and ate the remainder herself—we could not estimate roughly the proportion of food shared between parent and chick, due to poor visibility.

Throughout the observation period, the female ate the remaining food once the chick had its fill. On some occasions, the female was seen eating part of the food in between feeding the chick. Whenever the chick showed no interest in the offered food, the female ate the same. However, once during the second week of observation, when the chick was distracted from feeding by passing cattle, the adult waited with the food in its beak till the cattle passed on, after which the chick resumed feeding. Curiously, after eating, the female was observed to move the head side-to-side almost as if rotating its head!

Summary

Breeding of Lesser Fish-Eagle has been studied in the Himalayan foothills (Naoroji 2006), but the present paper is the first detailed observation at a nest from peninsular India. The nest site selection and nest position agreed with earlier observations (Naoroji 2006). In the earlier studies from Himalayas, the nesting was always unsuccessful and nestling stage was never documented. The observations in our study indicate the following aspects of this stage (based on approximate age of the chick):

- For the first seven weeks, the parents exclusively feed the chick. It took around nine weeks before the chick ate by itself comfortably. The chick is able to fly when it is twelve weeks old.
- Female stays in the nest and mostly takes care of feeding the chick. She eats in the nest while feeding the chick.
- Male gathers food and drops it in the nest and stays in the vicinity of the nest.
- Other than the damage due to heavy rains, no other threats to the nest was observed.
- Observations in 2010 indicated that the nest was not reused the next year.

Lesser Fish-Eagle is a species dependent on linear habitats only in wooded habitats along large perennial river systems. It has been classified as Near Threatened by IUCN due to its small and declining range. The selection of the nest site very close to the river indicates its strong habitat preference during its breeding season. However, it is noteworthy that the nest was selected near an arterial road inside the sanctuary where human presence and tourism activities were a norm. This indicates that the species can tolerate moderate disturbances even during its breeding. The successful breeding of Lesser Fish-Eagle from southern India is quite significant in terms of local ornithological interest and conservation as it expands the known breeding range of this threatened species into the riverine forests of southern India. Despite practical limitations on continuous monitoring, a good amount of plumage variations of the chick could be studied during this period.

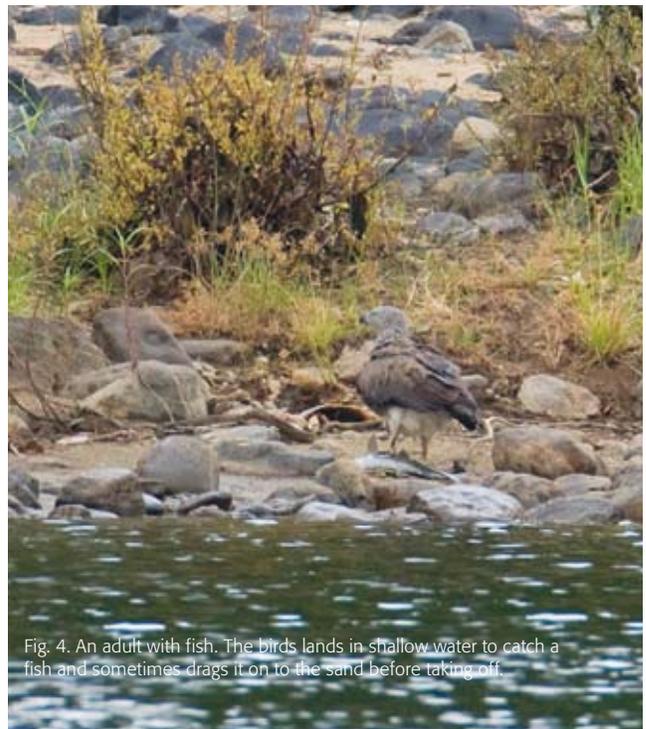


Fig. 4. An adult with fish. The bird lands in shallow water to catch a fish and sometimes drags it on to the sand before taking off.

Mohammed K.



Dinesh Ramarao

Fig. 5. Eight-week old juvenile.

It is worth mentioning that on 7 March 2010, in the same area, a total of six Lesser Fish-Eagles were observed soaring on a single day, indicating a good population in the surrounding areas. With increasing reports of Lesser Fish-Eagle from other parts of peninsular India, it is likely that more nests could be discovered in suitable areas. With sightings and now breeding of Lesser Fish-Eagle from areas that were predominantly believed to be falling in the range of Grey-headed Fish-Eagle (Lott 1989) – the status of the latter in southern India is becoming further unclear.

Acknowledgements

The nest was within the jurisdiction of the Cauvery Wildlife Sanctuary, Karnataka. We thank the following officials of Cauvery Wildlife Sanctuary, Kanakapura for the help accorded to us: Srinivas K D, Asst Conservator of Forest, Kempu Hoove Gowda, Range Forest Officer, Muthathi Range, and Vijay Kumar, Forester, Muthathi Range. We also thank all the Forest Dept Staff, Muthathi Range, who in addition to helping us were also instrumental in keeping a close watch on the nest and its surroundings to ensure its safety.

We thank S. Subramanya for guiding us on methodology of field observations and for his pleasant company during the field trip, for reviewing the report and for providing us with the historical data. We thank Praveen J for providing historical data, information about the Lesser Fish-Eagle nest in Kerala and also for reviewing the report. We thank Rishad Naorji and C. Shashikumar for helping with the aging of the chick. We also thank our fellow birdwatchers Sachin Shurpali, Srihari and Madhukar Rao, who accompanied us on our various visits.

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The birds use the trees along the river as lookout perches to launch at fish in the shallow water.

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An update on the distribution of Lesser Fish-Eagle *Ichthyophaga humilis* in southern India

Praveen J.

Praveen J., 2011. An update on the distribution of Lesser Fish-Eagle *Ichthyophaga humilis* in southern India.

Indian BIRDS 7 (1): 14–16.

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Lesser Fish-Eagle *Ichthyophaga humilis* is known to depend on forest-fringed water bodies with good stocks of fish (BirdLife International 2010). It is thought to be undergoing a moderate population reduction owing to forest degradation, over-fishing, and quite possibly by pollution of its habitat, and hence is classified as Near Threatened (BirdLife International 2010).

Historically, the species was known to occur in the Himalayan foothills and north-eastern India (Naoroji 2007) until it was discovered from Cauvery Wildlife Sanctuary, Karnataka (Lethaby 2004), followed by several sight and photographic records from other parts of southern India. Many of these sightings were reported in email discussion groups of *Bngbirds*, *KeralaBirder*, *TamilBirds*, nature photograph websites like www.indianaturewatch.net, or via personal emails to the author.

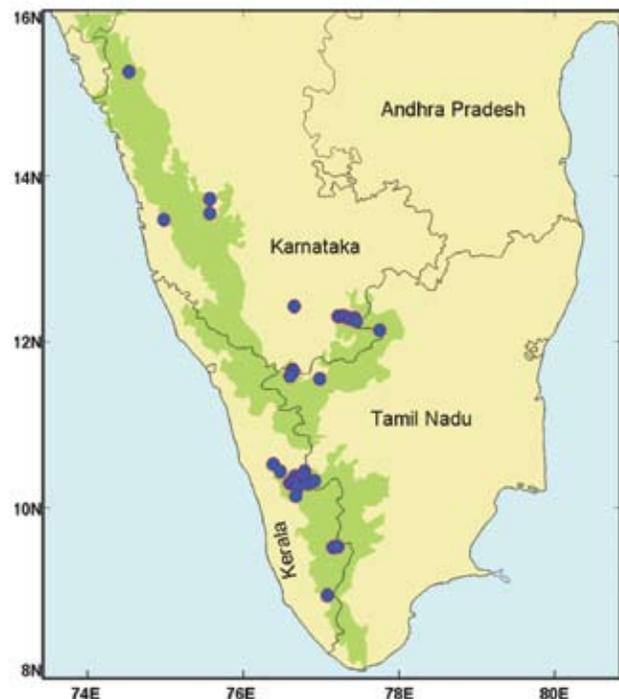
Almost all sightings from Kerala (n=14/15) were reported during organised bird surveys by Kerala Forest Department (Praveen & Nameer 2009), while all reports from Karnataka (n=13), and Tamil Nadu (n=4), were the results of uncoordinated, independent trips. Care was taken to double-check the identification of the species with the observer(s), particularly the diagnostic brown upper-tail coverts, *contra* white in Grey-headed Fish-Eagle *I. ichthyaetus* (Naoroji 2007). In many cases an observer(s) captured at least one photograph showing these field marks. Some of the record sites (n=14) are well frequented by birdwatchers / photographers and there are multiple sightings from here (indicated by †), as well as year-round observations; hence for consistency, only the names of first observer, and the date of first observation are mentioned in the Table. Sites (n=7) where the author has made observations are marked with an asterisk (*) while sites (n=12) from where the author has verified photographs are marked with a 'plus' (+). All the sightings are mapped to give a perspective of the distribution (Map). For the record, the first sighting from Karnataka was in December 2003, from Kerala in January 2006, and from Tamil Nadu in June 2009.

This note summarises the sightings of this raptor from 32 locations in Karnataka (KA), Tamil Nadu (TN), and Kerala (KE) since 2003 (Table).

As it can be seen from the map, there are two major concentrations for the species. One around the basin of mid-course of the Cauvery River, from about Ranganathittu till Hogenekkal, while the second around the Chalakudy River basin. These two regions account for 65% of the sightings from southern India and hence it is recommended that all efforts should be directed to conserve the species in these areas. It is also of relevance that nearly 80% (n=25) of the sightings are

in protected areas (see Table). Significantly too, nearly half the sites (n=15) in southern India are reservoirs (indicated by †) on rivers, mostly originating in the Western Ghats and flowing west. The marked habitat preference of the species, "... swift-flowing higher forested reaches of the rivers ..." (Naoroji 2007), does not necessarily seem to be the case in southern India. Almost all the west-flowing rivers of Western Ghats have been dammed, and the species has probably adapted to the high concentration of fish in these near-stagnant waters.

It is worth mentioning that all the fish-eagles seen in southern India in the past were believed to be Grey-headed Fish-Eagle until photographs from Cauvery Wildlife Sanctuary (WLS) were scrutinised. Previously well-known sites for *ichthyaetus*, including Periyar Tiger Reserve, Parambikulam Tiger Reserve, Vazhachal reserve forest, and Thattekkad Bird Sanctuary in Kerala were rechecked during bird surveys, with the help of recent field-identification literature, and the fish-eagles have turned out to be *humilis*!



Map. Distribution of Lesser Fish-Eagle *Ichthyophaga humilis* in southern India. Green=Western Ghats; Blue dots=Bird sightings. (Courtesy: S. Subramanya)

Site	PA / RF	Status	ST	River	First Observer	First Observation	References
Ganeshgudi ⁺	Dandeli	WLS	KA	Kali	SS ⁺	Dec 2007 [†]	Shivaram (2008)
Lakkavalli	Bhadra	WLS	KA	Bhadra [†]	PJ*	Dec 2008 [†]	Personal observation
Kudre-Hebbe	Bhadra	WLS	KA	Bhadra [†]	VMR	Jan 2010	Mohan Raj (2010)
Hebri	Someshwara	WLS	KA	Seetanadi	GT	July 2010	Timappur (2010)
Ranganathittu ⁺	Ranganathittu	BS	KA	Cauvery	SSL ⁺	Feb 2008 [†]	Saligram (2008)
Mekadatu	Cauvery	WLS	KA	Cauvery	PJ*	Aug. 2006	Personal observation
Doddamakalli	Cauvery	WLS	KA	Cauvery	SS ⁺	June 2004 [†]	Lethaby (2004)
Bheemeshwari ⁺	Cauvery	WLS	KA	Cauvery	SS**	May 2004 [†]	Lethaby (2004)
Muthathi ⁺	Cauvery	WLS	KA	Cauvery	DK ⁺	June 2010 [†]	D. Karuthedathu (<i>pers. comm.</i> June 2010)
Galibore ⁺	Cauvery	WLS	KA	Cauvery	VC**	Dec 2003 [†]	Lethaby (2004)
Sangam ⁺	Cauvery	WLS	KA	Cauvery	PJ*	Aug. 2006	Personal observation
Hogenekkal	Hosur	RF	TN	Cauvery	PJ*	June 2009 [†]	Personal observation
Huli Katte	Bandipur	NP	KA	None	SVT ⁺	July 2010	S. V. Thimappa (<i>pers. comm.</i> July 2010)
Yere Katte	Bandipur	NP	KA	None	SVT	May 2010	Thimappa (2010)
Mudumalai ⁺	Mudumalai	WLS	TN	Moyar	JB ⁺	Mar. 2010	Balamurugan (2010)
Mangalapatti ⁺	Satyamangalam	RF	TN	Moyar	CG ⁺	Apr. 2010	Christopher G. (<i>pers. comm.</i> June 2010)
Moodal	Peechi-Vazhani	WLS	KE	Manali [†]	DK	Nov. 2006	Nameer & Nirmal 2007a
Mulappara ⁺	Chimmony	WLS	KE	Chim- mony [†]	PON	Nov. 2006	Nameer & Nirmal 2007b
Thunakadavu	Parambikulam	TR	KE	Chalakudy [†]	PON ⁺	Jan. 2006 [†]	Sashikumar <i>et al.</i> 2010a. <i>In press</i>
Muthuvarachal	Parambikulam	TR	KE	Chalakudy	DK	Dec. 2006	Nameer & Praveen 2007
Karanthodu	Vazhachal	RF	KE	Chalakudy	RS	Feb. 2008	Uthaman & Nameer 2008
Manampolly	Anamalais	WLS	TN	Chalakudy [†]	DR	Sep. 2009	Raju (2009)
Pooppara	Parambikulam	TR	KE	Chalakudy [†]	KGK	Dec. 2006	Nameer & Praveen 2007
Poringal	Vazhachal	RF	KE	Chalakudy [†]	KKA	Feb. 2008	Uthaman & Nameer 2008
Vazhachal	Vazhachal	RF	KE	Chalakudy	SKC	Feb. 2008 [†]	Uthaman & Nameer 2008
Anakkayam	Vazhachal	RF	KE	Chalakudy [†]	AB	Feb. 2008	Uthaman & Nameer 2008
Malakkappara	Vazhachal	RF	KE	Chalakudy [†]	PKU	Feb. 2008	Uthaman & Nameer 2008
Idamalayar	Malayattur	RF	KE	Periyar [†]	SPN	Jan. 2007 [†]	Sashikumar <i>et al.</i> 2010a. <i>In press</i>
Thattekkad ⁺	Thattekkad	BS	KE	Periyar [†]	CSK ⁺	Feb. 2009 [†]	Sashikumar <i>et al.</i> 2010b. <i>In press</i>
Aruvioda ⁺	Periyar	TR	KE	Periyar [†]	DK ⁺	Feb. 2008	Nameer <i>et al.</i> 2008
Mullakudy	Periyar	TR	KE	Periyar [†]	PJ*	Feb. 2008	Nameer <i>et al.</i> 2008
Tenmala ⁺	Shendurney	WLS	KE	Kallada [†]	CSK ⁺	May. 2009 [†]	Sashikumar <i>et al.</i> 2010b. <i>In press</i>

BS = Bird Sanctuary, RF = Reserve Forest, TR = Tiger Reserve, WLS = Wildlife Sanctuary.

Observer acronyms: AB=Amitabh Bachan, CG=Christopher G, CSK=C Sashikumar, DK=Dipu Karuthedathu, DR=David Raju, GT=Guruprasad Timappur, KGK=Karthik GK, KKA=Kishore KA, JB=J Balamurugan, PJ=Praveen J, PON=PO Nameer, PKU=PK Uthaman, SPN=S Prasanth Narayanan, RS=Raju S, SKC=Susanth Kumar C, SS=Sudhir Shivram, SSL=Santosh Saligram, SVT=S Vinaykumar Thimmappa, VC=Vijay Cavale, VMR=Vijay Mohan Raj.

The only known stronghold of *ichthyaelus* from southern India is the Kabini area on the Karnataka–Kerala border where it has been regularly observed and photographed. This region includes northern parts of Wayanad Wildlife Sanctuary in Kerala (Sashikumar *et al.* 2010a. *In press.*), and Nagarhole National Park (Lethaby 2004; Aasheesh Pittie *in litt.* 5 March 2011), the adjacent regions in Bandipur National Park (Mohan 2007), and Kodagu district (Aasheesh Pittie *in litt.* 5 March 2011), all in Karnataka. It has also been photographed a few times from Kyathadevara Gudi in Biligiriranga Swamy Temple Wildlife Sanctuary, Karnataka (Yathin 2005; Kulashekara 2007) even though ideal habitat for the bird does not exist inside the sanctuary (Prashanth N. S. *pers. comm.*, June 2010). Dandeli Wildlife Sanctuary, Karnataka, seems to be the only area from where both species have been photographed conclusively (Vijay Mohan Raj *pers. comm.*, October 2010). A photograph from Chimmony Wildlife Sanctuary, Kerala, in June 2008 is believed to be of *ichthyaelus* (Sashikumar *et al.* 2010a), and it has been subsequently observed there in September 2010 (Das 2010). A few recent reports of *I. ichthyaelus*, without proper photo-documentation, exist from Parambikulam Wildlife Sanctuary, Pala region, Vazhachal reserve forest (Sashikumar *et al.* 2010a), and Bhadra Wildlife Sanctuary (Vijay Mohan Raj *pers. comm.* October 2010); however there have not been any repeat observations from these parts. In this context, the conservation significance of the Grey-headed Fish-Eagle swells much as the

species is decidedly rare and localised in southern India.¹

Acknowledgements

Thanks to all the observers listed in the table above for sharing their observations and photographs in public groups, bird surveys or by directly writing me, without which this note would not have materialised. Many thanks to S. Subramanya, Dipu Karuthedathu, C. Sashikumar, Vijay Mohan Raj, Nick Lethaby, and P. O. Nameer for reviewing this manuscript and providing useful comments which improved this short note greatly.

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1. Since the first draft of this manuscript, Lesser Fish-Eagle has been recorded from six new sites namely, three in Neyyar Wildlife Sanctuary (December 2010), one in Peppara Wildlife Sanctuary (December 2010) and two in Malayattur reserve forest (February 2011) during organised bird surveys in Kerala while the Grey-headed Fish-Eagle was photo-documented from Bhadra Wildlife Sanctuary (February 2011) by Mike Prince.

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Winter diet of Short-eared Owls *Asio flammeus* in Akola, Maharashtra

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Manuscript received on 19 April 2010.



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Short-eared Owl *Asio flammeus*.

Introduction

"The Short-eared Owl *Asio flammeus* breeds across sub-arctic, temperate North America, Eurasia as well as on the grasslands of South America and some islands including Hawaii, Galapagos, Falkland Islands, Cuba, Puerto Rico, Borneo, and Philippines. Some populations are resident; however, the northernmost populations are migratory. In North America, birds winter from extreme southern Canada, south to central Mexico. Eurasian birds winter in the Mediterranean region of Europe, Northern Africa, and southern Asia to Malaysia," (Holt & Leasure 1993).

The Short-eared Owl is a winter migrant to India (Blanford 1894). It prefers grassland and open country (Ali & Ripley 1987). It is reported from many regions of India, such as, Maharashtra (Jamdar & Shrivastava 1988; Chandrasekaran 1995), Madhya Pradesh (Pasha *et al.* 2004), Tamil Nadu (Thyagaraju 1933), Kerala (Jayson & Mathew 2002; Chandrasekhara & Nameer 2003), Gujarat (19 November 1993 specimen: The Field Museum), Rajasthan (5 January 1949 specimen: The Field Museum; Singh 1997), Karnataka (20 January 1941 specimen: The Field Museum), Uttar Pradesh (Grewal 2000), and Andhra Pradesh (Kanniah & Ganesh 1993).

Although there are several records of Short-eared Owl from India there is very little information available on its diet. Ali & Ripely (1987) stated that it mainly feeds on rats, mice, birds, grasshoppers, locusts, beetles, *etc.* However, details of its diet and biomass consumption are unknown. This study tries to assess the wintering diet and biomass consumption of Short-eared Owls. The Biomass of the mammals and birds was taken from Bombay Natural History Society's museum specimens.

Study area

The study area, consisting of a c. 3.7 km² mosaic of grassland and crop fields, is situated 15 km east of Akola city (20°40'05.7"N 77°09'24.0"E), in Maharashtra, India. The habitat is typical scrub forest interspersed with grassland and crop fields. The dominant plant species are *Acacia nilotica*, *A. katechu*, *Anogeissus latifolia*, *Zizyphus sp.*, *Hardwickia pinnata*, *Butea monosperma*, and *Bombax ceiba*. The main grass species found in this area are

Heteropogon contortus, *Pennisetum pedicellatum*, *Andropogon tumulus*, *Apluda mutica*, *Aristida reducta*, *Chrysopogon fulvus*, and *Cymbopogon martinii*. The crop species are cotton *Gossypium sp.*, jowar *Sorghum bicolor*, wheat *Triticum spp.*, and soybean *Glycine max*.

Methods

From January to March 2006 we collected pellets¹ once per week from diurnal roosts of two individual Short-eared Owls. A total of 66 pellets were collected, of which 58 were intact. Efforts were made to collect a large number of pellets and care was taken to avoid collecting pellets of harriers (*Circus spp.*), which roosted nearby. To avoid this we confirmed the diurnal roosts of the two Short-eared Owls by flushing them out of grass clumps and acacia shrubs. We assumed that only two owls used the area of 3.7 km. The birds were not banded hence we cannot say decisively that they were same individuals. However, we collected pellets only from two roosting sites. Mostly the Short-eared Owls showed site fidelity, shifting roosts only after cattle had grazed the area.



Ajit Deshmukh

Scrub and grassland, Akola, Maharashtra.

1. A pellet is the mass of undigested parts of a bird's food that some species regurgitate. The contents of a bird's pellet depend on its diet, but can include the chitinous exoskeletons of insects, indigestible plant matter, bones, fur, hair, feathers, bills, claws, and teeth.

All pellets were sun-dried, numbered, and placed in polythene bags, with information on date, location, and number of pellets. The pellets were dissected using standard technique after Yalden (1990). All the pellets were soaked in water and dissected with forceps under a magnifying glass. The contents of the pellets were segregated according to the Class, such as insects, birds, and mammals. Prey items were identified to the finest possible taxonomic level at Bombay Natural History Society (BNHS), Mumbai, and Zoological Survey of India (ZSI), Pune. Jawbone and skull pieces showing key characters like molars, incisors, nasals, pallet, and mandibles were used for the identification of mammals up to the generic level, using Corbet & Hill (1992), and Agrawal (2000). Some bird species could be identified by comparing pellet contents with museum specimens in the Natural History Collection of Bombay Natural History Society. We could identify the Common Babbler *Turdoides caudata* due to presence of entire leg, and complete primary feather, and Greater Short-toed Lark *Calandrella brachydactyla* on the basis of pale bill, pink legs, and feathers. Remnants of other birds could not be identified up to species level. Unidentified mammal and bird species were excluded from the biomass analysis, as we could not determine their biomass.

The weights of insectivores (shrews), and birds were taken from BNHS collection records, and weights of all rodents were taken from Ellerman (1961). The weights of grasshoppers ($n = 45$) and scarabid beetle ($n = 27$) were determined from live field specimens using a 50 gm Pesola balance.

Results

A total of 94 prey items were segregated from 66 pellets. The mean prey per pellet ratio was 1.4 ± 0.61 . It was observed that the Short-eared Owl feeds on eight taxa, which comprised one insectivore, three species of rodents, two species of birds, and two species of insects. Some rodents and birds could not be identified even to generic levels. The average length of pellets was 3.4 ± 0.87 cm and width was 1.64 ± 0.33 cm. The mean dry weight of pellets was 2.5 ± 1 gm.

The results suggest that the Short-eared Owl feeds primarily on vertebrates, which comprise 81% of its diet, and invertebrates (insects) account for the remaining 19%. Among vertebrates, 62% were small mammals (rodent and shrew) and 19% were birds (Table 1). Numerically, rodents were the most frequent prey of the Short-eared Owl during the study period; *Mus musculus*

being the most preyed upon species followed by *M. platythrix* and other *Mus* spp. Among birds, the Greater Short-toed Lark was preyed upon more often than any other bird species found in study area.

In terms of biomass, rodents were the most important prey (70% of the biomass) followed by birds (14%), and the shrew and insects (16%).

Discussion

Our results suggest that rodents are the most important prey species in terms of frequency and biomass. Wiebe (1991), Sullivan (1992), and Holt & Leasure (1993) speak of similar results. Holt (1993) states, "Short-eared Owls are generally considered to prey on small mammals of which usually one or two species predominate." Our study supports this conclusion and shows that the Short-eared Owl is a small mammal specialist with a narrow food-niche.

Although the relative abundance of prey species within the Short-eared Owls' territory was not estimated, it appears that small mammals, especially *Mus* spp., were hunted in the proportion to their relative abundance. Studies on the Barn Owl *Tyto alba* (Evans & Emlen 1947) have proved that the change in consumption of prey is directly related to the periodic change in the population of prey species. Studies carried out by Jathar *et al.* (2006) in Satpuda Hills on Forest Owlet *Heteroglaux blewitti* suggest a similar pattern. Similarly, the Greater Short-toed Larks were seen in the study area in huge flocks. During the study period Short-eared Owls were observed to successfully hunt Greater Short-toed Larks ($n = 3$), and also chase their flocks ($n = 17$).

It was observed that the Short-eared Owl is hounded by habitat disturbance. Grass is harvested during February and early March. This forces the Short-eared Owl to occupy new territories, in the process, competing with harriers for roosting sites, as well, perhaps, for food. We have seen five such encounters between harriers and Short-eared Owls in February and March. Therefore, it is important to protect these grassland and scrubland for the survival of the Short-eared Owl as well as other birds of prey. The land tenure of the current study area is with State Revenue Department, State Forest Department, and privately held. The privately owned area is well protected and Short-eared Owls prefer this area for roosting, once the grass in other areas has either been cut, or grazed.

Table 1. Diet items and biomass estimated from pellets of Short-eared Owl at Akola ($n= 64$)

Species	No. of Individuals (a)	Percentage of Occurrence	Total of percentage	Mean weight of animals in gm (b)	Biomass consumed (axb)	Percentage of Biomass	Total of Biomass consumed in percentage
Insectivorous							
<i>Suncus murinus</i>	6	6.38	6.38	26	156	7.36	7.36
Rodents							
<i>Mus</i> spp.	10	10.64					
<i>Mus musculus</i>	25	26.60		17	425	20.05	
<i>Mus platythrix</i>	12	12.77		26	312	14.72	
<i>Tatera indica</i>	5	5.32	55.32	148	740	34.91	69.67
Birds							
<i>Calandrella cinerea</i>	12	12.77		22	264	12.45	
<i>Turdoides caudata</i>	1	1.06		39	39	1.84	
Unidentified birds	5	5.32	19.15				14.29
Insects							
Grasshopper	8	8.51		8	64	3.02	
Scarabidae beetle	10	10.64	19.15	12	120	5.66	8.68
Total	94				2120		

Conservation measures

The proactive initiative taken by one of us (AJD) to protect the grassland and scrubland is helping conservation of the birds of prey and owls of this area. The conservation measures include protection of 10 ha of grassland where grazing, grass cutting, forest fires, bird hunting, and use of pesticides and rodenticides have been totally stopped. Along with this farmers in neighbourhoods were motivated to protect grasslands nearby their farms. We recommend that the state forest department protect these grasslands at least till the end of March, when these birds of prey and owls start the return journey to their breeding grounds.

Acknowledgements

We kindly acknowledge Dr Asad R. Rahmani, Director, BNHS, and late Mr Naresh Chaturvedi, Curator BNHS for their kind co-operation in permitting us to refer the natural history collection of the Society. We would also like to thank Dr S. R. Yadav and Mr Nilesh Pawar of Department of Botany, Shivaji University, Kolhapur for identification of grass and plant species. We thank Dr Jayant Deshmukh for his co-operation for studying the owls at his farm in Akola.

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Short-eared Owl *Asio flammeus*: a first record for Manas National Park, Assam

Namita Brahma & Bibhuti P. Lahkar

Brahma, N., & Lahkar, B. P., 2011. Short-eared Owl *Asio flammeus*: a first record for Manas National Park, Assam. *Indian BIRDS* 7 (1): 20.

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Manuscript received on 28 September 2009.

The Short-eared Owl *Asio flammeus* is a widespread winter visitor (September/October–March/April) to the Indian Subcontinent. It is recorded throughout the subcontinent as well as the entire Indian Union, together with Sikkim to eastern Assam, and Manipur, including Pakistan and Nepal (Ali & Ripley 1987). It occurs in a variety of habitats, from open grassy countryside with bushes, to tall grasslands on the margins of jheels, as well as along sparse scrubby hillsides. In Assam, it is relatively uncommon (Choudhury 2000).

On 22 February 2008, while looking for Bengal Florican *Houbaropsis bengalensis* in Koklabari Agricultural Farm (26°45'15.6"N 91°11'38.3"E) at 0812 hrs, we saw seven Short-eared Owls. KAF is situated on the eastern boundary of the Bhuyanpara Range of Manas National Park. The area (9 km²) is mainly open farmland where paddy is the main cultivated crop.

The owls were flying around tall eucalyptus trees in the central portion of the farm, and two of them, after flying for some time, settled on the ground. The ground vegetation at that time was mostly 'naras' (the dry tuft remaining after paddy has been harvested). Once they had settled it was easier for us to see them clearly through binoculars. We observed them for nearly 45 min, and were able to identify them clearly. We could not identify the species initially, but were sure that it was not the Eastern Grass-owl *Tyto longimembris*, usually seen in the area; no doubt the size was similar, but the way it behaved (e.g., flying in the morning) was not usually seen in Eastern Grass-owls. Further, it had a pair of small 'ears' that is lacking in a grass-owl. We matched the species with the colour illustrations in Grimmett *et al.* (2001), and Kazmierczak (2000). There were two short blackish-brown, upright ear-tufts, above its yellow eyes. Wings and tail were barred with rufous and black. It had pale buff-brown, longitudinal streaks on its breast. In flight we saw the rufous dorsal, and white ventral sides of the pointed wings. There was a prominent dark bar across each black-tipped wing. Again, on 24 February 2008, at 0730 hrs, we saw those seven Short-eared Owls perched on the branches of the tall eucalyptus trees. Earlier Short-eared Owl sightings are confined to eastern part of Assam, mostly to Dibru-Saikhowa National Park (Das 2006), these sightings probably would be the first records of the species for Manas, as it was not listed by Choudhury (2006).

In 2009 we revisited the same site, and searched for the owls from 19–27 February, and again from 8–13 March 2009 and 31 March 2009 to 3 April 2009. However, we did not see them again. The Short-eared Owl occurs irregularly, its abundance

varying from year to year, and at times there have been occasional invasions by the species (Ali & Ripley 1987). However, Ranjan Das (*pers. comm.*; Das 2006) observed nine Short-eared Owls in Raidang grassland in Dibru-Saikhowa National Park for three consecutive years in March 2004, 2005 and 2006.

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Short-eared Owl *Asio flammeus* resting on ground.

Occurrence of the Grey-crowned Prinia *Prinia cinereocapilla* in Dehradun, Uttarakhand, India



Sanjay Sondhi

Sondhi, S., 2011. Occurrence of the Grey-crowned Prinia *Prinia cinereocapilla* in Dehradun, Uttarakhand.

Indian BIRDS 7 (1): 21.

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Manuscript received on 12 December 2009.

I would like to report the occurrence of the Grey-crowned Prinia *Prinia cinereocapilla* from Dehradun in western Uttarakhand. On 18 October 2009, I was birdwatching with Anchal, my wife, and Yash, my son, on the hill slopes near Sahastradhara, north of Dehradun. We had driven approximately 4 km along the road leading from Sahastradhara to the village of Karligad (30°24'07"N 78°8'25"E). Below us was the Baldi Rau (Baldi River); while to the north-west were the hills of Mussoorie and Dhanaulti.

As we climbed up the hill, we saw a flock of prinias on the bushes and heard them call. The prinia's call note was a soft "t-sirrrr", which was quite unlike other prinia calls. Attempts to observe and identify the birds initially, proved unsuccessful. However, a few hours later in the same area, we were able to observe the prinia and photograph it as well. The prinia, with its rufous-brown wings, back and tail, grey head and nape with a long, prominent rufous-tinged supercilium extending well behind the eye, was unmistakable as the Grey-crowned Prinia. The rufous-tinged supercilium was only visible in good light. The bird had a prominent black streak through the eye while the underside was buff. In the same area, we also observed a flock of Grey-breasted Prinia *P. hodgsonii*. It is likely that the two species exist in mixed flocks together.

The Grey-crowned Prinias were seen on a hill slope with scrub, bushes, and secondary growth, at an approximate altitude of 1,180 m. The prinias were always seen at the tops of bushes.

The bird is clearly shy, and I did not see it on two subsequent visits to the same area on 19 and 31 October 2009.

The Grey-crowned Prinia is an uncommon resident, which is endemic to the Indian Subcontinent. To the west of Dehradun, it has been recorded in the Margalla Hills in Pakistan (Roberts 1992) but has not been subsequently located in the same area. Singh (2006) recorded it from Sukhna Wildlife Sanctuary, Chandigarh, which is approximately 180 km due west of Dehradun. To the east of Dehradun, there have been sightings of the bird in Corbett National Park (c. 200 km south-east of Dehradun), and Dudhwa National Park. Further, older records exist from Nepal, Bhutan, and the Indian states of West Bengal, and Assam (Grimmett & Inskipp 1998; Baker 1997).

This sighting further extends the range of this species, bridging the gap between Sukhna Wildlife Sanctuary and Corbett National Park.

I had another unconfirmed sighting of the same prinia at Jardhargaon, near Chamba in Tehri district, Uttarakhand, on 15 August 2009. The prinia was singing, and despite efforts to record its song, I could not do so in Jardhargaon.

The Grey-crowned Prinia's status in India is described as "uncertain" with only a few published records (Grimmett & Inskipp 1998). As per the 2009 IUCN Red List Category (as evaluated by BirdLife International - the official Red List Authority for birds for IUCN), this species is listed as "Vulnerable". The main threats to the bird are habitat destruction, so its sighting in a semi-urban location, close to habitation gives hope that the bird's distribution is wider than previously known.

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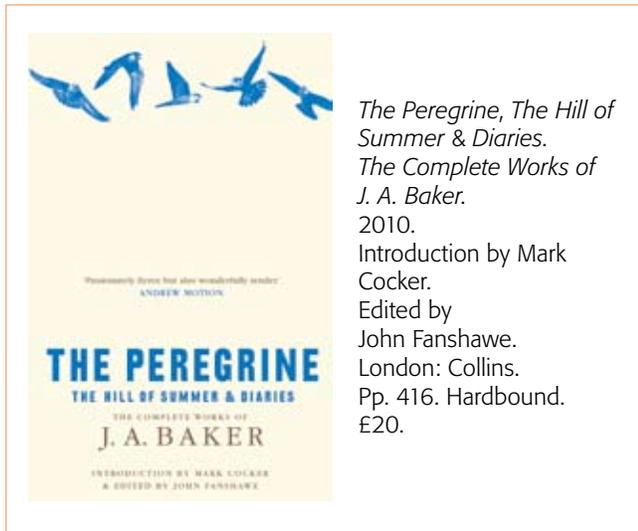
Notice

Indian BIRDS
Index for 2010, Vol. 6
is enclosed with this issue.

Errata *Indian birds* vol. 6 no. 6

Contents: Author of fourth paper should be Odd W. Jacobsen, not B. M. Parasharya. In penultimate line, the Latin name of Orange-breasted Green-pigeon should be *Trogon bicinctus*.
Page 153, left column, fourth line from bottom: delete "(Fig. 1)."
Page 163: captions of the maps should be interchanged.
Page 168, right column, first line, of Sangha *et al.*: change "winter" to 'non-breeding'.

Reviews



The Peregrine, The Hill of Summer & Diaries.
The Complete Works of
J. A. Baker.
 2010.
 Introduction by Mark Cocker.
 Edited by John Fanshawe.
 London: Collins.
 Pp. 416. Hardbound.
 £20.

John Alec Baker's (1926–1987) *The Peregrine* (1967) scorched an incendiary trajectory to literary fame by winning that year's Duff Cooper Prize, awarded for, "the best in non-fiction writing,"¹ and remains the only work in the genre of 'nature writing' so honoured, since the award was instituted in 1956. Over the past four decades Baker has attained the coveted stature of being a writer's writer on a remarkably slim body of work comprising two books, the above, and *The Hill of Summer* (1969). He is considered the most influential British nature-writer of the twentieth century—joining ranks with Gilbert White, John Clare, and W. H. Hudson, all revered masters of the genre—elevated to that pedestal by admiring contemporary poets and nature-writers, awed by the adroit use of words, and consummate turns of phrase that he forged in his word-smithy.

Baker lived all his life in the small English town of Chelmsford, Essex, and for a greater part of his working life was manager, first of the local branch of the Automobile Association, and later, of a fruit juice depot. Strangely, he never learnt how to drive, preferring to ride a bicycle around the countryside while watching birds! He was a true champion of the local patch, meandering quiet country roads either after work hours, or from dawn to dusk on holidays, absorbing the wild topography of his beloved Essex, so he could, "Convey the wonder of ... a land to me profuse and glorious as Africa." He preferred birdwatching by himself, occasionally hinting the presence of a companion with a privacy-guarding initial, or using the non-committal 'we,' in his diary. Towards the end of his life he suffered from, and finally succumbed to, the protracted agony of rheumatoid arthritis.

I have read *The Peregrine* four times since the 1980s, stooping into its pages between readings, and have, every time, come away gasping at the brilliance of Baker's incandescent prose—clearly my favourite for a marooned-on-an-island book. It is written in the form of a diary, purportedly covering a year, but conjecturally

encapsulating the author's decade-long (mainly 1955–1966) single-minded, Ahabic² pursuit of this iconic predator, during a time when it was considered rare in Great Britain.

Baker's ability to imbibe landscape and atmosphere in its entirety cannot but be celebrated: to convey a sense of place and its denizens with incomparable intuition; to metamorphose into the wolf in its hackled pelt, or fleece-trapped sheep; to torpedo his reader into the visceral stoop of the savage wanderer, plunging earthward as though that circumambulating sphere were ether and the bird intent on emerging unscathed beyond; to terrorise him into the frantic flight of a doomed pintail; to make the world tilt and flash in the seething cauldron of this quicksilver moment, this temporal drama.

In an insightful passage of great import to the birdwatcher, Baker once found himself,

... crouching over the kill, like a mantling hawk. My eyes turned quickly about, alert for the walking heads of men. Unconsciously I was imitating the movements of a hawk, as in some primitive ritual; the hunter becoming the thing he hunts. I looked into the wood. In a lair of shadow the peregrine was crouching, watching me, gripping the neck of a dead branch. We live, in these days in the open, the same ecstatic fearful life. We shun men. We hate their suddenly uplifted arms, the insanity of their flailing gestures, their erratic scissoring gait, their aimless stumbling ways, the tombstone whiteness of their faces.³

The hill of summer is a lyrically pastoral record of a year in the life of a hill, the changing cycle of its seasons, the covering and disrobing of its vegetative mantle, the peregrinations of its denizens. It is profoundly enjoyable if you let the author's immaculate eye unravel the scenery for you. Baker's hawk-obsessed passages are fiery, fierce, and exquisitely tooled:

The male sparrowhawk lives very close to the edge of things. He is a primitive, an aboriginal among birds, savage in killing because his power is small. His long legs look thin and fragile, like stems of amber. He snatches his prey, bears it down, grips it insanely as though he fears its life will swell up in his foot, will swell up and burst and overwhelm him ... Every movement of the wood reaches out and touches him with a long finger ... But unmated, or when nesting is over, he reverts to what he was: a wild-leaping gazelle of the air, whose thin yellow eyes pierce all shadow, whom all steps tread upon, whom all sounds deafen, whom all sights dazzle; the flying nerve of the wood.⁴

1. Source: <http://www.duffcooperprize.org> [Accessed on 25 March 2011].

2. The striking parallel of Baker's obsession to the immortal grandeur of Captain Ahab's mania for the white whale was taken from 'LRB Blog' [<http://www.lrb.co.uk/blog/2010/08/03/gillian-darley/who-was-j-a-baker/>]. [Accessed on 25 March 2011.]

3. *The Peregrine*, chapter entitled 'November.'

4. 'May downland' (p. 194).

And yet, despite his raptor fixation, he is euphonic when describing other facets of the countryside,

The wood lark's song is less abandoned and more melancholy-sounding than the skylark's. Each new cadence is elaborated from the one that went before. The bird seems to ponder each phrase before shaping it into song. He sings it, lets it fall, recovers it, lets it fall, then lets it lie where it fell ... It was a wonder to me that so small a fragment of life could fly in complete darkness, and in heavy rain, breathing so carefully, skilfully, out into nothing, for nothing, to nothing, but to be itself.⁵

While the two books are distillations of his diaries, a third of which are published in this volume of his 'complete' works, it is these recently discovered sheaf of papers, printed now for the first time, that shine a ray of sunlight on the true spirit of the man. Through them we learn of his birding companions, of the tools of his trade that created his style of birding, of his frailties, of the incredible sensitivity, and reluctant mortality of his thoughts. The above song of the Wood Lark was taken and rearranged from a slightly differently worded, yet profoundly poignant, diary entry of

16 June 1954:

We stood under that wonderful sound, coming down to us in the thick darkness and the pouring rain. And a feeling of great exhilaration possessed me, like a sudden lungful of purer air. The great pointlessness of it, the non-sense of nature, was beautiful, and no-one else would know it again, exactly as we knew it at that moment. Only a bird would circle high in the darkness, endlessly singing for pure, untainted, instinctive joy, and only a bird-watcher would stand and gorp up at something he could never hope to see... sharing that joy.

Baker's greatest achievement is the ability to draw the reader into the atmosphere of the peregrine's, or indeed, his own, landscape on any page that falls open, despite the author's perceptive confession, "The hardest thing of all to see is what is really there."

No birdwatcher's library is complete without *The Peregrine* perched on the shelf, nor his eye honed to that skill, if it were not well thumbed.

— Aasheesh Pittie

Post card from the Pacific Ocean: a boat trip to see seabirds off the California coast

Ragupathy Kannan

Kannan, R., 2011. Post card from the Pacific Ocean: a boat trip to see seabirds off the California coast. *Indian BIRDS* 7 (1): 23–24.

Oceanic birding is the last frontier for birders rooted on *terra firma*. Even the most hardened and seasoned member of the tribe may be pushed to the limit in the face of chilly winds and choppy seas. Birding on wet, heaving decks can test anyone's skill and resolve. To add to the difficulties, pelagic birds invariably offer mere fleeting glimpses, and identifications are difficult even in the best of conditions.

So I forayed into this unfamiliar arena with trepidation. On a characteristically chilly and foggy California (United States) June morning I boarded *Shearwater Journeys'* pelagic birding launch with an assortment of birders. As we chugged out of Santa Cruz harbour, our leader, Debra Shearwater (yes, that *is* her name) went over all the safety instructions. 'Be sure to know where the flotation devices are; take your motion sickness pills *now* if you are prone to seasickness; always be prepared to grab something for support.' And then the more experienced sea birders shared tips for efficient sea birding. 'Use the clock face to point out a bird's general location: 12 o'clock for straight-ahead, 6 for directly

behind, *etc.*; as you yell out locations, mention if bird is above or below horizon ...'

Someone cut all that with a sharp, 'Loons!' Swimming gracefully to starboard was a small raft of Pacific- *Gavia pacifica*, and Red-throated- *G. stellata* Loons. Being from the far-away, land-locked state of Arkansas (where loons are a rarity) I was pleased to see these fish-eating specialists. With their dagger-straight bills, and legs set far back on their bodies, they epitomise adaptations for piscivory.

Once clear of the bay the launch surged ahead with a deafening roar. Chilly and salty spray soaked everyone and everything. We scrambled for cover and support. No wonder they insisted on raincoats under clear skies. An hour or so later, when we were out of sight of land, amidst relatively calm seas, the captain eased back the throttle and grabbed his microphone: 'Shearwaters to port!' A teeming flock of Sooty- *Puffinus griseus*, and Pink-footed- *P. creatops* Shearwaters circled above the waters in long arcing glides. As I struggled to focus on them, a strange excitement swept through me. 'Life Order', I muttered to myself, as in, 'Life Bird', celebrating the inclusion of Procellariiformes (tubenoses) to my life list of bird orders.

5. 'May downland' (p. 195).

Someone with hawk eyes shouted that one of the birds in the swirling mass was a Northern Fulmar *Fulmarus glacialis*. It was hellish getting it in focus. Either the deck heaves with the swell or the bird dips, or both happen in perfect unison. And you have one hand to use the binoculars because you use the other to prevent careening across the plunging decks. But finally, I managed to lock focus long enough to even see the 'tubenose' that gives the order its name.

In tubenoses, the hollow cylindrical nares cover the salt gland, making salty fluids flow down the tube. Evaporation therefore occurs away from the gland, making it less likely that any salt residue clogs it. Tube-nosed seabirds find their main food, krill (a zooplankton), by smell. Phyto- (plant-like) plankton emit Dimethyl sulfide in response to zooplankton predation, and it is this chemical that the birds home in on. Most tubenoses nest in burrows in oceanic islands and come to *terra firma* only to nest. Being nocturnal, they use their sense of smell to locate their burrows in the dark. One species can even discern its mate's scent from others!

Two birds chasing each other off the bow caught our attention. The chaser, a Pomarine Jaeger (pronounced "yay-gar") *Stercorarius pomarinus*, twisted and turned after its quarry, a shearwater, with amazing dexterity, harassing it to give up its food. Jaegers are related to gulls and are known for this kleptoparasitic behavior. I dearly wanted to see the end of this pursuit but they dipped below the horizon and vanished into the background of the choppy seas. Pelagic birding always keeps one yearning!

As the hours passed and we drifted farther off shore, our excitement increased because we were at the edge of the continental shelf, about 50 km from the coast, where upwelling currents bring nutrients and food from the depths. Sail jellies abounded in the waters. It was the right place for one of the most coveted sea birds—the Black-footed Albatross *Phoebastria nigripes*. Debra threw popcorn off the stern to lure them. They must have smelled the stale popcorn because they just materialised out off the blue! A pair of these majestic birds drifted in like giant crosses. With their scythe-like 2 m wingspans, these great oceanic wanderers circled our launch and then, as though in slow motion, settled gracefully on the frothy wake to eat the popcorn. There was a chorus of jubilant cries, but two of my peers were emitting decidedly different noises. Overcome by seasickness, they grabbed the rails by the stern, doubled up, and retched. Some astute birder remarked that the albatrosses were eating the vomit as well. That was not exactly what we wanted to see. We tried to convince ourselves that it was the popcorn they were gobbling up.

The scene was ever changing. Alcids showed up next. Common Murres *Uria aalge*, Pigeon Guillemots *Cephus columba*, and Rhinoceros Auklets *Cerorhinca monocerata* appeared almost simultaneously on both sides of the boat, leading to a mad scramble across decks. There is nothing more exhilarating than seeing three lifers at the same time, but it was challenging to follow them amongst the swirling mass of the ubiquitous shearwaters. Once they alighted on the waters, the alcids swam in lines and were easier to observe. Alcids too, our leader explained, come to land only to nest, which they do *en masse* in rocky ledges or burrows. The rare Marbled Murrelet *Brachyramphus marmoratus* is unique because it nests in tall old-growth conifers far inland.

The raft of alcids 'exploded' when a horizon altering humpback whale *Megaptera novaeangliae* breached, exhaling a towering spout, wafting us, seconds later with stale whale-

breath. Over the next hour we were treated to more cetaceans: pods of northern right-whale- *Lissodelphis borealis*, and Pacific white-sided- *Lagenorhynchus obliquidens* dolphins, and Dall's porpoises *Phocoenoides dalli*. The porpoises swam incredibly fast just ahead of our bow, keeping abreast our 19 knots (c. 35 kmph). I could look down directly from the bow as they sped ahead, breaking surface for quick breaths through their oval blowholes. Nearer to the coast, we saw sea otters *Euhydra lutris* languidly floating on beds of kelp. Steller's Sea Lions *Eumetopias jubatus* and Harbour Seals *Phoca vitulina* basked on rocks near the harbour.

For the novice, pelagic birding can be exhausting. Most of us munched sandwiches at lunch while the seasick birders just slumped on the cabin benches in a Dramamine-induced torpor. But drowsiness caught up with us too. As the launch made the long ride back in the late afternoon, most of us were totally out of it. When someone shouted, 'Brandt's Cormorant!' *Phalacrocorax penicillatus*, I could barely muster the energy to look at it.

Seabirds are among the least known of all birds. Despite the popularity of birding here, more new species are added to the North American list in the pelagic realm than any other. Facing an array of problems, from plastic pollution, to incidental killings by long-line fishing, these birds are increasingly threatened in their once off-limits habitats. Go sea birding and enjoy them. And do what you can to conserve them by supporting NGOs like Ocean Conservancy.

Indian BIRDS

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Dr Ragupathy Kannan

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Birds on Indian postage stamps

Col. Ashwin Baidur

Baidur, A., 2011. Birds on Indian postage stamps. *Indian BIRDS* 7 (1): 25–28A.

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India has a rich and varied avifauna. The beauty, diversity, and uniqueness of the birds of the Indian landscape have naturally made an impact on Indian culture, both ancient, and modern. Many birds find mention in Sanskrit Hindu literature and Prakrit Buddhist literature. While the Peafowl *Pavo cristatus* gets pride of place in Indian culture and history, and is the national bird of India, other birds like Brahminy Duck *Tadorna ferruginea*, Common Myna *Acridotheres tristis*, Osprey *Pandion haliaetus*, Rose-ringed Parakeet *Psittacula krameri*, Mute Swan *Cygnus olor*, and many others, appear as prominent motifs in ancient texts.¹ The Shahin Falcon *Falco peregrinus*, and the Pied Myna *Sturnus contra* appear or find mention in Mughal works of art and literature. Kalidasa, the famous Sanskrit poet, frequently used bird imagery in his poetry and plays. His *Meghdoot* is a sensuous poem about a lover exiled from his beloved during monsoon. The poet uses a bird breeding in that season, to describe the character's feelings.² Small wonder then that birds are an important and recurring motif on the postage stamps of India.

How many bird stamps are there?

Postage stamps on birds are common and collecting 'birds on stamps' is a very popular umbrella theme amongst thematic philatelists. Worldwide, according to Kjell Scharning, a prominent collector of bird stamps of the world, there are 28,411 postage stamps on birds as of 7 January 2011 with hundreds being added each year. To date 3,637 species of extant, and 49 species of extinct, birds, are depicted on stamps. Of these 731 stamps depict more than one species, and 161 depict birds that could not be identified with reliability.³ Instead of just collecting stamps 'country-wise', a birdwatcher could have a great time collecting only postage stamps on birds.

The first Indian bird stamps

Birds seem to be absent in the stamps of the British-India era. These were formal and mostly featured the heads of ruling regents. Very few decorative stamps were issued and there appear to be no stamps with nature-oriented themes during this era.

The very first bird that appeared on Indian stamps was a postal carrier pigeon, which appeared on the 2-annas and 14-annas stamps of 1 October 1954, celebrating the centenary of

postage stamps in India. Since the image is symbolic, most bird stamp websites do not display this stamp. This was followed by the 1966 Children's Day stamp, again depicting a symbolic pigeon, this time representing an apostle of peace. The next year a stylised *Garuda* (eagle) caricature was printed on the 1967 stamp of artist Acharya Nandlal Bose. Many such pictorial representations have emerged over the years.

For the first Indian stamp to explicitly depict a bird species as its subject, we have to wait fourteen more years. This was the 20-paise Red-billed Blue Magpie *Urocissa erythrorhyncha*, the first of a set of four commemorative bird stamps published on the last day of 1968. The other three stamps portray the Brown-fronted Woodpecker *Dendrocopos auriceps*, White-browed Scimitar Babbler *Pomatorhinus schisticeps*, and Crimson Sunbird *Aethopyga siparaja*. The Crimson Sunbird stamp showed a pair and clearly indicated the phenomenon of sexual dimorphism. The artwork is by G. M. Henry and has been taken from early versions of Salim Ali's *Indian Hill Birds* and *Book of Indian Birds*.

The choice of these birds for the first Indian bird stamps may be considered unfortunate, being neither typical, nor common, nor even significantly rare. Even worse, these stamps were printed with simplistic captions such as, 'Woodpecker', 'Babbler', 'Sunbird', and, 'Blue Magpie', despite the fact that the birds chosen were not typical examples of each taxa and that each of these 'umbrella names' covered a number of species. However, on the positive side, these stamps had both English and Hindi (in Devanagari script) names on the stamps, a very good practice which continues to this day. Unfortunately the practice of using scientific names on stamps has not caught on in many countries including India.

In 1971, a 20-paise stamp was issued on Raja Ravi Verma, the celebrated nineteenth-century artist of Travancore. The painting depicted was an oil painting of Princess Damayanti talking with the Royal Mute Swan *Cygnus olor* about her paramour Nala. This was the first stamp, which showed a clearly identifiable bird species, not as the subject nor as a stylised pictorial, but in a cultural context. However the poet's fancy has caught on a bird that is not generally found in India today! Perhaps the Sanskrit word "*hansa*" was interpreted in English, as "swan", and a picture of that bird was painted out of ignorance of the fact that the right bird would have been its cousin, the Bar-headed Goose *Anser indicus*.

In 1989, a curious stamp was issued—it was the first one to honour avian government servants, more specifically the postal carrier pigeons, which were then still in service in Orissa. In 2001, bird cartoons made their appearance—four se-tenant⁴ pairs on Panchtantra tales were issued, and two of these depicted birds.

1. Pande, Suruchi. 2010. Personal communication & lecture taken on ethno-ornithology of Indian birds; 7th Certificate Course in Basic Ornithology. Ela Foundation & Abasaheb Garware College of Sciences and Arts, Pune.
 2. Wilson, Horace Hayman, 1814. "The Mégha Dúta, Or, Cloud Messenger: A Poem, in the Sanscrit Language". Calcutta: College of Fort William. 159 pp. Retrieved 11 November 2010. (URL: <http://www.archive.org/stream/mghadtaorcloudm00wilsgoog#page/n0/mode/2up>).
 3. Scharning, Kjell. "Bird Stamp Statistics." Theme Birds on Stamps (URL: <http://www.birdtheme.org/statistics.html>). Retrieved on 5 January 2011. (Latest statistics: by email, dated 7 January 2011).

4. In philately, the term "se-tenant" refers to a block of commemorative stamps printed together on the same sheet but differing in design, color, value, or overprint. Ref: The Free Dictionary (URL: <http://www.thefreedictionary.com/se+tenant>). Retrieved on 5 January 2011.

These stamps illustrated the much-beloved tales of 'the crow and the snake', and the 'tortoise and the geese'.

Definitives

Initially the few bird stamps issued had been commemorative stamps—these are large, captioned, pictorial stamps, which are printed in a limited quantity and valid for use in a fixed period. Sometime after its issue, a commemorative stamp is no longer available at the post office counter, being replaced by the latest commemoratives; and also because these stamps are immediately purchased by philatelists. There is another category of stamps—smaller, simpler and duller, with minimal text inscription on them, which are printed in large quantities and reprinted over a number of years. These stamps are called definitive stamps and these are the common stamps of India, workhorses, which bear the brunt of the postal workload.

The first definitive bird stamp was a 50-paise stamp issued in 1974 as part of the fifth definitive series, and it depicted a flying Demoiselle Crane *Anthropoides virgo*. Later a 25-paise definitive stamp on poultry was issued as part of the sixth series in 1979 and depicted the economic importance of birds for the first time on Indian postage.

The eighth definitive series had an array of birds; the Sarus Crane *Grus antigone* in blue with value one-rupee, a pair of Asian Paradise Flycatcher *Terpsiphone paradisi* in colour with the costliest Indian value of Rs 50/- which is still available and the Painted Stork *Mycteria leucocephala* in brown on the Rs 4 value, again still in use.

Conservation-related bird stamps

In 1975, a second series of commemorative bird stamps followed showing a Black-headed Oriole *Oriolus xanthornus*, Indian Pitta *Pitta brachyura*, Western Tragopan *Tragopan melanocephalus* and Monal Pheasant *Lophophorus impejanus*. The Western Tragopan, besides being the state bird of Himachal Pradesh, has an IUCN status of 'Vulnerable' and is the first endangered bird to figure on Indian stamps.

India's protected areas now began to appear on stamps: the pride of place, very naturally, being given to Keoladeo Bird Sanctuary in Bharatpur; the stamp appeared in 1976 with a Painted Stork *Mycteria leucocephala* flying over a tree where three other storks are perched. The stamp was based on a photograph taken by late S. Devhare.⁵ This natural activity depicted on stamps was more aesthetically appealing than the stationary subjects of previous bird stamps. This was the first occasion when the postal department associated itself with the conservation movement in India.

A stamp of great interest was issued to commemorate the first International Symposium of Bustards, which was held in Jaipur in 1980. It shows a pair of Great Indian Bustard *Ardeotis nigricaps*. This landmark symposium spread great awareness for the need to conserve the four bustard species in India. Issued at the time when Arab sheikhs used falconry to hunt Houbara *Chlamydotis undulata* in India, this postage stamp might have been the first exposure the common Indian had to this endangered bird. The stamp was issued with a first day cover, an information brochure, and a special cancellation that had a bustard in the centre and the words, 'International Symposium of Bustards, Jaipur,' both, in English, and in Hindi. Incidentally, networking at this conference

was directly responsible for the impetus to establish the bustard sanctuary at Nanaj, Sholapur.^{6,7,8}

A little later, a stamp illustrating a pair of Siberian Cranes *Grus leucogeranus* with a juvenile, foraging in the waterlogged blocks of Keoladeo was issued to commemorate the International Crane Workshop on 7 February 1983. The stamp's design was based on an oil painting by Diana Pierce, kindly loaned by then Prime Minister Indira Gandhi. A photograph taken by George Archibald, the doyen of the International Crane Foundation, formed the design for the first day cover. Badar Makhmoo designed the cancellation. Needless to say, the postage stamp helped bring publicity to yet another endangered species. It also highlighted the importance of wetlands in general and Keoladeo Ghana in particular.⁹ Unfortunately the same sanctuary is now fighting for its survival and the Siberian Crane is no longer seen in Bharatpur.

1983 was the centenary year of the Bombay Natural History Society (BNHS), which was then at its acme with Dr Salim Ali having the attention of Prime Minister Indira Gandhi herself, and guiding the course of Indian conservation on a number of issues. The centenary was marked by celebrations, release of books, the inauguration of the ENVIS centre, etc. Among these activities was the release of a beautiful stamp on the society depicting the mascot of its logo—a Great Indian Hornbill *Buceros bicornis*.¹⁰

In 1985, the Indian Postal Department began a series of single value commemorative stamps called, 'Wildlife Conservation.' A total of three stamps were issued as part of the series—White-winged Duck *Asarcornis scutulata* in 1985, Jerdon's Courser *Rhinoptilus bitorquatus* in 1988, a couple of years after its rediscovery (Bhushan 1986),¹¹ and the Likh Florican *Syphoetides indicus* in 1989, a bird associated with the pioneering work of the late Dr Ravi Sankaran, who studied it at Dudwa. Intriguingly, the text for the philatelic insert of this stamp, associated with the issue of the stamp, has been contributed by Dr Salim Ali.¹² Sadly, no more bird stamps have appeared as part of this series.

Antarctica

The continent of Antarctica has a special fascination for Indians, being the southern boundary of the Indian Ocean. The Indian involvement with Antarctica began in 1981 when the first Indian expedition to the Antarctic was launched. Since then, regular expeditions have been conducted to the continent. The Indian Antarctic Program is multi-disciplinary and multi-institutional in scope and participation, and is under the control of the National Centre for Antarctic and Ocean Research, Ministry of

5. Personal communication, Dr Satish Pande, December 2010.

6. "Indian Birdwatching." Indian Birdwatching (URL: <http://www.birdfair.org/indian-bustard.htm>). Tourism and Wildlife Society of India. Accessed 05 January 2011.

7. "Great Indian Bustard." (URL: <http://www.indianpost.com/viewstamp.php/Alpha/G/GREAT%20INDIAN%20BUSTARD>). Indian Post. 01-11-1980. Accessed 5 January 2011.

8. Email exchange on Green Teacher's forum (URL: <http://www.greenteacher.org/forums/index.php?topic=10.0>).

9. "Siberian Crane." Nature/fauna. (URL: http://www.indiapicks.com/stamps/Nature_Fauna/NBL_1076_Siberian_Cranes.htm). Accessed 5 January 2011.

10. "Bombay Natural History Society." Nature/fauna. (URL: http://www.indiapicks.com/stamps/Nature_Fauna/NBL_1097_Indian_Hornbill.htm) Accessed 5 January 2011.

11. Bhushan, Bharat, 1986. Photographic record of the Jerdon's or Double-banded Courser *Cursorius bitorquatus*. J. Bombay Nat. History Soc. 83 (4): 159–162.

12. "Likh Florican" (url: <http://www.indianpost.com/viewstamp.php/Alpha/L/LIKH%20FLORICAN>). India Post.com, 20-12-1989. Accessed 5 January 2011.

Earth Sciences, Government of India.¹³ Scientists from the Wildlife Institute of India, such as Dr S Sathyakumar, have occasionally accompanied these ventures. The first extralimital bird to appear on Indian stamps was once again a barely distinguishable penguin, on a 1983 se-tenant stamp, commemorating the First Indian Antarctic Expedition. When the Protocol on Environmental Protection to the Antarctica Treaty (1991) was promulgated, India Post issued a pair of stamps, both of which depicted penguins. The Rs 5.00 stamp shows a group of Emperor Penguins *Aptenodytes forsteri*, and the Rs 6.50 stamp has a map of Antarctica along with a pair of Adelie Penguins *Pygoscelis adeliae*. The latest bird stamp on this topic was released on 19 December 2009 as part of the international philatelic campaign, "Climate Change 2009: Preserve the Polar Regions and Glaciers," and shows the Gentoo- *Pygoscelis papua* and Emperor- *Aptenodytes forsteri* Penguins.¹⁴

Endangered species issue of 1994

Philatelically, the most interesting issue of all was the endangered species issue of 1994. The birds were: Andaman Teal *Anas albogularis* (Re 1.00), Oriental Stork *Ciconia boyciana* (Rs 6.00), Black-necked Crane *Grus nigricollis* (Rs 8.00), and Pink-headed Duck *Rhodonessa caryophyllacea* (Rs 11.00). These stamps pictured an endemic bird, two endangered migrants, and an extinct bird. The Pink-headed Duck was thus the first extinct bird to be commemorated on Indian postage stamps. The printing of these stamps was given to a private printer. The ink used by the printer was water soluble and defective. The poor quality led to the stamps being withdrawn after they had been introduced into service, but not before some stamps had been sold over the counter. Today specimens of these stamps sell for exorbitant sums of money on account of their rarity.¹⁵

Migratory birds

India is a winter home to hordes of migratory birds from central Russia—in fact we are the ultimate destination of the Central Asian–Indian Flyway. It was appropriate that a series on these birds was issued in May 2000. The choice of birds spanned the major families: Rosy Starling *Pastor roseus*, Garganey *Anas querquedula*, Forest Wagtail *Dendronanthus indicus*, and White Stork *Ciconia ciconia*. Of these, the Rosy Starling is in the 'highlighted category' of birds, which is the focus of MigrantWatch (www.migrantwatch.in). The philatelic occasion of Indepex Asiana held in 2000 in Calcutta was celebrated by release of a miniature sheet on the very same migratory bird stamps—a miniature sheet being a small decorative sheet with only one stamp of each type included.

Endemic birds

The very first bird series of 1968 (mentioned earlier) had the endemic White-browed Scimitar Babbler *Pomatorhinus*

schisticeps whose Indian subspecies *horsfieldii* is listed as endemic by the BNHS ENVIS.¹⁶ Four other endemic birds have appeared on Indian stamps to date, namely, Andaman Teal *Anas albogularis*, Jerdon's Courser *Rhinoptilus bitorquatus*, Black-chinned Laughingthrush *Garrulax cachinnans*, and Manipur Bush Quail *Perdicula manipurensis*.

Raptors

As far as raptors are concerned, more than 20 bird stamps were issued and more than 45 years of independence had passed before India issued its first stamps showing raptors. A very fine series of four values of Rs 2.00, Rs 6.00, Rs 8.00 and Rs 11.00 was released on the penultimate day of 1992. The birds of prey chosen were Western Osprey *Pandion haliaetus*, Peregrine Falcon *Falco peregrinus*, Bearded Vulture *Gypaetus barbatus*, and Golden Eagle *Aquila chrysaetos*. While these birds are not typical or common raptors, they are striking, and the stamps look good. The latest raptor to be depicted is the Brahminy Kite *Haliastur indus*, which appeared on a postage stamp issued on 5 June 2010, along with Ruddy Shelduck *Tadorna ferruginea*, to celebrate the International Year of Biodiversity. Incidentally, the same set had another stamp that also depicted the first Indian owl species—Indian Eagle-Owl *Bubo bengalensis*.¹⁷

Latest trends in Indian bird philately

Recently birds have not appeared on stamps dedicated to themselves but as motifs on stamps showing a landscape or protected area. The Satyr Tragopan *Tragopan satyra* appeared as an adjunct to Sela Lake, perched on the shore in one of the five values of the April 2006, 'Himalayan lakes,' set. More appropriately, birds embellish three of five stamps of the National Parks commemorative set of January 2007. All these are beautifully crafted stamps showing the panorama with vegetation, animals, and birds. The three stamps containing birds are those of Bandipur-, Kaziranga-, and Periyar- National Parks.

Indian Bird Stamp Statistics

The number of bird stamps that India has issued depends on how you define the term "issue". As per the avian philately site of Kjell Scharning, "Theme bird on stamps" (<http://www.birdtheme.org/index.html>), India has issued a total of 107 bird stamp issues, up to 5 January 2011 (including design repeats in various forms). Of the stamps depicted on the site, there are only 59 unique designs depicting 51 different species as counted by the author. These exclude stamps with trivial bird imagery.¹⁸

Usually a particular postage stamp design is first issued in a sheet form with typically five stamps in six or seven rows. Postage stamps, which form parts of sets, are typically also issued as miniature sheets where one of each stamp in the set is printed in a pictorial sheet. These miniature sheets are extremely picturesque, and some people collect only these. Also, sometimes booklets containing a few stamps, typically four to ten (depending upon the booklet design), are also issued.

13. "India in Antarctica", Website of National Centre for Antarctic and Ocean Research ([url: http://ncaor.nic.in/](http://ncaor.nic.in/)). Accessible through menu path Antarctica - India in Antarctica. Accessed 5 January 2011.

14. "Climate Change 2009: Preserve the Polar Regions and Glaciers", International Stamp News ([url: http://www.stampnews.com/stamps/stamps_2009/stamp_1239739632_238093.html](http://www.stampnews.com/stamps/stamps_2009/stamp_1239739632_238093.html)). Accessed 05 January 2011.

15. Rainbow Stamp News, Monthly stamp e-bulletin, July 2009 Issue No. 19 ([url: http://rainbowstampnews.blogspot.com/2009/07/shimla-july-2009-issue-no_6782.html](http://rainbowstampnews.blogspot.com/2009/07/shimla-july-2009-issue-no_6782.html)). Accessed 5 January 2011.

16. "List of endemic birds". ENVIS Centre on Avian Ecology, Bombay Natural History Society, ([url: http://www.bnhsenvis.nic.in/Endemic%20Birds/Endemic%20Birds%201.htm](http://www.bnhsenvis.nic.in/Endemic%20Birds/Endemic%20Birds%201.htm)). Accessed 5 January 2011.

17. "Stamps 2010", India Post ([url: http://www.indiapost.gov.in/Netscape/Stamps2010.html](http://www.indiapost.gov.in/Netscape/Stamps2010.html)). Accessed 5 January 2011.

18. Scharning, *ibid*.

Some authorities consider these various types of issue of the same stamp design as different, yet others club them together as a single stamp issue.

Shortcomings of Indian bird stamps

India has 12.6% of all avian biodiversity in the world with 83 endemic species. Our nation has the entire gamut of biological habitats—mountains, glaciers, plateaus, grasslands, tropical and temperate jungles, arid lands, marshes, coasts, deserts, and islands. Yet, the Indian Postal Department has depicted only 51 species in 59 designs on stamps of Indian birds. India lags far behind many countries, which do a much better job of showcasing their native avifauna.

1. **Numbers.** Compare India Post's output with the staggering issue of 470 postage stamps by the world's leading bird stamp issuer, Gambia (reputed to issue stamps for earning revenue rather than use), United States of America (326), and New Zealand (238). As of date, 134 countries have been listed on Scharming's website (see above) - as having issued more bird stamps than India (107). It is curious that the vast majority of countries which have issued more stamps than India having a poorer avifauna than ours.
2. **Choice of species.** No central process or continuing line of thought is evident. Stamps on a particular theme, such as birds of prey or migratory birds, were usually issued in a four-value set with no additional sets or stamps issued further on the theme. In some cases, bird stamps on notable species were issued to commemorate a conference or organisation rather than the bird itself, the best example being that of the Great Indian Bustard, an endangered species that truly deserves a stamp on its own accord but which got one only on account of a symposium. One suspects that this was also possible only because the symposium was sponsored by the government at national and state level - namely the Tourism Department, Wildlife Society of India, Government of India's Central Arid Zone Research Institute, Rajasthan Government's Department of Tourism Development Corporation. The choice of many species is esoteric - the average Indian knows few of these birds. Till recently, none of our commonest birds had found a place, barring a miniscule Red-wattled Lapwing *Vanellus indicus* in the 2007 stamp on the Periyar National Park. This has only been rectified in the latest bird stamp issue of two Rs 5.00 stamps on 9 July 2010, one with a Blue Rock Pigeon *Columba livia*, the other, a House Sparrow *Passer domesticus*. These are both handsome commemorative stamps and show off the species to good effect.
3. **Quality.** Few of India Post's bird theme sets have been carefully chosen, crafted, or sustained, as a series. In isolation, the sets seem nice, but they pale when one sees the best from the rest of the world. Plus, there is always some lacuna. The choice of birds, the colourfulness, the naturalness of pose, the choice of philatelic values—none of the series really stands out either philatelically, or even ornithologically. As a patriot, bird lover, and philatelist, I wish that we could have a really good long-term bird stamp programme. There is tremendous scope for improvement, which I hope and pray, takes place.

Collecting bird stamps

Thematic philately is concerned with collecting stamps on a subject rather than on a single country, time or place, which is

the domain of classical philately. Birds on stamps comprise a major thematic subject. Legitimate philatelic material on a theme include, not only stamps and first day covers, but also brochures, miniature sheets, specimens (of stamps, not skins!), sheetlets, assays, proofs, errors, etc.¹⁹

Initially, collecting bird stamps of all kinds gave me great pleasure. Now I intend to focus on a smaller group of birds whose stamps alone I intend to collect. The owls, raptors, ducks, parrots, and water birds, have such wide variety that concentrating on such a clade may give greater pleasure than the random collection of bird stamps. One may even restrict oneself to a single species, such as the Ostrich *Struthio camelus*, Secretary Bird *Sagittarius serpentarius*, or Bald Eagle *Haliaeetus leucocephalus*. One well-known thematic collector has restricted himself to the collection of a single species—the Coelacanth *Latimeria chalumnae*, comprising less than a dozen stamps ever issued. Although the last example I have quoted is of a fish, albeit a very special and interesting one, it just goes to show that the world of bird stamps can provide a niche for all types of micro-themes also.

Indian bird stamps are a small handful and it is not very difficult to make a complete collection over a few years. Another variation of this theme could be collecting stamps on Indian birds (as opposed to bird stamps from India). This would be much more satisfying, open the milieu to a large number of countries and at least a few thousand stamps in scope.

Thematic philately however, as with classical philately, is predominantly obsessed with philatelic purity, having exhibitions, the possession of rare and unusual material (referred to as 'star' material), and is largely devoid of the kind of innocent pleasure that young philatelists might delight in. However, to enjoy collecting bird stamps one does not need to be preoccupied with the minutiae of philately - proofs, errors, unusual cancellations, and so forth. Bird stamps being easily available, usually cheap, and having been issued in vast numbers, it possible to have a collection to enjoy as a naturalist rather than as a philatelist. Since, as previously mentioned, there are in excess of 28,400 stamps with birds on them, with more than 3,600 species of birds depicted on stamps, it is perfectly possible to cater to one's most esoteric interests.

Happy collecting!

Acknowledgements

I am grateful to Brig. A. P. Singh (Retd), and, Brig. P. K. Gulati (Retd), of the Army Philatelic Society for rekindling my childhood love of stamps and making me a philatelist rather than a stamp collector. I have received many useful suggestions and points of improvement from Dr Satish Pande and L. Shyamal. I am deeply grateful to Dr Suruchi Pande for opening my eyes to the rich ethno-ornithological heritage of our country. Lastly, the editor of *Indian BIRDS*, Aasheesh Pittie, kept me working on the script by sending me bird stamps in an envelope usually without a letter or note, indeed a wise and innovative strategy of encouraging a recalcitrant writer!

19. The term sheets, booklets and miniature sheets have already been explained in the text. Sheetlets are small sheets having a smaller number of stamps of one design. A first day cover (FDC) is a decorative envelope specially printed for the first day of issue. It may contain a brochure or handout giving details of the stamp. An FDC can be used as a normal envelope with the specific stamp or other stamp stuck on it. Philatelists prefer to add the concerned stamp and get the FDC cancelled with a special cancellation designed for the first day of issue only. Specimens are samples of the stamps or postal stationery sent to postmasters and postal administrations so that they are able to identify valid stamps and to avoid forgeries. They may be overprinted or perforated with the word 'specimen'. Assays, proofs, and errors are concerned with the printing of stamps and it is recommended that these be researched independently by interested persons as there is a lot of material to be learned about them.

Orange-headed Ground Thrush *Zoothera citrina cyanotos*, 19 January, 2011, Virajpet, Kodagu, Karnataka, India.

Bishan Monnappa



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