

Newsletter for Birdwatchers

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Saving the world's parrots: a global challenge

by Frank Lambert and Roland Wirth

Parrots have one of the highest profiles of any bird group. For hundreds of years and in many different regions and cultures, parrots have been kept as pets. Valued for their beauty, companionship, feathers and meat, the ancient Egyptians, early Greeks and the Romans all kept parrots, and the tradition has persisted throughout the world up to the present day.

Today, however, parrots are one of the most endangered orders of bird. Currently at least 105 parrot species and 63 subspecies are threatened and, if no conservation action is taken, some may become extinct within one generation.

It was in the context of this urgent need for action that ICBP hosted a workshop in January 1992 which focused on the world's parrots. Experts from the ICBP Parrot Specialist Group, the ICBP Secretariat, and the Captive Breeding Specialist Group of the World Conservation Union (IUCN) held five days of discussion during which the status of all the world's parrot species was assessed. As a follow-up to that meeting, an Action Plan for the conservation of the world's parrots has been compiled at the ICBP Secretariat and is currently being reviewed by over 150 parrot experts around the world.

Preventing loss

The Parrot Action Plan aims to promote a process that will prevent the loss of any species or subspecies of parrot. By summarising all the details of conservation importance for all of the world's parrots, it is hoped that the problems affecting threatened taxa can be addressed in a coherent and efficient way.

The ecological requirements of parrots vary enormously. Many parrot species are adaptable, and some birds that have been released, or have escaped from the vast populations held in captivity, have become naturalised. For example, in the United States at least 27 species of parrot have such feral populations. Other species have proliferated



Hyacinth Macaw, one of the world's most threatened parrots (Photo: B. Coleman Ltd)

erated in their natural range as a consequence of man's activities, such as the Galah *Eolophus roseicapillus* in Australia, and the Monk Parakeet *Myopsitta monachus* of South America, which has a population estimated to be in the millions.

In contrast, there is a large subset of parrots which are more specialised, and many of these species have shown themselves to be intolerant of the many threats that man has created. Populations of these species have declined drastically, and at least sixteen species are now critically threatened (ie. are considered to have a 50% chance of extinction within the next two generations).

Threats facing parrots are numerous and often complex, but there can be little doubt that the main threat to the majority of species is the loss or modification of natural habitat. The bird trade has also played a role, and populations of a number of the most seriously threatened parrots, such as the Hyacinth Macaw *Anadorynchus hyacinthinus*, are still threatened by trade despite international efforts to prevent it. Other threats include predation by, and competition with, introduced mammals (such as rats and cats), hunting and introduced diseases.

Although the threats facing individual species of parrot have, in most instances, been identified for many years, the task of eliminating these threats has proved

to be formidable. The challenge for ICBP, and other conservation agencies, is to safeguard populations of all the world's 356 species of parrot, and their subspecies, by initiating the necessary conservation measures within the next five years.

The ICBP Parrot Action Plan identifies the most critical actions needed to safeguard viable populations of all the world's threatened parrots. Typically these will require integrated programmes covering direct habitat protection and management measures, education and public awareness campaigns, and the adoption and implementation of national and international legislation. In certain well justified cases, where the number of wild birds is very low and captive populations are already available, captive breeding will be a part of a species recovery programme.

Many projects on parrots are already underway; ICBP's project in Dominica to save the Imperial and Red-necked Amazons, two of the world's most endangered Amazon parrots, is a good example. Many other projects, however, must be funded and implemented in the near future if all the extant species of this group of birds are to survive.

Immense cost

Obviously, the scale of such an ambitious project is immense, and the conservation actions recommended in the Parrot Action Plan may cost US \$10 million per year. It may appear that even to contemplate raising such an amount is over-ambitious. Yet this sum represents only around 1% of the total spent worldwide on caged parrots and their maintenance. Surely the plight of parrots demands that resources are directed towards their conservation in the wild.

*Frank Lambert and Roland Wirth are the compilers of **Parrots, an action plan for their conservation and management**, a draft of which is currently being reviewed by over 150 parrot experts.*

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Editorial

Changes in scientific nomenclature, as well as in the common English names of birds

This is both a serious and an interesting subject to which all birdwatchers can apply their minds. The two letters from Andrew Robertson, and Aasheesh Pittie will indicate what the situation is. We will attempt to print the latest list (perhaps in sections) in the Newsletter, and look forward to comments.

Ornithological Society of India

Membership forms are being printed, Regional Secretaries are being appointed, and some discussions are going on about a possible regional meeting next year. The Secretary General Dr. Mrs. Asha Chandola Saklani writes from Delhi airport: "15th Sept. Going to Edinburgh - a bird hormone meeting. I speak on the photo periodic regulations of seasonal breeding in (the) tropics." She goes on to say that people in Punjab, Gujarat, Hyderabad, Bangalore, are all keen to host the OSI meeting. I am sure the Secretary General will select the most practical venue.

A bird sanctuary for the Sarus Crane in Kodaikanal

The marsh in Kodaikanal, which is of course an invaluable appendage of the lake is being slowly eroded by encroachment of various kinds. It occurred to me that one way of preserving the marsh would be to designate it as a bird sanctuary, and if a spectacular bird like the Sarus Crane could be introduced here it might arouse the kind of public interest which would lead to the preservation of the fragile area. We invited Prakash Gole from Pune to come over and prepare a plan for the proposed sanctuary. His report is awaited. Meanwhile we include a report of the fascinating talk which Prakash gave at the Rotary Club of Kodaikanal during his visit last month.

Editor moves back to Bangalore

We have been in Kodaikanal since March 89, and have enjoyed this hill station and its natural features a great deal. But the climate is harsh, and not having the feathers of a bird, my wife and I find it a bit too cold. Our address, as from 1st November: No.2205 Oakwood Apartments, Jakkasandra Layout, Koramangala 3rd Block, 8th Main, Bangalore 560 034. Telephone : 533684. It will of course be nice to be in close touch with the publisher of the NLBW, S Sridhar. From this distance, and without secretarial help editing the Newsletter has been difficult.

Greyheaded Fishing Eagles (*Ichthyophaga ichthyactus*)

If anyone has seen these Eagles in the backwaters of Kerala, kindly inform Rishad Naoroji, Belha Court, 24 Ramchandani Marg, Bombay 400 039.

THE SIBERIAN CRANE (based on a talk given by Prakash Gole)

ZAFER FUTEHALLY, Moitaka, Bear Shola Road, Kodaikanal 624 101

In an effort to discover the cause of the alarming fall in the number of Siberian Cranes which visit Bharatpur every winter, the International Crane Foundation and the Russian Institute of Nature Conservation, sent a team of experts to their breeding grounds in Siberia this August. Luckily our Ministry of Environment chose as their representative, the obvious person, our crane specialist, Prakash Gole to join the team.

In the talk he gave recently in Kodaikanal, Mr Gole started by giving us a vivid visual sense of the breeding habitat. There are two flocks of cranes which nest in Siberia. One flock breeds in East Siberia and migrates to China for the winter. The second, a much smaller flock breeds in West Siberia, and of this some birds go to Iran, while others migrate to Bharatpur.

The photographs of the breeding habitat were taken from a helicopter, for the area is so swampy that it is impossible to walk upon. The river hardly moves over the flat tundra, turning and looping back on itself like a corkscrew, so that the whole area is a deep swamp, deceptively grassy in patches, but capable of swallowing up an unwary human being. In the distance stands a taiga, or forest, whose sole occupants are pine and birch. For those in the know, there are certain kinds of signposts, different sorts of vegetation which indicate the varying depth of water. But it is dangerous to venture out without a knowledgeable guide.

This "desert" marsh can produce a surprising amount of small wildlife, as well as food in the shape of berries in the summer. Indeed the main item in the diet of the crane chicks seems to be berries. It is also interesting that the main predator in that region is the Golden Eagle, a formidable

hunter which is able to bring down a deer. Unfortunately an artificially reared chick of the Siberian crane which the team had hoped to release in the wild also fell prey to this eagle.

The story of how these chicks are reared in the U.S. is amazing. An Indian girl Meenakshi Nagendran has worked out a technique by which she disguises herself as a crane, beak shape and all. She feeds the chicks with her "beak" and ensures that they have no contact with any human beings. It was hoped that when they were released in Siberia they would attach themselves to the "real" cranes. Unfortunately though, one of the chicks was killed before it could become part of a flock.

However, the team managed to capture one chick from a breeding pair, and attached a satellite transmitter to its back. The cause of the reduction in arrivals in Bharatpur is still a mystery. Obviously there has been no change in the ecology of the breeding habitat in recent years - possibly there has been no change in the last thousand years; at the Bharatpur end too, the birds are zealously protected. What then has been happening? One theory is that the long hazardous migratory flight now faces some new danger which could account for the low number of successful migrants. It is suggested that the long drawn out war in Afghanistan could be a factor, but it is impossible to make a reasonable hypothesis until we know the actual route taken by this flock. If it is for this reason that such anxious hopes are pinned to the sole chick which now carries the little gadget on its back. If the chick and the gadget perform successfully the secret of their route will be solved, and the International Crane Foundation may be able to do something to ensure that larger flocks are able to arrive every year in Bharatpur safe and sound.

COMMENTS ON NEW NOMENCLATURE

ANDREW ROBERTSON, 2 St. Georges Terrace, Blockley, Moreton-in-Marsh, Glos. GL56 9BN, England
and

AASHEESH PITTIE, 14-7-47D, Begum Bazaar, Hyderabad - 500 012

Andrew Robertson : My apologies for the "alarming" list. It will indeed be alarming for any birdwatchers brought up on a diet of Salim Ali and the BNHS Journal, which is exactly the reason why I feel that we must come to grips with this new terminology at the earliest opportunity.

Personally I'm a convert to the ideal of a single worldwide English name for each species. As you rightly say, every language has its different version of the common name, but within each language it is less confusing to have only a single term, and to this extent I think the unavoidable

abandoning of some names is justified. The great question is which name do we keep? At least as far as English common names go (and for common names English is the language, just as Latin/Greek is for scientific names) Sibley & Monroe is now accepted as the basis for discussion. As such their choice is not set in stone for evermore, but has been put forward by the International Ornithological Congress as the world list that probably gets nearest to universal agreement, and is being used as a starting point for the inevitable differences of opinion that will have to be sorted out and which will be discussed again at the next IOC meeting in 1994.

It is unreasonable to expect that traditional Indian usage will win the day in every case but we can certainly have our say. For example, now that the Black Drongo has been split into Asian and African species we must be thankful that the Asian species retains the name Black, while the African species has to become the Forktailed Drongo. On the other hand, in the case of the several species worldwide that were known as Black Vultures, this name has now been settled on the New World species and both those occurring in India which have at times been called Black are to become Cinerous Vulture and Redheaded Vulture. If one accepts that having a single English common name is a good idea then one must be prepared to win on the swings what one loses on the roundabouts and the above solutions seem reasonable.

In other instances the proposed names are far from being either consistent, meaningful or reasonable, and where this is the case with Indian endemic species at the very least, NOW is the time to put forward arguments.

As far as Asian species go, one of the prime movers in the usage and coining of English names has been Ben King, and because his 'Birds of South-East Asia' is much the mostly widely used guide in the region as a whole, he has had considerable influence. I had the chance to discuss this with him some time ago. His basic premise appears to be that - taking into consideration all the various English names in use for a species - the best name is short, and relates to a visible field character, ideally a character that, within the genus, is unique to that species; and that all races bear the same common name. He admitted that his choices were often arbitrary and particularly in the case of little brown birds a name such as Tickell's Leaf Warbler was hard to improve on.

Where I think his approach is good is in cases where a widespread bird has a number of English names in use in different areas and out of these the decision is made to select one short, descriptive, accurate name: for instance the preference for Brownchecked Fulvetta over Quaker Babbler. [Greyheaded Fulvetta would be even better but is

preoccupied by another species.] Among the Barbets, I would go along with the choice of Brownheaded Barbet for the species that has been variously known in India as Large Green, Northern or Western or Ceylon Green, or just plain Green Barbet. However, the use of Whitechecked Barbet for the endemic Small Green Barbet, even though in principle it is a more accurately descriptive name (the bird is not small as barbets go, and all barbets are to some extent green) illustrates where I have reservations - and that is in the invention of new names simply because you can think up a better one. You point out a very good example in your letter - the substitution of Flameback for the perfectly good and widely used Goldenbacked; Flameback is I think a lovely name, and if it had been thought of by the original observer 100 years ago I'd be all for it, but introducing it now serves no useful purpose. A good compromise might be Goldenback (with the 'Woodpecker' dropped) but combined with Lesser rather than the dangerous term Common. Another instance that I particularly object to is the use of the name Hanging Parrot for the genus *Loriculus* instead of the perfectly good, and shorter, Lorikeet; and can we not stop the little Yellowthroated Sparrow from becoming a Chestnut-shouldered Petronia!

While there are some genuinely difficult and hotly contested global choices to be made, such as the use of Loon versus Diver, with regard to national endemic species the choice may well go in favour of the traditional preference within the particular nation, provided that preference is voiced to the bodies concerned with finalizing the list.

Scientific names are of course governed by strict rules but we can all voice our opinion on common names, and it is for that reason that I felt Newsletter for Birdwatchers could generate a useful debate on English names for sub-continental species - the results of which can be publicised elsewhere in time to influence the outcome of the battle! I therefore have to counter your suggestion of "a list of the common names from the Handbook together with the new and the old scientific names"; it is the menace, as you put it, of the new common names that needs to be debated and fought.

By the way, as another change to the list as sent to you: Synopsis no.83, the Snow Goose, should be reinstated, between nos. 82 and 75, with no change to either common, generic or specific names. see JBNHS, 88(3):446-447.

Aasheesh Pittie: I have just taken up your letters pertaining to the correspondence of Mr Andrew Robertson and his paper proposing to print the changes in classification, nomenclature and common names of Indian birds, in the Newsletter. My personal feelings are as follows:

1. Printing just the Old and New Scientific name and the Old common name will confuse the issue.
2. AR's list contains changes which should be presented to readers of the NLBW in totality ie., in the classification, the changes in common name and scientific nomenclature mentioned by him.
3. We should add both the old common name and the old scientific name where a new one for both or either is proposed.

4. Once all the facts are presented in totality, a debate will begin among the readers.

I am going ahead with the work keeping the above in mind, and shall send it to you no sooner it is ready. It will take at least a fortnight to complete. Further changes in the format will be easy for you and can be easily done by a typist also, at Sridhar's establishment.

BIRDS IN A KERALA RUBBER ESTATE

ITTYAVIRA ABRAHAM, Kallivayalil, Mylikakunnel, Mallikassery P.O., Kerala 686 577

At first sight a rubber estate is a very dull place. Green and shady, yes. But row upon row of identical trees lined up in measured precision, with the collecting cups and the tapping wounds in horizontal counterpoint to the vertical trunks. But this monotony is in sharp contrast to the wide variety of bird life to be found in this environment. Since late 1988, with some irregular gaps, I have been fortunate in being able to keep an eye on the birds in some rubber area in Kottavam district in Kerala. The area, at a place called Vengathanam, is spread over about 200 odd acres of hilly terrain at altitudes of 600-900 feet, about 60 km away from the district headquarters at Kottayam. Most of the area is planted with rubber but some parts still retain a more traditional mixed cultivation. Here pepper and coffee, coconut and nutmeg, arecanut and tapioca and tall Jack (*Artocarpus heterophyllus*) and Aini (*Artocarpus hirsutus*) are interspersed with patches of rocky overgrown wilderness colonised by a variety of wild trees and shrubs and tangled creepers.

The first place among the birds, in terms of size and splendour, must go to the Crested Serpent Eagle (*Spilornis cheela*). This bird was observed from the earliest visits to the area in October 1988 and has been seen since then in almost every month of the year. The bird may be seen floating over the hills and valleys far above the tops of the rubber trees uttering its characteristic screaming calls. Despite the size of the bird, it is often overlooked when it is resting inside the rubber area and more often than not, it is only when it takes off from its perch on some low branch of a rubber tree that you become aware of its presence. The most memorable sighting of the Serpent Eagle was on a rainy, overcast July afternoon when the mist swirled and shifted among the rubber trees at the crest of a hill, cutting visibility down to 6 or 7 trees along a row. All at once the Serpent Eagle came gliding past, a mere 10-15 feet off, silent, wings outstretched and in perfect control, swooping upwards

onto a low bare branch of a rubber tree some 20-30 feet away and about 15 feet off the ground. There it sat motionless and clearly visible, outlined against the white veil of mist beyond.

The Crested Hawk Eagle (*Spizaetus cirrhatus*), after long absence, put in an appearance in February '91, when a solitary juvenile was sighted in an area of immature rubber. The appearance varied considerably from the normal adult's looks and this identification is based on the crest and the general effect of the bird. The next record is in April this year ('92) when a mature adult was seen in old rubber area, its crest fluttering like a pennant in the stiff breeze.

The Blackwinged Kite (*Elanus caeruleus*) is an occasional visitor flying above the rubber, turning and twisting as it scans the ground below. Now and then it hovers with fluttering wings upswept above the back, descends slowly, like a helicopter, for a closer look at some interesting movement below and then sideslips with the breeze at awesome speeds. It prefers more open areas and puts in an appearance as soon as any appreciably large area of rubber is cut down preparatory to replanting. It then chooses some large tree in the open area, such as an aini or jack and after each sweeping survey, returns to a perch well exposed on some high branch. It is a beautiful bird, well turned out at all times in its formal black and white dress and providing hours of enjoyment in the grace and power of its movements.

Among the first birds to draw the attention of a visitor inside the rubber area are the drongos - The Common Drongo (*Dicrurus adsimilis*), the Bronzed Drongo (*D. aeneus*) and the Racket-tailed Drongo (*D. paradiseus*). The Bronzed Drongo shows a distinct preference for the shady, leafy rubber areas while the other two may be seen in the rubber as well as in the open areas of mixed cultivation.

These birds are seldom seen in large numbers but are sure to be seen on any day of the year and almost any time of the day, and pretty late into the evenings as well. All of them are very noisy birds with a variety of loud and metallic calls as well as softer, more musical songs. Ever active and not unduly shy, these birds are a pleasure to watch. Every movement is graceful and decisive as they fly from perch to perch in pursuit of insect prey, indulging in spectacular aerobatics with great agility. Nor are these birds lacking in courage or persistence. I have watched a Racket-tailed Drongo take on and rout a Crested Serpent Eagle, attacking the much larger bird from above and below, all the while keeping up an incessant stream of vituperative screams and screeches, until the Serpent Eagle fled the field. The victor returned to its perch, preened for a while, and continued about its business! The Racket-tailed Drongo does some impressive imitations. Once I spent a considerable time trying to trace the calls of a Crested Serpent Eagle to its source, only to come upon a Racket-tailed Drongo perched well up in a rubber, practising this new sound effect, like a student doing exercises on some instrument. But for a certain lack of 'body' and volume, it had the whole sequence down pat!

The Malabar Whistling Thrush (*Myiophoneus horsfieldii*) was seen on 31.3.89. The first indication of its presence was its loud whistle as it rushed headlong down the bed of a stream at the edge of a rubber plantation. Some patient skulking on my part was rewarded on another day with a clear view of the bird as it hopped about on the rocks near a pool of clear water in the almost dry river bed. I have heard that same shrill loud whistle on a number of occasions but could not locate the bird. I have yet to hear that other rollicking relaxed whistle which I have heard elsewhere.

A surprise presence, so far from marshes or large water bodies, was the Whitebreasted Waterhen (*Amaurornis phoenicurus*), seen in the same area of the stream as the Whistling thrush. The sides of the stream are covered with a short bamboo-like growth for about a width of two to three feet from each bank. The waterhen was first seen as it walked out of this growth onto the high bank of the stream. From there the bird strolled out, its tail flicking constantly, into the rows of rubber and vanished into a patch of undergrowth. The next sighting was a long time later on 21.4.1990, when a pair was seen in the same general area, crossing another stream with quiet circumspection. I have not seen them since nor heard their calls at any time.

Like the Blackwinged Kite, another bird that puts in an appearance as soon as any area is cleared prior to replanting, is the Blue Jay (*Coracias benghalensis*). It uses the stumps of dried up rubber trees yet to be removed, or some

large bush or a solitary rock as a perch or look-out post. From these posts it swoops on insects in the tangled cover crop or the weed covered ground and flies off in a leisurely manner to the same perch or to another perch in another corner of the area. These birds are invariably seen here singly and no nesting activities have been observed.

The Brainfever Bird (*Cuculus varius*) announces its presence by its unmistakable calls. They are found inside the rubber areas and seldom in the areas of mixed cultivation here. Its hawk-like appearance has caused this bird to come to a nasty end very often. I have had occasion to remonstrate with the proud 'shikari' who brought down one of these birds in the course of his zealous protection of the local poultry. He found it hard to conceal his scepticism when I insisted that this bird could not handle anything larger than a lizard!

The presumed target of that shikari, the Shikra (*Accipiter badius*) is not uncommon here, generally frequenting the immature areas of the rubber where the canopy has not closed in overhead or has done so only very lightly. Once, as I was passing along one of the estate roads, a Shikra shot out of an immature rubber tree by the side of the road. Unfazed by the approach of the Jeep, the Shikra shot across the road, heading for a Dove, possibly the Spotted Dove (*Streptopelia chinensis*), perched on another rubber tree. The Dove sensed the danger, but too late. Desperate, it took off and tried to escape, but the Shikra, with some masterful display of speed and agility, turned and twisted and hit the dove full on. With the prize gripped firmly, the pair fell in a shower of feathers almost to the ground before the shikra regained control and flew with its prey into a plot of mature rubber with a good canopy a little way off. The whole affair was over in a matter of seconds. Nature red in tooth and claw....! I have seen the shikra feeding on small birds on a number of occasions. Once the victim could be identified with about 75% certainty as a male Tickell's Flycatcher (*Muscicapa tickelliae*).

In March this year, I was watching a group of swifts/swallows whizzing about along the face of a steeply sloping hill. One group of birds looked larger than the rest with a long body and long narrow, backward curving wings and when the tail was occasionally opened, it showed deeply forked tips. Then one of these birds came to rest on a rubber tree nearby and at once a short backward curving crest came erect on the forehead and the identity of the bird was established - The Crested Tree Swift (*Hemiprocne longipennis*). I wonder if there is any bird which could be confused with this swift. This was the first time I had seen this species here. There were about ten or so birds in that group. In flight, a loud, wheezy call was repeated.

Like the Malabar Whistling Thrush, another bird that is more often heard than seen is the Tickell's Redbreasted Blue Flycatcher (*Muscicapa tickelliae*). One some days the estates ring with its melodious trill but it is quite a job actually to locate the bird in the confusing light and shade. The fluttering leaves with the myriad butterflies flitting to and fro add to the confusion. But a search is well worth the effort to watch this active and lovely little bird. Occasionally the bird is more easily observed in the open areas of pepper and coffee where the light is better and the bird is clearly visible as it operates off a low branch of a jack or aini.

The Magpie Robin (*Copsychus saularis*) is a common bird but very rarely met with inside the rubber areas. It is in regular attendance around the estate bungalow, in mixed non-rubber area, and nests in a hollow in an old tree very near the building. This same site has been seen in use in two successive years. Its song is a pleasure to listen to. It has certain preferred perches, and in the breeding season, it flies from one to the next, spending a few minutes at each, singing lustily, leaving no doubts as to its territorial claims in the area.

The Redwhiskered Bulbul (*Pycnonotus jocosus*) and the Redvented Bulbul (*P. cafer*) are about equally common though the Redvented is met with more often inside the rubber areas while *P. jocosus* is common about the bungalow and even builds its nest on the tangled main stem of a *Begonia* that climbs onto the roof of the bungalow - barely six feet off the ground and less than five feet from the bungalow walls and window. The bungalow cat kept a close watch on the nest. Nonetheless, a nestling was seen on 3.7.1989 and it left the nest about a week later.

The Indian Purple-rumped Sunbird (*Nectarinia zeylonica*) is another regular visitor to the bungalow and its environs and also builds its nest on the same creeper within arm's length of the verandah. These birds frequent the *begonia* flowers and the flowers of the coral trees (*Erythrina spp*) which are used as standards for the pepper plants. The Iora (*Aegithina tiphia*) too is regularly met with both inside rubber plantations and in the areas of mixed cultivation. Actively flitting about in the leafy canopy of the large jack and aini trees and less often in rubber areas, its call - the soft long-drawn whistle ending on a sudden low note - is a constant background accompaniment to the more insistent calls of the bulbuls and drongos and the magpie-robins. The Yellow-browed Bulbul (*Hypsipetes indicus*) is generally found in areas with water and plenty of foliage and is not uncommon here. The soft double-noted calls with a number of variations on the theme are pleasant and melodious. The Blackheaded Oriole (*Oriolus xanthornus*) and the Golden Oriole (*Oriolus oriolus*) are found here, with the Blackheaded being by far the more common species.

The minivets are represented here by the Scarlet Minivet (*Pericrocotus flammeus*) and the Small Minivet (*P. cinnamomeus*). They are both fairly common and met with in almost every mixed group of birds, flitting from tree to tree up above in the very topmost branches in pairs or small parties. Mr K K Neelakantan in his Malayalam book on the birds of Kerala speaks of having observed a male and two females forming a family party, sharing nesting and feeding duties. Here too, I have noted that on a large number of occasions these scarlet minivets are seen in groups of three - one male and a pair of females. I have not however seen this menage a trois engaged in any activities connected with raising a family.

The Forest Wagtail (*Motacilla indica*) has been seen on two occasions. The first was some time in November '89 when a pair was seen inside rubber area. The second and more recent sighting was in March this year (1992). This time a solitary bird was seen on one of the estate roads. It flew up onto a rubber tree as I approached. The Whitethroated Ground Thrush (*Zoothera citrina cyanota*) is an uncommon but regular visitor and I have records of sightings in December '88, March and July 1989 and April, May and December 1990 and January '91. After that the record is blank until a pair was seen in April this year. It has always been seen on the ground from where it flew up onto nearby rubber or other trees. It sat there silently and moved on if approached or returned to the ground if the observer kept his distance.

Four species of woodpeckers have been seen here. Of these the commonest are the Goldenbacked (*Dinopium benghalense*) and the Greycrowned Pigmy (*Dendrocopos nanus cinereigula*). The other two are the Heartspotted (*Hemicircus canente*) and the Yellowfronted Pied (*Dendrocopos mahrattensis*).

There is an irruption of Cattle Egrets (*Bubulcus ibis*) during the dry season from about December to March. They are seen attending on stray cattle grazing within the estate and in the evenings large numbers gather in the tops of the coconut palms, highlighted in the slanting evening rays against the green background, before leaving in groups, heading west.

The Chestnutheaded Bee-eater (*Merops leschenaulti*) is seen occasionally operating in pairs or groups from the branches of rubber trees standing on the edge of a steep slope or adjacent to open areas. The Small Green Bee-eater (*Merops orientalis*) is also seen occasionally in the rubber area. The Gold-fronted Chloropsis (*Chloropsis aurifrons*) and the Jerdon's Chloropsis (*C. cochinchinensis*) are also present in this area. Very vocal and active, these birds are seen on their own or as part of the mixed groups roaming through the estates. The Whitebreasted Kingfisher (*Halcyon*

smyrensis) is a common resident and its general habits make you wonder why he is called a kingfisher at all. The Common Myna (*Acridotheres tristis*), the Jungle Myna (*Acridotheres fuscus*), the Tree Pie (*Dendrocitta vagabunda*), the House Crow (*Corvus splendens*), the Jungle Crow (*Corvus macrohynchos*), the Barred Jungle Owlet (*Glaucidium radiatum*), the Grey Tit (*Parus major*), the Tailor Bird (*Orthotomus sutorius*), the Little Green Barbet (*Megalaima viridis*) and the Paddy Bird (*Ardeola grayii*) are other common birds.

The Indian Plaintive Cuckoo (*Cacomantis merulinus*) is a recent addition to the local bird list. A number of these birds have been seen in rubber area with good canopy over the last month or so.

There are periods when the rubber area gets a heavy undergrowth of weeds rising up to 2-4 feet in the inter-rows between the rubber. In these areas there are a number of skulkers who present serious problems of identification. One bird definitely identified is the Ashy Grey Wren-Warbler (*Prinia hodgsonii*). This bird has a call which is inordinately loud out of all proportion to its size. It pops out of the weed covered undergrowth and then holds forth from some low bare branch nearby. Though I have not actually seen a nest, I am quite certain that this bird breeds here. I have seen him (or her?) carrying worms etc., in its beak and disappearing into the depths of creeper entwined clumps. It emerged a little later minus the titbit, and proceeded to a perch nearby where it wiped its beak and proceeded to call for while. On one occasion I saw a pair attending on a fluffy little bird which was squatting dead still in the cover of the foliage in some bushes. The parent birds (?) displayed great agitation and near panic when the little one was approached.

Aside from the birds mentioned already, I also have an unconfirmed single sighting, of a Yellownaped Green Woodpecker (*Picus chlorolophus*), possibly a solitary female, seen on 21.4.1990. Behaving more like a chloropsis or a bulbul, the bird moved about on a leafy low branch of a rubber tree picking titbit off the leaves and leaf-stems. After some minutes of this, the bird flew into the trunk of a nearby rubber tree and in typical woodpecker fashion clambered up and out of sight. This was the only sighting of this bird and I have not had a chance to confirm its identity.

In January this year, while walking through the estate in broad daylight, I chanced upon a Nightjar. It was perched lengthwise along a low branch on a rubber tree. Its camouflage is highly effective and only when I was standing directly beneath the branch about 10 feet from the bird, could I be certain that what I was seeing was not some lichen encrusted growth on the tree. Even after my close

approach and scrutiny, the bird sat absolutely still for a while. Then it flew off to another tree nearby. I cannot claim a specific identification even after a good look at such close range.

The Malabar Jungle Babblers are common here. They are always in groups of about ten or more. Their look-out system is almost foolproof and invariably the birds announce their presence by a series of loud, hoarse and nasal whistles and creaks from a single bird followed by the eruption of the rest of the party from the ground cover up into the lowermost forks of the rubber. There the birds proceed to hop about in great agitation, turning this way and that and constantly moving upward, all the while maintaining a loud chatter. After getting to a good height, a short falling glide with an occasional flap, takes them to another perch lower down on another tree some distance away, and in a steady stream all the birds follow one another in the same general direction. However, on a couple of occasions the Distant Early Warning system has failed. I have had small groups burst up from the ground virtually at my feet where they had been quietly foraging in the shelter of low undergrowth, causing equal consternation to the observer and the observed!

The Velvetfronted Nuthatch (*Sitta frontalis*) is a fairly common species here and may be seen by itself or in the company of other birds in the mixed hunting parties of birds that roam the estate. These mixed hunting parties which one reads about, really come alive on some days in the rubber estate. After wandering around for hours and seeing nothing more than the occasional tree pie or the ubiquitous drongos, just as you are about to give up and go home, all at once the estate rings with a veritable concert of bird calls. The vanguard of the approaching army is usually made up of the Goldenbacked Woodpeckers and the drongos. The woodpeckers swoop from one rubber tree to the next with their loud, shrill calls and then hop up and around the trunks peering into the crannies and pecking at the loose bark of the trees to dislodge dainty morsels. The drongos occupy the lower regions, operating off the lowermost branches and making constant sallies after flying prey or pouncing on something seen on the ground. Sometimes, in the course of a swirling, twisting chase after some desperate prey, one can hear the bird's beak clicking as it makes successive attempts to capture the fleeing insect. The other members of such wandering parties include the Pigmy Woodpeckers confining themselves to the smaller side branches and the twigs at the tops of the trees and seldom venturing down onto the main trunk; the Velvetfronted Nuthatches, following roughly the same trail. The Goldfronted Chloropsis and Goldmantled Chloropsis occupy the leafy canopy feeding on the insects and the grubs and other unknown delicacies found there, along with the minivets, the bulbuls and the orioles. The

Tickell's Flycatcher and the Blacknaped Blue Flycatcher are members of such groups and operate in typical flycatcher fashion from off a low branch, making smart aerial attacks on flying prey stampeded by the movements of the other birds, particularly the babblers on the ground. The tree pie is another occasional member and may be found with the canopy party or down among the undergrowth making its deliberate, purposeful way in the shrubbery. If you keep up with the easy progress of this moving feast it is sure to provide hours of birdwatching until the birds cross some local property boundary or some natural obstacle beyond the capabilities of the observer.

Despite the variety of birds found in a rubber plantation, it is surprising that little or no nesting activities have been observed on rubber trees. I have only once seen a Little Green Barbet (*M. viridis*) using a rotten stump of a rubber tree to build a nest. All other nesting activities observed in rubber areas have been confined to other trees such as aini and jack or coconut palms standing in the midst of the rubber. It would seem that rubber trees provide great scope for food but little for nesting.

The advent of rubber plantations has led to the virtual destruction of various indigenous trees which used to flourish in the earlier mixed cultivation. Particularly to be lamented in the loss of trees such as the *Ficus glomerata* (the country fig, locally known as the Atthi), the *Ficus gibbosa* (locally called Itthi) and other varieties of the *Ficus* spp. For when these trees are in fruit they attract large numbers of fructivorous birds. Now these trees are rare relics

fortuitously in some corner of the rubber estates. Old hands still speak with relish (!) of the hordes of Southern Green Pigeons (*Treron phoenicoptera*, locally known as the 'chola') that used to converge on these and similar fruiting trees in the 'good old days'! Now this pigeon is not seen in this area.

Aside from the impact on the birds, these monoculture plantations have apparently had a negative effect on the local water regimen. Areas which had plenty of perennial wells and streams now face shortage of water after even a short dry spell. I wonder if there is a direct causal connection between the planting of rubber and the lack of perennial water. The fact is that despite the annual precipitation remaining fairly constant, we run out of water much faster, and there is no stream which does not dry up for some time during the year. This change has taken place over the last 25-30 years, coinciding with the arrival of rubber in this area.

Rubber plantations, in pleasant contrast to cardamom, use hardly any pesticides. There is increasing use of weedicides but most of it is on a reasonably scientific basis with regard to volume and dosage and timing. Large volumes of Bordeaux mixture (Copper sulphate and lime) are applied but I have not come across anything to indicate that this has any negative side effects.

For all the initial dullness and monotony, a rubber estate soon reveals itself as a place full of life and variety. Shady and green all the year round, with only a short period of defoliation, it is a pleasure to stroll around and watch the avian days and ways unfold around you.

BIRDS OF HORSLEY HILLS

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Horsley Hills (13° 41' N, 78° 28' E), in Chittoor District of Andhra Pradesh is a hill resort, and forms a part of a range of hills in the Eastern Ghats. The hills are so named after M.W.H. Horsley, a member of Indian Civil Service of the erstwhile British Raj. The Hills come within the Horsley Konda Reserve Forest and comprise an area of 47 sq.km having a total of 13 peaks in all, of which seven of them are over 1000 m elevation and highest being 1347 m above MSL. Prior to 1850, when Horsley took a fancy to this place, the hills were known as "Enugu Mallamma Konda". The presence of vestiges of a crude fortification indicates that one time it had a great local importance. Recently an excavation on top of the hill has accidentally unearthed a stone-age tool giving these hills an archaeological importance. These hills were well known by the turn of the century as a hill resort as a result of developmental works by Horsley.

Ornithologically very little is known about Horsley Hills. Much of what is known about the birds of these hills comes from the sole publication of a note by P. Roscoe Allen (1908) on the Yellow-throated Bulbul *Pyenonotus xantholaemus* a species endemic to South India and restricted to inland hills. While making special reference to the population of Yellowthroated Bulbuls, Allen (1908) mentions the sightings of 16 species of birds. Very surprisingly Whistler and Kinnear (1932) did not visit these hills during the Vernay Scientific Survey of Eastern Ghats. Instead they camped at Palkonda Hills north of Horsley hills. However, they do not fail to make a mention of the site while providing details about Yellowthroated Bulbul specimens quoting Allen's observation. They go a step further to state that Horsley Hills could have been the locality where T.C. Jerdon obtained his type specimen of Yellowthroated Bulbul *B.M. Reg. No.: 1846.4.30.33* [now in the British Museum (Natural History)].

We visited Horsley Hills between 17-20 October 1991 with an intention to add on to the present knowledge of Yellowthroated Bulbuls (Subramanya and Prasad, unpublished), as a part of our study of the species (Subramanya *et al.*, 1990, 1991). We stayed at the Mission Bungalow, where Roscoe Allen stayed during his 1908 (April-May) visit and made forays to different parts of the hills to study the bulbul. In fact first of the two specimens of Yellowthroated Bulbul obtained by Allen on 22 April 1908 (presently in BNHS collection with Reg.No. 2062) was obtained from the verandah of this Mission Bungalow. Though *Ficus* trees in fruit were found within the compound of the bungalow, it seems that it is no longer a favourite haunt of Yellowthroated Bulbul as they were not sighted anywhere close by, may be because of extensive disturbance caused by tourists. Detailed notes were taken on all the bird species sighted and heard during our daily trips and recorded details on vegetation and the habitat.

Though the habitat is predominantly a dry deciduous type, a small patch of moist deciduous forest does exist. With the upgradation of its status as a hill resort, the developmental activities and a large scale *Eucalyptus* plantation in 1963 seems to have wrought changes to the habitat once frequented by Roscoe Allen. Whatever the wild vegetation that exists today is much disturbed. Though a meshed fence has been erected on either side of the road, neighbouring villagers do stray into the protected area for fuelwood and fodder. Their cattle can also be seen frequenting the surrounding hills for grazing. However, good natural vegetation does exist in places where the approach has been made inaccessible due to the dense growth of *Lantana*. In certain places, slopes are thickly covered with grass.

During our short stay a total of 83 species falling under thirty families were noted. Some of the important observations are as follows :

1. The Yellowthroated Bulbul was found to be the most abundant among the four species of bulbuls sighted.
2. Our Sighting of Forest wagtail *Motacilla indica* in Horsley hills possibly is the third recorded for Andhra Pradesh. Taher & Pittie (1989) indicate the species to be rare in Andhra Pradesh. Whistler & Kinnear infer in their Vernay report that it possibly is on passage to its wintering grounds. We sighted an individual on 17 October 1991 actively foraging along the roadside. It was not sighted on subsequent days during our stay.
3. As Dr Pamela C. Rasmusen & Mr. J.S. Serrao rightly point out in NLBW 1992, 32 (7&8): 18, that the first credit for reporting Blueheaded Rock Thrush *Monticola cinclorhynchus* from Eastern Ghats goes to

Dr Trevor Price [1979: JBNHS: 76(3) : 379422]. Dr Price came across the species from last week of October 1976 upto March 1977 on four occasions. We came across three males and two females regularly between 17-20 October 1991 at Horsley Hills. Hence Mrs Geetha Iyer and Mr Karthik Shankar's sighting of the Blueheaded Rock Thrush on 22 March 1992 [NLBW 32 (5&6), 15] happens to be the second record of the species for the area. Also this species is included in the Andhra Pradesh checklist by Tahar & Pittie (1989).

4. Indian Myna *Acridotheres tristis*, Jungle Myna *I. fuscus* and Brahminy Myna *Sturnus pagodarum* (Family: Sturnidae) were not sighted or heard on the Horsley hills during our visit. However, the Indian Myna were found to be common around the nearest village about 3 km away from the foothills. We were also surprised to note the absence of both species of crows namely the Jungle Crow *Corvus macrohynchos* and House Crow *C. splendens*, inspite of the fact that considerable human habitation does exist on top of the hills.
5. A pair of Black Eagles *Ictinaetus malayensis* were observed breaking off the dry slender branches of a *Eucalyptus* tree and carrying away for nesting. One of them was seen carrying a rodent closely pursued by a Tawny Eagle (?).
6. Due to a brief glimpse we could not confirm the identity of the *Anthus* sp. possibly *A. similis* or *A. campestris*. We request birdwatchers visiting the area to keep a look out for this Pipit as *A. similis* has not been recorded in Eastern Ghats in Andhra Pradesh.

Though this list presented below is by no means comprehensive, it intends to provide an impression of the avifauna of the hills to those interested and may aid more serious effort in future.

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BIRDS OF HORSLEY HILLS – A PRELIMINARY
CHECKLIST

- * Refers to bird species not met with during our survey between 17-20 October, 1991, but recorded by Mr Roscoe P. Allen.
- # Refers to species that were also sighted by Roscoe Allen
- ? Refers to bird species sighted by authors but due to insufficient details identity has not been confirmed. Confirmation desirable regarding occurrence of the species.

Family: Accipitridae

001 0124	<i>Elanus caeruleus</i>	Blackwinged Kite
020 0130	<i>Pernis ptilorhynchus</i>	Honey Buzzard
003 0133	<i>Milvus migrans govinda</i>	Pariah Kite
004 0138	<i>Accipiter badius</i>	Shikra
005 0168	<i>Aquila rapax</i>	Tawny Eagle (?)
006 0172	<i>Ictinaetus malayensis</i>	Black Eagle #
007 0195	<i>Circaetus gallicus</i>	Short-toed Eagle

Family: Phasianidae

008 0301	<i>Gallus sonneratii</i>	Grey Junglefowl
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Family: Columbidae

009 0517	<i>Columba livia</i>	Blue Rock Pigeon
010 0537	<i>Streptopelia chinensis</i>	Spotted dove
011 0541	<i>Streptopelia senegalensis</i>	Little Brown Dove

Family: Psittacidae

012 0550	<i>Psittacula krameri</i>	Roseringed Parakeet
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Family: Cuculidae

013 0572	<i>Cuculus sparveroides</i>	Large Hawk Cuckoo
014 578/9	<i>Cuculus canorus</i>	The Cuckoo *
015 0582	<i>Cacomantis sonnerati</i>	Baybanded Cuckoo *
016 0590	<i>Eudynamis scolopacea</i>	Koel
017 0595	<i>Rhophodytes viridirostris</i>	Small Greenbilled Malkoha
018 597/8	<i>Taccocua leschenaulti</i>	Sirkeer Cuckoo
019 0602	<i>Centropus sinensis</i>	Crow-pheasant

Family: Strigidae

020 0623	<i>Otus bakkamoena</i>	Collared Scops owl
021 0631	<i>Bubo zeylonensis</i>	Brown Fish Owl

Family: Caprimulgidae

022 0671	<i>Caprimulgus indicus</i>	Indian Jungle Nightjar
023 6757	<i>Caprimulgus macrurus</i>	Longtailed Nightjar #

Family: Apodidae

024 0703	<i>Apus affinis</i>	House Swift
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Family: Alcedinidae

025 7357	<i>Halcyon smyrneensis</i>	Whitebreasted Kingfisher
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Family: Meropidae

026 0750	<i>Merops orientalis</i>	Small Green Bee-eater
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Family: Upupidae

027 0765	<i>Upupa epops</i>	Hoopoe
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Family: Capitonidae

028 780/1	<i>Megalaima zeylanica</i>	Large Green Barbet #
029 0792	<i>Megalaima haemacephala</i>	Crimsonbreasted Barbet #

Family: Picidae

030 0858	<i>Chrysocolaptes festivus</i>	Blackbacked Woodpecker
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Family: Pittidae

031 0867	<i>Pitta brachyura</i>	Indian Pitta
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Family: Alaudidae

032 0882	<i>Ammomanes phoenicurus</i>	Rufoustailed Finch-Lark
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Family: Hirundinidae

033 0914	<i>Hirundo concolor</i>	Dusky Crag Martin
034 0917	<i>Hirundo rustica</i>	Common Swallow

Family: Oriolidae

036 0953	<i>Oriolus oriolus</i>	Golden Oriole
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Family: Dicruridae

037 0963	<i>Dicrurus adsimilis</i>	Black Drongo
038 0965	<i>Dicrurus leucophaeus</i>	Grey Drongo
039 0967	<i>Dicrurus caerulescens</i>	Whitebellied Drongo #
040 0973	<i>Dicrurus hottentottus</i>	Haircrested Drongo

Family: Corvidae

041 1033/4	<i>Dendrocitta vagabunda</i>	Indian Tree Pie
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Family: Camphephagidae

042 1070	<i>Tephrodornis pondicerianus</i>	Common Wood Shrike
043 1072	<i>Coracina novaehollandiae</i>	Large Cuckoo-Shrike #
044 1077	<i>Coracina melaschistos</i>	Dark Grey Cuckoo-Shrike
045 1079	<i>Coracina melanoptera</i>	Blackheaded Cuckoo-Shrike

Family: Irenidae

046 1100	<i>Aegithinia tipha</i>	Common Iora
047 1107	<i>Chloropsis cochinchinensis</i>	Jerdons's Chloropsis

Family: Pycnonotidae

048 1120/1	<i>Pycnonotus jocosus</i>	Redwhiskered Bulbul
049 1128	<i>Pycnonotus cafer</i>	Redvented Bulbul #
050 1135	<i>Pycnonotus xantholaemus</i>	Yellowthroated Bulbul #
051 1138	<i>Pycnonotus luteolus</i>	Whitebrowed Bulbul

Family: Muscicapidae

052 1154	<i>Pellorneum ruficeps</i>	Spotted Babbler #
053 11735	<i>Pomatorhinus horsfieldii</i>	S.headed Scimitar Babbler
054 1221	<i>Dumetia hyperythra</i>	Whitethroated Babbler #
055 1231	<i>Chrysomma sinensis</i>	Yelloweyed Babbler
056 1258	<i>Turdoides malcomii</i>	Large Grey Babbler #
057 1263	<i>Turdoides striatus</i>	Jungle Babbler
058 1408	<i>Muscicapa muttui</i>	Brownbreasted Flycatcher
059 1411	<i>Muscicapa parva</i>	Redbreasted Flycatcher
060 1440	<i>Muscicapa rubeculoides</i>	Bluethroated Flycatcher
061 1442	<i>Muscicapa tickelliae</i>	Tickell's Blue Flycatcher
062 1461	<i>Terpsiphone paradisi</i>	Paradise Flycatcher #
063 1465	<i>Hypothymus azurea</i>	Monarch Flycatcher
064 1503	<i>Prinia hodgsonii</i>	Franklin's Wren Warbler
065 1511	<i>Prinia subflava</i>	Indian Wren Warbler
066 1517	<i>Prinia socialis</i>	Ashy Wren Warbler
067 1535	<i>Orthotomus sutorius</i>	Indian Tailor bird
068 1556	<i>Acrocephalus dumetorum</i>	Blyth's Reed Warbler (?)
069 16025	<i>Phylloscopus trochiloides</i>	Greenish Leaf Warbler
070 1661/3	<i>Copsychus saularis</i>	Magpie Robin #
071 1667	<i>Copsychus malabaricus</i>	Shama
072 1700/1	<i>Saxicola caprata</i>	Pied Bush Chat #
073 1720	<i>Saxicoloides fulvicata</i>	Indian Robin
074 1723	<i>Monticola cinclorhynchus</i>	Blueheaded Rock Thrush

Family: Motacillidae

075 1868	<i>Anthus sp.</i>	Pipit
076 1874	<i>Motacilla indica</i>	Forest Wagtail
077 1884	<i>Motacilla cinerea</i>	Grey Wagtail

Family: Dicaeidae

078 1899	<i>Dicaeum erythrorhynchos</i>	Tickell's Flowerpecker
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Family: Nectariniidae

079 1907	<i>Nectarinia zeylonica</i>	Purplerumped Sunbird
080 1911	<i>Nectarinia lotenia</i>	Loten's Sunbird
081 1917	<i>Nectarinia asiatica</i>	Purple Sunbird

Family: Zosteropidae

082 1933/4	<i>Zosterops palpebrosa</i>	White-eye
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Family: Ploceidae

083 1938	<i>Passer domesticus</i>	House Sparrow
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SPECULATIONS ON THE EVOLUTION OF THE BEHAVIOUR AND COLOURATION OF SOME INDIAN BIRDS

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I have for quite some time been intrigued with and fascinated by the peculiar colouration and behaviour of several species of Indian birds, many of them familiar to most birdwatchers, and am writing this note in the fond hope that some readers may be able to enlighten me.

Social Grooming

Often have I watched two or more whiteheaded babblers (*Turdoides affinis*), huddled together on a branch, early in the morning, posturing and preening each other. One bird would preen the other, usually the head and nape, and then posture to the other with its head bent forward, waiting for the other to groom it.

If the main purpose of this grooming act is to remove potentially dangerous ectoparasites off the recipient, then it is basically an altruistic act. Evolutionarily this will be favoured only if the associated cost (time and effort spent in grooming another individual) is offset by adequate benefit. Grooming is likely to occur among closely related individuals, since, by aiding a related recipient, the groomer is actually aiding the survival of a proportion of its own genes present in that individual*. Such grooming is also likely to occur if the chances that the groomer will be reciprocally groomed are high*.

Other common species which exhibit this kind of preen-and-posture behaviour are the House Crow (*Corvus splendens*) and the Jungle Crow (*Corvus macrohynchus*). I once saw a House Crow with head feathers fluffed up, neck arched and holding still with the nictitating membrane covering the eye. Its partner delicately groomed its lores and ear coverts without batting an eyelid! These crows which are "monogamous, evidently pairing for life" (Ali and Ripley, 1980), present a mating system which offers a fascinating chance to look at the phenomenon of altruism between (genetically) unrelated, pair-bonded birds.

Thus, in babblers, which are communal breeders often consisting of related individuals, altruistic acts of grooming may, perhaps, be expected. In crows, I have usually seen only two individuals groom each other and these are presumably the individuals paired for life. Though the individuals of the pair are not genetically related, their own survival and that of their young may depend on maintenance of the pair-bond and the daily (?) ritual of ridding each other of dangerous parasites.

Conversely, it would be interesting to know whether the purpose of such grooming in crows is akin to the allogrooming seen in primates which serves to reinforce social bonds in primate troops. In other words, is this grooming a ritualised display functioning to reinforce the bond between the mated pair? Or does grooming also

reflect dominance relationships as in primates, where submissive individuals groom the dominants as a form of appeasement display?

In this connection, it would be interesting to know whether something similar is seen in the Sarus Crane (*Grus antigone*), famed in India for the 'devotion' of the pair to each other throughout their life. The Sarus male, displays to its mate elaborately during courtship every breeding season a behaviour indicative of the need for reinforcing the pair-bond. What would happen to pairs which showed decreased altruistic assistance to each other? Perhaps the chances of survival of one or both mates and/or offspring may decrease to such an extent as to weed out such individuals by selection. Indeed, reciprocal altruism may be a less costly affair to the crane, than the alternative strategy of 'cheating' on the partner and looking for another mate, which may not always be so easy to find. As a corollary, I would also like to know whether altruistic acts like food-sharing between mates (during and outside the breeding season) is also commoner in species with life-long pair-bonding. A kin-selection type explanation can be invoked to explain this — the difference being that the altruist is not aiding the survival of the fraction of its genes shared by a close relative, but is aiding the survival of its mate and hence insuring its own future reproduction.

My limited observations on crows shows that the parts of the body most frequently allogroomed are the head, nape, crown, etc. parts which the recipient cannot reach with its own beak. Allogrooming may thus be merely a reciprocal altruistic gesture to aid effective grooming of parts of the body which cannot be cleaned by autogrooming actions like scratching, rubbing, bathing etc.

Flashy Colours and Spots

One very often comes across in natural history books photographs of moths with prominent eye-spots on their hind wings, used to startle predators away. When at rest, these moths are usually camouflaged with cryptic, often polymorphic, patterns on the forewing, under which the conspicuously marked hind wing is hidden.

However, I have never come across mention of similar startle tactics used by birds to capture their prey, and indeed, some of my (rather limited) observations show that this does happen. For instance, in the summer of 1988, I was watching the rambunctious crow-pheasant or coucal (*Centropus sinensis*) foraging on the ground in a village in Kerala. This bird was usually seen stalking its prey (large insects) in the dry leaf litter on the ground. I was surprised when one such bird stopped suddenly, lifted one wing, turned it up and forward with the front part of the body

* For a detailed account of altruism see McFarland (1985)

inclined downward, and then flashed forward to grab a large insect in its beak. This ritual was repeated several times, sometimes with both wings turned forward, and some large brown (camouflaged?) insects were caught. Apparently, this bird was using the vivid chestnut colour of its wings to startle lurking prey, I do not know the colouration of the underside of the wing of this bird, but it struck me that the wings were used as such because the resultant body position (head lowered and beak ready to jab at prey) was more appropriate. I have not seen this behaviour after that incident, and would like to know whether readers have seen anything similar. Ali & Ripley (1980) remark that this is "obviously a manoeuvre to stampede lurking prey".

I have also seen Indian Mynas (*Acridotheres tristis*) use their conspicuous white underwing patches in a similar fashion, apparently to startle prey, on the grassy grounds of Loyola College, Madras.

I have so far detailed some thoughts of mine regarding the usage of bird plumage as a means to startle prey but I can only wonder whether the chestnut wing of the coucal and the white wing patches of mynas and many other bird species have evolved solely to perform this function or serve many other purposes besides.

Sexual Selection and Plumage

Readers are probably familiar with the concept that brightly coloured plumage has evolved in the males of many species to attract females. Suffice to say that the theory, put forward by W.D. Hamilton and others that elaborate, well-maintained plumage can act as an indicator of male fitness (absence of parasites) to allow females to choose the best mate, has been supported by field research on some species, like the red jungle fowl of Southeast Asia (Rennie, 1992).

Having watched the purplerumped sunbird (*Nectarinia zeylonica*) male display its metallic hues and bright shoulder patch to the female with maximum effect, I can imagine how this works. But, how much of the colouration is due to sexual selection and how much due to other aspects, including need for camouflage, startling prey and so on? Can we ever be sure of the answer to this question for each Indian species? Does the conspicuous white breast of the Kingfisher (*Halcyon smyrnensis*) serve to attract its mate (male or female) in courtship and its white wing-patch to startle prey? or, how many other factors are there which can possibly lead to evolution of specific colours and patterns on the plumage?

Here, I must state that an accurate knowledge of the behavioral repertoire of Indian bird species can probably provide us with immense knowledge on such matters. I must say that my personal experiences with birds has been rather cursory and I have done no intensive (field or library) study of bird behaviour.

Another factor which could have led to such colours can perhaps be understood from looking at closely related species. For instance, the bulbuls (*Pycnonotus cafer*, *P. jocosus* and *P. leucogenys*) have always struck me as having plumages which were more similar than dissimilar. But why do two of these species have a red vent and one a yellow vent? What is the significance of the gradation in development of the crest and the cheek patch: the stumpy crest and no cheek patch of the redvented bulbul, giving way to a more prominent crest and white cheek patch of the whitechecked bulbul and culminating in the pointed crest and half-red cheek patch of the red whiskered? Considered over evolutionary time, it is possible that as the bulbuls speciated from a common ancestor, the differences in plumage evolved as a reproductive isolation mechanism. Over ecological or 'now' time (see synopsis of Sri V.S. Vijayan's thesis on 'The Ecological Isolation of Bulbuls' in the Newsletter, Vol.32: Nos.3&4) I wonder whether the specific plumage has particular adaptive value in the niche of each species.

Here we come to the question: does every bit of colour on the plumage have adaptive value? If many of the kingfishers, which have red beaks, had, instead, bright blue beaks, in what way would it effect them? In genetics, one learns that most of the DNA passed down to future generations is much more than required to build that organism. In other words, most of the DNA is never translated into protein and this has been called 'selfish DNA', for its only purpose is to survive in the body of the individuals of the species (Dawkins, 1989). I cannot help drawing a parallel and asking the question: is much of bird colouration of no adaptive value and is there because it is? It is possible that it makes no difference if the colour of a bird's beak is red or blue; it may just have to be a striking colour and which one that is, may be determined by an evolutionary accident or 'carry-over' of pigmentation from the ancestral species.

Why do Wagtails Wag their Tails?

One observation may be relevant to answering the above question. The rate at which a foraging wagtail (the large pied wagtail, *Motacilla maderaspatensis*) wags its tail increases suddenly just before it runs in hot pursuit of an insect. The wagging rate is vigorous in-between zigzag runs after an insect and also when the bird lands on a perch. In the former case, is the bird using the tail to 'fan out' insects from the ground under the bird's body? The tail, which is used as a brake in landing, will possibly generate a sufficiently strong puff of air with each wag to elicit some give-away movement from immobile cryptic insects. Or, does the wagtail wag its tail as some sort of display or for no particular reason?

All this is confounded by the forest wagtail (*Motacilla indica*), which hunts on the leaf litter of woodland floors and stops to swing its tail from *side to side*. The tails of these wagtails are presumably not long enough to generate

enough wind to move leaf litter to dislodge insects hidden there. But, the characteristic markings on the breast of this species may play a role here. When I drew the breast markings, as illustrated in the Handbook (Ali & Ripley, 1980), on a curved surface (the breast) and looked at it from directly below (like an insect possibly would). I saw a pair of eyes starting back at me. The 'eyes' were the white regions between the two dark bands on the throat and breast. The side to side swinging of the body may appear, when seen from front and below, like a predator looking from left to right. I have no idea whether this is what an insect sees when a forest wagtail looms over it, and whether it would be startled enough by two *large eyes* starting at it to make some give-away movement, but this does seem rather unlikely. It is perhaps worth mentioning here that the somewhat similar variable markings on the underparts of turnstones (*Arenaria interpres*) are supposed to play a part in individual recognition. Also of interest is the fact that many species which feed near river sources like the common sandpiper, also bob their tail up and down.

Acknowledgments

I thank V Santharam and R Kannan for reading the above article and offering their valuable comments and criticism.

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Comments on the Topics of the Above Article by V. Santharam, KFRI, Peechi 680 653, Kerala

Allogrooming need not be an altruistic act and may have evolved for other reasons. If birds groom to get rid of dangerous ectoparasites, birds have to remain in groups or pairs (at least) all through their lives. Single birds will be evolutionarily weeded out. It has been suggested that allogrooming evolved to reduce aggression by redirecting the behaviour of the potential aggressor, using allopreening soliciting postures, expressing submission. Usually, it is the dominant birds that groom (contrary to the common situation in primates – Sridhar). Perhaps allogrooming occurs in pairs and may aid in maintaining pair bonds. That it is rarely seen in birds like cranes may be because they are less social and thereby have less chances

of contracting ectoparasites. (see Harrison (1965), *Behaviour* 24: 161209; Gaston (1977), *Anim. Behav.* 25 : 828848.

(Regarding the crow pheasant) Instead of startling the prey by flashy colours, it could have been just that the crow pheasant did not want its prey to escape and hence shielded it with a wing. (Ever tried catching a grasshopper single-handed?). Similar behaviour by the Indian Roller (*Coracias bengalensis*) has been reported by Menon (1979): *Bull. Madras Nat. Soc.*) in Guindy National Park, Madras. African Black Herons are known to feed under the canopy of their wings by cutting the glare (?). Captive falcons are known to use wings to prevent "prey" (dead meat pieces) from escaping. (Some bat species use their tail membranes as a 'bat' while in flight to knock aerial insects toward their mouths – Sridhar).

'Wing-flashing' has been debated in several papers. Some say it may be for securing prey. Others disagree as wing-flashing is used by some species with no wing patches. In some herons brightly coloured toes are said to be used in startling prey. (See: Hancock & Kushlan (1984), *Herons Handbook*; Hailman (1960), *Wilson Bull.* 72 : 346357; Horwich (1965, 1967), *Wilson Bull.* 77 : 264281 and 81 : 8793; Selander & Hunter (1960), *Wilson Bull.* 72 : 341345).

Regarding colouration of birds – it may have evolved due to various reasons and it may not be possible to attribute survival value of each colouration based on the limited knowledge of present environment etc. in which the organism thrives now. Colours cannot only be used in courtship but also in agonistic behaviour, individual recognition, camouflage etc. Not all species can see all colours equally well: some may be more sensitive to certain colours than others.

Finally, wagtails – Davies (1977) (*J. Anim. Ecol.* 46 : 37-57) says "the tail appears to assist balance when the wagtails use the run-picking and flycatching techniques and it is especially important when the birds turn rapidly in mid-air when catching prey. In this context it is interesting to note that Pied (white) Wagtails have longer tails than yellow wagtails, and grey wagtails which capture most of their prey by flycatching have the longest tail of all". Beebe (1965), *The Bird: Its Form and Function*, says that the jerking motion of the tail seems to have become a regular habit with many birds, and, curiously enough, especially with those which spend their lives chiefly along the borders of streams" (e.g.: sandpipers, green herons, water thrush, wagtails ..). He says that no explanation has been offered to the wagtails' behaviour of wagging tails. My own speculation is that apart from balancing, this may help in maintaining individual distances. A good study project could be neatly designed to study these hypotheses.

BIRDS OF SARAHAN BUSHAR, SHIMLA DIST

B.O. SUYAL, IFS, D F O (WL) Sarahan, Dist. Shimla, H P 172 102

Sarahan Bushar is located at about 2000 metres above MSL in Shimla District of Himachal Pradesh. The famous Bhimakali temple in the centre of the small township is a source of attraction to religious tourists from all over the country. The township is surrounded by numerous villages with apple orchards on the downhill side and dense coniferous forests on the uphill side. In front is the majestic Shrikhand Dhar across the mighty Satluj river.

The place remains quite pleasant round the year except in winter when heavy snowfall makes it temporarily hostile. As a result, quite a large number of birds migrate down to warmer places in winter and some new species make their appearance.

Based on 21 observations spread over the last one year (June, 91 to June, 92), a consolidated list of birds has been attempted in this article. The families are arranged in alphabetical order and names given in "A Pictorial Guide to the Birds of Indian Sub-continent" by Salim Ali and S. Dillon Ripley have been used. The birds have been categorised on the basis of their occurrence in or around Sarahan Bsr (which extends to an area of 3 km radius approximately). The categories are given below:

1. Rare (R) 1-3 sightings
2. Occasional (O) 4-10 sightings
3. Common (C) more than 10 sightings

Sl. No.	Family	Common Name	Scientific Name	Occurrence
1	2	3	4	5
Accipitridae				
1.		Booted hawk eagle	<i>Hieraaetus pennatus</i>	R
2.		Himalayan griffon	<i>Gyps himalayensis</i>	O
3.		Sparrow hawk	<i>Accipiter nisus</i>	R
Apodidae				
4.		Alpine swift	<i>Apus melba</i>	O
5.		House swift	<i>Apus affinis</i>	O
Campephagidae				
6.		Scarlet minivet	<i>Pericrocotus flammeus</i>	O
7.		Small minivet	<i>Pericrocotus cinnamomeus</i>	R
Capitonidae				
8.		Great hill barbet	<i>Magalaima virens</i>	O
Certhiidae				
9.		Himalayan tree creeper	<i>Certhia himalayana</i>	O
10.		Tree creeper	<i>Certhia familiaris</i>	O
Columbidae				
11.		Blue rock pigeon	<i>Columba livia</i>	O
12.		Orange breasted green pigeon	<i>Treron bicincta</i>	R
13.		Rufous turtle dove	<i>Streptopelia orientalis</i>	C
14.		Snow Pigeon	<i>Columba leuconota</i>	R
15.		Spotted dove	<i>Streptopelia chinensis</i>	C

16.	Yellow legged green pigeon	<i>Treron phoenicoptera</i>	O
Coraciidae			
17.	Hoopoe	<i>Upupa epops</i>	C
Corvidae			
18.	Black throated jay	<i>Garrulus lanceolatus</i>	O
19.	Himalayan tree pie	<i>Dendrocitta formosae</i>	O
20.	Indian tree pie	<i>Dendrocitta vagabunda</i>	R
21.	Jungle crow	<i>Corvus macrorhynchos</i>	C
22.	Nutcracker	<i>Nucifraga caryocatactes</i>	O
23.	Red billed blue magpie	<i>Cissa erythrorhyncha</i>	O
24.	Yellow billed blue magpie	<i>Cissa flavirostris</i>	C
Cuculidae			
25.	Common hawk cuckoo	<i>Cuculus varius</i>	O
26.	Cuckoo	<i>Cuculus canorus</i>	O
27.	Koel	<i>Eudynamis scolopacea</i>	R
28.	Pied crested cuckoo	<i>Clamator jacobinus</i>	R
Dicruridae			
29.	Black drongo	<i>Dicrurus adsimilis</i>	C
Emberizidae			
30.	Crested bunting	<i>Melophus lathamii</i>	R
31.	Rock bunting	<i>Emberiza cia</i>	C
Falconidae			
32.	Kestrel	<i>Falco tinnunculus</i>	O
Fringillidae			
33.	Beautiful rosefinch	<i>Carpodacus pulcherrimus</i>	O
34.	Common rosefinch	<i>Carpodacus erythrinus</i>	R
35.	Gold finch	<i>Carduelis carduelis</i>	C
36.	Gold fronted finch	<i>Serinus pusillus</i>	O
37.	Himalayan green finch	<i>Carduelis spinoides</i>	C
38.	Nepal rosefinch	<i>Carpodacus nipalensis</i>	R
Laniidae			
39.	Brown shrike	<i>Lanius cristatus</i>	R
40.	Indian grey shrike	<i>Lanius excubitor</i>	C
41.	Rufous backed shrike	<i>Lanius schach</i>	C
Motacillidae			
42.	Grey wagtail	<i>Motacilla cinerea</i>	O
43.	Indian pipit	<i>Anthus novaeseelandiae</i>	R
44.	Large pied wagtail	<i>Motacilla maderaspatensis</i>	O
45.	Pied wagtail	<i>Motacilla alba</i>	O
46.	Tree pipit	<i>Anthus trivialis</i>	R
47.	Yellow wagtail	<i>Motacilla flava</i>	C
Muscicapidae			
Sub family (a) Muscicapinae			
48.	Paradise flycatcher	<i>Terpsiphone paradisi</i>	O
49.	Sooty flycatcher	<i>Muscicapa sibirica</i>	O
50.	Verditer flycatcher	<i>Muscicapa thalassina</i>	C
Sub family (b) Sylviinae			
51.	Grey headed flycatcher warbler	<i>Seicercus xanthoschistos</i>	O
Sub-family (c) Timalinae			
52.	Black capped sibia	<i>Heterophasia capistrata</i>	O

53.	Streaked laughing thrush	<i>Garrulax lineatus</i>	C	75.	Grey tit	<i>Parus major</i>	C
54.	Variiegated laughing thrush	<i>Garrulax variegatus</i>	R	76.	Red headed tit	<i>Aegithalos concinnus</i>	C
55.	White spotted laughing thrush	<i>Garrulax ocellatus</i>	R	79.	Chukor	<i>Alectoris chukar</i>	O
56.	Yellow naped yuhina	<i>Yuhina flavicollis</i>	R	80.	Common hill partridge	<i>Arborophila torqueola</i>	R
Sub-family (d) Turdinae				81.	Kalij	<i>Lophura leucomelana</i>	R
57.	Blue headed rock thrush	<i>Monticola cinlorhynchus</i>	O	82.	Koklash	<i>Pucrasia macrolopha</i>	R
58.	Blue whistling thrush	<i>Myiophonus caeruleus</i>	C	Picidae			
59.	Dark grey bush chat	<i>Saxicola ferrea</i>	C	83.	Brown fronted pied woodpecker	<i>Picoides auriceps</i>	R
60.	Grey winged blackbird	<i>Turdus boulboul</i>	R	84.	Grey crowned pigmy green woodpecker	<i>Picoides canicapillus</i>	R
61.	Jerdon's bush chat?	<i>Saxicola jerdoni</i>	R	86.	Yellow fronted pied woodpecker	<i>Picoides mahrattensis</i>	O
62.	Little forktail	<i>Enicurus scouleri</i>	O	Ploceidae			
63.	Mistle thrush	<i>Turdus viscivorus</i>	R	87.	House sparrow	<i>Passer domesticus</i>	C
64.	Pied bush chat	<i>Saxicola caprata</i>	O	88.	Tree sparrow	<i>Passer montanus</i>	C
65.	Plain backed mountain thrush	<i>Zoothera mollissima</i>	O	Psittacidae			
66.	Plumbeous redstart	<i>Rhyacornis fuliginosus</i>	C	89.	Slaty headed parakeet	<i>Psittacula himalayana</i>	O
67.	River chat	<i>Chaimarrornis leucocephalus</i>	C	Pycnonotidae			
68.	Spotted forktail	<i>Enicurus maculatus</i>	O	90.	Black bulbul	<i>Hypsipetes madagascariensis</i>	C
69.	Stoliczka's bush chat?	<i>Saxicola macrorhyncha</i>	R	91.	White cheeked bulbul	<i>Pycnonotus leucogenys</i>	C
70.	Stone chat	<i>Saxicola torquata</i>	C	Strigidae			
Oriolidae				92.	Great horned owl	<i>Bubo bubo</i>	O
71.	Black headed oriole	<i>Oriolus xanthornus</i>	O	93.	Himalayan wood owl?	<i>Strix aluco</i>	R
72.	Golden oriole	<i>Oriolus oriolus</i>	O	Sittidae			
Paridae				94.	Chestnut bellied nuthatch	<i>Sitta castanea</i>	O
73.	Crested black tit	<i>Parus melanolophus</i>	O	Sturnidae			
74.	Green backed tit	<i>Parus monticolus</i>	O	95.	Brahminy myna	<i>Sturnus pagodarum</i>	O
				96.	Common myna	<i>Acridotheres tristis</i>	C
				Zosteropidae			
				97.	White eye	<i>Zosterops palpebrosa</i>	C

"Research Highlights of AICRP on Agricultural Ornithology"

Review by ABRAHAM VERGHESE

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The Indian Council of Agricultural Research (ICAR) has done immense service to the country on the agricultural front. That our food production has increased several folds since independence speaks volumes of ICAR. Functioning through its own research institutions, agricultural universities and coordinated projects, ICAR has not left any stone unturned in the wide gambit of agricultural research. So, it was natural for ICAR, with a visionary approach, to recognize this rather less heard field of economic ornithology. That was somewhere in the seventies, but the booklet (or bulletin) under review states that the All India Coordinated Research Project (AICRP) on Agricultural Ornithology (then Economic Ornithology) was started in 1982, with main cell at Andhra Pradesh Agricultural

University, Rajendranagar, Hyderabad 500 030.

The booklet in about 16 pages (not numbered) attempts a round-up of 'research accomplishments' of the project in a decade. To the novice and students of agriculture, environment, and pest management, the book provides basic information.

Birds like the Roseringed Parakeet, House Crow, House Sparrow, etc., mentioned in the opening para as depreadators, have been known as such since the beginning of this century (see Mason and Lefroy, 1912); Ali and Ripley, Handbook vols. 1-10, 1968-1975).

Birds like Peacock, Common Babblers, Sarus Crane, Ring Dove, Pigeon, Redvented Bulbul and Rosy Pastor, are

mentioned as "lately been reported". This is incorrect as for example, the Peacock (desirably Peafowl) is mentioned as "a veritable scourge to the small farmers" by Salim Ali and S.D. Ripley in the Handbook, Vol.2 : 123-4, published since 1968. Likewise on Sarus Crane (Vol.2 : 141-2) Pigeon (Vol. 3:125-6) Redvented Bulbul (Vol.6 : 87-8), the Handbook clearly mentions their local destructiveness to agricultural crops. On Rosy Pastor, Mason and Lefroy, as early as 1912 itself wrote "marked injurious action at different seasons", on page 12 of their popular memoir, "Food of Birds in India".

This booklet lists 26 birds under "Bird pests associated with Agricultural and Horticultural Crops and the Economic Status". Surprisingly, even highly insectivorous birds like Black Drongo and Roller (Sl. 24 & 24) have been listed under "pests". In fact sl. nos. 15-25, listed as 'useful' should not have found a place under this "pest" table.

Another table on bird pests of different crops and their control methods is informative, with original data on extent of damage, based mainly on AICRP records.

There is mention of bird insectivory, which is well known since 1912 (Mason and Lefroy). Advanced study in this areas is the need of the hour, on the lines of say, Krebs's research. (See Krebs, J.R. (1978). Optimal foraging; decision rules for predators. In *Behavioral Ecology*, Blackwell Scientific Publications, Oxford, pp.23-63). Krebs's study centered on the Great Tit and Pied Wagtail mainly dwelt on profitability of food patch, functional responses, aggregation in prey, optimal and non-random foraging, etc. Such endeavors render scholastic inferences hinging on actuality, as food web and exploitation are part of a very intricate system of Nature.

The booklet details the various methods used for controlling birds in general. But the claim that they are "some of the techniques developed under AICRP" may not be acceptable to many. Methods like scaring by humans, effigies, netting, wrapping, bird scarers, etc. have been in recommendations for decades now, and have even found their way in economic entomology text books (See T.V.R. Ayyar, (1938). Handbook of Economic Entomology for South India. ICAR's Agricultural Entomological Review (1964) on Non-insect pests).

Others like visuals, acoustics, chemical repellants have been well researched in developed countries. Research on distress call has been investigated even by ICAR in fifties itself (see Bagal and Unde, 1958-59, Annual Report, ICAR). Investigations with botanicals however, merit real claim.

The booklet has over two dozen colour photograph/pictures, which are relevant and together with the fine quality of print and paper lend appeal to this

publication. However, to the uninitiated, the *Heliopsis* on berseem, and the Indian Myna (it is infact Bank Myna?) and Cattle Egret in the ploughed field are hardly discernible.

The AICRP on Agricultural Ornithology has the objectives right, and is well backed by a progressive and encouraging organization like ICAR. This is sufficient impetus to make quantum leaps into advanced ornithology, so that a sound environmentally and economically acceptable pest management programme for useful and harmful birds will emerge.

Finally, I am sorry that the late Prof. N. Shivanarayan's name does not figure anywhere in the booklet (even as a tribute), though he was responsible for the development of this project as a Coordinator, since its inception, to the late eighties, when he breathed his last. For sustaining the project through its difficult phase and promoting research ideas, he deserves a big chunk of credit, posthumously though.

CORRESPONDENCE

BLACKNECKED GREBE FROM CHHARI-DHAND, KUTCH, GUJARAT. S ASAD AKHTAR and J K TIWARI, *Bombay Natural History Society, Hornbill House, S B Singh Road, Bombay 400 023*

On 10.01.90, two adult specimens of the Blacknecked Grebe, *Podiceps nigricollis*, were confiscated by us from a group of fisherman fishing in the Chhari-Dhand, Taluk : Nakhtrana. The grebes had got entangled in their gill nets. The birds were in good condition and we ringed and released them. Their biometrics were as follows :

Ring No.	Wing mm	Bill mm	Tars mm	Tail	Wt gm
F-57084	140	29	41	-	290
F-57085	130	30	39.5	-	290

Described as an uncommon winter visitor, the Blacknecked Grebe has been sporadically recorded in Baluchistan (near Quetta), Sind (Karachi, Makran coast littoral, Manchar lake), Punjab (Bahawalpur), Uttar Pradesh (Pyagpur), Maharashtra (near Poona) (Ali & Ripley, 1983). It has also been reported from Nepal (Rand & Fleming, 1957). We saw this species again on several occasions in the district.

This is the first ringing record of this species in India. Hence, this note for information and record.

Ali, S & Ripley, S.D. 1983 : Handbook of the birds of India and Pakistan (Compact Edition) pp.737 Oxford University Press, Bombay.

Rand, A.L. & Fleming, R.L. (1957) : 'Birds of Nepal'. Fieldiana : Zoology 41:1-218.

BROWNCROWNED PYGMY WOODPECKER IN GUINDY NATIONAL PARK. S. DUTT, Wildlife Warden, 50, 4th Main Road, Gandhinagar, Madras 20

This is to report the presence of a single southern Browncrowned Pygmy Woodpecker in Guindy National Park. The bird was recorded by me on 4.4.92 i.e. just at the commencement of the dry season, when the dense undergrowth of the winter months had begun to dry out. The bird was found perched on the dry branch of *Acacia planiform* and was seen to be preening its feathers. I was on the look out for a pair, but despite about ten minutes of continuous observation, I failed to notice any. The bird was remarkably still for a woodpecker and the only repeated action was that of cleaning its wings. This allowed uninterrupted observation and every feature was carefully noted including the distinct red coloured band on the brow of the eye (forehead), which set to rest all doubts regarding the identity of the species.

SHAHIN FALCON. THEODORE BASKARAN, 124, Ashoka Pillar Road, Bangalore 560 011

In the first week of August we spent a day at Devarayandurga and sighted a Shahin Falcon.

Devarayandurga is a cluster of hills, with boulders, precipitous rocks and stretches of scrub jungle. It is just 70 km from Bangalore and is a great spot for birding. On top of one of the hills, at the height of 4000 feet, stands Dobbs bungalow, now a police wireless station, which was once the summer house of Col. Dobbs, an empire builder who lived in Tumkur in the 1840s. From Dobbs bungalow we were scanning the rocks through a spotoscope when one from our group focussed on a Shahin falcon sitting motionless at the edge of a boulder. This rock on which the bird was sitting is about 200 metres to the north of the Tourist home, near the temple below.

Shahin Falcon's facial markings are so distinct that it is easily identified. We watched it for nearly one hour, in turns. When I was having my turn at the spotoscope, the falcon shot out across the space like a bullet, flew towards the next hill and disappeared. This falcon has been spotted by other birders from Bangalore, earlier.

The next morning, around 6.30 we spotted a family of Painted Spurfowl, sitting on a rock, by the side of the road leading from Dobbs bungalow to the temple below. There were two chicks and both were under the wings of the female, with just their heads protruding through the wings. The other birds we spotted were the Long-billed vulture, the Short-toed eagle and ofcourse the Yellowthroated Bulbul. On the path leading to the temple at its top, we saw distinct pug marks of a panther that had crossed the path the previous night, on a patch of sand.

SIGHTING A DUSKY HORNED OWL. NITHILA BASKARAN, 124, Ashoka Pillar Road, Bangalore 560 011

Kayathraddevangudi is a small settlement on the other side of B.R. Hills sanctuary, on the way to Chamrajnagar. In winter the Jungle Lodges Corporation pitches tents for tourists in a well-wooded enclosure, complete with electrified fencing. Last April we spent an evening at this spot. The tents had been removed and the area was overgrown with bushes. As I was walking through the bridle path that runs across the camping site, a large bird took off from the canopy of the tree under which we were. As it flew away I could get a clear view, it was a large owl, but not the Great Horned Owl or the Forest Eagle Owl as the plumage was distinctly grey. Back in Bangalore I was able to establish the identity of this bird, as the Dusky Horned Owl *Bubo coromandus*. The Handbook says that this bird is active during day time also which explains our sighting it when it was still quite bright. The book adds that this bird is parochial, that is, it is likely to remain in the same spot. So may be you could go looking for the DHW at Kayathraddevangudi, which is a great place for birding. Good luck.

MORTALITY RATE IN COMMON INDIAN NIGHT JAR IN ROAD ACCIDENTS. RAJIV SAXENA, M.I.G. 853, Darpan Colony, Thatipur, Gwalior 474 011 M P

It is a common habit of Common Indian Nightjar *Caprimulgus asiaticus* to squat on the road in night. When a vehicle approaches near it, it takes off and after flying ahead for a short distance, settles down again on the road in front of the vehicle. But this is generally possible when the vehicle is running slowly. If the vehicle is going fast, i.e. 50-60 km/h, it is difficult for this night bird to take off in time, and sometimes the vehicle passes over it or it collides with the vehicle while taking off.

In the night of 8th and 9th September 1992, I was going by a jeep from Morena to Sheopur in north Madhya Pradesh. This route passes through rural and forested areas. During 9 to 11 pm, I counted 159 nightjars sitting on the road. As the jeep was travelling at the speed of 50-60 km/h, I saw the jeep passing over 26, but could not ascertain if all of them were crushed or how many survived. Sixteen additional nightjars either collided or just touched the jeep while taking off.

Next morning when I came out of the Dak Bungalow at Sheopur, I saw seven nightjars stuck to the radiator of the jeep. These seven were out of sixteen that had collided while taking off. The total number of dead comes to 33 if the birds over which the jeep had passed are included.

BIRD RINGING PROGRAMME. MEENA HARIBAL, *Bombay Natural History Society.*

BNHS has been conducting various field research activities. One of the important field activities is bird ringing which provides vital information on the migration patterns of birds, their routes, breeding zones, etc. In the past three decades, the BNHS has ringed nearly 5,00,000 (Five lakhs) birds at various parts of India. But the recovery rate is very low (1%) due to limited ringing field stations and lack of trained persons to handle bird ringing camps. Thus, with a view to expand its ringing programmes to several other parts of the country, the BNHS is offering members, NGOs, and professionals an opportunity to learn bird ringing.

The bird ringing programme will be held at Point Calimere Sanctuary, Tamil Nadu. This opportunity is limited to 40 (Forty) members only. There will be four camps, each of two week duration, between 4th December 1992 and 12th March 1993. Participants shall be required to do field work, which can be tough and tiring at times.

Cost : The total cost per participant will be Rs. 2500/- (Rs. Two thousand five hundred only), inclusive of boarding and lodging (travel not included).

Programme details : The two weeks rigorous programme includes field techniques for catching by mist nets, clap trap, etc. and ringing birds, their identification, keeping data sheets etc. Participants successfully completing the programme will be issued certificates. Specially competent members could be considered for further training, following which they could be issued license and ringing equipment for carrying out bird ringing independently.

Programme Dates

Batch	Date
1.	4 December - 18 December, 1992
2.	1 Jan. 1993 - 15 January, 1993
3.	7 February - 21 February, 1993
4.	26 February - 12 March, 1993

Those who want to join the camp may send the amount to Bombay Natural History Society, Bombay. Also they should inform their willingness and batch preference alongwith biodata in duplicate to Dr S. Balachandran/Mr Alagar Rajan, Coordinators, Bird Ringing Programme, BNHS Research Station, Kodikkadu 614807, Nagai Q M Dist., Tamil Nadu, and a copy to BNHS, Bombay.

Note : Students are allowed at a concessional rate of Rs. 1800/-.

News from ICBP.

FROM BIRD CONSERVATION TO SUSTAINABLE DEVELOPMENT. CHRISTOPH IMBODEN, *Director General*

What is the role of ICBP in international conservation? This is a crucial question at a time when concern for the environment is becoming a public issue everywhere and increasing numbers of environmental organisations are appearing on the scene, each in search of a specific niche.

Birds are obviously the primary focus of ICBP, but conservation today operates within a set of complex global relationships. Environmental problems everywhere are inseparably linked with socio-economic, political, cultural, and ethical factors that form and drive our world. Lasting solutions are only possible if the welfare and aspirations of people are an integral part of our conservation objectives, allowing for the wise and sustainable management of natural resources.

The theme of this report is evolution - showing how the work of ICBP has changed over time, how ICBP has responded to new global issues and challenges, and to new perceptions of how they should be resolved. It explains how, with great success, ICBP is making the vital link between birds and people, working for the benefit of both, and how it translates the results of its scientific work into effective conservation action in the field.

Biodiversity : from research to action

Conserving biological diversity is now a top priority on the conservation agendas of governments and international agencies alike. But where should action be concentrated, given the almost ubiquitous threats to species and ecosystems? Priority should obviously be given to areas where, from a global perspective, most is at stake and where most can be achieved for a given amount of effort. It is wellknown that global biodiversity is under greatest threat in tropical developing countries, which are home to 80% of the world's plant and animal species. Many suggestions have been made as to where, within the tropics, the real biodiversity hotspots lie, but none of these proposals has been based on an objective and vigorous scientific analysis.

With the first phase of ICBP's Biodiversity Project completed, such an analysis is now available. This project uses birds, one of the most widely distributed and best documented class of organisms, as indicators of biological diversity, focusing on the distribution of species with restricted ranges to identify centre of endemism. Considerable information on the distribution of other endemic plant and animal species collected by the

Biodiversity Project shows that patterns of endemism in birds are generally mirrored in many other life-forms. ICBP's analysis can therefore act as a catalyst in establishing global biodiversity conservation priorities. Further useful analyses are currently being conducted by overlaying distributions of birds on habitat and protected area maps, to examine which areas are under particular threat or in need of especially urgent attention.

While we take great pride in the scientific outputs (like the highly regarded technical publications series) resulting from this and many other research programmes on threatened species and important habitats, they are not the prime purpose of this work. Rather, the aim of our research is to guide ICBP to the proper priorities for action in the field. ICBP has a unique reputation among international conservation NGOs for its demonstrated ability to take action itself on its research recommendations. Many of the most successful field programmes Naturally, ICBP does not have the capacity, nor the expertise or jurisdiction, to take action on all its research findings and recommendations. Therefore, through its advocacy programme, it seeks to disseminate the research results to other organisations, agencies and governments in order to influence policies or encourage them to taken action on identified needs and issues. This is an increasingly important part of ICBP's work, and many successes have been achieved with actions initiated by others after advice from (ICBP).

Sustainable development: from birds to people

Environmental conservation is firmly linked with the welfare of people and communities and their aspirations for development. However, action to promote conservation-based sustainability must operate at many

levels. It must include strategies to achieve the equal sharing of the costs and benefits of using natural resources, to create partnerships between the developing and developed worlds, and to encourage full participation of local people in taking decisions about their own immediate environment and natural resources.

An excellent example of these principles operating in practice is ICBP's project on Mount Kilum in Cameroon. This is a programme of integrated forest management, involving the establishment of a core reserve, sustainable use of forest resources, buffer zone management, soil conservation, livestock control, applied research, and education and training, aimed at conserving a unique montane forest area for the long-term benefit of wildlife and the human community. The project is funded by a variety of government agencies and NGOs from developed countries. By promoting practices that allow the socio-economic needs of the local communities to be met through the sustainable use of forest resources, the project has created a secure basis for the future of both the people and their environment.

From one challenge to the next

Birds have always been symbolic of the conservation challenge. As long ago as the beginning of this century, migratory birds, flying across national boundaries and from continent to continent, demonstrated the need for international partnership and cooperation to conserve shared natural assets and resources. Today, that need has developed into even more urgent demands, over a wide range of issues, with new challenges emerging at an alarming pace. ICBP is working to meet those challenges.

ASIAN WATERFOWL CENSUS 1992

Dr. Christian Perennou, International Co-ordinator, IWRB, informs that the copies of the Report of AWC 1992, will be mailed to the Regional Co-ordinators by 15th of November 1992. He requests the participants to contact their respective Regional Co-ordinators and obtain their copies.

(List of Regional Co-ordinators given in page 20 of this issue)

GET SET FOR THE CENSUS

CHRISTIAN PERENNOU, International Coordinator, IWRB, Slimbridge, U.K.,

The Karachi conference enabled National Coordinators of the Asian Waterfowl Census (AWC) mainly from West and South Asia to meet for the first time. An evening workshop and many informal discussions showed that the Census continues to thrive with everyone willing to continue and expand the coverage. Great attention was paid to ; the need for consistent series of data, regional population estimates, and regular analyses; keeping the AWC a pleasant field exercise; ensuring a maximal use of the data for conservation; the role of the AWC in stimulating further research or surveys on priority species or wetlands; and the roles of the international coordinators in providing or seeking technical and financial support for the Census.

The analysis of the first 5 years of Asian data, from the Arabian peninsula to Japan and South-east Asia, is now well under way. It will be the first opportunity to present the results on distribution, population sizes, major concentrations of individual species, population trends etc. Publication is planned for March 1993.

A major task was the reorganisation of the vast Indian network. It was agreed to replace the national coordination by 8-9 independent regional coordinators.

The reason lies with the success of the AWC in India : the volume of data, and the number of participants to be in contact with, was making it too big a responsibility for a single person or organisation. Moreover, it was recognized that there were various very motivated and competent people in various regions, who were prepared to take up the coordination task in the region they know well, and that this could only result in a further improvement in the quality and consistency of the data.

The new Regional coordinators will have, within their region, the same responsibilities as the National Coordinators before : gathering the data and forwarding it to IWRB; keeping in touch with the regional network; distributing the census forms and annual reports provided by IWRB...

Both IWRB and the Regional Coordinators strongly recommend that ALL DATA BE SENT TO THE APPROPRIATE REGIONAL COORDINATOR, not to IWRB directly : this complicates the task for both regional and international coordinators !

For regions not covered by a Coordinator in the following list, we would suggest to send the data directly to IWRB, and we would welcome if someone could volunteer to cover these gaps, i.e. a single coordinator for the remaining states (W.Bengal, Bihar, Orissa).

LIST of Regional Co-ordinators - INDIA

NORTH-WEST INDIA (Gujarat, D. & Diu, Rajasthan)

Dr Rishad Pravez
Department of Biosciences
Saurashtra University
RAJKOT - 360 005

NORTH INDIA

(J & Kashmir, Punjab, Himachal Pradesh,
Haryana, Delhi, Uttar Pradesh Chandigarh)

Vivek Menon
Srishti, A-17, Mayfair Gardens (F.F)
NEW DELHI - 110 017

CENTRAL INDIA (Maharashtra, Madhya Pradesh)

Prakash Gole
Ecological Society
1B Abhimanshree Housing Society
Off. Pashan Road, PUNE - 411 008

KERALA

P.O. Nameer
Quarter No Old C/2
Veterinary College Campus, Mannuthy
TRICHUR - 680 651

TAMIL NADU

Madras Naturalists' Society
C/o V J Rajan
36, IV Main Road, R.A. Puram
MADRAS - 600 028

ANDHRA PRADESH

Siraj Taher
Birdwatchers Society of Andhra Pradesh
6-3-249/3 Road No.1, Banjara Hills
HYDERABAD - 500 034

KARNATAKA

S Sridhar
Navbharath Enterprises
Seshadripuram
BANGALORE - 560 020

NORTH-EAST INDIA (Assam and surrounding NE States)

P C Bhattacharjee
Department of Zoology
Gauhati University
GUWAHATI - 781 014

Cover: Grey Tit (*Parus major*) an active bird with a joyous cheeping and twittering call, frequents wooded open areas. The bird peers under leaves, twigs and barks, often hanging acrobatically while looking for insects.

Photo : S.Sridhar, ARPS

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After the Summit



(Photo: M. Edwards/Still Pictures Ltd)

The Earth Summit in June attracted a great deal of public attention, but what was really achieved? **Graham Wynne**, RSPB's Director of Conservation, was part of the official UK delegation at the Summit. Here, he summarises the outcome and what it means for conservation.

Rio de Janeiro in June was host to the largest ever assembly of Presidents and Prime Ministers for the United Nations Conference on Environment and Development - the Earth Summit. For a short while the environment figured large in the news and, whatever their motives, leaders from around the world gave public commitments to conserve global biodiversity. But what, if anything, of lasting nature was achieved?

The agreements and conventions that were signed are of variable quality and are briefly assessed below. Although flawed, they do strengthen the hand of those lobbying for conservation action. There is no doubt that Rio also increased environmental awareness at the highest political level. Conservation bodies must now capitalise on these short term advances, and through concerted effort turn them into long term gains.

The Rio Declaration lists 27 principles to guide protection of the environment and encourage greener economic growth. It is a finely balanced compromise, lacking sharp focus, but it does make clear that environmental protection has to be an integral part of the development process, rather than a "bolt-on extra". If this one message were acted upon by national governments it would result in huge benefits for conservation and the environment.

The Biodiversity Convention, which is legally binding on those signing, states

what countries should do to conserve biological resources. Measures include identifying and monitoring components of biological diversity, drawing up national plans for the sustainable use of resources, integrating the environment with other policies and setting up systems of protected areas. The need for developed countries to pay the additional costs of conservation in the south is also recognised. But the Convention is liberally scattered with let out clauses of the "as far as possible" type and decisions on level of funding and access to funds have been deferred to the first meeting of signatories, which may be several years hence. The 157 countries that have so far signed do not include the US, largely because it thinks the treaty would compromise its biotechnology industry.

The Convention on Climate Change recognises the threat of rapid changes in climate and rising sea levels due to increasing emissions of greenhouse gases, most of which come from developed countries. It is also legally binding but was weakened in order to persuade the US to sign. The central requirement for signatories to report on progress towards the goal of stabilising greenhouse gas emissions at 1990 levels by the year 2000 suggests neither a high level of commitment nor urgency.

The Statement on Forest Principles is not legally binding and says little more than forests are important and

should be managed sustainably. Developed countries hope that it will eventually lead to a binding forest convention, but this has so far been vigorously opposed by developing countries, led by Malaysia and India.

Agenda 21 is a 500-page action programme setting out what nations should do to achieve sustainable development. It covers most of the subjects that will determine the future state of the environment, but is not legally binding and is weakened by compromise and lack of balance. Demographic trends are referred to but over population is not dealt with directly; over-consumption by the developed world is covered but not in any depth. Qualifications abound

(Photo: M. Edwards/Still Pictures Ltd)



- even when trying to reassure non-government organisations, one Minister for the Environment described it as an "à la carte menu to be dipped into by nations as appropriate". Having said that, the document assembles a huge amount of guidance on wise management of the environment, and conservationists around the world can use it as a bench mark to measure progress by governments - but it is no panacea.

Who pays?

One clear-cut and daunting message from Rio is that conservation of the most species-rich parts of the world will not be achieved by Governments simply agreeing to save them. Wise use of natural resources has to be made economically attractive at both national and local levels.

Not surprisingly, "who pays?" and "how much?" were recurrent themes of the Rio negotiations. Many developed countries accepted that, by one means or another, they will have to pay the additional cost of conservation in the south, but no agreement was reached on scale. Additional resources pledged in Rio amounted to some US\$2.5 billion, but few doubt that vastly larger sums are required.

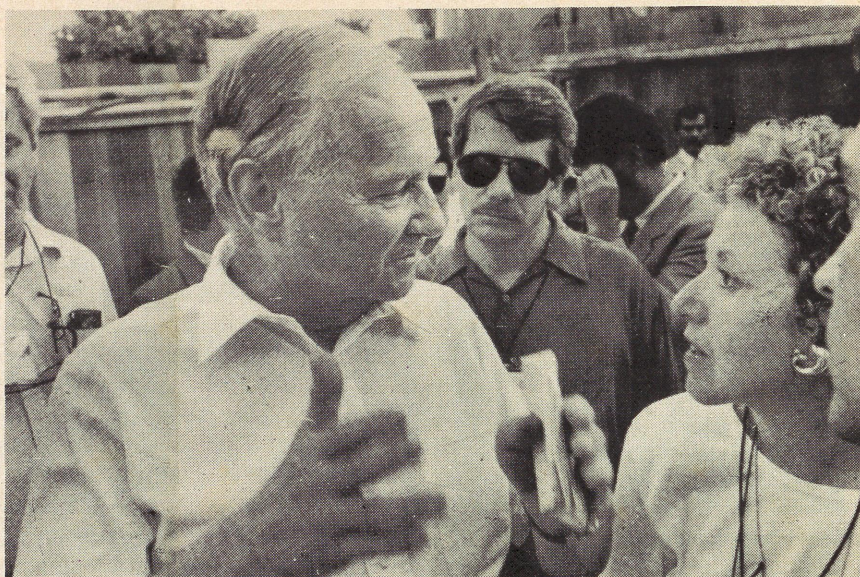
Part of the solution must lie in the realm of trade, aid and debt policies. Sustainable land management practices will not be introduced unless countries can afford to forego dependence on short term "mining" of resources and cash crop monocultures.

However, making more resources available is, on its own, no solution at all. The issue of conditions attached to financial assistance may be a sensitive one for developing countries, but it must be addressed. Unless incentives for economic development are dependant on full environmental appraisal, their impact is likely to be environmentally disastrous - there are already plenty of examples.

United Nations institutions

A successful outcome to the Earth Summit will also depend on there being effective arrangements within the UN system. A high level UN Commission on Sustainable Development is to be set up to monitor and evaluate implementation of Agenda 21 and other agreements.

This is a promising start but, as politi-



Maurice Strong, the driving force behind the organisation of the Earth Summit (Photo: M. Edwards/Still Pictures Ltd)

cians were quick to point out, the power of the Commission will depend on how much pressure non-governmental bodies worldwide can bring to bear. We need to push for a strong and independent secretariat which can point to good and bad practise without fear of losing its budget or status.

Implications for ICBP

All of this may seem a long way from the stuff of traditional bird conservation but, if ICBP is to succeed, the Rio process must be made to succeed. It is not suggested that those concerned principally with the conservation of birds have to be experts in the major socio-economic problems of the world. But we do have to understand in broad terms the issues and processes involved and collectively strive to contribute to the solutions. We must neither allow cherished conservation techniques, such as protected areas, to be lightly rejected, nor must we fool ourselves that such concepts will be necessarily workable or sufficient in parts of the world where hunger and overpopulation are pressing concerns. We must work hard for the environment to be integrated into all economic and land-use policies.

One major contribution we can make is knowledge of the most important areas to conserve. Birds may be imperfect indicators of biodiversity but they still seem the best available - they are visible, widespread, capable of being counted and more widely studied than other taxa. ICBP's own work on biodi-

versity hotspots indicates that concentrations of endemic birds correlate quite well with concentrations of other endemic species. Because they are relatively well-known and popular, birds are also excellent flagships for conservation.

The voluntary sector's role

To date the voluntary sector has been at the forefront of the environmental movement, researching, campaigning and informing governments and the populace in general. Much play was made during the build-up to the Earth Summit of the involvement of non-government organisations. Although some governments paid more than lip service to this ideal, the struggle to have conservation issues taken seriously remains uphill, even where conservation organisations are strong. But the biggest challenge is to develop powerful voluntary conservation bodies in those countries where they are currently weak or absent. Here again, ICBP has a vital role to play in trying to ensure that Rio really was only the start of a process.

Global negotiations are painfully slow and the plethora of resultant words can confuse almost as much as clarify, but no-one has yet found a better way forward. As ever, the task of conservationists is to take the conventions and agreements that now exist and push for their translation into policy and practice; and to campaign vigorously for stronger commitments to the environment. Only by doing this can we hope to stem the losses in global biodiversity.