

Newsletter for Birdwatchers

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Red Data Bird Lesser Florican

by Ravi Sankaran

By early July the clouds of the south-west monsoon have swept over the Western Ghats and spread over peninsular, north-western and northern India, bringing greenness and water to a land that has been naked and parched through the long hot summer months. And with the onset of the monsoon, the season of the Lesser Florican begins.

The Lesser Florican is one of three bustard species resident in India. Together with the Indian Bustard and the Bengal Florican, they are the most threatened species in the group.

The Lesser Florican is a migratory species. Details of its distribution in the non-breeding season are lacking, but it is known to be dispersed over much of peninsular India. With the onset of the monsoon, the birds migrate into north-western India to breed, appearing in Gujarat, western Madhya Pradesh, north-western Maharashtra and south-eastern Rajasthan with the first heavy showers. They breed in grassland, requiring areas not grazed by livestock where the grass is allowed to grow tall during the monsoon season.



R. Sankaran

Males are territorial; each territory is 1–2 ha in size, and several territories are normally aggregated together into an exploded lek. In the non-breeding season, both male and female Lesser Floricans are cryptically coloured, but in the breeding season the males moult into a showy, predominantly black and white plumage.

Their display is even more spectacular: best described as a 'flutter-jump', the bird typically crouches, then springs vertically upwards, and with 10 to 12 rapid wing strokes rises about a metre above the surrounding grass before descending to the ground with wings held loosely. The jump is accompanied by a curious rattling sound produced by specialized feathers on the wings. When a female enters his territory, the male approaches, neck outstretched, halting and jerking his

neck back on to the mantle when he gets close to her.

Males display from the onset of the rains until the end of September, often choosing elevated ground or small ridges for their performances. At the peak of the season, they can jump over 600 times a day, favoured spots becoming trampled bare of all vegetation.

The females nest outside the male's territory in a patch of long grass. Clutch-size is usually four, but may be three to six, and the incubation period is about 21 days.

Sadly this magnificent bird is seriously declining. Numbers are known to have been decreasing for many decades, but the

past ten years have been particularly catastrophic. In 1989, at the end of a five-year study on the Lesser Florican by the Bombay Natural History Society (BNHS), the species's known breeding range was surveyed. In 63 grassland areas spread across most of the range, covering a total of 332 km², 45 birds were recorded, leading to a population estimate of 750. This was a drastic decrease

from 1982, when a BirdLife-sponsored survey of parts of Saurashtra in Gujarat and a BNHS survey of parts of western Madhya Pradesh estimated a total of 4,500 birds. Clearly, the Lesser Florican was in serious trouble.

But why? A look at the biology of the species and its breeding habitat, and the ecological and political changes in north-western India may provide the answers.

The south-west monsoon is erratic in date of arrival, in areas where rain falls, in the amount of rain and in its distribution through the season. Thus the Lesser Florican is nomadic, congregating in areas where rainfall has been or will be adequate. Good rains are essential to breeding success, because without rain the grass does not grow sufficiently to provide the necessary cover for nesting.

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Editorial

■ The Future of the Ornithological Society of India

In a recent letter the Secretary General, Dr. Asha Sakhlani, says that she would like to have the Headquarters of the OSI, including the Treasurer in Garhwal. Apparently during the first Seminar which she held in December 1991, when the OSI was formally launched, some decisions were taken about which the rest of us are not fully aware. I have asked Asha for details and I am sure we can decide on an All-India structure which will be in the best interest of ornithology. It does not matter where the H.Qrs. is, whether in the North or South, or the East or West, but certain practical aspects like ease of communication have to be considered.

I would request the Regional Secretaries to write to me in detail about how they intend to organise their Regions and what aspects they intend to keep in touch with the Central Secretariat wherever it is located. Both the Centre & the Region must be kept up-to-date with the names of the members — those who are in good standing and have paid their dues, and those who have defaulted and should be removed from the list. One decision which has been taken by me as the Editor of the Newsletter, and Sridhar as the Publisher, is that the Newsletter be kept as a separate entity as far as finance and organisation is concerned. This means that all subscribers must send Rs.40/- which is the annual subscription for 1994 to Newsletter for Birdwatchers, C/o. Navbharath Enterprises, Seshadripuram, Bangalore 560 020, by Draft or Money Order. This account of the Newsletter has been running for the past several decades and no change is necessary. It would be a convenience if the Regional Secretaries of the OSI would consider themselves to be Advisors to the Newsletter for Birdwatchers. However, contributors to the NLBW should continue to correspond directly with the Editor.

Executive Committee of the Ornithological Society of India has been established based on the proposals made in the Conference on 12-14 Nov. 1993, in Bangalore and a subsequent list suggested by the Secretary General, Asha Chandola Saklani. The names are :

Aasheesh Pittie	Andhra Pradesh
Abraham Verghese	Bangalore
Abdul Jamil Urfi	Delhi
Asad Rahmani	Aligarh
Asha Chandola Saklani	Srinagar, Secretary General
Bhatnagar, R.K.	ICAR, Delhi
Boney Piloo	Gujarat
Dinesh Kumar	Himachal, Garhwal, Kumaon
Himmat Sinhji	Gujarat
Lal, P.	Imphal
Lavkumar Khacher	Gujarat
Manjit Dhindsa	Punjab
Muthanna, M.G.	Bangalore, Financial Advisor

Parasharya, B.M.	Anand
Prakash Gole	Pune
Prasantha Kumar Saikia	Assam
Rishad Naoroji	Bombay
Saxena	Delhi
Sharma, K.K.	Eastern UP & Bihar
Shashi Kumar, C.	Kerala
Subramanya, S.	Bangalore
Vinod Kumar	Lucknow
Zafar Futehally	Bangalore, President

It seems to me that an Executive Committee of so many people, and so spread out over our large country will be unworkable. I would suggest that the names listed above should constitute the Advisory Committee of the OSI, and a smaller group of 4 or 5 members should form the Ex. Committee. I would like to have the views of the Regional Secretaries and of course of the Secretary General to this proposal. If possible, the structure of the OSI, its annual membership etc. should be finalised within the next 6 weeks so that a final statement can be included in the March / April issue of the NLBW.

■ Proposed International Conference in India

I have received a letter from Dr. Walter Bock which I reproduce in this issue. The prospect of organising a Conference for over 2000 delegates is a daunting one. But in view of the great interest in ornithology, I am sure we can face the challenge and identify a suitable Secretary General if there is a general desire to go ahead with this project. I would be very grateful if all of you who are in a position to

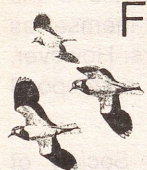
play a part in this Conference would write to me at your early convenience, a couple of Regional Secretaries have written to say that the OSI, still in its initial stages should not commit itself to this herculean task. We will certainly consider all aspects carefully before taking a decision.

■ Vanishing Wetlands

The article by MANOJ NAIR in this issue shows how callously we allow our invaluable natural assets to be destroyed. If any of our readers are in a position to influence the Kerala administration or the Southern Air Command, please ask for copies of this Newsletter to accompany your protests against damaging the AAKKULAM-VELI area. In his letter MANOJ NAIR writes: "I have a sentimental attachment with this place as it was here that I started watching birds. Now too when I take small children to introduce them to birds, I often feel that there is no better place to start learning (about) birdlife". There is a strong contingent of Newsletter subscribers in Kerala. Let them persuade the Education and Environment Ministers to protect this area for both recreation and education, apart of course, from its ecological values.

■ Identifying Larks

Larks are difficult to identify by their colours and size. Many are so alike. It is through their songs and behaviour that different species can be recognised and in this regard the comments on the display flights of different species by Dr Ashok Kumar Sharma are of great help.



First National Seminar on Changing Scenario of Bird Ecology and Conservation in Bangalore — 12–14 Nov 1993

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The first National Seminar organised by the Ornithological Society of India (OSI) was held in 'Aranya Bhavan' Bangalore during 12–14 Nov 1993. The Theme was 'Changing Scenario of Bird Ecology and Conservation'.

This was made possible with the active support and participation of concerned departments of the Government of Karnataka like the Department of Environment and Forests, and Corporations like the Forest Development, Forest Industries and the Centre for Ecological Sciences in the Indian Institute of Science. Financial support came from the Wild Bird Society of Japan and many Industrial houses in India. Many scientists and amateur bird watchers and students volunteered and worked hard to make this Seminar a success.

This Seminar was inaugurated by HE Khurshid Alam Khan, the Governor of Karnataka. Well over 200 delegates from all over India and two from abroad attended. Over 100 papers were received by the Programme Committee which did a marvellous job of bringing out the selected papers in a book form titled 'Bird Conservation Strategies for the Nineties and Beyond'. This was made available to all the delegates immediately after the inaugural session. A very creditable effort indeed.

An Exhibition of Postal Stamps on birds and plants and photographs of birds and a collection of coins was organised at the Visvesvaraya Industrial & Technological Museum, Bangalore for a week. This drew large crowds. The photographic competition held in this connection was of a very high standard and well subscribed. The press and TV

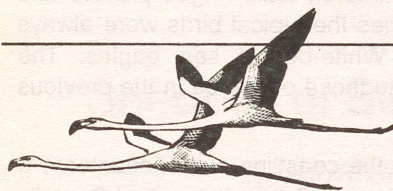
gave a good coverage to all the functions and aspects of this Seminar.

All the accepted papers were grouped in the book under three sections as under -

- a) Ecology and Conservation
- b) Biology and Behaviour
- c) Economic Ornithology

Some of the papers accepted and presented at the Seminar by scientists were of a very high standard and very educative. Similarly, the observations and studies conducted by amateurs were remarkable and showed how keen and observant some of them are. It also showed how little we know about birds, how much more needs to be studied and how human interference in their habitat is the biggest threat to their survival.

Lectures by invitees were very good, particularly on the 'Contribution of Amateur Bird Watchers to Ornithology' by Prof Madhav Gadgil, Indian Institute of Science, Bangalore. He emphasised the importance of the amateur birdwatcher in the progress of ornithology; but due to paucity of time, he could not complete the talk and it had an abrupt end. This was unfortunate.



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The West Coast of India, especially the stretch between Bombay and Goa, is coming under increasing pressure of human exploitation. Chemical industries, petro-chemical complexes, etc. are coming up on the coast or not far from it.

Tourism is making insidious inroads on sylvan beaches and mechanized fishing is coming into increasing conflict with traditional fishermen. Railways will soon penetrate the hilly hinterland and a great influx of outside labour and settlers is beginning. All these factors are likely to bring about basic changes in the existing ecosystems. In particular the serenity of beaches that dot the coast line is likely to vanish forever, together perhaps with their characteristic birds.

Therefore, I decided to visit these beaches this winter to assess the variety and numbers of our coastal birds. The total stretch between Bombay and Goa was divided into 3 parts. In this note I shall tell about my observations of the middle part, i.e. from south of the Savitri estuary to Guhagar, a stretch of about 88 km along the coast. In this stretch I visited 11 beaches besides a few estuaries.

The most impressive bird of our coast-line is perhaps the White-bellied Sea Eagle (*Haliaeetus leucogaster*). On this

The mid-seminar field trip to Kokkare Bellur and Ranganthittu was well organised. For many, the experience of watching Spot-billed Pelicans (*Pelecaus philippensis*) nesting on trees at close range was a new experience and something to remember. The visit to Ranganthittu was a bit disappointing as it was the wrong season to see many nesting birds.

Presentation by some delegates left much to be desired. Some of the speakers did not stick to the time allotted and they had to be told to end their presentation abruptly. This should have been avoided and their presentation would have had a better impact if they had followed the instructions issued by the organisers. Some speakers who confined their talk to the time allotted and made good use of their slides got rapt attention from the audience and left something to think about.

Mr Zafar Futehally, President OSI and Mr Yellappa Reddy, Special Secretary, Department of Ecology and Environment, Government of Karnataka, worked as a team for a common purpose and showed how Government Departments and NGOs can work together to achieve good results. This could be an example for many and a beginning for such united efforts for planning and execution of conservation projects.

Birds of The West Coast

stretch I noted 10 individuals of this species; 4 pairs and two loners. As both the loners were adults, they might as well have partners. We located 4 nests, all active in early December with one of the pair incubating. All the nests were in Casuarina trees between 15 and 20 metres from the ground. Beaches that lacked Casuarina were the ones where this eagle was also absent. These trees therefore, appear to be very important for its nesting. We talked to the owners of the plots about the presence of the eagle nest and the owners were not the least apprehensive.

Waders like plovers, sandpipers, stints, etc. were not numerous on any of these beaches. Their total number hardly exceeded 100 on even the longest of these beaches viz. Guhagar of a total length of almost 6 kilometers. Kentish plovers (*Charadrius alexandrinus*) and Lesser sand plovers (*Charadrius mongolus*) were the most common with an occasional Greater sand plover (*Charadrius leschenaultii*), Common sandpiper (*Tringa hypoleucos*) and a solitary Eastern knot (*Calidris tenuirostris*), possibly a new record. Most of the beaches had one or two estuaries on either end, draining into the sea. At low tide mudflats were exposed near

the mouths of these estuaries providing ideal foraging habitat for waders. Yet I hardly noticed waders using these mudflats. They were either seen feeding along the waterline or resting on dunes in groups (especially sand plovers) away from the surge of the sea. Whether the main migratory flow of waders is diverted inland and on to the east coast from Saurashtra needs to be investigated.

The relative absence of waders was more than compensated by the spectacular assemblages of gulls and terns on these beaches. All the beaches observed held one or more flocks, either gulls alone or gulls and terns, their strength varying from about a hundred to over a thousand in each flock. Terns appeared to form always either the head or the tail or sometimes both of the gull flock.

Blackheaded gulls (*Larus ridibundus*) were the most numerous (more than 5000) followed by Brownheaded (*L. brunnecephalus*) (more than 2000), Herring (*L. argentatus*) (more than 1000) and Lesser blackback (*L. fuscus*) (more than 200). Among terns Lesser crested (*Sterna bengalensis*) and Sandwich (*S. sandvicensis*) were the most numerous, the latter identified by the yellow tip to its black beak. More than 700 lesser crested terns were counted and a little below 500 Sandwich terns were counted in this stretch. It may be noted that Sandwich tern has not been noted outside Saurashtra coast so far. Their presence in such numbers on these beaches emphasizes the need to pay closer attention to our coastline.

The identification of various herons that I saw on the beaches proved quite intriguing. The black phase of the reef heron (*Egretta gularis*) was of course unmistakable. But who were the White herons that I saw feeding along the tide? Ali and Ripley write in their Handbook (Vol.I) that Little egret hardly ever visits the seashore. Other writers (Hancock J and Elliott H: Herons of the World, London Edition Ltd., UK 1978) do not exclude the sea coast from its foraging habitat. Some of the white herons who fed along the water-line appeared to be more like Little egrets (*Egretta garzetta*) with black beak and legs and yellow toes, while others who fed and searched right inside water and waves appeared more like the white phase of the Reef heron (*E. gularis schistacea*). The herons that were seen on mudflat along the estuaries also appeared to be Little egrets. Yet the white phase of Reef heron appears to be as common as the black phase on this stretch of our coast.

There was one White heron with an orange-yellow beak that we saw feeding right in the sea among the waves, exhibiting characteristic Reef heron-like crouching and jabbing feeding behaviour. I tended to reason that it was a stray of eastern Reef heron (*E.g. sacra*) noted on Andaman and Nicobar Coasts and further east but not west. We must look for its occurrence again on the remaining stretch of the coast.

Last but not the least should be mentioned the stocks of Cattle egrets (*Bubulcus ibis*) observed on the Harna Coast. Fish debris was spread out for drying all along the coast plunging the whole area in repulsive stench. Cattle egrets were of course least bothered and congregated in groups to catch insects that the drying fish were attracting. Groups already satiated were resting on rocks in the sea and along the shore.

I must say visits to the beaches of our coast is one of the most charming experiences of my life. These glistening crescents concealed behind large coconut groves and flanked by rugged projecting hills, clothed at many places in thick evergreen forests provide an unmixed pleasure. The pure, untarnished natural beauty of our less well-known beaches produces a feeling of sheer joy. One fervently prays that the tentacles of modern commercial tourism will never reach such places. During my second visit to the Coast I touched upon 26 beaches between Ganapathi-Pulay and Goa in about 10 days (27 December 1993 to 6 January 1994).

To come to the birds of these beaches: this stretch of our coastline exhibited a greater variety of bird life than the previous one; but only if we lump the backwaters and creeks with beaches. It is on the backwaters and creeks we observed redshanks, a Whimbrel, Little ringed plovers and Grey herons. On the beaches the typical birds were always gulls, sand plovers and White-bellied sea eagles. The paucity of terns compared to those observed in the previous stretch was striking.

In this about 100 km of the coastline, we encountered 6 pairs of White-bellied sea eagles, 2 immatures and 2 adults without a mate. Nine nests were located 2 of them were probably unoccupied. All the nests except one were on casuarina trees at a height of 15 to 25 m from the ground. The only exception was a nest on a banyan tree overhanging a cliff. This nest contained a fully fledged chick. The nest was deftly concealed among numerous branches and foliage though one could look down into it from the cliff's edge. Both the parents were in attendance giving alarm calls as we approached the edge.

So far 11 active nests of this species have been located though the possibility of a few being overlooked cannot be denied.

Spectacular assemblages of gulls continued to be a feature of our coastline. However, terns were seldom observed to associate with them. Indeed the only terns we saw on this stretch were little, sandwich and an occasional gull-billed tern. A group of 32 Little terns was seen on Tarkarli beach near Malwan while only 3 sandwich terns were noted on Aravali beach near Vengurla. Among gulls the larger-sized Brown-headed gulls easily outnumbered the smaller, dainty

blackheaded ones. Very large assemblies of the former were seen near the fishing harbours of Malwan and Vengurla. These flocks always contained some gulls that appeared to be even smaller than Blackheaded gulls. They had orange beaks and legs and pure white heads not showing the brown smudge usually carried by black-headed and brownheaded gulls in winter. In flight their white-tipped wings and tails with a black terminal band were evident. The field guides have as yet failed to enlighten me in their identification.

Among the large-sized gulls, ornithologists Herring and Lesser black-backed were noticed on 4 beaches but their number never exceeded 50 in each flock. A flock of 75 great Blackheaded gulls on Malgund beach proved unique. They were not seen on any other beach in this strength.

Lesser sand plover proved to be the most common wader of our beaches though a few kentish plovers were always found to be mixed with them. They were distinguished by jet black legs and slightly stouter, darker bills than the former. On 3 beaches greater sand plovers were also seen. These waders finished feeding by about 9 a.m. and around 10 a.m. were already resting on sand dunes 25 to 50 m away from the tideline. They foraged again between 4 and 5.30 p.m. Large flocks of more than 500 waders were noticed on 3 beaches. Small gatherings of curlew were also noticed on 3

beaches. I was delighted to find turnstones again on the rocky stretch behind Government rest house at Malwan. Here I had seen them first in 1979. Except Malwan turnstones were not seen anywhere.

Reef herons were seen on 16 of the 26 beaches covered. The white phase was noticed on 8 beaches while on 3, a White heron with orange-yellow and yellowish legs was seen. This might be *Egretta sacra*.

In spite of the occurrence of mangrove patches big and small, scattered throughout the coast line, Black-capped Kingfisher was observed only once. Small blue kingfishers and occasionally a White-breasted kingfisher were noted fishing from their perches on rocks. Pond heron was another bird commonly seen looking for food among the rocks.

Sand dunes that buttress our beaches exhibit groves of *Calophyllum inophyllum* (local name Undan or Undi) whose seeds produce oil. In one of these groves we were delighted to find a Malabar Pied Hornbill, an endemic species. On any beach I was always looking for dolphins out in the sea. On one beach we observed a pair and on another a school of six frolicking only 50 m from the shore. Significantly there was no fishing on these beaches.

Checklist of Birds of Madurai Agricultural College in Tamil Nadu

K. GUNATHILAGARAJ, Department of Environmental Sciences, Tamil Nadu Agricultural University, Coimbatore 641 003

The Madurai Agricultural College (9° 54'N, 78° 54' E) is located at about 13 km to the north east of Madurai city on the Madurai - Trichy highway, at an altitude of 147 m above MSL. It was originally a poramboke land, converted for the establishment of the College in 1965. On the north-eastern side, it is bordered by a hillock — YANAMALAI with a west to east slope. The campus stretches over an area of 153 ha with 82.22 ha of land (wetland: 57.40 ha; garden land: 13.66 ha; orchard: 11.16 ha) under different crops. It has a semipermanent tank — CHITTANKULAM (6.70 ha) that receives water from the Periyar feeder canal. The campus enjoys a tropical monsoon climate with an average annual rainfall of 881.6 mm.

In the beginning, it was a barren land with a few coconut trees and scattered thorny bushes. Due to systematic tree plantings over the years, the campus is now full of trees. Rice is the principal vegetation and Neem, Rain tree, Copper pod, Manila Tamarind and Acacia are the dominant trees. The Lesser Indian reed-mace (*Typha australis* Schum & Thonn.) grows extensively in the tank and the banks are

blanketed with Para grass (*Brachiaria mutica* (Forsk.) Stapf.). The granite rock harbours more than 300 Peacocks and Peafowls and has many Jain inscriptions and rock carvings. Poaching of birds and stone quarrying on the eastern side (college side) are prohibited.

Ranjit Daniels (1983) listed 71 different bird species with poetic descriptions of individual birds. The present report is the result of six year (1985-1990) observations during my service at Madurai and the number of birds have increased to 104 now.

Checklist of Birds of Madurai Agricultural College

Family : Podicipedidae

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|---|--------------|----------------------------|
| 1 | Little grebe | <i>Podiceps ruficollis</i> |
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Family : Phalacrocoracidae

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|---|------------------|----------------------------|
| 2 | Darter | <i>Anhinga rufa</i> |
| 3 | Little Cormorant | <i>Phalacrocorax niger</i> |

Family : Ardeidae

4	Bittern	<i>Botaurus stellaris</i>
5	Black bittern	<i>Ixobrychus flavicollis</i>
6	Chestnut bittern	<i>I. cinnamomeus</i>
7	Yellow bittern	<i>I. sinensis</i>
8	Cattle egret	<i>Bubulcus ibis</i>
9	Little egret	<i>Egretta garzetta</i>
10	Smaller egret	<i>E. intermedia</i>
11	Pond heron	<i>Ardeola striatus</i>
12	Purple heron	<i>Ardea purpurea</i>
13	Grey heron	<i>A. cinerea</i>
14	Night heron	<i>Nycticorax nycticorax</i>

Family : Anatidae

15	Common teal	<i>Anas crecca</i>
16	Spotbilled duck	<i>A. poecilorhyncha</i>
17	Gadwall	<i>A. strepera</i>

Family : Accipitridae

18	Blackwinged kite	<i>Elanus caeruleus</i>
19	Brahminy kite	<i>Haliastur indus</i>
20	Common pariah kite	<i>Milvus migrans govinda</i>
21	Osprey	<i>Pandion haliaetus</i>
22	Pale harrier	<i>Circus macrourus</i>
23	Shikra	<i>Accipiter badius</i>
24	Tawny eagle	<i>Aquila rapax vindhiana</i>
25	Whitebacked vulture	<i>Gyps bengalensis</i>
26	Scavenger vulture	<i>Neophron percnopterus</i>

Family : Phasianidae

27	Common peafowl	<i>Pavo cristatus</i>
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Family : Rallidae

28	Coot	<i>Fulica atra</i>
29	Moorhen	<i>Gallinula chloropus</i>
30	Purple moorhen	<i>Porphyrio porphyrio</i>
31	Slaty-legged banded crane	<i>Rallina eurizonoides</i>
32	White breasted waterhen	<i>Amaurornis phoenicurus</i>

Family : Jacanidae

33	Pheasant-tailed jacana	<i>Hydrophasianus chirurgus</i>
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Family : Charadriidae

34	Curlew	<i>Numenius arquata</i>
35	Fantail snipe	<i>Gallinago gallinago</i>
36	Littleringed plover	<i>Charadrius dubius</i>
37	Little stint	<i>Calidris minuta</i>
38	Redshank	<i>Tringa totanus</i>
39	Redwattled lapwing	<i>Vanellus indicus</i>

Family : Rostratulidae

40	Painted snipe	<i>Rostratula benghalensis</i>
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Family : Recurvirostridae

41	Blackwinged stilt	<i>Himantopus himantopus</i>
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Family : Burhinidae

42	Stone curlew	<i>Burhinus oedicnemus</i>
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Family : Columbidae

43	Bluerock pigeon	<i>Columba livia</i>
44	Little brown-dove	<i>Streptopelia senegalensis</i>
45	Spotted dove	<i>S. chinensis</i>
46	Ring dove	<i>S. decaocto</i>

Family : Psittacidae

47	Roseringed parakeet	<i>Psittacula krameri</i>
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Family : Cuculidae

48	Coucal	<i>Centropus sinensis</i>
49	Hawk-cuckoo	<i>Cuculus varius</i>
50	Indian plaintive cuckoo	<i>Cacomantis passerinus</i>
51	Koel	<i>Eudynamis scolopacea</i>
52	Pied crested cuckoo	<i>Clamator jacobinus</i>

Family : Strigidae

53	Barn owl	<i>Tyto alba</i>
54	Great horned owl	<i>Bubo bubo</i>
55	Spotted owl	<i>Athene brama</i>

Family : Apodidae

56	Crested tree swift	<i>Hemiprocne longipennis</i>
57	House swift	<i>Apus affinis</i>
58	Palm swift	<i>Cypsiurus parvus</i>

Family : Alcedinidae

59	Lesser pied kingfisher	<i>Ceryle rudis</i>
60	Small blue kingfisher	<i>Alcedo atthis</i>
61	White breasted kingfisher	<i>Halcyon smyrnensis</i>

Family : Meropidae

62	Blue tailed bee-eater	<i>Merops philippinus</i>
63	Green bee-eater	<i>M. orientalis</i>

Family : Coraciidae

64	Indian roller	<i>Coracias benghalensis</i>
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Family : Upupidae

65	Hoopoe	<i>Upupa epops</i>
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Family : Capitonidae

66	Coppersmith	<i>Megalaima haemacephala</i>
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Family : Picidae

67	Lesser golden backed woodpecker	<i>Dinopium benghalense</i>
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Family : Pittidae

68	Indian Pitta	<i>Pitta brachyura</i>
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Family : Alaudidae

69	Ashy-crowned finch lark	<i>Eremopterix grisea</i>
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Family : Hirundinidae

70	Dusky crag martin	<i>Hirundo concolor</i>
71	House martin	<i>Delichon urbica</i>
72	Swallow	<i>H. rustica</i>
73	Wiretailed swallow	<i>H. smithii</i>

Family : Oriolidae		
74	Golden oriole	<i>Oriolus oriolus</i>
75	Black headed oriole	<i>O. xanthornus</i>
Family : Dicruridae		
76	King crow	<i>Dicrurus adsimilis</i>
Family : Artamidae		
77	Ashy swallow-shrike	<i>Artamus fusius</i>
Family : Sturnidae		
78	Brahminy myna	<i>Sturnus pagodarum</i>
79	Common myna	<i>Acridotheres tristis</i>
Family : Corvidae		
80	House crow	<i>Corvus splendens</i>
81	Jungle crow	<i>C. macrorhynchos</i>
82	Indian tree-pie	<i>Dendrocitta vagabunda</i>
Family : Pycnonotidae		
83	Redvented bulbul	<i>Pycnonotus cafer</i>
84	Redwhiskered bulbul	<i>P. jocosus</i>
Family : Muscicapidae		
85	Common babbler	<i>Turdoides caudatus</i>
86	Whiteheaded babbler	<i>T. affinis</i>
87	Paradise fly-catcher	<i>Terpsiphone paradisi</i>
88	Plain wren-warbler	<i>Prinia subflava</i>
89	Tailor bird	<i>Orthotomus sutorius</i>
90	Magpie-robin	<i>Copsychus saularis</i>
Family : Paridae		
91	Grey tit	<i>Parus major</i>
Family : Motacillidae		
92	White wagtail	<i>Motacilla alba</i>
93	Grey wagtail	<i>M. caspica</i>
94	Yellowheaded wagtail	<i>M. citreola</i>
95	Yellow wagtail	<i>M. flava</i>
96	Large pied wagtail	<i>M. maderaspatensis</i>
97	Paddyfield pipit	<i>Anthus novaeseelandiae</i>

Family : Nectariniidae	
98	Purple sunbird
	<i>Nectarinia asiatica</i>

Family : Ploceidae	
99	House sparrow
	<i>Passer domesticus</i>
100	Yellowthroated sparrow
	<i>Petronia xanthocollis</i>
101	Baya
	<i>Ploceus philippinus</i>
102	Whitethroated munia
	<i>Lonchura malabarica</i>
103	Blackheaded munia
	<i>L. malacca</i>
104	Spotted munia
	<i>L. punctulata</i>

It is obvious that Madurai Agricultural College is an important wetland site for different waterfowls (both resident and migratory) notably the Little Grebes, Pond Herons, Smaller Egrets, Little Egrets, Little Cormorants, Spot-billed Ducks and Coots, besides the resident population of Peacocks and Peafowls near the hillock.

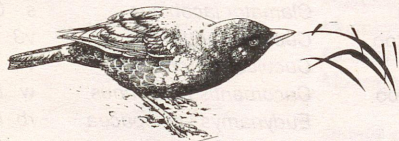
Since the college is under the control of the Tamil Nadu Agricultural University, research efforts could be intensified, taking advantage of the facilities available in the campus.

Acknowledgement

I thank Drs. M.S. Venugopal, S. Suresh and R. Mohan for their help in compiling this checklist and Dr. Ranjit Daniels for correcting the identity of birds.

Reference

Ranjit Daniels, R.J. (1983). Birds of Agricultural College, Madurai Agricultural College and Research Institute, Madurai, 61 pp.



The Birds of Indian Institute of Science Campus — Changes in the Avifauna

L. SHYAMAL, D-206, IISc Campus, Bangalore 560 012

The Indian Institute of Science campus is a green patch of 170 hectares in the North of Bangalore. Prior to its establishment in 1909, it was probably open scrub and farmland. The present sylvan landscape is largely due to the planning of CV Raman, GH Krumbigel, Homi Bhabha and BS Nirody.

Avenue trees of May Flower (*Delonix regia*), Rain Tree (*Samanea saman*), Mahogany (*Swietenia mahogani*),

several species of Cassia, Tabebuia and groves of *Ficus bejamina* dominate the scenery. Block plantations of phyllode Acacias, thorny Acacias and Casuarinas also exist. In places, there are dense thickets of Lantana. Grasslands and open ground are found in and around a small area meant to be an airstrip. A small grassy marsh and a pool in an old quarry are the only major wetland habitats.

Over the past seven years, there have been changes in the landuse which I think have caused avifaunal changes. A major change has been an increase in tree cover and a decrease in area under scrub and open land. In 1988 a checklist of the birds of the campus was prepared by RJ Ranjit Daniels in which the Iora, Indian Tree Pie and Little Brown Dove were indicated as locally extinct. These birds are common only in the outskirts of Bangalore where open land and scrub are available. The late KK Neelakantan saw Large Grey Babblers in the 1960s (S Subramanya, pers. comm.), a bird which is patchily distributed on the outskirts today. Thickbilled Flowerpeckers had been seen in 1977 (MB Krishna, pers. comm.). I have not seen this bird here although its congener the Tickell's Flowerpecker is abundant particularly on Singapore Cherry Trees (*Mutingia calabura*), feeding on its berries and also using its fibrous bark for nest building.

The Indian Robin and Pied Bush Chat are today found only along the Northern boundary of the campus and seem to be on their way into the list of local extinctions. With a reduction in open area both in and around the campus the Indian Roller and Blackwinged Kite are getting increasingly

rare. The marsh once had open water and Baya Weaverbirds nested from wild Date Palms around it. With the draining of the marsh they are gone and so too has the Small Blue Kingfisher. The quarry pool earlier had clear water and Pied Kingfishers regularly fished in it. Today the water is murky and the Kingfishers are not seen.

Avifaunal changes probably occur all the time but are rarely noticed unless careful censuses are carried out on a long term basis. This note is meant to be a precursor to such efforts. The following checklist is based on Ranjit Daniels' 1988 list.

References

- Daniels, RJ Ranjit, 1990. On the sighting of Shahin Falcon in Bangalore. *Newsletter for Birdwatchers*, 30(9-10) : 6.
- Daniels, RJ Ranjit, 1991. Stray birds on the IISc Campus. *Newsletter for Birdwatchers*, 31(11-12) : 14.
- Shyama!, L. 1989. "New" birds on the IISc Campus. *Newsletter for Birdwatchers*, 29(9-10) : 8-9.

Sl. No.	The Birds of IISc	Species	Status	Sl. No.	The Birds of IISc	Species	Status
1	Grey Pelican	<i>Pelecanus philippensis</i>	x	33	Grey Partridge	<i>Francolinus pondicerianus</i>	r D
2	Little Cormorant	<i>Phalacrocorax niger</i>	x	34	Yellowlegged Button Quail	<i>Turnix tanki</i>	v1
3	Pond Heron	<i>Ardeola grayii</i>	r B	35	Whitebreasted Waterhen	<i>Amaurornis phoenicurus</i>	rb C
4	Large Egret	<i>Ardea alba</i>	x	36	Redwattled Lapwing	<i>Vanellus indicus</i>	rb C
5	Smaller Egret	<i>Egretta intermedia</i>	x	37	Yellow-wattled Lapwing	<i>Vanellus malabaricus</i>	sb B
6	Little Egret	<i>Egretta garzetta</i>	x	38	Green Sandpiper	<i>Tringa ochropus</i>	w B
7	Night Heron	<i>Nycticorax nycticorax</i>	r C	39	Common Sandpiper	<i>Tringa hypoleucos</i>	w C
8	Painted Stork	<i>Mycteria leucocephala</i>	x	40	Fantail Snipe	<i>Gallinago gallinago</i>	w C
9*	Lesser Whistling Teal	<i>Dendrocygna javanica</i>	x	41*	Woodcock	<i>Scolopax rusticola</i>	v1
10	Pintail	<i>Anas acuta</i>	x	42*	Green Pigeon	<i>Treron phoenicoptera</i>	v1
11	Shoveller	<i>Anas clypeata</i>	x	43	Blue Rock Pigeon	<i>Columba livia</i>	rb C
12	Blackwinged Kite	<i>Elanus caeruleus</i>	s D	44*	Rufous Turtle Dove	<i>Streptopelia orientalis</i>	v1
13	Honey Buzzard	<i>Pernis ptilorhynchus</i>	v	45*	Red Turtle Dove	<i>Streptopelia tranquebarica</i>	v1
14	Pariah Kite	<i>Milvus migrans govinda</i>	rb A	46	Spotted Dove	<i>Streptopelia chinensis</i>	rb B
	Blackeared Kite	<i>Milvus migrans lineatus</i>	w	47	Little Brown Dove	<i>Streptopelia senegalensis</i>	e
15	Brahminy Kite	<i>Haliastur indus</i>	rb C	48	Roseringed Parakeet	<i>Psittacula krameri</i>	rb B
16	Shikra	<i>Accipiter badius</i>	rb C	49	Redbreasted Parakeet	<i>Psittacula alexandrii</i>	v2
17	Sparrow-Hawk	<i>Accipiter nisus</i>	v2	50	Blossomheaded Parakeet	<i>Psittacula cyanocephala</i>	D
18*	Longlegged Buzzard	<i>Buteo rufinus</i>	v1	51	Pied Crested Cuckoo	<i>Clamator jacobinus</i>	s C
19	White-eyed Buzzard	<i>Butastur teesa</i>	D	52	Common Hawk-Cuckoo	<i>Cuculus varius</i>	v3
20	Crested Hawk-Eagle	<i>Spizaetus cirrhatu</i>	v2	53	Indian Cuckoo	<i>Cuculus micropterus</i>	v
21	Booted Hawk-Eagle	<i>Hieraaetus pennatus</i>	w E	54	Indian Plaintive Cuckoo	<i>Cacomantis passerinus</i>	w E
22	Tawny Eagle	<i>Aquila rapax</i>	v1	55	Koel	<i>Eudynamis scolopacea</i>	rb B
23	Indian Longbilled Vulture	<i>Gyps indicus</i>	x	56	Crow-Pheasant	<i>Centropus sinensis</i>	r B
24	Indian Whitebacked Vulture	<i>Gyps benghalensis</i>	x	57	Barn Owl	<i>Tyto alba</i>	rb D
25	Scavenger Vulture	<i>Neophron percnopterus</i>	rb E	58	Collared Scops Owl	<i>Otus bakkamoena</i>	rb E
26	Pale Harrier	<i>Circus macrourus</i>	v2	59	Spotted Owlet	<i>Athene brama</i>	rb B
27	Montague's Harrier	<i>Circus pygargus</i>	v1	60	Mottled Wood Owl	<i>Strix ocellata</i>	r E
28	Marsh Harrier	<i>Circus aeruginosus</i>	v1	61	Common Indian Nightjar	<i>Caprimulgus asiaticus</i>	r E
29	Short-toed Eagle	<i>Circaetus gallicus</i>	E	62	Alpine Swift	<i>Apus melba</i>	x
30	Peregrine Falcon	<i>Falco peregrinus japonensis</i>	v1	63	House Swift	<i>Apus affinis</i>	r C
	Shaheen Falcon	<i>Falco p. peregrinator</i>	v2	64	Lesser Pied Kingfisher	<i>Ceryle rudis</i>	E
31	Redheaded Merlin	<i>Falco chiquera</i>	r D	65	Small Blue Kingfisher	<i>Alcedo atthis</i>	x
32	Kestrel	<i>Falco tinnunculus</i>	w E				

+ Cattle egret *Bubulcus ibis* x (C)
 + Blue throated Flycatcher *Muscicapa rubeculoides* v1

Sl. No.	The Birds of IISc	Species	Status	Sl. No.	The Birds of IISc	Species	Status
66	Whitebreasted Kingfisher	<i>Halcyon smyrnensis</i>	r C	124	Tickell's Leaf Warbler	<i>Phylloscopus affinis</i>	w D
67*	Blackcapped Kingfisher	<i>Halcyon pileata</i>	v1	125	Greenish Leaf Warbler	<i>Phylloscopus trochiloides</i>	w A
68	Bluetailed Bee-eater	<i>Merops philippinus</i>	v	126	Large Crowned Leaf Warbler	<i>Phylloscopus occipitalis</i>	v1
69	Small Green Bee-eater	<i>Merops orientalis</i>	rb B	127	Bluethroat	<i>Erithacus svecicus</i>	v1
70	Indian Roller	<i>Coracias benghalensis</i>	E	128	Blue Chat	<i>Erithacus brunneus</i>	v1
71	Hoopoe	<i>Upupa epops</i>	rb C	129	Magpie-Robin	<i>Copsychus saularis</i>	rb B
72	Small Green Barbet	<i>Megalaima viridis</i>	rb B	130	Black Redstart	<i>Phoenicurus ochrurus</i>	v2
73	Crimsonbreasted Barbet	<i>Megalaima haemacephala</i>	rb B	131	Pied Bush Chat	<i>Saxicola caprata</i>	rb D
74	Indian Pitta	<i>Pitta brachyura</i>	w C	132	Indian Robin	<i>Saxicoloides fulicata</i>	rb E
75	Rufouswinged Bush Lark	<i>Mirafra assamica</i>	r C	133	Blueheaded Rock Thrush	<i>Monticola cinclorhynchus</i>	w C
76	Ashycrowned Finch-Lark	<i>Eremopterix grisea</i>	rb C	134	Whitethroated Ground Thrush	<i>Zostertha citrina</i>	v1
77	Eastern Skylark	<i>Alauda gulgula</i>	e	135	Grey Tit	<i>Parus major</i>	rb C
78*	Collared Sand Martin	<i>Riparia riparia</i>	v1	136	Indian Tree Pipit	<i>Anthus hodgsonii</i>	v1
79	Dusky Crag Martin	<i>Hirundo concolor</i>	x E	137	Tree Pipit	<i>Anthus trivialis</i>	w E
80	Barn/Common Swallow	<i>Hirundo rustica</i>	w B	138	Paddyfield Pipit	<i>Anthus novaeseelandiae</i>	sb D
81	Wiretailed Swallow	<i>Hirundo smithii</i>	w D	139	Grey Wagtail	<i>Motacilla cinerea</i>	w D
82	Redrumped/Striated Swallow	<i>Hirundo daurica</i>	r D	140	White Wagtail	<i>Motacilla alba</i>	x
83	Baybacked Shrike	<i>Lanius vittatus</i>	w C	141	Large Pied Wagtail	<i>Motacilla maderaspatensis</i>	r C
84	Brown Shrike	<i>Lanius cristatus</i>	w B	142	Thickbilled Flowerpecker	<i>Dicaeum agile</i>	e
85	Golden Oriole	<i>Oriolus oriolus</i>	w B	143	Tickell's Flowerpecker	<i>Dicaeum erythrorhynchos</i>	rb A
86	Black Drongo	<i>Dicrurus adsimilis</i>	rb C	144	Purplerumped Sunbird	<i>Nectarinia zeylonica</i>	rb A
87	Grey Drongo	<i>Dicrurus leucophaeus</i>	w A	145	Loten's Sunbird	<i>Nectarinia lotenia</i>	r E
88	Whitebellied Drongo	<i>Dicrurus caerulescens</i>	E	146	Purple Sunbird	<i>Nectarinia asiatica</i>	rb A
89	Haircrested Drongo	<i>Dicrurus hottentottus</i>	v1	147	White-eye	<i>Zosterops palpebrosa</i>	rb A
90	Greyheaded Myna	<i>Sturnus m. malabanicus</i>	w D	148	House Sparrow	<i>Passer domesticus</i>	rb B
91	* Whiteheaded Myna	<i>Sturnus m. blythii</i>	v1	149	Baya Weaver Bird	<i>Ploceus philippinus</i>	e
92	Blackheaded Myna	<i>Sturnus pagodarum</i>	r E	150	Red Munia	<i>Estrilda amandava</i>	r E
93	Rosy Pastor	<i>Sturnus roseus</i>	v3	151	Whitethroated Munia	<i>Lonchura malabarica</i>	rb D
94	Indian Myna	<i>Acridotheres tristis</i>	rb A	152	Spotted Munia	<i>Lonchura punctulata</i>	rb D
95	Jungle Myna	<i>Acridotheres fuscus</i>	r C	153	Blackheaded Munia	<i>Lonchura malacca</i>	s C
96	Indian Tree Pie	<i>Dendrocitta vagabunda</i>	e				
97	House Crow	<i>Corvus splendens</i>	rb A				
98	Jungle Crow	<i>Corvus macrorhynchos</i>	rb A				
99	Common Wood Shrike	<i>Tephrodornis pondicerianus</i>	v1				
100	Large Cuckoo-Shrike	<i>Coracina novaehollandiae</i>	w E				
	Blackheaded Cuckoo-Shrike	<i>Coracina melanoptera</i>	C				
101	Small Minivet	<i>Pericrocotus cinnamomeus</i>	w C				
102*	Common Iora	<i>Aegithina tiphia</i>	e				
103	Goldfronted Chloropsis	<i>Chloropsis aurifrons</i>	w E				
104	Goldmantled Chloropsis	<i>Chloropsis cochinchinensis</i>	v1				
105	Redwhiskered Bulbul	<i>Pycnonotus jocosus</i>	w D				
106	Redvented Bulbul	<i>Pycnonotus cafer</i>	rb B				
107*	Large Grey Babbler	<i>Turdoides malcolmii</i>	e				
108	Whiteheaded Babbler	<i>Turdoides affinis</i>	rb B				
109	Brown Flycatcher	<i>Muscicapa latirostris</i>	w C				
110	Redbreasted Flycatcher	<i>Muscicapa parva</i>	w C				
111	Tickell's Blue Flycatcher	<i>Muscicapa tickelliae</i>	w C				
112	Verditer Flycatcher	<i>Muscicapa thalassina</i>	v1				
113	Whitethroated Fantail Flycatcher	<i>Rhipidura albicollis</i>	v2				
114	Paradise Flycatcher	<i>Terpsiphone paradise</i>	w C				
115	Blacknaped Flycatcher	<i>Monarcha azurea</i>	w C				
116	Streaked Fantail Warbler	<i>Cisticola juncidis</i>	rb B				
117	Plain Longtailed Warbler	<i>Prinia subflava</i>	rb C				
118	Ashy Longtailed Warbler	<i>Prinia socialis</i>	rb B				
119	Tailor Bird	<i>Orthotomus sutorius</i>	rb B				
120	Blyth's Reed Warbler	<i>Acrocephalus dumetorum</i>	w B				
121*	Booted Tree Warbler	<i>Hippolais caligata</i>	?				
122*	Orphean Warbler	<i>Sylvia hortensis</i>	v1				
123	Lesser Whitethroat	<i>Sylvia curruca</i>	w C				

STATUS CODES

- x extralimital/flying over
- r resident (nesting not reported/seen)
- rb resident breeding
- w winter visitor
- s summer visitor
- sb summer breeding
- e extinct
- v vagrant/straggler (no. of sightings)
- A abundant
- B common
- C not so common
- D uncommon
- E rare
- * species not seen by me

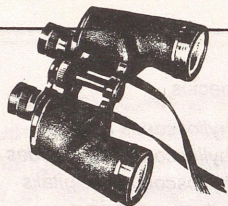
ADDITIONAL NOTES :

Yellow-wattled Lapwing. Termite alate emergence after rains attracted large numbers of Jungle Crows leading to predation of eggs.

Redbreasted Parakeet. One bird seen on 21 August 1993 foraging with a flock of Roseringed Parakeets. Possibly an escapee. Commonly available in the local bird trade.

*Dabchick nesting
Aug 20 - Sep 1 - 1995*

*Dabchick nesting in Jubilee park
Aug 20 - 1 Sep 1995*



We went on a week's holiday to Puri between 2nd and 8th January, 1994. Located on the coast of the Bay of Bengal, on latitude 20 north and 86 east, Puri is famous for its Jagannath Temple and its beaches. The weather was mild with a slight chill in the air in the morning. We were pleasantly surprised to see over 46 species of birds. Earlier in June, 1993 we had seen only the very common birds like the crows and the mynas here. It was very interesting to observe the habitat-wise species distribution. Our findings are given below :

I HABITAT : SEA BEACH — Intertidal zone

- 1 Pintail, *Anas acuta*
— Observed flying overhead probably towards Chilka lakes in a group of about 70.
- 2 Pariah kite, *Milvus migrans* — Constantly circling overhead. Both subspecies *M.m.govinda* and *M.m.lineatus* seen.
- 3 Brahminy kite, *Haliastur indus*
— Seen flying across into the town.
- 4 Whitebellied sea eagle, *Haliaeetus leucogaster*
— Seen flying overhead carrying sea snake. It flew into a clump of woodland. The nest was seen on top of a tall Casuarina tree within the premises of Raj Bhavan. One bird was feeding in the nest while another was sitting on a nearby tree.
- 5 Kentish plover, *Charadrius alexandrinus* — A group of 5 seen near the edge of water.
- 6 Whiskered tern, *Chlidonias hybrida* — Flying overhead and skimming the surface of the sea foraging for food. It was in association with gullbilled tern following the fish nets being hauled in.
- 7 Gullbilled tern, *Gelochelidon nilotica* — Foraging along with whiskered tern.
- 8 Swallow, *Hirundo rustica* — Seen flying along the shoreline.
- 9 House crow, *Corvus splendens* — Seen hovering over receding waves and picking up food from the sand after the waves receded.
- 10 Jungle crow, *Corvus macrorhynchos* — Feeding of debris on shoreline with house crow.

II HABITAT : SEWAGE CANAL draining out into the sea. The canal is approximately 25 feet wide and less than 6 inches deep.

Bird Watching in Puri, Orissa

LIPI ROYCHOWDHURY, 7 & 8, Golf Club Road, Calcutta 700 033

- 1 Whitebreasted waterhen, *Amaurornis phoenicurus*
— Seen among the shrubs by the side of the canal.
- 2 Blackwinged Stilt, *Himantopus himantopus* — Seen wading in the canal.
- 3 Little ringed plover, *Charadrius dubius* — Seen on the bank of the canal.
- 4 Green Sandpiper, *Tringa ochropus*
- 5 Wood Sandpiper, *Tringa glareola*
- 6 Common Sandpiper, *Tringa hypoleucos* — All Three Sandpipers seen flying around together over the canal and foraging on the banks
- 7 White wagtail, *Motacilla alba* — Seen on the bank of canal.
- 8 Indian great reed warbler, *Acrocephalus stentoreus*
— Seen in shrubbery by the bank of the canal.

III HABITAT : SAND DUNES AND ITS WOODED AREAS AND ROADSIDE DITCH

- 1 Pond heron, *Adreola grayii* — Seen foraging in ditch.
- 2 Cattle egret, *Bubulcus ibis* — Actively foraging on sand among refuse.
- 3 Little egret, *Egretta garzetta* — Observed feeding by using 'foot stirring' strategy in water in ditch.
- 4 Whitebellied sea eagle, *Haliaeetus leucogaster* — Nest observed as cited earlier.
- 5 Indian whitebacked vulture, *Gyps bengalensis* — Seen circling over crematorium area.
- 6 Spotted dove, *Streptopelia chinensis* — Common.
- 7 Roseringed parakeet, *Psittacula krameri* — Seen entering holes in Casuarina trees.
- 8 Koel, *Eudynamis scolopacea* — Common.
- 9 Crow-pheasant or Coucal, *Centropus sinensis* — Call heard.
- 10 Spotted owlet, *Athene brama* — Seen perched on Casuarina tree.
- 11 House swift, *Apus affinis* — Seen 'balling up' in the sky.
- 12 Palm swift, *Cypsiurus parvus* — Common.

- 13 Common kingfisher, *Alcedo atthis* — Seen sitting on twig in ditch.
- 14 Whitebreasted kingfisher, *Halcyon smyrnensis* — Seen both on sand and woodland.
- 15 Bluetailed bee-eater, *Merops philippinus* — Common both on sand and in woodland.
- 16 Indian roller, *Coracias benghalensis*
- 17 Hoopoe, *Upupa epops* — Observed in woodland on Casuarina tree.
- 18 Brown shrike, *Lanius cristatus*
- 19 Blackheaded oriole, *Oriolus xanthornus* — Common in woodland.
- 20 Black drongo, *Dicrurus adsimilis* — Seen foraging on sand.
- 21 Pied myna, *Sturnus contra* — Common.
- 22 Common myna, *Acridotheres tristis* — Common.
- 23 Indian tree pie, *Dendrocitta vagabunda* — Common.
- 24 House crow, *Corvus splendens* — Common.
- 25 Jungle crow, *Corvus macrorhynchos* — Common.
- 26 Tailor bird, *Orthotomus sutorius* — Call heard from woodland.
- 27 Blyth's reed warbler, *Acrocephalus dumetorum* — Call heard from wooded area.
- 28 Chiff chaff, *Phylloscopus collybita* — Call heard from wooded area.
- 29 Yellowbrowed leaf warbler, *Phylloscopus inornatus* — Call heard from wooded area.
- 30 Dull green leaf warbler, *Phylloscopus trochiloides* — Call heard from wooded area.
- 31 House sparrow, *Passer domesticus* — Common.

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- Ali, S. and Ripley, S.D. (1983). *A Pictorial guide to the Birds of the Indian Subcontinent*. Bombay Natural History Society, Centenary Publication, Oxford University Press, Delhi.
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Nesting of Bengal Bush Lark in Eastern Rajasthan

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In Rajasthan two species of Bush larks are known — Red-winged bush lark *Mirafra erythroptera* and the Singing bush lark *Mirafra javanica*. These were recorded by many ornithologists.

Allan Octavian Hume (1878) described the Red-winged bush lark as common in the Jodhpur state of Rajputana. It was collected by a team of the ornithological survey of Jodhpur state at Hamavas lake (19 October 1933), R.M. Adam (1873) found it common about the scrub jungles near Sambhar lake. Barnes (1886) observed red-winged bush larks breeding at Neemuch from March to September.

According to A.O. Hume (1878), the singing bush lark occurs sparingly in the western parts of Jodhpur. R.M. Adam (1873) found it not very common in the areas about the Sambhar lake. Barnes (1886) considered the singing bush lark rare at Neemuch and found only one nest during September. Bates has described the singing bush lark at Bharatpur in "My Rajputana Garden" (page 13, Bird Life in India by R.S.P. Bates; 1931; BNHS).

While observing the singing flights of larks near Jaipur, I suspected the presence of the Bengal bush lark and in July 1993, I got a chance of observing it closely near its nest.

On 16 July 1993, while walking on a forest path, along with H.S. Sangha, near a forest Nursery in Nahargarh Wildlife Sanctuary, I saw a lark sitting on the ground about 3 metres from the forest path. The forest in this area is degraded Dhok *Anogeissus pendula* forest. The ground is stony but near the forest nursery, where this lark was sighted, a large sandy area covered with thin scrub and bushes is present. The lark froze, when I tried to approach it. It allowed me to come as close as one and a half metres. This surprised me and on close observation I found that it was sitting near its nest.

I observed the lark for sufficient time to note down its plumage in detail. The lark was slightly larger than a sparrow. Its upper parts were dark ashy brown with blackish streaks. The underparts were fulvous and on the breast were thick brown triangular marks. The tail was dark brown with no white in the outer tail feathers. Some chestnut in the wings was prominent when it flew off.

The nest was 9 cm long and had a side entrance. It was on the ground under a tuft of grass and was made of fine dry grass. It was domed, covered by some of the stems of grasses from the tuft of grass under which it was made. The nest entrance was 4.6 cm in diameter fringed by the loose ends of the stems of grasses.

There were two oval eggs in the nest which had blackish brown spots on a dull white background. The spots were very dense on the larger end of the egg.

Next day I took a butterfly net and when the lark was sitting in the nest, I positioned the net close to the entrance hole of the nest. I caught the lark gently in the net when it came out of the nest. I noted down details of its plumage. I found that rufous on the outer and inner webs of the primaries was divided by a brown band. The tail was dark brown and the outer web of outermost rectrices was pale rufous. After examining all the necessary details I released the lark and sat down about twenty metres from the nest. After sometime the lark returned near the nest and slowly walked into the nest.

According to Salim Ali and S. Dillon Ripley (Handbook of the Birds of India and Pakistan, compact edition, 1983, page 325), the Bengal bush lark *Mirafra assamica* Horsfield is found from Haryana (Jagadhri, Ambala dist. Jones: JBNHS, 31: 1004) eastward through Uttar Pradesh, Nepal (low lands), Jalpaiguri duars, Bihar and W.Bengal to Assam and Manipur, south to northern Orissa and northern Madhya Pradesh.

The present sighting of Bengal bush lark in Nahargarh Wildlife Sanctuary near Jaipur is a new record for the state of Rajasthan and extends the western limit of its distribution to Jaipur.

DISPLAY FLIGHTS OF BUSH LARKS IN RAJASTHAN

Red-Winged Bush Lark

The bird flies up singing up to about 10 metres and then stops singing and comes down vertically or in spirals or zigzags down with wings raised in a wide V.

Bengal Bush Lark

The bird flies up singing up to about 15 metres and then slides down on outstretched wings but before reaching ground again flies up to come down again. This is repeated two or three times before it actually comes down.

Singing Bush Lark

The bird flies up to about 30 metres and then hovers in the air moving here and there for a considerable time. It then suddenly comes down.

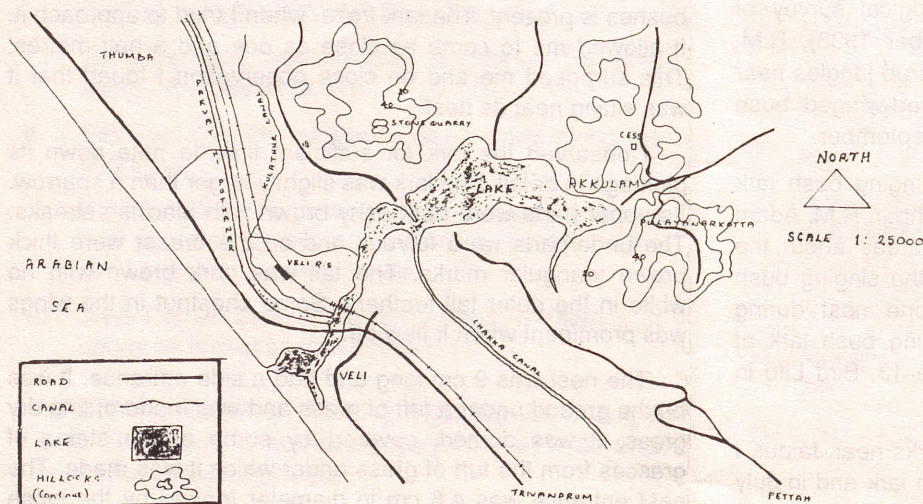
Birds of Aakkulam-Veli Back Waters and Environs

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Aakkulam is a small, relatively shallow, brackish backwater in Ulloor panchayat Lat 8° 30' N and Long 76° 55' E, South Kerala. This lake and its environs is a typical

representative of many small wetlands, especially those in the vicinity of cities which are disappearing at an alarmingly fast rate. Being very near Trivandrum, this picturesque area is an usual haunt of nature lovers and consequently many interesting birds have been observed here. The most remarkable factor which marks this place out is the number of diverse micro habitats that the 1300 ha area has to offer.

The lake in itself provides variety — at the Aakkulam side, the waters are shallow and there is a lush growth of water plants, whereas at Veli, it is deeper and comparatively devoid of floating vegetation. Water hyacinth (*Eichhornia crassipes*) is the main hydrophyte and forms vast floating rafts. Other common ones are *Pistia stratiotes*, *Nymphaea stellata*, *N.alba*, *Salvinia* spp and *Hydrilla verticillata*. The north eastern portion of the lake



Aakkulam Map

with the vegetation is very rich in birds species wise. Apart from commoner birds like Herons, Egrets, Cormorants, Bronze-winged and Pheasant-tailed Jacanas, others like Darter, Large cormorant, Cotton teal, Coot, Dabchick, Indian moorhen, Purple moorhen, etc. too are found in almost all months, but their movements are yet to be properly understood. Winter brings with it small numbers of Teals and Ducks, mostly Garganey and Pintail plus large numbers of terns, mostly Whiskered. Till about the next April-May, rows of 'up-ending' teals and flocks of terns crying out 'threep threep' provide a touch of liveliness to the lake. Lesser whistling teals are occasionally found and recently a pair of Spotbill ducks and a small group of Gadwalls were noted by two of my friends, Susanth and Rafeek. Another interesting feature is that after three or four days of heavy downpour, the sand-bar at Veli is broken and the water level goes down considerably exposing many water weeds and mudbanks. The lake takes on the appearance of a green swamp. Egrets and Pond herons in large numbers appear as if from nowhere as do Brahminy kite and common mynas. Once a group of 8 Reef herons were noted feeding actively. The curious thing is that, as the water level gradually rises up, the birds too vanish as mysteriously as they appeared. Brahminy kite is the only resident raptor of the lake environs and sometimes very large numbers, amounting to sixty or even more can be seen at the same time. This occurs mostly when a fishing net is hauled ashore. Three to four Marsh harriers, mostly females or immatures are regular visitors in winter. They start their hunting early in the morning sailing low over the lake with rhythmic wing-beats, the route traced below perfectly by the sudden flushing of Jacanas, pond herons and egrets from the water-hyacinth rafts. Very rarely an Osprey puts in an appearance to stay for a couple of weeks, and in Sept-Oct 1990, a Peregrine falcon too was noted. Birds like pelicans and flamingos which are very rare in our State have also turned up here. On 12 Dec 1992, a pelican with pinkish white upperparts, white tail, yellow beak and pouch and greyish white wings with black trailing edge was noted. It was identified as a Rosy pelican, but more sightings would be required to confirm it. Further, a Greater Flamingo was sighted on 6.11.1993. The bird stayed here for about a week. An immature spotbilled pelican, first sighted on 30.11.93, has almost become a sort of local celebrity (the local people call it 'Arayannam' meaning Swan). The bird is still here at the time of writing. Bronze winged Jacanas breed here regularly and male pheasant tailed Jacanas with full breeding plumage are seen every year. Breeding of coot has also been recorded from Aakkulam. So much regarding the lake birds.

At Veli, the lake opens into the sea by a bar mouth forming a temporary estuary with a sand bar that closes and opens with the vagaries of the monsoon rains. Another unique habitat is the mangrove patches at Veli. The once-luxuriant thickets have now almost totally given way to coconut plantations, except for a small vestigial patch on the

northern shore. At the bar mouth and the mud banks to the south of it, small to moderate sized groups of waders can be seen. Usual ones are the Common, Green and Wood Sandpipers, Red and Green shanks, Golden, Little ringed, Kentish and Lesser sand plovers. Occasionally a small flock of Whimbrels and Curlews and rarely a Terek sandpiper and Turnstone are seen. Gulls, both the Brownheaded and the Lesser Blackheaded are found flying near the estuary.

Both at Aakkulam and Veli, there are marshy meadows with a short but rank growth of grasses with puddles in between. Wagtails, pipits and lapwings frequent these swampy meadows and share it with small groups of snipes. Painted snipes are sometimes seen here and the electric line passing above offer excellent perches for bee eaters, ashy swallow shrikes, drongos and swallows. Any attempt to enter into this squelchy domain is greeted by the 'did-you-do-it' of Red wattled lapwings and this warning is heeded by all the other birds. As we walk further, snipes rise inches from our feet calling harshly, promptly followed by wagtails, pipits and lapwings.

Another very productive habitat found in close association with the meadows and lake edges is the tall and lush growth of bulrushes or cat-tail reed (*Typha angustata*). Thick and impenetrable clumps of screw pine (*Pandanus* spp) with small thickets of prickly *Acanthus* spp grow nearby. Together they form a very safe refuge for a group of very shy and rarely seen birds — rails, crakes and bitterns. 5 species of bitterns, 3 species of Crakes and a species of Rail have been recorded here. Out of these inveterate skulkers, Malay bittern, Little bittern and Baillon's Crake are migrants and are seldom seen due to their strictly crepuscular habits, whereas the others are residents with erratic local movements which have not been yet comprehended. A patient and silent vigil near pandanus brakes is often rewarded by sightings of Waterhens, Koras and many of the above-mentioned birds. White-breasted waterhens and Koras accompanied by downy chicks have been noted and they must doubtlessly be breeding here. Juveniles of Chestnut, Yellow and Black bitterns too have been noted, but actual evidence of nesting is still to be obtained.

Now to a totally different, but highly fascinating type of habitat, slightly inland on the northern shore, stands the isolated rocky Veli hill, now within the VSSC campus. A low ridge of lateritic hills sprawls to the north and east of the backwaters. It is said that until about 50 years ago, the slopes were densely clothed with moist deciduous forests, but sadly, relentless logging has now reduced it to a scrub jungle type of vegetation, the dominant tree being cashew (*Anacardium occidentale*). Scattered mango trees (*Mangifera indica*), jack (*Artocarpus heterophyllus*), occasional thickets of Lantana spp, scattered wild date palms (*Phoenix sylvestris*), clumps of *Zizyphus oenoplia* and a fairly lush growth of *Sympopogan* spp as undergrowth completes the scene. Considerable portions of the southern

part of the Pulayanarkottah hills lie barren with stubble growth and a few stunted *Morinda tinctoria*. Almost all the common woodland birds have their abode in these hillocks. Some like Iora, Purple rumped and Loten's sunbird, Redvented and Red whiskered bulbul, Indian tree pie, Spotted dove, Crow pheasant, White headed babbler, Black headed Oriole, Shikra, Black drongo, Spotted Owlet and Jungle owlet nest here regularly. On 3 Aug '92 a juvenile Pied crested cuckoo was noted and on 6 June '93 I could see a cuckoo fledgling being fed by White headed babblers. In winter the number of resident birds are augmented by the arrival of leaf warblers, flycatchers, brown shrikes, reed warblers and greyheaded mynas. Shikra is the main resident raptor with an occasional Kestrel and Black winged kite. But on Oct 15 '91, a solitary adult male pale harrier was found sailing over the hillocks mobbed by a large group of vociferous crows. On 22nd June '91, a solitary white browed bulbul which is rare in South Kerala was noticed. In fact, the hillocks really come to life during mid December to January. Then the Zizyphus berries ripen and the bushes teem with birds, vying with each other for the fruit. It is during this time, that Rosy pastors in groups amounting to thirty or more and small numbers of Greyfronted green pigeons are seen at Aakkulam. This canophony of feeding birds often continues long after dusk. Evenings in the scrub jungle are often very peaceful and as the joyous calls of the bulbuls, ioras and other diurnal birds stop gradually with the setting sun, spotted and jungle owlets slowly become active. As darkness spreads around, night herons fly overhead to feed in the nearby marshes, their harsh voices echoing.

All may seem safe and sound, but Aakkulam, like many wetlands near cities, has many threats questioning its very

existence. Both Aakkulam and Veli are tourist spots and the boats operating in the Lake pollute it both by the noise and oily wastes. In fact, this lake system is already a major sink of pollution by the sewage flow from the city, effluents from the clay factory and the toxic wastes from the Titanium Products Limited factory. Recently, a considerable portion of the hillock vegetation was cleared by the Southern Air Command authorities to construct their offices. This has destroyed the foraging and nesting grounds of hundreds of woodland birds. Other life forms like small mammals, snakes, etc. too are doomed. Thus while the birds of the hillocks are threatened by habitat destruction, the birds of the lake are jeopardised by pollution and tourism. Attempts are being made to convince the Air Command authorities of the richness of the area and it is hoped that they would leave the remaining portions untouched.

As this area is only of walking distance from my house, I've been a very regular visitor for the past six odd years. Proximity also helps visits during unconventional hours of the day like early dawn or late night. Consequently the check-list is a fairly comprehensive one, although many doubtful sightings have been omitted.

References

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 C. Susanth Kumar (1993). First breeding record of Coot at Aakkulam lake, Kerala, NLBW, Vol.33(3), p.55.

CHECK LIST OF THE BIRDS OF AAKKULAM-VELI

Migratory — M	Local migration — LM	Present — P			
Rare — R	Occasional — O	Common — C			
<i>Family : Podicipedidae</i>			013	Large egret	<i>Egretta alba</i> P
001	Little Grebe	<i>Podiceps ruficollis</i> CLM?	014	Median egret	<i>Egretta intermedia</i> P
<i>Family : Pelecanidae</i>			015	Little egret	<i>Egretta garzetta</i> C
002	White Pelican	<i>Pelecanus onocrotalus</i> R	016	Reef heron	<i>Egretta gularis</i> MR
003	Grey Pelican	<i>Pelecanus philippensis</i> R	017	Night heron	<i>Nycticorax nycticorax</i> C
<i>Family : Phalacrocoracidae</i>			018	Tiger bittern	<i>Gorsachius melanolophus</i> MR
004	Large Cormorant	<i>Phalacrocorax carbo</i> OLM	019	Little bittern	<i>Ixobrychus minutus</i> MR
005	Little Cormorant	<i>Phalacrocorax niger</i> C	020	Chestnut bittern	<i>Ixobrychus cinnamomeus</i> P
006	Shag	<i>Phalacrocorax fuscicollis</i> R	021	Yellow bittern	<i>Ixobrychus sinensis</i> O
007	Darter	<i>Anhinga rufa</i> O	022	Black bittern	<i>Ixobrychus flavicollis</i> O
<i>Family : Ardeidae</i>			<i>Family : Ciconiidae</i>		
008	Grey heron	<i>Ardea cinerea</i> OLM	023	Openbill stork	<i>Anastomus oscitans</i> R
009	Purple heron	<i>Ardea purpurea</i> C	<i>Family : Phoenicopteridae</i>		
010	Little green heron	<i>Ardeola striatus</i> O	024	Flamingo	<i>Phoenicopus roseus</i> R
011	Pond heron	<i>Ardeola grayii</i> C			
012	Cattle egret	<i>Bubulcus ibis</i> C			

Family: Anatidae

025	Lesser whistling teal	<i>Dendrocygna javanica</i>	RM
026	Pintail	<i>Anas acuta</i>	PM
027	Garganey	<i>Anas querquedula</i>	MC
028	Spotbilled duck	<i>Anas poecilorhyncha</i>	MR
029	Gadwall	<i>Anas strepera</i>	MR
030	Cotton teal	<i>Nettapus coromandelianus</i>	O

Family: Accipitridae

031	Black winged kite	<i>Elanus caeruleus</i>	O
032	Pariah kite	<i>Milvus migrans</i>	C
033	Brahminy kite	<i>Haliastur indus</i>	C
034	Shikra	<i>Accipiter badius</i>	P
035	Pale harrier	<i>Circus macrourus</i>	MR
036	Marsh harrier	<i>Circus aeruginosus</i>	MC
037	Osprey	<i>Pandion haliaetus</i>	MO

Family: Falconidae

038	Peregrine falcon	<i>Falco peregrinus</i>	MR
039	Kestrel	<i>Falco tinnunculus</i>	MO

Family: Phasianidae

040	Quail spp	<i>Perdica spp</i>	O
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Family: Rallidae

041	Bluebreasted banded rail	<i>Rallus striatus</i>	R
042	Banded crane	<i>Rallina eurizonoides</i>	R
043	Baillon's crane	<i>Porzana pusilla</i>	MP
044	Ruddy crane	<i>Porzana fusca</i>	P
045	Whitebreasted waterhen	<i>Amaurornis phoenicurus</i>	C
046	Kora	<i>Gallix cinerea</i>	P
047	Moorhen	<i>Gallinula chloropus</i>	OM?
048	Purple moorhen	<i>Porphyrio porphyrio</i>	P
049	Coot	<i>Fulica atra</i>	OM?

Family: Jacanidae

050	Pheasant-tailed jacana	<i>Hydrophasianus chirurgus</i>	CLM?
051	Bronze-winged jacana	<i>Metopidius indicus</i>	P

Family: Rostratulidae

052	Painted snipe	<i>Rostratula benghalensis</i>	OLM?
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Family: Recurvirostridae

053	Black winged stilt	<i>Himantopus himantopus</i>	MO
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Family: Charadriidae

054	Red wattled lapwing	<i>Vanellus indicus</i>	P
055	Yellow wattled lapwing	<i>Venellus malabaricus</i>	P
056	Golden plover	<i>Pluvialis dominica</i>	MP
057	Little ringed plover	<i>Charadrius dubius</i>	MP
058	Kentish plover	<i>Charadrius alexandrinus</i>	MP
059	Lesser sand plover	<i>Charadrius mongolus</i>	MC
060	Whimbrel	<i>Numenius phaeopus</i>	MP
061	Curlew	<i>Numenius arquata</i>	MO

Family: Apodidae

062	Red shank	<i>Tringa totanus</i>	MO
063	Green shank	<i>Tringa nebularia</i>	MP
064	Marsh sandpiper	<i>Tringa stagnatilis</i>	MO
065	Green sandpiper	<i>Tringa ochropus</i>	MP
066	Wood sandpiper	<i>Tringa glareola</i>	MC
067	Common sandpiper	<i>Tringa hypoleucos</i>	MC
068	Terek sandpiper	<i>Tringa terek</i>	MR
069	Turnstone	<i>Arenaria interpres</i>	MR
070	Snipe spp	<i>Gallinago spp</i>	MC
071	Little stint	<i>Calidris minuta</i>	MP

Family: Laridae

072	Brown headed gull	<i>Larus brunnicephalus</i>	MO
073	Black headed gull	<i>Larus ridibundus</i>	MO
074	Whiskered tern	<i>Chlidonias hybrida</i>	MC
075	Gull billed tern	<i>Gelochelidon nilotica</i>	MO
076	Little tern	<i>Sterna albifrons</i>	MR
077	River tern ?	<i>Sterna aurantia</i>	R

Family: Columbidae

078	Blue rock pigeon	<i>Columba livia</i>	C
079	Spotted dove	<i>Streptopelia chinensis</i>	C
080	Emerald dove	<i>Chalcophaps indica</i>	O
081	Greyfronted green pigeon	<i>Treron pompadora</i>	LMO

Family: Psittacidae

082	Roseringed parakeet	<i>Psittacula krameri</i>	C
083	Lorikeet	<i>Loriculus vernalis</i>	R
084	Blossomheaded parakeet	<i>Psittacula cyanocephala</i>	R

Family: Cuculidae

085	Pied crested cuckoo	<i>Clamator jacobinus</i>	LMO
086	Koel	<i>Eudynamis scolopacea</i>	C
087	Crow pheasant	<i>Centropus sinensis</i>	P

Family: Strigidae

088	Spotted owl	<i>Athene brama</i>	C
089	Jungle owl	<i>Glaucidium radiatum</i>	C
090	Collared scops owl	<i>Otus bakkamoena</i>	P
091	Hawk owl	<i>Ninox scutulata</i>	O
092	Edible nest swiftlet	<i>Collocalia unicolor</i>	R
093	Brown throated spinetail swift	<i>Chaetura gigantea</i>	R
094	House swift	<i>Apus affinis</i>	P
095	Palm swift	<i>Cypsiurus parvus</i>	C

Family: Alcedinidae

096	White breasted kingfisher	<i>Halcyon smyrnensis</i>	C
097	Common kingfisher	<i>Alcedo atthis</i>	C
098	Lesser pied kingfisher	<i>Ceryle rudis</i>	C

Family: Meropidae

099	Blue tailed bee eater	<i>Merops philippinus</i>	MC
100	Small green bee eater	<i>Merops orientalis</i>	O

Family: Coraciidae

101	Indian roller	<i>Coracias benghalensis</i>	PLM?
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194, 182, 62

Family : *Captionidae*

- 102 Small green barbet *Megalaima viridis* C
 103 Coppersmith *Megalaima haemacephala* O

Family : *Picidae*

- 104 Lesser golden-backed woodpecker *Dinopium benghalense* C

Family : *Alaudidae*

- 105 Bush lark *Mirafra assamica* P
 106 Malabar crested lark *Galerida malabarica* O

Family : *Hirundinidae*

- 107 Eastern swallow *Hirundo rustica* MC
 108 Redrumped swallow *Hirundo daurica* P

Family : *Laniidae*

- 109 Brown shrike *Lanius cristatus* MC
 110 Rufous backed shrike *Lanius schach* OLM?

Family : *Oriolidae*

- 111 Black headed oriole *Oriolus xanthornus* P
 112 Golden oriole *Oriolus oriolus* MP
 113 Black naped oriole *Oriolus chinensis* MR

Family : *Dicruridae*

- 114 Black drongo *Dicrurus adsimilis* C
 115 Ashy drongo *Dicrurus leucophaeus* MC

Family : *Artamidae*

- 116 Ashy swallow shrike *Artamus fuscus* OLM?

Family : *Sturnidae*

- 117 Common myna *Acridotheres tristis* C
 118 Jungle myna *Acridotheres fuscus* P
 119 Greyheaded myna *Sturnus malabaricus* MC
 120 Blyth's myna *Sturnus m.blythii* O
 121 Brahminy myna *Sturnus pagodarum* OLM
 122 Rosy pastor *Sturnus roseus* MO

Family : *Corvidae*

- 123 House crow *Corvus splendens* C
 124 Jungle crow *Corvus macrorhynchos* P
 125 Indian tree pie *Dendrocitta vagabunda* P

Family : *Campephagidae*

- 126 Common wood shrike *Tephrodornis pondicerianus* R
 127 Black headed cuckoo shrike *Coracina melanoptera* O

Family : *Irenidae*

- 128 Common lora *Aegethina tiphia* C
 129 Jerdon's chloropsis *Chloropsis cochinchinensis* O

Family : *Pycnonotidae*

- 130 Red vented bulbul *Pycnonotus cafer* P
 131 Red whiskered bulbul *Pycnonotus jocosus* C
 132 White browed bulbul *Pycnonotus luteolus* R

Family : *Muscicapidae*

- 133 White headed babbler *Turdoides affinis* C
 134 Brown flycatcher *Muscicapa latirostris* MP
 135 Paradise flycatcher *Terpsiphone paradisi* MP
 136 Streaked fantail warbler *Cisticola juncidis* OLM?
 137 Ashy wren warbler *Prinia socialis* R
 138 Tailor bird *Orthotomus sutorius* C
 139 Great reed warbler *Acrocephalus stentoreus* MO
 140 Blyth's reed warbler *Acrocephalus dumetorum* MP
 141 Dull green leaf warbler *Phylloscopus trochiloides* MC
 142 Magpie robin *Copsychus saularis* C

Family : *Motacillidae*

- 143 Large pied wagtail *Motacilla maderaspatensis* C
 144 Grey wagtail *Motacilla cinerea* MP
 145 Yellow wagtail *Motacilla flava* MO
 146 Yellow headed wagtail *Motacilla citreola* MR
 147 Paddy field pipit *Anthus novaeseelandiae* O
 148 Richard's pipit ? *A. n.richardi* MR

Family : *Dicaeidae*

- 149 Tickell's flower-pecker *Dicacum erythrorhynchos* C

Family : *Nectariniidae*

- 150 Purple rumped sunbird *Nectarinia zeylanica* C
 151 Loten's sunbird *Nectarinia lotenia* C
 152 Purple sunbird *Nectarinia asiatica* R

Family : *Ploceidae*

- 153 Yellow throated sparrow *Petronia xanthocollis* LMO
 154 Baya *Ploceus philippinus* LM?O
 155 Streaked weaver bird *Ploceus manyar* LM?R
 156 Red munia *Estrilda amandava* LM?P
 157 Whitebacked munia *Lonchura striata* C
 158 Spotted munia *Lonchura punctulata* C
 159 Black headed munia *Lonchura malacca* O

Rare Occurrence of Brown Shrike in Urban Dharwad

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Crossing the Horticultural Garden located at the foot of the hill of Deputy Commissioner's Compound, Station Road, Dharwad, I might have several times gone up walking on this

road early in the morning but, never did I see a Brown Shrike so close in our own city of Dharwad. As usual, on Saturday the 27 November 1993, in my morning walk on this familiar

road at 7 a.m., I noticed only a few common birds like Redvented Bulbul, Pied Bushchat, Small Green Bee Eater and a Coucal.

On my return along the same route at about 7.30 a.m. I suddenly saw a brown bird descending to the ground from a tree and it disappeared in the small patch of grassfilled *Cassia tora* growing outside the Horticultural Garden Compound. There was no need of a Binocular as I could see clearly all its body parts — the dark, stout, hooked bill with a black line through the eyes; the upper parts typically brown or rufous brown; wings brownish black and without a white

spot. This bird the Brown Shrike *Lanius cristatus* breeds in Siberia and Winters in India.

The wood-shrike *Tephrodornis pondicerianus* is also brownish but, it has a short square tail. Another Shrike that migrates but locally into the urban area of Dharwad is the bold Indian or Silver Grey Shrike, *Lanius excubitor*, which has staked out feeding around slaughter houses and butcher's shops. It is a confirmed carnivorous species. The Brown Shrike is purely insectivorous and does not feed in trees like the wood shrike.

Crested Honey Buzzard Feeding on a Bee-Hive

R.G. SONI, Chief Conservator of Forests, Indira Gandhi Nahar Project, Bikaner

A few years ago I had a chance observation at Kota of a family of three Crested Honey Buzzards (*Pernis ptilorynchus*) feeding on a bee-hive.

This family was often seen in the Palace premises and around it in the Civil lines area. There were three large bee-hives on a large old Semal tree. Though the birds used to come and observe the bee-hives every day, they did not feed on it for a couple of weeks. Perhaps they might have been waiting for an opportune time. One fine morning, perhaps it was the female which decided to charge the hive after giving whistling calls Si, Si, Si for about five minutes. It took off from a nearby branch and charged head on, flapping

its wings to dislodge the bees and also succeeded in it, though about 25% bees came back to the hive after some time. The bees did attack the bird, and very kindly spared me due to my complete innocence. The bird was affected only a little by a few stings which it got on the face near the bill. It tried to get rid of the stings by rubbing the bill against the branch and also using its feet. It fed on the hive, without bothering much about the bees, first on the upper portions and later on the lower portions by hanging upside down with wings open. The whole family fed on the bee-hive for two days, portions of hive occasionally falling on the ground.

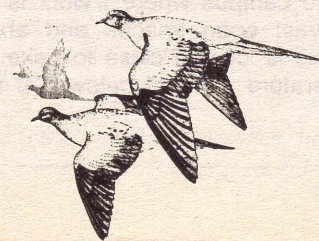
Swallows Feeding on Citrus Psyllid on curry Leaves

S. THIRUMURTHI, Forest College & Research Institute, Mettupalayam 641 301

The citrus psyllid, *Diaphorina citri* is a serious pest of curry leaf. Large number of adults and nymphs of this insect cluster around tender shoots and growing points and feed on plant sap. During a recent observation in a curry leaf plantation near Bhavanisagar, large number of common swallows, *Hirundo rustica* were found circling and sailing over the infested field picking the winged psyllids which make short flights around point of infestation. There was another field of curry leaves at a distance of 200 metres

away from the infested field. This field protected well from psyllids with insecticide sprays attracted no swallows.

The foraging swallows in the infested fields were observed throughout the day for about a week till the farmer had sprayed the insecticides, Phosphamidan 85 SC @ 200 ml/ac. The insecticidal application deterred the swallows and the forays came to a halt after two days. This indicates the strong repulsive action of the insecticide on the birds' visit.



CORRESPONDENCE

PROPOSED NEW HANDBOOK — ASIA ANDREW ROBERTSON, 2, St Georges Terrace, Blockley, Moreton-in-Marsh, Glos. GL56 9BN, UK

Immediately on returning to England I attended the AGM of the Oriental Bird Club, an equally good opportunity for bird-related gossip. Toby Sinclair was visiting from Delhi and had made sure that the new photographic guide to Birds of India was on sale. Mrs. Tara Gandhi came with us and was able to meet a number of people. She tells me that Dr Jamil Urfi is currently studying here and the three of us hope to make a birdwatching trip together.

As promised, I am enclosing a short press release regarding the TOO Handbook project which you may find appropriate for the newsletter for Birdwatchers.

Asia is the home of many of the world's most beautiful and rare birds. No well-illustrated comprehensive book is available to serve as a reference and to show their beauty and diversity. The Trust for Oriental Ornithology is pleased to announce that plans are well advanced to finance the publication of the Trust's proposed Handbook of Birds of the Oriental Region. The Trust hopes to be able to tackle this together with Oxford University Press.

An international team of artists and scientists is being formed to produce this definitive Handbook, with all 2650 or so species illustrated in full colour in ten volumes of 600 pages each.

Ornithologists with an amateur or professional interest in the birds of the region who wish to be considered as potential contributors should contact the Hon. Secretary (see below) or Dr Rene Dekker, Curator of Birds, National Natuurhistorisch Museum, Postbus 9517, 2300 RA Leiden, The Netherlands.

More general information, including the precise geographical area being covered, may be obtained from the Hon. Secretary, Edward C. Dickinson, Normal Chapel, Aston Magna, Moreton-in-Marsh, Glos. GL56 9QN, UK.



NOTES FROM MCGILL UNIVERSITY, CANADA.
S. SUBRAMANYA, Faculty of Agriculture and Environmental Sciences, Macdonald Campus, McGill University, Quebec, Canada H9X 3V9

It has been nearly three months since I landed here, and I am slowly getting acclimatised to the winter that has just begun to set-in. Hope the First National Seminar at Bangalore was a great success. I wish I was present there to take part in it.

Birdwise, I seem to have arrived at a time when most of the birds have already migrated southwards. Nevertheless, I have had opportunity to watch the my 'firsts' of neotropical avifauna.

The campus where I work is in a quiet neighbourhood with vast open spaces and abundant tree growth. The campus is located close to Lake Ottawa and before winter temperature plunged below 0°C the Ringbilled Gulls *Larus*

delawarensis were omnipresent. On days when there used to be lot of sunshine, the air would reverberate with their loud shrieking call as each bird was out eking out a living. No sooner a gull found a large morsel, be it a bread crumb, several hungry gulls were in attendance and pursued the fortunate. Other two waterbirds that are seen here are the Great Blackbacked Gull *Larus marinus*, a flock of 20 drakes and 16 ducks of American Mallard *Anas platyrhynchos*.

The European Starling *Sturnus vulgaris* introduced in New York well over a century back is now widespread and abundant and reminds of our Common Myna. The Dark-eyed Juncos *Junco hyemalis* very much like the sparrows in shape and size were a common sight as they went about foraging on the ground and beneath bushes. The only birds that visit the bird feeders are the House Sparrows.

In the first one month of my stay here, during my walk to the campus I have seen the Northern Cardinal *Cardinalis cardinalis*, Blue Jay *Cyanocitta cristata* (the real jay after all!), Common Grackle *Quiscalus quisqualis*, that moves about in large flocks, American Crows *Corvus brachyrhynchos* (a crow with a body of our Jungle Crow and a beak of House Crow!), Mourning Dove *Zenaida macroura*, Pileated Woodpecker *Dryocopus pileatus* that reminds one of our Great Black Woodpecker. Blackcapped Chickadee *Parus atricapillus*, a species that looks much like our Grey Tit, is very common here and is well adapted to survive even when trees are covered with heavy snow. When the weather is bright and balmy, one can see this species foraging within the canopy of trees and bushes. When it snowed recently, I observed several pairs of this bird foraging invariably upside-down, on the underside of snow covered canopy for spiders and insects. Among the raptors, I have only seen American Kestrel *Falco tinnunculus*, and the Northern Goshawk *Accipiter gentilis*, white phase of Gyrfalcon *Falco rusticolus*.

When one looks at the Blue Rock Pigeons and House Sparrows that looks unusually large compared to what we normally see in Bangalore, he/she can not help but agree as to how true the Bergmans' rule is.

This campus is also a working place for one of Canada's leading Ornithologist Dr David M. Bird, Director Avian Science and Conservation Centre, who is well known for his work on Captive breeding of raptors. He is also the vice-president of the Raptor Research Foundation based in USA and is also the editor of The Journal of Raptor Research. Dr Bird who is also knowledgeable on endangered birds and urban wildlife, appears frequently on television and radio on public education programmes. He is interested in having collaborative research work on Indian raptors and has evinced keen interest in Rishad Naorji's work.

The Province of Quebec Society for Protection of Bird is a leading bird conservation agency in these parts. Founded in 1917, the PQSPB has been active in bird protection and advocacy. In addition to managing and maintaining several bird sanctuaries, the Society sponsors numerous bird related education and related programmes. The Society also purchases land for bird sanctuaries, often in co-operation with other conservation organizations.

PROPOSED INTERNATIONAL CONFERENCE IN INDIA.

DR. WALTER J. BOCK, Secretary, IOC Columbia University, New York, USA

I still regret not being able to attend the ornithological meeting in Bangalore. But I was able to complete my manuscript (over 120 pages) on Professor Mayr's contributions to systematics and evolutionary biology, read the proofs of my contribution to the J.B.S. Haldane memorial volume being published in Calcutta, and attended a meeting in Oxford on planning for the 1994 Ornithological Congress in Vienna.

But I am still concerned about the possibility of an invitation from the Indian ornithologists for a future congress. One of the main reasons why I regret missing the Bangalore meeting is that I am anxious that the momentum for this invitation is not stopped. I would like to ask you whether this idea was discussed at the Bangalore meeting, and if so, what progress has been made. Important to me is to know which persons are central to developing an invitation for an ornithological congress in India, and for planning and running such a congress. And I am interested in knowing which cities in India have been discussed as possible congress sites. Is Bangalore a possibility for a site of such a congress? Are the facilities available for a congress of between 1500 and 2000 members? And I would appreciate learning from you the names of those ornithologists with whom I should remain in closest contact.

Most important are the ideas of possible nominations for the position of the Secretary-General. This person is totally central to all planning and running of a congress. The Secretary-General must be a person with excellent organizational, leadership and communication skills. The person does not have to be a leading scientist, but must be respected by the ornithological community. And it is not necessary for the Secretary-General to be an older senior person. Many aspects of policy, scientific and other, can be

decided by the national committee of the host country. It is best for the Secretary-General to reside in the city where the congress will be held.

In addition to the Secretary-General, another important position is the chairperson of the National Committee. For this position, it is best to have an older senior person who is highly respected by the ornithological community of the host country. This person should be someone who can interact well with the Secretary-General, and serve as an intermediate between the President and Secretary of the IOC and the Secretary-General in the case of problems in the planning of the congress. The chairperson of the National Committee generally does not have much direct work in the planning and organization of the congress, but serves mainly as an overseer of policy and of the general planning. We have found that it is very valuable to have a second avenue of contact between the officers of the IOC and the Secretary-General in the case of problems developing with the Secretary-General and/or the planning of the congress. This has happened in the past and there have been some difficult problems in the absence of a strong person as the chair of the National Committee.

I hope to have a long discussion with all members of the Indian delegation to the Vienna Congress, and to be able to visit India as soon as possible. There are still many things for me to learn about Indian ornithology and Indian ornithologists which are best done during a visit to India. And I am certain that there are many fascinating things for me to learn, and many ornithologists, including you, to meet.

Lastly, I would like to congratulate you and all other Indian ornithologists on the founding of the Ornithological Society of India. I would appreciate learning more about this society and information about becoming a member.

I hope that you will be able to take part in the Vienna congress, as I am anxious to meet you. If not, I look forward to meeting you on my next visit to India.

PECKING ORDERS—PARROT POWER PLAYS

We are the only animals with a society in which higher-status individuals can force others to work for them. Or are we? New research suggests that it can be a dog's life for a kea at the bottom of the pecking order.

The kea is rowdy member of the parrot family, best known for its habit of stripping down tourists' cars while their owners are enjoying New Zealand's mountain scenery. It lives in family groups, which youngsters leave to join teenage flocks for up to five years before starting their own families. At the Konard Lorenz Institute in Austria, there is a thriving breeding colony of keas. Because the keas here live, as in the wild, in highly social groups, Sabine Tebbich decided to look for reciprocal altruism (best summarised as "you scratch my back and I'll scratch yours").

As Tebbich reported at the recent International Ethological Conference in Spain, she picked a group of seven animals and set up a kind of wooden see-saw with a perch at one end and the lid of a feeding box at the other. If a bird sat on the perch, the see-saw tilted, lifting the lid of the box, but because the perch was several feet from the box, the percher could not reach to feed itself; and as soon as it left the perch, the lid closed, preventing further feeding.

Such is the kea's curiosity, there was no need to teach the birds to use the apparatus. Two got the hang of it on the first day, and the others learned within two weeks. Four of the males, one adult and three subadults, most regularly the pair fed at the box while the subordinate did the perching. There was no sign of turn-taking, though, and so this was not the reciprocal altruism Tebbich had been expecting to find. But none of the birds missed out because there was an unusual hierarchy within the group, with each bird being dominant to at least one another at some time.

To confirm that the roles were dependent on dominance, Tebbich carried out tests with separate pairs of birds. The dominant bird was never seen to perch, and it was only the subordinate that performed the task, albeit sometimes reluctantly – if one wandered away from the perch, its dominant partner would approach aggressively and chase it back. Tebbich is aware of only one other species apart from humans where a dominant animal appears to force another to work, and that is naked mole rat (the queen of the colony regularly bullies lazy workers into foraging for her).

The kea's exceptional curiosity and sociability stand it in good stead in the harsh mountain environment, where food is scarce and patchily distributed. One New Zealander at the conference, at least, was not surprised by the kea's co-operative behaviour. He told Tebbich that he had seen a wild kea dropping stones on a roof while the rest of the flock lined up at the window to watch the exasperated reactions of the humans within.

MILES BARTON

Courtesy: B B C – Wildlife, December, 1993

Continued from front inside cover

Centuries ago, the grasslands in which the Lesser Florican breeds extended over several thousand square kilometres, covering all areas in north-west India that were not forested or mountainous. But today these grasslands, known as bheed or vidi, are minute islands in an ocean of cultivation, over-grazed land and urban areas. In fact, bheed is perhaps the most fragmented and patchily distributed of habitat types in India today, with patches rarely exceeding 1,000 ha and more often being less than 100 ha. These small areas, mostly owned by the government or by farmers, are generally allowed to grow long during the monsoon, and then harvested for hay.

The loss of these grasslands really began at the end of the feudal era. Until that time, landowners needed large areas of bheed to produce sufficient hay for their cattle and horses. With the change in the land act (the Land Ceiling Act) in the early 1970s, large areas of grassland reverted to government ownership, or were divided and given to a number of small agrarians. As the need for fertile land increased to meet the demands of a growing population, these grasslands were gradually destroyed. At the same time, the livestock population in the area grew, meaning that all grassland that was not specifically protected was soon over-grazed.

But habitat loss itself was not the primary factor in the large-scale decline of the Lesser Florican. In the past, the species was an extremely popular game bird, and entire male populations were decimated in a single morning's shoot during the breeding season. The widespread hunting prompted A.O Hume, one of the great fathers of Indian ornithology, to write in 1879 'Owing to the unsportsmanlike manner in which these beautiful birds are massacred during the breeding season, they are everywhere diminishing perceptibly in numbers and will, in another half century be, I fear, almost extinct'. Fortunately the threat from hunting, though still present, is much reduced, largely because of the introduction of strict regulations.

The dramatic decline of the Lesser Florican between 1982 and 1989 cannot be explained by either of these factors, however, since much of the grassland that existed in 1982 was still present in 1989, and hunting pressure was not great. The problem was almost certainly rainfall. For three years, between 1985 and 1987, north-western India was gripped by a severe drought, and the breeding success of the Lesser Florican was extremely low in most areas. Lack of rain is a very real problem for the Lesser Florican, since north-western India experiences sub-normal rainfall or droughts at least once every four years. Since 1988, however, the rains have been good, and there are indications that the population may have recovered a little.

The unreliability of the rainfall has significant implications for the conservation of the Lesser Florican. Although western Madhya Pradesh has better habitat for the species than west Gujarat, inadequate rainfall in the former might cause the birds to migrate to the latter. Even if weather conditions were favourable in the latter, breeding success would be low because of lack of suitable grassland. Rainfall patterns are such that optimal conditions can occur in pockets as small as a few hundred square kilometres, and the chances of these conditions coinciding with adequately protected grassland are slight. It is therefore necessary to protect grasslands throughout the species' breeding range, so that wherever the birds migrate in their search for optimum rainfall, they will



R. Sankaran

The spectacular display of the Lesser Florican includes a 'flutter-jump', in which the bird rises about a metre above the ground

find adequate habitat. Given the size of the species's range (over 342,000 km²), this is a daunting task indeed.

However, an increase in the area of ungrazed grassland is not incompatible with the needs of the local people. Optimal Lesser Florican habitat is excellent for hay production, and hay is extremely useful cattle fodder. Growing hay to feed cattle is in fact a more efficient and sustainable way of using the land than allowing the cattle to free-graze. It does require, however, a change in the way cattle are kept, from free-grazing to stall-fed.

If funds are forthcoming, the Salim Ali Centre for Ornithology and Natural History will initiate a series of conservation measures for the Lesser Florican. The plan is to survey the breeding range in 1994 to re-assess the population and its trend. A workshop will then be held, involving conservationists and land-use managers, to discuss methods by which the extent of protected grasslands can be increased. As part of a much longer-term action plan, land that is currently overgrazed and unprotected will be identified, and a network of protected grasslands will be established. The goal is that in 10 years time, around a tenth of north-western India should be protected grasslands used for hay production. If this is achieved, the Lesser Florican should survive into the future.

Lesser Florican
Bengal Florican

Eupodotis indica
Eupodotis bengalensis

Indian Bustard

Ardeotis nigriceps

Ravi Sankaran did his doctorate on the Lesser Florican with the Bombay Natural History Society. He is currently working for the Salim Ali Centre for Ornithology and Natural History in the Andaman and Nicobar Islands.