...or twenty kilome-
...n the line of actual
...and negotiation to se-
... Sino-Indian border
... was not acceptable to
... as "it is deceptive and
...ng", an official spokes-
... of the External Affairs
...ry said here today.
...mmenting on the Peking
...le's Daily editorial of Octo
...2, the spokesman said
...the Chinese proposal was
...e to confuse people, repo-
...PTI.

...he Indian proposal that
...Chinese should withdraw
...he position that existed
...r to September 8 was fair.
...a, the spokesman said, wo
...never agree to negotiate
...er duress and in the face
...ontinuing Chinese aggre-
...n.

...he Government of India
...rejected these proposals
...in the face of continu-
...hinese aggression and to
...of 'line of actual control'
...ile the Chinese were fight-
...in Indian territory was
...lastic". The Chinese were
...ng forward their propo-
...with the full knowledge of
...changes they had brought
...t by aggression on Indian
...itory and expansion of
...r occupation.

...ey had put forward these
...posals on the strength of
...litary position. The Chinese
...ression must first be vaca-
... the spokesman said.

VOLUNTEERS FROM DARRANG TO DEFEND BORDER

TEZPUR, Oct 25:

...twenty thousand strong corps
...volunteers would be made ava...
...ble from Darrang district for
...defence of the country again...
...the Chinese intruders within a
...nth.

...The decision to the effect was
...ken at a public meeting here
...da...

...e student community of Tez...
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...a Studen... Compose
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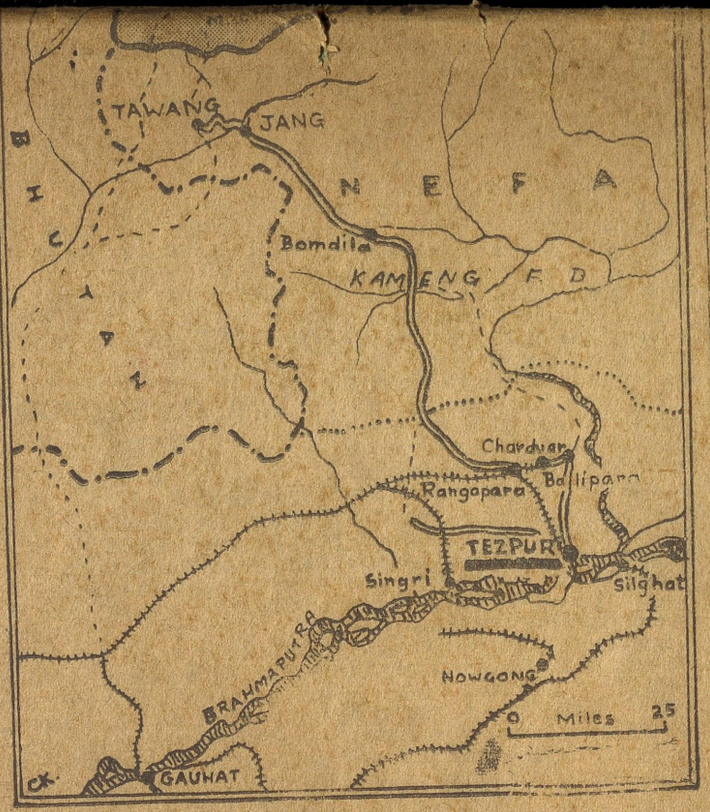

MENON PRAISES JAWANS

(Contd. From Page 1)

away from Indian soil.

He said, "India would get arms from any place they are available, because we need them".

Mr. Menon stated that Prime Minister Nehru had written to the heads of all countries, excepting South Africa and Portugal, clarifying India's stand. He had no doubt, said Mr. Menon, that the friends of India would come forward with their support.

He appealed to young men and women to join the National Volunteer Rifles, details of which would be announced soon. This body, he said, would not be a substitute for the army. Its members would be absorbed in the civil life. But their value in such tasks as ...

Ministers Donate Part Of Salary

CALCUTTA, Oct. 28:

The Council of Ministers of West Bengal headed by Mr. P.C Sen at its meeting held in Taki, a village in 24-Parganas district, about 80 kilomitres from Calcutta decided today to contribute, as first instalment, 25 per cent of their current month's salary to the National Defence Fund.

This was the first meeting of the Council of Ministers over held outside Calcutta. Taki meeting was decided upon by the Chief Minister. Mr Sen in pursuance of his "meet the people" programme.

Earlier replying to a reception given to the Ministers by ...

Fight Aggressors

NEW DELHI, Oct 28: People all over the country have placed themselves on "active list" by contributing their mite towards the nations fight to preserve her freedom threatned by the Chinese aggression.

Help to build the sinews of the nation is being offered in the shape of gold and grains, cash and clothing, and volunteers.

Hard work and austerity has already become the accepted pattern of life—at least till the unabashed aggression is vacated.

Diwali the Festival of Lights, was celebrated in Delhi and elsewhere in an austere way.

Delhi's fashionable shopping centre in Connaught Place which usually turns into a fairy land with myraise of lights illuminating the circular buildings was without any illuminations.

Elsewhere in the City most houses has just symbolic lights in private houses.

As collections for the soldiers were reported mounting all over the country measures have been taken by Governments and non-official bodies to look after the families of the jawans fighting on the front.

Some notable collections have been from ministers, legislators commercial concerns and the Sadr-i-Riyasat of Jammu and Kashmir.

The Union Finance Minister Mr. Morarji Desai, and his wife have conthibuteh Rs. 5.150 in cash and gold. Mr. B.N. Datar Minister of State in the Ministry of Home Affairs has announced a monthly contribution of Rs. 200 towards the National Defence Fund.

The National Defence Fund which on its inaugural day on Saturday had crossed the four-lakh mark is reported swelling every moment.

The Sadr-i-Riyasat of Jammu and Kashmir, has sent a cheque for one lakh of rupees to the fund.

Industrial establishments ... reported working on the National Defence Fund.

Some seventeen thousands rupees have been collected in Sikkim for the National Defence Fund.

In Jammu: The Jammu Pradesh Youth Conference has enrolled one thousand volunteers Fifty men have volunteered to donate blood.

In Ambala: The prisoners' panchayat has decided to contribute two days' rations of the inmates of the Ahmala central jail towards the border operations relief fund.

In Simla: At a meeting of Simla citizens a sum of fifteen thousand was collected on the spot.

In Gorakhpur: Cooperative shops have donated 100 maund of paddy.

In Yamunanagar: About 60 tolas of gold were offered for the National Defence Fund at a mass rally.

In Mangalore: Children between the ages of six and fourteen gave a sum of Rs. 100 to the Deputy Commissioner.

In Nahan: The Nahan Municipal Committee has contributed Rs. three thousand.

Mr. Y.B. Chavan Chief Minister of Maharashtra, today received over Rs. 55,000 as cash donation to the National Defence Fund.

The donation included Rs. 15,000 from bullion dealers and commercial agents who have also assured "certain amount of gold", which will be personally received by the Chief Minister on October 30 at a function in the City.

Besides these donations, Srinivasa group of industrialists have promised Rs. two and a half lakhs, it was officially stated.

DONATE INCOME

Members of the Bhopal Com... to the people ... by the Prime Minister in the defence of the motherland.

The meeting was convened by the Kanpur Committee for National Defence. The principal speaker was Mrs. Sucheta Kripalani, Labour Minister, U.P. who said that all-out efforts should be made not only to defend the borders but also within the country to boost the morale of the people. She said that all should realise that no worse fate could befall them at this juncture if they did not have an opportunity to defend their hard won freedom.

Criticising the role of the Communist Party she admitted there were some patriotic people in the ranks of the party, but there was a complete change of policy in the ranks of their heirarchy.

She said that at this time of peril to the nation no individual's prestige was of more importance when compared to that of the whole nation. There was no gainsaying that our defence preparations were sadly lacking the Communists were very vociferously attacking socalled imperialist countries while they had little to say on the new perpetuated by Russia and China. She added that the former had deprived the people's freedom in countries round about her, as for example Hungary and likewise China's action in Tibet.—PTI.

CHOU ... U.A...

HONG... Mr. Chou ... Prime Minis... Zakaria El-A... ssador of the ... public in Pek... New China N... ported today.

Mr. Wang ... of the Depa... Asian and A... the Chinese ... was present, ... gave no det...

REPORT ... RESIGNA...

NEW... At his reg... a Defence ... man was a... reports tha... Defence, Mr... Menon, had ... spokesman ... incorrect"...

CH...

Gold ba... tops and ... twenty tola... to the Oris... ce Fund h... ding the ... rence of ... Sevika Sa... ses Federa... evening.

FAST-SURE-SA...
relief from dry, irritating, exhausting a...
COUGH...
Alembic GLYCOD...
...P VASAK...
nothi... like GLYC...
the...

The avifauna of Champaran is also remarkable for the fact that the Nepal Khaleej pheasant (Lophura leucomelana) and the pintailed green pigeon (Sphenocercus apicaudus) come down to the thousand-foot contour along with the Chir pine on the Siwalik hills around Ramnagar Dun.

The most beautiful bird of Champaran is the Nepal Khaleej pheasant. It is the only pheasant found in Bihar; a large ground bird, quite like the fowl. It frequents moister jungle than the jungle fowl but both birds are often flushed from the same place in beat. It is easily distinguishable from the jungle fowl because of it's long black hairy crest which trails like a plume behind it's head. The Khaleej does not have a fleshy comb as crest for the males as the real jungle fowl has, but has a patch of bare red skin on the sides of the face. The male has upper plumage black glossed with blue and it's wing and fowl like tail are dark brown glossed with green. It's black crest is glossed with purple-blue and the entire bird gives an impression of undertones of Colour seeping through the predominant black coat. A flushed bird disappearing quickly behind a bush has the effect of shot silk. The female has crest and upper plumage reddish brown and black middle tail feathers.

Avifauna of Champaran

Champaran has forest as well as fields, hills as well as plains and rivers and marshes and is situated on the border of the Indo-Gangetic and Himalayan regions. Its avifauna is varied and interesting but so little work has been done on this district that the bird population has to be inferred from the systematic lists given in the Darbhanga Gazetteer.

Of the common birds the Jungle Crow, house Crow, Treepie, red vented bulbul, Common myna, house Sparrow, Crimson breasted barbet, green bee eater, grass owl and the little brown dove have been described in the Gazetteer for Muzaffarpur.

The brown flycatcher (Muscicapa parensis) is a small brown bird and white bird with its breast and throat mottled. It is a quiet bird more frequent in the wooded and broken country in the north-west of the district.

The grey shrike (Lanius) is about the same size as the myna, French grey in colour with a black stripe above the eye. It is the commonest of the shrikes which are called butcher birds because of their habit of impaling their victims, lizards and small rats, on thorns as if storing in a larder.

The green willow Warbler (Phylloscopus trochiloides) is a tiny bird, olive green in colour with a yellow superciliium and two white wing-bars. It is a cheerful bird and a good songster.

The black-headed myna (Sturnus pagodarum) is like the Common myna but grey instead of brown. It has a prominent black head and

crest-, the long crest- lying flat- on the neck like a pigtail. It- is darker in colour than the bank myna which has no crest-. The grey-headed myna (Sturnus malabaricus) is the only myna which is purely arboreal in habits. Its lighter in colour than the common myna and is redder than the bank or black-headed myna. It- has a grey head and has a blue bill (with- yellow tip) which all the other mynas have full yellow bills. The Jungle myna (

) can be distinguished from the common myna by its darker colour, absence of bare skin behind the eyes and the presence of a tuft- of erect- above the nostrils. That- gives it a singularly moustached appearance. The pied myna (Sturnus Contra) is almost- as common as the common myna but- is distinct- from all other mynas because of its pied plumage- yet- black touched off by white- wing-bars and white sides of face.

The tree pipit- (Anthus trivialis) is a tiny bird close to the banks, sandy brown with- numerous black streaks. It- is fond of fields and is quite numerous in flocks in winter.

The white-eye (Zosterops palpebrosa) is a minute bird, smaller than the sparrow, greenish yellow in colour with- prominent- white rings round the eyes which give it the appearance of wearing spectacles. Arboreal in habits, it goes about- in small flocks in the mango orchards and forests.

The northern green barbet- (Megalaima Zeylanica) is bigger than the Crimson-breasted barbet and as big as the myna. It- is rich green in colour and has brown head, neck and breast-

Settlement
DELHI, Oct. 28: The Government's three-

KANPUR, Oct. 28: A mass rally of citizens of Kanpur tonight listened to lea-

who

The Crimson breasted barbet has Crimson fore head and breast.

The barn owl (Tyto alba) is slightly smaller than the grass owl. It is reddish brown with silky white parts, and has a white longish heart-shaped face. Both screech in the same manner.

The white-backed Vulture (Pseudogyps bengalensis) is easily distinguished from the black Vulture Sarcogyps Calvus) because it has a bare fleshy-looking neck. The long-billed Vulture (Gyps indicus) is similar to the white-backed but has a long bill and a brown back. The Griffon (Gyps fulvus) has white-down on the neck and the Crown. The Griffon is distinguished from the black Vulture because of its fulvous Colour. The scavenger Vulture (Nephron per) is a dirty-looking white bird with black edges to its wing and is smaller than all the Vultures.

There are five green pigeons and the closely allied purple wood pigeon (Columba punicea) which are difficult to tell apart without close observation. The ashy-headed green pigeon (Treron pompadora) differs from the true green pigeon Treron phoenicoptera) in having its whole nape and Crown grey. The orange-breasted green pigeon Treron bicincta) is at once recognised by its orange breast and Chestnut under tail coverts. The Imperial green pigeon (Ducula aenea) is bigger than the others and is purple-grey everywhere except the wings, tail and back which are deeper metallic green than the yellow-green of the true green pigeons. The purple wood pigeon is smaller than the ordinary green pigeon and is purple instead of green or olive. The pin tailed green pigeon (Sphenurus spicauda) is distinct from all

others because of its long pointed tail.

The bustard Quail (Turnix suscilator) is an almost-tailless ground bird, the size of a sparrow, but more roundish and plump. In the bush it seems a darkly and heavily barred bird with a slightly whitish apology for a crest over the black spotted head. The chin, throat, neck and breast are velvet-black and strike one's eyes if the bird raises itself. That is rare for it is a great sulker. The smaller male is duller than the hen and has a white chin and black and buff banded breast.

Mrs. bustard Quail has claim to fame as one of the few females of birds who dominate their males. The others in India are the hens of the hill bullen quail and the bullen quail.

The marshes of Champaran are famous for their ducks and waders. The ducks have been described in detail in the Muzzaffarpur gazetteer; here the waders are discussed.

The waders have all long legs and long bills, but some have web-footed legs like the avocet and the flamingo. Others are lobe-footed like the coot.

The broadest division of waders is among those who perch and those who do not.

The perching waders have spoon-shaped beaks. The ibises have long slender beaks, gently curved downward throughout. (The avocet is the only Indian bird whose beak curves upwards). The herons and storks have straight beaks (except the painted stork whose beak is only curved towards the tip) but they are not hard to tell apart. The two outer front toes of the herons are only webbed at the base. The herons have

grooved beaks but not the storks. All the front toes of the storks are joined by a web at the base.

The non-perching waders are the flamingoes, cranes, rails, plovers, snipes, coursers and pratincoles, jacanas. Flamingoes are large and extremely long of neck and leg, with short, thick, downwardly bent bills and webbed feet. The cranes are also large and lanky, but have straight rather slight bills, and no web between the toes, except a small one between the two outer. The rails are of moderate or small size, very slab sided, short winged and tailed and with no web at all between the toes.

The shore-birds — plovers and snipes — are medium-sized or small birds with but few points in common, the chief being that the mouth does not run further back than the forehead, which gives them a very characteristic expression. The plovers have short pigeon-like bills and big heads and eyes. The snipes and their allies have smaller heads and eyes, and bills always longer than a pigeon's and often very long indeed.

The coursers and pratincoles are much like plovers, except for the mouth going further back than the forehead.

The jacanas have long toes with enormously long nearly straight claws.

upidae (Hoopoe), 2 of Micropidae (Swifts), 2 of Caprimulgidae

THE AVIFAUNA OF THE MUZAFFARPUR DISTRICT.

Muzaffarpur, situated as it is in the very heart of the pins of Bihar is virtually the type-area for the avifauna of the Middle Gang Valley.

The following are the resident birds:- Three apecies of Corvidae (Cro One of Paridae (Tits), one of Sittidae (Nuthatches), 4 of Timaidae (Babblers 2 of Pycnonotidae (Bulbuls), 9 of Turdidae (Thrushes & Chats), of Muscicapidae (Flycatchers), 5 of Laniidae (Shrikes), 3 of Pericrocotidae (Minivet and Cuckoo-Shrike), 2 of Dicruridae (Drongos), 5 of Sylviidae (Warblers), 2 of Oriolidae (Orioles), 6 of Sturnidae (Mynas), 5 of Ploceidae (Bayas & Munias), 4 of Fringillidae (Finches, Sparrows and Buntings), 2 Hirundinidae (Martins & Swallows), 1 of Motacillidae (Wagtails & pipit, 5 of Alaudidae (Larks), 1 of Zosteropidae (White-eye), 1 of Nectarinae (Sunbirds), 2 of Dicaeidae (Flowerpeckers), 1 of Pittidae (Pitta), of Picidae (Woodpeckers), 2 of Capitonidae (Barbets), 6 of Cuculidae (Cucko), 2 of Psittacidae (Parakeets), 1 of Coraciidae (Roller), 2 of Meropid (Bee-eaters), 4 of Alcedinidae (Kingfishers), 1 of Bucerotidae (Hornll), 1 of Upupidae (Hoopoe), 2 of Micropidae (Swifts), 2 of Caprimulgidae Night-jars 2 of Tytonidae (Barn Owls), 5 of Asionidae (Owls), 5 of Aegypiie (Vultures) 10 of Falconidae (Kites & Eagles), 7 of Columbidae (Pigeons & Does), 5 of Phasianidae (Quails & Partridges), 2 of Turnicidae (Button Quail), 5 of Rallidae (Waterhens), 2 of Jacanidae (Jacanas), 1 of Roatratulidae (Snipe) 1 of Gruidae (Cranes), 1 of Obididae (Florican), 1 of Oedicnemidae (Stone Plover), 1 of Glareolidae (Swallow-plover), 3 of Sternidae (Tern), 1 of Rhyncopidae (Skimmer), 6 of Charadriidae (Plovers & Lapwings), of Pelicanidae (Pelicans), 4 of Phalacrocoracidae (Cormorants), 1 of Platalei (Spoonbill), 2 of Ibididae (Ibises), 4 of Ciconiidae (Storks), 1 of Ardeidae (Herons & Egrets), 3 of Anatidae (Ducks & Teals), and 1 of the Podicepidae (Grebes).

Additional Note on Avifauna of Muzzaffarpur.

The Common birds of Muzzaffarpur are also the Common birds of the plains district of Bihar, for this is the most Central of all the plains districts.

As everybody knows there are two kinds of Crows — the bigger and blacker Jungle Crow (Corvus macrorhynchos) and the smaller house Crow (C. Splendens) with much shiny grey on its necks. Both are intelligent birds, and partial to human habitations. The house Crow is more intelligent and more numerous in towns and villages, but there is hardly any town in Behar where the Jungle Crow is not found.

Closely related to the Crows is the tree pie (Crypsirina vagabunda). It is the magpie of the Indo-Gangetic plains and most of India except the Himalayas where true magpies are found. The colouring is like the yolk of an egg, with white patches on the sides, and a long graduated black tail. The tail is edged with white and is almost double the length of the main body. That gives the tree pie the appearance of a large bird, though ~~for~~ body for body it is no bigger than a myna. Few untrained observers can see any resemblance between the tree pie and the Crows to place them together in the same family, but a close look at the strong black bill and the shape of the black head does bring out the affinities. There is a remarkable similarity between the call of the tree pie and the house Crow.

The Common babbler (Turdoides caudata) is an earthy-brown bird, nine inches long, which chatters about noisily in flocks around villages and garden fences.

Equally common as the babbler but more prominent because of its slight black crest, red vent

and white rump is the red-vented bulbul (Pycnonotus cafer).

No bird is, however, as striking as the black drongo (Dicrurus macrocercus) with its glossy black body and a deeply forked tail, sitting on telegraph posts and wires or sweeping about the country in rapid flights.

The white-bellied minivet (Pericrocotus erythropygens) should have been equally prominent if it was not so shy. It is a brightly coloured bird, probably the most beautiful bird of the district, the male scarlet and the female brown. The head, neck, back and tail are black and the belly white. The male's crimson breast shows off well against the white belly and black head, but the bird occurs only in villages where there are big mango orchards.

The common myna (Sturnus trestis) is as ubiquitous as the house crow and the black drongo and is a noisy brown bird with white tips to its tale. The sexes are alike. The other myna is the one found generally in the diara areas and along rivers. It is grey and more often seen on the ground than elsewhere, and is known as the bank myna (Acridotheres ginginianus). The house sparrow (Passer domesticus) of course is everywhere and in every house.

The Papiha (Cuculus varius) is a brown bird barred with black, hawk-like, which is rarely seen. It is heard so often throughout summer that there are few who do not know this cuckoo. Less known is the Indian cuckoo (Cuculus micropterus). The cuckoos are more easily indentified by their calls, and the following summery of their calls will be found helpful.

Cuckoo (Cuculus Canorus) ... Cook-koo, near the female Cook-Cook-Cook-koo.

Himalayan Cuckoo (C. Saturatus) ... Hook... po-po-po, similar to the hoopoe's call.

Indian Cuckoo (C. micropterus) .. Orange-pekoe, or Crossword Puzzle, Utho-dekho, koi-dekho-to or Ham-Solā-thā, differently rendered by people.

Papiha (C. Varius) ... Pee-pee-ho or Pi-kahan, pa-pee-ha or kaiphal-pucca.

Large Hawk Cuckoo (C. sparveroides), like the papiha but less shrill.

Plaintive Cuckoo (Cacomantis merulinus) - Pee-peak flowed by tay-lā-lāy. It is also rendered as yeh-challe-rahi.

Drongo Cuckoo (Surniculus lugubris) - A human whistle of six notes and a plaintive note Wee-Whip (Stuart-Baker). Five or six whistling notes on an ascending scale (Smythies).

Pied Crested Cuckoo (Clamator jacobinus) - A wild metallic double note Piu-piu-pee-pee-piu-pee-pee-piu, and a number of unpleasant screams.

Red-winged Crested Cuckoo (Clamator Coromandus). A loud, harsh screech and a hoarse whistle.

Koel (Eudynamys Scolopaceus) - Coo-oo-ku-hu-ku-hu Also "you're ill, you're ill" louder and shriller each time.

Sirkeer (Taccocua leschenaulti) A soft-chuckling note like khokh-khokh.

Crow-Pheasant (Centropus sinensis) Hud, hud, hud or Coop-Coop-Coop.

Among the persistent noises of the Countryside, that of the Crimson-breasted barbet (Megalaima haemocephala) must be ranked along with the papiha's. The barbet is a beautiful small green

bird with a crimson breast, yellow throat and crimson forehead. It goes on monotonously repeating "tonk, tink, tink" throughout the day.

Noisy, flashy and impressive is the roller (Coracias benghalensis) flaunting its blue wings in acrobatics in the sky. Sitting on the ground, a telegraph wire or a tree the bird is hardly noticeable with its brown back which folds over the blue wings so completely.

Darting about the sky and hawking insects on the wing are the bee-eaters, small green birds. The common green bee-eater (Merops orientalis) often spreads out its wings like a Japanese fan. The blue-tailed bee-eaters (Merops philippinus) is slightly bigger and more blue in the tail. Both have pin-like protruberance, from their tails and nest in holes in the ground, often on banks of streams and along balks in paddy fields.

The grass owl (Tyto capensis) is a langish (about 18 inches) bird, with a rich dark brown upper plumage, each feather tipped with a white spot, giving it a very mottled appearance over a white belly. The facial discs are pure white. Its call is similar to the screech of the barn owl.

The little brown dove (Streptopelia senegallensis) is the smallest of our doves and has a wide range of distribution from the banks of the Nosi Westward to Africa. It has slaty grey wings over an earthy brown body and has two bright chess-boards of red and black on each side of the neck.

The peewit (Vanellus vanellus) is a winter visitor from northern countries and is a lapwing

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Settlement

DELHI, Oct. 28: The Government's three-

KANPUR, Oct. 28: A mass rally of citizens of Kanpur tonight listened to lea-

who "

with a prominent narrow long crest curving backwards from its head and giving it the appearance of balancing an arcuate thin broom.

The avifauna of Muzzaffarpur and other districts of the northern plains of Bihar is remarkable for the large number of winter visitors. In Muzzaffarpur with its large chaurs and marshes like the Tal Baraila the winter visiting ducks are important and here an attempt will be made to supply an easy key for the identification of ducks. In the Champaran gazetteer a similar key for waders is given and in the Saran gazetteer hints on the identification of the eagles, kites and hawks are included.

The ducks include all teal, geese, swans and mergansers. They all have webbed feet and straight flat bills with rows of teeth at either edge of the bill. The swans are the biggest of the ducks and have exceedingly long necks, geese come next in size and are distinguished by having the front edge of the nostrils about the middle of the beak. Their plumage is plain grey or brown with lighter edges, giving them a barred appearance and distinguishing them from the rather extravagantly coloured teals, true ducks and mergansers. The mergansers have narrow tapering bills and pied plumage. The true ducks do not have exceedingly long necks nor prominently tapering beaks. Teals are the smallest of the ducks.

No swans have been recorded from Muzzaffarpur or any other district of Bihar. Among the geese the bar-headed (Anser indicus) is at once distinguishable by its pale clear grey colour, almost a French grey and has two dark bars across its head, one from eye to eye and the other a little backwards

on the nape. the grey-lag goose (Anser anser) is the commonest of our geese and has a bill over two and a half inches, without any black on it. The white-fronted (Anser albifrons) has a two-inch bill, also without any black. Sushkin's goose (Anser neglectus) is the biggest of our geese, 40 inches long, but is exceedingly rare and has been reported only from Darbhanga. the dwarf or lesser white-fronted goose (Anser erythropus), 33 inches, is darkest of all over geese and has a white patch on the fore head in the form of a longitudinal "blaze" or broad streak, running up from the bill to the level of a line drawn between the eyes.

the beaks of the mergansers are twice as broad at the root as at the tip. the birds are about the size of or smaller than a tame duck and are pied. two mergansers are found in Bihar — the goosander (Mergus merganser) and the smew (Mergus albellus). the goosander is pied while the smew is strikingly all white. the goosander has a short mane-like crest too.

True ducks can be sub-divided into diving ducks, goose-like ducks and surface-feeding ducks. the diving ducks are at once marked off by their large feet, which have the outer toe as long as or even longer than the middle, and the hind toe ~~with~~ with a deep lobe or flap, so as to be leaf-like in out line.

the goose-like, or walking and perching, ducks have either a short bill or long shanks, or both, the bill being about the length of the shank.

Ordinary surface-feeding ducks have rather short shanks and moderate-sized feet, with the outer toe shorter than the middle, and the bill longer than the shank.

The diving ducks are the red-Crested pochard (Netta rufina), the dunbird (Aythya ferina), the White-eyed pochard (Aythya nyroca), the tufted pochard (Aythya fuliqula) and the golden-eye (Bucephala clangula).

The golden-eye is marked off at once by its forwardly placed nostrils, these being actually nearer to the tip of the bill than to the root. The male is mostly white, but the head is dark glossy green, with a white patch on each side at the base of the beak. The back and the edge of the wings are black. The female is dark grey where the male is black and has a dark brown head with no white on the face.

The red-Crested pochard is the biggest of all pochards (about 20 inches), and has red or orange colouring on the bill and the feet. The male has a full soft-bushy Crest of a yellow-buff colour, the rest of the head being of a beautiful pinkish chestnut. The upper plumage is plain light-brown with two white patches in front of the wings. The lower plumage is black. The female has less of a Crest and is light-brown above and dirty white below.

The tufted pochard has a pig-tail-like tuft hanging down from its head. The white-eye has no Crest. The dunbird is a very ungainly looking duck and has no white bar on the wing. It has a conspicuous tri-coloured plumage, the head being rich chestnut red, the breast, rump and stern black, and the body pale clear grey.

The goose-like or walking and perching ducks are the Comb duck (Sarkidiornis melanotus), the White-Winged Wood duck (Cairina Scutulata), the pink-headed duck (Rhodonessa caryophyllacea) the Cotton teal (Nettapus Coromandelianus), the lesser

whistling teal (Dendrocygna javanica), the large whistling teal (Dendrocygna bicolor), the sheldrake (Tadorna tadorna), the brahminy duck (Tadorna ferruginea), the mallard (Anas platyrhyncha) the spot-bill or grey duck (Anas poecilorhyncha) and the wigeon (Anas penelope).

The sheldrake is distinguishable by its brilliant pied plumage of white, black and chestnut. The brahminy duck has chestnut or buff plumage and black and white wings. The comb duck has long dark wings and white belly and a knob on the beak of the male. The cotton teal is very small, smaller than ~~the~~ a pigeon, and gives the effect of white cotton-like appearance. The male wigeon during winter has a general reddish brown hue, mottled with darker spots, with blue-grey "shoulders" to the wings, and a white belly.

The surface-feeding ducks are the white-winged wood duck, the pink-headed duck, the spot-bill or grey duck, the mallard, the gadwal (Anas strepera), the baikal or clucking teal (Anas formosa) the pintail (Anas acuta), garganey or blue-winged teal (Anas querquedula), the shoveller (Anas clypeata), marbled teal (Anas angustirostris) and the common teal (Anas crecca).

The wood duck is at once distinguished by its large size, dark body, and black and white wings with French grey bars. The pink-headed duck by its milk and chocolate appearance. The marbled teal by its pale, washed-out looking plumage. The pintail has a long sharp tail. The shoveller has a large mis-shapen bill, very long and twice as broad at the tip as at the root. The mallard has a steel-blue or green wing-bar edged with

white. The gadwall has a white wing-bar. The garganey's wing bar is dull green, often wanting. The common teal has the wing bar black and brilliant-green or bronze.

Out of the ducks seven are, or were, resident species. These being: white-winged wood duck, the pink-headed duck, the lesser whistling teal, the large whistling teal, spotbill, the comb duck, and cotton teal. Of the resident ducks the white-winged wood duck and the pink-headed duck are believed to have become extinct on account of excessive shooting and destruction of jungle near marshes. The pink-headed duck was last shot in the Muzzaffarpur district at Dumra by J. H. Wilson in 1898. The smew, a migrant, has been observed in Bihar only once and that at Hazaribagh by Stuart Baker.

The following birds are rare:— the golden-eye, the lesser whistling teal, the spot-bill or grey duck, the baikal teal, the marbled teal and the falcated teal.

The comb-duck and the large whistling teal are becoming rare and may be considered as threatened with extinction because of the disappearance of jungles near marshes.

The other birds mentioned in the systematic list are generally common though their population varies greatly from one place to another. Along the northern frontier of the district which marches with the border of Nepal some Himalayan forms do enter into the avifauna, otherwise the bird population is characteristically Indo-Gangetic.

Avifauna of Shahabad

This district is rich in the variety of its bird population on account of its geo. physical character, the northern half is alluvium and riparian and about eight hundred square miles of rock and jungles in the South. This area is the north-eastern extremity of the Kaimur plateau. It becomes the meeting ground of the birds of the hills and of the plains. It also becomes the eastern frontier line of birds which come to India from beyond the Hindukush and the Karakorams in winter and spread out over the plains of Northern India. Very few of these pass beyond the district further east. For birds of the Anseridae family that enter India through the Nepal passes of the Himalayan range, the Ganga, the Son, the Kiul, the Karamnasa and the Durgauti rivers offer welcome halting places in their passage south and west which many choose to remain and pass their winter here. The migration routes of many important birds have not been studied in India. The Flamingoes, for example with which have been identified with the "Rajhans" of Kalidasa (by Dr. S.C. Law as well as Jerdon) which pass over India for their winter resorts undoubtedly pass over the plains of India. Those that enter India through the eastern gaps of the Himalayas across Bhutan and extreme north-east fly over the Bay of Bengal to Rameshwaram and South Africa. But those come through the Nepal passes are expected to hop over the western borders of Bihar, specially those whose distribution is Madras and the Runn of Cutch. Shahabad is also the northern limit of local migrants from the Deccan that move north

Settlement
DELHI, Oct. 28: The Government's three-

KANPUR, Oct. 28: A mass rally of citizens of Kanpur tonight listened to lea-

who

in their seasonal shiftings.

Post-independence planning and development schemes involving deforestation and damming of rivers have had marked effect on the habitat of birds. The Rihand Dam to the South-west of Shahabad has regulated the flow of water into the Sone with the result that many species of aquatic game birds do not find it as inviting as before. The new Sone-Barrage at Indrapuri near ~~Dehri~~ Dehri will have the same effect. Unless a detailed bird-survey is carried out, it is difficult to estimate on individual observation, the extent of displacement in bird-population. The common storks (Jangphil) which used to set up their nest-colonies in Arrah and around, (and also Patna and Gaya) have been driven out of their favourite breeding places, a definite loss to agricultural economy. The storks devour locusts and other insects in large numbers when these pests invade any locality and the thinning away of their number would largely frustrate agricultural planning.

The resident and migrant birds of the district are listed below:

Jungle Crow, House Crow, Treepie, Grey Tit, Chestnut-bellied Nuthatch, Jungle babbler, Rufous-bellied babbler, Common Iora, Goldfronted and Jerdon's Chloropsis, Red vented bulbul, the Sipahi or Red Whiskered bulbul, Kala Piddah or the Pied bush chat, Indian Robin, Magpie Robin, Shama, Pied flycatcher, Tamarind flycatcher, Tickell's Blue flycatcher, Lahlora or the grey shrike, Wood shrike, Rufous-backed shrike, Bay-backed shrike, Small minivet, Black-headed Cuckoo shrike, Large-Cuckoo shrike, Ashy Swallow shrike, Black drongo, White

-bellied drongo, Racket-tailed drongo, tailor bird, streaked fan tail warbler, Asky wren-warbler, Indian wren warbler, Indian oriole, Black-headed oriole, Grey headed myna, Brahminy myna, Common myna, Bank myna, Pied myna, Jungle myna, Baya, striated weaver bird, Black-throated weaver bird, N. Cht. bellied munia, White-throated munia, spotted munia, Red munia, House sparrow, Rajor Jungle churi-yellow-throated sparrow, Crested bunting S. Sand martin, Dusky Crag martin, Wire-tailed swallow, Large-pied wagtail, Indian pipit, Skylark, Bengal-bush lark, Crested lark, Singing bush lark, Asky-Crowned finch lark, Rufous-tailed finch lark, White eye, Purple sun bird, Tickell's flower pecker, Indian pitta, Golden-backed wood pecker, Crimson-breasted barbet, Green barbet, Koel, papiha, Indian Cuckoo, Pied Crested Cuckoo, Mahocal, Large Indian parakeet, Blossom-headed parakeet, Indian Roller, Green-bee eater, Blue-tailed bee eater, Pied kingfisher, White-bellied kingfisher, Common kingfisher, Brown-headed stork billed kingfisher, Grey horn bill, Hoopoe, House swift, Palm-swift, Common Indian Nightgar, Franklin's nightgar, in southern parts; spotted owlet, Barn owl, Brown fish owl, Great horned owl, Vulture, King Vulture, scavenger vulture; among birds of prey can be listed the Common kite, Brahminy kite, Pallas's fish eagle, Laggar falcon, Red-headed marlin, short-toed eagle, Buzzard eagle, Crested serpent eagle, Crested honey buzzard, shikra, Green pigeon, is very plentiful in the South; Blue-rock pigeon, everywhere. Among dove, only the Red-turtle, spotted, and Ring dove are Common. The Common sand grouse, is the only grouse found along the rivers of the district. The

Pea-fowl, is plentiful in the southern parts; the Red-Jungle fowl, is abundant in the Wood lands; the Jungle-bush quail, Black-breasted quail, Bustard quail, are the three resident quails; the Grey Partridge and the Black partridge are plentiful; the White-breasted waterhen, Moorhen, purple moor hen, Coot, Jacana is a rare bird in the district; Painted snipe, occurs along the lower reaches of the rivers, stone-curlew, Indian Courser, River tern, Red-Wattled lapwing, is more Common than the Little ringed plover; the yellow-Wattled lapwing does occur but is rare; Avocet has been recorded but has been absent for years; the Cormorant and Snake bird are very Common. Ibis, both black and white; rare in the district; stork, both White and White-necked are numerous; Grey heron is a rarity; Little egret, Cattle egret, pond heron and Night-heron in large numbers — a pleasing feature of the Countryside; Little Grebe is ever present in all ghats, ponds and lakes; the resident ducks are represented by the Nukta, Cotton teal, and Lesser-Whistling teal. Winter considerably adds to the bird population when visiting birds arrive. The most conspicuous among the smaller is the Red start, Bush-chat Hussaini piddah or Indian blue-throat, Ruby-throat, Indian bush-chat (Kher-piddah) Brown rock chat, Dama or orange-headed ground thrush, Blue rock thrush; the Muscicapidae are well represented by several species; Rosy pastor, stray into this district, from Uttar Pradesh. Several Warblers, spread out in the district; Hodgson's Rose finch, Red-headed bunting, Common Swallow, grey and White wagtails, are most numerous; several pipits are

evident; among the Raptorial winter visitors the Kestrel, is rare; Osprey is the Commonest; Pale harrier, occurs; Among game birds the Accipinae are ~~represented~~ represented by the Grey lag and Bar-headed geese; the Brahminy duck, mallard, teal, Gadwall, wigeon, pintail and Pochards and Shovellers. Common snipe, is abundant along with the little stint and the spotted Sandpiper.

It may be mentioned that Francis Buchanan who had visited the district in 1812-13 had also mentioned the species of some birds. Sparrow hawks were nursed by the Raja of Bhojpur and his kinsmen at Jagdishpur. Partridges, quails, Salika were pursued.

Avifauna of Singhbhum District-

the avifauna of Singhbhum is of more than mere local interest- because this is the southern-most- of the three districts of Bihar which lie wholly in the Peninsular Zoogeographical zone. This location results in a large number of Peninsular bird forms being represented in the district, but as the area is close to the plains of West-Bengal which are in the Indo-Gangetic Zoogeographical zone there are many Indo-Gangetic forms too. Many Assamese, Indo-Burmese and Indo-Malayan species also occur. though migratory birds are not- as numerous as in the northern districts of the State several do occur in winter. Of course all the Central Indian species are represented.

the first- published work on the birds of Singhbhum was done by Colonel Samuel Richard Tickell who resided in the district- for several years as its Assistant to the Governor-General's Agent on the then South-West- Frontier. His list- of birds Collected in the Jungles of Borabhum and Dhalbhum was published in the Journal of the Asiatic Society- of Bengal, Volume II, 1833. Subsequently in 1842 Edward Blyth, Curator of the Museum of the Asiatic Society, published in the Society's Journal volume XI, 1842 some notes on birds forwarded to the Museum from Chaibassa by Tickell.

V. Ball of the Geological Survey of India worked in Singhbhum from 1864 for two or three years and included his observations in a general paper on the avifauna of Chotanagpur (South-West-Frontier of Bengal) in the ornithological Journal "Stray Feathers" founded and edited by

Allan Octavius Hume, the founder of the Indian National Congress. These papers appeared from June, 1874, to May, 1875.

After that there is no published record of any work till 1953 when a paper by Jamal Ara on the birds of Kolhan appeared in two issues of the Journal of the Bengal Natural History Society, Vol. XXVI. Both Tickell and Ball had confined themselves to the eastern areas of the district and had excluded the heavily forested western area. The recent work reported in the Journal of the Bengal Natural History Society was done in the years between 1947 and 1951, and was mostly in the western forested areas of Kolhan and Porahat.

Ball's report in 'Stray Feathers' mentioned the fact that Tickell had "Brought several new birds to notice and recorded the occurrence of others which have not since been met with". Ball himself enumerated 294 birds for the whole of Chotanagpur but admitted that there were 30 more species than had till then been enumerated. Recent work has found over 200 species in Singhbhum alone and it is possible that another dozen might be added to the list when the denser forests of Saranda are worked properly. Such a work might be accomplished as Ball hoped by local residents. So may a comparison of the avifauna as reported by Tickell and that of today after a lapse of over a Century. It is hoped that the list of birds of the district given below would encourage detailed work on the avifauna of the district.

Identification in the field of the birds given in this list can be done after some practice

Settlement

DELHI, Oct. 28: The Government's three-

KANPUR, Oct. 28: A mass rally of citizens of Kanpur tonight listened to lea-

who

by any keen lay observer. Such an observer will find of much help the "Book of Indian Birds" published by Bombay Natural History Society though for all advanced work reference to Stuart-Baker's "Fauna of British India", is necessary.

The Tibet-raven (Corvus Corax tibetanus) does occur in Assam in the hills of north of the Brahmaputra, but among the true Crows the predominant species are the Jungle Crow and the house Crow. The Jungle Crow (Corvus macrorhynchos) attains its maximum size and development, with a markedly curved bill near Calcutta. In Bihar, Orissa, and West-Bengal Indian Jungle Crow (c. m. levaillanti) occurs but in Assam its place is taken by by the eastern race (C. m. andamanensis) which extends from the Andamans to Assam and then southwards into Burma and Siam.

The same race of the house Crow (Corvus splendens splendens) ranges over the whole of eastern India, though the birds of Assam "are somewhat intermediate" between the Indian house Crow and the Burmese house Crow (C. s. insolens) but nearer to 'splendens' than 'insolens', according to Stuart Baker.

Among the true magpies the red-billed blue magpie (Kitta erythrorhyncha Magnirostris) occurs in the Assam hills South of the Brahmaputra, more common in the Naga Hills than in the Khasia, North-Cachar and Manipur areas. North of the Brahmaputra the yellow-billed magpie (Kitta flavirostris flavirostris) occurs, but the beautiful green magpie (Kitta Chinensis chinensis) ranges on both sides of the Brahmaputra.

The magpies of the plains and the lower hills are the treepies. The plains species (Crypsirina Vagabunda) is represented in Orissa by the southern race, but over the rest of eastern India it is the Bengal race that is found. The hill treepie (Crypsirina formosae) occurs in the Darjeeling district and Assam, but is represented in the Eastern Ghats and surrounding

hills (as far north as Singhbhum in Bihar) by the race 'Sankari'. A jay (Garrulus bispecularis persaturatus) is found in Assam, especially in the Khasia, Manipur and Naga hills.

The tits are tiny birds, about the same size as a sparrow but on the evidence of internal anatomical structure are considered closer to the Crow family (which includes ravens, crows, magpies treepies, and jays) than other birds. The tits cheerful little birds, as noisy and gorgeously plumaged as the larger magpies. The grey tit (Parus major cinereus) is found all over eastern India, but in Orissa, Chotanagpur (Bihar) and southern districts of West-Bengal the southern race 'mahrattarum' occurs. In Manipur and north-eastern Assam in addition a Himalayan species, the green-backed tit (Parus monticolus monticolus) also occurs.

The Crested tits are even more sprightly and beautiful than the ordinary tits: the yellow-cheeked tit is the most common of the Crested tits and is (Parus xanthogenys); it has two races — a northern sub-species ranges all over northern India while the southern race is confined to the Peninsula south of a line drawn from Mt. Abu to Parasnath Hill in Chotanagpur. the yellow-cheeked tit at Calcutta is most probably a Southern form while the Duars birds belong to the northern race. A red-headed tit (Aegithaliscus Concinnus iredalei) occurs above 4,000 feet in the Miri and Mishmi Hills of Assam, with a local race south of the Brahmaputra, Manipur, Lushai and Tripura named after Hume. The red-headed tits are smaller than the grey tit and unlike the yellow-cheeked tits have no Crest. These small Crestless tits are called tit-mouses and have tails longer in proportion to

their tiny body and move gradualed than in the grey or yellow-cheeked tits.

An aberrant form of the titmouse is the Sultan tit. It has long and pointed wings and the nostrils slightly exposed, both features unlike any other of the tits or titmouses. This beautiful Sultan tit is found in Assam both north and South of the Brahmaputra. It is scientifically named (Melanochlora sultanea).

Parrot-bills and Suthora are birds intermediate between the tits and the babblers. They differ from the tits in having a much longer first primary, the plumage very soft and lax, and in having a thick, soft crest of feathers arising from the whole crown. From the babblers they differ in having the nostrils completely covered with bristles.

The great parrotbill (Conostoma aemodium) occurs only in the higher ranges of North Assam. More generally distributed over the hills and plains of Assam are Gould's parrotbill (Paradoxornis flavirostris) and Austen's parrotbill (Paradoxornis guttaticolis). Blyth's Suthora (suthora poliotis) occurs all over the hills South of the Brahmaputra from the Khasia hills to the eastern Naga hills. In north-eastern Assam is found the black-browed suthora (Suthora ruficeps) as also the red-headed parrotbill (Psittiparus ruficeps). Two races of the latter, ruficeps and bakeri are recognised as also of the grey headed parrotbill (Psittiparus gularis) which are found in Assam north and South of the Brahmaputra.

The nuthatches are small tree-climbing birds closely allied to the tits, specially ~~anato~~ anatomically. The white-tailed nuthatch (Sitta himalayensis) is a Himalayan bird also found in north Assam. Quite common in Bihar, Orissa and West Bengal is the Chestnut-bellied nuthatch (Sitta Castanea); a

Closely allied Cinnamon-bellied subspecies is found in Assam, Manipur, Tripura and the Lushai Hills. Of local occurrence in Assam are Austen's nuthatch (Sitta europaea nagaensis) and the beautiful nuthatch Sitta formosa). None of the nuthatches are, however, as widely and commonly distributed all over eastern India as the Velvet-fronted (sitta frontalis).

Noisy, gregarious birds, feeding principally on the ground but also on bushes are the laughing thrushes. Most of them are found in Assam, Manipur and Tripura but not in West-Bengal, Bihar and Orissa. Throughout Assam, Manipur and Tripura is found the rufous-necked laughing thrush (Dryonastes ruficollis) and also the grey-sided laughing thrush (Dryonastes caerulatus). Of the taller species a local race occurs around Shillong and in the Khasia Hills. Ogle's laughing thrush (Dryonastes mechalis) keeps south of the Brahmaputra but even in that region avoids Cachar and is rare in Manipur. In Cachar and Manipur is found the White-browed laughing thrush (Garrulax sannio); in Manipur alone Austen's laughing thrush (Garrulax gallanus). Of wider distribution throughout Assam and in the Himalayas up to Simla is the White-Crested laughing thrush (Garrulax leucolophus) and the black-gorgeted laughing thrush (Garrulax pectoralis). Very similar to the last-named but smaller in size and wanting a black cheek-stripe is the lesser necklaced laughing thrush (Garrulax monileger); it has the same distribution too. In South Assam, Cachar and Dafla Hills, occurs Mecleland's laughing thrush (Garrulax gularis), and over a slightly wider area the ashy laughing thrush (Ianthocincla cinereacea) and

Settlement
DELHI, Oct. 28: The Government's three-
KANPUR, Oct. 28: A mass rally of citizens of Kanpur tonight listened to lea-
who

Hartert's laughing thrush (Ianthocincla rufogularis). the latter extends into Tripura and the Lushai Hills. North of the Brahmaputra and along the Himalayas from the Miri Hills to Nepal is found the rufous-chinned laughing thrush, the typical subspecies of (Ianthocincla rufogularis). In Manipur and in the Khasia, Cachar and Naga Hills occurs the rather rare Cachar laughing thrush (Ianthocincla austeni).

The White-spotted laughing thrush (Ianthocincla ocellata) occurs in Darjeeling, West-Bengal, but spreads into Nepal, Sikkim and Bhutan. In eastern Manipur is found Hume's red-headed laughing thrush (Trochalopterum erythrocephalum) but it is represented by one local geographical race in Darjeeling, Nepal, Sikkim, Bhutan and the Dafla and Miri Hills in Assam, by another in Cachar, the Naga Hills and western Manipur and by an yet another in the Khasia Hills.

Two races of the Assam Crimson-winged laughing thrush (Trochalopterum phoeniceum) is recognised, the typical sub-species extending from northern Assam to Nepal, and 'bakeri' south of the Brahmaputra and in Manipur and the Lushai Hills. the genus (Trochalopterum) is rather big, and includes besides those mentioned above the plain coloured laughing thrush (T. Sabamicolor) and the blue-winged laughing thrush (T. squamatum), of northern Assam and the Himalayas, the streaked laughing thrush (T. virgatum) of Assam south of the Brahmaputra, Manipur, and the Lushai Hills, and Prince Henry's laughing thrush (T. henrici) of the Mishmi Hills.

Working round the Brahmaputra gorge and the head waters of the Dibong, the Dihang and the Subansiri is Austen's striated laughing thrush (Grammatoptila striata) which is found in the Khasia

and Cachar hills and South of the Brahmaputra as far as Margherita and then again in the Mishmi Hills. The spotted-breasted laughing thrush (Ianoderichla merulina) is found in southern Assam, Manipur and the Lushai Hills.

Babblers are more generally distributed than the laughing thrushes being found in plains as well as hills; the laughing thrushes are confined to the hills. Babblers are as common birds as crows, mynas and bulbuls, and are found in the country as well as towns, in fields as well as forests — everywhere if they get some shrubbery for their gregarious and noisy feeding. They are the typical birds with lax plumage and do look a little unkempt; the common and jungle babblers seem as if they had been roughly handled and somebody had attempted but failed to pluck out their feathers. Ground feeders and gregarious like the laughing thrushes they differ from the latter in having the covering membrane of the nostrils more or less covered by plumes, though they have no overhanging hairs. The tail is about the same in length as the wing and well-graduated; the wing is short and rounded. Most of the babblers have short yellow bills; others have pale white bills.

Throughout eastern India is found the Bengal jungle babbler (Turdoides somervillei terricolor) as also the striated babbler (Turdoides earlei) and the common babbler (Turdoides caudata). Confined to the Duars, Assam, Manipur and Tripura is the slender-billed babbler (Turdoides longirostris). Babblers with a down-curving bill are known as scimitar babblers and are found in the hills. There are eleven scimitar babblers found in the hills of eastern India. Four species are represented by two geographical races each: the slaty-headed scimitar babbler (Pomatorhinus

Settlement
DELHI, Oct. 28: The Government's three-
SU
KANPUR, Oct. 28: A mass rally of citizens of Kanpur tonight listened to lea-
ma who

schisticeps) has one subspecies extending down from the Himalayas into North-Assam, while another occupies the area South of the Brahmaputra. Very similar in distribution are the two races of the Coral-billed (Pomatorhinus ferruginosus) and the rufous-necked (P. ruficollis ochraceiceps) species. The two races of the Ochraceous scimilar babbler (P. ochraceiceps), called after Hume and Austen, respectively occupy Manipur and Cachar and extreme north-eastern Assam from the Naga Hills to Sadiya. The rusty-cheeked scimilar babbler P. erythrogenys) is represented in the area by a single sub-species, the one named after McClelland and confines itself to the area South of the Brahmaputra. The long-billed scimilar babbler (Pomatorhinus hypoleucus) is found throughout Assam, Manipur, Tripura and the Lushai Hills. The slender-billed scimilar babbler (Xiphirampus superciliaris) has a longer and more curved bill than all others and ranges from Sikkim to the Khasia, Cachar and Naga Hills.

The red-capped babbler (Timalia pileata) is found in Bihar, West-Bengal, and Assam (Cachar and Naga Hills as well as the Mikir Hills). The rufous-bellied babbler (Rumetia hyperythra) is found in Bihar, Orissa and lower West-Bengal but is absent from the Duars, Darjeeling district and entire Assam. The white-headed shrike babbler (Gampsorhynchus rufulus) is found in Darjeeling district and throughout Assam. The yellow-eyed babbler (Chrysomma sinense) is found throughout eastern India. The reddish-brown Hume's babbler (Chrysomma albirostris) is found only in Assam, extreme east and the Cachar and Sylhet plains.

The spotted babbler (Pellorneum ruficeps) ranges from Orissa and Chotanagpur to Assam; but the typical is replaced in Cachar by 'mandelli'.

The Marsh spotted babbler (Pellorneum palustre) occurs in the Assam Valley on both sides of the Brahmaputra. The rufescent olive-brown Assamese babbler (Pellorneum ignotum) is confined to Assam South of the Brahmaputra but has been found at Sadiya in the extreme north and North Lakhimpur, West of the Subansiri. Tickell's babbler (Pellorneum tickelli) is confined to Assam South of the Brahmaputra but does not extend east of the Naga Hills. In eastern Assam the typical race is replaced by the subspecies popularly named after Austen but called 'assamensis' in scientific nomenclature.

Three species of Wren-babblers (Turdinulus brevicaudatus), (T. roberti) and (Rimator malacoptilus) are all confined to Assam, only the last, the long-billed Wren babbler extending up to Sikkim. The streaked-Wren-babbler (T. brevicaudatus) is confined to Manipur and Southern Assam, as is the typical race of 'T. roberti'. The latter, however, extends eastwards into North Assam through the subspecies 'guttaticollis'.

Abbott's babbler (Malcocincla sepiaria) extends from Tripura to Sadiya and then West-wards to Sikkim and Nepal, confining itself to the plains and foot-hills. Austen's spotted babbler (Thringorhina oglei) occurs on both sides of the Brahmaputra in eastern Assam.

Two races of the black-throated babbler (Stachyris nigriceps) are recognised; the typical form extending into northern Assam from the Nepal and Sikkim Himalayas; the Assam race 'Cottarti' occurs south of the Brahmaputra.

The golden-headed Babbler (Stachyris Chrysaea) extends from Nepal and Sikkim to Assam and Manipur. So does the red-headed babbler (Stachyridopsis

ruficeps) though South of the Brahmaputrā it is restricted to the Khasia and North Cachar hills, but the red-fronted babbler (stachyridopsis rufifrons) has the same range in the eastern states as the golden-headed.

The yellow-breasted babbler (Mixornis rubricapilla) is found in Sikkim, Assam, Manipur and Tripura, though its occurrence in Chotānagpur is recorded by Ball.

The spectacled Nepal babbler (Alcippe nepalensis), the spectacled appearance is due to a conspicuous ring of white feathers round the eye, is found in Sikkim and the whole of Assam as well as Manipur and Tripura.

The quaker babbler (Alcippe poioicephala) is represented by the race 'brucei' in the Parasnath Hills of Chotānagpur and the Bankura and Midnapur districts of Lower Bengal and by 'phayrei' in Assam.

Five tit-babblers are known from eastern India — the Assam tit-babbler (Schoeniparus dubius), the red-throated (S. rufigularis), the dusky-green (Pseudominla cinerea), the chestnut-headed (P. castaneiceps), and the shillong chestnut-headed (P. c. brunneicauda). The first named is confined to Assam, the last-named to shillong, Manipur and the Khasia and Cachar hills. The other three extend west-wards to Darjeeling and Sikkim; the red-throated being found even in the Duars and the Chestnut-headed in Nepal too.

Four fulvellās are known; Hodgson's (Fulvetta vinipecta vinipecta) throughout the Himalayas from Simla to Assam; Godwin-Austen's (Fulvellā vinipectā austeni) South of the Brahmaputrā over 5,000 feet in the Naga and Cachar Hills and in Manipur; 'Fulvellā manipurensis' of which there is a single record from Owenkhulno Peak in Manipur; and the golden-breasted (Lioparus chrysotis)

throughout the higher ranges of Assam and Manipur and extending west-wards to Sikkim and Nepal.

There are five Sibias. The long-tailed Sibia (Sibia picaoides) occurs in both north and south Assam, Sikkim and Nepal. The black-headed species (Leiothila capistrata) extends throughout the eastern Himalayas from Nainital to the Dafla Hills. The grey Sibia (Leiothila gracilis) occurs in Manipur and South Assam. Blyth's Sibia (Leiothila anectens) is found in Darjeeling, Sikkim, Assam north and south of the Brahmaputra and Manipur. The beautiful Sibia (Leiothila pulchella) frequents only the higher ranges, above 5,000 feet, south of the Brahmaputra in the Naga, Dafla and Cachar districts.

The barwing (Actinodura egertoni) has two geographical subspecies; the typical Nepal form extends eastwards into Darjeeling, Sikkim and the Dafla Hills while the race 'khasiana' is confined to the neighbourhood of Shillong; the Khasia and other hills in Assam south of the Brahmaputra and Manipur.

The chestnut-headed (Staphidia castaneiceps) and ~~Hum~~ Hume's streaked staphidia (S. striata rufigenis) occur in the Lushai, Naga, Dafla and other hills of Assam, but the streaked variety extends to Darjeeling and Sikkim.

The two Siva, stripe-throated (Siva strigula) and Hodgson's blue-winged (Siva cyanouroptera) range along the Himalayas into northern and southern Assam, the more beautiful Nepal type being also found in Manipur, the Lushai hills and Tripura.

The stripe-throated yuhina (Yuhina gularis) extends from Nepal to Assam, with a local race south of the Brahmaputra; the black-chinned

Yuhina (Y. nigrimentum) has a similar wide range curving down to Tripura and Manipur.

The chestnut-headed ixulus (Ixulus occipitalis) is found in the extreme east of Assam, Manipur and Tripura. In the Mishmi Hills is also found the (Ixulus flavicollis baileyi; while in South Assam and Manipur (I. f. hartlerti).

The white-bellied herpornis (Erpornis xantholeuca) is common in the Himalayas from Nepal to Assam and in Manipur.

The red-billed liothrix or Pekin robin (Liothrix lutea) is found between 2,000 and 8,000 in almost any kind of forest-night-from Simla to eastern Assam, the Khasia Hills and Tripura. The khalija (Cutia nipalensis) is found in Assam and Manipur.

Four shrike-babblers are found; the red-winged (Pteruthius erythropterus) the chestnut-throated (P. melanotis) and the rufous-bellied (Hilarocichla rufiventer) in both Assam and Manipur and the green (Pteruthius xanthochloris) in north Assam only.

Two Woras occur; the common (Aegithina tiphia) ranges over entire eastern India and Marshall's (A. nigrolutea) found only in Bihar.

Chloropsis are green birds intermediate between babblers and bulbuls; they are strictly arboreal and so are often called leafbirds; they have also been described as green bulbuls. Three species occur in our area of which only the gold-fronted (Chloropsis aurifrons is found over the entire eastern India. In lower West-Bengal, Orissa and Bihar Jerdon's chloropsis (C. jerdonii) is common, but in Assam, Manipur, Tripura and Darjeeling its place is taken by the orange-bellied chloropsis (C. hardwickei). The blue-winged leafbird (C. Cochinchinensis) occurs in Manipur and Assam South of the Brahmaputra;

The Silver-eared mesia (Mesia argentāuris) occurs in Assam, Manipur and the Lushai hills and the red-tailed minla (Minla ignotincta) in Assam and Manipur.

The most prominent and cheerful of our birds are the bulbuls. There are 14 species found in eastern India. The White-throated (Criniger leptrogenys) is found in Assam, Manipur and Tripura; the two races of the black (Hieroscelis madagascariensis) in Bihar, Darjeeling, and Assam; the brown-eared (Ixos flavala) in Assam, Manipur and Tripura; rufous-bellied (Ixos macclellandi) in Assam, Manipur and the Lushai hills; the Striated green (Alcurus striatus) in Manipur and Assam; the two races of the red-vented (Pycnonotus cafer) occupying the entire area; the White-cheeked (P. leucogenys) in Assam; Blyth's (Xanthixus flavescens) in Assam, Manipur Lushai and Tripura; the two overlapping races of the red-whiskered (Pycnonotus jocosus) in Orissa, Bihar, Bengal, Assam, Manipur, and Tripura; the black-crested Yellow (P. dispar); the olive (Iole olivacea) in Tripura, Silchar and Cachar; the White-browed (Pycnonotus luteolus) in Southern Bihar, Lower Bengal (Midnapur district) and Orissa; and the black-headed (Microlarsus melanocephalus) in Tripura, Manipur, and Assam South of the Brahmaputra. Hunter quotes Bell as saying that the black-headed bulbul occurs in Singhbhum, though there is a possibility of confusion with the black-crested Yellow bulbul which does occur in Singhbhum.

Six tree-creepers are found in the area, mostly in Assam. The Himalayan tree-creeper (Certhia himalayana) extends into Western Assam; the Nepal tree-creeper (Certhia familiaris) goes further east and crosses the Brahmaputra in South Assam; the

Sikkim tree-creeper (Certhia discolor). A local race of the last-named occurs in Manipur (C. discolor manipurensis). Stoliczka's tree-creeper (Certhia stoliczkae) also occurs in Assam, as far north as Cachar. The spotted grey-creeper (Salpornis spilonotus) is widely distributed all over eastern India excluding Assam and is a bird of the plains in contrast to the other tree-creepers which are partial to the hills.

Wrens are found, mostly in Assam and the hills. The spotted wren (Elachura formosa) has been recorded from Darjeeling and the Dafla Hills; the only specimen of the plain brown wren (E. haplonota) was obtained from Cachar; the long-tailed wren (Spelaeornis longicaudatus) has two races in India both confined to Manipur and South Assam; the tailed wren (Spelaeornis caudatus) occurs in Darjeeling and Sikkim; the scaly-breasted wren (Pnoepyga squamata) in Assam; the brown wren (P. pusilla) in Assam; the wedge-billed wrens (Sphenocichla humei and S. roberti) in Sikkim, Abor Hills, Assam, Manipur; the slaty-bellied wren (Hesia cyaniventer) in Sikkim and whole of Assam; the chestnut-headed wren (Hesia castaneocoronata) in the Himalayas from Garhwal to Assam and south-wards to Manipur.

Dippers are birds with special adaptation for a more or less aquatic life; the bill is very like that of the wrens, the wing is short and rounded and the tail exceedingly short and the tarsus long. The plumage generally is very firm and dense.

The white-breasted or Kashmir dipper (Cinclus cinclus) extends as far east as Tezpur in northern Assam but does not occur South of the Brahmaputra. The brown dipper (Cinclus pallasii) also avoids Southern Assam and occurs in Sikkim, Darjeeling and northern Assam,

though a darker eastern race 'maroka' is common in the Khasia hills and Cachar.

The Siberian bluechat (Larvivora cyane) comes down to Assam and Manipur to winter. All over eastern India in winter is the Indian bluechat (Luscinia brunnea) which breeds in the Himalayas. The rusty-bellied short-wing (Heteroxenicus hyperythrus) is reported from Sikkim, North Lakhimpur and Margherita but little is known about it. Other members of the genus, white browed 'cruralis', the 'nipalensis' and the 'sinensis' all occur in Assam, both sides of the Brahmaputra.

The pied stone chat (Saxicola caprata) has two races 'burmanica' and 'bicolor' overlapping each other in eastern India. The collared bush chat (Saxicola torquata) has three races in that area. Jerdon's bush chat (Saxicola jerdoni) ranges from Purnea in Bihar to Lakhimpur in Assam. The dark-grey bush chat (Saxicola fervida) in eastern and southern Assam. Barnes' chat (Oenanthe melanoleuca) has once been collected from Purnea by Jerdon. The desert chat (Oenanthe deserti) occurs in Assam. The brown rock chat (Cercomela fusca) extends eastwards up to Patna, where it has been noticed as breeding.

The spotted forktail (Enicurus maculatus) occurs in Sikkim and Assam where in the eastern ~~Indian~~ districts the slaty-backed forktail (Enicurus schistaceus) is numerous. The black-backed forktail (E. immaculatus) frequents the larger hill-streams close to the plains. 'Enicurus leschenaulti' ranges from Sikkim to eastern Assam; and so does the little forktail (Microcichla scouleri).

Briskly running small birds with quivering long chestnut tails, square at the tip, are the redstarts. They are migratory birds, visiting

the Indian plains only during winter. the blue-fronted redstart ~~Phoni~~ Phoenicurus frontalis) is found in the Duars and South Assam during winter for it breeds in Sikkim and northern Assam. Over the greater part of eastern India from Bihar to Assam occurs the white-throated redstart (Phoenicurus schisticeps). the Daurian red start (P. auroreus) comes as far west as Assam. (Phoenicurus hodgsoni) is a rare winter visitor in the plains of Bihar, northern Bengal, Assam and Manipur. (Phoenicurus ochrurus) is common in Assam, and Manipur, less common in Bengal and Bihar, and is found in Orissa and even as far south as Madras. The white-capped red start (P. leucocephalus) occurs in Assam, both north and south of Brahmaputra, as does the plumbeous redstart (Rhyacornis fuliginosa).

the blue-throats are winter visitors; the red-spotted (Luscinia suecica) is found all over India and the white-spotted (Luscinia cyanecula) in Chotanagpur, Bihar and Assam. the Common rubythroat (Luscinia calliope) is found throughout eastern India, including Orissa. the Himalayan rubythroat (Luscinia pectoralis) often ventures into the plains during winter and Jerdon recorded it from Karhagola Ghat on the Ganges in Purnea district, though its eastern race 'Confusa' is found throughout Assam, Manipur, Cachar and Silchar. (Calliope tschebaiewi) comes to the plains of Bengal and Assam each winter from Tibet.

the golden bush robin (Tarsiger chrysaeus) is a quiet, retiring little bird which in spite of its striking plumage is seldom seen but occurs in Nepal, Sikkim, Darjeeling, Assam and Manipur. In Cachar the Japanese bushrobin (Ianthia cyanura) has been collected twice. the red-flanked bushrobin (Ianthia cyanura rufilata) keeps above 5,000 feet

even in winter and is found in Nepal, Sikkim and Assam; a geographical race of this occurs in Kashmir. Another of these beautiful birds is the white-browed bush robin (Ianthia indica) but it keeps to the higher hills and does the rufous-bellied bush robin (Ianthia hyperythra) in Sikkim and Assam. The white-tailed blue robin Notodeka leucura) is found in Nepal, Sikkim, Assam and Manipur. Little is known of the Sikkim forest-bird 'Callena frontalis', blue-fronted and beautiful though it is.

The brown-backed robin (Saxicoloides fulicata) is one the commoner birds of India which is quite numerous in Bengal, Bihar and Orissa. The beautiful and good songster, the dhayal or Magpie robin (Copsychus saularis) is found all over eastern India. The still better songster, shama (Copsychus malabaricus) is found all over eastern India.

The true thrushes are larger in size than the robins, dhayal or shama. They feed principally on the ground and their long tarsi help them to hop about.

The black-capped black bird (Turdus merula nigropileus) extends as far north and east as Sambalpur in Orissa. The white-collared black bird (Turdus merula albocinctus) occurs widely in Nepal, Sikkim, Assam and Manipur. Throughout northern Bengal and Assam is found (Turdus boulboul) or the grey-winged black bird. Assam is also the western limit of the grey-headed thrush (Turdus Castaneus). The dusky thrush (Turdus eunomus) is found as a ~~wind~~ winter visitor all over eastern India. Specimens of 'Turdus Kessleri' and 'T. pallidus' have been obtained from Sikkim (near Darjeeling) and Assam respectively. In the plains adjoining the eastern Himalayas is found the red-throated thrush (~~Turdus~~ Turdus ruficollis). In Bihar and Bengal the black-throated (T. atrogularis) is found each winter. A

Himalayan breeding thrush found all over eastern India, as far south as Orissa is Pichell's thrush or Oazel (T. unicolor). Confined to southern Assam and Manipur are the black-breasted (T. dissimilis), the dark thrush (T. Obscurus), and 'Turdus feae.'

With-tail and wing shorter than those of true thrushes are the ground-thrush. As a mountain-loop migrant throughout eastern India occurs the pied ground-thrush (Zoothera wardi) but Davison's 'Zoothera sibirica' is confined to Assam. throughout eastern India are also found the orange-headed ground-thrush (Zoothera citrina); Ball having recorded from Chotā nagpur its white-throated subspecies 'cyanotis' the small-billed mountain-thrush (Zoothera dauma) occurs in Chotānagpur, North-Bihar and Assam. the plain-backed mountain thrush (Turdus mollissima) is found in Darjeeling and Assam. In Assam and Manipur are found the large brown thrush (Zoothera monticola), lesser brown thrush (Z. marginata), the Chestnut-bellied rock thrush (Monticola erythrog-astra). All over eastern India is found the blue rock-thrush (Monticola solitarius) and the rock-thrush (Monticola saxatilis). the Whistling thrush Myophonus horsfieldii) extends as far east as Sambalpur in Orissa and Chotānagpur in Bihar, but in Assam is replaced by Myophonus 'temminckii'.

the Purple thrush (Cochoa purpurea) and the green thrush (Cochoa viridis) are found in Assam and Manipur. From the last-named place and Sikkim have been the two specimens of the white-cheeked green thrush which has been constituted into the species 'cocoa rothschildi'.

The accentors and hedge-sparrows are comparatively small birds the feathers of the fore head slightly disintegrated and the tail

square or a little forehead. The alpine hedge-sparrow (Prunella collaris) is represented in the Assam Himalayas and Dafla hills by its eastern race. (Prunella himalayanus), also occurs in the Mirí hills, as do the maroon-backed (Prunella immaculata), the robin hedge-sparrow (Prunella rubeculoides), the rufous-breasted 'Prunella strophiata' and the brown 'P. fulvescens'.

Flycatchers are birds active on the wing and have feeble bill and feet, which incapacitate them from walking freely on the ground.

The sooty flycatcher (Hemichelidon Sibirica) is found in Assam, Manipur and Lushai hills as is the ferruginous flycatcher (H. cinereiceps). In Assam, Manipur, Tripura is also found the orange-gorgetted (Siphia strophiata). Throughout eastern India occurs the red-breasted (Siphia parva). A single specimen of the white-tailed blue (Cyornis cyanea) is known from the neighbourhood of Margherita; the rusty-breasted blue (Cyornis hodgsoni) is more abundantly found in Assam, Manipur and the Lushai hills. 'Cyornis hyperythra' is a rufous-breasted type from the Assam hills. The slaty-blue (Muscicapa leucomelanura), extends from north Bihar to Assam. The white-browed blue (M. superciliaris), occurs in Chotanagpur and Bihar, Assam, Manipur and the Lushai hills. The little pied (M. melanoleuca) occurs in Assam and has been mentioned by Ball as occurring in Chotanagpur.

The Sapphire-headed (M. sapphira) occurs in Darjeeling, Cachar and Tripura; the rufous-bellied blue (M. vivida) in Assam, the pale blue (Cyornis unicolor) in Assam.

The blue-throated (Muscicapa rubeculoides) is found all over eastern India. The blue-(Muscicapa

tickelliae) is also found all over eastern India. The large-billed blue (Muscicapa maguirostris) is found throughout Assam. The pigmy blue (Nitidula hodgsoni) is found in Assam; the verditer flycatcher (M. thalassina) is also found throughout eastern India.

The white-gorgeted (Anthipes monileger) occurs in Sikkim, Assam, Manipur and Lushai. Brook's flycatcher (Muscicapa poliogenys) occurs in Sikkim Terai, Bhutan Duars, Assam, Manipur and Lushai. The brown flycatcher (M. latirostris) is found all over eastern India, the rufous-tailed (M. ruficaudus) has been seen at Monghyr and obtained in Cachar.

To illustrate—

Muzzaffarpur :— Ducks Other than Resident—

1. Goosander
2. White-eyed Pochard
3. Dunbird
4. Eastern White-eye
5. Tufted Pochard
6. Golden eye
7. clucking Teal
8. Pintail
9. Blue winged Teal
10. Shoveller
11. Marbled Teal
12. Red Crested Pochard
13. Gadwall
14. Wigeon
15. Common Teal
16. Sheldrake
17. Brahminy Duck
18. Mallard
19. White-fronted Goose
20. Sushkin's Goose
21. Barheaded Goose.

SARAN — Examples

1. Pale Harrier
2. Montagu's Harrier
3. Pied Harrier
4. Sparrow Hawk
5. Crested Serpent eagle
6. Peregrine Falcon
7. Kestrel
8. Great Spotted eagle
9. Lesser Spotted eagle

10. Wryneck
11. tree Pipit-
12. Brown Rock Pipit-
13. Rufous short-toed lark
14. Swallow
15. White-wagtail
16. White-faced Wagtail
17. Blue-headed Wagtail
18. Grey-headed Wagtail
19. Rose finch
20. Little Bunting

Champaran

1. Bittern
2. Flamingo
3. White stork
4. Black stork
5. Painted stork
6. White-Ibis
7. Little stint
8. Temmenck's stint-
9. Dunlin
10. Wood Cock
11. Wood snipe
12. Grey headed Lapwing
13. Avocet-
14. Gull-billed Tern
15. Kentish plover
16. Greater plover
17. Common Crane,
18. Demoiselle Crane
19. Ashy-headed green pegion

20. Pin-tailed green pigeon
21. Malcej pheasant-
22.

Darbhanga

1. Slaty blue Flycatcher
2. Striated Marsh Warbler
3. Smoky Willow Warbler
4. Allied Flycatcher
5. Grackel
6. N. Chestnut-bellied Munia
7. Grey Grey-headed Bunting
8. ~~Hard~~ H. Pipit-
9. Black capped kingfisher
10. Short-eared Owl
11. Imperial Eagle
12. Booted eagle
13. Hodgson's Hawk eagle
14. E. Stock pigeon
15. Swamp partridge
16. Water Rail
17. Spotted Crake
18. E. Baillon's Crake
19. N. Ruddy Crake
20. Siberian Crane
21. Great Stone plover
22. Great-black headed Gull
23. Black headed Gull
24. Yellow legged H. Gull
25. Casp. Tern
26. Sooty Tern
27. E. Grey plover
28. Sociable Lapwing
29. White-tailed Lapwing

30. Black winged Still-
31. Eastern Curlew
32. " Whimbrel
33. Marsh Sandpiper
34. Spotted Redshank
35. Jack Snipe
36. Rosy pelican
37. Yellow Bittern
38. Black Bittern
39. White-fronted goose
40. Crested Grebe

SAHARSA

1. Cotton Teal
2. Grey Duck (Eastern)
3. Nukta
4. Lesser Whistling teal
5. White-winged Wood Duck
6. Pink headed Duck
7. Large Whistling teal
8. Spot-bill or Grey duck
9.

SHAHABAD

1. Thick-billed Warbler
2. " Willow Warbler
3. Brown Willow Warbler
4. Great-Reed Warbler
5. Blyth's Reed Warbler
6. Shrikes
7. Blue-throated Flycatcher
8. Verditer Flycatcher
9. Black-throated Thrush

10. Small-billed Mountain Chruch ?
11. Blue headed Rock Chruch
12. Red-breasted Flycatcher
13. Rush chat-
14. Red tail-

Singh bhum

1. H. Treepie
2. Grosbeak
3. White cheeked Bulbul
4. Grey Jungle fowl
5. Large Racket tailed Drongo
6. Pied Hornbill
7. Long-tailed Night-jar
8. Large Green billed Malkoha
9. Hoary crowned Finch lark
10. Black Crested yellow Bulbul
11. T. I Gold fronted chloropsis
12. Minivets

Manbhum

1. Crested Swift-
2. Jungle owlet-
3. Sparrow Hawk
4. Green l. pigeon
5. Tickell's Crimson backed Woodpecker

RANCHI)

1. Treepie – Col.
2. Grey tit – b & w.
3. Jungle babbler – b & w
4. Common babbler – b & w
5. C. lora – b & w
6. Jerdon's Chloropsis – Col.
7. Red-vented bulbul – b. & w
8. Pied-bush chat – b & w
9. Red start – b & w
10. I. Robin – b & w
11. Magpie Robin – b & w
12. Shama – Col.
13. Tickell's blue flycatcher – Col.
14. Paradise flycatcher – b & w
15. Fantail flycatcher – b & w
16. Grey shrike – b & w
17. Bay-backed shrike –
18. Rufous-backed shrike –
19. Wood shrike –
20. Scarlet-Minivet – Col.
21. Small minivet –
22. Large Cuckoo shrike –
23. Black drongo & others – b & w
24. Tailor bird – b & w
25. Streaked fantail Warbler –
26. I. Wren Warbler – b & w
27. Golden oriole & B.H. oriole – Col.
28. Grackle – Col.
29. Brahminy Myna – b & w
30. Common myna – Col.
31. Bank myna –
32. Pied myna – b & w
33. Baya –
34. White-throated munia –

35. Spotted munia –
36. Red munia – b & w
37. Rose finch – b & w
38. House sparrow –
39. Common Swallow –
40. Wire tailed swallow – b & w
41. E. Grey Wagtail –
42. 2. Pied Wagtail – b & w
43. Indian Pipit –
44. Sky lark –
45. Crested lark – b & w
46. Ashy-Crowned finch lark – b & w
47. White eye – Col.
48. Purple Sunbird – Col.
49. Tickell's Flowerpecker –
50. Pilla – b & w
51. H. Woodpecker – ? Col.
52. G. backed Woodpecker – }
53. C. breasted barbet – Col.
54. C. Hawk Cuckoo – b & w
55. Koel – Col.
56. Crow pheasant – Col.
57. Large parakeet – Col.
58. Rose ringed parakeet –
59. Blossom-headed " –
60. Roller – Col.
61. Green Bee-eater – Col.
62. Pied Kingfisher – b & w
63. Common kingfisher – Col.
64. White breasted kingfisher –
65. Grey Hornbill – b & w
66. Hoopoe – b & w
67. House Swift –
68. C. I. Night-Jar –

69. Barn owl –
70. Great Horned Owl –
71. Spotted Owlet –
72. Black Vulture – b&w
73. White backed Vulture – b&w
74. Pharoah's chicken – b&w
75. Tawny Eagle –
76. Brahminy kite – Col.
77. Pariah kite –
78. Shikra –
79. Green pigeon – Col.
80. Red turtle dove –
81. Spotted dove –
82. Ring dove –
83. Peafowl –
84. Jungle fowl –
85. Black-breasted Crested –
86. Grey Partridge –
87. White breasted Waterhen – b&w
88. Coot –
89. Bronze-winged Jacana – Col.
90. Pheasant tailed " –
91. Painted snipe –
92. Sarus crane –
93. Black-headed Gull –
94. River tern – b&w
95. Little Ringed plover –
96. Lapwings –
97. Sandpipers & Others waders –
98. Fantail snipe –
99. Grey pelican –
100. Little Cormorant – b&w
101. Snake bird –
102. Spoon bill –

103. White Ibis – b & w
104. White-necked Stork – b & w
105. Painted Stork –
106. Open-billed Stork –
107. Grey Heron –
108. Cattle Egret – b & w
109. Pond Heron – b & w
110. Night-Heron – b & w
111. Comb duck – b & w
112. Cotton Teal –
113. Lesser Whistling Teal –
114. Brahminy Duck – Col.
115. Common Teal –
116. Little Grebe –

22 Coloured illustrations on 6 plates
40 b & white illustrations on 11 plates

2. Plates

Plate I – Tree pie, J's chloropsis, Shama, Minivet, oriole, & Grackle.
Plate II – M. Woodpecker, C. B. Barbet, Noel, Bee-eater, C. Kingfisher.
Plate III – Brahminy kite, Green pigeon, Jacana, & Brahminy duck.
Black & White :–

1. Knowing Birds.
2. Some Common Birds.
3. Birds with Marked Characters
4. Placing the order and the family specific names.

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1. Perching Birds
2. Waders — Cranes, Herons
3. Sea birds — or Gulls & Terns
4. Water fowl — Ducks, Geese, Seals
5. Birds of Prey — Vultures, eagles, kites & falcons
6. Pigeons, Doves
7. Game birds — Pheasants, partridges, quails, and Jungle fowl.

More Kozlova intrepid traveller & Ornithologist-

Rosy pastor — Hungary & Servia
Rose Finch, Common — Russia, Finland, Baltic States, Poland to Pomerania

↓

more Kozlova

Pine Bunting —
Black headed Bunting — Yugoslavia, Greece, Cyprus, Palestine
Red-headed Bunting — Russia, Kirghiz steppes.
Yellow-breasted Bunting — Transbaikalia — Kozlova
Ortolan Bunting — Africa but no mention of India.
Little Bunting — N. Mongolia Kozlova
Richard's pipit — Kozlova — east in Siberia, on Yenisei, N. Mongolia

↓

singing males.

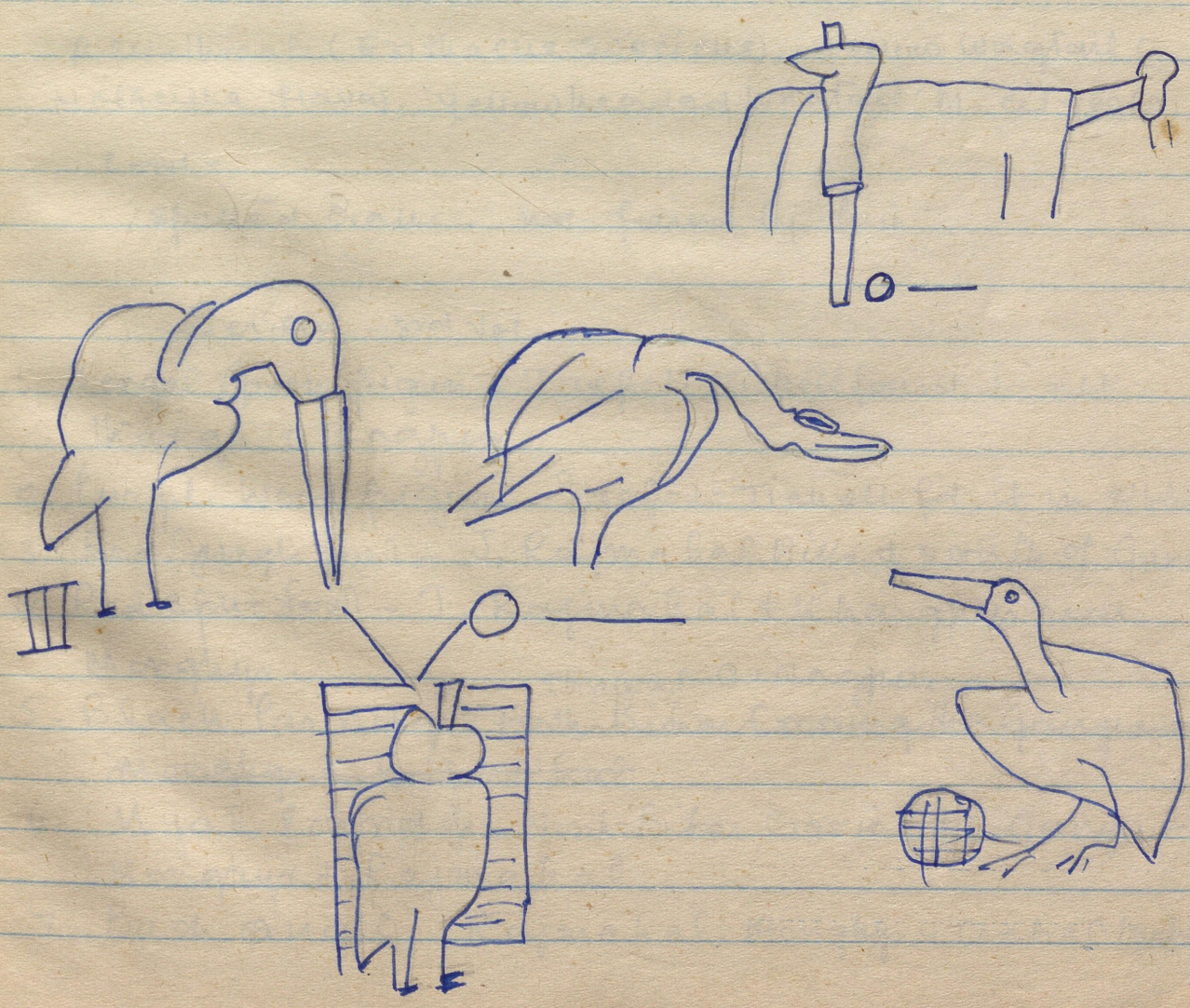
Tawny pipit — Kirghiz steppes — Sushkin's note
Tree Pipit —
Red-throated pipit — Petchora — Smochowski — Kozlova

lengthy and detailed

Wagtails,
Wall-creeper – Gobian Allāi
Red-backed shrike –
Red-breasted flycatcher
m. parva albicilla – transbaikalia

Indian Sporting Birds

Common Crane – A straight-Bat-
Nukta – Now for the Bully
Shelduck – the goal Custodian
Greylag goose – the Corner shot
Pintail snipe – Polo
Painted snipe – Hockey
Partridge – Hunting



Manghawl – Munghyr district – George. H.

Pintail (Anas acuta); Common Teal (Anas crecca), wigeon (Anas penelope), Garganey (Anas querquedula), Shoveller (Anas clypeata), Red Crested Pochard (Netta rufina), Common Pochard (Aythya ferina), White-eyed Pochard (Aythya nyroca), Tufted Duck (Aythya fuligula), Collon Teal (Nettapus Coromandelianus), Coot (Fulica atra). Pluvialis

Eastern Golden Plover (Pluvialis dominica), Little Ringed Plover (Charadrius dubius), Green Sandpiper (Tringa ochropus), Wood Sandpiper (T. glareola), Pintail snipe (Capella stenura), Fantail snipe Capella gallinago), Jack snipe (C. minima), Little stint (Calidris minutus), Temminck's stint (Calidris temminckii), Ruff and Reeve (Philomachus pugnax), Painted snipe (Rostratula benghalensis) short-eared Lark (Calandrella cinerea), Bluethroat (Erithacus suecicus), Yellow Wagtail (Motacilla flava), Yellowheaded Wagtail (M. citreola)

Coot –

spotted crake – not found by him.

Jerdon – 3rd vol.

1. Bengal Green pigeon – J reports Tickell found it all through C'Nagpur,
2. Purple Wood pigeon – J reports Tickell fd. it in S'bhum.
3. Red Jungle fowl – J. Rajmahal Hills & south of Ganges.
4. Red spur fowl – J. Rajmahal & Kharagpur near Munghyr. Thrugul – C'Nagpur.
5. Black Partridge – ~~North Bihar Crossing the Ganges in Munghyr & Rajmahal~~.
6. Hyah Partridge – North Bihar Crossing the Ganges in Munghyr & Rajmahal.
7. Bush Quail – Rajmahal, Munghyr & Central India.

8. Lesser Floricam - Purneah and on the Ganges (April & May)
9. Indian Courser - rare in Bihar.
10. Grey headed Lapwing abundant in Purneah.
11. Yellow Wattled Lapwing - Purneah.
12. Demoiselle Crane - quotes a Wil's saying it is never met - below Dinapur.
13. Pheasant-tailed Jacana - Purneah.
14. Lesser Adjutant - quotes Buchanan having fd. it - breeding in a Purneah mango grove.
15. Merganser - procured by Tickell at Chaibassa.

E. NAME	Ho	SANTAL	KOL	RAJMAHAL
Kestrel	sengel súi	Tirmáti	-	katwi
C. Serpent eagle	-	-	Fúrá	-
Pale Harrier	-	Reethi	sikrá	-
Marsh "	-	Tárši / kátá	chen-ko	kátwi
C. Kilē	Pora quid	-	-	-
Rock H. Owl	-	-	Dúndá	-
Spotted Owlet / I. Scops Owl	kokor-rr	kokor-rr	Pechá	-
Swallow	Háen	-	-	-
Night-Jar	Hápú	Hápú	kápú	kápú
G. Bee-eater	Terang	Tenam	Til-erang	kuchilo
Roller	Toiá	Toiá	ta-ou	-
W. B. Kingfisher / C. Kingfisher	khi-kir	khi-kir	kil-kilá	muchra kah
Pied Hornbill	Deori	-	Dhorsa	-
Grey Hornbill	Má-tonge	-	-	-
L. Paraheel-	Rupe miru	Darha-miru	koa-súgá	chandanedra
Rose-r. Paraheet-	keriar	Doil-miru	-	-
Bl. H. Paraheet-	Doe	kondi	khesú-Suga	-
M. Woodpecker	Ghegir	Ere	-	Kodkára

E. name	HO	SANTAL	KOL	RAJMAHAL
Golden. B. Woodpecker	Am Era	-	Kat-karwa	—
Green Barbet	Kúd	Gutru	—	Kútri
C. B. Barbet		Tot	-	Tokú
Mahocal	Sengel topo	Máh kái	Múkúl	Gandiáro
Papiha	Obor	Galoi	—	—
Koel	To-on	—	Dichúá	Kalá kair
Purple Sun bird	Sue	—	—	—
Thick & T. Flowerp.	Che	-	—	—
Hoopoe	Potam-dúngi	Kútám dábla	Balbúchi	Gobar saro
Black. c. yellow bulbul	Chari	Karkatta	Pikro	Goratengi
Black drongo	Dáchú	Debchúe	-	Chepúa
Large Cuckoo shrike	Ho ead	Kál eya	-	Keyá
Small minivet	—	Solai lunde	—	Ghanchi pújú
Pied flycatcher	Che	Sue	—	—
Grey H. flycatcher	Hon	Sasang chere	-	Min kawi
Bl. N. blue flycatcher	Piki	-	—	—
Verditor flycatcher	Som dáchú	-	-	-
Jungle Babbler	Geo	Fehú	-	Terghi
Red v. Bulbul	Chepúr	Tetoro	Pikro	Chitáro
J. Chloropsis	Som Dá chú	Baramasia	Titérang	Chépedrú
Golden oriole	Bacho	Pio	Balká	Bigi kokoro
Magpie Robin	—	Hatiúre	-	Dhayalo
White Wagtail	Chanda	Gara-chanchir	—	-
L. Pied Wagtail	Hátá rowe	-	-	-
Bush chat	Rábtine	Fejáwá	-	-
Yellow headed Wagtail	On múndá	-	-	-
Red Stait	Kankal	-	-	-
Tree pipit	Ambal-serwi	-	-	-
Short-toed lark	Servi	Chanchir	-	-
House Crow	Khá	Káwá	-	-
Jungle Crow	Dúdámú	-	-	-
Common Myna	Sálú	-	-	-
Bl. headed Myna	Pare-peow	-	-	-

E. name	Ho	SANTAL	Kol	RAJMAHAL
Pied Myna	Gongor-sálú	Chárákismi	–	Saro
Rosy paster	–	–	Súya	–
H. sparrow	–	Gharwá	–	Bagárú
Yl. th. sparrow	Dái dem	–	–	–
Asky C. Finch lark	Piri gondri	Lipi	–	–
Baya	Súyám	–	–	–
Imp. Pigeon	–	Gúdrú gúm	–	Dundropúre
Green pigeon	Ho-a	Hurhár	Hurila	Pogháy
Spotted dove	chendro-potham	Pothám	Parki	Púre
Little Brown dove	–	sandi-karkar Pothám	–	Púre
Blue R. Pigeon	Dúdamúe	Parwá	Peroá	–
Quail	Délá	–	Gundir	–
Bl. Partridge	–	–	Titari	–
Grey Partridge	Chitri	Chitre	–	–
Peacock	Márá	Márá	–	Chúe
Red J. fowl	–	–	Kháir	Khair
Red & Y. W. Lapwings	Teorai	Titi tengoi	Chúbá	Bárlúngá
Litth ringed Plover	–	Luchúrá	–	–
Green shank	–	Da batta	–	Ampoju
Litth stint	–	Bhinobatta	Hinwá	–
Fantail snipe	–	–	Hinwá kedbatta	–
Green sandpiper	–	Hinoábatta	Kodokecha	–
Black ibis	–	Tarjúá	–	Karaku
Spoon bill	Gandári	Sonkál	–	–
L. Green Heron	Hurwa ko	Fola ko	–	–
Pond Heron	Piska ko	–	–	–
Small egret	Púndi ko	–	–	–
Adjutant	Gúrúr	–	–	–
Red C. Pochard Golden eye Gadwal	Hedigáy	–	Giri	–
Litth grebe	Dasin	–	–	–
Litth Cormorant	Unúm ko	Dasin	–	–

E. name	HO	SANTAL	KOL	RAJMAHAL
Snake bird	-	-	khā-ka	-
River tern Gull billed tern	-	Ganga mēri	Dechūā	-

Bhagalpur.

Birds of Bhagalpur is identical with those of the adjoining dist- of Monghyr.

The most plentiful small game are wild geese, wild duck, teal, green and rock pigeons, snipe, quail, larks, black, painted and grey partridges, peacock, parakeets, hawks, doves, bulbul, sparrowbill, saras, fishingeagle, vultures, kite, crow, gulls, kingfishers, woodpeckers, l. Roller, plovers, curlews, paddybird, koel, golden oriole, sparrow.

Singhbhum

The avifauna of Sbhum is of more than local interest because this dist- is the southern most- of the three of Bihar which lie wholly in the peninsular zoo-geographical zone. This location results in a large number of peninsular birds in it. Due to the proximity of the area to the plains of West- Bengal which are in the Indo- Gangetic zoo-geographical sub-region, there are Indo-Gangetic birds too. Many Assamese, Indo-Burmese, Indo-Malayan species also occur. The Central Indian species are well represented. Some birds found in the Himalayas and the Western Ghats are also found in Sbhum.

The dist- of Sbhum has a wide expanse of forests. The two main habitats in the dist- are:—

1) forest of the Western part— Kolhan, Prohat, Saranda, and South-eastern part; and

2) open country.

In the open country there is only one large built-up area, that of Jamshedpur, but it is well provided with gardens and trees and being near the Dalma Hills has a bird population very nearly the same as that of villages, scrub and fringing jungles. The built-up area has its influence in the abundance of species which do well in human habitations, crows, mynas, bulbuls, sparrows, kites + vultures.

There are few large stretches of water. The only big area is the Dimna reservoir which has an indirect influence on bird life. It induces humidity and the surrounding forest has a bird population approximating that of evergreen patches along major streams in the main forest area. A noticeable bird of the Dalma area is the large green-billed malkoha, (Rhopodytes tristis), a shy long-tailed member of the cuckoo family. This

bird can be recognised easily because of a long black tail spotted with four pairs of large white patches. The rest of the bird looks black, specially because of the poor light in which it is generally seen. The flight is feeble.

Other stretches of water are the large ~~tanks~~ tanks near Chaibassa on which swallows and a few teals can be seen during winter. Reep down in the forest where the Karo is the boundary between the Kolhan and the Saranda Forest-Divisions river terns are quite common.

The cultivated area lacks in cover and shelter. Most of the birds nest in trees in villages and such birds of course are only the crows, bulbuls, mynas, drongos, sparrows, kites, vultures, herons & storks. Occasionally a pair of J. chloropsis or oriole may be found.

The typical birds of the cultivated area, that is those which live and nest in the fields, are the larks, wagtails, pipits and bee-eaters. Strikingly noticeable in the open country of Dhalbhum is the Ashy-crowned finch lark, which often flits above the field. It is much like the sparrow but has a black underside which cannot be missed. In the rocky areas the Indian robin and the redstart are quite numerous.

The scrub and village fringing is the belt where the open country and the forest meet. The bird population of this belt is largely of the village but a few more typically forest-forms are met with, for example, the chloropsis, woodpeckers, lapwings and shrikes. The typical birds of the scrub and fringing are dhyal, and the crow-pheasant. The dhyal is a black & white robin-like bird, one of the best songsters.

The forests fall into some broad biotypes or

habitats, namely the denser valley sal, the lighter hill sal, the dense evergreen, associations along major streams, terminalia associations and the rather open miscellaneous woods on dry hill aspects. The bird population varies a great deal from one part of the forest to another but a more detailed study is not necessary here.

The birds of the forest are generally more gorgeously plumaged and long tailed than those of the open country. There is a reason for this. Among the beautiful birds of the forest are the chloropsis, the gold fronted and Jerdon's. The two birds are so green that they are often described as leaf birds. One is wholly green with the other has a golden forehead.

The minivets are the striking red birds but only as far as the males are concerned; the females are as brilliantly yellow as the males are red. The smaller type is often in flocks, but the larger, or scarlet minivet, is more often seen in pairs — red & yellow birds together. The trogon is another red bird and is seen in deep forest.

According to zoning some of the birds of the area are as follows:—

(i) Tree tops — Chloropsis, black crested yellow bulbul, minivets, large racket tailed drongo, oriole, grackle, green pigeon and purple wood pigeon.

(ii) Lower canopy:— grey bird, iora, bulbul, fly-catcher, sparrow, yellow-backed sunbird, purple sunbird, and woodpeckers.

(iii) Tree trunks:— nuthatch, creeper, & pigmy woodpecker.

(iv) Undergrowth:— babbler, bulbul, dhayal, shama, black bird and thrush.

(v) Ground:— wagtail, pipit; pitta, sirkeer,

night-jar, peafowl. Jungle fowl. partridge, Coursor and lapwing.

The historical interest of the S'bhum area in ornithology is the fact that it was one of those areas studied in detail very early, between 1833 & 1840 by Tickell. Many species not known before were described by Tickell and so far many species the type locality is Dhalbhum or Chaibasa. Three of these might be mentioned here: the long-tailed night-jar (Caprimulgus macrurus), the brown hawk owl (Ninox scutulata) and purple wood-pigeon (Columba punicea). Tickell found this pigeon at Chaibassa. Reforestation has destroyed its habitat and rare specimens are now found at Baniabaru Sanctuary only.

The following birds ~~not~~ noticed before are, definitely unknown now: black bulbul, ashy Swallow shrike, black & red headed buntings, yellow backed sunbird, green breasted pitta, forest-eagle owl, green imperial pigeon, the Indian Courser, and the rosy pastor.

The status of the following birds is problematic; the yellow-breasted babbler mentioned by Ball has not been seen again during the last 90 yrs. or so, and may therefore, be presumed as extinct unless fresh evidence of its existence in the dist: is forthcoming. A White-winged wood duck, a resident of Assam was shot at Sini several decades back by Sir John Houlton, I.C.S; when he was a Settlement officer there. We cannot claim it as a S'bhum bird or even a bird of Bihar. There is no recent evidence about the occurrence in S'bhum of the Jungle owlet. White cheeked bulbul which was once fairly common has almost

become extinct.

Among the birds that are not seen now are great-bustard, little floriken, white-winged wood duck and pink-headed duck. The wood duck was last seen at Sini.

There are three outstanding songsters: Grackle, Shama and the dhayal. In the months of April & May the forests at Tholkobad are filled with the beautiful liquid notes of the Grackle.

The following are taken to be most beautiful birds of the area:— racket-tailed drongo, pradise flycatcher, scarlet-minivet, golden & black-headed orioles, peafowl, yellow-cheeked tit, and black-crested yellow bulbul. The beautiful large racket-tailed drongo, which is more typical of the heavy forests of Assam is found along the valley of the Karo between Goilkera and Poseita. Another such bird, which is the black-crested yellow bulbul, very beautiful yellow & black bird, which is plentiful in the forests above Jate in the Porahat. Other remarkable specimens among S'bhum's forests bird are the pied hornbill, and the night-jars.

Those who are particularly interested in the avifauna of this dist. would find the following contributions of considerable interest:—

1) S.R. Tickell's article published in the Journal of the Asiatic Society of Bengal, Vol, II, 1833.

2) Edward Blyth's "Some notes on birds forwarded to the museum from Chaibassa by Tickell" in J.A.S Bengal, Vol, XI, 1842.

3) V. Ball's "Avifauna of Chotanagpur" in Stray Feathers 1874–1875.

4) Jamal Ara's "Birds of Kolhan Forest Division" in Journal of the Bengal N.H. Society, Vol, XXVI, 1953.

P

Final abstract from field notes on birds of Palamau

Preliminary

1. Period of Observations: November 1949 to April 1950
2. Area — (a), (1) Daltonganj town and environs,
   (2), Garhwa, Ranka, Chipadohar and part Mohammadganj Range.
   (3), The area comprises some reserved forests and mostly private protected forests.
3. The Palamau forest-division is situated on both sides of the Koel river and South of the Soan. The Gomoh - Barkakana - Delhi loop of the E.I.R passes through the division. The dist.- head quarters Daltonganj is at a distance of 350 miles from Calcutta. The division lies between Chandwa (Tori) and Dehri Railway stations.
4. The division contains about 2500 sq. miles of forests, some of which are of very good quality, but these observations were made almost entirely in the poorer quality forests. The average height of the tract varies from 800 feet to a maximum of over 3600 feet. The average rainfall is about 50".

   The forests vary from dry deciduous to semi evergreen. Sal forms the main crop with large tracts of bamboos. Outside the Stâli owned reserves the forests are in a seral stage.
5. The present observations were made from the following bungalows:

   (i), Chandwa — 1600 feet above sea level within 2 to 3 miles of the forests but the bungalow is situated in side a very large village.

   (ii), Latehar — 1000 ft above sea level and very close to the forests. Sub-division head quarters and therefore a small town.

   (iii), Daltonganj — 800 ft above sea level on the bank of the Koel river. Dist.- head quarters.

   (iv), Nechki — 900 ft above sea level on the confluence of the

Koel and the Amranga. Situated inside a small forest-block.

(V) Kerh — 900 ft above sea level. Situated inside cultivation but forests are close at hand.

(VI) Nawa — 800 ft above sea level. A large village but forests about 3/4 miles away.

(VII) Garhwa — A small town with forests 6/7 miles away. 800 ft above sea level.

(VIII) Ramna — 800 ft above sea level. The bungalow is in the middle of cultivation and about to collapse. Scattered patches of forests occur 2/3 miles away but close to the bungalow is a large Ahra.

(IX) Nagruntari — A very big village with extensive cultivation. Nearest forest 4/5 miles away. 800 ft.

(X) Ranka — 900 ft. Situated inside forests even though it is a biggish village.

6. Road communications are poor and all the district-board roads are in a deplorable condition. All the places are accessible by bus during the dry weather.

BIRDS OBSERVED

Family PODICIPEDIDAE

Genus PODICEPS

1. Podiceps cristatus — Great-crested Grebe. Observed on the pond of Agriculture farm.

2. Podiceps ruficollis — Little Grebe. Observed on village Ponds.

Family PHALACROCORACIDAE

Genus PHALACROCORAX

3. Phalacrocorax niger — Little Cormorant. Common at Daltonganj, Ramna, Keechki, Garhwa & Ranka.

Family ARDEIDAE

Genus ARDEA

4. Ardea purpurea — Purple Heron. Only seen at Keechki

near Koel river.

Genus ARDEOLA

5. Ardeola grayii — Paddy Bird. Common

Genus BUBULCUS

6. Bubulcus ibis — Cattle Egret. Common everywhere.

Genus EGRETTA

7. Egretta alba — Large Egret. It was observed only at Chanki farm (Daltonganj) in winter.

8. Egretta garzetta — Little Egret. Common in fields

Genus NYCTICORAX

9. Nycticorax nycticorax — Night Heron. Common at Daltonganj and Garhwa.

Family CICONIIDAE

Genus IBIS

10. Ibis leucocephalus — Painted Stork. Seen at Garhwa in winter.

Genus CICONIA

11. Ciconia episcopus — White necked stork. Common everywhere. The bird is very popular among Anglo-Indians for food, because it is easy to kill otherwise meat is uneatable

Genus Xenorhynchus

12. Xenorhynchus asiaticus — Black necked stork. Rare in this area, only once seen near Kanda village (Nawa).

Genus Leptoptilos

13. Leptoptilos dubius — Adjutant. only seen at Kechki and Chanki farm. At Kechki it used to feed with W.N. Stork near Koel and Aurangea.

Family PHOENICOPTERIDAE

Genus PHOENICOPTERUS

14. Phoenicopterus roseus — Flamingo. Seen at Garhwa in winter. They were seven in number, on a tank 3 miles from Garhwa towards Ramna.

Family ANATIDAE

Genus BRANTA

15. Anser anser — Greylag Goose - only seen at

Daltongunj. Often observed on the sand bank of the river. they fly in a drawn out V. on 18.3.50 three large flocks observed going East-to West- in the evening at- 5. 15. Pm. After that day not seen again.

Genus TADORNA

16. Tadorna ferruginea — Brahminy Duck. Only seen at Kechki & Daltongunj. At Kechki a pair observed till 28. 2. 50, after that we left the place.

Genus ANAS

17. Anas crecca — Common Teal. Common Winter visitor at Kechki, Daltongunj and Garhwa.

Genus NETTAPUS

18. Nettapus coromandelianus — Cotton Teal. Seen near the Chanki farm on a tank.

Family ACCIPITRIDAE

Genus MILVUS

19. Milvus migrans — Pariah kite. Common everywhere.

Genus HALIASTUR

20. Haliastur indus — Brahminy kite. Common everywhere. Seen nesting in Feb. at Kechki near Auranga river.

Genus ACCIPITER

21. Accipiter badius — Shikra. Common everywhere.

22. Accipiter nisus — Sparrow-Hawk. Frequently seen in forested areas like Kechki and Kerh

Genus AQUILA

23. Aquila rapax — Tawny Eagle. Common everywhere.

24. Aquila pomarina — Lesser spotted Eagle. Common throughout the area.

Genus HALIAEETUS

25. Haliaeetus leucoryphus — Pallas's Fishing Eagle. It was common near Kechki village and nesting in the month of Feb. Also seen near Chiparohar.

Genus TORGOS

26. Torgos calvus — Black or Pondicherry vulture. Common.

Genus GYPS

27. Gyps indicus — Indian Longbilled Vulture. Only two seen near Latihar.

28. Gyps Bengalensis — Indian Whitebacked Vulture. Common everywhere.

Genus NEOPHRON

29. Neophron percnopterus — Scavenger Vulture. Common throughout the area, specially at Daltenganj.

Genus SPILORNIS

30. Spilornis Cheela — Crested Serpent-Eagle. Less Common in Palamau, only at few places like Hechki, Kerh, and near Betla.

Family FALCONIDAE

Genus ~~MICROHIERAX~~ FALCO

31. Falco ~~Chicquera~~ bigarnicus — ~~Redheaded Merlin~~ Laggar Falcon. ~~More Common than~~ in the area, specially in open & cultivated Country

32. Falco chicquera — Redheaded Merlin. More Common than Laggar in the area.

33. Falco tinnunculus — Kestrel. Frequently seen at Daltenganj in Winter.

Family PHASIANIDAE

Genus FRANCOLINUS

35. Francolinus pictus — Painted Partridge — Seen at Hechki, Kerh and Ranka. Less in number

34. Francolinus francolinus — Black Partridge. Not Common in the area, only seen near Betla and Latehar.

36. Francolinus pondicerianus — Grey Partridge. Common everywhere, specially near Hechki block.

Genus COTURNIX

37. Coturnix coromandelica — Blackbreasted or Rain Quail. Common near Betla & Chipadohar.

Genus GALLUS

38. Gallus gallus — Red Junglefowl. Common in the more forested areas. But the bird was very shy due to heavy shooting

Genus PAVO

39. Pavo cristatus — Common Peafowl. Rare in the area. only seen near 86 miles stone from Ranchi, one ♂ & 2 ♀ seen feeding in the cultivated field of Gram.

Family TURNICIDAE

Genus TURNIX

40 Turnix sylvatica — Little Bustard-Quail. Common at Betla, Nerh and Keehla.

41. Turnix tanki — Button Quail. Common all over the area.

Family GRUIDAE

Genus GRUS

42. Grus antigone — Sarus Crane. Only two seen feeding in the cultivation of Wheat & Gram near Ranna.

Genus ANTHROPOIDES

43. Anthropoides virgo — Demoiselle Crane. It was fairly Common at Daltongenj near Circuit-House in the cultivation. It left Daltongenj town on 15/3/50 at about 5 p.m.

Family RALLIDAE

Genus AMAURORNIS

44. Amaurornis phoenicurus — White-breasted Waterhen. Seen at Kanda village pond (Nawa) and near Nagerunta-ri, but it has not been observed east of the river.

Genus GALLICREX

45. Gallicrex cinerea — Water Cock or Kora. Kanda village pond. Shy and retiring bird.

Genus GALLINULA

46. Gallinula chloropus — Moorhen. It was plentiful in the Kanda village pond.

Genus FULICA

47. Fulica atra — Coot. At Daltongenj in a village pond, and was quite plentiful at Chanki farm pond.

Family JACANIDAE

Genus METOPIDIUS

48. Metopidius indicus — Bronzewinged Jacana. Common at Ramna near the Atwa, and also near Michanki farm. Not seen elsewhere.

Family CHARADRIIDAE

Genus VANELLUS

49. Vanellus vanellus — Peewit. At Nagarutari in the cold weather.

50. Vanellus indicus — Redwattled Lapwing. Common everywhere in the field as well as in the scrub forest.

51. Vanellus malabaricus — Yellow-Wattled Lapwing. More than indicus, specially at Kechki.

Genus CHARADRIUS

52. Charadrius hiaticula — Ringed Plover. Common near Koel river at Daltonganj and Kechki.

53. Charadrius dubius — Little Ringed Plover. Common everywhere near Water, specially at Kechki.

Genus TRINGA

54. Tringa hypoleucos — Common Sandpiper. Only seen at Kechki and Daltonganj.

~~54~~.

Genus CAPELLA

54. Capella gallinago — Fantail snipe. More Common than

55. Capella minima — Jack Snipe. Less Common.

Genus CALIDRIS

56. Calidris alba — Sanderling. Frequently observed

57. Calidris temminckii — Temminck's Stint. Common at Daltonganj, Kechki and Garhwa.

Family LARIDAE

Genus STERNA

58. Sterna aurantia — Indian River Tern. Common.

59. Sterna acuticauda — Black-bellied Tern. More Common than aurantia.

Family COLUMBIDAE

Genus TRERON

60. Treron phoenicoptera — Green Pigeon. A large flock

used to live in Kechki block on a pipal tree. And also at Ranka & Ramna and nowhere else.

Genus COLUMBIA

61. Columba livia – Blue Rock Pigeon. Not Common. Seen only at Ramna, Nawa and Garhwa.

Genus STREPTOPELIA

62. Streptopelia orientalis – Rufous Turtle Dove. Fairly Common during the Cold Weather.

63. Streptopelia decaocto – Indian Ring Dove. More numerous than any other doves. It was plentiful near Nawa.

64. Streptopelia tranquebarica – Red Turtle Dove. Commonly seen throughout the year.

65. Streptopelia chinensis – Spotted Dove. Common everywhere, specially at Nawa where it was plentiful.

66. Streptopelia senegalensis – Little Brown Dove. Frequently seen.

Genus CHALCOPHAPS

67. Chalcophaps indica – Emerald Dove. Only seen at Ranka in well forested area.

Family PSITTACIDAE

Genus PSITTACULA

68. Psittacula krameri – Rose ringed Parakeet. This is the Commonest parakeet of the area.

69. Psittacula cyanocephala – Blossom headed parakeet. Less Common than krameri.

Family CUCULIDAE

Genus CLAMATOR

70. Clamator jacobinus – Pied Crested Cuckoo. Only seen near 28th mile stone of Daltonganj – Ranchi Road (Manika)

Genus CUCULUS

71. Cuculus varius – Common Hawk-Cuckoo. Common in the area.

Genus EUDYNAMYS

72. Eudynamys scolopacea – Koel. More than varius.

Genus CENTROPUS

73. Centropus sinensis – Crow-Pheasant. Common, even in the town.

Family STRIGIDAE

Genus TYTO

74. Tyto alba – Barn owl. It was fairly common at D'ganj, and near villages, but not observed in the forests.

Genus BUBO

75. Bubo nipalensis – Forest Eagle-owl. Only seen in Kanda forest – near Nawa.

Genus GLAUCIDIUM

76. Glaucidium radiatum – Jungle owlet. Frequently met with – in the well wooded country.

Genus ATHENE

77. Athene brama – spotted owlet. Commonest of all owls.

Genus STRIX

78. Strix ocellata – Mottled Wood owl. It has not been seen in heavy forest – but seen in light-forest and near mango groves.

Family CAPRIMULGIDAE

Genus. CAPRIMULGUS

79. Caprimulgus indicus – Indian Jungle Night-jar. Frequently heard in the Kechki block near Railway line.

80. Caprimulgus macrurus – Long-tailed Night-jar. Common at Kechki, Kerh and Ranka.

81. Caprimulgus asiaticus – Common Indian Night jar. More common near about villages and at D'ganj than in the forest. Three or four used to live near D'ganj Court – and were occupying two old Teak trees.

82. Caprimulgus affinis – Franklin's Nightjar. More common than any other N'jars. Kechki is rich for Night-jars. All three can be heard as early as 5.30 in the evening. During the breeding season they call in the noon too.

Family APODIDAE

Genus APUS

83. Apus affinis — House swift —. Fairly common in the area. Seen nesting at Kerh in the E.R.H, in the month of Feb.

Genus CYPSIURUS

84. Cypsiurus parvus — Palm Swift —. Numerous everywhere. Not found inside the forest —.

Family ALCEDINIDAE

Genus CERYLE

85. Ceryle lugubris — Pied kingfisher — Common.

Genus ALCEDO

86. Alcedo atthis — Common kingfisher. Less common than pied kingfisher.

Genus HALCYON

87. Halcyon smyrnensis — Whitebreasted kingfisher. Common near cultivation.

Family MEROPIDAE

Genus MEROPS

88. Merops leschenaulti — Chest-nut-headed Bee-eater. Common near about Latehar.

89. Merops philippinus — Blue tailed Bee-eater. Seen at a few places like agriculture farm, Ranna and Garhwa.

90. Merops orientalis — Green Bee-eater. Commonest —.

Family CORACIASIDAE

Genus CORACIAS

91. Coracias benghalensis — Indian Roller. Common near cultivation.

Family UPUPIDAE

Genus UPUPA

92. Upupa epops — Hoopoe, Common everywhere.

Family BUCEROTIDAE

Genus TOCKUS

93. Tockus birostris — Common Grey Hornbill. Common.

Family CAPITONIDAE

Genus MEGALAIMA

94. Megalaima zeylanica — Green Barbet. Rare in the area.

only observed ~~at~~ in the Kechki block.

95. Megalaima haemacephala ~~rubricapilla~~ – Crimsonbreasted Barbet, Common.

Family PICIDAE

Genus DINOPIUM

96. Dinopium benghalense – Lesser Goldenbacked Woodpecker. Common everywhere.

Genus DENDROCOPOS

97. Dendrocopos mahrattensis – Yellowfronted Pied Woodpecker Common in the forested areas.

98. Dendrocopos nanus – Pigmy Woodpecker, Observed in the Ramna beat.

Genus CHRYSOCOLAPTES

99. Chrysocolaptes festivus – Blackbacked Woodpecker. Only seen at Nawa where it was fairly Common. At Nawa this bird has taken the place of benghalense.

Family ALAUDIDAE

Genus MIRAFRIA

100. Mirafra erythroptera – Redwinged Bush Lark. Common at Ramna and Ranka and also seen near about Latihar.

Genus EREMOPTERIX

101. Eremopterix grisea – Ashycrowned Finch-Lark. Common.

Genus ALAUDIA

102. Alauda gulgula – Eastern skylark. Common in fields.

Family HIRUNDINIDAE

Genus HIRUNDO

103. Hirundo concolor – Dusky Crag Martin. Common at Kechki, Uerh, and Daltongarij.

104. Hirundo smithii – Wiretailed Swallow. Common almost everywhere, specially in Nagaruntari and Kechki.

105. Hirundo fluvicola – Indian Cliff Swallow. Common at Daltongarij, and Kechki.

Family LANIIDAE

Genus LANIUS

106. Lanius excubitor – Grey shrike – Common

107. Lanius sqchach – Rufous backed shrike. More Common than any other shrike. Common near cultivation & in scrub forests.

108. Lanius Schach tricolor – Blackheaded shrike. More common than excubitor.

109. Lanius cristatus – Brown shrike. In winter seen everywhere in light-forests.

Family ORIOLIDAE

Genus ORIOLUS

110. Oriolus Oriolus kundoo – Golden Oriole. In well forested areas.

111. Oriolus chinensis – Blacknaped Oriole. Rare. Observed in Ramna beat and in Ranka during winter.

112. Oriolus xanthornus – Blackheaded oriole. Common.

Family DICRURIDAE

Genus DICRURUS

113. Dicrurus adsimilis – Black Drongo. Common.

114. Dicrurus caerulescens – Whitebellied Drongo. Less than Black

115. Dicrurus paradiseus – Greater Racket-tailed Drongo. Common in bamboo forests in Kechki beats.

Family STURNIDAE

Genus. STURNUS

116. Sturnus malabaricus – Greyheaded Myna. Common everywhere, specially when Simal and Palas trees are in bloom.

117. Sturnus pagodarum – Blackheaded Myna. Found everywhere, except in heavy forests. It was numerous in Ramna among cattle.

118. Sturnus Contra – Pied Myna. Common everywhere – but stays away from forests.

Family Genus ACRIDOTHERES

119. Acridotheres tristis – Common Myna. Common everywhere, except at Ramna where it was less in number.

120. Acridotheres ginginianus — Bank Myna. Common near cultivation.

Family CORVIDAE

Genus DENDROCITTA

121. Dendrocitta vagabunda — Indian Tree Pie. Common in Daltonganj, less in the forest-areas.

Genus CORVUS

122. Corvus splendens — House Crow. Common

123. Corvus macrorhynchos — Jungle Crow. Less than H. Crow.

Family CAMPEPHAGIDAE

Genus HEMIPUS

124. Hemipus picatus — Pied Flycatcher-shrike. Common.

Genus TEPHRODORNIS

125. Tephrodornis pondicerianus — Common Wood shrike. More numerous in Daltonganj town than in the forested areas.

Genus CORACINA

126. Coracina melanoptera — Blackheaded Cuckoo-shrike. In well wooded country and near villages.

Genus PERICROCOTUS

127. Pericrocotus brevirostris — Short-billed Minivet. Observed in the Ramna beat.

128. Pericrocotus cinnamomeus — Small Minivet. Common.

Family IRENIDAE

Genus AEGITHINA

129. Aegithina tiphia — Common Iora. Common east of the Koel river but not seen west of it.

130. Aegithina nigrolutea — Marshall's Iora. Common in Nechki block.

Genus CHLOROPSIS

131. Chloropsis cochinchinensis — Gold-mantled Chloropsis. Less Common in Palamau. Seen at Nechki, Usri and in Daltonganj town.

Family PYCNONOTIDAE

Genus Pycnonotus

132. Pycnonotus jocosus — Red Whiskered Bulbul. Common everywhere, specially at Nerk.

133. Pycnonotus cafer — Red vented Bulbul. Numerous.

Family MUSCICAPIDAE

Genus DUMETIA

134. Dumetia hyperythra — Rufous Bellied Babbler. Common in Nechki Block, also seen near Batla fort.

Genus TIMALIA

135. Timalia pileata — Red capped Babbler. Common in Nechki near forest Rest House and also seen in Nechki Block.

Genus CHRYSOMMA

136. Chrysomma sinensis — Yellow eyed Babbler. Not very numerous but met everywhere. Fairly Common near Nanda forests.

Genus TURDOIDES

137. Turdoides caudatus — Common Babbler. Numerous everywhere. Peculiar in Daltongunj town.

138. Turdoides striatus — Jungle Babbler. Common in forested areas.

Genus MUSCICAPA

139. Muscicapa parva — Red breasted Flycatcher. In Winter it was Common in Nawa and in cultivation near villages.

140. Muscicapa superciliaris — White browed Blue Flycatcher. A shy, small flycatcher, always hunting alone. Met both in gardens and in Nechki Block near stream in evergreen patch.

141. Muscicapa thalassina — Verditer Flycatcher. Only at Daltongunj town.

Genus CULICICAPA

142. Culicicapa ceylonensis — Grey headed Flycatcher. Seen at Ramna, Ranka and Nechki. Quite numerous.

Genus RHIPIDURA

143. Rhipidura albogularis – White spotted Fantail Flycatcher. Common at Kanda forest and Nagor Untari.

Genus TERPSIPHONE

144. Terpsiphone paradisi – Paradise Flycatcher. Seen only in Kechki block.

Genus MONARCHA

145. Monarcha azurea – Blacknaped Flycatcher. More numerous than any other flycatchers. Seen in the forested areas; specially numerous in Kechki block.

Genus PRINIA

146. Prinia subflava inornata – Plain Longtail Warbler. Common.

147. Prinia socialis – Ashy Longtail Warbler. Plentiful, specially in the town.

148. Prinia sylvatica – Jungle Longtail Warbler. Less than socialis. It was numerous near Ramna than at any other place.

Genus ORTHOTOMUS

149. Orthotomus sutorius – Tailor Bird. Common everywhere.

Genus ACROCEPHALUS

150. Acrocephalus agricola – Paddyfield Warbler. In winter quite common in cultivation.

Genus ERITHACUS

151. Erithacus brunneus – Blue Chat. Common during winter in cultivated fields.

Genus COPSYCHUS

152. Copsychus saularis – Magpie Robin. More than Indian Robin, specially in town.

Genus PHOENICURUS

153. Phoenicurus ochruros – Black Redstart. Less common in the area. A few met here & there. One female has been noticed uptill 29.3.1950 in Ralton ganj town.

154. Phoenicurus hodgsoni – Hodgson's Redstart. Commonly

mid-West-of the Koel river. Frequently seen near cultivation and in the open lands.

Genus SAXICOLA

155. Saxicola turquata — Stone Chat. Only seen at Nawa, Ramna and Ranka, on rocky hillsides as well as in cultivation.

156. Saxicola caprata — Pied Bush Chat. Common everywhere, except in the town.

Genus SAXICOLOIDES

157. Saxicoloides fulicata — Indian Robin. Common everywhere but not as numerous as it was in Monghyr.

Genus ZOOTHERA

158. Zoothera citrina — Orangeheaded Ground Thrush. Seen only in Kanda forest.

Genus TURDUS

159. Turdus unicolor — Tickell's thrush. Near Chhibloch, and near Nerh in winter.

Family PARIDAE

Genus PARUS

160. Parus major — Grey Tit. Common in the forest areas, like Nechki, Nerh and in Saidopeloch. Rare west of the Koel river.

Family MOTACILLIDAE

Genus ANTHUS

161. Anthus hodgsoni — Hodgson's Tree Pipit. Common in cultivated lands.

162. Anthus novaeseelandiae — Paddyfield Pipit. Common.

Genus MOTACILLA

163. Motacilla caspica — Grey Wagtail. Common in winter.

164. Motacilla alba — White or Pied Wagtail. Common.

165. Motacilla maderaspatensis — Large Pied Wagtail. Common, W.

Family DICAEIDAE

Genus DICAEUM

166. Dicaeum erythrorhynchos – Tickell's Flowerpecker. Common, specially when Simal, Palas and Mango trees are in bloom.

Family NECTARINIIDAE

Genus NECTARINIA

167. Nectarinia zeylonica – Purple-rumped sunbird. Rare in this area, only seen at Lechki near Railway line.

168. Nectarinia asiatica – Purple Sunbird. Common.

Family ZOSTEROPIDAE

Genus ZOSTEROPS

169. Zosterops palpebrosa – White-eye. Less in this area.

Family PLOCEIDAE

Genus PASSER

170. Passer domesticus – House sparrow. Common in towns and villages.

Genus PLOCEUS

171. Ploceus philippinus – Baya. Plentiful. More than what it was in Singhbhum.

172. Ploceus benghalensis – Black-throated Weaver Bird. Rare, often seen near Ramna and Ranka.

Genus ESTRILDA

173. Estrilda amandava – Red Munia. Common at Ramna and Raltungenj.

Genus LONCHURA

174. Lonchura malabarica – White-throated Munia. Often seen in Ramna. Rare.

175. Lonchura striata – White-backed Munia. Common near Lechki, and also seen in Chiankifarm.

176. Lonchura punctulata – Spotted Munia. Common at Nawa in cultivation.

Family FRINGILLIDAE

Genus CARPODACUS

177. Carpodacus erythrinus – Common Rose-finch. Seen at Lechki, Nawa & Ramna during winter.

Family EMBERIZIDAE

Genus EMBERIZA

178. Emberiza pusilla – Little Bunting. Common in this area.

Genus MELOPHUS

179. Melophus lathami – Crested Bunting. Rare. Only seen in scrub forest near Nagarjunasagar.

Japan has 400 species of Bird

About 400 species of birds are to be found in Japan, but the greater percentage of them are common to other nations. Only 15 percent species are peculiar to the Japanese islands.

According to ornithological experts, the green and the copper pheasants may be raised to be the species most characteristic of Japan. Others are the Japanese robin, the varied tit, the Japanese green pigeon, tristram's woodpecker, black-tailed gull and st-eller's albatross.

The Japanese crested ibis, several varieties of crane and the Japanese stork are among the birds designated as birds of the Far East but specially of Japan.

As a whole, the pheasant family is widely distributed in southern Asia, but the green and copper pheasants are found only in Japan. the green pheasant has a greenish colour while the copper pheasant is red.

The Japanese robin is also a bird typical to Japan. they are found in all parts of the Japanese archipelago.

Since the chirp of the Japanese robin resembles the tinkling of horse-bells, it has been named "Komadori" in Japanese, meaning "horse-bird".

The varied tit is regarded as a typical Japanese bird. It is a bird of the 'Paridae' species, but its reddish brown colour makes it unique. It inhabits the mountainous areas of Japan and is known not only for its beauty but also for its sweet song. For a small bird, it is remarkably intelligent and is able to perform various tricks.

The cooing of the Japanese green pigeon resembles the melodious notes of the "shakuhachi", a five

-holed bamboo flute, and so it is called "Shakuhachi hato" (the bamboo-flute-pigeon).

The Tristram's Woodpecker, which is a beautiful ~~bird~~ large bird with blended colours of black and white, is another species well known in Japan. ~~This~~ the bird was once plentiful on Tsushima Island and in Southern Korea.

These woodpeckers are not able to survive unless they live in a dense forest. Since ~~Tsushima~~ Tsushima Island had been excessively stripped off forests, the woodpeckers have been forced into the small forest-lands to the north of the island. And, it is feared that they may have become extinct.

As for the sea birds, the black-tailed gull, a species of the common gull, is found in Japan. Because its 'cry' is similar to that of a cat, it is called a "cat-bird" in Japan.

Another sea-bird indigenous to Japan is the Steller's albatross, which is drawing much interest from Western ornithologists. There are two species of albatross common to Japan which breed in the various parts of the Pacific Ocean. They are plentiful but their breeding ~~areas~~ areas are limited to the seven islands of the IZU peninsula and Muroshima of the Ogasawara group.

Those mentioned above are peculiar to Japan, but there are other species of birds not indigenous to Japan, are regarded as birds of the Far East and specially of Japan.

They come under the scientific name of Nipponia nippon, a most fitting name for a Japanese bird. The Japanese crested ibis is one of them. It looks like an egret but

is shorter in height - with a long, tubular bill.

The Japanese crane is the other species. The bird is large, mostly white in colour, with noble appearance.

From ancient times, the Japanese regarded these cranes as a symbol of good omen and many paintings of them have been made.

Outside Japan, they are found in the eastern part of the Asian Continent.

The only breeding areas known for these birds are the marshy plains located north of Kushiro in northern Hokkaido. Here about hundred of these cranes make their home permanently and it is a novel sight to see their enormous nests scattered in the marshy land during the breeding season, and the site is a sanctuary.

The Japanese stork, which is also similar in size to the crane, is found at present only in one sector in Hyogo Prefecture. Storks are commonly seen in Europe, but the Japanese stork is different from European storks, it has a black bill instead of a red one. These birds are regarded as belonging to the Palearctic region in which Japan is included.

Wet-lands of Bihar

1. Darbhanga dist:— Horaithia Chaur, Kokoran Chaur, Maiser Chaur, and Benoa Chaur. Maiser and Benoa Chaurs both yielded a wonderful Collection when kept under observation by the late Mr. C. M. Inglis.

2. Saharsa dist:— ~~Rahria Chaur~~ Uma Jheel, Pachgachia, and Lake near Simri-Bakhtiarpur.

3. Champaran dist:— Rahria Chaur. Very important. Was studied by F. A. E. Munns for 12 yrs.

4. Monghyr dist:— Kabra Tal and Lilkori Chaur near Barauni Junction. Barauni Junction is becoming an industrial centre, and a bird Sanctuary close by will be very valuable.

5. Purnea dist:— Drona and Chapri Chaurs, near Kankagola Station. Ideally situated amidst cultivation and away from any city. In Combination will form a very good bird Sanctuary.

6. Ranchi dist:— A Jheel near Hitchcock farm on Ranchi-Chaibassa Road. Ranchi Lake and Roranda Tank.

We should aim at a target of atleast one Sanctuary in each district of North Bihar. The above mentioned Jheels are worth-while surveying for eventually being declared Sanctuaries.

1. thieves – Crow
2. Singer – Mhayal + Shama
3. Dancer – Fantail Flycatcher
4. Butcher – Shikes
5. Policeman – Drongo
6. Tailor – Tailor bird
7. Weaver – Baya
8. Woodchiller – Wood-pecker
9. Idler – Owl
10. Fisherman – Kingfisher
11. Mason – Hornbill
12. Night-watchman – Night-jars.
13. Scavengers – Vultures.
14. Hunters – Kites + Eagle
15. Traveller – Duck.

The spotted crake (Porzana porzana) one ♀ was collected at Manjaul on 16th April 1903, since then no record.

themselves to defend the coun-

The atmosphere of enthu-
that has been generat-
the country with people
nding the gravity of
and preparing
meet it has made

that at this
petty dif-
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ited.

the
ad

determination to resist this aggression and throw the invader out remains unshaken."

There was no possession more dear to a nation than her liberty. China had not only hit India but hit the cause of world peace and progress.

Referring to Prime Minister Nehru's stress on the Five-Year Plan being continued, Mr. Menon said that some people seemed to have misunderstood his statement. What he meant was that vital supplies for sustaining the society and backing the army had to be produced and provided for. Adjustments would of course be made in the plan to suit the needs of the moment. But if technological progress or food or steel production was retarded, the nation would lose part of her power to fight.

The way the Chinese were

border say P.T.I.

Addressing a public meeting at a Sadiyu near here Srimati Gandhi said that the Government was taking all possible measures to safeguard the fro ntiers.

Mrs. Gandhi arrived here from Gauhati accompanied by Mr. B.C. Bhagabati Union Deputy Minister for Communications. She returned to Dibrugarh this evening.

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abusing Prime Minister Nehru, he said showed that they had realised that "we mean business."

Although India had suffered some reverses, they were determined to fight the aggression to its bitterest end. He assured the people that there would be no negotiations with China on the basis of surrender.

this month till the last inch of our soil is retrieved from the Chinese. His wife has donated twentyfive tolas of gold.

In Mysore eight thousand workers of Bhadravati Iron and Steel Works have offered to contribute their day's wages.

In Jaipur, the Rajasthan Government has decided to give financial aid and land to the dependents of jawans killed in active service on the front.

An association of commecial establishments in Ambala, in Punjab, has announced that children of disabled jawans would be absorbed in industry and paid.

In Jullundur the organisers of the Indo-German Athletic Meet to be held on November 1 have decided to contibute to

tions that were being prepar
behind. The dispatch adds: A
small observation post, aw
from the main position, esc
ed Chinese shelling altogeth
Five Jawans stayed in that o
servation post throughout
day and were eye-witnesses o
the stubborn fight put up
both the outposts and th
ultimate fall. They took adv
tage of the cover of darkn
and, after a night-long
managed to climb down to
lake shore, where they
spotted by our rescue p
The rescuers risked their
to secure some boats in
face of enemy fire and
ght back their comrades
two jawans who had rem
at the main outpost also
ged to join the other fiv

& Publications (Private) Ltd., by DINESHWAR JHA at the Indian Nation Press, Fraser Road, Patna.

1. Muzaffarpur - ✓
2. Munger ×
3. Bhagalpur ×
4. Saharsa
5. Santal Parganas
6. Purnea
7. Hajipur ✓
8. Sitamarhi ✓
9. Gaya
10. Palia
11. Shahabad ✓
12. Saran
13. Champaran ✓
14. Muzaffarpur
15. Palamau
16. Ranchi ×
17. Darbhanga (Inglis, ✓

scarlet minivet, golden & bl. h. oriole, pea fowl, y. ch. tit, and bl. c. yellow bulbul. The beautiful large-racket-tailed drongo, which is more typical of the heavy forests of Assam is found along the valley of the Kaus between Gorikera and Poseita. Another such bird is the bl. c. yellow bulbul, a very beautiful yellow & black bird, which is plentiful in the forests above Jati in the Porahat.

Other remarkable specimens among s bhum's forest bird are the pied horn bill & the night jars.

Those who are particularly interested in the avifauna of this dist. would find the following contributions of considerable interest:—

(1) S. R. Tickell's article published in the Journal of the Asiatic Society of Bengal, Vol. 11, 1833.

(2) Edward Blyth's "Some notes on birds forwarded to the Museum from Chaibasa by Tickell" in Journal of the Asiatic Society of Bengal, Vol. XI, 1842.

(3) V. Ball's "Avifauna of Chota nagpur" in Stray Feathers, 1874–1875.

(4) Jamal Ara's "Birds of Kolhan Forest Division" in Journal of the Bengal Natural History Society, Vol. XXVI, 1953.

Gaya

The game birds of the dist - Junsin - of jungle spur & leaf fowl. Grey & bl partridge, Common rain, button, bustard & bush quail, Sand grouse (Pterocletus exustus & pterocles fasciatus). Lesser florican occasionally seen, one great bustard has been shot. Two varities of geese are found. The grey lag & bar headed, and among ducks, red-headed & White-eyed pochard, pintail, & gadwall are most numerous. Wild gens are rare, but the spotted bills breed in the chars of the Sun river. Resides these, the following are found; the shoveller, ruddy shelduck, blue-winged teal, whistling teal, cotton teal, & the comb duck, the last three breeding there. Snipes of 4 varities & golden plovers are met along the Sun, and kulans (Grus Antigone) and demoiselle cranes frequent. The rare breathy one Siberian crane was shot some yrs ago. Most of the usual waders are met with.

The following birds recorded from Gaya:

Jt crow, H crow, Treepie, Greytit, Jungle babbler, c babbler, R.v bulbul, R.w. bulbul, Collared bushchat, Redstart, Robin, Shaygal, Greyshrike, Woodshrike, small minivet, White-bellied minivet, Large cuckoo shrike, Drongo, Thrush, Ashy W. Warbler, Golden oriole, bl. h. oriole, Grey headed myna, bl. h. myna, c. myna, bank myna, pied myna, Baya, Red Munia, sparrow, swallow, W. tailed swallow, White wagtail, L. Pied wagtail, Grey wagtail, Tree pipit, paddyfield pipit, golden backed W peeker, c & brown paptha, koel, whiskered, lesser crowpheasant, Rose ringed parakeet, Roller, G. bee-eater, pied kfisher, c. kingfishers G. Hornbill, Hoopoe, Batassia, Ramcrow, scops owl, spotted owlet, P. Vulture, Wh. b. Vulture, scavenger vulture, Red h. merlin, Brahminy kite, p. kite, shikras, sparrow Hawk, blue rock pigeon, spotted dove, Ringdove, Red turtle dove, painted sandgrouse, spotted billed pelican, Little Cormorant, White necked stork, openbill, Little egret, Cattle egret, pond herons night-heron, Nilkta, & Brahminy duck.

Singhbum ✓

The avifauna of Sbhum is more than local interest because this dist. is the southernmost of the three of Bihar which lie wholly in the peninsular zoo-geographical zone this location results in a large number of peninsular birds in it. Due to the proximity of the area to the plains of West-Bengal which are in the Indo-Gangetic zoo-geographical sub-region, there are Indo-gangetic birds - many Assamese, Indo-Burmese & Indo-Malayan species also occur. The Central

Indian species are well represented. Some birds found 2
in the Himalayas & the Western Ghats are also found
in Sbhum.

The dist. of Sbhum has a wide expanse of forests.
The two main habitats in the dist. are:-

(1) forests of the Western part - Kothan, Prohat,
Saranda, and South-eastern part; and

(2) open country.

In the open country there is only one large built-up
area, that of Jamshedpur, but it is well provided with
gardens and trees and being near the Ratma Hills has
a bird population very nearly the same as that of village
scrub and fringing jungles. The built-up area has its
influence in the abundance of species which do well
in human habitations, crows, mynas, bulbuls, sparrows,
kites, & vultures.

There are few large stretches of water. The only big
one is the Dimna reservoir which has an indirect
influence on bird life. It induces humidity and
the surrounding forest has a bird population approxim
ating that of evergreen patches along major streams
in the main forest area. A noticeable bird of the Ratma
area is the large green-billed malkoha, ~~a sky~~
(Rhopodytes tristis), a sky long-tailed member of the
cuckoo-family. This bird can be recognised easily
because of a long black tail spotted with four pairs
of large white patches. The rest of the bird looks black,
specially because of the poor light in which it is
generally seen. The flight is feeble.

Other stretches of water are the large tanks near Chibassa
on which swallows and a few teals can be seen during winter.
Deep down in the forest where the Karo is the boundary between
the Kothan and the Saranda forest Divisions river terns
are quite common.

The cultivated area lacks in cover and shelter. Most
of the birds nest in trees in village and such birds of
course are only the crows, bulbuls, mynas, drongos,
sparrows, kites, vultures, herons, & storks. Occasionally
a pair of J. chloropsis or oriole may be found.

The typical birds of the cultivated area, that is those
which live and nest in the fields, are the larks,
wagtails, pipits, and bee-eaters. Strikingly noticeable
in the open country of Dhalbhum is the Ashy-crowned finch

lark, which often flits above the field. It is much like the sparrow but has a black underside which cannot be missed. In the rocky areas the Indian robin and the red start are quite numerous.

The scrub and village fringing is the bill when the open country and the forest meet. The bird population of this bill is ~~too~~ largely of the village but a few more typically forest forms are met with, for example, the chloropsis, woodpeckers, lapwings, and shrikes. The typical birds of the scrub and fringing are dhayal, and the crow-pheasant. The dayal is a black & white robin-like bird, one of the best songsters.

The forests fall into some broad biotypes or habitats, namely the dense valley sal, the lighter hill sal, the dense evergreen, associations along major streams, terminalia associations and the rather open miscellaneous woods on dry hill aspects. The bird population varies a great deal from one part of the forest to another but a more detailed study is not necessary here.

The birds of the forest are generally more gorgeously plumaged and long-tailed than those of the open country. That is a function of cover. Among the beautiful birds of the forest are the chloropsis, the gold fronted and Jerdon's. The two birds are so green that they are often described as leaf birds. One is wholly green while the other has a golden forehead (chloropsis auri-frons).

The minivets are the striking red birds but only as far as the males are concerned; the females are as brilliantly yellow as the males are red. The smaller type is often in flocks, but the larger, or scarlet minivet, is more often seen in pairs — red & yellow birds together. The trogon is another red bird and is seen in deep forest.

According ~~to~~ zoning some of the birds of the dist are as follows:—

(1) Tree tops chloropsis, bl. crested yellow bulbul, Minivets, large racket-tailed drongo, oriole, grackle, green pigeon, & purple wood pigeon, (2) Lower canopy grey-lit, Lora, bulbul, flycatcher, sparrow, yellow-backed sunbird,

purple rumped sunbird, & wood peckers. (3) tree trunks - nuthatch, creeper, & pigmy wood peckers. (4) undergrowth - babbler, bulbul, dayal, shama, black bird & thrush. (5) Ground-wagtail, pipit, pitta, Eirkeer, night jar, peafowl, jungle fowl, partridges, courser & lapwing.

The historical interest of the Sbhum area in ornithology is the fact that it was one of those areas studied in detail very early, between 1833 & 1840 by Tickell. Many species not known before were described by Tickell & so for many species the type locality is Dhalbhum or Chaibasa. Three of these might be mentioned here: the long-tailed night jar (caprimulgus macrurus), the brown hawk-owl (Ninox scutulatus) and purple wood pigeon (Columba punicea). Tickell found purple wood pigeon at Chaibasa. Reforestation has destroyed its habitat and some specimens are now found at Bamiaburu Sanctuary.

The following birds noticed before are definitely uncommon now: black bulbul, ashy swallow-shrike, black & red headed bunting, yellow backed sun bird, green breasted pitta, forest eagle owl, green imperial pigeon, the Indian courser and the rosy pastor.

The status of the following birds is problematic, the yellow-breasted babbler mentioned by Bell has not been seen again during the last eighty yrs and may therefore, be presumed as extinct unless fresh evidence of its existence in the dist is forthcoming. A white-winged wood duck, a resident of Assam was shot at Sini several decades back by Sir John Houlton, I.C.S; when he was a settlement officer there. We cannot claim it as a Sbhum bird or even a bird of Bihar. There is no recent evidence about the occurrence in Sbhum of the Jungle owlet. White cheeked bulbul which was once fairly common has almost become extinct.

Among the birds that are not seen now are great bustard (Choriotis nigriceps), little florikan (Sypheotides indica), white-winged wood duck (Asarcornis scutulatus) and pink headed duck (Rhodonessa caryophyllacea), the wood duck was last seen at Sini.

There are three outstanding singsters, grackle, shama, and the dayal. In the months of April & May the forests at Tholkobad are filled with the beautiful liquid notes of the grackle.

The following are taken to be most beautiful birds of the area: — racket-tailed drongo, p. flycatcher

Dhanbad

1) The following is a list of birds recorded from the dist of Manbhum by S.R. Tickell (1833-36) Beavan (1860-62) V. Ball (1864-71) & E.H.N. Lowther (1930). The rapid industrialisation of the dist has led to the denudation of the forests and growth of urban areas where avifauna cannot thrive. Moreover the old Purulia Sadar sub-division now transferred to Bengal has more of jungles, hills, and water-reservoirs. No scrutiny has been made in Dhanbad dist proper but it is understood that many of the species are no longer found. This list is being given to show how avifauna has declined, there are however, peacock, partridge, wild fowls, lapwings, green pigeons, snipes etc all still seen in the jungle.

J. crow, H crow, Tpie, J. babbler, c. Babbler, Rufous-bellied babbler, Y. eyed babbler, spotted babbler, c. iora, Q. fronted chloropsis J. chloropsis, Rv. bulbul, Rw. bulbul, Red spotted blue throat, I. Robin, Dhayal, shama, orange-headed ground thrush, T. blue flycatcher, P. flycatcher, Madras black naped flycatcher, W. crowed fantail flycatcher, spotted fantail flycatcher, bay backed shrike, Black headed shrike, wood shrike, small minivet, L. cuckoo-shrike, Drongo, White-bellied drongo, T. bird, streaked fantail warbler, Yellow-crowned W. warbler, Ashy W. warbler, J. W. warbler, L. W. warbler, Q. oriole, b.h. oriole, Rosy pastor, c. Myna, P. Myna, Raya, W.b. Munia, W. throated Munia, spotted Munia, Red Munia, Y.th. sparrow, H. sparrow, W. tailed swallow, cliff swallow, L. pied wagtail, Rufous-winged bushlark, Red-winged bushlark, A.c.f. lark, White eye, P. sunbird, Purple-R. sunbird, T.t. peckr, thick billed flowerpecker, Pitta, Mahratta W. pecker, Q.b.w. pecker, Rl. backed W pecker, Tickell's c. backed W pecker, Q. barbet, c. headed barbet, Indian cuckoo, P.c. cuckoo, Koel, Large green-billed Malkoha, Punjab Sirkeer, Malkoal, L. parakeet, R.R. parakeet, M.h. parakeet, Nilkanth, Patringa, blue tailed bee-eater, blue-bearded bee-eater, P. kingfisher, c. kingfisher, Beaven's kingfisher, stork-billed k. fisher, W. breasted k. fisher, L. pied Hornbill, Q. Horbill, Hoopoe, H. swift, Batasseia, crested swift, long-tailed Night jar, Jungle N. jar, Franklin's N jar, c. Night jar, Great Horned owl, Collared scops owl, spotted owlet, Jungle owlet, P. Vulture, Griffon Vulture, long billed Vulture, White-backed Vulture, S. Vulture, Laggar falcon, small spotted eagle, Bonelli's eagle, B. kite, c. kite, shikra, Sparrow Hawk, green pigeon, orange-breasted green pigeon, green Imperial pigeon

Rufous Turtle dove, spotted dove, little brown dove, Ring dove, Red turtle dove, peafowl, Red-jungle fowl, Painted spur fowl, jungle bush quail, Blewitt's bush quail, Black partridge, Grey partridge, Rustard quail, White-breasted Wheen, Moorhen Bronze-winged Jacana, ph. tailed Jacana, stone plover, Whiskered tern, little ringed plover, Red-Wattled Lapwing, Yellow Wattled Lapwing, little Cormorant, black ibis, W. necked stork, purple heron, grey heron, little egret, c. egret, pond heron, N. heron, Chestnut-bittern, Pink headed duck, little Grebe.

Tickell. S.R. list of birds collected in the jungles of Rorabhum, Manbhum, & Dholbhum (Sbhum) J. of the Asiatic society of Bengal vol II, 1833, p. 569.

T. S.R. Blyth's report on Tickell's collection, J. of the A.S.B. Vol XI 1882, p 456

Capt. Beavan — list of birds collected from M. bhum & other places, Ibid. 1865, p 400; 430; & 1868, pp. 73, 165 & 370

Ball, V. — Avifauna of c pur, stray feather — 1874, vol II p. 355.

Lowther, E. H. N. — A ~~bo~~ bird photographer in India, ~~oxford~~. 1949, p. 29

Saharsa

The following birds have been recorded from the dist of J. crow, H. crow, Treepie, Malvocal, Grey hornbill, little brown dove, G. partridge, Wb. Wheen, bronze-winged Jacana, curlew stint; black ibis, glossy ibis, W.N. stork, c. egret, pond heron, pink headduck, silli or cotton teal, lesser white fronted goose, large whistling teal, B. duck, eastern grey duck, marbled teal? eastern goosander,

The reclamation of the water pools & indiscriminate shooting have led to the extinction of pink h. duck, marbled teal, copper breasted teal, & floricans. Various species of ducks, mallard, nakta, and geese do not come out now so profusely. Drainage of the chaurs, reclamation of water logged areas and shrubs indiscriminate shooting of the birds are reasons.

Purnea

J. crow, H. crow, Treepie, cht. billed nuthatch, J. babbler, Red-capped babbler, Rv. bulbul, Jerdon's bush chat, Barnes's bush chat, Himalayan Rubythroat, P. flycatcher, bl. headed shrike, Rosy minivet, b. drongo, Golden oriole, bl. h. oriole, Finch's starling (St. vulgaris pollaratzski), c. myna, bl. th. baya, sparrow, litth bunting, c. swallow, L. pied wagtail, stork-tied lark, purple sunbird, Asiatic Cuckoo, papiha, p. c. cuckoo, Koel, Mahocal, large parakeet, Roller, P. K fisher, stork-billed K fisher, W. b. kingfisher, Grey hornbill, H. swift, Franklin's N Jar, Grass owl (Tyto capensis), Osprey, Pondicherry, & W. b. vultures, Pallas's fishing eagle, Green pigeon, peafowl, Red J. fowl, Red spur fowl, blue-breasted quail, grey quail, black partridge, Kyah or swamp partridge, grey partridge, litth button quail, Koraorwater cock, purple moorhen, cool-, Bronze-winged Jacana, ph. t. Jacana, c. crane, Sarus crane, lesser florican, Bengal florican, stone plover, Golden plover, spur winged plover, yellow-wattled lapwing, Greyheaded lapwing, Black-winged stilt-Avocet, c. sandpiper, Red shank, fantail snipe, litth cormorant, White Ibis, White necked stork, Adjutant stork, Lesser Adjutant, open bill, purple Heron, pond heron, Night heron, Bittern (Botaurus stellaris), pink headed duck (No more) Grey lag goose, lesser White-fronted goose, bar-headed goose, large whistling teal, wid gun, common teal, pintail, Garganey teal, shoveller, & pochard

1959 — Jungh quail, Bageri, green pigeon, Indian ring, spotted, red turtle, rufous turtle dove, sky lark, bush lark, Ashyc. Finch lark, different kind of snipes, Kaim (Whistling teal), Ibis. Herons (White grey), litth cormorant, egret, sarus crane, Jacana, L. pied wagtail, river tern, litth ringed plover, spur winged plover, K fisher, swallow, ducks - Adhinger, dighock, pintail, sunkhab, Nukta, lalshar, chaita.

Hoopoe, Green barbet, c. b. barbet, Cuckoo, P flycatcher, White spotted fantail flycatcher,

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Mallard, pintail, White-eye, & grey duck, tufted duck, pochard, spotted bill, shoveller, blue wing, fantail, jack, & painted snipes, Hornbill.

Palamau

1898 – D. H. E. Sunder Settlement Officer,

Game birds –

Green pigeon – Hazil, Blue rock pigeon – parewa painted sand grouse – Coita titir, c. sandgrouse – c. pcock – manjur (mal), Banrar (♀), Red g. fowl – Jungle murgi, Bl. partridge Kala titur, painted partridge – Aseal, G. partridge – gorea titur J. bush quail – lawa, large grey quail – teedla, large button quail – Ghagur, bl. breasted quail – bateyr, button quail – gudri, lesser florican – Common snipe – chaha, painted snipe, wied goose –, cotton teal, Brahminy duck, pintail duck, blue winged teal, red crested pochard.

Golden oriole, bl. h. oriole, grackle, bank myna, c. myna, brahminy or black-headed myna, Grey headed myna, bl. headed bunting, dusky crag martin, large pied wagtail, white eye, purple sunbird, Tickell's fl. pecker, Golden backed W pecker, crimson breasted barbet, blossom headed parakeet, sparrow hawk, lagger falcon, Kestral, Roller, Green bee-eater, brown fish owl, spotted owl, Great Indian horned owl, c. night jar, Green pigeon, spotted dove, red turtle dove, pea fowl, red jungle fowl, yellow checked tit, Grey tit, treepie, chestnut billed nuthatch, Jungle babbler, c. babbler, gold fronted chloropsis, Rv. bulbul, white checked bulbul, white browed bulbul, Rw. bulbul, pied bushchat, red start, shama, tickell's blue flycatcher, white spotted fantail flycatcher, rufous backed shrike, bay-backed shrike, scarlet minivet, small minivet, large cuckoo shrike, drongo, racket tailed drongo, white billed drongo, tailor bird, Robin, yellow wattled lapwing, Grey hornbill, Koel, Papiha, p. c. cuckoo, p. flycatcher, c. grey quail, Jungle bush quail, red spur fowl, black partridge, Grey partridge, stone curlew, Indian courser, ringed plover, yellow-throated sparrow, bl. headed bunting, Hoopoe, fantailed snipe, l. reef heron, King vulture, bl headed vulture, ring tailed fishing eagle, white ibis, black ibis. R

The game birds consist of jungle spur, & pea fowl, black & grey partridge, rain, button, & bush quails, sandgrouse, the lesser florican is sometimes met with, but is being rare, green & blue rock pigeon & c snipe were very common but declining, geese are still to be found during cold weather on the banks of the son near Sonpura. Duck & teal are comparatively rare; they usually stay in the Koel & the bandhs near village, in the northern tracts.

as they do the eagrets. They are becoming rare.

Birds of prey are fairly common including three kinds of Vulture, viz. the common Vulture, the black and Egyptain. Of the falcons there may be mentioned the peregrine, a cold weather visitor, and the saker (Falco cherrug). The sparrow hawk is also found. Monghyr is rich in fishing eagles. The osprey frequents the Ganges and the large marshes north of that river. The white-tailed eagle is common, breeding in the dist. Harriers are plentiful in winter, hawking over every field in search of small birds and lizards; ~~owls~~ Rock owl is also found.

Swallows, martins and swifts are numerous common swallows abounds during the cold season, while the wire-tailed ~~or~~ is seen occasionally in the Kharagpur hills. Night jars are also found throughout the hilly tracts. The green bee eaters are numerous at certain seasons, and the beautiful roller is most familiar birds in this part of the country. Kingfishes can be seen hovering over tanks. The pied hornbill has been with in the Kharagpur hills. Parakeets are common and do certain amount of damage to the crops. The golden-backed wpecker is quite common (Brachypternus aurantius). Barbets are met with everywhere.

Of the cuckoo family — the European cuckoo comes during the cold weather but returns to the hills during the breeding season. The pied cuckoo is heard everywhere during the rains. The papiha and koel abound at all seasons. Malocals are plentiful, Sirkir in Kharagpur hills. Honey suckers, nut-hatches, Hoopoe are found. Three species of cuckoo-shrikes are found?

The minivets are cold weather visitors. The drongo-shrike or kingcrow is everywhere, while the paradise fly catcher is not uncommon. The orange headed ground thrush and the blue-rock thrush may be seen during winter.

Bulbuls, orioles; Redstarts, ruby and blue throat are seen in winter. Tailor birds are common. Reed warblers, tree-warblers, wagtails.

Ranchi

The total number of species now recorded is over 400, as against 294 by V. Ball. Chota Nagpur is a common territory wherein the Himalayan and Peninsular forms can be found. Thus we find in the dist. Malabar Whistling Thrush, White-winged ground thrush, and the Southern Yellow-cheeked Tit. Some of the other common species found are the Sand grouse, White-browed Blue fly catcher, Black-headed Bunting, Merganser and Hill Myna, In Winter we find Grey-headed Fly catcher, Minivets, Harriers, Shrikes, Ngens, nuthatches.

The following birds recorded by V. Ball - 1864-1871

J. Crow, H. Crow, Treepie, S.Y.e. Tit, Ch. bellied nuthatch, J. babbler, Striated babbler, C. Babbler, Rufous bellied babbler, Y. eyed babbler, C. Iora, J. Chloropsis, R.V. bulbul, R.W. bulbul, spotted Grey Creeper, Pied Bush Chat, Collared Bush chat, Hodgson's Redstart, Redstart, Red-spotted blue throat, White spotted blue throat, (Luscinia cyaneecula) C. Ruby throat, B.b. robin, Thrush, Shama, Black-throated thrush, Tickell's thrush, orange-headed ground thrush, Blue rock thrush, M.W. thrush, R.b. fly catcher, T. blue fly catcher, Verditer fly catcher, P. fly catcher, B. naped fly catcher, W. throated Tantail fly (R. albicollis), G. shrike, Bay b. shrike, B. headed shrike, Rufous b. shrike, Grey b. shrike, Rac-winged fly catcher shrike (H. picatus), W. shrike, Sc. minivet, Small minivet, W. bellied minivet, Drongo, G. drongo, W.b. drongo, Bronzed drongo, Tailor bird, Streaked Tantail Warbler, Rufous fronted W. warbler, Sykes's Tree Warbler, orphean Warbler, Lesser White-throat, T.W. warbler, Chiff-chaff, Yellow-browed W. Warbler, Green W. Warbler, Hardy W. Warbler, I.W. Warbler, G. oriole, B. naped oriole, Black h. oriole, G.h. myna, B.h. myna, C. myna, Rank myna, Pied myna, Baya, Bl. th. Baya, Spotted Munia, G. Munia, H. sparrow, L. Bunting, C. Swallow, W.T. Swallow, Eastern cliff-Swallow, Sykes Swallow, White Wagtail, L.P. Wagtail, W.f. Wagtail, G. Wagtail, Blue h. Wagtail, G.h. Wagtail, Y.h. Wagtail,

Forest-Wagtail, Tree pipit, l. Tree pipit, Brown rock, pipit, Paddyfield pipit, Sky lark, Red winged bush lark, Ashy c. F lark, White eye, P. Sunbird, T. H. pecker, thick b. H pecker, Pitta, Fulvous breasted pied W. p. M. W. p. Pygmy W. p. Rufous W. p. G. b. W. p. G. barbet, c. b. barbet, Asiatic cuckoo, l. cuckoo, Papiha, P. c. cuckoo, Koel, L. G. b. Malkoha, Punjab sirkeer (Taccocua leschenulti sirkee) c. pheasant, L. parakeet, R. R. parakeet, Bl. h. parakeet, Roller, G. Bee eater, Blue t. bee eater, cht. h. bee eater, P. kingfisher, c. kingfisher, W. b. kingfisher, G. Hornbill, Hoopoe, swift, Balassia (cypsiurius parvus batassiensis) Western Palm swift (c. p. palmarum) c. swift, J. N. Jar, Syke's N. Jar, Franklin's N. Jar, c. N. Jar, Barn owl, Brown fish owl, Great Horned owl, spotted owlet, P. vulture, Longbilled vulture, White backed vulture, S. vulture, Shahin falcon, Laggar falcon, Red headed Marlin, Kestrel, Great spotted eagle, Bonelli's eagle, Black eagle, short-toed eagle, c. S. eagle, White-eyed Buzzard eagle, Grey-h. fishing eagle, B. kite, c. kite, Bl. winged kite, Pied Harrier, Marsh Harrier, shikra, sparrow Hawk, G. pigeon, Rock pigeon, R. T. dove, spotted dove, L. brown dove, Ring dove, Red T. dove, Painted sandgrouse, Red J. fowl, Bl. partridge, Grey partridge, W. b. Waterhen, L. r. plover, spur winged plover, Red-wattled lapwing, c. sandpiper, Little stint, Fantail snipe, L. Cormorant, shag, Little Cormorant, Darter, W. N. stork, Adjutant, Grey Heron, Large eagret, smaller eagret, Little eagret, catth eagret, pond Heron, Little green Heron, Bittern, Nukta or Comb duck, silli or Collin teal, Mallard, Widgeon, c. teal, shoveller, Garganey, & little Grebs.

Peafowl and jungle fowl are still found chiefly in densely wooded tracts, spur fowl is also seen on rocky hills where vegetation is more sparse. All three species have now become rare. Grey partridge are met with in suitable localities all over the dist, but are nowhere plentiful. Common grey quail visit the diara along the Ganges in the cold weather, while bush quail and button quail are also met with all over the dist, but are nowhere numerous. Snipe and painted snipe are common in the Ganges char of the Rajmahal sub-division. The grey pigeon is a denizen of the more densely wooded areas, and rarely are always to be seen in the low hills of the vicinity of Silingi bungalow. Golden plover are often seen in flocks in open country during the cold weather. The bronze-winged Jacana & black ibis are very common, and may be mentioned here, though they scarcely fall within the category of game birds. The former are generally found on tanks. The latter are common everywhere and are known as turga among the Santals. They are greatly sought after on account of their flesh. The c. crane and demoiselle crane are occasionally to be seen in the cold weather along the Ganges, but are rare.

Among the duck, all the cold weather visitors frequent in large numbers, the lils near the Ganges in the Rajmahal sub-division and the reservoirs and rivers of North Godda. The following species are common:- the Gadwall, pintail, shoveller, tufted duck, ferruginous duck, red crested pochard, garganey, c. teal, & ruddy sheldrake. Of the resident ducks the whistling and cotton teal are common & the nukta probably breeds in the Rajmahal lils. Large flocks of geese visit the north of the dist. from the Ganges, after the rice crop has been harvested. The bar-headed is more commonly observed. (Santal P. dist. Gazetteer (1938) pp. 20-23)

Many species of birds, namely partridges, snipes, plovers and different kind of ducks are no longer to be seen in plenty. The number of guns has largely increased in this dist. & there has been indiscriminate shooting. Many of the water-logged areas have also become drier and have been brought under cultivation. Winter visiting birds are on the decline.

Munglyor Birds

Game birds are comparatively rare in this district - owing to a variety of causes. In the south, where there is ample cover in the jungle-clad hills, the Santals and Oraons are constantly shooting them down for the pot. cats, foxes and other vermin are even more destructive and there is certain scarcity of suitable food, for edible berries and nectar-bearing flowers are rare in the forests. The bird consequently prefer the cultivated fields and gardens; and the silence of the woods is proverbial among those who visit them. Still there is a fair variety of species, though their actual numbers are small. Pea-fowl have become rare but can still often be seen in different parts of the Kharagpur hills. The Red Jungle fowl is met with in the sal jungles, and the red spur-fowl is occasionally seen. Grey partridges are abundant in scrub jungle south of the Ganga; the black partridge effects the grass prairies in the north of the district; and the Uyah or marsh partridge is found in the low lands of pargana Pharkiya. The black-breasted quail breeds in this district, but is not nearly so abundant as the common quail, which migrates in the spring to breed beyond the Himalayas. As a consequently has a better chance in the struggle of existence than it would have them, where so many enemies, in the shape of cats, foxes hawks and snakes are ready to devour it and its eggs.

Bustards are rarely seen.

The courier plover is found chiefly on the alluvial diara lands bordering the Ganga, and flocks of swallow plover may be seen hawking for insects on the banks of rivers. Other species of plover are common; the golden plover during the cold weather and the spur-winged plover at all seasons. Cranes are cold weather visitors. Common and pintail snipes are equally distributed, painted and jack snipe are rare. Godwits appear on the marshes as well as Curlews & Whimbrels; and the graceful Avocet may be seen along the banks of the Ganga. Among the stints and sand-pipers on the rafts, little stint, spotted, green & common sand-pipers, appear in large numbers during winter. The green & red shanks are also found

the black-winged red-legged stilt (Himantopus candidus) is another winter visitor. Nearly all the wading family are migrants retiring beyond the Himalayas to breed.

Both the Indian jacanas, the bronze-winged and pheasant-tailed remain all the year round in the marshes to the north of the Ganga. they are marsh birds with long toes and claws, which enable them to run over the floating leaves of water lilies and other plants. the coots are also well represented in the marshes. Rails and waterhens frequent the cane breaklies. the adjutant is rarely seen, but the white-necked stork is very common. Herons are plentiful in the ready swamps towards the north as also the pond herons, Bitterns do not appear to be so common, but the night heron is abounds (Nycticorax griseus) and its familiar call may heard on still evenings as it passes to its feeding grounds. the spoonbill is occasionally seen on marshes.

of geese and ducks during the cold season the following species are noticed:— grey goose, barred-headed goose, white-headed goose-rail, whistling teal, shelduck, ruddy shelduck, shoveller, gadwall, pintail duck, widgeon teal, garganey, red-crested pochard, red-headed pochard, ferruginous duck, and tufted duck.

The crested grebe is found on most of the marshes when its diving powers excite the wonder of all who witness them, for it can travel under water almost as fast as it can fly in the air, a few seconds suffice for it to dive and reappear at a distance of several hundred feet. the local name for the bird 'nargheg' is probably derived from the goitre-like appearance of its neck. Terns are abound, specially the whiskered and gull-billed. Indian skimmer, with its razor-like lower mandible much longer than the upper, may be seen skimming over the Ganga everywhere. Pelicans, cormorants and snake birds are common. the snake birds pay dearly for the beauty of its scapular feathers, for during the breeding season the shikaris pursue it as eagerly as

...d for the injured, to enlist in National Defence Force and Home Guards, to protect with their last blood the civil installations and check spreading of rumours to go to the front to fight the enemy and to collect funds and warm cloths for the jawans. P.T.I.

JAMIAT LEADERS' CALL TO MUSLIMS

NEW DELHI, Oct. 28:

Leaders of the Jamiat Ulma-i-Hind tonight called upon the Muslims in the country to give their full support to Government to meet the emergency caused by Chinese aggression.

Speaking at a public meeting here, Maulana Syed Fakhruddin Ahmed, President, All India Jamiat Ulma, said that the Muslims who had fought shoulder to shoulder with other communities for India's independence should not lag behind now in sacrificing their money, mind and lives to protect freedom. It was the duty of every Muslim to keep the territorial integrity of India intact.

Speaking to a large Muslim audience near historic Jama Masjid, Maulana Syed Mohammed Mian, General Secretary of the Jamiat, said that the organisation had called upon Muslims of India "to contribute to the cause of national defence enthusiastically".—P.T.I.

CALCUTTA, Oct. 28:

At a public meeting addressed by the West Bengal Chief Minister, Mr. P.C. Sen, at Taki, twenty four peopsons, including three birls, donated gold ornaments from their persons. In less than two two hours time twenty rings, three ear rings, one set of bold buttons, four wrist watches and Rs. 3181 in cash were contributed.

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said: 'You mlst have heard with attention what he said about the invasion on our borders and what it meant to India and other countries. The fant of the matter is that we are today faced with dangers, very big dangers, and I take this opportunity to express my ...tion at the way the en-

...time for using moderate language was over. The invader was no longer at the country's door but was now on Indian soil. He said that China had committed "naked aggression on our territory". Whether declared or not, "in its reality and in all its gravity" had come to India.

HELP BUY ARMS

Mr. Menon appealed to the people to surrender all the gold they had with them to enable the country to buy the arms needed by the Jawans defending the freedom and integrity of the motherland.

He said that the greater the measure of gold deposit in the Reserve Bank of India, the higher would be the country's credit in the world market. With larger quantities of gold it would be possible for India to buy arms quicker and at competitive rates.

In giving gold to the country he said, the people would, in fact, be providing bullets for the army.

TERRIBLE ACTS OF WAR

Mr. Menon said that Indians were witnessing "terrible acts of war" on their own soil after a lapse of about 100 years.

China, he said, was trying to twist facts and dish out untruth to the world in the hope that it would fool atleast some But to say that India was attacking China was not only untrue but something "fantastic"

He said that India was today faced by a country which had one of the largest armies in the world. They were hurling massive troops into the fight.

It was neither courage, nor ideology nor patriotism on the part of the Chinese, he said, but it was merely "an act of an aggressive country trying to conquer a neighbouring country".

China, he said, had been cunningly preparing for the war. They were equipped with modern weapons and theirs was a country where millions of people could be just ordered to do a thing. These are not excuses. I am trying to place before you the dimensions of the situation.

No sooner had Mr Sen concluded his speech, hundreds of villagers Hindus and Muslims--men, women and children formed a long queue and handed over to the Chief Minister gold ornaments, wrist watches and cash. Some also offered their services for the defence of the country. It took the Chief Minister over two houis to receive the individual gifts amounting in all to twenty gold rings, nearly half a dozen watches, three gold ear-rings and a set of button and Rs 3200 in cash. The silver casket presented to the Chief Minister on the occasion was auctioned at Rs 1001/-.

Mr Sen said the naked Chinest aggression on the soil of India had eclipsed all other problems in the country.

He said his main object in deciding to hold the meeting of the Council of Ministers in villages was to get themselves more acquainted with the local problems. But today, the Chinese aggression had changed the position. People would ave to forget for the time being their local problems. The sanctity of their motherland had been violated and every man and woman in the country must stand unitedly to drive away the aggressors. They must be prepared to sacrifice and undergo sufftrings in the process. It was not that every body would fight in the battle field. But certainly all could contribute to help those who would be fighting by increasing production in the fitld and in factories. He had no doubt, that the people would come forward to accept the Chinest challence and undergo sacrifices to preserve their hard earned independence, Mr Sen added.

Indira's Call To N E F A People

DOOMDOOMA Oct. 28: Mrs. Indira Gandhi today called up on the people not to be pan... by the Chinese ag... and urged that the ... all seven days of the week to boost the coal production.

Workers in various States have announced their decisions to forego their holidays and increase the turnover.

Offers from tens of thousanas of men have come from various parts of the country to enlist in defence and other services.

A Tezpur report stated that a public meeting had decided to make available some 20,000 strong crops of volunteers from Darrang district for the country's defence.

In Delhi rugs woollen cloth ing worth over Rs. three thou sand have been made over to the army authorities as part of the citizen's contribution.

The Government of India have appealed to princes to contribute ten per cent of their privy purses to the National Defence Fund. They have also been requested to contribute generously in gold and subscribe to defence loans.

The All-India Ex-Services Federation has called upon all ex-servicemen and their associations to do their utmost in recruitment for national defence, support civil defence measures and launch a Small Savings drive.

Reports picked up at random said that in Mysore the Mysore City Municipal Council had decided to donate 10,000 rupees.

In Trivandrum the citizens had decided to collect a sum of Rs. two lakhs in the City.

In Indore, some twentythou sand textile workers in six mills had decided to work on a holiday on November 4 and contribute the day's earnings to the National Defence.

The Madhya Pradesh millow ners' associations had collected one lakh of rupees.

In Cuttack some ten members of a leading women's organisation had so far contribu ted fourteen tolas of gold.

Mr Biren Gupta, Deputy ... Minister of Orissa, has ... that he had ... The decision was taken at a meeting of the general committee of the Party here today.

The committee adopted a resolution calling upon all units of the Party in Madhya Pradesh to be prepared to give any help needed by the Government for countering the Chinese aggression. The committee also called upon its members to make collections for the National Defence Fund and enroll themselves in the army "in the present hour of trial".

C.P.I. MEMBERS CALL TO GOANS

The Goa Citizens Committee for National Defence today appealed to all Goans in and outside Goa to contribute liberally to the National Defence Fund.

The President of the committee Justice J.P. Tales in a statement today said: "A war has been thrust upon us by the Chinese aggressors and our brave jawans are fighting in the high Himalayas under terrible odds to defend our border at all costs".

GAUHATI, Oct. 28:

Srimati Indira Gandhi, former Congress President, left here for Dibrugarh by air today She will visit Tezpur tomorrow

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EYE-WITNESS ACCOUNT

(Contd. From Page 1)

Heavy casualties were inflicted on the Chinese during their advance, and nearly a nundred of them were killed during three successive attacks launched by them on this post.

In the other outpost, the Indian army observer's dispatch says: Our jawans were subjected to heavy shelling. The position was reduced to rubble and pactically everybody there died doing his duty. Two jawans from this post were saved as they lay buried in the debris. As they remained trapped there throughout the day, they were able to see the battle from close quarters. U...





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