

DOCUMENTATION OF AVIAN DIVERSITY OF SELECTED PLACES OF TRIVANDRUM AND KOLLAM DISTRICTS



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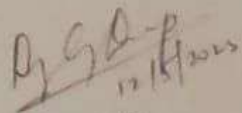
CERTIFICATE

This is to certify that this project entitled "Documentation of avian diversity of selected places of Trivandrum and Kollam districts" is an authentic record of work carried by Ms ..DEVANANDHA..A.V..... under my supervision and guidance, in partial fulfilment of requirements for the Bachelor's Degree of Science in Zoology in the Department of Zoology, All Saints' College, Thiruvananthapuram and no part thereof has been presented earlier for any other Degree, Diploma or other similar titles.



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(Supervising Teacher)

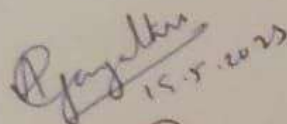


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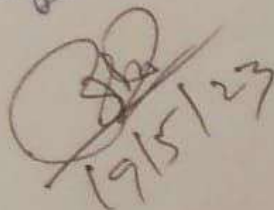
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Examiners : 1



15.5.2023

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DECLARATION

I hereby declare that this project titled Documentation of Avian Diversity of selected places of Trivandrum and Kollam districts is a bonafied record of work carried out by me during the course study and the dissertation has not previously submitted for the award of any degree diploma or fellowship from any other university.

Trivandrum

Signature :

Register No:

May 2023

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Above all I submit this work to the almighty with whose blessings this work has attained its final form

Name :

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ABSTRACT

Documenting the diversity and natural resources of an area is important for the planning and development of that area. It is estimated that there are about 7 – 20 million species on earth, of which about 1.75 million are scientifically described. The vertebrates so far recorded from India include 742 species of freshwater fishes, 212 species of amphibians, 480 species of reptiles, 1166 species of birds and 390 species of mammals. The aim of the project is to document the avian diversity of selected places in Thiruvananthapuram and Kollam districts, identifying the threats to the conservation of the species. and suggestions for the threats. Random surveys were conducted to document the avian diversity. The species were identified in the field itself by referring book and collected local name from the villagers. A total of 37 species of birds were identified from these areas. Major threats identified are the use of pesticides, chemical fertilizers, modifying the lands for developmental activities, dumping waste materials etc. The suggestions mentioned in this report will help to solve/minimise the identified threat.

INTRODUCTION

Documenting the diversity and natural resources of an area is important for the planning and development of a region. It is estimated that there are about 7 – 20 million species on earth, of which about 1.75 million are scientifically described. The vertebrates so far recorded from India include 742 species of freshwater fishes, 212 species of amphibians, 480 species of reptiles, 1166 species of birds and 390 species of mammals. Of these, about 60% of the amphibians and 45% of the reptiles are endemic to Western Ghats. The Western Ghats, one of the biodiversity hotspots of India is rich in vertebrate endemism. The Panchayath level documentation of animal diversity is not done so far in many parts of Kerala. It is important for the preparation of biodiversity register of a Panchayat. The animal diversity of Kerala is documented by several people. They mainly documented the mammalian, avian, reptilian, amphibian and fish diversity. Dr. Salim Ali documented the avian diversity of India and published lot of books on the birds of India and Kerala. Several people documented and studied the ecology of birds in Kerala mainly by Neelakandan, Nameer, Dr. Jayson, Dr. Kurup, Dr. Sivaperuman, and Sugathan. The study areas are occupied with few sacred groves. Sacred groves can be considered as the first means of conservation by the people. These small patches occupy and conserve large number of trees and some herbs and shrubs. This area supports numerous butterflies, birds, and reptiles like lizards, skink, snakes and small mammals including bats. The conservation of sacred groves ensures the conservation animals and plants locally by the villagers. The mangrove areas in Veli and Mundroe islands prevent soil erosion and help in restoring the rain water and acts as the breeding grounds and nursery for many animals including migratory birds and fishes. The dwindling paddy fields and the ponds in the sacred groves pose great threat to the existence of organisms.

OBJECTIVES

1. To document the avian diversity in selected areas of Thiruvananthapuram and Kollam districts.
2. Brief study on the threats faced by the avian fauna in these areas.
3. Get suggestions for the conservation of species and its habitat.

Materials and Methods

Study Areas

TRIVANDRUM DISTRICT

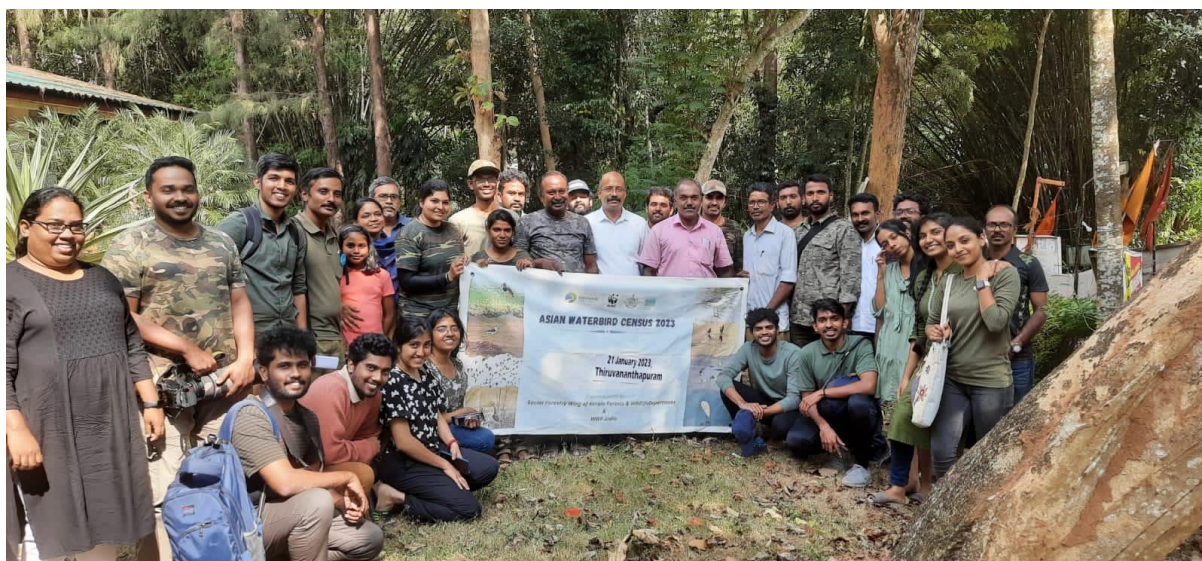
- A. All saints' College Campus
- B. Veli Tourist village
- C. Zoo campus

KOLLAM DISTRICT

- A. Munroe Island
- B. Eravipuram village (paddy field)



Visit to Munroe Island, Kollam



Asian WaterBird Census 2023, Visit to Veli lake and beach, organized by Social Forestry wing of Kerala Forests & Wildlife Department & WWF-India, 21 January 2023



Visit to Veli Lake



Bird Watching at College Campus



1.Black Ibis



Scientific Name: *Pseudibis papillosa*

Local Names: Baza, Kala baza, Karan kul (Hindi); Kalo dochara (Bengali), Kala akohi bog (Assam); Nella kankanam (telugu)

Size: White Ibis-

Field characters: A largish black bird with long curlew-like down curved bill, a conspicuous white patch near the shoulder, and brick red legs. Naked black head with a triangular patch of crimson warts on the crown. Sexes alike. Pairs or scattered parties, on the open countryside.

Distribution: The drier portions of the Indian Union (excepting the western seaboard) south to Karnataka; Pakistan; Bangladesh (rare). Not Sri Lanka. The closely allied species *P. davisoni* occurs in Myanmar.

Habits: Thoughts often found in the neighbourhood of rivers and jheels it is by no means so dependent on water as the Oriental White Ibis, usually feeding around the dry margin higher up and in the surrounding stubble and fallow land. Keeps to favoured localities and roosts in accustomed trees. Parties fly in V-formation by steady wing beats alternated with short glides.

Food: Insects, grain, and small reptiles.

Call: A loud, nasal screaming cry of 2 or 3 notes reminiscent of the Brahminy Sheldrake, uttered mostly on the wing.

Nesting: Season – ill-defined. March to October in North India; November- December in south. Nest – large, cup-shaped, of twigs, lined with straw, feathers; etc. High up in a tree, generally away from water; built singly and not in colonies or amongst mixed heronries. Old eagle's or vulture's nest sometimes utilised. Eggs -2 to 4, bright pale green, either unmarked or with spots and streaks of brown.

2. Paddy field Pipit



Scientific Name: Anthus rufulus Vieillot

Local Names : Rugail, Charchari (Hindi); Suriam, Serwi, Chanchir (Chota Nagpur); Gurapamodi-pitta (Telugu); Pullapurake, Netai-kali (Tamil); Chatuppam, Varamban (Malayalam); Gomaritta (Sinhala)

Size: Sparrow +

Field characters: Rather like female House Sparrow in colouration, dark brown above marked with fulvous; pale fulvous below, streaked with brown on breast. Slimmer, with slenderer bill and longer tail in which outermost feathers white. Sexes alike. Pairs or loose parties, on fallow land, etc. Several other pipits visit our area in winter. They resemble one another closely in appearance and habits, and considerable practice is needed to differentiate them in the field.

Distribution: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Three resident races, separated mainly on depth of colouration; a fourth and larger race, winter visitor.

Habits: Mainly terrestrial. Affects open country, plains and hills up to about 2000 m. Ploughed and stubble fields, grazing land and grass covered stony hillsides are favourite haunts.

Food: Weevils and other small insects. Runs about briskly in spurts and wags tail up and down like a wagtail, but much more slowly. Has the same undulating flight accompanied by a distinctive *pipit, pipit* or *tseep, tseep*, etc. During the breeding season the male soars and flutters a few feet up in the air uttering a feeble cheeping ‘song’, and presently returns to earth. It is a tawdry unimpressive version of skylark’s song- flight.

Nesting: Season- February to October, principally March to June. Nest- a shallow cup of grass, rootlets and hair placed under shelter of a clod or in an old hoof-print. Eggs- 3 or 4, yellowish- or greyish white, blotched and spotted with brown, more densely at broad end. Both sexes share in nest building and tending the young.

3 .Grey Wagtail



Scientific Name : *Motacilla cinerea Tunstall*

Local names: Khakdobbai(Kashmir); Balkatara(Pujab); Haldiyabalimahi(Assam); Mud-tippudu-jitta(Telugu); Valukulukki(Malayalam)

Size: Sparrow+-.

Field Characters: A sprightly long tailed bird chiefly grey and yellow running about singly on ground near rocky streams and trickles in wooded country and forest glades. Sexes alike in winter; chin; throat and upper breast of male black in summer .

Distribution: In winter throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Plains and hills.

Habits: Runs about briskly in spurts chasing tiny insects, turning, and twisting with agility in their pursuit and often springing up into the air to capture winged ones. The tail is incessantly and characteristically wagged up and down. Flight, a series of long undulating curves, produced by alternate quick flapping and closing of the wings. A sharp chicheep, chicheep, etc., is uttered on the wing. The male has a little song in the breeding season.

Nesting: Within our limit's breeds only in the Himalayas between 2000 and 4000 m elevation. Season—May to July. Nest—a cup of grass, rootlets and wool under a stone or among the roots of a bush or tree near a stream, preferably on a small islet. Eggs – 4 to 6, yellowish grey or greenish, freckled with reddish brown, more Enslay at the board end. Both parents tend the young

4. Common Sandpiper



Scientific Name: Actitis hypoleucos Linnaeus

Local names: Polteulanka (Telugu); Kottam (Tami); Sili watuwa (Sinhala); Neerkata (Malayalam); Samanyatutvari (Gujarati); Findon (Maldives Island)

Size: Quail .

Field Characters: Greyish olive –brown above, white below with pale dusky breast and a few dark streaks on fore neck. In flight the brown rump and tail (excepting only the white

outer feathers) distinguishing it from the wood sandpiper. Also, a prominent wing bar usually present. Sexes alike. Singly, at ponds, tanks, tidal creeks and own rocky seashore.

Distribution: Throughout the Indian union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Winter visitor. Habits; one of our ear list immigrants (August) and one of the last to leave (May). A few non breeding individuals remain in their winter quarters all the year. Never collect in flocks, but a few scatter examples sometimes seem together as when driven up the sea shore rocks by the rising tide. Flies with characteristic stiff rapidly vibrating wing stocks close over the water, uttering a shrill piping tee-tee-tee. Besides the flushing note has a pretty, long –drawn trill *wheet*, *wheet* repeated several times when the bird is perfectly undisturbed.

Food: As of other sand pipers, insects, worms, molluscs, etc. Nesting: Season- In Indian limits (Kashmir, Garhwal, Kumaon, etc) May / June. Nest- a slight depression sparsely lined with leaves and rubbish, on a shingle bank or Islet at midstream. Eggs-4, Yellowish buff or stone-colour, blotched and speckled with reddish brown, with phantom marks of lavender or pinkish grey.

5. Red- wattled lapwing



Scientific Name : *Vanellus indicus* (Boddaert)

Local names: Titeeri, Titai, Titi, Titori (Hindi); Tateehar (Sind); Hatatut, Hatatertu (Kashmir); Bilighora, Tetatua (NE. India); Twitwi (Marathi); Titodi (Gujarathi); Yennapachitawa (Telugu); Allkathi (Tamil); Chenkanni (Malayalam).

Size: Francolin+: more leggy.

Field characters: A familiar plover, bronze-brown above, white below, with black breast, head and neck, and a crimson fleshy wattle in front of each eye. A broad white band from behind eyes running down sides of legs to meet the white underparts. Sexes alike. Producer of the well – known Did- he – do-it? calls. Scattered pairs at tanks, puddles, etc.

Distribution: throughout the Indian union up to about 1800m in the Himalayas and peninsular hills; Bangladesh; Pakistan; Sri Lanka, Myanmar. The Indian race indicus concerns us mostly.

Habits: Affects open country, ploughed fields, grazing land, and margins and dry beds of tanks and puddles. Also met with in forest glades around rain-filled depressions. Runs about in short spurt and sips forward obliquely to pick up food in the typical plover manner. Is uncannily and ceaselessly vigilant, day or night, and foremost to detect intrusion and raise the alarm.

Call: a loud, penetrating, Did-he-do-it? Repeat placidly or frantically as the occasion demands.

Food: Insects, grubs, molluscs, etc.

Nesting: Seasons --- Chiefly March to August, Eggs--- 4, stone colour or greyish brown blotched with blackish; egg- top sharpened. Laid on bare ground in open wasteland occasionally with the depression ringed around with a few pebbles. They match the to perfection and are difficult to find.

6. Purple sunbird



Scientific Name: *Nectarinia asiatica* (Latham)

Local Names: Kala pidda(Punjab); Shakarkhora,Phulsoongni (urdu,Hindi);paulchakli (gujarati),Jugi-Jugi(Bhagalpur),Sue (chota Nagpur); Chumka (Marathi);Karupanttenkili (Malayalam);Thena-pitts(Telugu); Then-kudi, Pu-kudichan (Tamil),GewalKurulla(Sinhala)

Size: Sparrow,(White-eye).

Field Characters: Breeding male metallic dark blue and purple, pectoral tufts bright yellow and scarlet. At a distance the bird looks all black. Females are olive brown above a yellowish underside. There is a darkish eye strip. The throat and Brest are yellow, becoming pale towards the vent. The outer feathers are tipped in white both in the male and female. The young are just like females in plumage; however, the males get black feathers as they become adult.

Distribution: The species is distributed widely from west Asia through the Indian subcontinent and into South Asia. They are found in thin forest and garden land, including those in dense urban areas. Local movements are, however, noted especially in the drier parts of northwestern India and Pakistan where they are said to arrive in large number before summer.

Behavior and ecology: These birds are very vociferous and will call and will join to mob owls or other predators. The song is rapid rattle flowed by riningg, metallic notes. Other call notes include a “chwit” or “chwing” notes. The primary breeding season is before the Monsoons, April to June in northern India and January to June Sri Lanka.

Food: They feed mainly on nectar, although they will also take insects, especially when feeding young.

Nesting: The nest is a pouch made of cobwebs, thin strips of vegetation, lichens and bark, The entrance hole on the side is often shaded by an overhanging projection. The nest is built almost entirely by the female. The nest material is not woven and most of it is held together by cobwebs.

7. Greater Racket-tailed Drongo



Scientific name: *Dicrurus Paradiseus* (Linnaeus)

Local names: Bhimraj, Bhangraj (Hindi); Tinkapassalapligadu (Telugu); Hati (Gond); Pallavpuchhakotwal (Marathi); Erattaivalan, Kondaikorichan (Tamil).

Size: Myna.

Field characters: A glossy black drongo with prominently tufted forehead and two long wirelike spatula-tipped feathers or 'streamers' in the tail. In flight the broadened tips sometimes give the illusion of the bird being pursued by a pair of large bumble bees. Sexes alike. Singly or loose parties, in forest.

Distribution: Patchy, more or less throughout India South of the Himalayas east of about Mussooree; Bangladesh; Sri Lanka; Myanmar; Andamans and Nicobar. Six geographical races within this Area, on comparative sizes of wing, tail, crest, and bill.

Habits: Inhabits Forest, preferably moist deciduous, plains and hills. In the Himalayas to 2000m. Teak and bamboo jungle in broken Foothills country is its typical habitat. Commonly seen in hunting parties associated with tree pies and jungle babblers. Very noisy; has a large repertoire of loud metallic calls and is a convincing mimic besides. Its mimicry often

confounds the observer into imagining birds which are not there! Makes an amusing pet and is much sought after by fanciers.

Food: Months and large insects; also flower nectar.

Nesting: Season---chiefly March to June, with considerable local variations. Nest ---- a deep flimsy cup of fine twigs, rootlets and fibres bound together and secured to the site with cobweb. Built in the end fork of a branch, 5-17m (15-50ft) up, in forest. Eggs ---- 3 or 4, mostly creamy white blotched and speckled with reddish brown.

8. Rufous Woodpecker



Scientific Name: *Celeusbranchyurus* (Vieillot)

Local Name: ChempanMaramkothi (Malayalam); Dumburukeralla (Sinhala); MaramkothiThachchankuruvi (Tamil)

Size: Myna

Field Characters: A chestnut-rufous woodpecker, cross-barred with black on wings and tail. The pale edged feathers of the throat produce scaly effect. A crescent shaped crimson patch of feathers under eye in male; absent in females. Otherwise, sexes alike. Pairs in thin deciduous forest.

Distribution: Practically the entire Indian Union; Bangladesh; Sri Lanka; Myanmar

Plains and hills up to about 1500m locally. Three races, chiefly on details of Colouration.

Habits: A typical woodpecker. Affects open secondary jungle.

Food: Largely the eggs, pupae and adults of tree ants (*Crematogaster*) obtained by digging with its bill into the arboreal carton-like nests of these insects. Occasionally eats the pulp of ripe banana and other wild figs, and nectar of Silk Cotton and Coral flowers.

Call: A high- pitched, quick- repeated nasal keen-keenk very like one of the more familiar calls of the common Myna.

Nesting: Season—Chiefly February to April. Nest—a hole excavated in the bill-shaped carton-like nest of *Crematogaster* ants, strangely enough while they are alive and swarming with the ferocious insects! Eggs—2 or 3, pure white, unglossed. The eggs and chicks, as well as the incubating parent, seem to suffer no harm from the ants amongst whom the brood is raised.

9. White Breasted- Kingfisher



Scientific Name: *Halcyon smyrnensis*

Local names: Kilkila, kourilla [Hindi], Tanki [Bihar], Sandabukmachhranga [Bengal], Lali machhsorai [Assam; kalkaliyo [Gujarat], Khandya [Marathi], Lakmuka, Buchegadu [Telugu]; Vichuli, Meenkotti [Tamil]; Ponman [Malayalam]; Pilihuduwa [Sinhala].

Size: Between Myna and Pigeon.

Field characters: A brilliant turquoise-blue kingfisher with deep chocolate-brown head, neck and underparts, a conspicuous white 'shirt front', and long, heavy, pointed red bill. A whitewing-patch prominent in flight. Sexes alike. Singly in cultivated and woody country, both near and away from water. **Distribution:** Plains and lower hills throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Four races based on size and coloration differences.

Habits: The most familiar of our kingfishers and also the least dependent upon water. Seen in ponds, puddles, rain-filled ditches, inundated paddy fields and near the seashore, but also in light forest at considerable distance from water. From a favorite lookout on telegraph wire or post, it pounces down on creeping prey and flies off with it to another perch nearby where the victim is battered to death and swallowed.

Food: Fish, tadpoles, lizard, grasshoppers, and other insects. Occasionally, also young birds and mice.

Call: A loud cackling chiefly uttered in flight. Also has a loud, not unmusical, frequently repeated chattering song, delivered from a tree top or some exposed elevated perch.

Nestling: *Season* – principally March to July. *Nest* – typical of the kingfishers; in a horizontal tunnel dug into the side of a dry nullah or earth –cutting. *Eggs*- 4 to 7, white spherical. Both sexes excavate. Incubate and feed the young.

10. Cattle-Egret



Scientific Name: *Bubulcus ibis*

Local names: Surkhiabagla, Gai-bagle, Badami bagla, Doriabagla [Hindi];Gobak, Gai bak[Bengal];Santikonga [Telugu]; Unni kokku[Tamil,Sri Lanka];Harak-kokka[Sinhala],;Jobogali[Assam];Gochandi khao [Marathi]; Kurk pakkhi [Sindi];San-dung-il [= ‘following after cattle’ -Manipur]; Kalikunti [Malayalam].

Size: Little egret.

Field Characters: In non-breeding pure white plumage distinguished from the little egret by colour of bill, which is yellow, not black. The orange-buff head, neck and back of the breeding plumage render it unmistakable. Sexes alike. Parties, attending grazing cattle.

Distribution: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Only the race *coromandus* concerns us.

Habits: Gregarious. Mostly seen with grazing cattle, stalking energetically alongside the animals, running in and out between their legs or riding upon their backs, and lunging out to seize insects disturbed by their movements amongst the grass.

Food: Chiefly grasshoppers, bluebottle flies, cicadas, and other insects; also, frogs, lizards, fish, etc. Banyan capsules avidly gulped down in season. Roosts at night in favourite trees, sharing these with crows, mynas and other birds.

Nesting: *Season* – chiefly June to August in North India; November to March in the south and in Sri Lanka, varying according to monsoon conditions. *Nest*- an untidy twig platform like a crow's. In mixed colonies with cormorants, paddy birds, etc., in large leafy trees; not necessarily near water and often in the midst of a noisy town. *Eggs*- 3 to 5, pale skim-milk blue.

11.Brahminy Kite



Scientific Name : *Haliasturindus* (Boddaert)

Local names: Brahmanicheel, Sankar cheel, Dhobiacheel, Roo mubarak (Hindi); Shankha cheel (Bengal), Kehe (Santhali), Khemankart (Sanskrit); Garuda (Kannada), Garuda lawa, Garuda mantaru (Telugu); Sem parundu, Krishna parunthu (Tamil), Shemberid (Yerkaliy, Ranga cheelani (Assam); Garudan, Krishna Parundu (Malayalam), Pilyo.

Size: Black kite.

Field Characters: A distinguished-looking raptor, bright rusty red above with white head, neck and breast down to abdomen. Immature birds chocolate-brown separable from both kite and young Egyptian Vulture by shape of tail which is rounded, not forked or wedged.

Sexes alike, Singly, by water river, jheel or seacoast.

Distribution: Throughout the Indian Union

up to about 2000 m in the Himalayas, Pakistan (Partly Bangladesh; Sri Lanka; Myanmar.

Resident and locally migratory Habits: Keeps invariably to the neighbourhood of rivers, jheels,

inundated paddy fields, and fishing villages and harbours on the seacoast Spreads inland during

monsoon for land crabs and frogs in water-logged country. Largely a scavenger in sea ports, picking up scraps and garbage cast overboard ships.

Food: Offal, fish, frogs, small snakes, butts, etc. Winged-termites emerging from rain-sodden ground is hawked in the air.

Call: A course, wheezy squeal as of a Black kite suffering from sore throat. **Nesting:** Season principally December to April. Nest- a loose platform of twigs, lined with green leaves, etc. built up in a large peepul, banyan or similar tree growing near water. Eggs -2, greyish white, speckled and blotched with dingy reddish brown. Both sexes share in the domestic duties.

12. Common Quail



Scientific Name: *Coturnix coturnix* (Linnaeus)

Local names: Bater, Bada bater, Ghagus bater (Hindi); Batero, Batera (Sind); Kurrak, Srapok (Baluchistan); Bhatri (Bengal); Gundri (Orissa); DaobuiKachiba (Cachar); Bota sorai (Assam); Soibol or Sorbol (Manipur), Lovva, Bada ganga. Gurganj (locally in Maharashtra); BarliSipalehakki (Mysore); Gogariyellichi (Telugu); Kata (Malayalam).

Size: Dove minus tail; 17 cm Field

Characters: A plump, squat, almost tailless francolin-like pale brown bird with buff spear-shaped streaks and irregular mottles and bars of reddish brown and black above with an anchor-shaped black mark on throat. Female lacks the black anchor mark on throat.

Differentiated from Rain Quail by presence of buff bars on outer webs or/and primaries. Pairs or gregariously, on ground in cultivation and grassland

Distribution: Practically the entire Indian Union; Pakistan, Myanmar. Not Sri Lanka Two races differing in coloration details. Resident as well as winter visitor. Habits: Affects open country with standing crops, and grassland. Our resident population is vastly augmented during winter by immigrants from W. and C. Asia. Usually keeps in pairs, but large members concentrate in fields where food is plentiful. When such a field is walked up, the binds do not rise in a flock or all at once, but in twos and threes, and offer excellent sport with gun Flight swift and direct; attained by rapid, vibrating wing-strokes. After flying a couple of hundred metres the bird drops into the grass again.

Call: Aloud whistling note followed rapidly by two short ones, described as 'a liquid wet-mi-lips'.

Food: Grain and grass seeds termites, etc. Quails are excellent eating, and are netted in very large numbers all along their migration routes.

Nesting: Season- May, Nest-a shallow scrape, sparsely lined with grass, well concealed in grass or standing crops. Eggs-6 to 14, reddish or yellow buff, speckled and blotched with dark brown

13. Barn owl



Scientific name: *Tyto alba*

Local names: Kuraya, Karail , Buri churi(Hindi) ; Chavukuruvi (Tamil) ; Chaao pitta (Telugu) ; Velimoonga (Malayalam)

Size: Jungle – crow

Field characters: A typical owl, golden buff and grey above finely stippled with black and white; silky white below tinged with buff and normally spotted dark brown. Large round head with a conspicuous ruff of stiff feathers surrounding a comically pinched white monkey like facial disc. Sexes alike. Singly or pairs, about deserted buildings and ruins.

Distribution: The entire Indian union; Bangladesh; Pakistan; Sri Lanka; Myanmar. Two races chiefly concern us. In numerous other races the Barn owl has an almost world-wide range.

Habits: Inseparable from the haunts of man. Deserted buildings and cities and ancient forts and ruins invariably hold their quota. Purely nocturnal. Spends the daytime standing upright and dozing in some dark niche. Emerges after a dusk with a wheezy screech, flying about silently and ghost like, hunting for rats and mice.

Call: A mixture of harsh discordant screams, a weird snoring, and hissing notes.

Food: Almost exclusively rats and mice, hence of great economic usefulness.

Nesting: Season – undefined. Practically all year. Nest – a collection of straw, twigs, rags and rubbish padded into tree- hollows, holes in ruined walls or in the space between ceiling and roof of a dwelling house. The same site is used year after year. Eggs – 4 to 7, white, smooth , roundish.

14. House sparrow



Scientific name: Passer domesticus

Local names: Churi , Ghaschuri (Hindi); Choti charai (Bengal) ; Ghor charika , Gharsuroee (Assam) , Angadi kuruvi (Malayalam)

Size: Bulbul – 15 cm

Field characters: Undoubtedly our most familiar bird. Males with grey crown, black lores around eye, behind eye sides of neck and upper back chestnut. Back rufous – chestnut, black streaked. White shoulder streak on rufous wing. Tail dark brown. Female ashy grey brown above streaked with blackish and rufous, and with a pale fulvous supercilium; fulvous ashy white below. Inseparable from human habitation.

Distribution: Practically worldwide. Throughout India normally to about 2000m in the Himalayas; Bangladesh; Pakistan; Sri Lanka; Myanmar. Apparently absent in the Andaman and Nicobar. Two races; the Kashmiri and north western being larger.

Habits: A confirmed hanger on of man in hills and plane alike whether in a bustling noisy city or outlying forest hamlet. Non breeding birds have favourite community roosts in leafy trees where large number foregather with much noise every evening.

Calls: Chirping call notes too well known. 'Song' of breeding male a loud monotonous tsi ,tsi , tsi or cheer , cheer , cheer uttered ad lib as he fluffs out his feathers, arches his rump droops his wings and struts about arrogantly , twitching his partly cocked tail.

Food: Omnivorous; eat grains, insects, flower nectar, fruit buds and kitchen scraps. Sometimes collect in enormous flocks and does damaging to ripening crops and in market garden.

Nesting: Season – practically all year, the most favoured month varying with locality. Nest – a collection of straw rubbish and feathers in a hole in ceiling, niche in wall, inverted lamp shade and every conceivable site within or without an occupied building. Eggs – 3 to 5, pale greenish white stippled and blotted with brown. Several successive broods are often raised.

15. Large Egret



Scientific name: *Casmerodius albus*

Local names: **Badabagla** (Hindi) ; Badabak (Bengali) ; Bor bog (Assamese) ; Peddapakshi (Telugu) ; Chennarai (Tamil) ; Chayamunti (Malayalam) .

Size: Grey heron- .

Field Characters: A lanky snow-white egret. Legs bare, black, bill black – and – yellow, or yellow. Breeding birds develop a cluster of flimsy ornamental dorsal plumes (‘aigrettes ‘) falling over beyond the tail . Difficult to distinguish from other egrets in non – breeding plumage except the little egret which has parti – coloured black – and – yellow feet.

Distribution: Resident throughout the sub – continent; Sri Lanka; Andamans (winter) . Two races: alba (winter straggler) ; modest (resident) .

Habits: Affects jheels , marshes , rivers , etc. Usually, solitary. Behaviour and feeding habits similar to Grey Heron’s.

Food: Fish, frogs, etc.

Nesting: Season – July to February depending on locality. Colonial, in mixed heronries.

Nest- a flimsy platform of sticks on trees in or near water or trees away from water even in the midst of noisy city streets. Eggs – 3 or 4, pale green. Both sexes Share domestic duties.

16. Indian Peafowl



Scientific name: *Pavocristatus*

Local names: Mor , Manjur , Mayura (Hindi) ; Mayur (Bengali) ; Mur (Sind) ; Mor – male , Landor – female (Maharashtra) ; Manja -male , Mania – female (Orissa) ; Mabja (Bhutia) ; Mongyung (Lepcha) ; Moira (Assamee) ; Wahong (Manipur) ; Dode (Garo) ; Mayil (Malayalam , Tamil) ; Monara (Sinhala) ; Nemali (Telugu) ; Navilu (Kannada) ; Mor – male , Dhel – female (Gujarat) .

Size: Vulture.

Field Characters: The gorgeous ocellated ‘tail ‘of the adult cock, 1 to 15m long, is in reality the abnormally lengthened upper tail – coverts. Hen, also crested like cock but smaller, mottled brown with some metallic green on lower neck, and lacking the ornamental train. Parties or droves, in deciduous forest. Also, locally semi – domesticated about villages and cultivation, where protected by religious sentiment.

Distribution: Throughout the Indian Union, locally up to 1800 m in the Himalayas; Sri Lanka; Bangladesh Replaced in Myanmar by the species *P. Muticus* with a pointed crest.

Habits: Inhabits dense scrub and deciduous jungle – plain and foothill rivers and streams. Polygamous; usually parties of one cock with 4 or 5 hens, but seasonally preferably in the neighbourhood of the sexes separately. Always excessively shy and alert. Slinks away through the undergrowth on its legs, and flies only when suddenly come upon, or to cross a ravine or open river bed. Roosts at night in large trees.

Food: Grain, vegetable shoots, insects, lizards snakes, etc.

Call: A loud harsh, screaming may – awe, and short gasping shrieks ka-ann repeated rapidly 6 to 8 times with a pumping action of head and neck. Cock displays before his bevy of hens erecting and fanning out his showy train, and strutting and posturing to the Accompaniment of paroxysms of quivering.

Nesting: Season – January to October. Nest-a shallow scrape in the ground in a dense thicket, lined with sticks and leaves Egg—3 to 5, glossy pale cream or cafe – au – lait colour. (Reference: Salim Ali)

17. Watercock



Scientific Name: *Gallicrex cinerea (gmelin)*

Local names: Kora, Kanga (hindi); Toobka, Kora (Bihar); Kora, Jalmorag (Bengal); Khorasorai (Assam); Utum (probably from its call-- Manipur); Wil Kukkuls (Sinhala); TannirKozhi (Tamil); theepporikkannan (Maayalam); Coolikukulu (Maldives).

Size: Francolin+.

Field Characters: A rail-like swamp bird. In non-breeding plum sexes dark brown, scalloped with fulvous above, pale buffy brown with wavy dark below. Breeding male black, with a bright red fleshy 'horn' above crown, and legs and eyes.

Distribution: All India south of the Himalayas from Pakistan m and Bangladesh and south to Kanyakumari and Sri Lanka. Also, Andaman and Nicobar Island.

Habits: Marsh haunting; rail-like. Keeps singly or pairs. Largely emerging cautiously into open at dusk or dawn, and in cloudy overcast weather S feed at edge of shrubbery, and scuttles into cover on least alarm. Male highly breeding season.

Food: Largely vegetarian seeds, and green shoots of nut insects and molluscs.

Call: A series of hollow metallic booming utump rapidly repeated. Also, others.

Nesting: Season-chiefly SW. monsoon, June Nest a deep cup-shaped pad of sedges, grass, etc., in a flooded rice field or Eggs-3 to 6 or 8. like coot's eggs, varying from white or pinkish to brick-red blotched and spotted with reddish brown. Details of incubation, etc. unknown.

18. Rose – Ringed Parakeet



Scientific Name: *Psittaculakrameri*

Local names: Tota, Lybartota (Hindi) ; Swa,Suva(E. Madhya Pradesh); Popat, Sudo (Gujarath); popst, Keera (Marathi); Chiluka (Telugu);kili (Tami);Ranna girawa (Sinhala); Tatta, Modirattatta(Malayalam)

Size: Myna with a long-pointed tail.

Field Characters: A smaller edition of the Alexandrine Parakeet, but lacking the maroon shoulder_ patches. Female lacks the black and rose- pink colour of male. Noisy flock about cultivation, in lightly- wooded country.

Distribution: Partially the entire Indian Union, from the Himalayan foothills south. Plains and locally up to 2000m in the peninsular hills. Bangladesh; Pakistan; Sri Lanka; Myanmar.

Habits: One of the most familiar of Indian birds, as much at home in the countryside as within villages and towns. Often bands itself into large flock and is always highly destructive to crops and orchard fruit, gnawing and wasting far more than it eats.

Call: A loud, sharp screaming keeak, keeak,keeak, etc., uttered both at rest and on the wing. Flights swift and direct, with rapid wing beats. Is a popular cage bird, large numbers of young taken from nest being on sale in all bird market. Learns loading and fring of a toy canon.

Nesting: season—chiefly February to April, varying locally. Nest—a natural hollow in a tree-trunk, or one excavated by the birds themselves. Holes in rock scraps and walls of buildings, ruined or in occupation, often within noisy towns, are freely utilized. Eggs—4to6 pure white, roundish oval. Both sexes share all domestic duties.

19.Eurasian Curlew



Scientific Name: *Numenius arquata* (Linnaeus)

Local Names: Goar, Gouch, Bada gulinda (hindi); Choppa, sadakastachura (Bengal); Guniyar (Bihar); Borindo(Sind); Mahawatuwa (Sinhala); Khalili (Gujarath);kuthiraimalaikottam (tamil) ;Valkokku(Malayalam)

Size: Village hen.

Field Characters: A sandy brown wading bird, streaked with black and favours 'to produce the well-known bird pattern'. Lower back and rump white, conspicuous in flight. Its most characteristic feature is the down curved slender bill twelve or fifteen cm (5 or 6 in). Sexes alike. Singly or small parties, on wheels, rivers and the seashore.

Distribution: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka, Myanmar. Winter visitor; chiefly the race *orientalis* with finely streaked underparts. Habits: Runs or stalks along the water's edge or on the seashore at low tide, probing into soft ooze for food; molluscs, crustaceans, insect larvae, etc. Also eats berries of marsh plants, grass shoots, seaweed, and other vegetable matter.

Call: A shrill and wild, plaintive scream coo lee or cur-lew uttered chiefly on the wing. Usually, exceedingly wary and difficult to circumvent. A good sporting bird and esteemed for the table.

Nesting: Season ---in North Europe east to Siberia, April to June. February. Nest--- a twig platform similar to the cormorant's built

20. Oriental Darter or Snake- Bird



Scientific Name: *Anhinga melanogaster* Pennant

Local names: Panwa, pandubi, Banbe (Hindi); silli (sind); Goyar (Bengal); Pamubatu (Telugu); Chakuri (southern Gonds); Pambuttara (Tamil, Sri Lanka); Belli kawa (Sinhala); Begiagit (Assam).

Size: Kite-

Field Characters : A black cormorant-like water bird with silvery grey streaks on the back, and velvety brown head and neck. Chin and throat whitish; tail long, stiff, wedge-shaped. The slender, snake-like neck, narrow head and pointed dagger bill are diagnostic features. Sexes alike, singly, or loose parties, on tanks and jheels.

Distribution: Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar.

Habits: Very like the cormorants except that it is more individualistic, less gregarious and does not hunt in cooperative flocks. When swimming the body remains submerged; only the slender, snake-like neck shows above the surface, swaying and turning this way and that, aptly suggestive of the bird's name. Its staple food is fish. The Darter chases them below the surface with speed, wings held half open and head and neck swaying back and forth like a javelin-thrower poised with his missile. A special contrivance in the neckbones enables the bird to shoot out its bill at the quarry as by a powerful spring. When suddenly come upon, resting

in a tree overhanging water, the bird flop plumb down, 'dragging' through the intervening branches as if shot dead; they dive and scatter in all directions, surfacing again a safe distance away.

Nesting: Season-- Nesting: Season--- North India June –August; south India November-February, gregariously in trees amongst a mixed heronry, usually near water. Eggs--- 3 or 4, elongated, pale greenish blue.

21. White-breasted Waterheron



Scientific Name: *Amaurornis phoenicurus*(Pennat)

Local names: Dawak, Dahak, Dauk (Hindi); Panpaira(Bengal); Kinati(Uttar Pradesh); Ban murghi(Bihar); Jal murghi (Madhya Pradesh); Kuku kombadi(Marathi,Bombay); Davak(Gujarat); Buda kodi(Telugu); Kuraki (Sind); Kureyn (Gond); Paniduboi(Assam); Uren konthou (Manipur); Korowaka (Sinhala); Kanan kozhi(Tamil); Kula kozhi (Malayalam).

Size: Francolin

Field Character: A familiar slaty grey stub-tailed long-legged marsh bird with prominent white face and breast, and bright rusty red under the tail. Sexes alike. Singly or pairs, near needs and thickets, on marshy ground.

Distribution: Throughout the Indian Union up to the base of the Himalayas; Bangladesh; Pakistan; Sri Lanka; Maldives; Myanmar; Andaman and Nicobar. Two races.

Habits: Affects moist ground overgrown with tangles of bushes, Pandanus brakes, etc., on the

margins of jheels and ponds. Wanders considerably afield in the monsoon when low-lying tracts become water-logged. The stumpy tail, carried erects as the bird stalks or skulks along, is constantly jerked up flashing the chestnut colour underneath into prominence. Ordinary shy and silent, but exceedingly noisy during the rainy season when it breeds. Clambers up for calling into the top of a bush whence it can command a good view of its surroundings, without exposing itself.

Call: Beginning with loud, hoarse grunts, croaks, and chuckles, settles down to a monotonous, metallic krr-kwak-kwak, krr-kwak-kwak, etc., or just kook-kook-kook, rather like the coppersmith barbet's but higher in key and faster in tempo. Heard chiefly on cloudy overcast days and often all through the night.

Food: Insects, worms, molluses, grain and shoots of paddy and marsh plants.

Nesting: Season-June to October (SW. monsoon). Nest- a shallow cup of twigs, creeper stems flags of bulrushes, up in a bush near water. Eggs -6 or 7, cream or pinkish white, streaked and blotched with reddish brown.

22. Little Cormorant



Scientific Name: *Phalacrocorax niger* (Vieillot)

Local names: Pan-kowwa, Jograbi, Gandhill (Hindi); Pan kawri, also for shag (Bengal); Neetikaki (Telugu); Kadalkagam, Neerkagam (Tamil); Diya kawa (Sinhala); Kakataravu (Malayalam).

Size: Jungle Crow+.

Field Character: A glistening black duck-like water bird with a longish stiff tail, and slender, compressed bill sharply hooked at the tip. A small white patch on throat, and suggestion of a crest at back of head. Sexes alike. Singly, or gregariously, at tank, jheels, etc. **Distribution:** Throughout the Indian Union; Bangladesh; Pakistan; Sri Lanka; Myanmar. **Habits:** Found on all inland waters; also, brackish lagoons and tidal creeks. Lives exclusively on fish which it chases and captures under water, being an expert diver and submarine swimmer. Flocks occasionally hunt in concert like pelicans. When satiated, perches upright on a rock or stake near water, drying itself with outstretched wings.

Nesting; Season-in N. India chiefly July to September; South India November to February. Nest- a shallow twig platform, like a crow's, in trees usually in mixed colonies of egrets, storks, etc. Both near and away from water. Eggs-4 or 5, pale bluish green, with a chalky surface. (Reference: Biju Prabhakar IAS)

23. Grey Heron



Scientific name: *Ardeacinerea Linnaeus*

Local names: Nari, Kabud, Anjan, Sain(Hindi); Khyara(Bihar); SadakankorKank, Anjan(Bengal); Saa(Sind); (Kashmir);Nazayanapachchi(Telugu); Narai, Sambal narai(Tamil); Charamunti(Malayalam); Kalapuakarawalkoka, Indura(Sinhala); Kudal(Kolis of Maharashtra)

Size: Asian openbill stork

Field Characters: A lanky stork-like bird, ashy grey above with white crown and neck; greyish white below, with long slender S-shaped neck, narrow head, and pointed dagger bill. A long black occipital crest, and elongated white feathers on the breast with some black

streaks. A conspicuous black dotted line down middle of foreneck. Female similar, but crest and pectoral plumes less developed. Solitary, at reedy jheels, rivers etc.

Distribution: Throughout the Indian union up to c. 1400 m in the Kashmir Valley, Bangladesh; Pakistan; Sri Lanka; Myanmar. Resident and migratory. An individual ringed at Amritsar in March was picked up dead the following month at Balkash Lake in Russia.

Habits: Somewhat crepuscular. Wades circumspectly into shallow water with neck craned and bill poised, or stands hunched up but alert waiting for a frog or fish to blunder within striking range. Flies with steady wing beats, neck folded back and head drawn in between the shoulders, the long legs trailing behind.

Call: A deep harsh croak uttered in flight

Nesting: *Season* – mainly July to September in N. India; November to March in the south and in Sri Lanka. *Nest* –a twig platform with the central depression lined with grass, etc. Built gregariously in trees, often amongst mixed heronries. *Eggs* –3 to 6, deep sea- green. Both sexes share all domestic duties

24.Purple Heron



Scientific name: *Adrea purpurea* Linnaeus

Local names: *Lal anjan* (Hindi); Lalkank(Bengali);

LalKol(Assamese);*Yerranarayanatellakonga*(Telugu);*Periavellai*(Tamil);*Perumunti*(Malayalam)

Size: Grey Heron

Field Characters: Bluish grey above with rufous head and neck; black and chestnut below. Bright purple in direct sunlight. Immature birds uniform cinnamon-brown.

Distribution : Resident and locally migratory throughout Indian sub-continent; Andaman and Nicobar; Sri Lanka. Numbers of augmented by winter visitors.

Habits: Largely crepuscular and solitary. Seen at jheels, swamps etc. keeps to dense cover, flies up with a harsh croak when startled.

Food: Fishes, frogs, snakes etc. **Nesting:** *Season*-June to March depending on locality. Usually in exclusive colonies of its own; if in a heronry, segregated to its own species. *Nest* – Platform of sticks etc..., in trees, reed beds *Pandanus*, etc. *Eggs*-3 to 5, pale sea green or greenish blue. Both sexes share parental duties.

25. Indian Thick-Knee



Scientific Name :*Burhinus indicus*

Local names :Indian stone Curlew

Size : 41 cm in length

Field Characteristics : Stocky and brown ground bird with large eyes. It has dark streaks on a sandy brown ground colour and is plover-like. The large head has a dark stripe bordering a creamy moustachial stripe below the eye. There is also a narrow creamy supercilium. The legs are stout and the knees are thick giving them the group name of “thick-knee”. They have large yellow eyes. Sexes are alike and the immature is paler than adult with more marked buff and streaks on the underparts. In flight, they have two prominent white and a white patch on the darker primaries and at rest a broad pale band on the wing.

Distribution: Found in dry deciduous forests and thorn forest, scrubby river beds, groves and even gardens. This species is restricted to Bangladesh, Bhutan, Cambodia, India, Laos, Myanmar, Nepal, Pakistan, Sri Lanka, Thailand and Vietnam. It is found in thin dry deciduous forest, scrub stony hillsides and fallow lands.

Habits: The nidifugous chicks are downy and cryptically coloured and follow the parents soon after hatching. The young chicks freeze and crouch when alarmed and cryptic plumage makes them hard to detect.

Food: The diet mainly consists of insects, worms, and small reptiles and occasionally some seeds.

Nesting :Breeding season is during March and April in Indian subcontinent. The egg laying season in Sri Lanka is during June and July. The nest is a small depression on bare ground or under a bush. These species are monogamous.

26. Yellow billed babbler



Scientific name : *Argya affinis*

Local names : Common babbler

Size :

Field Characteristics : These birds have grey brown upperparts, a grey throat and breast with some mottling and a pale buff belly. The head and nape are grey and the eyes are bluish white. The nominate race, found in southern India, has a whitish crown and nape, with a darker mantle. The rump is pale and the tail has a broader dark tip.

Distribution : This species is patchily distributed in southern India and Sri Lanka. The nominate subspecies is found in Andhra Pradesh, south of Godavari river and Karnataka south of Belgaum into Tamil Nadu. It prefers lower altitudes and drier habitats than the jungle babbler but sometimes is found alongside it.

Habits : The yellow-billed babbler lives in flocks of seven to ten or more. It is very noisy bird, and the presence of a flock may generally be known at some distance by the continual chattering, squeaking and chirping produced by its members.

Nesting : Nests of species are seen throughout the year but the peak breeding season is prior to the onset of the Indian [southwest monsoon](#). Nests are built in trees, concealed in dense masses of foliage. The majority of nests are built below a height of four metres from the ground. The nest is a small cup placed in a fork of a branch. The normal clutch is two to four turquoise blue eggs, although up to five may be laid by birds in the hills of Sri Lanka. The eggs hatch after 14 to 16 days.^[2] The brooding parent bird often stands on the rim of the nest rather than sit on the chicks. [Brood parasitism](#) of the babblers' nests by the [pied cuckoo](#) (*Clamator jacobinus*) is known from both India and Sri Lanka.

27. Common Myna



Scientific name : *Acridotheres tristis*

Local Names : Saarika, Kalahapriya, Chitranetra, Peetanetra, Peedapaad **Size :** Common mynas are 23 to 26 cm long , Weight 82 to 143g and have a wingspan of 120 to 142 mm (Markula Hannan – Jones and Csurhes,2009)

Field Characteristics: The common myna is readily identified by the brown body hooded head and the bare yellow patch behind the eye .The bill and legs are bright yellow .There is a white patch on the outer primaries and the wing lining on the outer side is white. The sexes are similar and birds are usually seen in Pairs

Distribution : The common myna is native to central and southern Asia and is widely distributed throughout India , Afghanistan, Turkestan, Bangladesh, Sri Lanka as well as much of southern China and Indochina ,and there are signs of spread into Iran and north into southern Russian states and former Soviet countries (Feare,Craig etc).

Habits : Common myna is tame and cheeky ,often snatching scraps close to people or domestic animals . Quarrelsome towards each other, they are typically found in small,loose groups. In the breeding season,they are strongly territorial and neighbouring pairs often fight furiously .

Call : The call includes croaks, squawks, Chirps, whistles and growls .

Nesting : Nesting Season –March and breeding lasts through September. Nest –uses the nests of woodpeckers , parakeets etc . Eggs : 4 to 6 .Blue to blue – green colour.

28. Rock Pigeon



Scientific name : *Columbia livia*

Local Names : Rock dove, rock pigeon, common pigeon

Size : 11 – 13 inches in length with a wing span of 20-26 inches

Field Characteristics : Plump bird with short legs and small head. Plumage is variable; some birds are dark grey with green – purple iridescent on the neck. Tail has a dark band at the tip.

Distribution : Originally found in Europe, North Africa and Western Asia and now have become established in cities around the world with an estimated population on 120 million worldwide.

Habits : Forages mostly by walking on ground. Sometimes forages in trees or shrubs to take berries. Both pigeons feed young “pigeon milk” . Young leave nest about 25 – 32 days or later in cold weather. Call is a coo is the low, sweet sound that pigeons make.

Nesting : Season - March to June and again in August to November . Nest - Sheltered cliff ledges are preferred by these birds. In cities , window ledges of tall buildings, barn lofts, rain gutters etc. are used .Eggs –1 to 3 eggs which are white in color.

29. Rufous Treepie



Scientific name : *Dendrocitta vagabunda*

Local Names : Harichacha [Bengali], Olanjaali [Malayalam], Sonpari [Hindi]

Size : 46–50 cm

Field Characteristics : The sexes are alike and the main colour of the body is cinnamon with a black head and the long graduated tail is bluish grey and is tipped in black. The wing has a white patch. The bill is stout with a hooked tip. The under parts and lower back are a warm tawny-brown to orange-brown in colour with white wing coverts and black primaries. The bill, legs and feet are black.

Distribution : The range of the rufous treepie is quite large, covering Pakistan, India and into Bangladesh, Myanmar, Laos, and Thailand. It inhabits open forest consisting of scrub, plantations and gardens. In the Garhwal Himalayas, it migrates seasonally between different elevations.

Habits : The rufous treepie is primarily an arboreal omnivore feeding on fruits, nectar (of *Bombax ceiba* seeds, invertebrates, small reptiles and the eggs and young of birds; it has also been known to take flesh from recently killed carcasses. It is an agile forager, clinging and clambering through the branches and sometimes joining mixed hunting parties along with species such as drongos and babblers. They are known to be a cleaning symbiont of deer, feeding on ectoparasites of sambar which permit them to perch and position themselves to invite the birds to examine specific parts. Like many other corvids, it caches food. It is considered to be beneficial to palm cultivation in southern India due to its foraging on the grubs of the destructive weevil *Rhynchophorus ferrugineus*. It feeds on the fruits of *Trichosanthes tricuspidata* which are toxic to mammals.

Nesting : The Rufous Treepie breeds solitary, both parents participate in building the nest, which is lined with rootlets and small twigs. The female lays 3-6 light greenish or brownish

eggs with darker markings. Both parents share duties in building, incubation and taking care of the young.

30. Black and White Owl



Scientific name : *Strix nigrolineata*

Local Names : Ullu [Hindi], Moonga [Malayalam].

Size : -sized.It is between 35 and 40 cm.

Field Characteristics : As for most owl species, females are usually bigger than males.It has a striped black-and-white breast, belly, and vent. With the exception of a black-and white striped collar, the upperparts from the crown to the tail are a sooty black. The facial disc is mostly sooty black, with white "eyebrows" that extend from the bill to the collar. The beak is a yellow-orange colour, and the eyes are a reddish brown.Chicks are downy and white.Juveniles have a whitish face, dark brown upper-parts and a white-barred black underside.

Distribution : It ranges from central Mexico south to the northwestern section of Peru and western Colombia, a range it partially shares with another related species: the mottled owl (*Strix virgata*). In total, it is found in 12 countries: Belize, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru, and Venezuela. This bird of prey also stays faithful to its range all year long as it is a non-migratory bird.

Habits : This Neotropical bird is a nocturnal hunter and since most of its preys can fly, it forages mostly at the canopy level of its habitat. Primarily insectivorous, the black-and-white owl prefers scarab beetles (Scarabaeidae) such as dung beetles and sometimes prey upon orthopterans and cicadas (Cicadidae). Bats such as the Jamaican fruit bat (*Artibeus jamaicensis*) and other small rodents also make up a large part of its diet. Furthermore, it can occasionally feed on smaller birds like trushes and tanagers as well as amphibians. Its call consists of a series of rapid, guttural, low calls, followed by a short pause and a low, airy call and a faint, short hoot. The female's call usually sounds louder than the male's.

Nesting : The Black and White Owl doesn't build its own nest. Instead, it lays its eggs in epiphytes growing on tall trees, or in natural tree cavities, or even in stick nests built and abandoned by other birds. The female likely lays one egg, which she incubates while the male brings her food.

31. Indian Pond Heron



Scientific name : *Ardeola grayii*

Local Names : Indian pond heron

Size : 40–50 cm (16–20 in) long with an 80–100 cm (30–40 in) wingspan

Field Characteristics : The Indian Pond heron is identified by its brown coloration in nonbreeding and combination of subtle colorations. It is a drab-looking bird that merges

inconspicuously into its habitat but becomes noticeable when its contrasting white wings and tail are revealed in flight. Its flight is fast and agile when taking off and landing in cover.

It is difficult to distinguish from other pond herons. In fact in most situations the nonbreeding adults and the juveniles may not be separable.

Distribution : The Indian pond heron has a large range and in the Indian Subcontinent, it is found in Pakistan, Bhutan, Nepal, India, Bangladesh, Myanmar and Sri Lanka.

In the Persian Gulf, it is found in Iran, Oman and the United Arab Emirates. It is found in Indian Islands. It also occurs in Maldives, Seychelles, Malay Peninsula, Thailand and Vietnam.

Habits : The Indian Pond-Heron uses many types of shallow aquatic habitats, fresh or salt, natural or human made. It appears to somewhat prefer very shallow, nonflowing or slowly flowing situations especially the muddy margins of ponds, jheels, ditches, marshes, rice fields, and irrigated pasture. But also occurs along rivers, streams, lakes, tidal flats, mangrove swamps and reservoirs. It is frequent in human dominated areas, nesting in towns and cities, and takes advantage of feeding opportunities made by human activities. It has been observed to feed in clusters of floating water hyacinth (*Eichhornia*) (Parasharya and Bhat 1987). It ranges from sea level to 2,150 m in India.

Nesting : Begins with the onset of the monsoons. They nest in colonies on large trees. The male bird collects the nesting material and the female constructs the nest. Three to five eggs are laid. Both the parents take turn to feed the young.

32. Black hooded Oriole



Scientific name : *Oriolus xanthornus*

Local Names : Indian golden oriole

Size : Size of 23–25 cm

Field Characteristics : A distinctive medium-sized yellow bird with a black head and breast, black flight feathers, and a red bill. In flight, the black band towards the tail tip is visible. Juvenile is duller overall with a white streaked throat and a darker bill.

Distribution : Subcontinent, up to about 1,000m in the Himalayan foothills.

Habits : It is found in Dry forest and mixed deciduous moist woodlands, open semi-evergreen and evergreen forests, swamp-forest, mangroves, mature second growth, forest edge, scrub, plantations, orchards, mango groves, avenue trees, parks, village groves, gardens, and other cultivated areas. It is Found below 1800 m

Nesting : They breed throughout year peaks in April–August, usually two or more broods per season. Courtship displays include frequent aerial chases and high pitched calls by male. The nest is a deep cup built by both sexes.

The nest is made up of leaves, grasses, thin strips of bark and other vegetable fibers, lined with very fine twigs or grasses, decorated on outside with lichens, woolly fibers, leaves, bark flakes and suspended hammock-like in thin horizontal forked branch at various heights, usually high in outer edge of well-foliage tree canopy, and often close to nest of Black Drongo. They lay a clutch of 2-4 eggs. (Reference: K. K. Neelakantan)

33. Night jar



Scientific name : *Caprimulgidae*

Local Names : Great eared nightjar

Size : About 30 cm (12 Inches) long

Field Characteristics : They are medium- sized nocturnal or crepuscular birds in the family Caprimulgidae. Characterised by long wings short legs, and very short bills. They are sometimes called goatsuckers, due to the ancient folk tale that they sucked the milk from goats or bugeaters, their primary food being insects.

Distribution : Inhabit all continents other than Antartica as well as some island groups such as Madagascar, the Seychelles, New Caledonia and the islands of Caribbean. They are not known to live in extremely arid desert regions.

Habits : It is nocturnal bird with large head, long wings and tail and a small beak. It feeds on moths and other insects. It is brown and grey in colour with dark mottling. During the day, its colour helps it to hide in trees and protect itself from predators.

Nesting : It makes its nest on ground in a small depression like space on ground. Lays two eggs at a time.

Results and Discussion

Sl no	Common name	Vernacular name	Scientific name
1)	Little Cormorant	Kakka taravu	<i>Phalacrocorax niger</i>
2)	Little Egret	Chinna mundi	<i>Egretta ibis</i>
3)	Cattle Egret	Kokku Babulus	<i>ibis</i>
4)	Indian Pond Heron	Kulamuti	<i>Ardeola grayii</i>
5)	Brahminy Kite	Krishna parunthu	<i>Haliastur indus</i>
6)	Red-wattled Lapwing	Chenkanni	<i>Vanellus indicus</i>
7)	Common Sandpiper	Neerkata	<i>Acititis hypoleucos</i>
8)	Blue Rock Pigeon	Kuttappravu	<i>Columba livia</i>
9)	Rose-ringed Parakeet	Thatha	<i>Psittacula krameri</i>
10)	Common Quail	Kaadakkozhi	<i>Coturnix coturnix</i>
11)	White-breasted Kingfisher	Meenkothi	<i>Halcyon smyrneusis</i>
12)	Rufous Woodpecker	Maramkothi	<i>Dinopium javanense</i>
13)	Grey Wagtail	Valukulukki	<i>Motacilla cinerea</i>
14)	Paddy field Pipit	chattuppan	<i>Anthus rufulus</i>
15)	Babbler	Chilappan	<i>Turdoides caudatus</i>
16)	Purple Sunbird	Karapan tenkili	<i>Nectarinia asiatica</i>
17)	Common Myna	Kavalam kili	<i>Acridotheres tristis</i>
18)	Rufous Tree pie	Valkakka	<i>Dendrocitta vagabunda</i>
19)	House Crow	Kakka	<i>Corvus splendens</i>
20)	Indian Thickknee	Vayalkannan	<i>Burhinus indicus</i>
21)	Night Jar	Natturachukku	<i>Caprimulgus asiaticus</i>
22)	Black Ibis	Kashandikokku	<i>Pseudibis papillosa</i>
23)	Black hooded oriole	Manjagaruppan	<i>Oriolus xanthornus</i>
24)	Barn Owl	Vellimoonga	<i>Tyto alba</i>
25)	House Sparrow	Angadikkuruvi	<i>Passer domesticus</i>
26)	Indian Peafowl	Mayil	<i>Pavo cristatus</i>

27)	Eurasian Curlew	Valkokkan	<i>Numenius arquata</i>
28)	Large Egret	Perumundi	<i>Ardia alba</i>
29)	Water Cock	Kulakkozhi	<i>Gallicrex cinerea</i>
30)	Oriental Darter	Cherakkozhi	<i>Anhinga melanogaster</i>
31)	White Breasted Waterhen	Kulakozhi	<i>Amaurornis phoenicurus</i>
32)	Grey Heron	Chaaramundi	<i>Ardea cinerea</i>
33)	Purple Heron	Chayamundi	<i>Ardea purpurea</i>

Comparative Study of Avian Diversity in Trivandrum and Kollam districts

College campus	Zoo	Munroe	Eravikulam	Veli
Rose ringed parakeet	Oriental darter	Black drongo	Rock pigeon	Little cormorant
Shikra	Little cormorant	Oriental darter	Purple swamp hen	Little egret
Indian thick knee	Little egret	Indian pond heron	Cattle egret	Cattle egret
Rock pigeon	Shikra	House crow	Indian pond heron	Brahminy kite
House crow	Black kite	King fisher	Black headed ibis	House crow
Black rumped flameback	Plum headed parakeet	Goose	Brahminy kite	Large billed crow
Rufous tree pie	House crow	Large egret	White throated king fisher	
Common myna	Purple sunbird	Duck	Black drongo	
Asian koel	Black headed ibis	Okkeva	House crow	
Brahminy kite	Black crowned night heron		Common myna	

THREATS TO THE ANIMAL DIVERSITY AND ITS HABITAT

Major objective of this study is to document avian diversity and identifying the various factors affecting the conservation of the species and its habitat. Any change in a habitat will affect the

number, distribution and availability of a species. This will directly or indirectly affect social and economic wealth in an area.

Discussion with farmers revealed that they are using the pesticides and chemical fertilizers on large scale for the cultivation in wet lands mainly on paddy fields. These areas are the home of some fresh water fishes and amphibians and the use of these chemicals will affect the population and survival of the species.

All the drainages like fresh water, back water and marine are interconnected. Change in the land use pattern mainly cultivating other crops in the paddy field reduces the availability of water and it affects fresh water species population and their breeding grounds. The Munroe island village and Veli tourist village has different types of tourism activities like coir weaving, coconut farming on the lakeshore, fishing, prawn and fish farming. Narrow canals and waterways and lagoons, mangrove plants and the beautiful tiny islands attracts so many tourists to these places.

Both Veli and Munroe Island have lot of small water bodies like small pond and canals near to the back water (kayal), which support lot small organisms like crabs, prawns and aquatic plants. Lot of birds including migratory ones are depending this ecosystem for their survival. Recently these water bodies are converted for other developmental activities. One of the serious problems in the back water is the reduction and shrinkage of land due to alteration of the land by the villagers for various developmental activities. Lot of tourists are visiting in these areas especially on Sundays and holidays. They are dumping plastic bottles and carry bags on the water bodies and shore. Residents staying near to this place are dumping electric bulb, tube lights and fishing nets and other non-biodegradable waste materials. These coastal lands are the breeding grounds of sea turtles. The intrusion of saline water into the back water leads to the decline in the fresh and backwater fish population (fishes, prawns, crabs and other microorganisms) together with other aquatic forms. It reduces the growth and regeneration of the aquatic plants in this system. Some aquatic plants are food species of aquatic animals.

The oil spillage from the house boats and other mechanised boats causes severe pollution in the area. Similarly, the plastic wastes dumped into the lakes and adjacent areas cause pollution and are thus serious threat to these habitats. The waterbodies are getting more and more polluted day by day by the irresponsible tourism activities. Solid waste management is one among the basic essential to be provided by the authorities to keep these centres clean. To protect Munroe Island is to utilise the potential of tourism through responsible tourism.

RECOMMENDATIONS

1. Make aware of the villagers about the impact of using chemical fertilizers and pesticides in the agricultural land and promote organic farming.
2. Promote cultivating paddy in wetlands other than converting the land for other types of crops like coconut and tapioca. Prevent them from converting the land for other developmental activities.
3. Make aware of the people about the need of keeping the water bodies near to back water as such for the benefit of other animals. These areas are the breeding grounds of lot of aquatic forms, migratory birds and other invertebrates.
4. Implement strict policy against converting or destroying the back water (kayal) and paddy fields and make aware of the people about the importance of these areas.
5. Erect sign board in the coastal area to make aware of the people about avoid throwing waste materials and importance of a clean beach.
6. Mark danger zone and erect signage on this area will help the visitors and students.

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