

Newsletter for Birdwatchers



Vol. 33

No. 4

August - September 1993

Remember Rio?

Christoph Imboden, Director - General

A year ago, the world focused on Rio de Janeiro in Brazil, where what became known as the Earth Summit was taking place. It seemed that the global community had finally woken up to the fact that humans' long-standing war with the environment must come to an end. Many of the world's major political leaders went to the summit to pledge, in front of a huge global audience, to stop the onslaughts on the environment and the life-support systems of the biosphere, and to introduce new policies of harmony between humans and nature.

A few days in June 1992, publicised by an army of media representatives, were sufficient, it appeared, to turn biodiversity into a household word and to transform political, community and business leaders into environmentalists talking of 'sustainable development', i.e. of meeting the needs of today's people without jeopardizing those of future generations, and of any other life-form on earth. The unequivocal message beamed around the world was that a healthy global environment can only be maintained (or restored) if we combine conservation and development objectives, if we recognise that the ultimate causes of our environmental problems lie on socio-economic levels - poverty, population growth, and the struggle for limited resources.

The Rio conference gave hope that concern for the environment would finally be where it belongs; at the top of the agenda of every nation, of national and international political forums, of corporate board rooms and of individual households.

Has this happened? Maybe it did for a while in some places, but isn't there a deeply disappointing silence now? Gone from the headlines are the environmental issues; they have markedly fallen back on the priority scale of many, if not most, governments. The United States has a committed environmentalist as Vice-President but, with one exception, environmental issues did not appear to figure prominently in the recent US election campaign.

Why such a change? The developed world is in the grip of a recession, causing hardship to many people (although at nowhere near the scale experienced permanently by millions in developing countries). It is sad to see how environmental concerns are so quickly relegated down the league table, as if they were a luxury in which we can indulge when times are good, but which must be discarded when economic fortunes turn. Regulations designed to protect the environment are often the first to be sacrificed; they are seen as restricting growth, decreasing competitiveness and interfering with free market forces. Those who speak up for the environment are accused of slowing down vital economic recovery.

One year on, there is little sign that the message from Rio has sunk in. Sustainable development is but a slogan, the true meaning of which is not understood by many who use it. Many of the pledges by governments have not been fulfilled; hardly any new money has been made available to those nations that need help to provide for the basic needs of people while catering for their natural resources. Instead, the priority is to overcome recession, principally using the same economic instruments that led us into it. Are we not again overlooking the possibility that there might be close links between economic downturn and the world's growing environmental problems?

Over the brink

A recent search for the Ivory-billed Woodpecker in Cuba has concluded that the species is almost certainly extinct.

Widely distributed in south-eastern USA and Cuba only a century ago, this large, impressive woodpecker has not been seen in the USA since the early 1970s. Hope for the species centred on a small forested area in eastern Cuba, Ojito de Agua, where the bird was last sighted in March 1987.

At the start of this year, a team of ornithologists from the Netherlands and the Instituto de Investigaciones Forestales in Cuba spent three months scouring the area for signs of the species.

Hopes were temporarily raised when the team, funded by the Netherlands Foundation for International Nature Protection, found recently dead pine trees with traces of bark scaled off - classic signs of foraging Ivory-bills. However, the trees were observed almost continuously during daylight for over a month, and no birds were seen. Finally, it was noticed that after two days of heavy rain followed by two days of sun the bark condition was particularly acute, and it is now believed that weather not woodpeckers were responsible all along.

Apart from Ojita de Agua, the only remaining suitable forest for the species in Cuba is at Sierra Maestra in Granma Province. However, there are no records or indications of the species ever having been found in this forest, in a two week search, the team saw none, and local people with whom the team spoke had never seen the bird.

Martjan Lammertink, leader of the team said 'The sad news is that the impressive Ivory-billed Woodpecker is almost certainly lost for ever. The world is a poorer place without it'.

Courtesy: World Birdwatch - June 1993

Vol.33

No.4

July-August 1993

CONTENTS

Editorial

- SACON Meeting in Coimbatore
- Crane Catching
- Horticulture and Birds
- Rishi Valley Bird Preserve
- Allogrooming

Articles

- Avifauna of Neyyar Wildlife Sanctuary, by Manoj V Nair
- The Coimbatore Conference on Bird Preservation, by S. Theodore Baskaran
- Capture of Cranes in Pakistan, by Inayat Ullah Chaudhry
- Sarus Congregation in UP, by S.N. Prasad, N.K. Ramachandran, H.S. Das and D.F. Singh
- Hill Mynah Trade, by Vivek Menon
- Koels at War, by Mrs. Indira Vijay Simha
- Enhanced number of grape bunches per vine offsets Damage due to bird pests, by Abraham Verghese and P.L. Tandon
- Birds of the Javadi Hills, by R.J. Ranjit Daniels
- Shikras and Langurs, by Siddarth Singh
- Red Tarsi and Feet in the Pond Horon, by H. Daniel Wesley
- Redbreasted Falconet at Kakrikhola Hill Forest in Assam, by Bablu Day
- Synopsis of Thesis on Drongos
- Voltinism in the Indian Tailor Bird, by H. Daniel Wesley

Correspondence

- Breeding of Yellowthroated Sparrow, by R.G. Soni
- Santragachi Jheel, by Sasti Brata Kabiraj
- Addendum to the Checklist of Kota, by Rakesh Vyas
- Birds of Jamulguri Beel of Assam, by Bibhab Kumar Talukdar
- How to prevent birds from crashing into the windows? by Friedrich Grohe
- Wetting of Eggs by Black Winged Stilt, by Manoj Kushreshta and Harkirat Sangha
- Shahim Falcon again in Bangalore, by J.S. Prasad, S. Karthikeyan, U. Harish Kumar and Yathidra
- Comment on Migration of Pratincoles, by N. A. Aravind

EDITORIAL

Sacon Meeting In Coimbatore : 3rd to 6th August 1993

Theodore Baskaran reports in this issue on the workshop on Avian Conservation held in Coimbatore. Unfortunately I was unable to attend, but the invitation included a Background Paper relating to 62 Globally Threatened Species in India. I see that several well known English names of birds have been changed. The Whitewinged Wood Duck (*Cairinia scutulata*) has become the Whitewinged Duck, and the Mountain Quail (*Ophrysia superciliosa*) has turned into the Himalayan Quail. The Black and Orange Flycatcher till recently named *Muscicapa nigrorufa*, has been transformed into Black and Rufous Flycatcher. The genus has also been changed so it is now *Ficedula nigrorufa*.

There used to be a *Sitta frontalis*, the English name of which was the Velvet Fronted Nuthatch. There was also a *Sitta castanea*, the English name of which was Chestnutbellied Nuthatch. In the new list we have a new English name and a new scientific name : Beautiful Nuthatch (*Sitta formosa*). I do not know to which Nuthatch this refers.

Relating new names to well established traditional names in literature, will become increasingly difficult with these changes, and I hope our pleas for leaving English common names unchanged will be heard.

Crane Catching

Before the advent of modern firearms, human beings devised ingenious methods for catching birds. This involved a close study of the habits of birds and much of this knowledge is dying away with easier options available. At one of the IUCN meetings a suggestion was made to catalogue and attempt to preserve tribal knowledge about birds. Readers who come across examples of empirical knowledge from hunters and tribals should send us their notes. Knowledge, whatever its source, can be used for both good or ill. See Inayat Ullah Chaudry's article.

Horticulture and Birds

There is increasing evidence about the valuable role of birds in maintaining the balance of nature and consequently assisting horticulture and agriculture. But to reduce damage to crops by birds several options are available. A recent study by Dr Abraham Verghese of the Indian Institute of Horticultural Research, Hessarghatta, reveals an interesting fact. I quote from his report : "... it was found that when the total number of bunches in a vine increased, the percent damaged bunches decreased. In other words, if the yielding capacity of the vine in terms of number of bunches per vine is enhanced, the pestilence comes down. It was also found that when there are 64 bunches/vine, the damage reduces to one percent. This is

important from a conservation point of view, on the principle: live and let live. So by boosting productivity of a vine, pestilence impact will be negligible.

This study, therefore, showed that in Bangalore Blue vineyards, maintenance of high yield, offsets the loss due to bird pestilence."

Rishi Valley Bird Preserve

Some time in 1978 I gave a talk over All India Radio urging people to be sensitive to bird life around them, and I suggested the formation of micro bird sanctuaries in their neighbourhood. One person who responded to this in a most imaginative manner was S Rangaswamy of the Rishi Valley Education Centre. Mr Rangaswamy is now the Chief Warden of the Campus has been responsible for creating the preserve which has become a valuable treasure of bird life. In a recent letter he writes: "Thanks to the sustained conservation efforts during the last decade or so by way of reviving and regreening the scrubland and woodland habitats and creating a new wetland habitat, I

found the birdlife of the place totally different when I visited Rishi Valley after a lapse of 12 years in 1990. Within a few days of my stay I could identify nearly 100 species ... A little later, as the bird species identified exceeded 150, Mr Sridhar and I decided to write a book on the *Birds of Rishi Valley* – a book that will treat the birds habitat-wise to bring out the inter-relation between the two."

This idea of creating bird reserves on our own initiative without waiting for Government support should be followed up by individuals and institutions.

Allogrooming

Mr Manoj V Nair, 34 Thoppil Nagar, Kumarapuram, Trivandrum 695 011, Kerala, whose article on the Neyyar Wildlife Sanctuary is included in this issue, reports that he has seen two different species of Munias – Spotted Munia *Lonchura punctulata* and the Whitebacked Munia *Lonchura striata* – allogrooming each other. If other readers have come across such a situation, please write to the Newsletter.

AVIFAUNA OF NEYYAR WILDLIFE SANCTUARY

MANOJ V NAIR, 34, Thoppil Nagar, Kumarapuram 695 011, Kerala

Neyyar Wildlife Sanctuary is in the Southern tip of Kerala, 30 km from Trivandrum and forms the catchment area of the Neyyar reservoir. It is located between 8°30' and 8°38' N Latitude and 77°8' and 77°17' E Longitude, covering an area of 128 km². The extent of water spread in reservoir is 9.06 km² with numerous creeks and islets. The area is contiguous with the Kalakkadu tiger reserve and Mundanthurai Wildlife Sanctuary of Tamil Nadu. The altitude ranges from 90 m to 1868 m above MSL, the latter being the height of Agasthyamala famous for its pristine and virgin rain forest. The climate is moderately hot and humid with the temperature ranging between 16°C and 35°C. The annual rainfall is about 2600 mm and the sanctuary receives both the SW and NE monsoons.

The very varied climatic and topographic conditions prevailing in the sanctuary presents remarkable diversity in vegetation. Forest types found here include west coast tropical evergreen, southern hill-top tropical evergreen, southern moist mixed deciduous and southern montane grassland. At elevations between 100-900 m moist deciduous and semi-evergreen forests abound. A small area is also planted with teak and eucalyptus.

We start with a general description of the sanctuary's avian life. The reservoir and its surroundings give ample scope for foraging to cormorants, darters, egrets, kingfishers, Brahminy kites, wagtails and sandpipers. The garden adjoining the reservoir with its numerous flower beds, trees, fountains and ponds attract a host of common birds like Mynas, Tailor birds, Magpie Robins, Ioras, Tree

pics and Drongos. In fact the birds have adapted so well to this man-made environment that even skulkers like Chestnut bitterns, little green heron and emerald doves are found in the environs of the garden. As dusk slowly falls Spotted Owlets (*Athene brama*) and Barn Owls (*Tyto alba*) emerge out of their day-time retreats and the harsh chattering of the former and the throaty wheezy calls of the latter echo throughout the place. Brown fish owls (*Bubo zeylonensis*) have also been observed around the reservoir edges.

The degraded mixed forests with plantations in between are the haunts of Jungle babblers (*Turdoides striatus*), Franklin's wren warblers (*Prinia hodgsonii*) and a host of other common birds. Though seldom seen, calls of Indian cuckoo (*Cuculus micropterus*) and common hawk cuckoo (*Cuculus varius*) are often heard. An occasional Kestrel and Blackwinged Kite (*Elanus caeruleus*) have also been noted, though they are more common in the high altitude grasslands. Grey jungle fowl which are generally very wary, can be heard in thickets adjoining the reservoir, crowing lustily at dawn, heralding the coming day. Birds found in this type of jungle are mostly common ones, but sometimes rarities make their appearance. It was here that I found a pair of Hair-crested drongos (*Dicrurus hottentottus*) sipping nectar from a 'pexhu' tree (*Careya arborea*) in full bloom. The 'hairs' were not conspicuous, but the curved beak and upturned tail could be made out even while the birds were in flight. They were heard uttering sweet liquid whistles interwoven with harsh squeaky notes.

The deciduous forest tracts — both dry and moist — abound with birds. Flycatchers are well represented, 10 species having been recorded — the commoner ones being Brown (*Muscicapa latirostris*), Tickell's blue (*Muscicapa tickelliae*), Paradise (*Terpsiphone paradisi*) and Black naped blue (*Monarcha hypothymis azurea*). Spotted, Quaker and Rufous babblers are seen occasionally — more often it is their very distinctive calls which include them in the day's list. Woodpeckers, especially Lesser goldenbacked (*Dinopium benghalense*), Golden backed three toed (*Dinopium javanense*), and Pygmy (*Picoides nanus*) are commonly seen. Hunting parties of birds are encountered frequently, each comprising about 10-12 species including drongos, bulbuls, chloropsis, fairy bluebird, wood-shrikes, nuthatch, minivets, tits, barbets, sunbirds, leaf warblers, etc. Two rare kingfishers, viz. black capped (*Halcyon pileata*) and Threetoed (*Ceyx erithacus*) were sighted in this type of jungle. The black capped was seen as it sat on a leafless tree just above a small cascade called Meenmutti falls. It was very wary and kept a distance from me however cautiously I stalked it. The velvety black cap and brilliant white collar were very conspicuous and aided instant identification. The diminutive but very handsome threetoed kingfisher was found on a couple of occasions perched on small ochlandra stems overhanging a shallow forest stream. Both the times, it flew away seeing me, uttering a shrill note, rather similar to that of the common kingfisher (*Alcedo atthis*). Late evenings here are accompanied by the murmurings of nightjars — Jungle (*Caprimulgus indicus*) and Franklins (*Caprimulgus affinis*), while nights are enlivened by calls of Indian scops owl (*Otus scops*) and Jungle owl (*Glaucidium radiatum*).

The high altitude evergreen biotope is home to multitudes of birds, but visibility being much reduced in the thick and lush vegetation, chances of observing birds closely are few. Black bulbuls and hill mynas in flocks of 8-12, fly about in the canopy whistling joyously, sometimes joining with the giant squirrels to mob a rufous bellied eagle or crested goshawk. Spider hunters (*Arachnothera longirostra*) and small sunbirds (*Nectarinia minima*) flit about busily uttering their call notes to keep in touch, while the grey headed and white bellied blue flycatchers perch patiently on leafless twigs, occasionally launching graceful serial sallies to catch insects. Laughing thrushes, both Wynaad (*Garullax delesserti*) and Whitebreasted (*Garrulax jerdoni*) rummage among the strobilanthes-filled rank undergrowth while smaller babblers keep them nice company. Only the calls give them away: the discordant chattering 'laugh' of the former and the fluty melodious calls of the latter. Blackbirds — both *Turdus merula* and *Turdus merula nigropileus* — are found here, the latter being a winter visitor.

As the dark and damp sholas give way to rolling grasslands, there is the Black eagle sailing majestically on his broad wings with its widely splayed primaries. Painted bush quails (*Perdica erythrorhyncha*) and Rufousbellied babbler (*Dumetia hyperythra*) are seen among the tall wavy

grass. At night, the loud two-noted whistle of the Great eared Nightjar and the frightening shriek of the Forest eagle owl (*Bubo nipalensis*) are heard. In the sky, swifts — Alpine, Brown throated spinetail and edible nest swiftlets — wheel about while an occasional house swallow and cliff swallow join them in hawking insects. Hornbills often cross from one shola to another giving vent to their loud explosive calls. Once I also saw two Nilgiri wood pigeons (*Columba elphinstonii*) seated on a small stunted tree at the edge of a shola about 1600m above MSL. As I stood watching them, a rapidly approaching veil of mist embraced them and hid them from me. On another occasion, while approaching a Ficus tree laden with fruits I was amazed to find the number of birds that had congregated there. In a span of just 25 minutes, 60 odd birds of 18 species were found feeding giving a glimpse of the avian diversity of the area.

But however rich and diverse the avifauna may be, it seems that this veritable haven for birds and beasts is slowly approaching its doom. Sadly, the sanctuary is managed carelessly to the point of neglect and frequent forest fires occur devouring large areas of forests. Both tribal and non-tribal settlements exert biotic pressure on the area. Above all, the flow of trekkers to Agasthyakoodam peak every August - January, is seriously affecting the fragile and complex ecosystem. The Kerala Forest Department too has 'very generously' contributed their share towards the destruction of the area by erecting a huge dormitory at Athirmala, a place deep inside the sanctuary. Further, a jeep road too is being contemplated which is sure to destroy the peace and tranquillity of the area. How these combined activities affect the flora and fauna remains to be seen.

In short, the 128km² area is extremely rich in avifauna, particularly the Agasthyakoodam peak and its immediate environs. 172 species belonging to 39 families have been recorded so far from the area. The present check-list is compiled on the data collected on occasional visits to the sanctuary during the past few years. So readers should bear in mind that this is by no means complete. Many other raptors were seen, but could not be identified, presumably because they were in confusing morphs and phases. Many species of leaf-warblers were also met with during the winter months, but I could identify only three of them more or less with certainty. Two species of owls, viz. Forest eagle owl and Indian Scops owl are included on the basis of their calls. A check-list is given below so that birders who are new to the area can get a general idea of the birds occurring in the sanctuary. Remarks or additions to the list by other birders are always welcome.

References

- Ali, S and Ripley, SD, 1987, Compact Handbook of the Birds of India and Pakistan, Oxford University Press, New Delhi.
- Ali, S. 1969. The Birds of Kerala, Oxford University Press.
- Neelakantan, KK. 1986. Keralathile Pakshikal (II Edition).
- Pamphlet on the Neyyar Wildlife Sanctuary, 1992. Kerala Forest Department.

Check-list of the Birds of Neyyar Wildlife Sanctuary

No.	Name	Scientific Name
Family Phalacrocoracidae		
001	Darter	<i>Anhinga rufa</i>
002	Little Cormorant	<i>Phalacrocorax niger</i>
Family : Ardeidae		
003	Little green heron	<i>Ardeola striatus</i>
004	Pond heron	<i>Ardeola garyii</i>
005	Cattle Egret	<i>Bubulcus ibis</i>
006	Little Egret	<i>Egretta grazetta</i>
007	Median Egret	<i>Egretta intermedia</i>
008	Chestnut bittern	<i>Ixobrychus cinnamomeus</i>
Family : Accipitridae		
009	Pariah kite	<i>Milvus migrans</i>
010	Brahminy kite	<i>Haliastur indus</i>
011	Shikra	<i>Accipiter badius</i>
012	Crested Goshawk	<i>Accipiter trivirgatus</i>
013	Crested hawk eagle	<i>Spizaetus cirrhatus</i>
014	Rufousbellied eagle	<i>Hieraetus kienerii</i>
015	Crested honey buzzard	<i>Pernis ptilorhynchus</i>
016	Black eagle	<i>Ictinaetus malayensis</i>
017	Crested serpent eagle	<i>Spilornis cheela</i>
018	Grey headed fishing eagle	<i>Ichthyophaga ichthyaetus</i>
019	Black winged kite	<i>Elanus caeruleus</i>
Family : Falconidae		
020	Kestrel	<i>Falco tinnunculus</i>
Family : Phasianidae		
021	Grey jungle fowl	<i>Gallus sonneratii</i>
022	Painted bush quail	<i>Perdica erythrorhyncha</i>
Family : Charadriidae		
023	Red wattled lapwing	<i>Vanileus indicus</i>
024	Green sandpiper	<i>Tringa ochropus</i>
025	Common sandpiper	<i>Tringa hypoleucos</i>
026	Snipe sp.	<i>Gallinago sp.</i>
Family : Columbidae		
027	Grey fronted green pigeon	<i>Treron pompadora</i>
028	Jerdon's Imperial pigeon	<i>Ducula badia</i>
029	Green imperial pigeon	<i>Ducula aenea</i>
030	Blue rock pigeon	<i>Columba livia</i>
031	Spotted dove	<i>Streptopelia chinensis</i>
032	Nilgiri wood pigeon	<i>Columba elphinstonii</i>
033	Emerald dove	<i>Chalcophaps indica</i>
Family : Psittacidae		
034	Roseringed parakeet	<i>Psittacula krameri</i>
035	Blue winged parakeet	<i>Psittacula columboides</i>
036	Blossom headed parakeet	<i>Psittacula cyanocephala</i>
037	Lorikeet	<i>Loriculus vernalis</i>
Family : Cuculidae		
038	Common hawk cuckoo	<i>Cuculus varius</i>
039	Banded bay cuckoo	<i>Cacomantis sonneratii</i>
040	Plaintive cuckoo	<i>Cacomantis passerinus</i>
041	Koel	<i>Eudynamis scolopacea</i>
042	Greater coucal	<i>Centropus sinensis</i>
043	Indian cuckoo	<i>Cuculus micropterus</i>
Family : Strigidae		
044	Barn owl	<i>Tyto alba</i>
045	Collard scops owl	<i>Otus bakkomoena</i>
046	Indian scops owl	<i>Otus scops</i>
047	Brown fish owl	<i>Bubo zeylonensis</i>
048	Jungle owl	<i>Glaucidium radiatum</i>

049	Spotted owl	<i>Athene brama</i>
050	Brown hawk owl	<i>Ninox scutulata</i>
051	Forest eagle owl	<i>Bubo nipalensis</i>
Family : Caprimulgidae		
052	Franklin's nightjar	<i>Caprimulgus affinis</i>
053	Jungle nightjar	<i>Caprimulgus indicus</i>
054	Common Indian nightjar	<i>Caprimulgus asiaticus</i>
055	Great eared nightjar	<i>Eurostopodus macrotis</i>
Family : Apodidae		
056	Edible nest swiftlet	<i>Collocalia unicolor</i>
057	Brown throated spintail swift	<i>Chaetura gigantea</i>
058	White rumped spintail swift	<i>Chaetura sylvatica</i>
059	Alpine swift	<i>Apus melba</i>
060	Palm swift	<i>Cypsiurus parvus</i>
061	House swift	<i>Apus affinis</i>
062	Crested tree swift	<i>Hemiprocne longipennis</i>
Family : Alcedinidae		
063	Pied kingfisher	<i>Ceryle rudis</i>
064	Common kingfisher	<i>Alcedo atthis</i>
065	Three toed kingfisher	<i>Ceyx erithacus</i>
066	White breasted kingfisher	<i>Halcyon smyrnensis</i>
067	Black capped kingfisher	<i>Halcyon pileata</i>
Family : Meropidae		
068	Chestnut headed bee eater	<i>Merops leschenaultii</i>
069	Small green bee eater	<i>Merops orientalis</i>
Family : Coraciidae		
070	Indian Roller	<i>Coracias benghalensis</i>
Family : Bucerotidae		
071	Great Indian hornbill	<i>Buceros bicornis</i>
072	Malabar grey hornbill	<i>Tockus griseus</i>
Family : Capitonidae		
073	Small green barbet	<i>Megalaima viridis</i>
074	Crimson breasted barbet	<i>Megalaima haemacephala</i>
075	Crimson throated barbet	<i>Megalaima rubricapilla</i>
Family : Picidae		
076	Small yellow naped woodpecker	<i>Picus chlorophus</i>
077	Lesser goldenbacked woodpecker	<i>Dinopium benghalense</i>
078	Goldenbacked three toed woodpecker	<i>Dinopium javanense</i>
079	Great black woodpecker	<i>Dryocopus javanensis</i>
080	Pygmy woodpecker	<i>Picoides nanus</i>
081	Larger goldenbacked woodpecker	<i>Chrysocolaptes lucidus</i>
Family : Pittidae		
082	Indian pitta	<i>Pitta brachyura</i>
Family : Hirundinidae		
083	Red rumped swallow	<i>Hirundo daurica</i>
084	House swallow	<i>Hirundo tahitica</i>
085	Cliff swallow	<i>Hirundo fluvicola</i>
Family : Laniidae		
086	Brown shrike	<i>Lanius cristatus</i>
Family : Oriolidae		
087	Golden oriole	<i>Oriolus oriolus</i>
088	Black headed oriole	<i>Oriolus xanthornus</i>
089	Black naped oriole	<i>Oriolus chinensis</i>

Family : Dicruridae

- 090 Ashy drongo *Dicrurus leucophaeus*
 091 White bellied drongo *Dicrurus caerulesceus*
 092 Bronzed drongo *Dicrurus aeneus*
 093 Hair crested drongo *Dicrurus hottentottus*
 094 Black drongo *Dicrurus adsimilis*
 095 Racket tailed drongo *Dicrurus paradiseus*

Family : Artamidae

- 096 Ashy swallow shrike *Artamus fuscus*

Family : Sturnidae

- 097 Grey headed myna *Sturnus malabaricus*
 098 Blyth's myna *Sturnus malabaricus blyhii*
 098 Common myna *Acridotheres tristis*
 099 Jungle myna *Acridotheres fuscus*
 100 Hill myna *Gracula religiosa*

Family : Corvidae

- 101 Jungle crow *Corvus macrorhynchos*
 102 House crow *Corvus splendens*
 103 Indian tree pie *Dendrocitta vagabunda*

Family : Campephagidae

- 104 Pied flycatcher shrike *Hemipus picatus*
 105 Malabar wood shrike *Tephrodornis gularis*
 106 Large cuckoo shrike *Coracina novaehollandiae*
 107 Black headed cuckoo shrike *Coracina melanoptera*
 108 Small minivet *Pericrocotus cinnamomeus*
 109 Orange minivet *Pericrocotus flammeus*

Family : Irenidae

- 110 Common Iora *Aegithina tiphia*
 111 Goldfronted chloropsis *Chloropsis aruifrons*
 112 Jerdon's chloropsis *Chloropsis cochinchinensis*
 113 Fairy blue bird *Irene puella*

Family : Pycnonotidae

- 114 Ruby throated bulbul *Pycnonotus melanicterus*
 115 Yellow browed bulbul *Hypsipetes indicus*
 116 Red whiskered bulbul *Pycnonotus jocosus*
 117 Red vented bulbul *Pycnonotus cafer*
 118 Black bulbul *Hypsipetes madagascariensis*
 119 Grey headed bulbul *Pycnonotus priocephalus*

Family : Muscicapidae

- 120 Spotted babbler *Pellorneum ruficeps*
 121 Scimitar babbler *Pomatorhinus horsfieldii*
 122 Rufous bellied babbler *Dumetia hyperythra*
 123 Black headed babbler *Rhopocichla atriceps*
 124 Jungle babbler *Turdoides striatus*
 125 White headed babbler *Turdoides affinus*
 126 White breasted laughing thrush *Garrulax jerdoni*
 127 Wynaad laughing thrush *Garrulax delesserti*
 128 Quaker babbler *Alcippe poiocephala*
 129 Rufous babbler *Turdoides subrufus*
 130 Brown flycatcher *Muscicapa latirostris*
 131 Brown breasted flycatcher *Muscicapa muttui*
 132 Rufous tailed flycatcher *Muscicapa ruficauda*

- 133 White bellied blue flycatcher *Muscicapa pallipes*
 134 Blue throated flycatcher *Muscicapa rubeculoides*
 135 Tickells blue flycatcher *Muscicapa tickelliae*
 136 Nilgiri verditer flycatcher *Muscicapa albicaudata*
 137 Grey headed flycatcher *Culicicapa ceylonensis*
 138 Paradise flycatcher *Terpsiphone paradisi*
 139 Blacknaped blue flycatcher *Hypothymis azurea*
 140 Franklin's wren warbler *Prinia hodgsonii*
 141 Tailor bird *Orthotomus sutorius*
 142 Blyth's reed warbler *Acrocephalus dumetorum*
 143 Dull green leaf warbler *Phylloscopus trochiloides*
 144 Large crowned leaf warbler *Phylloscopus occipitalis*
 145 Tickell's leaf warbler *Phylloscopus affinis*
 146 Blue chat *Erithacus brunneus*
 147 Magpie robin *Copsychus saularis*
 148 Shama *Copsychus malabaricus*
 149 Blue headed rock thrush *Monticola cinchlorhynchus*
 150 Malabar whistling thrush *Myiophonus horsfieldii*
 151 Pied ground thrush *Zoothera wardii*
 152 Black bird *Turdus merula*
 153 Black capped ssp *Turdus merula nigropileus*
 154 White throated ground thrush *Zoothera citrina cyanotus*

Family : Paridae

- 155 Grey tit *Parus major*

Family : Sittidae

- 156 Velvet fronted nuthatch *Sitta frontalis*

Family : Motacillidae

- 157 Nilgiri Pipit ? *Anthus nilghiriensis*
 158 Poddyfield pipit *Anthus novaeseelandiae*
 159 Forest wagtail *Motacilla indica*
 160 Grey wagtail *Motacilla cinerea*
 161 Large pied wagtail *Motacilla maderaspatensis*

Family : Dicaeidae

- 162 Tickell's flowerpecker *Dicaeum erythrorhynchos*
 163 Thickbellied flowerpecker *Dicaeum agile*

Family : Nectariniidae

- 164 Loten's sunbird *Nectarinia lotentia*
 165 Purple sunbird *Nectarinia asiatica*
 166 Small sunbird *Nectarinia minima*
 167 Purple rumped sunbird *Nectarinia zeylanica*
 168 Little spiderhunter *Arachnothera longirostris*

Family : Zosteropidae

- 169 Nilgiri white eye *Zosterops palpebrosa*

Family : Ploceidae

- 170 Yellow throated sparrow *Petronia xanthocollis*
 171 Rufous bellied munia *Lonchura kelaarti*
 172 White backed munia *Lonchura striata*

NEWSLETTER CALLING

Enrol a Friend: If every Newsletter Member could enrol just one new member our effectiveness would be doubled immediately !

Will You Help: Please give the membership forms to your friends and urge them to Join.

THE COIMBATORE CONFERENCE ON BIRD CONSERVATION

S. THEODORE BASKARAN, No 1, P & T Officer's Colony, Netaji Marg, Ahmedabad - 380 006

Set among the fields of Kalampalayam near Coimbatore and with the Siruvani hills as the backdrop, the Salim Ali Centre for Ornithology and Natural History (SACON) was the venue of a three-day workshop on bird conservation, from 3rd to 5th of August. The meet, which set out to deliberate on the priorities for bird conservation in India, had been organized in collaboration with the Birdlife International (formerly known as the International Council for Bird Preservation) and it was also the occasion to explore the possibilities of starting Indian chapter of BLI

There were other features that made this meet memorable. For the first time in the country, almost all the ornithologists gathered under one roof to discuss ways of conserving birds. Along with the scientists, SACON had invited birdwatchers and conservationists. As Lavkumar Kahchar put it, both the scientific and the emotive attitudes were represented.

The Birdlife International, known as ICBP till recently, has been active since 1922. Its secretariat is in Cambridge in United Kingdom with continental sections dealing with the four regions of the world. The Chairman of the Asian section N. Ichida and the Vice-chairman S.A. Hussain were both at the conference. Ichida introduced the organization and its new logo, a tern in flight, and explained its future programmes. It is basically a federation of national organizations concentrating on conservation work. It is also an association of specialist groups dealing with particular families of birds. Such groups shared with IUCN, IWRB and with the World Pheasant Association. One of the significant changes in the Birdlife International is the movement towards establishing partners in each country. There are thirty such partners, in thirty countries, with fifteen in Asia. Their global programme of work is divided into four (1) Research, (2) Advocacy (convincing the decision makers), (3) Field action and (4) Network building.

In research, the focus has been on the threatened species and now they have an upto-date checklist of threatened species the total number of which is over a thousand, 10% of the world's species of birds. In the advocacy programme, work is being done in the context of international conventions such as the CITES. The organization is also concerned as to how Indian ornithologists can get involved in international bird conservation work.

They have also brought out a directory of endemic bird areas. It has been estimated that 2609 species, that is about 27% of birds, have breeding ranges that are less than 60 sq km in area. When the habitat is so small, it is very vulnerable to changes. In India, the Yellow-throated bulbul is being studied by a few birders in Karnataka - Andhra areas.

Its main programme for the future is to complete the Red Data book of birds for the world. The organization have also embarked upon a global programme to identify important sites that need to be protected and it is expected that there are around ten to fifteen thousand around the world.

The workshop reviewed the situation in India. It was pointed out that the health of India's bird life is an indicator of the status of India's environment. India is one of the 12 megadiversity countries which account for 75% of the world's biodiversity. There are the island and coastal ecosystem, the semiarid and desert tracts, the wetlands and the forests, with many endemic birds to each area. There are more than 1200 species.

SACON has taken up major programmes to study the critically endangered birds, to start with in the Andaman and Nicobar islands. Over sixty species of birds in India are threatened with extinction, of which eighteen have been listed as critically endangered. Sanctuaries set apart exclusively for birds in India are few in number. However, all the sanctuaries, national parks and protected forests are havens for birds also.

We have the baseline data from the detailed surveys that Salim Ali had conducted over five decades on habitat, provenance distribution and abundance. His research has shown that Point Calimere is an important area, the last out post in the Indian subcontinent for birds migrating to Sri Lanka. It is here that the Spoonbill Sandpiper has been recorded after over fifty years. Similarly, the studies at Bharatpur revealed some crucial parameters in the composition of the ecosystem. The study on the bustard and the two floricans has established the population status and spelt out conservation strategies.

Some of the endangered birds came in for special attention. Last year, only five Siberian cranes came to Bharatpur and this has caused serious concern about the future of the bird. Cooperation from Germany, Russia, Afghanistan and India is needed to protect this species

from extinction. It was suggested that radiotelemetry through satellite, is the only answer to find out more about these birds. Last year, permission to fix radio-collar at Bharatpur was refused.

What did we do about the Jerdon's Courser which was rediscovered by Bharath Bhushan, one of our scientists, who was present at the workshop? It was an event that came as a highlight of a decade of research on birds. Gurnie's Pitta, which was rediscovered in Thailand has become a flag ship for conservation movement in that country. But in India, no such action was taken.

Norcondom hornbill, of which there are only 350 or so individuals. What causes concern is the presence of a posse of policemen and about 200 feral goats on that 10 square km island. It was pointed out by S.A. Hussain who studied the birds first in the seventies that the situation is really serious. Island ecosystem is very vulnerable to outside influence and the goats can play havoc. Kannan, who has just completed a two-year study of the Great Pied Hornbill, shared the concern.

India has a 6000 km long coastline and this ecosystem is home to a large number of birds, and feeding grounds for migrants. The Indo-Asian flyway, taken by millions of migrants on their winter journeys, runs roughly along the East coast of India. Coastal roads and the expanding shrimp culture are threatening this habitat. High-tech aqua culture has already proved harmful in Taiwan and

shrimp production has started falling down. India has a lesson to learn here.

The presence of a group of young, dedicated ornithologists at the workshop was an encouraging sight. Gautham Narayan who has been looking at the floricans, Sampath who been observing the waders, Santharam who gave up being a Chartered Accountant to follow the calls of the woodpeckers, and Ranjit Daniels were all there. Veterans like Suganthan, Vijayan and Musavi were there providing the inspiration.

Dr. Vijayan, the Director of SACON, and team demonstrated how a conference can be organized effectively, even with limited resources, if only you have the motivation. Unnecessary expenditure that are normal part of a workshop have been avoided. It was very intense, the kind of workshop that makes you optimistic about the future of India's natural heritage and it certainly succeeded in providing a direction to bird studies in India.

One point emerged clearly during the discussion. We know really very little about our birds. So everyone, scientists, conservationists and bird enthusiasts, should pitch in. On the basis of the data and insights gathered so far, sound policy should be formulated to protect birds and their habitat. It was in this context that the absence of participants from The Zoological Survey of India and the Wildlife Institute of Dehradun were noticed.

CAPTURE OF CRANES IN PAKISTAN

INAYAT ULLAH CHAUDHRY, WWF - Pakistan, Ali Industrial Technical Institute, Ferozepur Road, Lahore 54600

The Common Crane (*Crus grus*) on its return migration passes over the Kurram river around 15th of March and the Demoiselle Crane on about 22nd of March each year. Often flocks of both species fly within sight and calling distance of each other but on the ground they keep separate. The crane hunters constitute their parties. Normally 10-20 persons stay in one camp from mid-March to 20th April. Partnership depends on the ownership of a captive crane, preferably a pair of birds. The captive birds have their pinions clipped and often become quite tame so that they can be allowed to roam about free in the owners village and adjoining crops. At the time of spring and autumn migrations, the birds are put in large cages woven from Lai (*Tamarix dioca*). The cages are covered by strong fish netting and transported to Kurram river 15-25km from village. Hunting shore line of each village and party is decided according to custom, tradition and usage. Each camping party constructs long

low huts from Saccharum grass, but the grass hut is richly carpeted. One camp contains about 10 Common and 16 Demoiselle Cranes. The caged birds often engage in a chorus of trumpeting calls throughout the night. If any wild flocks travel overhead, giving tired calls, these captive birds answer with loud calls, enticing them to come down and rest. If the night is dark and cloudy, the hunters sleeping in the shallow trenches among the cages immediately wake up. Each hunter is armed with carefully coiled twisted nylon cord to one end of which is attached a round steel weight of about 120gram weight. The end of the line is anchored by a loop around the index finger of the throwing arm. The hunters twirl about 75cm of the line before launching the weight in a high arching parabola. Three men advance towards the quarry, rising and throwing their line in unison without any audible pre arranged signal. If they succeed in entangling a circling bird three other persons, skilled in overpowering the

birds, capture the cranes before they can free themselves. Dark stormy nights are ideal for the capture operation. The ill fated birds that reach the wetland during day time or moonlit nights are likely to be victims of gunshots. The crane hunting tribes i.e. Vazirs and Masuda are excellent marksmen. The present spring catch is 30% of what it was in 1950. This indicates a sharp population decline. A survey of captive cranes (1983) revealed that 6364 cranes (3223 Common and 3141 Demoiselle) were kept in captivity. During spring, 1989, 216 hunting camps were counted by ZSD along Kashu Nullah in Bannu district.

During September-October the birds tend to fly high and are less inclined to land. However, some hunters camp again for 3 weeks and can capture upto 50% of their spring bag. There is a good crane market at Peshawar for their decoration and watchdog value. Although most of the hunters prefer to keep the cranes as their own pets, some are offered for sale in the market. It is difficult to wean these tribesman from crane hunting. Their operational area is expanding and they now capture cranes in the Baluchistan Province as well.

SARUS CONGREGATION IN UTTAR PRADESH

S.N. PRASAD, N.K RAMACHANDRAN, H.S. DAS and D.F. SINGH
Salim Ali Centre for Ornithology and Natural History, Coimbatore, T.N.

We report the second biggest Sarus crane congregation in the little known wetland of Hardoi in Etawah district of UP. The Hardoi is an Oxbow shaped lake situated about 23 km north of Etawah town. Surrounded by cultivated fields on the west and south west, and the village on to the east, at first sight Hardoi, one would suspect to be an extremely unlikely place for such a big congregation of Sarus to occur.

As a part of our wetland inventory and survey in Indo-Gangetic plains, we visited Hardoi for the second time in May 93. Some of the villagers already acquainted with us in the first visit in February, volunteered information on huge flocks of Sarus congregating in the tal during the night time. We took a chance in an otherwise hectic field trip to visit Hardoi in the evening hours. We arrived by 5 pm on May 31 and already there were some 60 odd sarus. Then slowly but steadily their numbers started increasing by 2's and 3's. By 7.45 pm, we counted a total of 213 Sarus. This congregation is the second biggest reported for sarus — the first being at Bharatpur. For the

entire period, we watched the famous crane dance, by a number of Sarus. Along with the Sarus, there were Painted and Openbill storks. The villagers claim their number can be easily between 400-500 in the peak of dry season, when there is no water in the surrounding areas. One might wonder if 31st May in the Indo-Gangetic plains is not in the mid of hot and dry season. It turns out that water from various distributaries is either let into the fields or deliberately breached. Vast puddles of water were therefore created and hence the less than maximal congregation at Hardoi. While counting, we noticed that local people could happily paddle past them — often at a distance of 3-4 meters, while at the same time the cranes kept a safe distance of 50-100 meters from us.

It seemed strange to us while the local people were accepted by Sarus, they would have 'none of it' from any one us! We were thus forced to a keep 'safe' distance from them while counting. Thus the discriminating Sarus appears to draw a line between 'harmless' locals and strangers.

HILL MYNAH TRADE

VIVEK MENON, Project Officer, Traffic India, WWF India Secretariat, 172 B Lodi Estate, New Delhi 110 003

Hill Mynahs *Gracula religiosa* (Sonali in Assamese or Grackle as it is known in the trade) is a favourite species for the pet market. Hill Mynahs are caught from Karbi Anglong, North Cachar, Hamren, Haflong, Langteng, Garo Hills, Goalpara and Dhubri areas of Assam and Meghalaya. The bird which can be got for as little as Rs.30 at the poacher's level can sell for Rs.150-300 at Guwahati or Calcutta and Rs.3000-5000 in the international market.

In 1979, tribals used to get Rs.15-22 per bird and dealers Rs.39-42 per bird (Sane 79).

While trapping by lime sticks, nets, etc. may be common place for other species, hill mynahs are collected, by and large, by removing chicks from the nests. There is, however, some evidence (Bertram, 1969) that suggests that lime sticks are used on fruiting trees to capture the

Mynahs during winter. This is done either by climbing the tree to the nests which can be above 20 ft and more or by placing artificial nests at slightly more accessible heights. The artificial nests are spindle-shaped, constructions made of straw and dry grass approximately 1.5-2 feet long and 10 inches wide at the maximum girth. The sizes of such nests can vary considerably, however. The nests are placed on forks in trees at varying heights (one nest in a tree) and tied down by strings. A pole and stick ladder made out of bamboo is constructed for easy access to the tree. The tribal waits till the mynah has laid its first clutch of eggs and then removes the 2-3 chicks that hatch from it. The bird replaces it with a second clutch of 2-3 eggs, the young ones from which are also taken. The third clutch is often only 1-2 eggs and the normal practice is to take this as well, leading to the abandoning of the nest. A total of 6-9 young chicks are taken from every nest in the area. Although, conceptually sustainable utilisation of this resource is possible by judicious removal of one clutch per nest, The prevalent practice reveals human greed and ground realities.

The young chicks (which are less than a week old when first removed from the nest) are fed insects such as crickets, small roaches, flies, etc. The cane or wicker basket that they are placed in, is tapped gently on the rim, upon which the chicks instinctively crane their necks and open their gapes for the insect to be conveniently dropped in. When the chicks are a few weeks old, mashed fruit (in many cases the tribal chews and feeds the fruit and gram, mouth to mouth) and powdered gram are fed to it. The powdered gram is mixed with water and some medicinal powder and made into finger-shaped morsels for the birds.

When selling the mynah, potential buyers view the chick vis-a-vis its health and age. A mynah with primaries can sell for Rs.25-30 at the poacher's level.

KOELS AT WAR

INDIRA VIJAY SIMHA, 14, 1st Cross, Ex-Servicemen's Colony, R.T. Nagar, Bangalore 560 032

Two graceful sampige trees, growing outside my house, attract quite a few birds. They also serve as shelter for some koels and ever so often the quiet morning air is rent with their cries and squawks. The usual long drawn koo-oooh rising to a crescendo, shorter squabbling tones and the distinctive squawk of the female have all become part of the familiar morning sounds along with the sounds of swishing brooms and the milkman's bell.

One morning in April the koels seemed noisier than usual and I ambled out with my coffee tumbler to investigate. It sounded as if the koels were engaged in a

The Hill Mynah, once it enters the trade, is transported along with other live birds and animals. It is also reported that Mynahs go out with plants and flowers, especially orchids. This information could not be verified. The birds are normally transported to Mir Shikar Toli in Patna or Katta Toli in Ranchi. The birds from Ranchi normally find their way to the Bombay market, whereas the Patna/Hajipur stock supplies UP and Delhi.

The Mynahs, as other live birds, are transported by rail in the goods wagon and in compartments, normally with the collusion of the railway staff. The Awadh Assam Express is a frequently used train. The birds are normally loaded on at Guwahati or New Jalpaiguri or the in between stations of Umarpeda, Rangia, Tihu, Barpetta, Bongaigaon and Shrirampur.

In 1979, it was estimated that between 15,000-25000 mynahs were collected for the trade of which 3000-5000 were adults or semi- adults (Sane, BNHS Centenary Paper). This would mean 12000-20000 mynahs were collected as fledglings. The approximate break-up of this collection number is 2500 lower Shillong/Kamrup, 6000 Garo Hills, 2000 Naga Hills and Mizoram, 8000 Nepal, West Bengal and Bangladesh, 4500 Upper Assam and Manipur Road. Given an average collection of 6 mynahs per artificial nest and that 80% of collection in the trade is of fledglings, it must mean 800 odd artificial nests in the Garo Hills alone. It is learnt that the first stock of birds reach the Meerut market in July. However, the birds are being removed from the nests from April onwards. The birds that reach Meerut are also reported to be mostly adults. Evidently, the tribals are rearing the fledglings to a stage where the price got for them will be optimum and then sending them to the sale points.

prolonged verbal battle. I looked up to watch two glossy males engaged in what could be only called an eye-ball to eye-ball confrontation. Perched within a foot of each other and looking each other squarely in the face the two birds, seemed to be having a heated debate (I can't say about what since I haven't cracked their language yet!) Each bird would in turn utter short staccato ku-ku-ku, quite distinct from the usual long drawn koo-oh. These calls would slowly rise in pitch, culminating in what to human ears sounded like an angry, excited verbal outburst. The birds occasionally flapped their wings or shifted perch, but at

no time did I observe them physically attacking or chasing one another. If one bird moved away, the other followed and then both would settle down once more at a distance of about 8 or 12 inches and face each other for another round of arguments. This went on for 10 minutes or perhaps longer.

I observed the same phenomenon again on May 6th. After a while on that morning the discussion between the two males was interrupted by the appearance of a female. Both the birds flew after her jealously for a while, and later resumed their debate, but only briefly. Two days later the

koels were at it again.

It is now more than a month since I noted down these observations and I have heard the pair of male koels debating on several occasions since then. Of course I do not know it is the same pair of koels each time. Just yesterday I happened to note the sounds again and the birds kept it up for nearly an hour. Though the duration of these debates varies the pattern of behaviour of the male koels during the sessions is much like I have mentioned earlier.

ENHANCED NUMBER OF GRAPE BUNCHES PER VINE OFFSETS DAMAGE DUE TO BIRD PESTS

ABRAHAM VERGHESE and P.L. TANDON, Division of Entomology and Nematology, Indian Institute of Horticultural Research, Hesarghatta Lake, P.O., Bangalore - 560 089, INDIA.

The cultivation of grapes is known since 7000 BC, even before that of rice and wheat. From its primary center of origin in the Transcaucasian region of USSR, grape was introduced to Asia Minor from where it spread to Europe, Persia and India. In India, it is one of the major fruit crops, 90% of which is grown in Maharashtra, Andhra Pradesh, Karnataka and Tamil Nadu.

In Karnataka, Bangalore district has the highest area of nearly 4000 hectares of vineyard, and as more areas of land are being utilised for vineyard, encroachment into the habitats of birds cannot be ruled out. Birds form an important limiting factor in grape production (Prasad and Vergheese, 1985) and in order to assess their pestilence, observations were made in the vineyard (Variety Bangalore Blue) at the Horticultural Experiment Station of the Indian Institute of Horticultural Research, Hessarghatta, Bangalore. All observations were made in February, 1993, when the grape bunches were ripe.

Six species of birds were recorded, as shown in Table 1, of which the Jungle Myna was numerically dominant, with a mean of 14 birds per day, followed by the Jungle Crow. The pestilence by other birds was negligible. The

House Crow, Common Myna and Red vented Bulbul were sighted only once during the six-day observation period, prior to harvest. The Roseringed Parakeet was observed twice, once in pair and another day singly. Jungle Crow and Jungle Myna being partial to the outskirts and less commensal to man, were the most abundant species in the vineyard, located 26 Km. away from Bangalore city. Therefore, further observations were restricted to the combined pestilence of these two species and are presented in Table 2.

Table 2
Observations on bird damage

Vine No.	Total number of bunches	Percent bunches damaged
1	43	34.88
2	45	28.89
3	47	29.79
4	55	18.18
5	43	46.51
Mean	-	31.65

From Table 2 we see that bunches damaged ranged from 18 to 47 per cent. In an unprotected vineyard, i.e. without netting or bird scaring, nearly 32% (Mean) of the bunches may be damaged, for a pressure of 20 birds (14 Jungle Myna + 6 Jungle Crows) in about 3 hectares of vineyard.

Interestingly, it was found that when the total number of bunches in a vine increased, the per cent damaged bunches decreased. In other words if the yielding capacity of the vine in terms of number of bunches per vine is

Table 1
Birds observed in a vineyard in Bangalore.

Common Name	Scientific Name	Mean (per day)	S.d.
Jungle Crow	<i>Corvus macrorhynchos</i>	5.6	4.72
House Crow	<i>C. solendens</i>	0.2	0.45
Common Indian Myna	<i>Acridotheres tristis</i>	0.4	0.89
Jungle Myna	<i>A. fuscus</i>	14.2	7.95
Redvented Bulbul	<i>Pycnonotus cafer</i>	0.2	0.45
Roseringed Parakeet	<i>Psittacula krameri</i>	0.6	0.89

enhanced, the pestilence comes down. (This can be mathematically expressed by $\text{damage}(y) = 113.67 - 1.76(d)$, $r=0.8515$, significant at 10% level). From this linear model, it was found that when there are 64 bunches/vine, the damage reduces to one per cent. This is important from a conservation point of view, on the principle : live and let live. So by boosting productivity of a vine, pestilence impact will be negligible.

It may be argued here that with more fruits more damage can be expected. If this was true one would have expected 100% bunch damage. As mean damage was around 32% of bunches, it showed, that birds had a satiation limit. Being resident birds, the numbers are not expected to shoot up due to local immigration within a

short time framework of say ten days prior to harvest, as birds feed only on almost ripe to very ripe berries. Thus population pressure of the bird is constant.

This study, therefore, showed that in Bangalore Blue vineyards, maintenance of high yield, offsets the loss due to bird pestilence.

Acknowledgement

Thanks are due to the Director for providing facilities to conduct the study.

Reference

Prasad, V.G. and Verghese, A. 1985. Birds as pests of Horticultural Crops. *Bulletin of Entomology*, 26 (1) : 94-96.

Contribution No 45/93 of IIHR, Bangalore

BIRDS OF THE JAVADI HILLS

R.J. RANJIT DANIELS, Centre for Herpetology, Madras Crocodile Bank, P.B. No.4, Mamallapuram 604 104, TN

The Javadi Hills are amongst the oldest geologic features of peninsular India. being part of the Eastern Ghats, they are biogeographically important too. These hills with a maximum elevation of a little over 1000, above sea level are situated between Madras and Bangalore.

Very little is known about the fauna and flora of the Javadi Hills. There have been floristic studies in the past conducted by the Botanical Survey of India. More recently, the fish fauna of these hills have also been studied by the Zoological Survey of India. Though the Eastern Ghats have been fairly well surveyed with regards the avifauna, as much as I am familiar with published bird lists for south India, there has not been a list made exclusively for this part of the Eastern Ghats. I therefore, wish to present a brief list of birds for the Javadi Hills based on my recent study in and around Chengam, Tiruvannamalai-Shambu district.

During the end of May this year, I spent some time in the Javadi Hills of Chengam. The hills were largely dry during this season with small pools of rain water in the streams. There was very little greenery, the region being covered with dry scrub and cultivation. Rainfall of less than 1000 mm has allowed taller deciduous forests to survive only along streams and in sheltered valleys. The scrub jungles are under severe grazing pressure of goats from adjoining villages. Firewood collection is also rampant.

I made a list of 56 species of birds during this brief visit. Of these I must mention the sighting of the Sirkeer Cuckoo as remarkable as I have never seen this bird before. Other

species worth mentioning here are Shama, Spotted Babbler and Dusky Crag Martin which are characteristic hill birds of peninsular India. The other species seen are listed below :

Pond Heron	<i>Ardeola grayii</i>
Little Egret	<i>Egretta garzetta</i>
Blackwinged Kite	<i>Elanus caeruleus</i>
Shikra	<i>Accipiter badius</i>
Pariah Kite	<i>Milvius migrans</i>
Brahminy Kite	<i>Haliastur indus</i>
Spotted Owlet	<i>Athene brama</i>
Barn Owl	<i>Tyto alba</i>
Roseringed Parakeet	<i>Psittacula krameri</i>
Little Brown Dove	<i>Streptopelia senegalensis</i>
Spotted Dove	<i>Streptopelia chinensis</i>
Koel	<i>Eudynamis scolopacea</i>
Drongo Cuckoo	<i>Surniculus lugubris</i>
Pied Crested Cuckoo	<i>Clamator jacobinus</i>
Sirkeer Cuckoo	<i>Taccocua leschemaulti</i>
Greenbilled Malkoha	<i>Rhopodytes viridirostris</i>
Palm Swift	<i>Cypsiurus parvus</i>
Whitebreasted Kingfisher	<i>Halcyon smyrnensis</i>
Small Green Bee-eater	<i>Merops orientalis</i>
Indian Roller	<i>Coracias bengalensis</i>
Coppersmith	<i>Megalaima haemacephala</i>
Green Barbets	<i>Megalaima zeylanica</i>
Goldenbacked Woodpecker	<i>Dinopium bengalensis</i>
Indian Pitta	<i>Pitta brachyura</i> (remains of dead bird)
Madras Bushlark	<i>Mirafra assamica</i>
Redrumped Swallow	<i>Hirundo striata</i>
Dusky Crag Martin	<i>Hirundo concolor</i>
Black Drongo	<i>Dicrurus adsimilis</i>
Common Myna	<i>Acridotheres tristis</i>
Blackheaded Myna	<i>Sturnus pagodarum</i>

House Crow	<i>Corvus splendens</i>
Jungle Crow	<i>Corvus macrorhynchos</i>
Iora	<i>Aegithina typhia</i>
Jerdon's Chloropsis	<i>Chloropsis cochinchinensis</i>
Redvented Bulbul	<i>Pycnonotus cafer</i>
Whitebrowed Bulbul	<i>Pycnonotus luteolus</i>
Indian Wood Shrike	<i>Tephrodornis pondicerianus</i>
Baybacked Shrike	<i>Lanius vittatus</i>
Whiteheaded Babbler	<i>Turdoides affinis</i>
Jungle Babbler	<i>Turdoides striatus</i>
Large Grey Babbler	<i>Turdoides malcomi</i>
Whitethroated Babbler	<i>Dumetia hyperythra</i>
Spotted Babbler	<i>Pellorneum ruficeps</i>
Shama	<i>Copsychus malabaricus</i>

Pied Bushchat	<i>Saxicola caprata</i>
Indian Robin	<i>Saxicoloides fulicata</i>
Ashy Grey Wren Warbler	<i>Prinia hodgsoni</i>
Tailorbird	<i>Orthotomus sutorius</i>
Streaked Fantail Warbler	<i>Cisticola juncidis</i>
Large Pied Wagtail	<i>Motacilla madraspatensis</i>
Tickell's Flowerpecker	<i>Dicaeum erythrorhynchus</i>
Purple Sunbird	<i>Nectarinia asiatica</i>
Purplerumped Sunbird	<i>Nectarinia zeylanica</i>
House Sparrow	<i>Passer domesticus</i>
Yellowthroated Sparrow	<i>Petronia xanthocollis</i>
Baya	<i>Ploceus philippinus</i>

SHIKRAS AND LANGURS

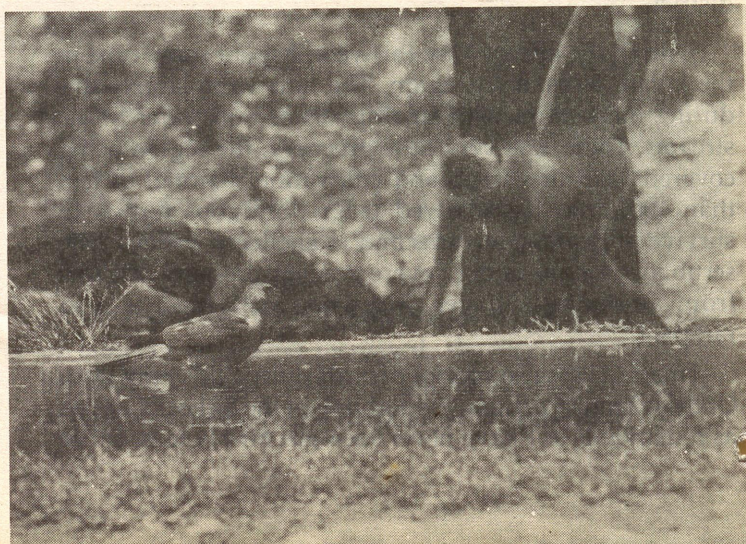
SIDDARTH SINGH, C/o Shantanu Kumar, Inspector General of Police, RAC, Police Headquarters, Jaipur

During the hotter months of the summer season due to the lack of dams and reservoirs there occurs an acute water shortage in the Kumbalgarh wildlife sanctuary in District Pali of Rajasthan. On the 14th of June expecting to see some animal and birdlife, I took my place in a hide next to a waterhole. This waterhole is artificially filled by the forest department by the drainage system using a hand moved water wheel. It is the only place where water is available in the sanctuary during the hottest period. The previous afternoon I had seen a white-eyed buzzard and a shikra soaring in the sky above this waterhole.

A few minutes after taking my place in the hide a group of langurs (*Presbytis entellus*) came to drink water. There were in all 8 langurs (excluding the young ones). Almost at the same time I was alerted of the presence of a bird of prey by the alarm-call of a bulbul and a jungle babbler. I looked up to see a shikra (*Accipiter badius*) sitting on top of a tree on the opposite bank of the waterhole. A pair of langurs also seemed to have sighted him. The shikra sat on one of the lower branches of the tree. The young langurs immediately climbed up the tree and chased the bird to a higher branch of the tree. The shikra again came and sat on a lower branch. This time the young langurs chased him to the top and then off the tree. He went to another tree close by but the langurs were not satisfied, and they chased him away from this tree also. In this manner they chased him from tree to tree till the bird had to fly some distance away. This satisfied them and they returned to the waterhole.

The shikra after some time came and sat down in the thin waters of the waterhole and waded slowly into deeper water. This time the parent langurs objected to his presence but were disturbed by the sound of my camera clicking. Meanwhile the shikra taking advantage of this kept pressing on to deeper water till he had reached deep enough to wet his feathers. He drank a bit of water and was ready to push on into deeper water when the mother langurs chased him away.

I kept my seat hoping to see the shikra again but it seems he had had his fill of water and he never returned. About fifteen minutes later however a pair of jungle crows came and sat on the same tree, making a lot of noise. They then started to mob the langurs. They did this with such aggressiveness and determination that they ended up driving the group of monkeys some distance away from the waterhole. I was truly puzzled by their strange



behaviour. However, the reason became clear a few minutes later.

Two young crows who could not fly properly and were thus flying low came to the waterhole. The birds sat in the shade of the tree drinking water and playing with each other, while the langurs waited a little distance away. Whenever a langur made a move towards the water the

parent crows who were sitting on top of a tree drove the langurs back. The young birds sat on the waterhole for full twenty minutes while the langurs waited.

The langurs could only drink water after the crow family had gone away. The reaction of the langurs to two different birds on the same waterhole was interesting to observe.

GENETICS OF THE RED TARSI AND FEET IN THE POND HERON

H. DANIEL WESLEY, 126, Ramalinganagar, South, Trichy 620 017

Watching birds behind the Court and the Medical College Hostels at Palayamkottai (8.7°N 77.7°E) on 28 April 1988, I chanced upon a batch of six pond herons (*Ardeola g. grayii*) two of which had coral red tarsi and feet. I had not come across such pond herons earlier nor have I since. Ali, Salim and S.D. Ripley (1978) report that normally the species has "dull green legs and feet with dingy yellowish white pads" and the feet and tarsi in Ardeidae are generally green and yellow. Colour changes have been, however, observed in some species during the breeding season: in Eastern Grey Heron (*Ardea cinerea rectirostris*) they are orange yellow with pink tinge; in Eastern Large Egret (*A. alba modesta*) the tarsi and feet are pinkish brown or black, but the tibia is bright rose pink; in the Night Heron (*Nycticorax n. nycticorax*) the legs and feet are reported to be lemon-yellow, orange red or pinkish red. Neginhal (1982) has recorded 3-4 breeding pairs of Little Egret (*Egretta garzetta*) having pink feet and toes, in Ranganthittu. In the genus *Ardeola*, only the Maldivian Pond Heron (*A. grayii phillipsi*) is reported to have "legs pale yellow green becoming deeper yellow in males and more rose in females during breeding season". But there is no reported sighting of the nominate species having acquired red tarsi and feet.

Whether or not the red legs and feet are a regular feature in the egrets in Ranganthittu is not clear. Its

occurrence in the congeneric species of *Ardea*, *Ardeola* and *Nycticorax* in the family Ardeidae is indicative of the genes for the colour being prevalent among the several species in Ardeidae and of their being non-allelic and complementary; of the sporadic occurrence of the red colour due to the chance comingling of those genes, a case of atavism. I assume the ancestral colour of the tarsi and feet to have been red. The observation of Neginhal (1982) that the red-legged ones bred in isolation of the other normal birds might be a pointer to the genes being pleiotropic, affecting in some way the behaviour patterns too, isolating the populations. If both the sexes in the bird assume this colour, then the possibility is greater for the two populations being perpetuated. The colour being pink, rose-pink, dark reddish brown and coral red is perhaps due to multiple allelism and polygenic quantitative inheritance in addition, of course, to the complementary genes; a guess, indeed.

References

- Ali, Salim and S.D. Ripley. 1978. Hand-book of the Birds of India and Pakistan together with those of Bangladesh, Nepal, Bhutan and Sri Lanka, 1, Oxford University Press, Delhi, London, New York.
- Neginhal, S.G. 1982. The Birds of Ranganthittu. *J. Bombay Nat. Hist. Soc.* 79(3) : 581-583.

Participate in First National Seminar on
Changing Scenario of Bird Ecology & Conservation
 Bangalore, 12 - 14 November 1993

A RECENT SIGHTING OF THE REDBREASTED FALCONET AT KAKRIKHOLA HILL IN ASSAM

BABLUDAY

On a fine morning in April I went out with a Garo boy as my guide. As we were going up the hill I heard a sharp whistling call which I had never heard before. I found a small bird on the top of a dried branch of a fallen tree. Though I have been in this Kakrikhola Hill Forest of District Kokrajhar for the past 12 years, this is the first time I saw this bird. The colour was glossy black above, a white face with a prominent black band through the eye, and a broad white collar on the hind neck. The tail was square-edged. Underneath the chin, throat, thighs and undertail coverts were deep ferruginous and white. The male bird was calling repeatedly 2 or 3 times and then stopped for 5-8 minutes. The call sounded like tse-e-e-tse-e-e. After a while another bird, perhaps the female, came along and sat on the same branch. Both the male and female indulged in rubbing their beaks.

There are two types of Falconet found in India and both are found in Assam. One of these is the redbreasted Falconet and the other is the white-legged Falconet (*Ierax melanoleucous*).

After about a month of this event, a Garo boy brought me a chick of a redbreasted Falconet. He taught me how to feed the bird with cockroaches, grasshoppers, wall lizards, etc. Cockroaches were its preferred food and I fed it three times a day. In all it consumed about 12 cockroaches and 20 grasshoppers. Whenever I went to see the bird it indicated its joy and called restlessly for some time. A good friendship was established between us. Quite often it rested on my shoulder. It was a great pleasure for me to have this bird as my companion. After some time I took the bird to the Karikhola Hill Forest and released it in the night so that it could not come back to me.

References

- Field Guide to the Birds of the Eastern Himalayas, by Salim Ali
- Pictorial Guide to the Birds of Indian Sub-continent, by Salim Ali and S. Dillon Ripley
- A Synopsis of the Birds of India and Pakistan, by Sidney Dillon Ripley - II.

SYNOPSIS OF A THESIS ON THE COMPARATIVE BIOLOGY OF DRONGOS WITH SPECIAL REFERENCE TO ECOLOGICAL ISOLATION

Submitted to the University of Bombay for the degree of Doctor of Philosophy in Zoology by Mrs Lalitha Vijayan, under the guidance of Dr Salim Ali, D.Sc., F.N.A., Department of Field Ornithology, Bombay Natural History Society.

The widely examined and accepted principle, in recent years, of ecological isolation, originally known as "Gause's hypothesis", states that congeneric sympatric species must have different ecological requirements for their co-existence. The validity of this principle has been established in various groups of living beings from micro-organisms and plants to mammals. Drongos (Family Dicruridae) have been selected for the present investigation with four species; the Grey drongo *Dicrurus leucophaeus*, the Whitebellied drongo *D. caerulescens*, the Bronzed drongo *D. seneus* and the Racket-tailed drongo *D. paradiseus*, co-existing in two different habitats — three

of the four species, except the Whitebellied drongo, in the topical semi-evergreen forest at Thekkady (1050 M. elevation) in Kerala and all the four species in the dry deciduous scrub forest and plantations at Lower Camp (600 M) in Tamil Nadu. The field study was conducted from October 1978 to June 1981.

In order to examine the various factors relating to their ecology, a thorough study of the environment was done, especially at Thekkady. The availability of food with the abundance of insects and other invertebrates and the bird fauna were estimated periodically. Climatological factors were also noted.

Food and feeding habits were studied by standard field observations. Frequency of feeding from different strata and locations during different hours and months was

recorded along with the time taken for each feeding trip, the food material collected (whenever identified) and the method of feeding on particular items. Rate of feeding of each species in different hours and months was noted to be different. Preferred strata of each species varied from one another. Feeding locations also were different, but less significantly. Time taken for the feeding trip showed still less variation with species. But the speed of feeding flight as well as distance from which insects were caught varied with species. Size of prey mostly depended on the size of the bird. Drongos were found to have very close relation with the mixed-species feeding flocks. Details regarding the dynamics of the feeding flocks, frequency of occurrence and feeding of each species of drongo along with these flocks and its association with other species of drongos as well as species other than drongos were recorded. Factors affecting the association of species in mixed flocks and its significance are discussed.

The Bronzed and the Racket-tailed drongos were observed breeding at Thekkady and the Bronzed and the Whitebellied drongos at Lower Camp. Breeding season of these species extended from February to September. Temperature, rainfall and availability of food supply appeared to be the important factors determining their breeding season. The pattern of pair-formation, pair-bond and details of territory were observed. Presence of a helper was noticed in many nests of the Bronzed drongo and some nests of the Racket-tailed drongo, to be taking part in all the activities of nesting cycle. Details regarding the nest including its structure, materials, location and construction, and also the clutch, incubation, nesting and fledging periods were studied. Breeding success of each species was examined with the probable factors affecting it.

The phenomenon of ecological isolation and niche theory are discussed. Isolation while feeding was found to

be mainly by the difference in the prey size (sometimes in the types or taxa also) based on the morphology of the species.

Vertical stratification was also important in reducing competition between these species. The pattern of stratification was found to vary from species to species in different hours, months and also in different feeding combinations with or without other species. Feeding location though varied significantly in some cases, did not appear to be an important isolating mechanism. But variation in the feeding activity rhythm, speed of feeding flight and the distance from which insects were caught by the competing species might help in reducing competition. Niche breadth of each species in the two dimensions, the vertical feeding strata and the locations, and also niche overlap between species in these dimensions were calculated. The factors affecting niche breadth and niche overlap, such as morphology, habitat structure, availability of preferred food and presence of competing species are discussed. Breeding habitat variation was observed between the Racket-tailed and the Whitebellied drongo, between which similarities were observed in the location of nest and some of the nesting materials. There were apparently no competition for the resources between the Racket-tailed and the Bronzed drongo unlike between the White-bellied and the Bronzed drongo at Lower Camp, where partly inter-specific territories were maintained for reducing competition.

The different coexisting species of drongos are thus found to have evolved different methods for reducing competition, such as difference in prey size, preferred feeding strata, feeding activity rhythm, speed and distance of feeding flight, breeding habitat, breeding territory and also by winter or local migration. These findings tend to support the principle of ecological isolation.

VOLTINISM IN THE INDIAN TAILOR BIRD

H. DANIEL WESLEY, 126, Ramalinganagar South, Tiruchirapalli 620 017

The Indian Tailorbird, *Orthotomus autorius*, is a common bird in the gardens of the houses in Tiruchirapalli. I observed a breeding pair in my house compound. It has not been known for certain as to how many breeds are raised per pair in a season. The pair that I observed laid three clutches of eggs in succession, two of

which were fledged successfully while the third one was lost in the violent wind that detached the ageing nest-leaf of *Terminalia* sp. Perhaps, it could have been saved had I been a little more careful in making the thread-knot tighter taking into consideration the potential shrinkage of the petiole on ageing. In this account I give the observations

on nest-building, egg laying, period of incubation, fledging, and the interval between the broods (Table 1-6). I do not know if the pair had or had not had an earlier brood before the ones they had in the terminalia.

Nest building

The male and the female birds were observed to share in the nest-site selection and nest building process. It was the male which made the initial stitch-holes, followed by the female partner. Both sexes shared the duty. After a successful breed, the male it was which inspected the nest for its worthiness to hold another brood, followed by the female: he brought cotton fibres and made new anchors into the leaf while she repaired the bed with other fibres. A maximum of seven days elapsed before the clutch was initiated. After the initial brood the succeeding ones in the same nest took less days for repair and, the nest ready, the egg laying was delayed by two days (Table 1). An unfortunate factor in the present case was that the bird had not taken note of the age of the nest-leaf and could not sense the likely danger to the brood being raised from the yellowing leaf falling off which it did during incubation. Also whether or not the pair were conscious of there having been an addled egg in the nest could not be known. I had moved the egg before the initiation of the third brood. What effect the addled egg, if left in the next, would have had on the breeding pair is unpredictable.

Egg laying

Three clutches of three eggs each were laid in the same nest. In each clutch the eggs were laid early in the mornings between 6.30 and 7.30 a.m. one each day consecutively (Table 1).

Incubation period

Incubation was done entirely by the female bird. Of the first brood, the first and the second egg hatched on the 15th day having been incubated for 14 days and the third on the 14th day, warmed for 13 days. Of the second brood, the first addled, the second and the third egg hatched on the same day warmed for 13 and 12 days respectively (Table 1). Despite no regular period having been kept on the rhythm of incubation it is possible to say from the data that the bird had incubated even from the day of clutch initiation and hence the hatching time difference. This was found consistent with the different broods. However, a surprising fact was that the incubation period decreased

by one day in the succeeding brood. Would the incubation period for the 3rd brood have been reduced by another day? Is there a fixed range between a certain low and the maximum of 14 day incubation? It has been agreed upon to regard the number of days taken by the last hatched egg in a clutch as the incubation period for bird species. Then 13 and 12 days were the periods for the first two broods. That the species does not have a fixed single period for all the eggs of all of its clutches and breeds is evident. According to Ali, Salim and S.D. Ripley (1987) the period is 12 days. Further, the reduction in the incubation period of the successive broods must be an adaptation to complete quickly all the broods that a bird pair are capable of bringing forth in a season. Is this reduction under the control of the incubating bird? If the first egg of the second brood had been perfect would it have hatched on the same day, as the other two eggs did or a day earlier on 11 June 1993, a period of 13 days?

Fledging period

In consideration of and including the hatching days, there being two individual fledging periods of 13 and 12 days, the fledging day for the entire brood was the same (Table 2). If the shorter incubation period of 12 days is an adaptation to hasten the hatching and offset the predation pressure on the eggs, the increased fledging is inexplicable except if it be assumed that the species has a range of incubation periods and that the lengths of the periods of incubation and fledging indicate the nature of the environmental stress. It is reasonable to suppose that in this ridiculous species, more than the incubation period the fledging period is a product of the immediate selection pressure.

Brood interval

The number of days that elapsed before starting a succeeding brood since the fledging of a previous one varied from 30 to 32 days; that since the hatching of the last egg of a brood was from 43 to 44 days; that since the laying of the last egg of one and starting of another clutch was from 55 to 57 days (Table 3-6). Adding a minimum of 4 days for nest building, in case of multivoltine condition, the total time taken for the successful completion of a brood would be from 59 to 61 days. If the tailor bird brings forth three or more broods per season, the gonadal and the entire breeding activity should last for days as many broods times the total of 59 to 61 days. At the time of writing this account, the pair is making another nest in

another plant in the same compound for the fourth brood that it would normally have brought forth in the same nest had the third brood been successful. If this attempt is going to be successful, the pair will have produced 12 eggs altogether. How many broods it is capable of tending per season is not known.

An interesting point is that the pair laid 3 clutches in succession in one nest. If the third clutch had not been a failure that it was due to the nest-leaf ageing and falling off the tree, it would have held the fourth clutch too to full term. It is reasonable therefore to assume depending upon the nature of the plant in which the nests are placed, the several breeds the bird is capable of raising may be reared in one nest or, of necessity, raised in several different nests in succession in different worthy plants available in the territory. Only ringing of the breeding birds would help find the truth.

About the fledglings of the earlier broods of a series, the male was feeding them as the female was incubating a later clutch. In any one brooding period only the fledglings of a brood immediately previous to the active clutch were cared for, the others having spilled over the territory. At 8.10 a.m. on 27 July 1993, the incubating female charged a fledgling of the previous brood that happened to stray close to the live nest.

Summary

The Indian Tailorbird in Tiruchirapalli raises more than one brood per season per pair and is multivoline.

The several broods in a series may be tended in a single nest if the nest-leaf endures through the season. If there is a debacle from the loss of the nest, the later brood(s) may be raised in fresh nest(s).

How many broods do a pair of tailor birds bring forth in a breeding season is not known for certain.

The incubation period varies for the different broods. The species may have a range between a minimum and a maximum — twelve and thirteen respectively.

The fledging period is mostly 13 days.

The interval between any two broods is about two months and hence, considering a minimum of four broods per pair, the breeding season lasts eight months a year, say, from March to September-October.

Reference

Ali Salim and S.D. Ripley. 1987. Compact Handbook of the Birds of India and Pakistan. 2nd Edn. New Delhi, Oxford University Press.

Table 1 : Incubation period

Brood No.	Egg No.	Egg laid on	Hatched on	Incubation period(days)
1	1	31.3.93	14.4.93	14
	2	1.4.93	15.4.93	
	3	2.4.93	15.4.93	
2	1	29.4.93	Added	13
	2	30.5.93	12.6.93	
	3	31.5.93	12.6.93	
3	1	25.7.93	Clutch lost	12
	2	26.7.93		
	3	27.7.93		

Table 2: Fledging period

Brood No.	Egg No.	Hatched on	Fledged on	Fledging period
1	1	14.4.93	27.4.93	13
	2	15.4.93		
	3	Added		
2	1	Added	25.6.93	13
	2	12.6.93		
	3	Added		

Table 3 : Interval between nest building and egg laying

Brood no.	Nest building First visible activity	Clutch initiation	Interval between Nest building & Egg laying (Days)
1	24.3.93	31.3.93	7
2	25.5.93	29.5.93	4
3	19.7.93	25.7.93	6

Table 4 : Brood interval

Brood No.	Fledged on	Starting of next clutch	Brood interval (days)
1	27.4.93	29.5.93	32
2	25.6.93	25.7.93	30

Table 5 : Interval between hatching of one and starting of another clutch

Brood no.	Hatching of past egg	Starting of next clutch	Interval (days)
1	15.4.93	29.5.93	44
2	12.6.93	25.7.93	43

Table 6 : Interval between laying of the last egg in one and starting of another clutch

Brood no.	Last egg laid on	Next clutch starting of	Interval (days)
1	2.4.93	29.5.93	57
2	31.5.93	25.7.93	55

Correspondence

BREEDING OF YELLOWTHROATED SPARROW.
R.G. SONI, Chief Conservator of Forests, 12 Lalgarh
Palace Campus, Bikaner 334 001

With reference to my article, Vol. 33(3), page 51, "Breeding of Yellowthroated Sparrow", I have recently seen a male Yellowthroated Sparrow carrying some feathers to build the nest and actually go in the nest to place the feathers.

SANTRAGACHI JHEEL. SASTI BRATA KABIRAJ,
Teacher, M.G. Vidyalaya, Japamali, Bankura 722 143,
West Bengal

Every year many migratory birds visit the lake in the Alipore Zoological Garden, Calcutta and the Santragachi Jheel at Santragachi. This Jheel is one of the most important spot of bird-watching, which attracts different types of birds. These birds come from the northern parts of the Himalayas and the sub-Himalayan region. The Jheel is situated very close to the Santragachi Railway Station. It is about 8 km South of Howrah railway station and situated on the trunk route of the South Eastern Railway.

Different species of birds can be noticed. Among them most important are Lesser Whistling Teal (*Dendrocygna javanica*), Greater Whistling teal (*Dendrocygna bicolor*), Gargane Teal (*Anas querquedula*), Pintail duck (*Anas acuta*), and Comb duck (*Sarkidiornis melanotos*). They come here every year from mid-October to March. They arrive at the Jheel at an early hour of the day and depart after sunset. Due to congested locality, narrow passage and other disturbances the birds prefer the Southern part of the Jheel.

No specific investigation has been made so far about these birds regarding the following matters. i) Where do these birds go at night? ii) Why do these birds undertake such journeys? iii) How do they pilot themselves and navigate so unerringly? iv) How do they seek out the same locality where it had been before and find the same tree where it made its nest in the previous year?

At present the main threats to the Jheel are fishing activities, illegal bird netting and trapping, bathing, washing and other local disturbances reducing the number of birds every year. This Jheel deserves protection as a habitat for waterfowl and should immediately be declared as one of the most important birdlife sanctuary

in West Bengal. The Santragachi Jheel is an ideal place to watch the birds and their behaviour.

ADDENDUM TO THE CHECKLIST OF KOTA.
RAKESH VYAS, 2, p.22 Vigyan Nagar, Kota 324 005

In the recently published checklist of Kota district (NLBW Vol.32, No.11-12), a few inaccuracies have crept in due to the typing errors, which may be corrected as follows:

- | | | |
|-----|---|----------------------|
| 95 | Spotted Greenshank read Green sandpiper | <i>T. ochropus</i> |
| 100 | Curlw sandpiper read Dunlin | <i>C. alpina</i> |
| 204 | Wheatear read Isabelline Wheatear | <i>O. isabelline</i> |

Since the compilation of the list, a few more bird species have been recorded from the study area, which may be added to the list.

- | | | |
|---|----------------------|--|
| 1 | Shaheen falcon | <i>Falco peregrinus</i> |
| 2 | Lapwing | <i>Vanellus vanellus</i> |
| 3 | Large hawk cuckoo | <i>Cuculus sparverioides</i> |
| 4 | Longtailed minivet | <i>Pericrocotus ethologus</i>
(seen by Shantanu Kumar, IGP) |
| 5 | Blyth's reed Warbler | <i>Acrocephalus dumetorum</i> |
| 6 | Indian tree pipit | <i>Anthus hodgsoni</i> |

BIRDS OF JAMUGURI BEEL OF ASSAM. BIBHAB
KUMAR TALKUKDAR, "Ever Green" Samanwoy Path
(Survey), PO Beltola, Guwahati 781 028, Assam

A large wetland named Jamuguri Beel is situated between Doyang and Nambor Reserved forest in Golaghat district of Assam (Approximately 26° 24'N, 93° 84'E). Jamuguri Beel houses many species of Waterfowl, some of them are threatened species as listed at the Karachi Conference of the Threatened Waterfowl of South and West Asia.

The list of birds of Jamuguri Beel given here is by no means comprehensive and detailed prolonged observations may add some more threatened species to the list. The Jamuguri Beel is a real paradise for Waterfowl in winter and it is also necessary to preserve it as a Bird Sanctuary immediately.

A list of birds found in Jamuguri Beel, Assam

- | | | |
|-----------------------------|-------------------------------|----------------------|
| Family: Accipitridae | | |
| 01 | <i>Haliaeetus leucoryphus</i> | Pallas Fishing Eagle |
| Family: Anatidae | | |
| 02 | <i>Dendrocygna bicolor</i> | Large Whistling Teal |
| 03 | <i>Tadorna ferruginea</i> | Ruddy Shelduck |
| 04 | <i>Tadorna tadorna</i> | Common Shelduck |

05	<i>Anas crecca</i>	Common Teal
06	<i>Anas platyrhynchos</i>	Mallard
07	<i>Anas strepera</i>	Gadwall
Family : Ardeidae		
08	<i>Ardea cinerea</i>	Grey Heron
09	<i>Bubulcus ibis</i>	Cattle Egret
10	<i>Ardea alba</i>	Large Egret
11	<i>Ardea grayii</i>	Pond Heron
12	<i>Egretta intermedia</i>	Smaller Egret
13	<i>Nycticorax nycticorax</i>	Night Heron
Family : Ciconiidae		
14	<i>Anastomus oscitans</i>	Open bill Stork
15	<i>Leptoptilos javanicus</i>	Lesser Adjutant Stork
16	<i>Leptoptilos dubius</i>	Greater Adjutant Stork
Family : Phalacrocoracidae		
17	<i>Phalacrocorax carbo</i>	Cormorant
18	<i>Phalacrocorax niger</i>	Little Cormorant
Family : Podicipedidae		
19	<i>Podiceps cristatus</i>	Great Crested Grebe
Family : Threskiornithidae		
20	<i>Platalea leucorodia</i>	Spoonbill

HOW TO PREVENT BIRDS FROM CRASHING INTO THE WINDOWS?. FRIEDRICH GROHE, Villa Loven, Route des Grands-Bois CH-1164 Buchillon

At the moment I am in Ojai, California. There are many birds here but we have a problem because the house in which I'm staying has bottom-to-ceiling glass windows and doors. We've put up rubber owls and suspended metal streamers from the eaves of the house to prevent the birds from crashing into the windows. But it doesn't work completely - every once in a while we find a dead bird which has flown into the glass pane. Do any of your readers have suggestions as to what could be done about this?

WETTING OF EGGS BY BLACK WINGED STILT. MANOJ KULSHRESHTHA, B-33, Sethi Colony, Jaipur 302004, HARKIRAT SANGHA, 27 Gautuam Marg, Hanuman Nagar, Jaipur 302 012

Some nests of Black Winged Stilt (*Himantopus himantopus*) were located on 9th June, 1993 near Kuchaman lake in Nagaur district of Rajasthan. On close examination some interesting findings were recorded.

The incubating bird did not leave even on approaching 8-10ft. close to the nest. After leaving the nest it immediately reached the lake and dapped 4-5 times in shallow water. It was found to be quite restless and resettled on the eggs immediately as observed 4-5 times on

our having moved some 10-15 ft. away from the nest. Each time it left the nest water drops were observed on eggs followed by dapping activity in water. The ground on which it had its nest was very hard to scrape. The bird had used a natural depression to lay the eggs without making use of pebbles to line it and had also not used mud to make a boundray around the nest. Only two eggs were laid in contrast to four eggs as observed by me at Udaipur and Kota during August and by Harkirat Singh at Chaksu and Phulera also during August. Nesting time in this area was quite early. A pair of Black winged slits along this lake was seen with four 10-15 days old chicks. The environmental temperature was recorded as 48°C.

On the basis of above observations it is presumed that the bird did not want to expose the eggs to the scorching sun so as to prevent embryonic death. When it was forced to leave the nest it wetted the eggs to maintain them at a required temperature for incubation. Rajasthan had recorded a very high temperature of 50°C after a century just a day after our observation. The nest was poorly made about 40ft. away from the margin of water so as to meet its food requirements as also for feeding aquatic insects and molluscs to the would be young ones. The bird was compelled to nest close to the lake, for food, in which water was receding fast. Therefore it had laid eggs in a natural depression without making an appropriate nest. Scarcity of food thus had created a stress resulting in smaller clutch size with only two eggs in all the nests observed at that time as compared to the pair with 4 chicks also had a clutch size of 4 eggs during May and other records of nests in August also revealed 4 eggs in them.

References

- Roberts, T.J. (1991) The Birds of Pakistan, Vol I, Karachi : Oxford University Press
 Ali, S. and Ripley, S.D. (1987) compact Hand book of the Birds of India and Pakistan II ed. New Delhi : Oxford University Press

SHAHIN FALCON AGAIN IN BANGALORE CITY. J.N. PRASAD, S. KARTHIKEYAN and U. HARISHKUMAR, C/o Merlin Nature Club, 13 8th Cross, 30th Main, J.P. Nagar, I Phase, Bangalore 560 078, YATHIDRA, Pavan Traders, near Eshwara Temple, 3rd Main Road, Chamrajpet, Bangalore 560 018

On 1 August 1993, during a butterfly - watch organised by Merlin Nature Club, a falcon perched high up on a tall Eucalyptus tree was spotted. The distinct rufous underside and white throat led us to conclude that the bird was a Shahin Falcon *Falco peregrinus peregrinator*. Within a

few minutes three Jungle Crows *Corvus macrorhynchus* started calling and mobbing the falcon. The persistent mobbing from the crows made the Shahin fly away still pursued by crows. The falcon disappeared behind the trees.

This sighting of Shahin Falcon at Lalbagh happens to be the second report for the species within Bangalore urban limits. The first sighting was at Indian Institute of Science Campus on 22 August 1990 by Dr. Ranjit Daniels (1991 : NLBW 30 (9+10) :6). The species has been reported often at Devarayandurga near Tumkur about 70 km. northwest of Bangalore (see Prasad et.al. 1992 : NLBW 32 (1+2) : 10-12 and Baskaran, S.T. 1992; 32 (9+10):17) and Nandi Hills about 60 km. north of Bangalore where they

are residents. The rocky cliffs at these two locations provide ideal nesting site and probably the Shahin Falcons nest there.

COMMENT ON MIGRATION OF PRATINCOLES by N.A. Aravind, S/o DR. N.A. Madhyastha, Inehale, Durga Saw mill lane, Chitpadi, Udupi - 576101

In the last issue of Newsletter (Vol. 33, No 3) under the caption of the cover picture, it is mentioned that the Small Indian Pratincoles (*Glareola lactea*), strangely disappear after August. But here in Udupi, we have seen the birds arriving around September. They stay in our area upto January and disappear there after.

What is a raptor?

RAPTORS are plunderers - birds that seize their prey. The name comes from the latin verb raptare, which means to seize. There are 292 known species of diurnal raptors and 162 owls. The owls are usually given their own order, the Strigiformes. The diurnal raptors, the Falconiformes, in turn are divided into four families :

- Cathartidae : new World vultures, including the CALifornia and Andean condors.
- Accipitridae : ospreys, hawks, eagles, buzzards, harriers and kites.
- Falconidae : Falcons, kestrels, hobbies, caracaras and the merlin.
- Sagittariidae : a single species, the secretary bird, is the sole member.

It has long been obvious that Falconiformes is not a "natural" order. Birds of prey with similar characteristics may not necessarily have evolved from a common ancestor. Instead, natural selection may have shaped them in similar ways to "solve" similar problems.

Biologists in the 19th century noted that the skeletons of New World vultures were in many ways similar to those of storks. Modern DNA studies seem to confirm that they do indeed share a common ancestor. Despite their superficial similarities, however, New World vultures and Old World raptors do not seem to be related. The New World vultures are commonly placed in their own suborder, the Cathartae, while the three other families form the suborder Accipitres. It is surely time to create two quite separate orders.

Molecular studies over the next decade may well reveal that the relationships between hawks, ospreys, falcons, kites, harriers and the rest are also more apparent than real. A radical reclassification may well be called for.

Source : New Scientist

Cover : Female Blackheaded Cuckoo Shrike (*Coracina melanoptera*) at nest. This singularly beautiful bird sings a most sweet and musical whistle in descending order. The nest is thoughtfully constructed of materials resembling the bark of the tree, to avoid discovery. Both the sexes take part in nest building, incubation and care of the chicks.

Photo : S. Sridhar, ARPS

Editor : ZAFAR FUTEHALLY, No. 2205, Oakwood Apartments, Jakkasandra Layout, Koramangala 3rd Block, 8th Main, Bangalore 560 034

Printed and Published Bi-Monthly by S. Sridhar at Navbharath Enterprises, Seshadripuram, Bangalore 560 020, for Private Circulation Only.

BIG BROTHER IS WATCHING BIRDS

Their procreation is closely perused; time-and-motion men hover over their housekeeping. As Britain's birds begin their seasonal search for nesting material, the most ardent bird-watchers in the world are closing in. They will record a wealth of data - egg-laying dates, clutch sizes, numbers of chicks hatched, and the number that eventually leave the nest alive-for species as disparate as the blackbird and the tawny owl. The fruits of this snooping will go into a central computer. Humphrey Crick of the British Trust for Ornithology (BTO) expects to feed the machine report-cards from 1,000 informants on more than 30,000 nests.

It is all, of course, for the birds. When monitoring began in 1939 it was just a way of gathering information about their breeding habits. Now, by revealing the threats to birds, it helps conservationists plan strategies for their survival.

Lapwings, for instance, were once common on farmland in the south and east of England. No longer. The BTO records show that their nesting success is in long-term decline-probably because the way that the fields are used has changed. In 1939, most farms were patch-works of pasture and arable crops. This suited lapwings. It gave them spring-sown cereals to nest in and their chicks then flourished by feeding in the pasture. But that pasture has been put to the plough, and modern farmers prefer to sow their cereals in the autumn. Come nesting time, the crop has grown too high for the lapwings' tastes; they are running short of nest sites.

Conservationists also worry about the upland habitats of the lapwing's cousin, the golden plover. British hill-farmers have been stocking up their land with sheep. This is bad news for plovers. A BTO analysis of around 700 plover nests found that clutches were significantly smaller on **grass moors** (where sheep may safely graze) than on heather moors (which they avoid). And birds in heather suffered fewer nest failures. On grass moors, plover nest failures have increased significantly through the 1980s-in parallel with the rising number of sheep. Trampling and disturbance may well be the cause.

Such disruption is not the only problem. Song thrushes face a more subtle threat. Fifty years ago they were common-you were three times more likely to find a song thrush than a blackbird on the lawn of an English garden. Now blackbirds outnumber thrushes. But there is no loss of habitat - gardens are as popular as ever. And the BTO's nest record shows that those thrushes which survive lay as many eggs per nest as in the good old days, and rear as many thrushlets. So the dearth of thrushes does not seem to be due to infertility. The problem must be due to adult deaths, and the finger of suspicion points at slug pellets. Farmers and gardeners are scattering more and more of them, increasing the birds' chances of dining on a dying, deadly mollusc.

Whether Britain's gardeners are willing to trade their slug-free plants for more mellifluous song remains to be seen. **But** others are already acting on the BTO's results. In those parts of Britain designated as environmentally sensitive, **farmers are** paid for being ecologically sound. In the Pennines, for instance, BTO data help farmers to cut grass for silage at a time when such mowing will not disrupt the nesting of yellow wagtails. In the Peak District, livestock is removed from the fields before curlews and plovers lay their eggs and returned only when the nestlings have fledged. The accumulated years of nest-watching help minimise disruption to both sides.

Source: The Economist, April 3rd 1993.

Back from the brink?

This year's census of the Bali Starling, which reached an all time low of 13 - 18 wild birds in October 1990, has recorded 42-48 individuals. The species is now only found in Bali Barat National Park, Indonesia, where a National park authorities/BirdLife International recovery programme is focusing on improving protection against poachers.

Any species with just a single population is highly vulnerable to natural disaster, and inbreeding is always a concern. This summer, the project plans to release up to 20 birds on Menjangan Island, in an attempt to establish a second population of the species. The birds will come from a captive breeding programme coordinated by the American Association of Zoological Parks and Aquariums.

Courtesy: World Birdwatch June 1993.

Roebuck Bay and Eighty Mile Beach, Australia: A Major Link in an International Network of Important Wetland Sites

by Vaughan Pattinson,
Broome Bird Observatory

Migratory wader populations throughout the world are increasingly being threatened by wetland habitat loss and hunting in breeding and non-breeding sites. This loss is most evident along the East Asian-Australasian Wader Flyway, stretching from northern Asia throughout Southeast Asia to the shores of Australia and New Zealand.

Major Terminus

The tidal mudflats of Roebuck Bay and Eighty Mile Beach represent the major terminus of the East Asian- Australasian Wader Flyway. The significance of the area has been recognised only since the early 1980s, and the latest estimate is that 850,000 waders utilise the rich mudflats every year (Lane, 1987). Thus, the area is in the top four wader non-breeding areas in the world after Banc d'Arguin in Mauritania, West Africa; Guyana in South America and the Wadden Sea in Europe.

Studies here have revealed that the migratory waders first arrive in North-western Australia in large numbers during August and September. Smaller numbers of most species and, particularly, smaller species such as Curlew Sandpiper (*Calidris ferruginea*), and Red-necked Stint (*C. ruficollis*), migrate southward across the deserts of central Australia to wet-

lands in Victoria and Tasmania. Waders on northern migration depart from Roebuck Bay and Eighty Mile Beach during March and April. Waders that spend the non-breeding period in Australia breed in the deserts and steppes of Mongolia and Northern China and on the shingle beaches in the eastern areas of the Commonwealth of Independent States (CIS).

Bird banding is being carried out in Australia by the Royal Australasian Ornithologists Union (RAOU) and its associated specialist group, the Australian Wader Study Group (AWSG). These efforts are beginning to reveal the secrets of northward migration in terms of routes taken, the location of important staging points and arrival and departure times. The picture is complex, with differences in migratory strategies between species, sex and age.

The East Asian-Australasian Flyway is certainly the longest in the world - a Curlew Sandpiper banded in Melbourne, Victoria was recovered 13,094 km away in the Taimyr Peninsula in the CIS, 14 degrees south of the North Pole. Studies in Southeast Asia show Shanghai (in China), Taiwan, Hong Kong, and Japan to be important staging points for "refuelling" during northward migrations.

Conservation Planning and Management

In Australia, Roebuck Bay has attracted much interest at both state and national levels. The Western Australian Department of Conservation and Land Management (CALM) has proposed a marine park here, which will include the important tidal flats, the beach, mangrove areas and the Roebuck Plain, a



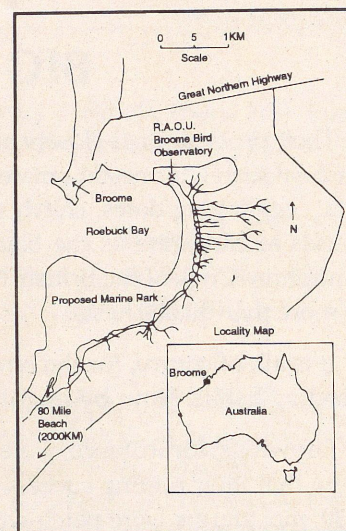
Waders being captured at Broome by means of a cannon-net for banding and leg-flagging

Photo by Vaughan Pattinson

grassland utilised extensively by waders, notably Little Curlew (*Numenius minutus*), Oriental Plover (*Charadrius veredus*) and Oriental Pratincole (*Glareola maldivarum*).

Roebuck Bay and Eighty Mile Beach are listed under the Ramsar Convention as Wetlands of International Importance. However, the area is not represented in an Australian system of protected marine areas. Although Roebuck Bay is under no threat, the loss of wetlands for urban and industrial development in other countries along the Flyway is of major concern (Howes and Parish, 1989).

Therefore, effective wader conservation calls for a comprehensive strategy along the flyway. A linked network of protected sites throughout the flyway is required if successful wader migrations are to be enhanced and sustained.



Roebuck Bay,
Broome Western Australia

Wetland and Bird Conservation: The Big Picture

The impressive annual migrations of waders provide an obvious example of important linkages between nations and habitats within them. Such linkages should encourage and facilitate cooperative conservation planning, research and education throughout the East Asian-Australasian Flyway.

The RAOU, AWSG, Broome Bird Observatory and other Australian conservation agencies are actively developing mechanisms for the exchange of information and expertise among countries along the flyway. An ongoing banding and leg-flagging programme is being carried out from the RAOU Broome Bird Observatory, located just 100 metres from the tidal flat of Roebuck Bay. Wader banding expeditions in Broome are increasingly enjoying the presence and input of participants from Southeast Asia, China and the CIS. The challenge is to go further and develop cooperative research and education programmes throughout the countries along the flyway. Wetland sites and centres such as the Mai Po in Hong Kong, Sungai Buloh in Singapore, Guandu in Taiwan, Kuala Selangor Nature Park in Malaysia and existing centres in Japan provide the framework for such a network.

References

- Howes, J and Parish, D (1989). New Information on Asian Shorebirds - Preliminary review of the Interwader programme 1983-1989 and priorities for the future. Asian Wetland Bureau, Kuala Lumpur.
- Lane, B.A (1987). Shorebirds in Australia. Thomas Nelson, Melbourne, Australia.
- Watkins, D. (in prep.). A National Plan for Shorebird Conservation in Australia. World Wide Fund for Nature.