

# Newsletter for

# Birdwatchers



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## Newsletter for Birdwatchers

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## A Note from the Publisher

Dear Fellow Birdwatchers,



We are publishing two contrasting bird studies in this issue. One involved grueling field trips along the Wardha river course in Maharashtra. The other comprises studies that required more of mental and auditory skills than physical effort on the part of two avid birdwatchers from different locations. In the former, the determination, vigilance and patience led to the discovery of a breeding colony of bee-eaters in Maharashtra, whereas in the latter two cases, the frequency and duration of the calls of a barbet and the pre-dawn calling behaviour of koels could be analyzed, from the confines of a room.

## A Repository for Researchers

The discovery of a nesting colony of blue-tailed bee-eaters at Amravati, Maharashtra, is significant. Our research on the breeding behaviour of a colony of bee-eaters goes back to twelve years when we discovered and reported the co-operative breeding behaviour among Small Green Bee-eaters. It all started when at a marvelous moment a third individual flew straight into the nest to feed its cousins! My fellow researchers Praveen Karanth, Harave and I were fascinated by the discovery of the co-operative breeding behaviour and we seriously started to investigate as to what was going on inside the nesting tunnels of the bee-eaters. Although eyebrows were raised about our findings, we decided to probe further into the co-operative breeding behaviour among the bee-eaters. We started corresponding with Dr. Stephen T. Emlen, an authority on co-operative breeding behavior in birds and Professor of Animal Behaviour, Cornell University, Ithaca, New York. He was a proponent of several hypotheses to interpret kinship, altruism and helpers at nest among the bee-eaters. In all earnestness we passed on the evidence collected from several nests to corroborate our observations, along with our elementary ornithological knowledge of 'altruism', which deeply impressed the behavioral ecologist as could be seen from his appreciative comments. Touched by the elation of spirit behind our discovery and commitment, Dr. Emlen wrote many encouraging letters to Karanth and I would like to quote a few lines from one such letter. *"..Your second point about the evolution of harassment is also interesting. I agree with you that one reason that harassment is a successful tactic is that birds (bee-eaters) whose own nests attempt has failed frequently become redirected as helpers elsewhere. If this tendency did not exist, the benefit of recruitment harassment would disappear. So breeding pairs that disrupt the breeding of the younger relatives are, in effect, increasing the probability that they will gain such redirected help rather than letting nature take its course and, perhaps, produce a redirected helper because of naturally occurring nest failure. But I don't think this will explain it all. Individuals that did the harassment were not only individuals that did not have any helpers; sometimes they already had a helper and they attempted to recruit an additional one. Thus there is always an increased benefit to a successful recruiter because the incremental gain in offspring production due to a helper continues, irrespective of how many helpers are already present. At first thought one might assume that all older breeding males would attempt to harass and recruit all younger relatives. But this is not the case. Recruitment is only successful when targeted individual is a close kin; and this seems to have led to selection*



for recruiters only bothering to harass individuals for whom there is a chance that they will be successful – namely only their close kin. ... I wish you good luck as you continue to analyse your data on Bee-eaters”.

After a series of letters, Karanth was invited to take up further research at the New York State University at Albany. Karanth's acumen, experience and of course his penchant for behavioral studies took him to remote wilderness areas of Europe, South America, South Asia and Middle East. What began as a routine birdwatching trip on a Sunday morning had thus shaped the future of a naturalist in the making.

The bee-eater colony at Amravati, Maharashtra, has an immense potential and could well become a living laboratory and repository for researchers in days to come. Kasambe and his friends have struck a gold-mine of opportunity for students of 'ethology' (animal behaviour). The study of the bee-eaters' altruistic traits among other behavioral traits will be a learning experience of lasting value. Here is a rare chance to rediscover the simple, recognizable co-operative breeding behavior among birds, which normally escapes notice.

#### Nuances of Armchair Birdwatching

The opposite of the above rigorous field work, are the ones undertaken by two birders; one convalescing on a hospital bed and the other, ostensibly preparing for some sort of an examination. I am referring to the two notes published in this issue; one by Dr. Uttangi and the other by Arunayan Sharma. They were both forced to remain indoors, but their quest for augmenting their avian-knowledge took them beyond mere jotting down notes on whatever was happening in the bird community. Though confined to a hospital bed, Uttangi's auditory acuity impelled him to listen and register the call duration of the Crimson-breasted Barbet. It is indeed laudable of him to record the duration of the persistent calls of the bird which had chosen to reveal its vocalization talents on that particular day, least aware that there was someone assiduously keeping track of its extraordinary performance. Likewise, Arunayan Sharma was keeping a tab on the pre-dawn calls of the Asian Koels, as they filled the air with their rasping calls and sang in that unmatched yearning voice to defend their respective territories. The koel's ability for mood-making in the dawn and the barbet's ability to cheer up a bedridden birdwatcher are remarkable.

#### Mysteries of Bird Migration

There is always an aura of mystery about migration and local movement of birds. Some enigmatic species are often found wandering aimlessly at the most unlikely places. The sighting of three-toed kingfisher, Malay bittern and lesser frigate bird, estranged from their habitats, by Sathian Meppayur at Kerala, is a case in point. We simply cannot remain blind to these discoveries, but earnest efforts are required to understand some of the more challenging bird mysteries.

#### E. Hanumantha Rao No More

It is lamentable that E. Hanumantha Rao, one of India's foremost wildlife photographers is no more. He breathed his last on 21st January 2004 at Bangalore. Born in 1930, Hanumantha Rao's early photographic work, featuring wildlife gained him immediate success. If nothing else, his consummate technique of photographing tigers, bison, deer and elephants ensured a resounding popular success. He explored a variety of themes,

but his best and most prominent photographs included a pair of white tigers reclining majestically under a tree, and a king cobra swaggering its hood with imperial pride in defence of its territory. His pictures portrayed a sense of ecological sensitivity and environmental subtlety with equal astuteness. Rao had the unique distinction of contributing photographs to more than 1700 publications including National Geographic, Life, Reader's Digest, Encyclopedia Britannica, and the Time Magazine.

My association with Hanumantha Rao, began in 1977, when we approached him for exhibiting his pictures at 'Wilderness 77' organized by us at the SCM Hall, to commemorate the Wildlife Week. Incidentally 'Wilderness 77' was inaugurated by Zafar Futehally, our Founder Editor. Hanumantha Rao not only spared many of his pictures for the exhibition, but also gave a splendid slide presentation at the venue. Needless to say I joined the legion of Rao's admirers from that very moment. Rao urged me to take up bird photography and took me along to many of his photography outings. He taught me the rudiments of bird photography with hands-on experience with his Pentax set of cameras and Takumar brand telephoto lenses. His wife accompanied him on all his field trips and offered us delicious homemade cakes, pastries and piping-hot tea. It was during these early days I was provided with invaluable tips on bird photography. Soft-spoken and immaculately attired in olive-green or bluish-grey safari suit, Hanumantha Rao was a celebrity figure in his own right, at field outings and photographers' gatherings alike.

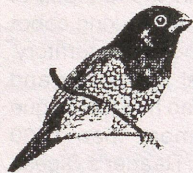
Our Founder Editor Mr. Zafar Futehally adds: - 'Almost the first naturalist I contacted when we migrated from Bombay to Bangalore in November 1973 was Hanumantha Rao. He was well known as one of the most gifted wildlife and nature photographers of India. He was a subscriber to the Newsletter, and at one of our meetings he offered to let me have, free of cost, his photographs for its cover page. This was particularly generous of him because his photographs commanded a high price worldwide. This made the publication much more 'dressy' and must have played its part in improving its circulation. From Jan 1976 Hanumantha Rao's pictures adorned the NL. The first was a group of greylag geese in Bharatpur, 77 was a white breasted kingfisher, 78 magpie robin, 79 red-wattled lapwing, 81 black-tailed godwit, 83 common green bee-eater, 84 spoonbills, 85 barn owl, 87 baya on its nest, white eyed buzzard. My wife and I have very warm memories of our visits to Hanumantha Rao's house – the interesting talks with him about the manner in which he planned some of his more notable pictures. He remarked casually once, that he had ceased to compete in photographic contests so as to give an opportunity to youngsters to reach the top. His wife equally friendly insisting on our having "heavy" snacks whatever time of the day, monitored by herself in the kitchen.

Couple of days before our Annual Gathering on 4<sup>th</sup> January 2004, I telephoned to him hoping that he would join us at Dodda-gubbi. He said "Mr. Futehally, I can't even walk". We are relieved that he was able to walk away without a long painful illness.'

The Newsletter has lost a dedicated bird lover and on behalf of the birdwatchers fraternity, I pay our respectful homage to Hanumantha Rao and offer my deepest condolences to his wife and family.

Thanking you,  
Yours in bird conservation  
S. Sridhar  
Publisher, NLBW





## Avifauna of Nehru Memorial College Campus and its adjoining areas, Puthanampatti, Tamilnadu

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We conducted a study of the avifauna of Nehru Memorial College campus and its adjoining areas, Puthanampatti. The college is located in a rural area about 35Km away from Tiruchirappalli city, (in north-west) Tamilnadu. The college was established in the year 1967 and it spreads over an area of 38 acres. The adjoining areas of the campus are mostly agricultural lands.

The study was carried out between March and May 2003, within the college campus and the adjoining agricultural fields. In order to enlist the birds, a 1 x 2 Km size study area was chosen.

The woody vegetation of the study area includes Neem tree (*Azadirachta indica*), Teak (*Tectona grandis*), Ashoka (*Polyalthia longifolia*), White Gulmohar (*Delonix leita*), Silk cotton (*Salmaal malabarica*), Acacia (*Acacia nilotica*), Indian siris (*Albizia lebbek*), Tamarind (*Tamarindus indicus*), Palmyra (*Borassus flabellifer*), Coconut (*Cocos nucifera*).

While paddy and pulses were cultivated in some of the agricultural fields, most of the agricultural fields were barren and devoid of crops.

The entire study area was kept under observation between 6 to 10 a.m. All the available paths within the study area were used for bird identification and enumeration. Binoculars (magnification 8 x 50) were used to identify the birds located at a distance. Ali (1996) and Grimmett *et al.* (2000) were used for identification and confirmation of bird species. The birds were classified into resident and resident migrant; and classified based on their food habits as indicated by Ali (1996).

In the present investigation 52 species of birds were enumerated. The systematics of 52 species revealed that they belonged to 11 orders and 25 families. Among the 52 species observed, 47 species were resident and 5 species were resident *cum* migrant, as indicated by Ali (1996). Based on food habits, the 52 species were classified as insectivorous (20), graminivorous (9), omnivorous (8), frugivorous (5), nectarivorous (4), scavengers (3), piscivorous (2) and predators (1).

Table 1. Systematic list of Birds recorded in the study area between March and May 2003

Order & Family Name	Sl. No.	Common Name	Scientific Name
<b>Passeriformes</b>			
1. Sturnidae	1	Common myna	<i>Acridotheres tristis</i>
	2	Brahminy Starling	<i>Sturnus pagodarum</i>
2. Silvidae	3	Yellow billed Babbler	<i>Turdoides affinis</i>
3. Corvidae	4	Black Drongo	<i>Dicrurus adsimilis</i>
	5	House crow	<i>Corvus splendens</i>
	6	Paradise flycatcher	<i>Terpsiphone paradisi</i>
	7	Tree pie	<i>Dendrocitta vagabunda</i>
	8	Black-headed cuckoo shrike	<i>Coracina melanoptera</i>

9. Common lora	<i>Aegithina tiphia</i>
10. Large billed crow	<i>Corvus macrorhynchos</i>
4. Pycnonotidae	11. Red-vented Bulbull <i>Pycnonotus cafer</i>
	12. Red-whiskered Bulbull <i>Pycnonotus jocosus</i>
5. Nectarinidae	13. Purple-rumped sunbird <i>Nectarinia zeylonica</i>
	14. Purple-sunbird <i>Nectarinia asiatica</i>
	15. Small-sunbird <i>Nectarinia minima</i>
	16. Little spider hunter <i>Arachnothera longirostris</i>
6. Passeridae	17. White browed wagtail (or) Large pied wagtail <i>Motacilla maderaspatensis</i>
	18. Spotted munia <i>Lonchura punctulata</i>
	19. White throated munia <i>Lonchura malabarica</i>
	20. Baya weaver <i>Ploceus philippinus</i>
	21. Black headed munia <i>Lonchura malacca</i>
	22. Black bellied finch lark <i>Eremopterix grisea</i>
	23. Paddy field pipit <i>Anthus novaeseelandiae</i>
7. Lanidae	24. Bay-backed shrike <i>Lanius vittatus</i>
8. Muscipapidae	25. Large grey babbler <i>Turdoides malcolmi</i>
	26. Indian robin <i>Saxicoloides fulvicata</i>
	27. Common tailor bird <i>Orthotomus sutorius</i>
	28. Pied bush chat <i>Saxicola caprata</i>
9. Pittidae	29. Indian pitta <i>Pitta brachyura</i>
10. Cisticolidae	30. Plain prinia <i>Prinia inornata</i>
	31. Yellow bellied prinia <i>Prinia flaviventris</i>

### CICONIIFORMES

11. Ardeidae	32. Pond heron <i>Ardeola grayii</i>
	33. Little egret <i>Egretta garzetta</i>
	34. Cattle egret <i>Bubulcus ibis</i>
12. Accipitridae	35. Black-shoulder kite <i>Elanus caeruleus</i>
	36. Brahminy kite <i>Haliastur indus</i>
	37. Shikra <i>Accipiter badius</i>

13. Charadriidae	38. Redwattled lapwing <i>Vanellus indicus</i>
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### CORACIIFORMES

14. Coraciidae	39. Indian roller <i>Coracias benghalensis</i>
15. Dacelonidae	40. White-breasted kingfisher <i>Halcyon smymensis</i>
16. Alcedinidae	41. Common kingfisher <i>Alcedo atthis</i>

### STRIGIFORMES

17. Strigidae	42. Spotted owl <i>Athene brama</i>
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### PSITTACIFORMES

18. Psittacidae	43. Rose-ringed parakeet <i>Psittacula krameri</i>
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### PICIFORMES

19. Picidae	44. Black-rumped flameback <i>Dinopium benghalense</i>
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### GRUIFORMES

20. Rallidae	45. White-breasted waterhen <i>Amaurornis phoenicurus</i>
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**CUCULIFORMES**

- |               |                        |                                 |
|---------------|------------------------|---------------------------------|
| 21. Cuculidae | 46. Blue faced malkoha | <i>Rhopodytes viridirostris</i> |
|               | 47. Asian koel         | <i>Eudynamis scolopacea</i>     |

- |                   |                   |                           |
|-------------------|-------------------|---------------------------|
| 22. Centropodidae | 48. Crow-pheasant | <i>Centropus sinensis</i> |
|-------------------|-------------------|---------------------------|

**UPUPIFORMES**

- |              |            |                    |
|--------------|------------|--------------------|
| 23. Upupidae | 49. Hoopoe | <i>Upupa epops</i> |
|--------------|------------|--------------------|

**APODIFORMES**

- |              |                      |                         |
|--------------|----------------------|-------------------------|
| 24. Apodidae | 50. Asian palm swift | <i>Cypsiurus parvus</i> |
|--------------|----------------------|-------------------------|

**COLUMBIFORMES**

- |                |                      |                               |
|----------------|----------------------|-------------------------------|
| 25. Columbidae | 51. Spotted dove     | <i>Streptopelia chinensis</i> |
|                | 52. Blue rock pigeon | <i>Columba livia</i>          |

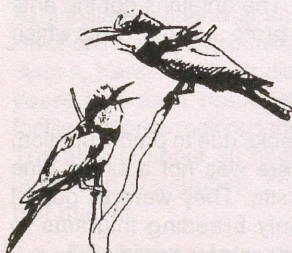
**Acknowledgement :**

We are highly thankful to Dr. S. Ramalingam, Principal of Nehru Memorial College, Puthanampatti for permitting us to do this study.

We thank S. Backyaraj, G. Sakthivel, and N. Senthil Kumar, and B.Sc. Zoology students of Nehru Memorial College, for their help during the field work.

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May 21st 2003

The mercury was touching 47°C as I trekked with Kishore Dudhe and hoped to locate more passage migrants at Upper Wardha dam which is 8 km. east of Morshi taluq in Amravati district. After locating the nest of a Kentish Plover, many nests of Little Ring Plovers, Small Pratincoles, Red Wattled Lapwings, Black Winged Stilts and the chick of an Indian Courser, we decided to trek along the Wardha River starting from the gates of the dam.

We were surprised to see flocks of Bee-eaters flying over the left river bank just opposite the gates of the dam and near a bridge over the river. The bee-eaters were larger in size than the common small Green Bee-eaters *Merops orientalis*. They had chestnut throat and breast and blue rump and tail. The air was filled with their sweet and mellow "tew-tew" calls.

The river bank or cutting was like a cliff and was peppered with hundreds of nest tunnels. Ahoy, we had found a huge nesting colony of Blue Tailed Bee-eaters *Merops philippinus*. I could not believe my eyes as I had never seen the birds, leave alone a huge nesting colony.

We noted that when ever a bird entered a nest tunnel to excavate, soil was thrown out by the bird. After a few moments of excavation, the bird used to come out in the reverse mode i.e tail-first. We counted the nest tunnels, they numbered around 1100; however the number of birds was around 250 to 300 only.

The typical flight of *M. philippinus* consists of a few wing strokes followed by gliding. Some birds could be seen flying with dragonflies in their beaks for long durations. The prey was devoured only after it was banged many a times on a perch. They thwarted the attempts of Black Drongos *Dicrurus macrocercus* to intrude into the colony. Two pure white oval eggs were found broken on the ground.

I informed Dr. Asad Rahmani, Director, BNHS and Dr. Satish Pande, Ornithologist, Pune about these findings. The latter promised to visit the nesting site.

## Nesting of Blue Tailed Bee-eaters in Amravati District of Maharashtra

RAJU KASAMBE, Wildlife and Environment Conservation Society, M. R. Colony, MIDC Bypass, Amravati - 444606, M.S.

The finding is important as Ali S. mentions the distribution of *M. philippinus* as "patchily throughout the Indian Union from about 1000 m in the Himilayas. Resident and locally migratory, winter visitor south of c. 20°N lat. including Andaman and Nicobars". There are no recent records of its nesting in such huge numbers in Central and Peninsular India.

May 31st 2003

Dr. Satish Pande, Jayant Wadtkar and Amit Pawashe accompanied me to the nesting colony. The depth of the nest tunnels ranged from 70 to 130 cm and the distance between two nest tunnels was around 40 to 60 cm. The prey included dragonflies, butterflies and fleas.

June 8th 2003

Young birder Mukul Gawai accompanied me. A male *M. philippinus* offered a dragonfly to an awaiting female. As soon as she devoured the gift he mounted her and mated. I found egg shells of 7 to 8 eggs near the river cutting. Many birds carried prey directly into the nest tunnels. Some just hanged around with the prey held in beak. Sometimes two birds indulged in severe fights and fell to the ground in the process.

June 15th 2003

I noticed a Whitebreasted Kingfisher hurriedly leaving a nest tunnel in the nesting colony. *M. philippinus* were busy carrying dragonflies to the nest tunnels, probably to their incubating mates. But the frequency of visits was low.

June 21st 2003

I visited another site with Kranti Rokde, on the Mumbai - Kolkata highway where N.H.6 crosses the Wardha river. While trekking along the river we found 45 nest-tunnels of *M. philippinus*. However, only 15-20 birds were seen visiting the nests with dragonflies. The day was memorable as we saw a White-browed Bulbul *Pycnonotus luteolus*, a Yellow Bittern *Ixobrychus sinensis*, and a big Water Monitor Lizard during the trek.

**June 29th 2003**

My sortie to Upper Wardha dam became pleasant as heavy rains had lashed the district in between. The rain waters had eroded the banks, and thereby reduced the depths of the tunnels. Depths of three active nest tunnels was measured as 88, 93 and 100 cms., respectively. Arrival of monsoon also caused a boom in the population of winged termites. The number of prey foraged was counted as dragonflies - 14, winged termites - 04, butterflies - 02 and flies - 04. The time spent by a visiting bird inside the nest with a dragonfly prey was 60 to 70 seconds, while with a winged termite prey it was 35 - 40 sec. It was observed that two birds were visiting a few nest tunnels indicating the presence of chicks inside. Once a bird brought a dragonfly, waited for five minutes near the nest for the other bird to come out and later consumed the prey itself!

**July 21st 2003**

When I reached the nesting site with Satish Charthal, I once again noticed the Whitebreasted Kingfisher quietly leaving the river cutting. A chick of Whitebreasted Kingfisher was seen peeping out of the somewhat wider nest tunnel. Its beak was blackish, breast was white and it had white streaks on its blue head, shoulder and back. During my previous visits the Kingfisher parents tried to be secretive though I had identified its exact nest tunnel. In the afternoon the chick took its first-ever flight and landed clumsily on a nearby soil mound. Two House Crows located it and created much ruckus. The parent Kingfisher frantically called the chick from a dense bush. The chick dived into the bush. I sighed with relief.

After the monsoon rains, it was now green all around. It caused a sudden boom in the population of butterflies. Therefore the prey base had also changed. The ratio of prey was butterflies-27 and dragonflies-17. Butterflies mainly included emigrants. Both parents were visiting the nest tunnels with prey.

Continuous rains caused more soil erosion of the river cutting. This eroded soil mixed with fine sand and formed a sand -mud combination on the river bank. Hundreds of Indian Cliff Swallows *Hirundo fluvicola* landed to collect this mud in their small beaks

as small pellets. They were taking mud pellets to the underside of the nearby bridge on the Wardha river.

**July 29th 2003**

Due to heavy rains one nest-studded cliff had collapsed completely and all the nests were destroyed in the process. Cliff Swallows had built around 1000 pear-shaped nests underneath the bridge. Lesser number of Cliff Swallows were seen flying over the river basin as others incubated in the nest. *M. philippinus* were busy foraging for the dragon flies.

**August 7th 2003**

I visited the nesting site with Jayant Wadatkar and Yadav Tarte. A beautiful example of commensalism was noticed on minute observation. Two nests of *M. philippinus* had traps of ant-lions laid near the openings of the tunnels. The ant-lions got the ants as food, whereas the nestlings got the protection from ants which could have otherwise attacked them!

**September 13th 2003**

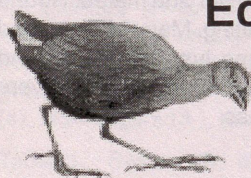
I could not visit the nesting site for 4 weeks due to preoccupation. Today I was surprised to see that there was not a single Blue Tailed Bee-eater around the nesting site. They were all gone ! Where had they gone? Are they only breeding migrants to Amravati District? Will they return next year for breeding ?

**Acknowledgments**

The author is thankful to Dr. Asad Rahmani, Director, BNHS for continuous encouragement, Dr. Satish Pande, Pune for suggesting the references cited below. Thanks to all the birdwatcher friends mentioned in the article for accompanying the author during the treks.

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## Ecology of Purple Moorhen (*Porphyrio porphyrio*) in Azhinhillam Wetland, Kerala

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**Abstract**

Purple moorhens are among the most beautiful birds that inhabit the Wetlands of Kerala and form an important component of Azhinhillam wetland ecosystem. This paper mainly deals with monthly variations in the activity pattern and time budgeting of Purple Moorhen, evaluation and causes of habitat shrinkage that has led to the decline in its population. The population varies significantly from month to month in this jheel. They are found arriving by September and leaving by mid February. The population of Moorhens rose during the post monsoon period, with the highest numbers occurring in January. The activity pattern and time budgeting of *Porphyrio* indicates no significant variations in the monthly feeding pattern, even though the budget

in all months was higher for feeding when compared to the time spent for foraging and preening activities. The availability and abundance of food, habitat conditions, and precipitation rates are the important limiting factors in the Azhinhillam wetland, which are in turn influencing the activity pattern of the birds to a great extent. Construction of bypass roads and associated disturbances were found to be a detrimental factor in the distribution pattern of the birds of this wetland.

**Introduction**

Purple Moorhens (*Porphyrio porphyrio*) are the birds of the swamp, whose purplish colour and long red feet are diagnostic. They have a short heavy red bill, which continues as a frontal shield. They jerk their stumpy tail up and down as they walk and

they conceal themselves in the reeds, when alarmed. These birds are particularly noisy during the breeding season and the male has a ludicrous courtship display during which he holds reeds in his bill and bows before the female with loud chuckles. Reeds and grass grow in many parts of this area making it an ideal habitat for the *Rallidae* family, especially the Purple Moorhen. According to 'Birds of Kerala' (Ali, 1969) breeding season of the Purple Moorhen is between July and August. This paper mainly deals with the monthly variations in the activity pattern and time budgeting of Purple Moorhen, evaluation and causes of habitat shrinkage that has led to the decline in the population of this Purple bird. This study was conducted between October 1999 and March 2000.

### Study Area

Azhinhillam wetland is situated half a kilometer from Chaliyar River on its southern banks, in the northern border of Malappuram district, Kerala State, India. It was formed at least one hundred years ago as a result of removal of soil from paddy fields for tile and brick making factories at Feroke and neighboring areas. The area is about 30 hectares, having plentiful water between June and December. The depth varies from half to two & half meters.

Azhinhillam receives southwest monsoon showers, ranging from June to August and often extends upto October. There was no significant variation in the temperature of the study area. The maximum temperature (33°C) in March, and the minimum (25°C) in October, were recorded.

### Methodology

To study the various activity patterns and time sampling, focal animal sampling (Altmann) was used. The birds were observed individually during each visit and the duration of each activity was measured with a stopwatch. The activities were classified as feeding, chasing, maintenance, wing expansion, walking and feeding while walking, preening, alertness, bathing, swimming and chasing.

### Vegetation Study

The vegetation of the study area mainly comprises submerged free-floating plants. The dominant species is *Salvinia molesta*, which occupies about 90 % of the total area. The other species include *Nymphaea stellata* in which water birds build their nests. Many wild varieties of paddy including *Oryza sativa* and different species of grass and some herbaceous plants like *Mimosa pudica*, *Limnanthium*, *Hydrilla sp.*, *Vallisneria*, and *Cyprus validus* are also documented.

### Results and Discussion

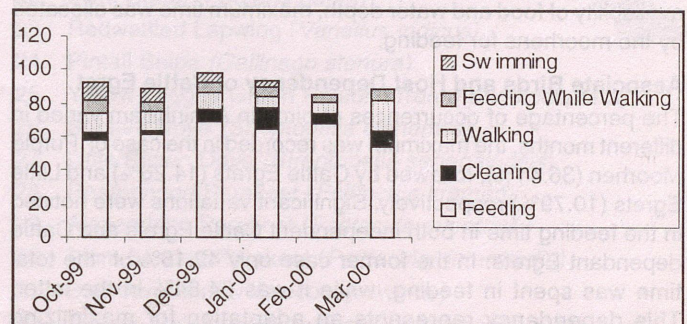
#### Activity pattern and time budgeting of the Purple Moorhen

The spatial abundance of Purple Moorhen has a distinct seasonal pattern in the jheel, their numbers are lowest in August, but shoot up during the post monsoon and winter months. Ali and Ripley (1983) observed that the Purple Moorhen is a local migrant and can be seen in good numbers during autumn and winter periods. Maximum number of juveniles were sighted between October and January. This may be due to the availability of safe nesting patches culminating in their breeding success. In addition, these patches serve as a cover for the young ones to dodge the predators.

Though Purple Moorhens were observed throughout the study period, they attained optimum numbers during Dec-Jan.

During post monsoon period (Oct-Dec) they spent more time walking around after feeding, which varied between 13 and 19 minutes.

Of the total observation period of 743 minutes, 465 minutes were utilised for feeding, which is about 62% of the total activity. This observation is in agreement with studies on Wigeon by Kanel, 1980 & Thomar, 1982. The time spent for feeding is more during the month of October and it gradually decreased towards the dry season with slight differences i.e., in October it spent 91 minutes for feeding and 87 in November, 84 December, 79 January, and 77 in February, respectively. But during March they used only 47 minutes. From this observation only 85 minutes is significant. The maximum duration of chasing was recorded during the month of February when compared to other months. Interspecific and intraspecific chasing were observed. In particular it has been proposed that the importance of competition, as an agent structuring natural communities should vary with the intensity of environmental variability. (Nudds, T.D). Likewise alertness was also recorded more during February.



Monthly variations in the activities of Purple Moorhen

Walking, and feeding while walking were observed to be maximum during the post monsoon period. Correspondingly the time spent for bathing and swimming attained a peak during this period since the water availability was higher on account of monsoon showers. It was significant to note that throughout the observation period they spent fewer minutes for wing expansion activities.

The Purple Moorhen did not show significant difference in its feeding pattern from month to month. However they spent considerable time for feeding, followed by walking after feeding. In Keoladeo National Park, the maximum time of the day was spent for feeding, followed by maintenance as recorded by Bhupathy, 1985. Similar pattern was reported for coots by Jayaraman, 1985.

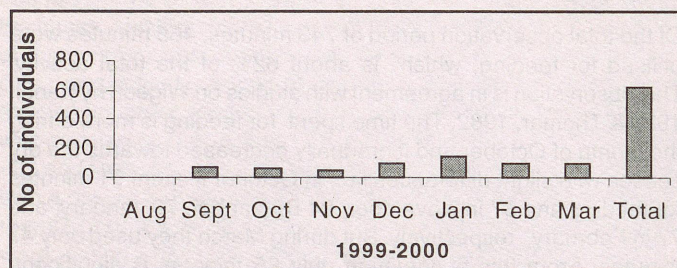
Page and Whitacre 1975, Kenward 1978, Bertram 1980 have put forward the view that flocking is an anti-predatory tactic in many bird species with increasing group size. Both interspecific and intraspecific chasings were observed. On two occasions, I observed the Purple Moorhens chasing Cattle Egrets.

Like most other creatures, Purple Moorhens are alert and vigilant when escorting their young ones. Alertness also results by the presence of birds of prey in the wetland.

#### Ethogram of Purple Moorhen

Most organisms alter their time for different behavioural activities. The optimal budget of time and energy between foraging versus non-foraging activities is profoundly influenced by the circadian

and seasonal rhythms of physical conditions as well as of predators and prey. (Ramchandran, 1996).



Graph showing population of Purple Moorhen

It was very interesting to note that they allot very few minutes or seconds for wing expansion or wing flapping activities.

It was significantly noted that variations were seen in the activity pattern from month to month. Since the behaviour patterns are controlled by the temporal environmental factors such as availability of food and water depth, maximum time was allocated by the moorhens for feeding.

#### Associate Birds and Host Dependency of Cattle Egret

The percentage of occurrences of birds in Azhinhillam varied in different months, the maximum was recorded in the case of Purple Moorhen (36.41%), followed by Cattle Egrets (14.26%) and Little Egrets (10.79%) respectively. Significant variations were noticed in the feeding time in both independent Cattle Egrets and Cattle dependant Egrets. In the former case only 42.15% of the total time was spent in feeding, while it was 64.84% in the latter. This dependency represents an adaptation for maximizing foraging success.

#### Declining Population

About 75% of the wetlands are covered by weeds like water hyacinth and *Salvinia* due to the increasing use of fertilizers in agricultural fields in the catchment areas.

Many hectares of the wetland have already been reclaimed for rice cultivation and the conversion process is continuing at present. Studies by Swanson et al., 1974 have shown that nutrient availability remains high in seasonal and tilled wetlands because of the regularity with which organic matter is oxidized as these wetlands become dry during late summer. But the case is just the opposite when the wetlands are thoroughly tilled and cropped during dry years; tall, strong-stemmed perennial plants are temporarily eliminated. When hydrophyte succession is resumed during wet years, the early stages favour short, weak-stemmed annuals which cannot support the nest of most of the bird species. They also noted that temporary and seasonal wetlands produce invertebrates earlier in the season than semi permanent wetlands because of the more rapid warming of their shallow waters. The process of siltation is estimated to be at a high rate due to the construction of a bypass road in the vicinity. Large areas of the wetland have been encroached upon. The construction of a new bypass road NH-17, running south to north has prevented easy flow of water and the movement of floating vegetation. This adversely affects the movement of water birds. Vehicular disturbances have not only affected the distribution pattern but also the breeding cycle of waterfowl.

These factors have cumulatively contributed to the decline of the Purple Moorhen population.

#### Discussion

The spatial abundance of Purple Moorhen had a distinct seasonal pattern in jheels and attained optimum between December and February. It was noted that flocking tendency of Moorhens increased significantly following a warning call by an alert individual, that had noticed the arrival of a bird of prey. Interspecific and Intraspecific chasing were observed. Independent cattle Egrets utilized 42.15% of the time and cattle dependant Egrets utilized 64.84% of time for feeding. It was also observed that there was some synchronised movement between Egrets and their hosts (cattle). Egrets moved at the same pace with the host and they switched from one host to another whenever the host started moving too fast or too slow, in order to optimise their insect catching chances.

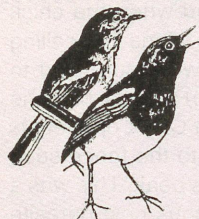
#### Conclusion

Wetlands are dynamic and an understanding of the diverse dependent community and the factors affecting them are pre-requisites to evolve a management strategy.

Networks of small, seasonal and semi permanent wetlands must be preserved in order to avoid drastic decline in bird populations. They are important components to maintain the food web of this biotype. Burning or grazing or a combination of these two forces may be required to maintain wetlands in the best condition for most bird species. There are many instances where these forces seemed to benefit the productivity of wetlands and their use by resident and migrant birds. The birds benefit because of the decrease in the extent of monotypic strands of emergent vegetation and the creation of openings that allow greater biological productivity within shallow water zones. The newly constructed roads, vehicular disturbances and water pollution are posing serious threats to this ecosystem which in turn has fragmented the bird population. The gradual degradation of the ecosystem has concomitantly decreased the avifauna inhabiting them. The wetland still remains unprotected and a holistic approach is required to conserve this wetland. Appropriate conservation strategies should be evolved to preserve this natural heritage for the generations to come.

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## Birdwatching at Tadoba - Andhari Tiger Reserve and Chandrapur, Maharashtra

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### Birdwatching at Tadoba - Andhari Tiger Reserve (TATR)

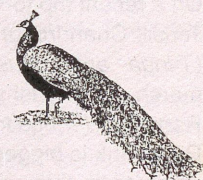
Recently I visited the Tadoba-Andhari Tiger Reserve (TATR) at the end of the monsoon. TATR is situated in the Chandrapur district of eastern Maharashtra. It is a very good protected area for the tiger and other animals. Many Nature lovers visit this area only for sighting tigers. But after my 10 years experience I realized that TATR is also an excellent sanctuary for the avifauna. During this visit I stayed there for full five days and was delighted to record many bird species. TATR has very good southern tropical dry deciduous forest and is dominated by Teak and Bamboo. The other trees are Mahua, Tender, Aim, Jamoon, Mango, Peepal, Banyan, Haldu, Bija, Tiwas and many more. The clusters of bamboo gives the jungle an excellent hiding place for ground dwelling birds like peafowl, grey jungle fowl, partridges and quails. The foliage of the trees like Jamun which are in plenty at Panchadhara, Katezari, Jamunbodi and Tadoba reservoir area, proves an excellent foraging area for arboreal birds.

I visited Ambathira, an area equally well suited for the birds by its hilly and somewhat grassy terrain. I saw a crested serpent eagle (*Spilornis cheela*) sitting on a branch of a tender tree. The whistle-like calls of this 'king of skies' were dispersing throughout the jungle. Suddenly it flew by spreading its wings, I clearly saw the white and black bands in his wings and tail. A lesser adjutant stork (*Leptoptilos javanicus*) was seen in flight. I saw this bird earlier in the Kalamba area while nesting. It nests only on Karn or Karaya tree, which are remaining within the TATR areas only. In one trail through the jungle, I was able to sight red spurfowl (*Galloperdix spadicea*), white eyed buzzard (*Butastur teesa*), common green pigeon (*Treon phoenicoptera*), brain fever bird (*Hierococcyx varius*), sirkeer malkoha (*Phaenicophaeus leschenaultii*), grey hornbill (*Ocyrceros birostris*), black shouldered woodpecker (*Chrysocolaptes festivus*) and greater racket-tailed drongo (*Dicrurus paradiseus*). In all 66 birds have been sighted during this five very magnificent days at TATR. This proved to be a very good birdwatching trip and the place is known to have 240 species of birds of which I was able to sight the following :

1. Little Grebe (*Tachybaputs ruficollis*)
2. Little Cormorant (*Phalacrocorax niger*)
3. Grey Heron (*Ardea cinerea*)
4. Pond Heron (*Ardeola grayii*)
5. Little Green Heron (*Butorides striatus*)
6. Chestnut Bittern (*Ixobrychus cinnamomeus*)
7. Open Bill Stork (*Anastomus oscitans*)
8. Lesser Adjutant Stork (*Leptoptilos dubius*)
9. Black Ibis (*Pseudibis papillosa*)
10. Lesser Whistling Teal (*Dendrocygna javanica*)
11. Black Shouldered Kite (*Elanus caeruleus*)
12. Shikra (*Accipiter badius*)



13. White-eyed Buzzard (*Butastur teesa*)
14. Changeable Hawk Eagle (*Spizaetus cirrhatus*)
15. Crested Serpent Eagle (*Spilornis cheela*)
16. Greater grey-headed Fishing Eagle (*Ichthyophaga ichhyaetus*)
17. Indian White backed Vulture (*Gyps bengalensis*)
18. Rain Quail (*Coturnix coromandelica*)
19. Red Spurfowl (*Galloperdix spadicea*)
20. Grey Junglefowl (*Gallus sonneratii*)
21. Indian Peafowl (*Pavo cristatus*)
22. Little Crake (*Porzana parva*)
23. Redwattled Lapwing (*Vanellus indicus*)
24. Pintail Snipe (*Gallinago stenura*)
25. Yellow Legged Green Pigeon (*Treon phoenicoptera*)
26. Spotted Dove (*Streptopelia chinensis*)
27. Little Brown Dove (*Streptopelia senegalensis*)
28. Rose-ringed Parakeet (*Psittacula krameri*)
29. Alexandrine Parakeet (*Psittacula eupatria*)
30. Plum-headed Parakeet (*Psittacula intermedia*)
31. Brainfever bird (*Hierococcyx varius*)
32. Sirkeer Malkôha (*Phaenicophaeus leschenaultii*)
33. Greater Coucal (*Centropus sinensis*)
34. Brown Fish Owl (*Ketupa zeylonensis*)
35. Jungle owlet (*Glaucidium radiatum*)
36. Crested Tree Swift (*Hemiprocne coronata*)
37. Indian Jungle Nightjar (*Caprimulgus indicus*)
38. Small Blue Kingfisher (*Alcedo atthis*)
39. Storkbilled Kingfisher (*Halcyon capensis*)
40. Common Hoopoe (*Upupa epops*)
41. Indian Roller (*Coracias benghalensis*)
42. Indian Grey Hornbill (*Ocyrceros birostris*)
43. Yellow-fronted Pied Woodpecker (*Dendrocopos mahrattensis*)
44. Black shouldered Woodpecker (*Chrysocolaptes festivus*)
45. Lesser Golden backed Woodpecker (*Dinopium benghalensis*)
46. Black-headed Oriole (*Oriolus xanthornus*)
47. Greater Racket Tailed Drongo (*Dicrurus paradiseus*)
48. Indian Tree Pie (*Dendrocitta vagabunda*)
49. Jungle Crow (*Corvus macrorhynchos*)
50. Large Cuckoo Shrike (*Coracina macei*)
51. Small Minivet (*Pericrocotus cinnamomeus*)
52. Common Iora (*Aegithina tiphia*)
53. Red-vented Bulbul (*Pycnonotus cafer*)
54. Yellow-eyed Babbler (*Chrysomma sinense*)
55. Jungle Babbler (*Turdoides striatus*)
56. Asian Paradise Flycatcher (*Tenpsiphone paradisi*)



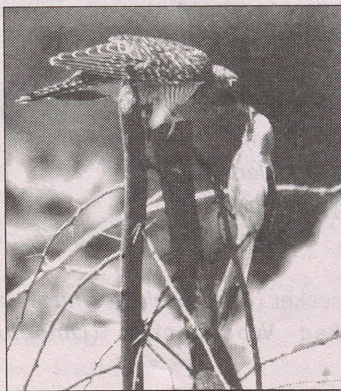
57. White-browed fantail flycatcher (*Rhipidura aureola*)
58. Common Tailor bird (*Orthotomus sutorius*)
59. Magpie Robin (*Copsychus saularis*)
60. White Throated Thrush (*Zoothera citrina cyanotus*)
61. Great Tit (*Parus major*)
62. Loten's Sunbird (*Nectarinia lotenia*)
63. Purple Sunbird (*Nectarinia asiatica*)
64. Oriental White Eye (*Zosterops palpebrosus*)
65. Yellow-throated Sparrow (*Petronia xanthocollis*)
66. Black headed Munia (*Lonchura Malacca*)



### SPOTTED REDSHANK (*TRINGA ERYTHROPUS*), FIRST RECORD FROM VIDARBHA.

On a recent trip to the Chandar Nala irrigation project at Chimur Tensil, Chandrapur district, I saw a flock of spotted Redshank (*Tringa erythropus*) searching for food in shallow waters and marsh. This redshank is somewhat different from the common Redshank (*Tringa totanus*) by its long and slender bill. The spotted Redshank is bigger than the common Redshank, which is more common in this area. The checklist of birds of Vidarbha (East Maharashtra's 11 districts) has not listed the spotted Redshank and that makes this the first ever record. I was able to take a photograph of one of these birds, which was standing in water. This bird is a winter visitor to the subcontinent including Nepal and Sri Lanka. It mainly feeds on aquatic invertebrates, insects and larvae. I heard the "tiu-tiu-tiu" call when they flew away. I have been searching for this species at every water body of Chandrapur district and I finally found them at Chandar Nala irrigation project.

### RUFIOUS-BACKED SHRIKE FEEDING INDIAN CUCKOO CHICK.



On 24th Sep. 2003, I was visiting Marda, a superb birdwatching spot near Chandrapur, with my photographer friend Latish. It was the end of the monsoon and we heard the call of Brainfever bird (*Hierococcyx varius*) and Pied Crested Cuckoo (*Clamator jacobinus*). This area has mainly agricultural fields and open scrubland with thorny bushes like Babool.

Suddenly I heard a strange call of a bird. I looked around and found a chick of the Indian Cuckoo (*Cuculus micropterus*) sitting in a dense Babool tree. We were waiting patiently for the chick to

come out. After some time we were rewarded when the chick flew and settled on a fence. It was drooping its wings and calling continuously for food. After 15 minutes, we were surprised to notice a Rufous-backed Shrike (*Lanius schach*) approaching the chick with a grasshopper. The Indian Cuckoo Chick opened its beak and begged for food. The Shrike came to the fence soon and shoved the grasshopper into the Cuckoo's beak. This was a pleasant surprise to us. The Cuckoo is a famous nest parasite and mainly lays its eggs in the nest of babblers. Shrike's eggs do not match in colour or size. Perhaps the Cuckoo could not find the nest of a suitable host bird and therefore laid its egg in the Shrike's nest. We also observed a similar behaviour at another place. There we saw a Bay-backed Shrike (*Lanius vittatus*) feeding the chick of a Brainfever bird. We always observed such a thing at the end of monsoon, when host species like Babblers have already completed their nesting cycle and Cuckoos have no other choice.

### NESTING OF BLACK-BREASTED WEAVER (*PLOCEUS BENGHALENSIS*) IN CHANDRAPUR.

The black-breasted weaver is a monsoon nesting bird and is very uncommon in Vidarbha. I had visited the Marda which is just outside the Chandrapur city for birdwatching during September 2003. At a small nullah in an open area I saw a male Black-breasted weaver with a blade of grass in his bill. I quickly followed him and was delighted to locate its nest on water reeds. I visited that area once again and placed a hide made of cloth near that nullah. I saw that the male was continuously bringing grass blades from reeds for building its nest. One nest in front of me was nearly completed and another at a little distance away had just begun. The nest was very similar to that of Baya weaver (*Ploceus philippinus*) but much smaller in length. The upper part was not narrow and directly fixed with grass. After sometime a female approached the completed nest, which was hardly six inches above the water. In this area I have seen checkered keelback snakes and rat snakes many a times. Probably they are depre-dating the eggs and chicks of the weaver birds.

This is the first record of this bird's nesting in Chandrapur district. I think no other suitable habitat remains in this area. The yellow cap and back throat are the prominent identification marks of the male black-breasted weaver.

### FIRST RECORD OF BESRA SPARROW-HAWK IN TATR.

On 15th June 2003, we recorded the presence of Besra sparrow-hawk, (*Accipiter virgatus*) in Moharli range of Tadoba-Andheri Tiger Reserve. This is the first record of this small raptor from Chandrapur district. It looks very similar to his nearest cousin, the sparrow-hawk (*Accipiter nisus*), with minor differences in colour and markings. The Besra sparrow-hawk had a bold black mesial stripe on throat, and was blackish grey above and the tail had four dark bands. The Besra sparrow-hawk was photographed by Mr. M.S.R. Shad, while it was stealthily waiting for an ambush near a cement water-hole.



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## CORRESPONDENCE

**WHITE IBIS NESTING AMIDST CHAOS.** PRATYUSH G. PATANKAR, Student (Final yr B.Sc.), Department of Zoology, Maharaja Sayajirao University of Baroda, Vadodara.

Birds are known to adapt to the changes in the environment. An example to this fact was observed in a small pond of 150 mts x 25 mts., in the heart of Baroda city. At this pond I have observed a nesting colony of white ibis (*Threskiornis melanocephalus*). The flock of 110 white ibis with 8 nests on a single Acacia tree was a delightful sight. The colonial birds (Order: *Ciconiformes*) generally prefer large and clean water body, a tall canopy tree and an undisturbed area for nesting. The amazing thing about this nesting colony is the site itself. It was different from the usually preferred areas.

**Nesting site:** The Lalbagh pond is situated about 14 kms from Baroda Railway Station. The Southern side of the pond has a meter gauge railway line, to the west is a main road with heavy traffic throughout the day. The northern and eastern boundaries of the pond are surrounded by residential colonies. The drainage from these colonies are emptied into the pond. The pond is covered with aquatic vegetation during monsoon as well as during the winter months. Only in summer the water is almost completely exposed to sunlight as the vegetation dries up. On the periphery the vegetation consists of Ipomoea and Typha while Pistia, Water Hyacinth and other plants are found in the middle of the pond.

There is a small island in the pond towards the residential colony away from the main road and railway line. The island has a single tree of deshi babool – (*Acacia arabica indica*). The tree is just 10-12 feet tall with the branches drooping down giving it a bushy appearance. On this tree at a height of about 5-6 feet above the ground level, 8 nests were seen secured firmly on the branches. Many waterfowl species visit the pond to feed on certain aquatic insects, spiders, molluscs and frogs.

When I saw this nesting colony for the first time the eggs had hatched and the nestlings were 5 to 6 days old. The flock also had a few immature juveniles, which could be easily distinguished from adults by their plumage pattern and colour. During the day time only 15 to 20 birds were seen in the pond and on the tree. Frequent visits were made by the other members of the flock throughout the day. By the evening hours the entire flock of 110 ibis arrived to roost on the tree. This was a routine feature.

The very thought that amazed me was as to why these birds had selected this site for nesting? The reason could be, the pond is home to 5 or 6 crocodiles. Initially two adult crocodiles were sighted by the people staying in the neighborhood. These crocodiles were seen sun basking on the banks of the pond. Moreover the most astonishing thing is that the crocodiles have given birth to 3 young ones. The residents of the colony informed me that crocodiles are a hazard to them as these sub-adult crocodiles occasionally enter their garden, compound and verandahs.

My conclusion is that, these crocodiles can probably be the reason for the safety of these birds, since humans keep themselves away from the pond due to the fear of crocodiles. Hence the site is undisturbed by humans and the birds have nested freely.

Moreover birds adapting to urbanization is a common feature, which cannot be overlooked. Other than this nesting colony of white ibis, many other water birds are seen there throughout the year with the numbers increasing in winter.

I wanted to share this interesting co-existence between the avifauna, crocodiles and other fauna in the small pond, which is under threat due to ever-increasing urban population and pollution. Amidst such chaos the flourishing of animal life was a welcome sight.



**THOL BIRD SANCTUARY.** IYER MOHAN K., 2, Tilak-II, Maharashtra Society, Mithakali, Ellisbridge, Ahmedabad - 6, Gujarat.

My self and Mr. Kandarp Katju have been monitoring the Thol Bird Sanctuary in Mehsana district of Gujarat for the past five years.

TBS is a very good example of the ongoing conflict between man and birds on terms of resource use. A study was conducted by WWF., Ahmedabad division for some months to monitor the avian biodiversity in 1999. TBS has also been my topic of thesis for M.Sc.

A seasonal wetland fed by direct precipitation and run off from its catchment areas, Thol has been brought under severe and drastic changes during the last one year. The water from the Narmada canal is being fed into TBS and a seasonal wetland has been changed into a permanent wetland with periodic introduction of water through the canal.

As an introduction, I am sending a checklist of waterfowl that has been recorded during the last wintering season. I shall be sharing in due course more information regarding the changes that may occur due to the introduction of Narmada water.

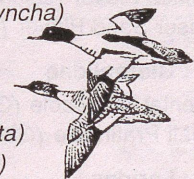
### Check List of Waterfowl at Thol Bird Sanctuary

#### Family : Dendrocygnidae

1. Whistling-duck (*Dendrocygna javanica*) (R)

#### Family : Anatidae

2. Greylag Goose (*Anser anser*) (M)  
 3. Bar-headed Goose (*Anser indicus*) (RM)  
 4. Ruddy Shelduck (*Tadorna ferruginea*) (RM)  
 5. Comb Duck (*Sarkidiornis melnotos*) (R)  
 6. Cotton Pygmy-goose (*Nettapus coromandelianus*) (R)  
 7. Gadwall (*Anas strepera*) (M)  
 8. Eurasian Widgeon (*Anas penelope*) (M)  
 9. Mallard (*Anas platyrhynchos*)  
 10. Spot-billed Duck (*Anas poeciloryncha*) (R)  
 11. Common Teal (*Anas crecea*) (M)  
 12. Garganey (*Anas querquedula*) (M)  
 13. Northern Pintail (*Anas acuta*) (M)  
 14. Northern Shoveller (*Anas clypeata*) (M)  
 15. Common Pochard (*Aythya ferina*) (M)  
 16. Ferruginous Pochard (*Aythya nyroca*) (M)  
 17. Tufted Pochard (*Aythya fuligula*) (M)



#### Family : Alcediidae

18. Common Kingfisher (*Alcedo Atthis*) (R)

**Family : Halcyonidae**

19. White-throated Kingfisher (*Halcyon smyrnensis*) (R)

**Family : Cerylidae**

20. Pied Kingfisher (*Ceryle rudis*) (R)

**Family : Gruidae**

21. Sarus Crane (*Grus antigone*) (R)  
 22. Demoiselle Crane (*Grus virgo*) (M)  
 23. Common Crane (*Grus grus*) (M)

**Family : Rallidae**

24. White-breasted Waterhen (*Amaurornis phoenicurus*) (R)  
 25. Purple Swampphen (*Porphyrio porphyrio*) (R)  
 26. Common Moorhen (*Gallinula chloropus*) (R)  
 27. Common Coot (*Fulica atra*) (RM)

**Family : Scolopacidae**

28. Black-tailed Godwit (*Limosa limosa*) (M)  
 29. Whimbrel (*Numenius phaeopus*) (M)  
 30. Eurasian Curlew (*Numenius arquata*) (M)  
 31. Spotted Redshank (*Tringa erythropus*) (M)  
 32. Common Redshank (*Tringa tetanus*) (M)  
 33. Marsh Sandpiper (*Tringa stagnatalis*) (M)  
 34. Common Green Shank (*Tringa nebularia*) (M)  
 35. Green Sandpiper (*Tringa ochropus*) (M)  
 36. Wood Sandpiper (*Tringa glareola*) (M)  
 37. Red-necked Phalarope (*Phalaropus lobatus*) (M)  
 38. Common Sandpiper (*Actitis hypoleucos*) (RM)  
 39. Little Stint (*Calidris minuta*) (M)  
 40. Temink's Stint (*Calidris temminckii*) (M)  
 41. Ruff (*Philomachus pugnax*) (M)

**Family : Jacanidae**

42. Pheasant-tail Jacana (*Hydrophasianus chirurgus*) (R)  
 43. Bronze-winged Jacana (*Metopidius indicus*) (R)

**Family : Burhinidae**

44. Great Thick-knee (*Esacus recurvirostris*) (R)

**Family : Charadriidae**

45. Black-winged Stilt (*Himantopus himantopus*) (R)  
 46. Pied Avocet (*Recurvirostra avocetta*) (RM)  
 47. White-tailed Lapwing (*Vanellus leucurus*) (M)  
 48. Red-wattled Lapwing (*Vanellus indicus*) (R)  
 49. Yellow-wattled Lapwing (*Vanellus malabaricus*) (R)  
 50. Pacific Golden Plover (*Pluvialis fulva*) (M)  
 51. Sociable Lapwing (*Vanellus gregarius*) (M)  
 52. Common Ringed Plover (*Charadrius hiaticula*) (R)  
 53. Little Ringed Plover (*Charadrius dubius*) (RM)  
 54. Kentish Plover (*Charadrius alexandrinus*) (RM)  
 55. Lesser Sand Plover (*Charadrius mongolus*) (RM)

**Family : Glareolidae**

56. Oriental Pratincole (*Glareola maldivarum*) (R)  
 57. Small Pratincole (*Glareola lactea*) (R)

**Family : Laridae**

58. Yellow-legged Gull (*Larus chachinnans*) (M)  
 59. Brown Headed Gull (*Larus brunnicapillus*) (RM)  
 60. Black Headed Gull (*Larus ridibundus*) (RM)  
 61. Gull-billed Tern (*Gelochelidon nilotica*) (R)

62. Caspian Tern (*Sterna caspia*) (RM)  
 63. River Tern (*Sterna aurantia*) (R)  
 64. Little Tern (*Sterna albifrons*) (R)  
 65. Black-bellied Tern (*Sterna acuticauda*) (R)  
 66. Whiskered Tern (*Chlidonias hybridus*) (R)  
 67. Indian Skimmer (*Rynchops albicollis*) (R)

**Family : Accipitridae**

68. Osprey (*Pandion haliaetus*) (RM)  
 69. Eurasian Marsh Habbier (*Circus aeruginosus*) (M)

**Family : Podicipedidae**

70. Little Grebe (*Tachybaptus ruficollis*) (R)  
 71. Great Crested Grebe (*Podiceps cristatus*) (M)

**Family : Phalacrocoracidae**

72. Little Cormorant (*Phalacrocorax niger*) (R)  
 73. Great Cormorant (*Phalacrocorax carbo*) (R)  
 74. Indian Cormorant (*Phalacrocorax fuscicollis*) (R)

**Family : Anhigidae**

75. Darter (*Anhinga melanogaster*) (R)

**Family : Ardeidae**

76. Little Egret (*Egretta garzetta*) (R)  
 77. Great Egret (*Casmerodius albus*) (R)  
 78. Intermediate Egret (*Mesophoyx intermedia*) (R)  
 79. Western Reef Egret (*Egretta gularis*) (R)  
 80. Cattle Egret (*Bubulcus ibis*) (R)  
 81. Indian Pond Heron (*Ardeola grayii*) (R)  
 82. Grey Heron (*Ardea cinerea*) (R)  
 83. Purple Heron (*Ardea purpurea*) (R)  
 84. Black-crowned Night Heron (*Nycticorax nycticorax*) (R)

**Family : Phoenicopteridae**

85. Greater Flamingo (*Phoenicopterus ruber*) (RM)  
 86. Lesser Flamingo (*Phoenicopterus minor*) (R)

**Family : Pelicanidae**

87. Great White Pelican (*Pelecanus onocrotalus*) (RM)  
 88. Dalmatian Pelican (*Pelecanus crispus*) (M)

**Family : Threskiornithidae**

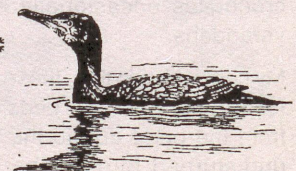
89. Glossy Ibis (*Plegadis falcinellus*) (RM)  
 90. Black-headed Ibis (*Threkiornis melanocephalus*) (R)  
 91. Black Ibis (*Pseudibis papillosa*) (R)  
 92. Eurasian Spoonbill (*Platalea leucorodia*) (RM)

**Family : Ciconiidae**

93. Painted Stork (*Mycteria leucocephala*) (R)  
 94. Asian Openbill (*Anastomus oscitans*) (R)  
 95. Wolly-necked Stork (*Ciconia episcopus*) (R)  
 96. White Stork (*Ciconia ciconia*) (M)

R - Resident RM - Resident Migrant M - Migrant

96 species belonging to 22 families have been recorded at TBS. Various other unconfirmed sightings have not been included in this list.



**IS THE INDIAN ROLLER (CORACIAS BENGHALENSIS) THE STATE BIRD OF KARNATAKA?** HARISH R. BHAT, Centre for Ecological Sciences, Indian Institute of Science, Bangalore 560 012 email: harish@ces.iisc.ernet.in

The Indian Roller is an elegant bird when seen perched or in flight. The crown, the underside of wings and tail are turquoise to blue-green. The throat and upper breast are purple and clearly streaked with turquoise. The sudden flash of its attractive blue wings during flight, is awe-inspiring.

The Indian Roller is widespread and very common from Iraq to India, Sri Lanka and South-East Asia. Mainly resident in most of the ranges but undergoes some local movements. Found commonly in open woodlands, cultivated areas, frequently along roadsides, in parks and large gardens, plantations and along forest edges. The bird is often seen perched conspicuously on electric posts and roadside electric lines.

Most of the birders when questioned, said Indian roller is the state bird of Karnataka, while a few disputed it as the state bird of Andhra Pradesh. The forest officials are uncertain too. Is Indian Roller the state bird of Karnataka and who is the authority to declare the state bird? Can anyone throw light on the same?



**NON-STOP CALL OF THE COPPERSMITH, (MEGALAIMA HAEMACEPHALA) OBSERVED LASTING FOR SEVEN MINUTES IN DHARWAD URBANS.** Dr. J.C. UTTANGI, H.No. 36, Mission Compound, Dharwad - 580 001

Indeed, most birders, I imagine are familiar with the typical loud metallic 'tuk...tuk' calls or 'tunk...tunk' calls produced sometimes repeatedly for a long duration of time, by the Crimson breasted Barbet, or Coppersmith, *Megalaima haemacephala* during its breeding season. Yet, reports or reviews or additional new information on the tempo and timings of these calls are not easily coming forth. During my 25 long years of birding exercises undergone in areas of Dharwad, I am myself surprised to find that although I saw and heard this ambitious fruit eater gathering regularly each year, on abundantly fruiting Banyan Trees, along roadsides, in the vicinity of wooded countryside, in urban gardens and in compounds. Although I came in very close contact with its calls, never at any time during my survey, did it strike to me that noting down the tempo and timings of these calls would be quite interesting because, the duration of the call produced by the Coppersmith without a break in a greater or lesser degree, has direct relationship with the caloric value of the fruit it eats in a particular area and further how much energy the bird can store in a day also depends on the availability of such a fruit tree like the banyan of which it is very much fond.

On Monday the 24th November, 1997 my emotions were stirred up for the first time, to take counts of the calls of the Coppersmith which started calling suddenly close to the Nursing Home at Dharwad on Ulavi-Basappana Hill, where on the advice of our family Doctor, I had been admitted as an in-patient for a clinical check up relating to my old age urinary complaints for a day. I was relaxing in the hospital bed after all the preliminary examinations in the afternoon. By my watch, it was exactly 3.45 p.m. when the Coppersmith, perhaps perched on the top of

a tree close to my room started calling. Aroused by these wonderful calls soon my lonesomeness was gone as the bird sang for company. The calls of the Coppersmith coming through the eastern window of my room were clearly received by me. I had noted down the time when it started calling. As the calls continued it was 3.50 p.m. when suddenly a cackling call produced by a White breasted kingfisher on wings was heard. Undisturbed by it, the Coppersmith continued its call and finally stopped calling at 3.52 p.m. which means, that the non-stop call of the bird lasted at least for a duration of seven long minutes.

On my return from Nursing home, I referred to the Handbook by Salim Ali and found that the calls of the Coppersmith 'vary from about twice a second to three in two seconds' and timed as fast as at least 108 calls per minute' but may extend to 121 if the calls are a little faster. Further he says that the calls may be repeated about 204 times without a break in the middle. It works out to about an average of 2 minutes duration without a break. However it may be noted here for comparison that a member of the Coppersmith foraging on fruits of Banyan trees at Dharwad Urbans has accomplished the ability and proficiency in calling nearly 756 times without a break for seven long minutes at the rate of 108 calls per minute. It will be interesting to study and note down the timings of the calls of Coppersmith dwelling in other parts of our country for comparison so that minimum and maximum timing for a non-stop performance of the Coppersmith could be established.

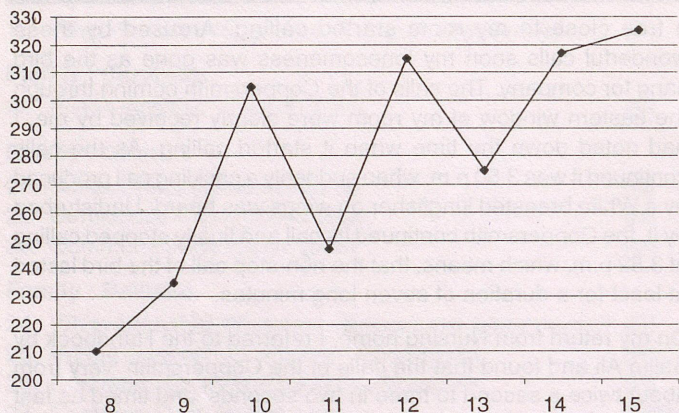


**ASIAN KOELS ARE THE FIRST CALLER BIRDS OF THE DAY.** ARUNAYAN SHARMA, N.S. Road, In front of T.O.P. Malda - 732 101, West Bengal

On 8th May, 1999 at 0210 hours, when I was studying in my study room, I listened to a female Asian koel (*Eudynamis scolopacea*) from my garden. Her call note was just like *krik...krik*. Immediately she was responded by a male Asian Koel, *kuwhoo...kuwhoo...kowhoo*. I was surprised to listen to them at these odd hours. First I thought that some nocturnal predator appeared in their territory (?). But to my amusement I found that actually they were engaged in vocal communication as they continued their duet till day break.

On 9th may 1999, at 0235 hours again I listened to them in their 'courtship mood'. Till 15th may 1999, I spent sleepless nights to record their first call of the day. My observations (findings) are given in the table below.

Date 1999	First recording time (IST) hours	first bird caller (Asian koel)	second call Bird (other species)
8th May 1999	0210 hours	Female	Maggie Robin
9th May 1999	0235 hours	Male	House crow
10th May 1999	0305 hours	Male	House crow
11th May 1999	0248 hours	Male	Maggie robin
12th May 1999	0315 hours	Male	White throated fantail flycatcher
13th May 1999	0255 hours	Female	White throated fantail flycatcher
14th May 1999	0318 hours	Male	House crow
15th May 1999	0325 hours	Male	White throated fantail flycatcher



N.B.

- The sunrise and sunset time were not recorded
- The sunrise in Malda is different from the sunrise of western parts of the country

Graph showing the first call recording time as per IST of Asian koels (*Eudynamys scolopacea*) in Malda district, West Bengal.

Location of Malda town : - 25°0'N, 88°10'E

39.39 msl

Annual rainfall : 1400mm

Asian koel (*Eudynamys scolopacea*) are considered to be one of the first birdcallers at dawn. Their breeding season is between 'April – August', which coincides with house crows' nesting season. It could be possible that they can call early in dawn hours during their breeding season. Or it is possible that they gave their calls at early hours to defend their territory because during nights and early hours, the air is still and the area is calm and it can carry the sound some 20 times more than in midday?



**WHITE-BACKED VULTURES NESTING AT IIM, AHMEDABAD CAMPUS.** JAGDEEP S. CHHOKAR, Professor, Indian Institute of Management, Ahmedabad-380015, INDIA  
Email: chhokar@iimahd.ernet.in

I first noticed a nest of White-backed Vultures (*Gyps bengalensis*) on the campus of the Indian Institute of Management, Ahmedabad (IIM-A), where I live, in March 2002. We located the nest when my wife noticed vultures breaking twigs from a *Neem* tree in front of our house and flying away. To look in the direction in which the vultures were flying with the twigs, we went up to the terrace of our house and discovered that they were flying to a nest on another *Neem* tree not very far from our house. Still on the IIM-A campus. I shared this information with the BNHS and some of the computer networks.

I thought, at that time, that this might have been significant because my casual observation at that time indicated that the number of White-backed Vultures on this campus had gone down during the preceding few years.

I continued observing, regularly but not systematically, the status of vultures on this campus. During the last couple of years I noticed another nest in a tree on the road just outside the campus but that nest was subsequently abandoned, and the vultures that used to roost on the tree also seemed to have left.

During the last few months I noticed a distinct increase in the population of vultures on the campus. When I became reasonably sure of this observation, I put it up on some of the computer networks for general information. I sent this message on January 16, 2004.

I was very pleasantly surprised when on January 25, 2004 I received an email message from Kartik Shastri saying that he had seen my message and he would like to meet me regarding vultures nesting in the IIM-A campus. Kartik and I got in touch, as a result of which we did a quick survey of vultures' nests on the IIM-A campus on February 1, 2004. We were able to locate six active nests and one which appeared to have been abandoned. We also found several nests of Pariah Kites (*Milvus migrans*), and wondered if some of these had been earlier abandoned by vultures and were taken over by the kites.

Kartik informed me that he has been monitoring White-backed vultures' nests in Ahmedabad area for the last five years. Based on his observations, he felt that it is possible that the increase in vulture population on the IIM-A campus may be because of the migration of these birds from the nearby areas, particularly the Gujarat University campus where some of the trees were recently felled. This is of course speculative and subject to confirmation.



**NATURE TRAIL IN ANSHI FOREST AREA, NORTH KANARA DISTRICT, KARNATAKA.** A. SHIVAPRAKASH, 478, 3rd Cross, 8th Main road, Ramakrishna Nagar 'H' Block, Mysore - 570 023.  
E-mail : adavanne@hotmail.com

Expedition cum nature trail was held in Anshi National Park during 19th to 25th January 2004 by Sports and Cultural Wing of Department of Atomic Energy, Mumbai. Area trekked during these seven days covering Sirve gudda (2050 ft. msl), Singewadi, Sanaki, Anshi (1650 ft. msl), Ulavi (1850 ft msl), Shivapura, Sathodi falls, Kalache, Kodasalli and Kadra dams, revealed the glimpse of natural heritage of Karnataka's northern most coastal district falling under Central Western Ghat zone. This area mainly covers lower part of River Kali and its tributaries. The vegetation of the area consisted of semi evergreen, moist deciduous and riparian and dotted with plantation of areca and paddy field in the valleys.

Rainfall was better than the previous year in this region and had received more rain compared to the lower coastal districts of Udupi and South Kanara. Occurrence of large trees and lianas were amazing. Flowers of *Treminalia paniculata*, *Butea monosperma*, *Colebrookea oppositifolia*, *Ixora coccinea*, *Cyathocline purpurea*, *Gnidia glauca*, *Cynarospermum asperinum*, *Eranthemum roseum* and many more were in bloom, captivating vertebrates and invertebrates simultaneously. In all 109 species of birds and 51 species of butterflies were observed during the trail. Some of the important bird sightings are as follows;

- ❖ A pair of White bellied sea eagles, normally active in Coastal region was observed at Kodasalli and Kadra dam backwaters.
- ❖ A pair of Black capped kingfishers, normally found in coastal belt, were found near Bidoli hamlet (approximately 50 km from coast) perched at a height of 4 ft facing a stream.

- ❖ On two occasions I observed all the three Western ghat species of hornbills, i.e., Malabar grey, Malabar pied and great pied.
- ❖ All the three Oriole species of Peninsular India were recorded, viz., Golden, black headed and black naped.
- ❖ Four species of Sunbirds – Purple, Purple-rumped, Lotens and small; three species of flower peckers – Tickells, thick billed and common were also recorded.
- ❖ A nest of a Crested serpent eagle atop a tree surrounded by thinly covered trees on a small hillock near Tulasageri settlement was noteworthy.
- ❖ Unlike other parts of Western Ghats, I found more numbers of Wire - tailed swallows compared to dusky martins and red - rumped swallows.
- ❖ The 13 minute long call of a great-eared Nightjar in the early morning near a stream at Shingewadi, was significant.
- ❖ A Drongo cuckoo was found perched on a treetop surrounding lush green paddy fields and moist deciduous vegetation near the Sanake settlement.
- ❖ A Rusty tailed flycatcher was seen actively feeding in an open bush, seldom landing on pebbles in a thinly flowing stream at an altitude of 1500 ft. msl., adjacent to a semi-evergreen patch.
- ❖ Large mass of backwater of both Kodashalli and Kadra dams hardly had a tree-less shore, this may be the reason for the absence of waders and ducks. Rarely found waders down stream. There was no sighting of Large cormorant and Shag. However a single rail, White -breasted water hen was observed in a down stream of Kadra dam.
- ❖ Birds of prey were limited to White-bellied sea eagle, Black eagle, Rufous-bellied hawk eagle, Crested serpent eagle and Honey buzzard.
- ❖ Recorded a female Yellow throated sparrow on an electric line in Karwar Railway station.



**UNUSUAL SIGHTINGS OF THREE-TOED KINGFISHER, MALAY BITTERN AND LESSER FRIGATE BIRD. SATHIAN MEPPAYUR, P.O. Meppayur, Kozhikode, Kerala 673 524.**

**27th November 1997**

Early in the morning, while I was enjoying my routine walk, the beautiful orchestration of birds, I happened to come across a bird lying dead. All of a sudden I thought the melody was changing into mourning notes. I took the bird in my hand. It was a three toed Kingfisher (*Ceyx erithacus erithacus*). My house is located some twenty kilometers away from the deep forest area. I wondered how this multi-coloured beautiful three-toed kingfisher reached here, to this very distant location of my village. The place where the bird was lying dead was no where near streams or dense vegetation. It was a rich grove of coconut palm. The Handbook refers to instances of kingfishers dashing into walls and glass windows of buildings and getting killed.

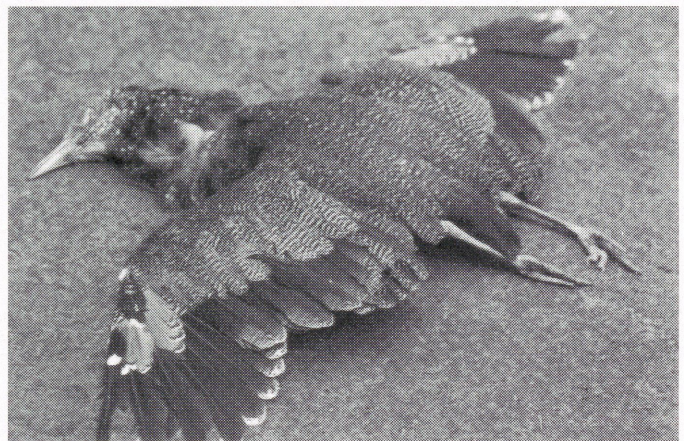
Then how come a bird was found lying dead in such a detached region? This doubt still nags me.

**15th November 1998**

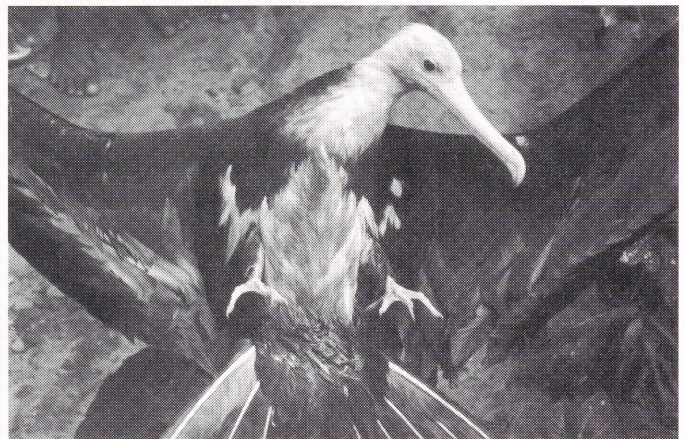
The movement of birds from forests to open land is a complicated process. On this day, a newspaper report from New Mahe,



Threetoed kingfisher



Malay bittern



Lesser frigate bird

attracted my attention. Somewhere in the coastal area a stranger had arrived. This was a new life reportage. Eagerly I rushed to the place with my camera. Before catching frames, I closely examined the 'stranger', it was an immature Malay bittern

(*Gorsachius melanolophus melanolophus*) a nocturnal rainforest inhabitant. I was surprised how this bird arrived in this coastal area.

I referred to the Handbook from which I came to know that the Malay bittern usually migrates to Ceylon during this period. But I am not sure whether the bird was a North-east inhabitant or a Western Ghat inhabitant. Further investigation is desirable.

29th July 1999

On this day my friend telephoned from Payyoli (11° 35'N x 75° 42'E) some 10 kilometers away from my village. He informed me about the arrival of an unknown, unfamiliar bird to his place. I rushed and found it to be an immature Frigate bird. It was trapped in the violent monsoon storms and had turned to the coasts of the Arabian sea. I photographed the bird from different angles. Its wingspan was about 205 cm., the length from bill to fork tail constituted 97 cm and the bill length was 13 cm. I returned home and referred to the Handbook. The bird, which I saw in the coast of Arabian sea, was a Lesser Frigate Bird (*Frigata minor aldabrensis*). Earlier, on 13th August 1989 local folk had noticed a least Frigate bird in the same spot. Hopefully we can expect storm blown frigate birds during the south western monsoon period.

**Reference:**

Ali, S and Ripley, SD (1981) Handbook of the birds of India and Pakistan.



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**Newsletter for Birdwatchers**

C/o. Navbharath Enterprises, No. 10, Sirur Park 'B' Street, Seshadripuram, Bangalore - 560 020.

Cover : **Yellow-eyed Babbler** (*Chrysomma sinense*) is an elusive bird that forages through thick hedge, bush and bamboo clump in search of insects. Now and then it clammers upto an exposed reed top and utters a strong, pleasant whistling *twee-twee-ta-whit-che* song and soon dives to thicket to resume its foraging activities. During the monsoon months, a beautiful deep cone shaped nest is built amongst the reeds.

Photo: S. Shreyas