Newsletter for Birdwatchers

VOL. XXXI No. 1 & 2 January-February 1991

WETLAND AND WATERFOWL CONSERVATION IN ASIA

KARACHI, PAKISTAN, 14 - 21, December 1991

Convened by

The International Waterfowl and Wetlands Research Bureau

and

National Council for the Conservation of Wildlife, Pakistan

At the Invitation of

The Government of Pakistan

Cooperating Organizations :

Asian Wetland Bureau
IUCN-Pakistan
WWF-Pakistan
Bonn Convention Secretariat
Ramsar Convention Bureau

FIRST ANNOUNCEMENT

Introduction

The conference will address the current satus of wetlands and waterfowl in West and South Asia and develop strategies for their conservation.

The general aims of the conference are :

- To evaluate the status of and threats to, wetlands and waterfowl in West and South Asia, and to develop an Action Plan to implement future conservation priorities;
- To promote regional and international cooperation for wetland and waterfowl conservation in the region, by providing an international forum for considering the conservation of wetlands and migratory species;
- To promote awareness of, and adherance to, the Ramsar Convention, and to prepare for the forthcoming meeting of Ramsar Contracting Parties in Japan, 1993;
- To investigate the need and potential for the development of an Agreement under the Bonn Convention, for the conservation of migratory waterfowl in Asia.
- To develop a strategy for action, taking into account information derived from the Directory of Asian Wetlands and the Asian Waterfowl Census.

Audience

The meeting is specifically aimed at the following groups:

- Government conservation, environmental and land use management agencies
- Non-governmental conservation organizations
- Wetland managers and researchers
- Waterfowl managers and researchers
- Water resource managers and researchers

Venue

The meeting will be held at the Beach Luxury Hotel, Karachi, purpose built for large scale conferences. The venue provides excellent conference facilities as well as on site accommodation and meals.

Provisional Programme

The programme will consist of invited and contributed papers and posters, addressing the following topics :

- The status of wetlands and waterfowl in West and South Asia;
- Conservation and management of wetlands and waterfowl in West and South Asia;
- Research needs for wetland and waterfowl conservation in West and South Asia;
- Management and administrtive procedures for wetland and waterfowl conservation in West and South Asia;
- The conference will be preceeded by a training course for wetland managers in West and South Asia.

Call for Papers

Submitted papers and posters on the above topics are welcomed. Those wishing to present a paper or poster should send an English Language abstract of not more than 400 words. Deadline for receipt of abstracts is **30 April 1991.**

Expression of Interest

If you are interested in receiving the second announcement and registration form for this symposium please write to IWRB no later than **30 April 1991.**

IWRB

IWRB was established in 1954 to stimulate international cooperation for the conservation of migratory waterfowl and their wetlands habitats. The major activities of IWRB fall into three categories :

Survey and monitoring of waterfowl populations and wetland habitats, to identify conservation priorites, plan conseration actions and raise awareness of problems.

Research into the wise use of wetlands and waterfowl, to ensure that management and conservation actions are based on sound scientific principles.

Transfer of information between research workers through symposia, workshops and publications; and from research workers to waterfowl and wetland managers and government agencies through workshops training programmes and publications.

For Additional Information on the Scientfic or Administrative aspects of the conference please contact the persons listed below:-

Christian Perrenou and Tim Jones (Scientific),
Simon Nash (Administrative),
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VOL. XXXI No. 1 & 2 January-February 1991

CONTENTS

EDITORIAL

Bird Flight

In the Nov/Dec issue of 1990 we published the Introduction to Professor S. Dhawan's Raman Memorial Lecture on Bird Flight. Rather than continue with reproducing the text and the illustrations of the subsequent chapters we will carry an abstract of the entire lecture in a later issue. But those who wish, could attempt to get a copy from the Raman Research Insstitute, Bangalore.

Bird Ringing

I have a great admiration for bird ringers, because I experienced the difficulties involved, during my participation in the bird ringing camps in the Rann of Kutch with the Salim Ali (BNHS) camps. Putting up the nets in windy conditions, and locating them along likely bird flyways, removing the birds from the nets without being bitten and clawed, and without damaging the bird, and the subsequent operations of weighing, measuring, de-ticking, etc, requires skill and patience. I recall that Nightjars were the easiest birds to handle because neither their beaks nor their claws were capable of hurting. The birds only open their gapes wide and expect insects to stream in.

L A Hill (64 North Parade, Grantham, Lincolnshire, N G318 AN U.K.) in his annual Christmas Greetng says : "I got out a little booklet... on our House Martin operations this year and enclose a copy which you might find of some interest. I went off again to the Coto Donana at the end of September, returning on Ist. November..... We ringed every day during October except for three which were lost due to wind and rain and ringed 567 birds of 44 species which was quite good going. There is a large colony of House Martin nests on the "Town Hall" El Rocio (about 450). The birds were just on the point of leaving for Africa by the time I got permission to catch any, but we got a dozen or so. The interesting thing was they were all in full moult, their primaries being almost fully replaced: here, ours don't start moulting before they leave. Also they had no bugs. I am doing a bit of de-bugging for a friend in Leicester University who got his Ph.D on House Martin fleas. Nearly all ours here have fleas (3 species) and flat flies (Hippoboscids). Perhaps the weather is not humid enough down there in Andalusia".

The Report of the House Martin Study Group may be of interest to some of our readers and I will be glad to send a copy for the cost of xeroxing which may be about Rs.12/-. The Objects of the Exercise listed in the Report are to learn about :

I. The number of birds returning to the breeding site of the previous year. Are males more loyal to the site than females? What about the juveniles?

II. The movement between villages from one year to another

III. The numbers that perish while on migration

IV. The bird's life span

V. Fidelity between mates from one year to the next.

Checklists of Birds

I recall having discouraged the submission of checklists of birds from different areas and having suggested that the NLBW would prefer to have observations of selected species, of their behaviour and of the environment in which they are found. But I concede that checklists are a great help to visitors in a new area and three are included in this issue. I was glad to see that in the note on Mangalore the Malabar Trogon has been included. I have seen this bird only once in the Borivili National Park in Bombay and that must have been 40 years ago. But I remember the brilliant colour of the male. The name of the species has been changed to the Southern Trogon. I find that no cuckoos have been mentioned in the 76 species of the Mangalore list and I wonder if they have been overlooked.

The Checklist on Kakachi by T Ganesh refers to 94 species and there appear to be far more birds of prey in Pondicherry than in Malabar. In the Checklist of Mandi District of Himachal Pradesh the author has marked with an asterisk the "bird species found in the Himalayan Ecosystem" So, all in all, checklists are not to be decried.

Bound Volumes of the Newsletter

At the modest price of Rs.25/- hard bound issues of Volume XXIX and XXX are available. Please send your order to S. Sridhar.

The Forktail Leica Conservation Award

The award which goes to the best conservation-based study of an Oriental bird species or habitat is worth £500/-. The Oriental Bird Club (The Lodge, Sandy, Bedfordshire SG 19 2DL U.K.) announces that Zhang Yum-Sun and He Fen-Qui of Beijing have won the award. They will study the breeding ecology of the Relict Gull *Larus relictus*. This bird was recognised as a distinct species only in 1971 and the birds breed in inner Mongolia. I see that in the New Dictionary of Birds by Sir Landsborough Thompson, there is a reference to Saunders Gull *Larus saundersi* "an inland species of Mongolia and Northern China" This is presumably the bird which is the subject of the proposed study and whose name is appropriately changed to *relictus*.

Asian Midwinter Waterfowl Census - India, January, 4-21 1991

How quickly the Januarys come and go. I believe that those of you who have shown an interest in the census must be in touch with S.A. Hussain of the BNHS. For those who have missed out of the Principal Dates January 12/13 Hussain said in his circular of November 21, 1990 that "you may send any data collected between December 90 and February 91." The count form is printed in Sept.-Oct.-1990 issue of the Newsletter.

Banal Experiments

We seem to have a penchant for carrying out totally meaningless experiments involving animals, principally with the object of drawing attention to the "researcher". Asad Rahmani of the BNHS drew my attention to the report in the Free Press Journal of 22-12-90 relating to Cannibalism in Birds. The report is reproduced in this issue. If birds or mice or any form of life is subjected to artifical conditions they will behave in an unnatural manner. Does it need heartless experiments of this kind to prove the obvious.

ICBP NATIONAL REPORT – INDIA

S.A. HUSSAIN, Bombay Natural History Society, Hornbill House, Shaheed Bhagat Singh Road, Bombay 400 023

Introduction & Background

India with its variety of habitats ranging from marine littoral forests, both of the plains and hills ranging from dry thorn to evergreen and temperate, grasslands of the arid zone to swamps and alpine pastures up to the snowline, has one of the richest bird fauna in the world both in diversity of species and numbers of individuals.

Protection : The general conservation situation in the Country is satisfactory. As of 1990, there were 48 National Parks and 372 Sanctuaries in India and proposals were being processed to increase the number of National Parks to 54 and Sanctuaries to 503. Though the majority are not specifically meant for birds, the National Parks and Sanctuaries protect the best available habitats in the Indian Biogeographic Zones thereby preserve the birds species of such Zones.

However, the cause for concern is that the protected areas form only a small percentage of the total bird habitat. Habitat loss owing to human interference is the major reason for apprehension. Human encroachment on habitats for cultivation, monoculture plantations, submergence under impoundments for hydro-electric and agriculture, urbanization are some of the continuing causes for anxiety.

The effect of large scale change in habitats on the smaller Passerine migrants with precise habitat requirements have not been so far examined. Migrants, among which the Siberian Crane, is a classic example, face multiple threats both in their breeding and wintering habitats.

Increasing population, new settlements on the fringe areas of these forests and the non-availability of fuel and fodder due to devastation of unprotected forest areas however meant that despite this approach, pressures on the wildlife sanctuaries kept mounting in the last decade.

In several cases, prominently among them the Ranthambhore National Park, the Dudhwa National Park, or even the Bhimashankar Sanctuary in Maharashtra, the local people have actively opposed granting sanctuary or national park status to the forests.

No outlay for new-projects in 8th five year plan - The Planning Commission, which is the policy making body advising the Government of India, has decided to halve the outlay of the Department of Power for the forthcoming 8th five year plan. This is expected to have a serious impact on the country's power development programme during the plan period. The outlay which has been reduced to a mere Rs.60,000 crore from Rs.120,000 crore, is said to be just enough to fund ongoing schemes. This would perhaps be the first time that no new power project will be initiated in a five year plan period.

The pay off will be in terms of environment conservation and protection of habitat. Most habitat loss on a widespread basis has been due to the several power-projects that have resulted in largescale submersion leading to dam building and devastating mining. This decision is however incumbent on there being no policy change due to the fluctuating political situation.

Endangered Species

The status of the Endangered Species acts as monitor of the general conservation condition of the bird fauna. In India the endangered species have received particular attention from the Governments, both the Central and the States and from Non Governmental Organisations. It should also be noted that endangered species in the Indian Avifauna of 2060 is only about 5%. The majority of endangered species are those which used to be what is known as Game birds among Anatidae, Phasianidae. Gruidae and Otididae.

Recent researches on the Ecology of Endangered Species have been undertaken largely by the Bombay Natural History Society through Projects sponsored by the Government of India and funded from rupee funds held by the Fish and Wildlife Services of the United States Government.

Raptors : Altogether 104 forms, including 63 species of raptors are reported from the Indian subcontinent. Information on the breeding biology, taxonomy, food and feeding habits of raptors have only been scantily studied though many excellent species-specific studies are available. The only species of raptors which are studied in some detail in India are White-backed Vultures, Spotted Owlet, raptor communities in Bharatpur and the Pariah Kite.

The Bombay Natural History Society has initiated a five year research project titled 'Ecology and Behaviour of Resident Raptors with special reference to endangered species'. The Principal Investigator is Mr. J.C. Daniel with Dr. Vibhu Prakash as the Scientist-in-charge. The project aims to obtain information on the distribution and numbers of resident raptors considered endangered or of specific indicator value. This will enable assessment of the conservation status of these populations including threats, identification of key areas and factors for their. conservation. This will later result in assessment of what proportion of the species' distribution is covered under the existing protected areas of the country and to identify additional areas which need to be established for their conservation. The project will also try to organise a captive breeding program, if on the basis of data collected on the species, such an exercise is necessary for the rehabilitation of any particular species.

Of the 63 species and 41 subspecies of raptors reported from the subcontinent, 22 are common-resident, 12 uncommon-resident, five rare-residents, 3 vagrants, 4 uncommon-migrant, one rare-migratory, 5 common-migratory, 5 common-migratory/resident, 5 uncommon-migratory/resident and one rare-migratory/ resident.

Storks : The Greater Adjutant Stork is one of the world's rarest storks. The species has traditionally been abundant throughout its range in southeast Asia. The increasing destruction of the feeding, breeding and roosting habitat and loss of productivity of the wetlands, especially those nearby nesting areas, has led to a severe decline in the total population. An important population of the species still exists in the state of Assam in India. Prasanta Saikia and P.C. Bhattacharjee have conducted a preliminary study of the nesting of the species in Assam. The Bombay Natural History Society has presented a research proposal for studying the endangered storks in India and will soon have it ongoing.

Bustards : The Bombay Natural History Society studied the ecology of the Great Indian Bustard, Lesser Florican and the Bengal Florican during a long-term research project on the bustards. The projects have since been completed and it has now been possible to determine the status of the three species of Indian Bustards under this programme.

Great Indian Bustard – The project on this species obtained data on the present distribution and examined habitats presently holding populations of the same. Such studies helped determine whether in such habitats the bustards are transient or resident. In the breeding areas, studies focussed on recording the constraints on such areas, and prepared management plans for their complete protection. The breeding success of the species in different areas of its distribution was studied and investigations were made on the parameters required for breeding success. Dispersal and seasonal movements of the bustard

helped prepare, on the basis of the data obtained, a management plan for the conservation of the bustard.

Lesser and Bengal Floricans – The project on these species obtained data on the present distribution of the floricans and other endangered birds by field surveys and questionnaires. They later examined habitats presently holding these endangered species. The studies helped determine the exact breeding areas of these birds. Parameters on ecology and behaviour of the floricans were studied in great detail and on the basis of the data obtained, a conservation management plan was prepared.

Cranes – The status of the Black Necked Crane in Ladakh has been ascertained in a collaborative programme between the BNHS and the Government of Jammu and Kashmir. The Society also monitors the alarming decline in the numbers of the Siberian Cranes wintering in India primarily at Bharatpur. We had some anxious moments about the status of Wintering Siberian Cranes. Only 17 arrived last year to their traditional wintering quarters in the Keoladeo National Park. Unfortunately due to drastic changes in the habitat in the park, some of the birds left the park to unknown destinations in other parts of the Country causing an alarm amongst all bird enthusiasts.

One lone individual wandered off to about 200 km South of Keoladeo National Park, Bharatpur and spent the entire 1988 winter at Dihaila Jheel, in the State of Madhya Pradesh. In the following year (1989), this particular lake was dry due to the failure of monsoon and no birds wintered there. Dwindled number of Siberian Cranes and their wandering off to unknown and potentially unsafe areas in wintering ground has created an alarming situation. This year (16 November 1990) four birds have arrived in Keoladeo National park so far, and we hope some more will come. In the meantime, BNHS along with other NGOs and bird watchers have spread an alert to look out for Siberian Cranes this winter. The main problem of the Cranes however remains unresolved and that is the loss suffered by the population in transit between the breeding and wintering grounds. The Government of India in the Ministry of Environment and Forest is now considering how best to involve adjoining countries in the monitoring of the population in transit. BNHS in collaboration with the Indian Space Research Organisation, ICF and Wildbird Society of Japan is planning to satellite track Common Cranes, as an experiment to see how best this method can be used to monitor the movement of Siberian Cranes in future.

Jerdon's Courser – A major ornithological event was the rediscovery of the Jerdon's Courser under the Endangered Species collaborative project of the BNHS and the FWS, USA. The species was rediscovered in 1986, 80 years after it was last reported. Since the rediscovery, the species has been seen and photographed. The area where it was discovered has now been turned into a Sanctuary, the Lankamalai Sanctuary, specifically for the species. An extensive survey of the known habitat is likely to identify more areas of occurrence. This possibility is now being investigated.

There were five additional sightings in the Lankamalai area during 1987. Two Jerdon's Coursers were seen in the Thurupukonda reserve forest areas in October 1988. This area is about 30 km south of the Lankamalai area. Recently, in February 1990, two individual coursers were sighted at the 1986 plot by Mr.S.A.Hussain along with the tribal who rediscovered it. Later this year, a sighting record has been added in the Penchalakona reserve forest, 100 km south of Lankamalai. This area has since been proposed as a wildlife sanctuary. Since the rediscovery, one national park and two sanctuaries are demarcated, totalling nearly 2300 sq km in area under protection.

Other endangered species which acquire urgent attention are the Nicobar Megapodes, the Narcondam Hornbill in Andaman. These, particularly the single population of the first two species, needs to have long term conservation programmes designed for their survival.

Bird Migration

The movement of birds to the Country and within the country has been examined for the last two decades and valuable information has been obtained on the migratory movements between India and the USSR in the study of the migratory avifauna as envisaged under the convention on migratory Waterfowl which has been signed between the two Countries. Since 1987 an annual bird count on Wetland in collaboration with the IWRB has provided useful data on the Waterfowl status in the Country.

The Bombay Natural History Society is planning to conduct a Bird Banding workshop for participants from SAARC Countries.

Critical Habitats

Bharatpur : A major bird habitat that has been under continuous study since 1980 is the Keoladeo Ghana National Park at Bharatpur. The BNHS and the FWS, USA, have collaborated to set up a Field Station to study in detail the Ecology of the Ghana Bird Sanctuary Ecosystem. Two major reports have been published and the information obtained is now being analysed in depth particularly with regards to habitat availability, food resources and breeding success of resident Waterfowl.

The ornithological studies conducted at Bharatpur include (1) Population studies of aquatic birds, (2) Ecology of migratory waterfowl, (3) Comparative ecology of the resident ducks, (4) Comparative ecology of the piscivorous birds, (5) Ecology of the Siberian Crane, (6) Ecology of the Sarus Crane, (7) Ecology of the Pheasant-tailed and the Bronzewinged Jacana, (8) Landbird communities and (9) Raptors.

Grasslands : Due to a huge livestock population, the Indian grasslands are under tremendous grazing pressure and most of the so-called grasslands are at present in

various stages of degradation. Destruction of grasslands has resulted in rarity or local extinction of a large number of species like the Great Indian Bustard, floricans, blackbuck, wolf, quails, partridges, certain snakes and lizards. Floral composition has also changed, adversely affecting the most palatable species.

The Bombay Natural History Society has recently initiated a 5-year research project titled 'A Study of the Ecology of Grasslands of Indian Plains with particular reference to their endangered fauna' with Dr. Asad Rahmani as the Principal Investigator.

The Project aims to survey and evaluate the status of the subtropical grasslands of the Indian plains. The study will make an inventory of the major grasslands, both private and governmental, and to identify some for long-term conservation strategy. Later, this will help identify important grasslands from the view point of endangered biotic communities, both floral and faunal.

Networking

An encouraging development in recent years is the number of Bird Watcher's Society and groups which have been established all over the country. These Non-Governmental Organisations take the lead in the conservation of bird life throughout the Country.

Two Conferences conducted by regional birdwatching groups, the Pakshi Mitra Sammelan and the Decennial seminar of the Birdwatchers Society of Andhra Pradesh brought together many bird watchers concerned with avian conservation of the regions.

The Bombay Natural History Society is also planning to initiate and conduct the Indian Ornithological Congress.

ICBP National Section

Realising the need to revive the National section of the ICBP a circular was sent to 108 addresses in India (which included Individuals, Government Officials/ Departments, Universities, NGO's, Institutions and others) earlier this year. These target-groups were mainly NGOs involved in birdwatching and nature conservation, University departments with active intiatives in field biology and environmental sciences, national-level institutions focusing on natural history, WWF regional sections, Forest Departments and known individuals with proven leadership abilities in conservation action. These groups would be most suitable in developing the ICBP National Section owing to their continued growing interests in bird conservation.

Majority of respondees would prefer to have a NGO operated action plan for the ICBP National Section. See Table 1.

Table 1. Response to Circular

	ICBP National Section			
	NGO's should operate	Govt should operate	Both should operate	Don't know
NGO (44)	29	1	12	2
Universities (3)	1	1	–	1
Institutes (4)	2	–	1	1
WWF (2)	1	–	–	1
Forest Dept. (1)	1	–	–	–
Individuals (2)	2	–	–	–
	36	2	13	5

Management and Conservation

Proposed Amendments to the Wildlife (Protection) Act, 1972.

In a move described by most Indian environmentalists as 'calamitous', the union cabinet of the Government of India has been reported to have given its approval to a proposed amendment in the Indian Wildlife (Protection) Act making hunting of protected animals legal if they stray outside wildlife sanctuaries or national parks.

The need to preserve the country's natural heritage, on the one hand, and of satisfying the fuel and fodder needs of the populations dependent on the forests, on the other, have led to an inevitable conflict between man and animals. While increasing attacks of leopards and at times even tigers (especially in the Sundarbans area) have led to an occasional human casualty, grazing and felling pressures have devastated large parts of the wildlife sanctuaries.

So far, successive governments have adopted a multipronged strategy to tackle the problem. This consisted of shifting human settlements from core areas of the parks to buffer zones, of giving rights for collection of minor forest produce to villagers and compensating them for any cattle or crop losses incurred due to wildlife attacks. The entire thrust of the strategy was to try and reduce human interference in the wilderness. It was this strategy which was largely responsible for the significant gains in the protection of wildlife in the last three decades, including the now famous 'Project Tiger'.

The Proposed amendment making hunting of protected animals legal if they stray outside wildlife sanctuaries and national parks would in effect nullify the good work done in wildlife protection over the last two decades. Such an amendment if enforced could lead to increased poaching, since an animal could easily be killed inside the park and its carcass dragged outside the national park boundary. Such a retrogade step would in effect abrogate the wildlife Act. It would serve as a license to any would-be poacher. The birds immediately under threat would naturally be the large grassland-dwelling bustards.

The controversial amendments to the Wildlife Act, which were approved by the Union Cabinet despite strong opposition from the environment ministry, have been

referred back to the law ministry. Besides the controversy over the proposed amendments to section 11(2) of the 1972 Act, the matter is now pending with the law ministry for interpretation of the existing legislation also.

The commercial exploitation of birds have also been strictly controlled, trade being restricted to species which are abundant as crop pests and have multiplied in numbers with easy availability of food.

Loss of Habitat

Habitat destruction remains the main cause for concern to the conservation of bird life in the Indian Sub-Continent.

Narmada : A major cause for concern has been the multipurpose proposed series of dams on Narmada River in Central India. If implemented as envisaged, the multipurpose project will involve building 30 major and 135 medium and 3000 minor dams resulting in as many major and minor reservoirs and a vast network of Canal systems and approach roads. The four major dams, namely Sardar Sarovar, Narmada Sagar, Omkareshwar and Maheshwar located in three States of the Country will destroy about 56547 hectares of natural forests through submergence alone. This will not only practically change the ecology of the area but also a large number of forest bird species will suffer due to loss of habitat. The concerned Governments have given assurances for implementing massive reforestation plans, as required by the stipulations laid down by the funding agency – World Bank in this case – it is doubtful whether this exercise will actually compensate even a fraction of the loss of original forests. The Voluntary Organisations have strongly protested against the implementation of these projects but the political and other pressures appear to be too great to be countered by the voluntary groups.

SOME ASPECTS OF BIRD LIFE AROUND KAKACHI IN KALAKAD WILD LIFE SANCTUARY (T.N.)

T. GANESH
Salim Ali School of Ecology, Pondicherry University, Pondicherry 605 001

Kakachi is at one extreme of the Kalakad wild life sanctuary bordering the Bombay Burma tea estates. Situated at an altitude of c.1200 m, it experiences a cold and wet climatic regime most of the year with an annual average rainfall of about 3000 mm. The vegetation is of evergreen forest type dominated by *Cullenia exarillata* whose flowers are a great food source for many arboreal mammals including the liontailed macaque *Macaca silenus*. There are a few disturbed patches especially along the roads and some abandoned coffee and cardamom plantations which are over grown with secondary tree and scrub growth. Tea, coffee and other plantations cover most of the area around Manjolai (c.900 m) but below this moist to dry decidous forest extend till the plains of Manimuthar. Higher up towards the upper Kodayar dam site a disturbed forest mostly of secondary growth can be seen. This area is more frequented by terrestrial mammals including elephants and gaur.

I had the opportunity to visit this place during the summer of 1990 for a period of two months. Though this was not a migrant season a fair number of birds was seen in the area including the Pied Hornbill below the Manjolai estates. Bird diversity tended to be more in disturbed areas and at elevations below 900 m. This was especially true for frugivore diversity at Kakachi which comprised of three species of bulbuls, one sp of barbet, trogons and Imperial pigeons. The abundance of these except the bulbuls are definitely low. In the two months, I could see the pigeons only four times and the trogons three times. Bulbuls were more abundant but the Black bulbuls seem to be seasonal and appear only when fruits were readily available. Similarly Lorikeets appeared only when the tree tulip came into flower.

During the summer many of the resident birds were breeding including all the bulbuls, babblers, flycatchers, trogons (on a dead tree stump 10' high), spider hunters, small sunbirds, whistling thrush, Racket-tailed drongos and possibly other birds.

Most of the bird life is encountered in one mixed flock in the evergreen forest followed by a lull which could last for many hours. The number of species comprising a mixed flock usually varied from eight to twelve species but number of individuals reached enormous levels ranging from 40 to 100 specially the smaller birds like white eye and sunbirds. It is one of those moments which every bird watcher would cherish especially after long hours of silence amidst the giants.

The checklist accompanying this article is for only the areas above 900 m and therefore does not include hornbills and parakeets which were not seen around Kakachi and Kodayar during my visit.

Checklist of Birds Around Kakachi

Family : *Phalacrocoracidae*	
Little cormorant	*Phalacrocorax niger*
Large cormorant	*P. carbo*
Family : *Ardeidae*	
Pond heron	*Ardeola bacchus*

Night heron	*Nycticorax nycticorax*
Little egret	*Egretta garzetta*
Family : *Accipitridae*	
Black winged Kite	*Elanus caeruleus*
Honey buzzard	*Pernis ptilorhyncus*
Pariah Kite	*Milvus migrans*
Brahminy Kite	*Haliastur indus*
Shikra	*Accipiter. badius*
Crested Goshawk	*Accipiter trivirgatus*
Crested hawk-eagle	*Spizaetus cirrhatus*
Rufous bellied hawk-eagle	*Hieraaetus kienerii*
Black eagle	*Ictinaetus malayensis*
Crested serpent eagle	*Spilornis cheela*
Osprey	*Pandion haliaetus*
Marsh harrier	*Circus aeruginosus*
Family : *Falconidae*	
Shaheen falcon	*Falco peregrinus*
Kestrel	*Falco tinnunculus*
Family : *Phasianidae*	
Grey Jungle fowl	*Gallus sonneratii*
Family : *Rallidae*	
Whitebreasted waterhen	*Maurornis phoenicurus*
Family : *Charadriidae*	
Redwattled lapwing	*Vanellus indicus*
Common sandpiper	*Tringa hypoleucos*
Woodcock	*Scolopax rusticola*
Family : *Columbidae*	
Imperial pigeon	*Ducula badia*
Blue rock pigeon	*Columba livia*
Nilgiri wood pigeon	*C. elphinstonii*
Emerald dove	*Chalcophaps indica*
Family : *Pisttacidae*	
Indian lorikeet	*Loriculus vernalis*
Family : *Cuculidae*	
Common hawk-cuckoo	*Cuculus varius*
Indian banded bay cuckoo	*Cacomantis sonneratii*
Family : *Strigidae*	
Forest eagle-owl	*Bubo nipalensis*
Brown fish owl	*Bubo zeylonensis*
Family : *Apodidae*	
Alpine swift	*Apus melba*
Whiterumped spine tail	*Chaetura sylvatica*
Family : *Trogonidae*	
Malabar Trogon	*Harpactes fasciatus*
Family : *Alcedinidae*	
Threetoed kingfisher	*Ceyx erithacus*
Common kingfisher	*Alcedo atthis*
White breasted kingfisher	*Halcyon smyrnensis*
Family : *Meropidae*	
Chestnutheaded bee-eater	*Merops leschenaulti*
Green bee-eater	*Merops orientalis*
Family : *Capitonidae*	
Small green barbet	*Megalaima viridis*
Large green barbet	*Megalaima. zeylanica*
Family : *Picidae*	
Little scalybellied green woodpecker	*Picus myrmecophoneus*
Indian goldenbacked threetoed woodpecker	*Dinopium javanense*
Great black woodpecker	*Dryocopus javensis*
Rufous woodpecker	*Micropternus brachyurus*
Family : *Pittidae*	
Indian pitta	*Pitta brachyura*
Family : *Hirundinidae*	
Swallow	*Hirundo rustica*
House swallow	*Hirundo tahitica*
Family : *Laniidae*	
Brown shrike	*Lanius cristatus*
Family : *Dicruridae*	
Ashy drongo	*Dicrurus leucophaeus*
Family : *Sturnidae*	
Hill myna	*Gracula religiosa*
Family : *Corvidae*	
Whitebellied tree pie	*Dendrocitta leucogastra*
Jungle crow	*Corvus macrorhynchos*
Family : *Campephagidae*	
Pied flycatcher shrike	*Hemipus picatus*
Scarlet minivet	*Pericrocotus flammeus*
Family : *Irenidae*	
Goldenfronted chloropsis	*Chloropsis aurifrons*
Goldmantled chloropsis	*Chloropsis cochinchinesis*
Fairy blue bird	*Irena puella*
Family : *Pycnonotidae*	
Red whiskered bulbul	*Pycnonotus jocosus*
Yellow browed bulbul	*Hypsipetes indicus*
Black bulbul	*Hypsipetes madagascariensis*
Ruby throated bulbul	*Pycnonotus melanicterus*
Family : *Muscicapidae*	
Spotted babbler	*Pellorneum ruficeps*
Slatyheaded scimitar babbler	*Pomatorhinus horsefieldii*
Blackheaded babbler	*Rhopocichla atriceps*
Quaker babbler	*Alcippe poioicephala*
Whitebreasted laughing thrush	*Garrulax jerdoni*
Yellowbreasted laughing thrush	*Garrulax delesserti*
Sub Family : *Muscicapinae*	
Brown flycatcher	*Muscicapa latirostris*
Rufous tailed flycatcher	*Muscicapa ruficauda*
Redbreasted flycatcher	*Muscicapa parva*
Whitebellied blue flycatcher	*Muscicapa pallipes*
Nilgiiri flycatcher	*Muscicapa albicaudata*
Black and Orange flycatcher	*Muscicapa nigrorufa*
Paradise flycatcher	*Terpsiphone paradisi*
Greyheaded flycatcher	*Culicicapa ceylonensis*
Sub Family : *Sylviinae*	
Blyths reed warbler	*Acrocephlus dumetorum*
	Hippolais spp
	Phylloscopus spp
Sub Family : *Turdinae*	
Blue chat	*Erithacus brunneus*

Malabar whistling thrush	*Myiophoneus horsfieldii*
Blackbird	*Turdus merula*
Family : *Paridae*	
Yellowcheeked tit	*Parus xanthogenys*
Family : *Sittidae*	
Velvet fronted nuthatch	*Sitta fontalis*
Family : *Motacillidae*	
Nilgiri pipit	*Anthus nilghiriensis*
	Anthus sp
Forest wagtail	*Motacilla indica*
Grey wagtail	*Motacilla cinerea*
Large pied wagtail	*Motacilla maderaspatensis*
Family : *Dicaeidae*	
Nilgiri flowerpecker	*Dicaeum sp.*
Family : *Nectariniidae*	
Small sunbird	*Nectarinia minima*
Little spider hunter	*Arachnothera longirostris*
Family : *Zosteropidae*	
White eye	*Zosterops palpebrosa*
Family : *Ploceidae*,	**Sub family : *Estrildinae***
Rufousbellied munia	*Lonchura kelaarti*

BIRDS OF MANDI DISTRICT (Himachal Pradesh)

ANIL MAHABAL and RATHIN MUKHERJEE
Zoological Survey of India, High Altitude Zoology Field Station, Solan, (H.P.) 173 212

A preliminary survey of the avifauna of Mandi district was undertaken during March, 1990. This survey is part of a study programme on distributional pattern of birds in the Western Himalayan ecosystem, particularly in the various districts of Himachal Pradesh.

District Mandi is situated in Himachal Pradesh (between 31° 13′ & 32° 04′ N latitude and 76° 37′ & 77° 23′ E longitude). The main rivers Beas and Sutlej and their tributaries form the river system in the district. The district has a temperate climate. Some areas of the district get cut off from other areas during heavy snow fall. The winter snow often comes down to an altitude of 1330 meters. The mean annual rainfall of the district is 1600 mm. The area under forest is around 25 percent of the total area of the district.

The district being mountaineous has various places where altitude ranges from 800 meters to 4400 meters. The survey of avifauna was undertaken in the areas of Jogindernagar, Drang, Kamond, Sarkaghat, Bhambla, Rewalser lake and Mandi town where altitudinal range is upto 2200 meters. The birds were identified in the field with the help of standard books such as Ali (1949) and Ali & Ripley (1983).

In general, the birds like Himalayan Giffon, Bluethroated Barbet, West Himalayan Greycrowned pygmy Woodpecker, Western Yellowbilled Blue Magpie, Himalayan Tree-Pie, Whitecheeked Bulbul, Straked Laughing Thrush, Whitethroated Fantail Flycatcher, Western Greenish Leaf Warbler, River Chat, Himalayan Blue Whistling Thrush, Himalayan Tree-Creeper and Cinnamon Tree-Sparrowwere commonly observed throughout the district. The Indian Myna has a good population in the district. Their communal roosts were noticed in most of the towns and big villages.

Ali (1949) has described about 225 bird species belonging to the Western Himalayas. This includes only hill birds and excludes certain common birds. Altogether, 70 different bird species belonging to 32 families and subfamilies are hereby recorded separately from district Mandi. Of these, 21 bird species are surveys will be undertaken in different seasons to know the total bird life in this district.

References

1. Ali, Salim (1949) Indian Hill Birds. Oxford University Press, Bombay.
2. Ali, Salim and Ripley Dillon S. (1983). A Pictorial Guide to the Birds of the Indian Subcontinent. Oxford University Press, New Delhi.

A Systematic list of Birds of Mandi District (H.P.)
(* – Bird Species confined to Himalayan Ecosystem)

Class : AVES
Order : Ciconiiformes
Family : Ardeidae

1. *Egretta intermedia* — Median Egret
   Order : Falconiformes
   Family : Accipitridae
2. *Elanus caeruleus vociferus* — Blackwinged Kite
3. *Milvus migrans* — Pariah kite
4. *Gyps himalayensis* — Himalayan Griffon Vulture
5. *Gyps bengalensis* — Indian Whitebacked Vulture
6. *Spilornis cheela* — Crested Serpent Eagle
   Family : Falconidae
7. *Falco tinnunculus* — Kestrel
   Order : Galliformes
   Family : Phasianidae
* 8. *Arborophila torqueola* — Simla Hill Partridge
   Order : Charadriiformes
   Family : Charadriidae
9. *Vanellus indicus* — Redwattled Lapwing
   Order : Columbiformes
   Family : Columbidae

10. *Columba livia* Blue Rock Pegion
11. *Streptopelia decaocta* Ring Dove
12. *Streptopelia chinensis* Spotted Dove
Order : Psittaciformes
Family : Psittacidae
13. *Psittacula krameri* Roseringed Parakeet
14. *Psittacula cyanocephala* Blossom-headed Parakeet
*15. *Psittacula himalayana* Slatyheaded Parakeet
Order : Cuculiformes
Family : Cuculidae
16. *Cuculus varius* Common Hawk-Cuckoo
Order : Apodiformes
Family : Apodidae
17. *Apus melba* Alpine Swift
18. *Apus affinis* House Swift
Order ; Coraciiformes
Family : Alcedinidae
19. *Halcyon smyrnensis* Whitebreasted Kingfisher
Family : Meropidae
20. *Merops orientalis* Small Green Bee-eater
Family : Upupidae
21. *Upupa epops* Hoopoe
Order : Piciformes
Family : Capitonidae
22. *Megalaima zeylanica* Northern Green Barbet
*23. *Megalaima asiatica asiatica* Blue-throated Barbet
24. *M.haemacephala indica* Crimsonbreasted Barbet
Family : Picidae
Subfamily : Picinae
*25. *Picus canus* Indian Blacknaped Green Woodpecker
*26. *Picoides canicapillus* W. Himalayan Greycrowned Pygmy Woodpecker
Order : Passeriformes
Family : Hirundinidae
27. *Hirundo smithii filifera* Indian Wiretailed Swallow
28. *Hirundo daurica* Redrumped Swallow
Family : Laniidae
29. *Lanius vittatus* Baybacked Shrike
30. *Lanius schach* Rufousbacked Shrike
Family : Dicruridae
31. *Dicrurus adsimilis* North Indian Black Drongo
Family : Sturnidae
32. *Acridotheres tristis* Indian Myna
33. *Acridotheres fuscus* Northern Jungle Myna
Family : Corvidae
*34. *Cissa flavirostris* Western Yellow-billed Blue Magpie
35. *Dendrocitta vagabunda* Northwestern Tree Pie
*36. *Dendrocitta formosae* West Himalayan Tree Pie
37. *Corvus splendens* House Crow
*38. *Corvus macrorhynchos* Himalayan Jungle Crow
Family : Campephagidae
39. *Tephrodornis pondicerianus* Common Wood Shrike
Family : Pycnonotidae
*40. *Pycnonotus leucogenys* Whitecheeked Bulbul
*41. *Pycnonotus cafer* Punjab Redvented Bulbul
Family : Muscicapidae
Subfamily : Timaliinae
42. *Chrysomma sinense* Western Yellow-eyed Babbler
43. *Turdoides striatus* Sind Jungle Babbler
*44. *Garrulax lineatus* Simla Streaked laughing thrush
Subfamily : Muscicapinae
45. *Muscicapa latirostris* Brown Flycatcher
46. *Muscicapa ruficauda* Rufoustailed Flycatcher
47. *Muscicapa superciliaris* Whitebrowed Blue Flycatcher
48. *Culicicapa ceylonensis* Northern Greyheaded Flycatcher
*49. *Rhipidura albicollis* Western Whitethroated Fantail Flycatcher
Subfamily : Sylviinae
50. *Orthotomus sutorius* Tailor Bird
51. *Phylloscopus trochiloides* Western Greenish Leaf Warbler
*52. *Seicercus xanthoschistos* Western Greyheaded Flycatcher-Warbler
Subfamily : Turdinae
53. *Copsychus saularis* Magpie Robin
*54. *Enicurus maculatus* Western Spotted Forktail
55. *Saxicola caprata* Northern Pied Bush Chat
56. *Saxicola ferrea* Dark-grey Bush Chat
*57. *Chaimarrornis leucocephalus* Whitecapped Redstart
58. *Saxicoloides fulicata* Brownbacked Indian Robin
*59. *Monticola rufiventris* Chestnutbellied Rock Thrush
*60. *Myiophoneus caeruleus* Himalayan Blue Whistling Thrush
Family : Paridae
Subfamily : Parinae
61. *Parus major* Grey Tit
Family : Certhiidae
*62. *Certhia himalayana* Himalayan Tree Creeper
Family : Motacillidae
63. *Anthus trivialis* European Tree Pipit
64. *Motacilla alba* Pied or White Wagtail
Family : Nectariniidae
65. *Nectarinia asiatica* Purple Sunbird
Family : Zosteropidae
66. *Zosterops palpebrosa* White-eye
Family : Ploceidae
Subfamily : Passerinae
67. *Passer domesticus* House Sparrow
*68. *Passer montanus* Tree Sparrow
*69. *Passer rutilans* Cinnamon Tree-Sparrow
Family : Emberizidae
70. *Emberiza stewarti* White-capped Bunting

A CHECKLIST OF BIRDS OF MANGALORE CITY

DR. ARUNACHALAM KUMAR and VINAY K. BOSE
Rotary Club of Mangalore/WWF-India, Karnataka - 'Workshop on Avifauna' October 1990.

Situated awash the Arabian Sea on the West Coast of Peninsular India, wedged by the undulating ranges of the Ghats to it's east, Mangalore (Lat : 12-50' N, Long : 74-53' E) is today a burgeoning metropolis poised on the doors of an industrial boom, that fast promises to change it's skyline to grotesque proportions. Lashed by torrential downpour between June and September by the South-West monsoon, the city drenches itself with 100 - 150 inches of rain. Palm fronds punctuate the narrow lanes, moss lined laterite bricks lead to sinuous alleys with a mind boggling traffic somehow meandering through both.

A rapid influx of commercial activity heralded by the inflow of the omnipresent petrodollar, has wrought irretrievable change to the green cover. The onslaught of progress must be accepted as inevitable. However, before the metamorphosis is complete, for the sake of record and reference, this attempt to prepare and update a checklist of birds found in the urban scenario is being made. The list, is certainly not total or comprehensive, for it omits from its gamut some estuarine and marine birds that populate the beachfront and backwaters of the 73.64 square kilometer city.

This log records sightings primarily from the Attavar village sector of Mangalore and covers about 6 years of sustained work. No bird was listed unless more than one independent sighting was confirmed by the authors.

1.	Little Cormorant	*Phalacrocorax niger*
2.	Purple Heron	*Ardea purpurea*
3.	Pond Heron	*Ardeola grayii*
4.	Cattle Egret	*Bubulcus ibis*
5.	Little Egret	*Egretta garzetta*
6.	Indian Reef Heron	*Egretta gularis*
7.	Night Heron	*Nycticorax nycticorax*
8.	Chestnut Bittern	*Ixobrychus cinnamomeus*
9.	Pariah Kite	*Milvus migrans govinda*
10.	Brahminy Kite	*Haliastur indus*
11.	Crested Serpent Eagle	*Spilornis cheela*
12.	Blackwinged Kite	*Haliastur indus*
13.	Shikra	*Accipiter badius*
14.	Kestrel	*Falco tinnunculus*
15.	Red Spurfowl	*Galloperdix spadicea*
16.	Whitebreasted Waterhen	*Amaurornis phoenicurus*
17.	Red Wattled Lapwing	*Vanellus indicus*
18.	Yellow Wattled Lapwing	*Vanellus malabaricus*
19.	Blackwinged Stilt	*Himantopus himantopus*
20.	Little Ringed Plover	*Charadrius dubius*
21.	Brownheaded Gull	*Larus brunnicephalus*
22.	Blue Rock Pigeon	*Columba livia*
23.	Spotted Dove	*Streptopelia chinensis*
24.	Rose Ringed Parakeet	*Psittacula krameri*
25.	Blossomheaded Parakeet	*Psittacula cyanocephala*
26.	Indian Lorikeet	*Loriculus vernalis*
27.	Koel	*Eudynamys scolopacea*
28.	Crow Pheasant	*Centropus sinensis*
29.	Barn Owl	*Tyto alba*
30.	Collared Scops Owl	*Otus bakkamoena*
31.	Brown Hawk Owl	*Ninox scutulata*
32.	Spotted Owlet	*Athene brama*
33.	House Swift	*Apus affinis*
34.	Palm Swift	*Cypsiurus parvus*
35.	Malabar Trogon	*Harpactes fasciatus*
36.	Small Green Bee-Eater	*Merops orientalis*
37.	Lesser Pied Kingfisher	*Ceryle rudis*
38.	Common Kingfisher	*Alcedo atthis*
39.	Storkbilled Kingfisher	*Pelargopsis capensis*
40.	Indian Roller	*Coracias benghalensis*
41.	Large Green Barbet	*Megalaima zeylanica*
42.	Coppersmith Barbet	*Megalaima haemacephala*
43.	Goldenbacked Woodpecker	*Dinopium benghalense*
44.	Indian Pitta	*Pitta brachyura*
45.	Golden Oriole	*Oriolus oriolus*
46.	Blackheaded Oriole	*Oriolus xanthornus*
47.	Scarlet Minivet	*Pericrocotus flammeus*
48.	Common Iora	*Aegithina tiphia*
49.	Redwhiskered Bulbul	*Pycnonotus jocosus*
50.	Redvented Bulbul	*Pycnonotus cafer*
51.	Black Drongo	*Dicrurus adsimilis*
52.	Ashy (grey) Drongo	*Dicrurus leucophaeus*
53.	Indian Tree Pie	*Dendrocitta vagabunda*
54.	House Crow	*Corvus splendens*
55.	Jungle Crow	*Corvus macrorhynchos*
56.	Jungle Babbler	*Turdoides striatus*
57.	Indian Robin	*Saxicoloides fulicata*
58.	Magpie Robin	*Copsychus saularis*
59.	Brown Leaf Warbler	*Phylloscopus collybitta*
60.	Tailor Bird	*Orthotomus sutorius*
61.	Rufousbacked Shrike	*Lanius schach*
62.	Brown Shrike	*Lanius cristatus*
63.	Paradise Flycatcher	*Terpsiphone paradisi*
64.	Grey Wagtail	*Motacilla cinerea*
65.	White (pied) Wagtail	*Motacilla alba*
66.	Greyheaded Myna	*Sturnus malabaricus*
67.	Brahmini (blackheaded) Myna	*Sturnus pagodarum*
68.	Common Myna	*Acridotheres tristis*
69.	Jungle Myna	*Acridotheres fuscus*
70.	Purplerumped Sunbird	*Nectarinia zeylonica*
71.	Loten's Sunbird	*Nectarinia lotenia*
72.	Tickell's Flowerpecker	*Dicaeum erythrorhynchos*
73.	Whitebacked Munia	*Lonchura Striata*
74.	Spotted Munia	*Lonchura punctulata*
75.	House Sparrow	*Passer domesticus*
76.	Whitebreasted Kingfisher	*Halcyon smyrnensis*

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A Checklist of birds in Attavar Village, Mangalore, Keyemsee Annual, 1987-88 Kumar A and Bose K.V

CORRESPONDENCE

GREATER ADJUTANT STORK NESTING IN UPPER ASSAM.

DR. DIPTIMANTA BAROOAH, Dass Pharmacy, Sibsagar 785 640, Assam

I read with great interest the article - "Discovery of Greater Adjutant Stork Nesting Colonies outside the protected Areas of Assam, India" - by P. Saikia and P.C.Bhattacharjee in vol XXX No. 7 & 8 of the Newsletter.

In Oct 1990, nine nests of Greater Adjutant Stork were located in a village just outskirt of Sibsagar (24°40'E X 27°N) in Upper Assam. The nests were situated at the height of 40-60 ft in the topmost layers of *Bombax ceiba* and *Alstonia scholaris* trees. The number of nests per tree was usually one, but on two occasions two nests were found per tree. Five of these nests were placed inside a nesting colony of 150 pairs of Openbill Storks and the Adjutant nests were accidentally discovered during a photographic expedition in the nesting colony of Openbill Storks.

The nesting colony of the Greater Adjutant Stork was situated by the side of the river Dikhow (a major tributary of the Brahmaputra), among healthy clumps of bamboos. It is the thick bamboo groves which hide the nests from human eyes but the birds get a panoramic view of the countryside for miles together. Interestingly the 'bill-clattering sound' of the Great Adjutant Stork is similar to the rattling sound of bamboos moving to and fro in a light breeze.

But the species has a very distinct call produced during the early nesting period. It is a deep throated, low-pitched booming sound; somewhat resembling the distant growl of a tiger. The intensity of this low-pitched call is quite remarkable and it can be heard from 200 mts in a sleepy village.

The most significant aspect of this nesting colony of Great Adjutant Stork was its proximity to human settlements. The distance between the nests and human dwelling places was found to be around 30-150 mts. In the Dist. of Sibsagar two other smaller colonies of Greater Adjutant Storks were discovered containing three nests in each in the same type of habitat, i.e by the side of a river, among bamboo groves and in proximity to human settlements.

The site having nine nests was revisited on 9.12.90 and four chicks were observed in four nests, but there could be more as evident from two empty egg shells (diameter 5.9 cm in the smaller axis) found below one nest where no chick could be seen because of poor visibility.

ON OCCURRENCE OF LARGE GREEN BARBET IN BANGALORE.

J.N. PRASAD, 13, 8th Cross, 30th Main, J.P.Nagar, Bangalore 560 078

It is quite intriguing to note that the Large Green Barbet (LBG) *Megalaima zeylancia* (Gmelin), once considered to be common, is now absent in Bangalore. I have been watching birds in Bangalore since the last seven years, but have not come across the species. Several of my senior colleagues share my opinion. Instead its congeneric species, the Small Green Barbet(SGB) *M.viridis* (Boddaert) is the most common and abundant bird in Bangalore.

Ghorpade and others, in their article on 'Birds of Nandi Hills' [NLBW: 14(5):1-5, 1974] state that the "Occurrence of Large Green Barbet and Small Green Barbet together (at Nandi) was held to be very significant. The former species is very common in Bangalore city as in New Delhi (Indian Handbook Vol.4:151) and is also fairly abundant at Nandi Hills". Further, they indicate that "*M.viridis* is also found in *small numbers* at Bangalore though it is supposed to be confined to the peninsular hills according to the Handbook". Interestingly, I have not come across LGB at Nandi Hills, about 60 km North of Bangalore (13°22'N,77°4'E) during my visit to the hills on 19 October and 11 November 1990. To confirm the identity, I tracked all the calling Barbets, to my surprise all of them turned out to be SGB's!

Even Mr. Futehally, in his "Random notes on the birds of Bangalore [NLBW:14 (1):6,1974] remarks that "On 5 November 1974, observed a pair of Large Green Barbets feeding on Fig tree in Palace Orchards". I have visited Place Orchards several times but here too, only SGB is abundant, though Mr.Futehally mentions them to be common in Bangalore [NLBW:15(3):3-5,1975].

With such a change of situation one does not fail to wonder as to what really happened to LGB? Was it ousted by SGB over the years? Though both the birdwatchers are reputed for their authentic observations on birds, have they, by chance made an error in their identification? This question has to be considered because Dr.Salim Ali during his 'Birds of Mysore' survey (JBNHS:43:573-595, 1943) mentions that the species (LGB) was not met with in the entire Mysore State! except for a specimen collected on 20 September 1934 at Sathyamangalam in the Biligirirangana Hills range. He observes SGB to be common and has collected the specimen in several areas.

Could our senior birdwatchers please clarify their observations and throw some light on the turn of situation with respect to Green Barbets in Bangalore? It would help to solve the puzzle that the present-day birdwatchers are faced with in Bangalore.

GREATER FLAMINGO IN KUTCH .

NAVIN. N. BAPAT , Paburai Falia, Bhuj- Kachchh 370 001

The purpose of this letter is to inform you about the latest position of the Greater Flamingo *Phoenicopterus roseus* in the Great Rann of Kutch. Since the last few months the sighting of this species had become almost nil in spite of regular bird- watching trips by experts of the area. Hence presuming them to have congregated somewhere for breeding, I took the initiative of surveying the known breeding grounds in the Great Rann.

The survey was undertaken in the 2nd week of January (8th to 10th January). I am extremely happy to inform you that I discovered an active breeding colony of the Greater Flamingo. There are about 25000 in the compact area of 'C' 3000' x 300' and they have one chick each. I could count 20000 chicks in this colony. The chicks seem to be about 3 to 10 days old.

There are three more similar breeding colonies of this species about 5 to 10 km from the previous one. My estimate is that there are 500,000 flamingos in this area. The area is popularly known as HANJBET and is presently 3 sq.m. in extent.

This interesting discovery was made on 9th January'91 at about 14.30 hours. The breeding of this species in the Great Rann has occurred after a gap of fifteen years. The entire survey was on camel back and was sponsored by the Forest Department and the B.S.F. authorities were also very helpful.

BARHEADED AND GREYLAG GEESE. *DR. J.C. UTTANGI, 36, Mission Compound, Dharwad 580 001*

The only two species of goose known to visit our country in large flocks today are : The Barheaded Goose, *Anser indicus* and the Greylag, *Anser anser*. Both of them breed in Central Asia and winter in the northern parts of India including Punjab, Rajasthan, Uttar Pradesh, Orissa, Gujarat, Madhyapradesh but, the Barheaded goose prefers to move further down to south India and today it occurs in Karnataka, Tamilnadu, Andra Pradesh and not in Kerala and along the coastal regions. The distribution of this species also needs study. The Greylag on the other hand is confined to colder parts of Northern India and is not reported so far from the south. This should be re-examined and confirmed. Census programmes recently carried out on the 12th and 13th Jan. 1991 in the districts of Dharwad and Bellary revealed occurrence of one large flock of 800 Barheaded goose roosting in Tungabadra dam and another flock consisting of 1000 members was observed in a large Jheel near Naregal in Dharwad district. Other adjoining districts in Karnataka are also likely to attract these grainivorous water birds and hence it is judicious to extend survey work to these areas also. A rare association of 50 Brahminy ducks with Barheaded goose in Naregal Taulk was quite interesting to observe.

PLUMAGE OF THE GREY WAGTAIL. *KUMARAN SATHASIVAM, 29, Jadamuni Koil Street, Madurai 625 001*

I write regarding the Grey Wagtail *Motacilla caspica*. The Handbook described the male bird in summer as having a black throat and the rest of the underparts bright yellow, while in winter it is said to have a buffish throat and paler yellowish underparts, brighter yellow on the vent. The female which is indistinguishable from the male in winter, has a buff throat and paler underparts.

I have observed this species in a plumage that does not match the description either for summer or for winter. Seeing them in October (19th to 21st) and November (24th to 26th) at Thekady and in Kodaikanal on the 14th November, I noted that these birds had a yellow chin and throat, and yellow ventral region. The region in between was white. Could this be an intermediate stage in the transition from summer to winter plumes? I felt it was surprising that this has not been described, particularly as the birds seem to be in this livery for at least a month. On a visit in January to Thekady, I found the Grey wagtails to be in the winter plumage described in the Book.

Incidentally, in November I found remarkably few Grey Wagtails at Kodaikanal and on the Ghat road too. On earlier visits, I have seen these wagtails to be abundant both on the road and at Kodai. Other birds I saw on a short birding walk at Kodaikanal were White-eyes, Pied Bush Chats, Rufousbacked Shrikes, Scimitar Babblers, Laughing Thrushes, unidentifiable Tree Warblers and Leaf Warblers and a Greyheaded Bulbul. I undersand that the last is rarely seen. The one I saw was in a tree at the junction where a road branches off Lloyds Road towards Bear Shola Falls (very close to Hotel Jai).

IDENTIFYING BIRDS OF PREY. *WILLIAM S. CLARK, BNHS, Bombay*

I am writing regarding two instances concerning the identification of Birds of Prey published in recent *Newsletters*. I am in India as an US advisor for the BNHS's Birds of Prey survey. I am particularly interested in the correct field identification of birds of prey, especially here in India.

The first is two reports of sightings of *Accipiter soloensis* Grey Frog Hawk (as the rest of the world knows this species) in mainland India in nos 5-6 and 7-8. I have seen and photographed several adult male Shikras *A.badius* in India that appear exactly as the birds described by Hashim Tyabji and Asad Rahmani. I have examined in detail a black and white print of the bird photographed (at great distance) by Dr. Rahmani at Similipal NP. Its wingshape and colour pattern conform exactly to adult male Shikras I have photographed. Further, neither article mentions the differences in back colour one would expect : Slaty grey for Shikra or dark bluish-grey for Grey Frog Hawk. But the clincher is that neither reporter mentioned the best field mark of the Grey Frog Hawk - that is, its bright orange cere (See Handbook page 240). In the future all bird watchers in eastern India should be on the lookout for Grey Frog Hawks and should look carefully at hawks having white underwings with black tips to note the back and cere colours. I would love to see flight photographs of Grey Frog Hawks if any are taken.

The second matter is the identification of the mystery raptor in no. 5-6 as Crested Goshawk by Robert Sikora in no. 7-8. I fully concur with the identification but feel that the white "puffs" are in reality the *under* tail coverts, not the uppertail ones. It is common for some medium to large accipiters to use their long white undertail coverts as part of their display flights. Two such are the North American Cooper's Hawk (*A.cooperi*) and Northern Goshawk (*A. gentilis*).

I enjoy reading the newsletter very much. Keep up the good work.

ACACIA SEEDS – A NEW FOOD SOURCE FOR BIRDS AT CALICUT. *S. DEVASAHAYAM and J. REMA, National Research Centre for Spices, Marikunnu, Calicut 673 012*

Acacia *Acacia auriculiformis* was introduced into our campus at Calicut during 1984 mainly for afforesting barren hillocks. For the past two years we have been observing flocks of jungle crows *Corvus macrorhychos*, greyheaded mynas *Sturnus malabaricus* and redwhiskered bulbuls *Pycnonotus jocosus* feeeding on acacia seeds that were exposed when the pods split during November-January. The acacia seed has a fleshy funicle bright orangish yellow in colour and we presume that this was the main attraction to the birds as a source of food. Generally the birds swallowed the entire seed with the fleshy funicle; however on a few occasions we observed greyheaded mynas swallowing the funicle alone. The seeds may not get digested since the testa is very hard and we could observe intact seeds in a few faecal samples. The pods on the trees began to split by late November and reached its peak during December and the activity of the birds was also high during this period. By mid January most of the seeds had fallen down and the birds stopped visiting the trees for seeds. We are curious to know whether this type of activity has been

observed in other areas and whether other bird species were attracted to the acacia seeds.

CROWS WITH A WHITE SHOULDER.

DR. M.L. NARANG, Associate Professor, Dr. YASHWANT SINGH, Parmar University of Horticulture & Forestry, Solan 173 230

Sometime back I had visited a small village about 100km from Solan in Himachal Pradesh. There I had observed some Himalayan Jungle Crows *Corvus macrorhynchos intermedius* which is a common species in Himachal Pradesh. The unusual thing about these Crows was that majority of them had a white shoulder patch in their wings (Secondaries) similar to the red shoulder patch in Himalayan Slaty-headed Parakeets *Psittacula himalayana*. The description of this specis as given in the Handbook of Birds by Ali & Ripley makes no mention of such white shoulder patches. Very recently about fifteen days back, I saw one such crow at Solan proper. It does not appear to be a case of albinism.

THE SIBERIAN CRANE IN THE LITTLE RANN OF KUTCH.

DHANRAJ MALIK, Camp Zainabad, Via Dasada 382 751, Gujarat

While watching a flock of cranes in the Little Rann of Kutch on the 04.01.91, I saw a fairly large crane with a white plumage. But I thought that the sun was playing the trick, so to confirm this I walked up to the cranes and looked through my 60x scope and what did I see? The crane was a Siberian Crane *Grus leucogeranus* and I immediately recognised it as I had seen 6 in Bharatpur in 1988. I could see the red face marking of the bird. But, I was still not sure of my sighting as I had never thought of seeing this bird here, so only to double check the sighting I made the flock fly and the bird did have the black primaries that a Siberian Crane should have.

I hope this information is enough for confirming a sighting of the Siberian Crane in the Little Rann of Kutch.

NEW PARADISE FOR PEREGRINE FALCONS.

AAMIR ALI, 14 ch. de la Tourelle, 1209 Geneva

"Peregrine falcons are increasing in New York, attracted by the numbers of pigeons and sparrows and the sky scrapers which remind them of their native cliffs.

There are at least 9 couples nesting in the city. In 3 years, the peregrine falcons have adapted to the roofs of sky scrapers, churches, hospitals, pillars of bridges.

Last spring 6 out of 13 young flacons survived long enough to fly off, a rate better than the five in Yosemite, where there are 5 couples nesting.

Workers on bridges and buildings have been instructed not to disturb the falcons during the nesting period, so the windows round the nests are not washed and walls are not repainted.

The falcons, spoilt by human contact, tend to build their nests rather shallow and these risk being blown away by a strong wind. So, friends of the birds are placing boxes filled with gravel, in strategic places such as the Pan Am building.

Sometimes, the falcons are fooled by the windows, and last spring two were killed when they crashed into windows, confused by their own reflection.

Some 15 years ago, DDT and other insecticides had reduced the population of peregrine flacons to about 100 couples; today there are some 500 in the US."

BIRD NEWS FROM RAJKOT.

ANVAR KHAN BABI, Fauzia Bungalow, Near Amrapali Cinema, Rajkot 360 001

This week the temperatures in the field are near freezing point and farmers are finding many dead birds particularly Brown Doves, Pigeons and Sparrows. Many farmers have come across slabs of ice in their water tanks.

I had a strange experience on the night of 9th January. On two successive occasions within half an hour, two Brown Doves came into the room where I was sitting and allowed me to warm them up with my hands. One of these Doves had some Water-skater like insects on them. Farmers believe many kinds of birds carry parasites on themselves. I couldn't collect any samples of these insects as I was busy trying to warm and save the doves.

On the 10th morning I came across another Brown Dove frozen to death and a dying sub-adult pigeon. This was near a village called Sindhevaka in Wonkoner Taluka. I spent two days there telling friends what they could do to help the birds – putting up drinking water in the sun in a sheltered place and feeding them in the compounds and fields.

Around lakes and roadsides I must have seen at least a thousand Demoiselle cranes and a hundred or so common cranes. There was also one sub-adult common crane *Grus grus* accompanied by its very vigilant parents (has to be).

I do not know if many people have seen sub-adult Demoiselles. Personally I think common cranes show better parental love. This is an interesting point. I should be glad to hear of other such observations. It is common knowledge that Saurashtra and environs have more Demoiselles than common. The ratio varies from year to year. Demoiselle is most abundant during good monsoon years and the common during lean periods; although the Demoiselle always of course outnumbers the common. I believe the common can do with scantily stocked fields (Groundnut left unplucked) and can also du with very little water around its roosting sites. I have seen vast flocks of cranes (both) roosting miles away from any water in the day time in the little Rann of Cutch round Dasada, though.

There are reports of sightings of the Houbara Bustard *Chlamydotis undulata* around Odov and Zhizhwoda, also near Dasada, although fewes than usual. Normally we have 8 to 13 jurst around Dasoda.

CANNIBALISM IN BIRDS.

FREE PRESS JOURNAL, Bombay, 22 December 1990

Interaction of common birds which live within human habitation indicates not only a particular type of behaviour and food habits but also determines which bird is more powerful than the other; a study said.

The study conducted by noted ornithologist U.N. Dev at the aviaries on 'project bihang' under aviary condition for different birds, claims that whether out or inside an aviary, the animal behaviour and their basics remain the same after the species overcomes the initial shyness.

According to Dev indication of cannibalism was found among the pied mynas. This happened in his study when a new pair of pied mynas were added to the existing four.

There was pandemonium and loud challenge calls among them and within a few seconds one of the new pied mynas was grounded by others and pecked to death. Most surprisingly the dead bird was feasted upon by the killers.

Dev said on the other hand, when the new common mynas were added to the existing stock of common mynas, there was no cannibalism.

There were cases among the common mynas when if one of them broke the discipline, it was always punished by the others but never killed.

The ornithologist said one day a harrier and a black bittern kite were found locked in a battle, talon to 'talon, for a chunk of meat. Ultimately the harrier lost and was killed.

Similarly, on another occasion, while a black bittern was drinking water, a harrier launched an attack on its nape and grounded it. This proved that the harrier could not kill a black bittern face to face, Dev said.

In another study a common tree pie was released but after few hours it started a fight with one of the pied mynas. Ultimately, the pied myna was killed and eaten up by the tree pie, the ornithologist added.

Dev cited an instance when a pair of red vented bulbul were released inside the cage where they were found happy with the large aviary and ripe bananas as their food.

Suddenly, the coucal caught hold of the bulbul and killed it and finished off the carcass.

REQUEST FOR INFORMATION. *R.J. RANJIT DANIELS, Centre for Ecological Sciences, Indian Institute of Science, Bangalore 560 012*

This letter is just to request you if you can help me with some literature on the biographies of some of the old British ornithologists in India such as Jerdon, Ferguson, Blyth, Hodgson, Syke, Kelaart, etc. I need this information for the chapter on the history of ornithology for the Western Ghats which is to go into the book I am preparing for OUP. Our library here is poorly equipped with old material on Indian ornithology.

COOING OF SPOTTED DOVES. *ZAFAR FUTEHALLY, 'MOITAKA', Bear Shola Road, Kodaikanal 624 101*

Spotted Doves are never known to coo for more than seven times at a stretch. One rarely finds them cooing for more than 4 or 5 times. *Kru kru kru kruuu coo coo coo coo* is what one usually hears. But this morning for the first time I heard a bird cooing for 7 times. What was remarkable was that after the 6th *coo* there was a slight hesitation, and then the 7th call was half-hearted and weak.

Review

TIGERS. *PETER JACKSON, The Apple Press London £ 8.95*

ELEPHANTS. *PETER JACKSON, The Apple Press London £ 8.95*

Reviewed by Mrs. Laeeq Futehally

Normally the Newsletter caters exclusively to birds and their doings and even glamorous endangered species like tigers and elephants are not allowed to be discussed in its pages. We make an exception in this case not because we have a special relationship with this tiger or that elephant, but because our Newsletter has a special relationship with this particular author. Our old-time readers may remember that some quarter century back, Peter Jackson - then a resident of Delhi - used to write extremely knowledgeable articles for us. His most well remembered piece (in the Dec 71 issue) was about one full days birdwatching in Delhi, and what he managed to see between dawn and dark on a certain winters day

In a similar way, a chapter in his Tiger book was written after he had followed a tiger for a whole day, carefully recording all his actions, movements, food, drink and sleep. Like the good birder that he is, the text is made up of well organised factual details adding up to a complete overall picture. There are no speculations and no vague generalizations.

Both these books, then, are thorough, up-to-the-minute accounts of these two top-of-the-pyramid animals which have always been so much a part of our country's life. True, most of the elephant material concerns the African elephant and its situation, but our elephants too have been faithfully dealt with. Our elephants are in a sense, part of our domestic economy (now dwindling unfortunately) as well as our wildlife.

The tiger of course belongs only to the wild. And apart from its natural history, Peter Jackson also describes soberly and realistically the efforts made by various institutions to save it from extinction. Both the books are "Stories told in Coloured Pictures" for apart from the text, the photographs are informative, illustrative and telling, apart from being highly decorative.

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

Photo by S. Sridhar

Editor : ZAFAR FUTEHALLY, 'Moitaka', Bear Shola Road, Kodaikanal 624 101
Printed and published by S. Sridhar at Navbharath Enterprises, Seshadripuram, Bangalore 560 020, for Private Circulation only

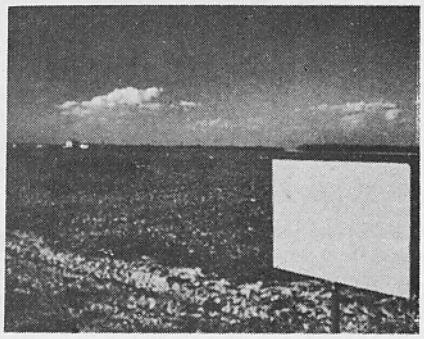
A STEPPE FORWARD?

Half the world's Great Bustards *Otis tarda* are resident on the steppes of Spain and Portugal. They depend on traditional, extensive cereal and dry grassland agriculture. With the approach of the single European market, the reduction of regional farm subsidies is undermining this economy. ICBP, with the help of the Spanish Ornithological Society (SEO) and Portugal's Servicio Nacional de Parques (SNPCN), is currently preparing a report for the EC Environment Directorate that will include proposals for the conservation of Iberian bustard habitats.

ICBP's Guy Duke, who is conducting the study, reports that the threats to Iberia's bustards are all too apparent. In Madrigal-Peñaranda, on the northern Castillian plain in Spain, private companies are erecting power lines to provide electricity to farmers for the pumping of irrigation water from the underlying aquifer. New crops – maize, sugar beet, sunflowers and even strawberries – are being introduced, with little regard for the effect on the endangered wildlife, the traditional landscape (now criss-crossed by pylons and wires) and the state of the aquifer (which may be exhausted within a decade).

Elsewhere, equally critical threats exist, including the much-documented problem of eucalyptus plantation, and the parcelling of once open steppes into small, fenced fields.

There is an existing EC regulation that provides for the financial support of the traditional extensive agriculture on which the Great Bustard depends, but its implementation depends largely on political will. The growing co-operation between farmers and conservationists gives cause for some optimism, but steps must be taken immediately if Spain and Portugal are to save their irreplaceable Great Bustard populations.



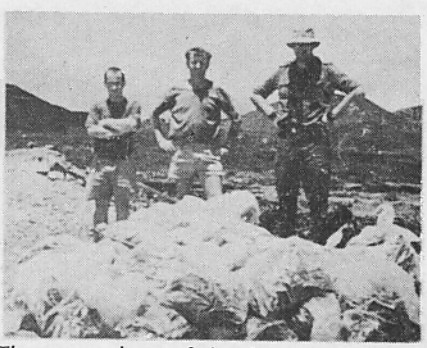
Strawberry fields in previously steppe area of Madrigal-Peñaranda, Spain. The sign warns "no entry – poison" (Photo: G. Duke)

SEABIRDS OF ASCENSION ISLAND

In March 1990, 16 ornithologists, including three representatives of the *Seabirds on islands* survey of ICBP's Seabird Specialist group (Dr N.P. Ashmole, Mrs M. Ashmole and Dr K.E.L. Simmons), gathered on the remote British island of Ascension. The main island, its 14 inshore stacks and especially the satellite Boatswainbird Islet provide the sole breeding site in thousands of miles of the southern Atlantic Ocean for many tropical seabirds, including four species of tern, three boobies, two tropicbirds, an endemic frigatebird and a storm petrel. An increase in human use of the island in recent years, particularly the establishment of a permanent airforce staging base, has caused renewed concern for the wildlife.

The group conducted surveys of Ascension's birds and an assessment of the problems they face. The main concerns are the continued heavy predation by a long-established population of feral cats, mortality due to local sport fishing, human disturbance (especially on Boatswainbird Islet, where most of the seabirds nest), and the threat of Japanese tuna-fishing. Since the majority of the human population of the island is transient, it is difficult to maintain continuity in conservation attitudes or action.

They did find cause for optimism, however. The present Administrator of the island has a positive attitude to conservation; he has already stopped the dumping of all waste into the sea and has prohibited visits to Boatswainbird Islet, which was officially declared a Site of Special Scientific Interest and a bird sanctuary in June. Much remains to be done, but the possibility that a programme for the total eradication of feral cats on Ascension may at last be instigated is particularly good news.



Three members of the Ascension Island survey with sacks of Sooty Tern Sterna Fuscata killed by cats (Photo: J. Walmsley)

WHAT FUTURE FOR THE LESSER KESTREL?

The Lesser Kestrel *Falco naumanni*, formerly a common species in many towns and villages of the Turkestanian-Mediterranian area, has shown a major population decline in large parts of its West Palearctic breeding range, according to an ICBP report published recently. The report, *The conservation of western Lesser Kestrel populations* (ICBP Study Report no. 41) was prepared for the Commission of the EC.

During the past 30 years, the Lesser Kestrel has disappeared from six countries and is declining dramatically in ten others. The main reasons for the decline are thought to be loss of hunting habitat and nesting sites. Open grassland and shrub areas are increasingly built on or converted to intensive agricultural use. Dilapidated buildings, which provide nesting sites, are being renovated or pulled down, and the large-scale application of pesticides reduces prey populations.

The report lists the most important Lesser Kestrel colonies and makes a number of recommendations for their conservation. It is hoped that a number of other threatened species, such as White Stork *Ciconia ciconia*, Great Bustard *Otis tarda*, Little Bustard *Tetrax tetrax*, Gull-billed Tern *Gelochelidon nilotica*, Pin-tailed Sandgrouse *Pterocles alchata*, Hoopoe *Upupa epops* and Wryneck *Jynx torquilla* would also benefit from the proposed measures.

Courtesy: **World Birdwatch - Dec 1990**

NEW ZEALAND – the turning point

by Rod Hay

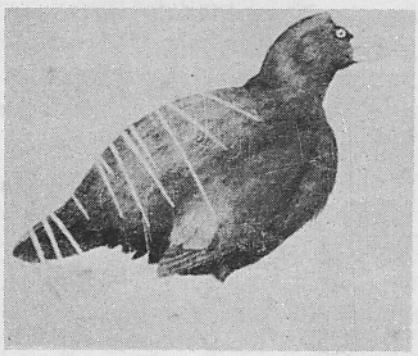
Perversely, New Zealanders used to be able to boast one of the world's worst records for threatened and extinct birds. The problems were symbolised by the tiny Black Robin *Petroica traversi* in the Chatham Islands, whose population in 1979 was only five strong, with just one breeding female! Prospects looked bleak.

Dramatic and imaginative intervention by Don Merton and his team has resulted in a population today of more than a hundred Black Robins. In more ways than one, the recovery of that species represented a turning point in the management of New Zealand's endemic birds and their habitats. At one time, it was little more than some nature reserves and a lot of hope that kept a number of species alive. Quite recently it became clear that reserves and hope were not enough. Our birds were continuing to succumb to the effects of habitat loss and the plague of foreign animals that had been introduced to the country.

Innovation

The innovative methods that brought about the recovery of the Black Robin have helped show the way in bird conservation in New Zealand, and lateral thinking now abounds. Island transfers were an important first step in the recovery of many species. Early success with marooning the Saddleback *Philesturnus carunculatus* on some new island homes has been followed by the establishment of populations of a number of other species, including Kakapo *Strigops habroptilus* and Kokako *Callaeas cinerea*. But our islands are neither limitless nor always the answer, and we must keep some of our birds on the mainland.

Takahe (Painting: A. Robertson)



Juvenile Black Robins (Photo: D. Merton)

Predator and competitor control is becoming ever more ambitious; for example, in North Island an extensive programme to control possum (which compete with Kokako) and rats (which prey on them) has been designed so that the relative effect of each animal on Kokako can be assessed. Last year, in little over a week, a team from the Department of Scientific and Industrial Research and the Department of Conservation eliminated Norway rats from the rugged 170 ha of Breaksea Island in Fiordland, thereby creating a new safe bird haven.

Years of effort culminated recently in the complete removal of possums from the 2,000 ha Kapiti Islands. The recovery in vegetation in the three to four years since that operation has been remarkable. Rats are still a problem on the islands however, especially for Saddlebacks that have been transferred from rat-free islands. As part of the recovery programme for the species, Tim Lovegrove is trying to get the population to adapt to the rats by selecting for release birds that naturally use safe sites on their original island, and encouraging them to use roost boxes in their new home. The ultimate goal of the Saddleback programme is reintroduction of the species to the mainland, whilst after their success on Breaksea Island, the eyes of the rat-busters are now also turning to Kapiti.

There are several other initiatives in progress too. In South Island, Black Stilt *Himantopus novaezelandiae* eggs are being hatched both artificially and by the related Pied Stilt *H. leucocephalus*. The Takahe *Notornis mantelli* is climbing out of a trough in numbers because of highly successful captive rearing and release into habitat in which deer have been controlled. On Little Barrier Island, Kakapo are being fed a smorgasbord of nuts, dates, raisins and other high-value foods in an attempt to bring them into breeding condition more frequently than the "once in a few years" that seems normal for the species. Early results are very encouraging.

Help for the habitat

Though recent progress in bird conservation in New Zealand still depends on dedicated individuals, be they students, amateurs, government or conservation group employees, there are other things happening in the country that are helping. For example, the logging of native forest on public land has ceased, and logging on private land has been severely curtailed by heavy restrictions on the export of indigenous timber. The government recently announced a several million dollar scheme to restore 6,000 ha of native forest at Pureora, the central North Island home of the Kokako, Kaka *Nestor meridionalis*, and other rare birds.

Corporate conservation

A new feature in conservation in New Zealand is large-scale corporate sponsorship. Comalco Aluminium Company's million dollars towards Kakapo research and management follows a similarly generous contribution of both habitat and money towards Kokako protection by Tasman Forestry.

Of course, not all news is good, and a number of species remain to be researched and protected. The Yellow-eyed Penguin *Megadyptes antipodes*, perhaps the rarest penguin in the world, has suffered a catastrophic population crash in the last few years. Safe breeding habitat is now extremely limited, and conditions at sea seem also to have changed. Perhaps this is a portent of global changes in climate?

There are still many problems facing New Zealand's birds. However, the Black Robin's return has taught us that intervention and imagination can reap fine rewards.

Rod Hay is Pacific Wildlife Specialist at the Department of Conservation, Conservation Sciences Centre, Wellington, New Zealand.

Courtesy: **World Birdwatch - Dec 1990**