

THE BIRDS OF SHOOLPANESHWAR WILDLIFE SANCTUARY: AN ANNOTATED LIST

Despite the fact that in India, as in much of the tropical world today, the continued existence of protected areas is linked to the needs of people living in and around them. Because of the constantly increasing human demands on natural resources it is important to develop and manage protected areas more sensitively than has been done in the past. This can be achieved only if human needs are linked with conservation in a practical manner that would lead to ecologically sound development. However, as almost all ecological niches today, are threatened by biotic pressures, only the notified forest areas are left, which show the semblance of old naturally balanced ecosystem. In spite of the protection afforded by law, National Parks, Wildlife Sanctuaries and Reserved Forests are facing acute pressure from all sides. Unless drastic measures to protect and manage the sanctuaries are initiated, even these last havens of hapless denizens of the earth will disappear.

Nevertheless, to determine the magnitude of change, a thorough knowledge of the existing ecosystem is a prerequisite. Birds, having a strict habitat preference and relatively short generation time are more prone to change in habitat and can be used as an excellent indicator community to assess the modification of existing habitat (Joshua and

Johnsingh, 1986). Therefore, an extensive ornithological survey in Shoolpaneshwar Wildlife Sanctuary (SWS) was undertaken.

All the birds reported in this chapter are the direct sightings done and identified in the field with the help of 'The book of Indian Birds' (Ali, 1979), 'A Pictorial Guide to the Birds of Indian Subcontinent' (Ali and Ripley, 1983a), 'Handbook of the birds of India and Pakistan-compact edition' (Ali and Ripley, 1983b) and 'Birds of India, Bangladesh, Nepal, Pakistan and Sri Lanka' (Grewal, 1993). Birds were observed at various places throughout the sanctuary by using field binoculars (10 x 50 and 7 x 35). The present study was carried out at different seasons spanning from 1990 to 1994. Birds which might have escaped from notice can be some skulking and difficult species like warblers and some such very small birds. Raptors can also be mistaken because of their different plumages, i.e. dark phase and juvenile plumage. Bird sightings all round the year have eliminated this difficulty.

Birds observed in the current study are categorised according to their occurrence year round as follows: Resident throughout the year, Local Migratory, Winter Visitor, Monsoon Visitor, Breeding Visitor and Vagrant.

Abundance of birds are categorised according to Buden (1992) as: Very Common (15-20 sightings/day), Common (10-15 sightings/day), Fairly Common (5-10 sightings/day), Uncommon (1-5 on most days), Scarce (5-15/season), Rare (1-5/season).

Classification and nomenclature of the birds have been done according to the book 'A Pictorial Guide to the Birds of Indian Subcontinent' (Ali and Ripley, 1983a). The description of the birds, given immediately after the name is largely according to Grewal (1993).

OBSERVATIONS

FAMILY PHALACROCORACIDAE

Phalacrocorax niger - Little Cormorant

Resident as a species, but turnover of individuals, aquatic, confined to river (never on streams), swims and dives from the surface; usually seen perched low, may roost high; solitary (but occasionally flocks pass overhead).

At SWS adults were never seen in breeding plumage. The flocks in the air, usually consisted of a dozen or slightly more birds flying in 'V' formation. Usually found in Karjan Reservoir and in River Narmada and Devganga. **Resident** and **Scarce**.

FAMILY ARDEIDAE***Ardea cinerea* - Grey Heron**

Confined to rivers and larger water bodies, very wary; solitary or in groups of three or so; scarce during winter.

This bird was mainly found near the banks of river Tarav and Karjan reservoir. Seen solitary or maximum 3-4. Found feeding upon aquatic animals by wading and stalking prey from slow running or stagnant water. **Resident and Rare.**

***Ardeola grayii* - Pond Heron or Paddy bird (Plate IV a)**

Found near river banks, streams, jheels and small marshes in forest. Commonest of the family in India. Difficult to sight when settled; suddenly springs to notice with a flash of white wings; hunts alone, roosts in groups.

Most commonly found in forest streams, rivers, marshes, etc. Found feeding at the edge of the forest or roosting or perched on tree top overhanging water body at Mozda, Kokam and Dhirkhadi. **Resident and Common.**

***Bubulcus ibis* - Cattle Egret**

Widespread; equally abundant around water and away from it; routinely attends to grazing cattle; feeding on insects disturbed by the animals,

Another commonly found bird around water body as well as away from it. Forest streams, river and rivulets were common and favourite hunting places for them. Places like Sankli Khadi, Kokam, Kokati and Shisha were preferred. Seen in flight in small flocks outside forest areas. **Resident and Very common.**

***Ardea alba* - Large Egret**

Usually solitary, rarely three or four birds scattered over a water body. Towering over other egrets, wades in shallow water, mostly waits patiently for prey to come close.

This egret was spotted very less number of times. Once or twice in Karjan reservoir, twice in Devganga river and once at the banks of River Narmada near Surpan. **Resident and Scarce.**

***Egretta garzetta* - Little Egret (Plate IV b)**

Small flocks or even solitary bird feed at edge of water, sometimes wading into the shallower areas, stalks prey like typical heron.

Plate IV a. Pond Heron a common bird near forest streams and marshes.



Plate IV b. Little Egret with the nestling-not a common sight.



Sometimes seen along with cattle egret. Most of the times it was seen solitary standing near small marsh or stream. Sometimes seen perched on nearby tree top. Seen at Devganga and Tarav rivers. **Resident and Scarce.**

Nycticorax nycticorax - Night Heron

Nocturnal; shy and secretive; roosts in trees during day; at dusk birds leave in small parties to frequent feeding marshes; feeds through the night until early morning.

It was not very easily found in the forest. Usually found hunting near forest streams and was spotted near riverine vegetation with thick growth near Fulsar (at Bogach) and at Mozda. **Resident and Rare.**

FAMILY CICONIIDAE

Anastomus oscitans - Openbilled Stork

The smallest stork in India; widespread over well-watered regions, associates with other storks and herons when feeding; soars along with other birds.

These storks roosting on a dry half submerged tree used to be a common site at Karjan reservoir. Flock of 10-12 birds roosts on dried up trees. Another sighting was at Devganga river near Dumkhal. **Resident and Uncommon.**

Ciconia episcopus - Whitenecked Stork

Found solitary or in small scattered parties, silently feeds along with other storks, ibises and egrets. Stalks on dry land too; settles on trees; soars high on thermals.

Once seen near Karjan reservoir and at other instance seen perched on ground near Dumkhal. Near Fulsar seen soaring high up in the sky on thermals. **Resident and Rare.**

Ciconia ciconia - White Stork

Small scattered parties stalk around sedately for food in open marsh or fellow land; a shy and vary bird, enters cultivation; soars high on thermals.

Due to the migratory status, this bird was seen rarely. Its shy nature also contributes to its rarity. It was spotted near Karjan reservoir. Marshy areas were preferred by this bird for food. **Winter Visitor and Rare.**

FAMILY THRESKIORNITHIDAE

Threskiornis aethiopica - White Ibis

Gregarious, feeds with storks, spoonbills, egrets and other ibises; moves actively in water; the long, curved bill held partly open and head partly submerged as bird probes the nutrient rich ooze.

Once seen flying overhead near Mozda (river). Karjan reservoir and Devganga river near Dumkhal were two other sights where it was sighted singly. **Resident and Rare.**

FAMILY ANATIDAE

Dendrocygna javanica - Lesser Whistling Teal or Tree Duck

Small flocks on edges of jheels and ponds, especially where there is ample vegetation, reeds; mostly a nocturnal feeder; flight slow; often accompanied by whistling calls.

Usually seen near slow running forest streams. Two to three birds in and around vegetation on the sides of streams. Twice seen flying overhead near Sagai and Mohbi. Found moving locally. **Resident and Scarce.**

Tadorna ferrugenia - Ruddy Shelduck

Pairs or small parties, rather wary, rests during day on river banks, sandbars, edges of jheels, prefers clear open water.

This birds were always seen in pairs. Twice on the banks of River Narmada at dam site. Two times the pair was seen flying overhead on the way to Saribar and Surpan. **Winter Visitor and Uncommon.**

FAMILY ACCIPITRIDAE

Elanus caeruleus - Blackwinged Kite (Plate V a)

A dainty hawk, usually solitary or in pairs; resting on exposed perch or flying over open scrub and grass country, mostly hunts on wings, regularly hovering like a Kestrel to scan ground, drops height to check when hovering, with legs held ready. Forest border, sometimes little into forest, commonly seen in open country.

Usually sighted perched on a dry tree, or hovering on a cropfield in the sanctuary area near Kokati, Morjadi and Mokhadi. Presence of agricultural area interspersed with forest makes it a more common bird. **Resident and Common.**

Pernis ptilorhyncus - Crested Honey Buzzard

May be locally migrating during winter. Slender head and longish neck distinctive; tail rarely fanned, solitary or in pairs, perched on forest trees or flying, often enters villages and outskirts of small towns. Occasionally robs poultry apart from usual food i.e. honey and bee larvae.

Presence of this bird is supported by the fact that three species of honey bees are found in SWS. It was found perched usually in the tree tops, scanning the surrounding for food. Three to four times sighted in flight in different parts of SWS viz., Namgir, Gichad, Piplod and Pankhala. Prefers good forested area with water available near by. **Resident/Winter visitor and Scarce.**

Milvus migrans govinda - Pariah Kite

A large brown hawk, common and gregarious, commoner near man, thriving on the refuse generated, often amidst most crowded localities, roosts communally.

It was a very common bird found near human habitation and settlements. Rarely have I come across this bird in interior forest areas. Areas like Mal, Samot, Bhilvasi, and Umarva were preferred as they have higher human population than other areas. **Resident and Fairly common.**

Haliastur indus - Brahminy Kite

Distinguished-looking raptor, solitary or small scattered parties; partial to water; frequently scavenges around lakes and marshes, also around villages and towns, chiefly feeds upon stranded fish, frogs, insects, lizards.

Usually seen near Karjan reservoir in western side of the study area. River Narmada is another site where it was seen. Once seen at the river near Bogach village near Fulsar. **Resident and Scarce.**

Accipiter badius - Shikra

A lightly built hawk, usually solitary; small bird hides in leafy branch, pounces on unsuspecting prey, occasionally chases smaller birds, soars over forest.

Shikra is the bird which was found in all parts of the study area. It was found near Dhirkhadi guarding the nest, near Kelda Khadi getting prey to the nest. Three to four times pairs were seen either perched in the canopy of the leafy tree or guarding the nest alternately. Shikra was seen flying overhead in almost all the parts, whether it is cultivation or rivulet or thick forest or light forest. Also seen near human habitation. **Resident and Fairly common.**



***Accipiter nisus melaschistos* - Sparrow-hawk**

Similar to shikra but closer look reveals the longer legs, rufous cheek patch and absence of mesial stripe. Usually found in large leafy trees, perched on a branch.

This bird was sighted very less number of times. It's similarity with shikra needs closer observation always. Difficult to identify in flight from a distance. It is a migratory bird. **Winter Visitor and Rare.**

***Butastur teesa* - White-eyed Buzzard-Eagle**

A small greyish brown hawk. Distinct white throat with two dark cheek stripes and a third stripe from chin, white nape patch. Solitary or scattered pairs, seen on exposed perches, trees, poles or telegraph wires, seems to prefer certain sites; soars high and does aerial displays when breeding.

This eagle was very commonly distributed in the entire study area. It used to prefer open, dry forest, cultivated areas, however, was also found in forest edges. Unmistakably found on electricity poles or wires at particular site like on the way to Sagai near Andu, near Mathavali and on the way to Kokati. It was spotted practically everywhere in the SWS. **Resident and Common.**

***Spizaetus cirrhatus cirrhatus* - Crested Hawk-Eagle (Plate V b)**

Prominent occipital crest. Large, slender, crested forest eagle. Solitary, occasionally a pair circles high over forests, especially when breeding. Surveys for prey from high, leafy branches near forest clearings of semievergreen or deciduous forests.

In SWS, this bird was reported breeding by earlier workers (Naoroji, 1985). It was seen on large, leafy trees like *Mangifera*, *Madhuca*, etc. Prefers middlestorey for roosting and building nests. Very less sightings of this bird are on the record from Piplod, Kokam and Shisha. **Resident and Scarce.**

***Hieraaetus fasciatus* - Bonelli's Eagle**

Uncrested, long-tailed forest eagle. Solitary or in pairs, flying over forests; pairs often hunts in unison, pounces on prey from lofty perches or strikes in aerial pursuit.

Bonelli's eagle is a very rare bird as far as SWS is concerned. It is a forest bird, but not strictly confined to it. It was found preferring forest canopy and middlestorey for roosting. Seen at three places either in flight or perched on a large tree. Kokam, Ninai Ghat and Vav were the sites. **Resident and Rare.**

Plate V a. Blackwinged Kite one of the common raptors.



Plate V b. Crested Hawk Eagle (immature)



Ichthyophaga ichthyaetus - Greyheaded Fishing Eagle

Mostly solitary, sits straight on lookout perches, usually on trees over and around forest streams or pools, captures fish off surface, does not plunge.

It is a very typical bird. As described in its habits, was spotted perched on a tree top sitting straight near a small nallah on the way to Piplod near Pankhala. Found near forest streams on the branches of trees falling towards water. **Winter Visitor and Rare.**

Gyps indicus - Indian Longbilled Vulture

Gregarious. Frequently seen with other vultures and crows at carcasses and garbage dumps; less common than the white backed but similar in habits. Keeps to open country, forest as well as habitation.

Twice or thrice seen along with whitebacked vultures near human habitation on the periphery of SWS. **Resident and Rare.**

Gyps bengalensis - Indian Whitebacked Vulture

White rump distinctive, gregarious, seen with other vultures and crows at carcass, garbage dumps. When resting, head and neck are dug into shoulders, soars high on thermals, several converge onto a carcass, basks in sun, wades and bathes in shallow water. Keep to open country and human settlements near garbage dumping sites.

Seen near villages soaring high on thermals. Not found inside forests. Villages situated on south, south eastern and south western side were the sites where Whitebacked Vultures were spotted. **Resident and Scarce.**

Neophron percnopterus - Egyptian or Scavenger Vulture

Several usually together, perched atop trees, earthen mounds or just walking on ground; glides a lot but rarely soars high; sometimes with other vultures.

Open country and in the vicinity of human habitation. This vulture was seen along with other two vultures. They seldom enter forest or seen only along the borders. **Resident and Scarce.**

Circus macrourus - Pale Harrier

A slender hawk, singly sailing gracefully over standing crops and grasslands. Keeps to cultivated scrub country and rolling grasslands. Perches on ground in preference to bush or tree.

Open scrubland and cultivated areas bordering sanctuary were the places, where this bird was sighted. Once seen in flight on the way to Mozda and at other time seen perched in the cropfield near Moti Singloti. **Winter Visitor and Rare.**

Circus aeruginosus - Marsh Harrier

Solitary or in pairs; sails low over a marsh, grassland or cultivation, often drops onto ground; frequently vanishing in dense grass and reed growth. Perches on mounds or edge of marshes.

Harriers were very rare in the area. However, sighted near Narmada river, Karjan reservoir and near Surpan. Only once in the forest near Mozda on the river bank. **Winter Visitor and Rare.**

Spilornis cheela - Crested Serpent Eagle (Plate VI a)

Roundish pied crest, visible when erected; characteristic shrill screaming call. Solitary or in pairs, flying over forest, often very high, calling frequently; perches in a leafy branch, swoops down on prey, snatching in talons, raises crest when alarmed.

Serpent eagle was rather one of the very common raptors as far as the SWS is concerned. It is a large bird with peculiar call. Without fail it was spotted or heard at least once when gone out for watching birds. Breeds in the area (Naoroji, 1985). Many a times seen in pairs perched on large foliated trees. **Resident and Common.**

Pandion haliaetus - Osprey

Brown breast 'necklace' seen at rest and in flight; solitary or in scattered parties. Mostly around water; perches on a stake or a tree top. Circles over water, hovers characteristically, dives with feet dangling; often splashes into water, carries fish onto perch.

Rarely seen at waterbodies searching for food. Once seen at Karjan reservoir hovering over water for catching fish. At another time splashing on water and catching fish was seen. Only once seen flying overhead near Fulsar. **Winter Visitor and Rare.**

FAMILY FALCONIDAE

Falco peregrinus peregrinator - Shaheen Falcon

A powerful, alert, broad shouldered falcon, solitary or in pairs, wheeling and gliding around steep cliff sides, has favoured feeding sites, usually some rockface, flight very fast and powerful, dives at prey, indulges in a spectacular display.

Very rarely seen in the forested area. Its fast and powerful flight helps in capturing prey by stooping on them with tremendous velocity. Found preferring cliffs and rocky hills. Seen taking the prey to its favourite feeding site. Spotted near Dhamanmal and at Kalvat. **Resident and Rare.**

Plate VI a. Crested Serpent Eagle perched on a large foliated tree.



Plate VI b. Spotted Owlet near its favourite habitat-dry and dead trees.



Falco tinnunculus - Kestrel

A small slender falcon, solitary or in pairs, on exposed perches, overlooking open country, circles in air and pounces into grass and scrub, often hovers when hunting.

Only twice sighted near waterbody. Once hovering for fish at Karjan reservoir. Another sighting was also near waterbody but the bird was perched on dry tree top near Devganga river. **Winter Visitor and Rare.**

FAMILY PHASIANIDAE

Francolinus pictus - Painted Partridge

Calls diagnostic-high pitched. Pairs or adults with young; great skulkers; extremely secretive and not easily flushed; may roost in trees. Noisy when breeding during S'W monsoon.

As described in habits it was extremely secretive bird. Very difficult to spot. Found in the sanctuary only once or twice for a very short span of time and took to nearby scrub. **Resident and Rare.**

Francolinus pondicerianus - Grey Partridge

Small parties, digging and moving amidst scrub and grass, seen on country roads, dust bathing or feeding, quick to take to cover on being alarmed, scattering over the area.

This was very secretive bird. Did not get noticed until approached. Its habit of hiding when alarmed makes its identification difficult. It was partial to cultivation. Seen on the southern and southeastern boundaries of the sanctuary, where agricultural practice is well established. Villages like Mal, Samot, Sakva and other villages of Sagbara range were the places where it was sighted. **Resident and Scarce.**

Coturnix coturnix - Common or Grey Quail

A plump, squat, almost tailless partridge-like bird. Pairs and small parties on ground; often huge numbers at favoured feeding sites; commoner in winter when numbers augmented; well known Indian bird, both for table as also for fighting and betting.

Usually seen on roadside, flushing off to the nearby cropfield or scrub while moving in the sanctuary. A group of 4-5 birds used to be a usual sight on the edges of cropfield in the forests. Never seen inside the forest. Found near human settlements and nearby agricultural areas. **Resident/Winter Visitor and Uncommon.**

Galloperdix spadicea - Red Spurfowl

Solitary or in pairs amongst dense cover in broken, hilly country; feeds in forest clearings and

forest roads; runs fast on ground; roosts in trees at night. Calls when flushed; partial to scrub in forested, broken hilly country.

Due to its skulking nature, spotting this bird becomes rare. Once seen running on the forest road side on the way to Shisha. But it scuttled away through thickets on approach. Could not have a closer look because of its disappearance in nearby thickets. **Resident and Rare.**

***Gallus gallus* - Red Junglefowl**

Resemble domestic bantam breeds. Small parties, often several hens accompanying a cock, shy and skulking; emerges in clearings and on forest roads; flies up noisily when flushed. Keeps to forest mixed with bamboo and cultivation patches.

Junglefowl have become very difficult to sight due to two reasons, one is because of its skulking habit and the second reason is exploitation of this bird by the local people. Seen at times in bamboo forest near Vav, Kalvat and Namgir. **Resident and Rare.**

***Pavo cristatus* - Common Peafowl**

Familiar bird of India; solitary or in small parties, several females with one or more males; wary in the forested parts, rather tame and confiding in many parts of western and central India around human habitation; ever-alert, gifted with keen eyesight and hearing. Calls at dawn and dusk, very noisy during the rains, when breeding.

Abundance of Peafowl was very striking in this forest. It was found in very small numbers in small pockets of forest. Its keen eyesight and hearing used to make it alert, before we can approach it closely. On most of the incidents it was heard from nearby trees. Found near Thavadiya, Shisha, Chopadi and Samot. **Resident and Scarce.**

FAMILY TURNICIDAE

***Turnix suscitator* - Common or Indian or Bluelegged Bustard Quail**

A typical little quail. Pairs, in scrub and grassland. Found in every type of country excepting dense forest and desert. Partial to scrub jungle, light deciduous forest and neighbourhood of cultivation.

It was seen near cropfield and open scrubland near villages. Also in forest clearings and near forest edges. Due to agricultural practice, these type of birds find themselves comfortable in the SWS. **Resident and Rare.**

FAMILY RALLIDAE

Amauromis phoenicurus - Whitebreasted Waterhen

Solitary or in small parties; often around village ponds and tanks, occasionally derelict patches in towns, jerks stumpy tail as it walks with long strides; climbs trees easily, especially when breeding. Very noisy when breeding during rains, often calls through the night, silent during dry season.

Reed-covered marshes, ponds and forest streams were the sites where this bird moving jerkily was found. Often hides behind the reeds. River near Mozda and Sagai were the two sites where it was sighted most of the times. During monsoon and post-monsoon seen at some streams in the forest near Kokam and Piplod. **Resident and Uncommon.**

Gallinula chloropus - Indian Moorhen

Usually in small parties, commoner in winter; moves amidst marsh vegetation, jerking tail; good swimmer, jerks head as it swims. Noisy when breeding.

Mostly seen in the forest streams covered with reeds and vegetation during winter. Its jerky movement and bright red coloured bill used to make it conspicuous through the vegetation. Scattered throughout the area on banks of forest streams with grassy marshes. Spotted near Mozda riverside, Sankli Khadi, Kelda Khadi and Sagai (near river). **Winter Visitor and Uncommon.**

FAMILY RECURVIROSTRIDAE

Himantopus himantopus - Blackwinged Stilt

A lanky bird, gregarious; large numbers, often along with other waders on a wetland; long legs enable it to enter deeper water; clumsy walk; submerges head when feeding; characteristic flight silhouette. Noisy when breeding.

Local migration was also observed in this bird which might have made its abundance scarce in this area at one particular point of time. Usually seen at the edge of Narmada river near Surpan, Devganga river near Dumkhal and at Karjan reservoir. Also at the Tarav river near Sagai, Nani Singhloti and Fulsar. **Resident and Scarce.**

FAMILY CHARADRIIDAE

Vanellus indicus - Redwattled Lapwing (Plate VII a)

A familiar plover, solitary or pairs when breeding; often large flocks in winter; moves on open ground, feeds during mornings and evenings; vigilant species, its loud cries heralding any new

activity in an area; often feeds late into evening. Noisy; dive-bombs at intruders when breeding, shrieking wildly.

Redwattled lapwing announces its presence by its typical call. Open country was its favoured site. Bhilvasi, Jharvani, Sagai, Duthar were the sites where these were spotted either guarding the nest or alarming the intruders about its presence. **Resident and Fairly common.**

Charadrius dubius - Little Ringed Plover

Typical little plover, small numbers, often along with other waders; runs on ground, on ooze and drying jheels, walks with characteristic bobbing gait, picking food from ground; when approached close, flies rapidly low over ground, zigzag flight accompanied by a whistling tone.

This little bird was seen on riverbanks walking on moist soil. Also inside the forest at one or two places on river bank. But mainly seen on the major river banks and at Karjan reservoir. **Resident or Local migrant and Scarce.**

Limosa limosa - Blacktailed Godwit

A variegated brown and white wader, gregarious, often with other large waders; quite active, probing with long beak; wades in water, often the long legs barely visible; fast and graceful, low flight.

Very rarely sighted on the river banks along with other waders. It was partial to marshy areas. Once spotted at Devganga and Tarav river near Sagai. **Winter Visitor and Rare.**

Tringa totanus - Redshank

Small flocks, often with other waders; makes short dashes, probing and jabbing deep in ooze; may also enter water, with long legs completely submerged; rather alert and suspicious bird.

These birds were found not very commonly inside the forest area. They were found on the shore of a big waterbody or on the banks of the river. Once seen at Karjan reservoir and on the banks of Narmada river. **Winter Visitor and Scarce.**

Tringa nebularia - Greenshank

Either solitary or small groups of 2 to 6 birds, often with Redshanks and other waders; feeds at edge of water but may enter water to belly level.

This bird was seen at the same places as that of Redshanks. **Winter Visitor and Scarce.**

Tringa glareola - Wood Sandpiper

Small to medium size flocks, often with others; quite active, probing deep into ooze or feeding at edge. Quite noisy; sharp, trilling notes on ground; shrill calls when flushed.

Seen inside the forest area on the riverside and along the forest streams. Marshy area created after monsoon was also preferred by them. Mix flocks of waders were seen along watercourses. Spotted all along Tarav river at different places and also at Bogach village near Fulsar. **Winter visitor and Scarce.**

Tringa hypoleucos - Common Sandpiper

One to three birds, either by themselves or scattered amidst mixed wader flocks; quite active, makes short dashes, bobbing, wagging short tail; usually flies low over water, the rapid wing beats interspersed with short glides ('vibrating flight') help in identification.

Seen along with other waders at all the watercourses. Seen flying low over water, whenever any stream was approached. Quickly took to fly when flushed and uttered the typical call. Near Kokam waterfall, Bhilvasi, Dhirkhadi and also at Ninai Ghat it was seen. **Winter Visitor and Uncommon.**

FAMILY LARIDAE

Sterna aurantia - Indian River Tern

Solitary or small flocks, flying about erratically; keeps to riversides, calm waters, large tanks; scans over water, plunging if possible prey is sighted, rests on riverbanks, often dozens together; noisy and aggressive, especially at nesting colonies (March to mid June).

Terns were seen mainly flying near waterbodies. On the Narmada river bank it was seen resting in small groups of 3-4 birds. Usually seen singly near Karjan reservoir and in Dumkhal on the banks of Devganga river. **Resident and Scarce.**

FAMILY COLUMBIDAE

Treron phoenicoptera - Yellowlegged Green Pigeon

Small flocks; mostly arboreal, rarely coming to salt-licks or cropland; remains well hidden in foliage but moves briskly; has favourite feeding trees.

This green pigeon used to make its presence felt by its rich, mellow whistling call from a large leafy tree. Usually found perched or feeding on fruits, flowers or figs. *Madhuca* flowers were favoured by them. Found perched on trees on the way to Namgir, Piplod and Kalvat. **Resident and Scarce.**

***Columba livia* - Blue Rock Pigeon**

Wild variety affects open country with cliffs and rocky hills. Mostly seen in semi-domesticated conditions. Wild birds occupy cliffs and glean in outlying cultivation.

Presence and abundance of this bird was due to human habitation and agricultural practice in this area. Availability of grains and cereals was the main reason why they flourish well in the sanctuary. **Resident and Common.**

***Streptopelia decaocto* - Indian Ring Dove**

Small parties when not breeding; often associates with other doves; large gatherings glean in cultivated country; strong fliers, chases intruders in territory.

This dove was found in forest as well as near human habitation. It was spread practically all over the area. Habitat alteration makes it more common a bird in any part of the study area. **Resident and Very common.**

***Streptopelia chinensis* - Spotted Dove**

Pairs or small parties on ground; frequently settles on paths and roads, flying further on intrusion; quite tame and confiding in many areas; drinks often; at harvest times, seen along with other doves in immense gatherings.

Spotted dove, a beautiful bird, was very easily spotted due to its diagnostic chessboard pattern on its hindneck. Its typical call and this characteristic pattern, used to announce its presence in the forest. It was also found near human settlements gleaning grains and seeds and feeding in cropfields. It was present all over SWS. **Resident and Very common.**

***Streptopelia senegalensis* - Little Brown or Senegal Dove**

Pairs or small flocks; associates freely with other doves in the huge gatherings at harvest time; feeds mostly on ground, walking about silently.

Little brown dove is a small, dull coloured bird. Found on forest floor clearing walking and gleaning silently. On approach flushed to nearby scrub or a tree. Usually found keeping to cultivated lands. **Resident and Common.**

FAMILY PSITTACIDAE***Psittacula eupatria* - Alexandrine Parakeet**

Both flocks and large gatherings; feeds on fruiting trees in orchards and on standing crops, often causing extensive damage; strong fliers; roosts along with other birds at favoured sites. Scream on wings as well as on perch; popular cage-bird, learning to imitate some notes and human words.

It is the largest parakeet in the study area. Presence of plenty of fruiting trees in the forest has made their feeding easier. In any season round the year some trees are in fruiting, providing food to all frugivores of the area. Seen at few places on the forest edge. This bird was equally found in forest interiors and forest clearings. Sometimes seen perched on the tree top or in the canopy of some fruit bearing trees. Its screams were also heard in flight. It is also called 'Surpan Popat' named after the famous temple of Lord Shiva 'Surpaneshwar'. It is popular as a cage bird and fetches high price when sold due to which its population is dwindling making it scarce in abundance. **Resident and Scarce.**

Psittacula krameri - Roseringed Parakeet

Gregarious; large flocks of this species, familiar sight in India; cause extensive damage to standing crops, orchards and garden fruit-trees; large roosting colonies, often with mynas and crows.

Parakeets were found all over the study area, that too roseringed was found in any corner of the forest. It was omnipresent, may it be forest interior, forest edge, cropfield interspersed with forest or plantation, they were found there. Their presence used to be announced by their call and sudden flight from a tree top. Seen exploiting the available food resources. Agricultural practice has led to habitat alteration which has become advantageous to this type of birds. **Resident and Very common.**

Psittacula cyanocephala - Blossomheaded Parakeet (Plate VII b)

Pairs or small parties; arboreal, but descends into cultivation in forest clearings and outskirts; sometimes huge gatherings in cultivation; strong, darting flight over forest.

At times was mistaken with roseringed but later got confirmed by the typical flight. Smallest parakeet in the area. Usually seen in pairs on fruit bearing trees like *Madhuca*, *Ficus*, etc. Also seen feeding upon flower petals and nectar of some trees like *Butea*, *Erythrina*, *Bombax*, etc. Spotted near Vav, Tukner and Dhirkhadi. **Resident and Uncommon.**

FAMILY CUCULIDAE

Clamator jacobinus - Pied Crested Cuckoo

A handsome, crested black and white cuckoo. Solitary or in small parties of four to six; arboreal; occasionally descends to ground to feed on insects, arrives just before south-west monsoon by the end of May; noisy and active, chasing one another, mobbed by crows on arrival.

Plate VII a. Redwattled Lapwing a common bird in scrub land.



Plate VII b. Blossomheaded Parakeet perched on a thorny bush near human habitation.



It was found arriving in the area just prior to south-west monsoon. It is also a breeding visitor. Found feeding on fruits and caterpillars which are abundant from June to August during the rainy season. Seen in the forest interiors on large *Madhuca* or *Mangifera* trees at Namgir, near Shisha and on the way to Zarvani. Perched on the top of the large leafy tree or heard calling from a branch of canopy. **Monsoon Visitor and Scarce.**

***Cuculus varius* - Common Hawk-Cuckoo or Brainfever Bird**

Slender bird, very much like Shikra. Solitary, rarely in pairs; strictly arboreal; noisy during May-September; silent after rains. Famous call-notes; interpreted as brain-fever, uttered untiringly in crescendo; also described as papeeha...papeeha, very noisy in overcast weather.

Brainfever bird was one of the most heard bird during rainy season. It was more heard from the foliated large trees than seen. Its call announces its presence from the canopy of forest trees. It was found in forest interiors as well as forest clearings. Heard near Chopadi and Waghumar and seen at Sagai. **Resident and Scarce.**

***Cacomantis passerinus* - Indian Plaintive Cuckoo**

A slim arboreal bird, mostly solitary; keeps to foliage but often emerges to launch short sally or to move from one patch to another; active and noisy, chiefly during monsoon.

This cuckoo was easily overlooked apart from rainy season. So the exact status is not known. It is believed to be moving seasonally. It was widespread and common in forested area. But its secretive nature was the reason, why it was not spotted easily and making its abundance scarce. It was found perched on a dry tree near Thavadiya and once on a foliated tree on way to Piplod near Pankhala. **Resident/Local Migratory and Scarce.**

***Eudynamys scolopacea* - Indian Koel**

Solitary or in pairs; arboreal; mostly silent between July and February; fast flight.

It is a very famous bird of Indian countryside with a familiar call. Koels were very noisy between March and June, when the breeding season of crows coincide. It was usually seen and heard from all parts of the study area. It was heard from large *Madhuca*, *Mangifera* and such foliated trees. **Resident and Uncommon.**

***Taccocua leschenaultii* - Sirkeer Cuckoo**

Solitary or in pairs; sometimes four or five birds in the neighbourhood. A heavy tailed bird, move mostly on ground, in dense growth; may clamber out on some bush-tops or low trees; flight weak and short.

This non-parasitic cuckoo is a bird of undergrowth of forest. Small shrubs and coppices of trees were favoured. Twice or thrice spotted perching on very low branches of trees. Took to flight, which is very rare. Usually seen hopping from one branch to another. Seen in open as well as good forest of Vav and Kalvat and also on the way to Kokam. **Resident and Rare.**

***Centropus sinensis* - Crow-Pheasant or Coucal**

A clumsy bird with long broad tail. Solitary or in pairs; moves amidst dense growth, fanning and flicking tail often; clambers up into trees, but is a poor flier, lazily flying short distances.

Coucal was usually met with, whenever gone out for watching birds. Either heard from nearby undergrowth or seen hopping from lowest branch of the trees to upper branches. Seen searching for food from the forest floor. Equally spotted from all over the SWS. Its familiar call had become part of the daily routine. **Resident and Fairly common.**

FAMILY STRIGIDAE

***Tyto alba* - Barn Owl**

A typical owl; solitary or in pairs; nocturnal but sometimes hunts during day; normally rests during day, mostly in a tree cavity, dense creeper or some dark loft; perches upright; flies silently, mostly under 4 m from ground; pounces on prey.

Very rarely seen because of its habit. Once seen perched on a large tree near Kelda Khadi and at another instance seen in flight from one tree to another on the way to Piplod at night time. Reptiles and rodents are in abundance in the area making these birds' foothold stronger. **Resident and Rare.**

***Bubo bubo* - Eagle-owl or Great Horned Owl**

Solitary or pairs; mostly nocturnal; spends day in leafy branch, rock-ledge or an old well; flies slowly but considerable distances when disturbed; emerges to feed around sunset; advertising its arrival with its characteristic call.

It was a very remarkable owl, due to its size. One pair seen at the Surpan temple near the cliff edge. Regurgitated food pellets were collected from there. Near Jharvani and Dhirkhadi pairs were spotted during day time perched on large leafy trees of *Holarrhena* and *Terminalia* and took to flight when approached for photography. Seen in all parts of the study area. **Resident and Uncommon.**

Bubo zeylonensis - Brown Fish Owl

A large, heavy brown owl; singly or in pairs; nocturnal; found near overgrown ravines and in the neighbourhood of jheels and streams and also in groves of ancient densely foliated trees.

It is a typical bird of the area with streams crisscrossing it. Large trees overhanging rivulets and streams seems to provide shelter to such birds. Very rarely spotted. **Resident and Rare.**

Glaucidium radiatum - Barred Jungle Owlet

Solitary or in pairs; crepuscular, but sometimes also active and noisy by day; otherwise spends day in leafy branch; flies short distance when disturbed.

It looked much like Spotted Owlet but was darker. It got camouflaged very easily when perched on a branch of a well foliated tree during the day time. Not seen very easily and frequently. Comparatively a shy bird than Spotted Owlet. Seen near Shisha, Sagai, Kanjal and Namgir. **Resident and Scarce.**

Ninox scutulata - Brown Hawk-Owl

Very hawk-like in appearance and movements; in forest and well wooded country with groves of trees along streams and nullahs, often close to habitation; crepuscular and nocturnal; spend day time in shady trees.

This owl has quite a hawk-like flight with rapid wing-beats and striking glides. Its a very widely spread bird all over India. With an abundant prey-base this hawk-owl has a very important place in the food pyramid of SWS. Seen once near Fulsar and again at Sagai. **Resident and Rare.**

Athene brama - Spotted Owlet (Plate VI b)

Pairs or small parties; roosts during day in leafy branches, tree-cavities or cavity in wall; active in some localities during daytime; disturbed birds fly to neighbouring tree or branch and bob and stare intruder.

This little owl was usually seen in pairs sitting huddled on a branch of a tree. Due to agricultural practice and human settlements in the forest they find wider and easy prey-base. Their abundance may increase due to further habitat alterations. **Resident and Uncommon.**

Strix ocellata - Mottled Wood Owl

Dumpier and shorter tailed owl. Solitary or in pairs; nocturnal, spends day in dense foliage of large trees; leaves roost after sunset.

The habit of roosting in foliated tree and greatly camouflaging plumage might be the reason for its rare abundance. A bird of forest interior as well as open country with human settlements. Spotted near Namgir, Gichad and near Sagai. **Resident and Rare.**

FAMILY PODARGIDAE

Batrachostomus hodgsoni - Hodgson's Frogmouth

Solitary and little known; nocturnal and crepuscular; spends day perched absolutely motionless on branch in thick forests; appears like a stump and extremely difficult to spot; on disturbance merely points beak towards sky.

It was a surprise, spotting this bird in this part of the country. When sighted, at night, on way to Chopadi, it was found motionless on the forest floor. Tried to fly when approached very closely but got caught in hand. **Vagrant and Rare.**

FAMILY CAPRIMULGIDAE

Caprimulgus asiaticus - Common Indian Nightjar

A soft-plumaged bird; solitary or several scattered; crepuscular and nocturnal; squats during day, along a branch's length or on rocky ground amidst dry leaves; extremely difficult to spot unless almost stepped upon; flies around dusk, hawking insects in zigzag flight; settles on cart tracks and roads.

Complicated camouflaging pattern and habit of crouching on ground by day made its sightings difficult. Seen at dusk time hawking insects in a typical zigzag flight. It was a pleasure watching it capturing insects. On the way back to Sagai saw it near Sagai and once on the way to Dhirkhadi. **Resident and Scarce.**

FAMILY APODIDAE

Apus affinis - House Swift

Highly gregarious; on the wing during day, hawking insects, flying over human habitation, cliffs and ruins; strong fliers, exhibiting great mastery and control in fast wheeling flight; frequently utters squealing notes on wing; retires to safety of nest-colonies in overcast weather.

A powerful flier with long and narrow wings, swifts were very common sight during the day time near human habitation. Their activity seems to be shooting up at the time of sunset near cliffs, where they usually roost in their nest colonies. Their shrill calls

remind us of their presence in the area. Seen at Piplod, Sagai, Nani Singloti and Fulsar.

Resident and Very common.

Cypsiurus parvus - Palm Swift

A slim bird with long slender bow-like wings. Sociable; small parties in open, palm-dotted country; strong in flight, and uttering lively screaming notes on the wing; hawks insects all day, occasionally rising very high; roosts on underside of palmyra frond (leaf).

Abundance of this bird is directly related with palmyra palm (*Borassus flabellifer*). Palm swifts were seen roosting in this tree and their life revolve around this tree. Due to the practice of extracting 'Toddy' from *Borassus* tree, this tree has not experienced the axes of tribals. Wherever there was human habitation, these palms were present and that ensured the presence of palm swifts. Towards the southern and southeastern boundaries, near human habitation these birds were found. **Resident and Very common.**

FAMILY ALCEDINIDAE

Ceryle rudis - Lesser Pied Kingfisher

A speckled black and white bird with the typical, stout, dagger-shaped bill. Solitary, in pairs or in small groups; always around water, either perched on poles, tree-stumps or rocks; hovers when hunting, bill pointed down as wings beat rapidly; dives fast, headlong on sighting fish; batters catch on perch; calls in flight.

This kingfisher though rare was seen practically all over the area in SWS either single or in pairs. It hardly went unnoticed due to its remarkable habit of hovering over water and call while flying. It is a spectacular display. Availability of water in the streams and rivulets more or less throughout the year and easily available prey-base makes their living comfortable in the study area. **Resident and Rare.**

Alcedo atthis - Common or Small Blue Kingfisher

A little kingfisher with dapper blue and green colour. Solitary or in scattered pairs; never found away from water; perches on pole or overhanging branch; flies low over water, a brilliant blue streak, uttering its shrill notes; sometimes tame and confiding; dives for fish from perch; occasionally hovers over water before diving.

A small bird near waterbody or slow running stream perched on a nearby overhanging branch was common sight. Its shrill voice used to be heard from near the

water. Seen from all over the area either flying rapidly and low over the water or diving for fish. Found near Keldakhadi, Ninai Ghat, Sagai, Kokam to name few places. **Resident and Common.**

Halcyon smyrnensis - Whitebreasted Kingfisher

Solitary or scattered pairs atop overhead wires, poles, treetops, frequently found far from water; drops onto ground to pick prey.

It was a common bird all throughout the study area, either near water or away from it. Found so many times sitting on a overhead telegraph wire or on a treetop. Sometimes seen perched on a lower branch of a tree overhanging a river or a waterbody. It was found nesting near water in the earth cutting or on the side of a nallah. **Resident and Common.**

FAMILY MEROPIDAE

Merops philippinus - Bluetailed Bee-eater

Usually small flocks, frequently in vicinity of water; launches short elegant flight, a few quick wing-beats and a stately glide.

Usually seen near water and riverside, perched on earthen mounds. They were not spotted round the year, but during winter they were seen frequently. They nest in a tunnel dug like that of kingfisher's in the banks of river or nallah. **Breeding Visitor and Fairly common.**

Merops orientalis - Green Bee-eater

A dainty grass-green bird. Small parties; perches freely on bare branches and overhead telegraph wires; attends also to grazing cattle, along with drongos, cattle egrets and mynas; launches graceful sorties after winged insects; batters prey against perch before swallowing.

A very commonly seen bird all over the study area, may it be a forest edge or forest clearing; human settlement or cropfields. This bird was seen doing aerial sallies for capturing winged insects. In the morning they were seen huddled together on a branch of a tree or on a telegraph wire. Places like Andu, Ingawadi, Nani Singloti, Piplod and Ladwa are preferred due to the habitat type. **Resident and Very common.**

FAMILY CORACIIDAE

Coracias benghalensis - Indian Roller (Plate VIII a)

A striking Oxford-and-Cambridge blue bird. Solitary or in pairs; perches on overhead wires, bare branches, earthen mounds, small bush tops; either glides and drops on prey or pounces suddenly; batters prey against perch before swallowing.

A bird which is very hard to miss. It was found present somewhere on the telegraph wire or on a dry tree or on top of a palm tree. Its manoeuvring capabilities are tremendous which can be seen during the breeding season. Two to three times a pair was seen involved in aerial display on the way to Dumkhal, Ladwa and Thavadia. When indulge in courtship display they became very noisy. Exuberant screeching and diving and tumbling and screaming wildly were the common scene during breeding season. **Resident and Very common.**

FAMILY UPUPIDAE

Upupa epops - Hoopoe

A fawn coloured bird with a conspicuous fan-shaped crest. Solitary or in scattered pairs; small loose flocks in winter; probes ground with long, slender gently curved beak, sometimes feeding along with other birds; flits among tree branches; crest often fanned open; becomes rather aggressive with the onset of breeding season.

It is a rather silent bird. Quietly seen operating on forest roads and lower branches of roadside trees. Never seen in the interior forest. It was usually found in forest clearings, forest edge and near cropfields at Tukner, Ladwa, on the way to Zarvani and Sagai. Its fanned out crest was very remarkable from distance. Apart from breeding season, not heard much. **Resident and Common.**

FAMILY BUCEROTIDAE

Tockus birostris - Common Grey Hornbill

A clumsy grey bird with an enormous, curved bill, surmounted by a peculiar protruberance or casque. Pairs or small parties; sometimes large gatherings; mostly arboreal but descends to pick fallen fruit or a lizard; feeds along with frugivorous birds on fruiting trees; noisy, undulating flight.

Grey hornbill is a typical bird of forests like SWS. Plenty of fruiting trees were present that support such birds. Large trees with big girth helps them in providing nesting

places. Its abundance was rare, may be due to its arboreal nature that may make its sightings difficult when on a large foliated tree. Seen at Saribar and on the way to Waghumar. A deserted nest was also seen at Saribar. **Resident and Rare.**

FAMILY CAPITONIDAE

Megalaima zeylanica - Large Green Barbet

Solitary or in pairs; occasionally small parties; strictly arboreal; keeps to fruiting trees, often with other frugivorous birds; difficult to spot in the canopy; noisy in hot season; strong, undulating flight.

More heard than seen. Usually found on the canopy of the trees. A group of six birds were sighted on a *Ficus racemosa* near Ninai Ghat. Once spotted near Sagai on a tree top. Its call is one of the most familiar sounds of Indian forests. Seen on flowering trees like *Butea* and *Erythrina* capturing insects and taking flower nectar. **Resident and Fairly common.**

Megalaima haemacephala - Crimsonbreasted Barbet or Coppersmith

A heavy-billed dumpy looking grass-green barbet; solitary, in pairs or small parties; strictly arboreal; feeds on fruiting trees, often with other birds; visits flowering *Erythrina*, *Bombax* for flower nectar; often spends early morning sunning on bare branches.

One of the best known bird calls of India, gives it a name of coppersmith, because of its likeness with a coppersmith working on his metal. Its favourite places were tree tops from where it was heard calling. It was also seen on flowering trees from very early morning, throughout the day, perched and capturing insects and taking flower nectar. Seen most of the time in the vicinity of flowering tree. Nest holes were seen in old or dead/dry trees. Spotted practically all over the study area. **Resident and Uncommon.**

FAMILY PICIDAE

Picus myrmecophoneus - Little Scalybellied Green Woodpecker

Solitary or in pairs; works up along treestems; moves either straight up or in spirals; taps with beak for hiding insects in bark; also settles on ground, hopping clumsily to pick up ants and termites or probe dung.

Near Kokam, this bird was seen for the first time on a tree-trunk. It was silently working on the trunk and was very much involved picking up insects from the bark. It was

also spotted twice at the well wooded area around Junaraj. Does not prefer forest clearings or cropfields. Occasionally seen near forest edge, **Resident** and **Scarce**.

Dinopium benghalense - Lesser Goldenbacked Woodpecker

Usually pairs, sometimes half a dozen together; widespread and common; moves jerkily up and around tree stems or clings on underside of branches; taps out insects; often associates in mixed hunting parties; may descend to ground, picking off ants, termites and other insects.

Woodpeckers are very good indicators of healthy forests. Both dry and mixed deciduous forests were favoured by this bird. Plenty of insect availability made their survival easier. Year-round flowering trees provided nectar to supplement their food. *Butea*, *Erythrina*, *Bombax* were the favoured hunting sites. Seen at Gichad, Chopadi, Waghumar and near Kelda Khadi. **Resident** and **Uncommon**.

Picoides mahrattensis - Yellowfronted Pied Woodpecker

A small typical woodpecker with long, stout, pointed bill and stiff, wedge-shaped tail. Solitary or pairs, sometimes small bands of up to six birds; occasionally along with mixed hunting parties; moves in jerks along tree stems and branches; hunts in a typical woodpecker manner; rather confiding in some areas; birds keep in touch with faint creaking sound.

This is a widely spread woodpecker. It was usually found on the trees along with other birds. Always busy searching for insects from tree-stems. Its jerky movements drew, observer's attention to this small woodpecker. With the stout, sharp bill this bird was found tapping out insects from the bark. Usually remained in middlestorey of the forest. Found working on bark at Sagai, Waghumar and Kokam. **Resident** and **Scarce**.

Picoides nanus - Browncrowned Pigmy Woodpecker

A diminutive small pied woodpecker, mostly in pairs; often a part of mixed-bird parties in forest; seen more on smaller trees, branches and twigs, close to ground and also high in canopy; quite active.

Pigmy woodpecker was quite uncommon a bird. It was seen on *Butea*, *Tectona*, *Holarrhena*, *Bombax*, etc. during flowering season. Insects attracted by flower nectar found falling prey to such birds. During autumn it was very difficult to spot this woodpecker on a Teak tree. Dry leaves help it in camouflaging. Only the tapping of the beak against bark revealed its presence. Spotted near Fulsar, Saribar and Sagai. **Resident** and **Uncommon**.

***Hemicircus canente* - Heartspotted Woodpecker**

A small, squat, black and white woodpecker with a short thin neck, large crested head and a strikingly stumpy rounded tail. Pairs or small parties; active and arboreal, moving up and around tree-stems and branches; perches across branch and calls often as it flies from one tree to another; often easily identifiable in flight also.

One of the very difficult birds to spot. Very rarely descends to ground. Keeps to foliated trees and branches. Due to secretive nature and small size, very rarely seen. Only once spotted at Kalvat. **Resident and Rare.**

***Chrysocolaptes festivus* - Blackbacked Woodpecker**

Solitary or in pairs; strictly arboreal; keeps to branches and stems of trees; pecks wood for picking insects; rarely descends onto ground.

This bird is quite similar to lesser goldenbacked woodpecker. But the patch on the back helped in distinguishing blackbacked from lesser goldenbacked. A pair was seen at the nest near Piplod. Once spotted searching for nest site near Mohbi. Usually makes nest hole in the same tree in a row year by year. **Resident and Rare.**

***Chrysocolaptes lucidus* - Larger Goldenbacked Woodpecker**

Pairs or small bands; arboreal, moves jerkily up along tree-stems.

This is a typical forest bird. Strictly arboreal. Seen exploiting middle storey of the large leafy trees. It is a noisy bird. Heard two, three times in flight, but seen very rarely. Once seen near Kokam on a tree-stem, jerkily moving upwards and tapping insects from the bark from time to time. **Resident and Rare.**

FAMILY PITTIDAE***Pitta brachyura* - Indian Pitta**

A gaudy stub-tailed thrush-like bird. Solitary or pairs; small flocks on migration, before and after monsoons; spends much time on ground, hopping about, hunting for insects amidst the leaf-litter and low herbage; quietly flies into a tree branch if disturbed; shows fondness for shaded, semi-damp areas.

Its local migration seems to be controlled by south west monsoon. Mainly a terrestrial bird. Seen exploring forest floor in search of insects from beneath the fallen dry

leaves or damp soil. Preferred to remain hidden in the shaded undergrowth. Very silent and secretive bird but its colourful plumage gave away its presence from the greenery. Spotted near Fulsar, Thavadiya, Waghumar, Shisha and Mozda. **Breeding Visitor/ Monsoon Visitor and Scarce.**

FAMILY ALAUDIDAE

Mirafra erythroptera - Redwinged Bush Lark

Pairs or small flocks; moves quietly on ground, running about or perching on small stones or bush-tops; squats tight when approached but takes to wing when intruder very close; spectacular display-flight, accompanied by singing, when breeding; indulges in display flights during night too.

These larks were common sight in forest clearings and in and around cropfields at Mal Samot, near Patavali, Andu and Morjadi. The characteristic and diagnostic song-flight of these birds announce their presence. It was difficult, not to notice these birds in a particular patch. Their earthy brown colour helped them camouflage, but their particular display-flight helped in noticing them. **Resident and Common.**

Eremopterix grisea - Ashycrowned Finch-Lark

A small, squat, thick-billed crestless lark.. Mostly loose flocks, scattered over an area; pairs or small parties when breeding; feed on ground; fond of dusty areas, where large number may squat about; sandy colouration makes it impossible to spot the birds, but when disturbed, large numbers suddenly take wing; superb display flight of male.

Local migration of these birds was observed. Suddenly a flock of these larks appeared in one area. Their presence was marked by remarkable aerobatic display by male. It has got manoeuvring capabilities. Open areas and cultivation were preferred by them like human settlements near Andu, Sakva and other villages on the southern boundary. It was very obliteratively coloured so matched the sandy soil. The flight was a series of rapid wing beats. Usually found on the ground, shuffling along in zig zag spurts in search of seeds and insects. **Resident and Fairly common.**

Ammomanes phoenicurus - Rufoustailed Finch-Lark

A squat, dark rufous brown stout-billed lark. Pairs when breeding; small flocks during winter, occasionally with other larks; difficult to locate because of dull colouration; mostly keeps to ground, running about erratically, stopping every now and then; flies short distances if disturbed; as with

several other larks, there is sudden appearance and disappearance of this species in many localities.

These birds were seldom seen inside the forested areas but the forest clearings, cropfield and around human habitation, these were found. More and more agricultural practice and more human settlements made way for these birds in interiors of SWS. These birds were observed moving in zig zags on the ground in short spurts picking up grass and weed seeds, other grains and insect food. These birds were capable of picking up insects from their hide outs. They stampede insects out by rapidly flicking open their wings. Seen near Bilvasi, Thavadia, Andu, Mal and Samot. **Resident and Fairly common.**

Galerida cristata - Crested Lark

A larger sized lark with prominent pointed crest. Small flocks, breaking into pairs when breeding; runs briskly on ground, the pointed crest carried upstanding; also settles on bush-tops, stumps, wire fences, overhead wires.

Not very commonly come across. Seen in the dry, open area having scrub and small bushes. Its crest was prominently seen while it ran about in search of food. A short, pleasant song was heard during display flight and also from a nearby bush top or from wire fencing or from overhead wires. Sometimes seen along with other larks. Spotted at Umarva, Bilvasi, near human habitation. **Resident and Uncommon.**

FAMILY HIRUNDINIDAE

Hirundo concolor - Dusky Crag Martin

A small bird with short square tail and swallow-like wings and flight. Small parties; flies around crag, cliffs, hawking insects in flight; acrobatic, swallow-like flight and appearance; rests during hot hours on rocky ledges or some corner.

Commonly seen in the air hawking midges and other tiny winged insects. Near river and small bridges of nallah, these birds came across flying along with swallows. Small hillocks and small bridges found to be providing roosting sites for them. All over the SWS they were found near nallah and small bridges. **Resident and Common.**

Hirundo rustica - Common Swallow

Gregarious; usually seen huddled on telegraph wires or hawking insects high up in the air or close

to the ground; roosts in large congregations among reed-beds and *Tamarix* thickets in water; swift and graceful flight-a few rapid wing strokes followed by a long glide.

They were usually seen near river or high up in the sky. Plenty of insects seems to make their prey-base and reed-beds in the shallow rivers seems to provide them with roosting site. During winter, in the early morning hours they were seen sitting huddled on a telegraph wire while on the way to Shisha, Waghumar and Piplod. **Winter Visitor and Scarce.**

Hirundo smithii - Wiretailed Swallow

Solitary or small parties; almost always seen around water, either perched on overhead wires or hawking insects in graceful, acrobatic flight, swooping and banking; often flies very low, drinking from the surface; roosts in the reedbeds and other vegetation, often with warblers and wagtails.

This bird is very easily distinguishable from other swallows because of the two long wire like projections. It is partial towards water therefore usually spotted near Karjan reservoir and its surrounding as well as near Mozda (near river), Surpan (on the river bank) and Fulsar (near Bogach river). **Resident and Uncommon.**

FAMILY LANIDAE

Lanius excubitor - Grey Shrike

A silvery-grey bird with heavy, hooked hawk-like bill. Mostly in pairs in open areas; remains perched upright on bush-tops or overhead wires or flies low, uttering a harsh scream; surveys neighbourhood from perch and pounces on prey; batters and tears prey before swallowing; said to maintain a larder, impaling surplus prey on thorns; keeps feeding territories round the year; a wild and wary bird.

Grey shrike was not very commonly seen as were other shrikes. It was found preferring open, scrubland and also agricultural area. Its voice was harsh but could mimic nicely and fool observer. Sightings of this bird were made at Mal, Samot, Saribar, Andu, Umarva and Thavadiya. Plenty of insects, lizards and small birds chiefly form its food. **Resident and Rare.**

Lanius vittatus - Baybacked Shrike

The smallest Indian shrike with hook-tipped bill. Solitary or in scattered pairs in open terrain; keeps lookout from a perch on some tree-stump, overhead wire or bush top, usually under 4 m off

ground; pounces once potential prey is sighted; usually devours prey on ground, tearing it; sometimes carries it to perch; keeps to fixed territories, defended aggressively.

It was seen on very less occasions. In open scrub land and cultivated land it was spotted on the bush top or *Euphorbia* fencing in the agricultural areas. Seen at Mal, Samot, Bhilvasi, Umarva and near Ladva. **Resident and Scarce.**

Lanius schach - Rufousbacked Shrike

A bird with stout, hooked bill. Mostly solitary; boldly defends feeding territory; keeps lookout from conspicuous perch; pounces on to ground on sighting prey; said to store surplus in larder, impaling prey on thorns; nicknamed Butcher-bird.

As compared to other two shrikes, this was found very easily, practically all over the study area. Less in the interior forest. Its habit of mimicking sound and calls of other birds and animals, could fool the observer. Understorey, forest floor, forest clearings and cultivated areas are usually preferred due to availability of plenty of insects. Except for the interior of the forest, spotted all over the study area. **Resident and Very common.**

FAMILY ORIOLIDAE

Oriolus oriolus - Golden Oriole

Solitary or in pairs; arboreal, sometimes moving with other birds in upper branches; regularly visits fruiting and flowering trees; hunts insects in leafy branches; usually heard, surprisingly not often seen, despite bright colour; seen only when it emerges on bare branch or flies across.

Its habit of keeping to large foliated trees and its local migratory nature made it scarce or uncommon in the area. It was heard from the tops of trees like *Mangifera*, *Madhuca*, *Terminalia*, *Holarrhena*, etc. Leafy trees with large canopy and plenty of fruiting and flowering trees provide food and shelter round the year. Such birds are in a way beneficial to the plant community because they help propagating the plants by taking nectar and in turn pollinating the flowers. Seen at Waghumar, Kokti, Sankli Khadi (on a tree top) and on the way to Zarvani. **Resident/Local Migratory and Scarce.**

Oriolus xanthornus - Blackheaded Oriole

Pairs or small parties; strictly arboreal, only rarely descending into lower bushes or on ground; active and lively, moves a lot in forest, chase one another, the rich colours striking against green or brown of forest; very vocal; associates with other birds in mixed parties, visits fruiting and flowering trees.

The bright plumage of this bird and its calling habit gave away its presence from the large leafy tree. It was seen along with other birds on some flowering trees near good forested areas of Waghumar, Namgir, Piplod, etc. capturing insects as well as taking nectar from the flowers. *Bombax*, *Butea*, *Erythrina*, etc. are preferred by this bird. Pollination and seed dispersal are done unknowingly by them, that is why very helpful to the trees they visit in order to get food. **Resident and Uncommon.**

FAMILY DICRURIDAE

Dicrurus adsimilis - Black Drongo or King-Crow

A slim and agile glossy black bird with long, deeply forked tail. Usually solitary, sometimes small parties; keeps lookout from exposed perch; commonest bird seen on rail and road travel in India; drops on ground to capture prey, launches short aerial sallies, rides atop grazing cattle, follows cattle, tractors, grass-cutters, fires; thus consumes vast numbers of insects; bold and aggressive species, with several birds nesting in the same tree.

Its spectacular aerial maneuvering for capturing insects was a very common sight. It was spotted all over the sanctuary. May it be interior forest, forest edge, plantations, forest clearing, cultivation or human settlement, the drongo was omnipresent. It was seen on flowering trees capturing insects attracted towards nectar. It was occasionally observed chasing birds away from *Butea* or *Bombax* trees. Foliage gleaning and bark gleaning were the usual activities observed. **Resident and Very common.**

Dicrurus caerulescens - Whitebellied Drongo

Pairs or small bands of up to four birds, sometimes in association with other birds; arboreal and noisy; makes short flights after winged insects; often hunts till very late in evening.

It seems good at mimicking calls of birds. It was also good at capturing insects in flight with agility. Along with other birds seen moving for food. Partial to bamboo forest. Deciduous forest tracts were preferred and seen very commonly all over the forest. **Resident and Common.**

Dicrurus paradiseus - Greater Racket-tailed Drongo

A glossy black drongo with prominently tufted forehead and two long wire-like spatula-tipped feathers or 'streamers' in the tail. Solitary or in pairs, sometimes small gatherings; arboreal forest birds, but often descends into low bush; moves a lot in forest; confirmed exhibitionist, both by sight and sound; extremely noisy, often vocal long before sunrise; bold and aggressive.

Bamboo forest was favoured by this bird. Found moving along with tree pie, jungle babbler, orioles and chloropsis. Very good mimic, could often confound the observer successfully into imagining birds which usually can not be found in that habitat. Moved in the forest so much and became good companion of the observer. With its racket-tail could attract attention easily. Seen in interior forest of Vav, Kalvat, Chopadi, Waghumar, Namgir, Duthar and near Sagai. **Resident and Common.**

FAMILY STURNIDAE

Sturnus pagodarum - Blackheaded or Brahminy Myna

A typical myna. Small parties, occasionally collecting into flocks of 20 birds; associates with other birds on flowering trees or on openlands; walks typical myna-style, head held straight up, confident in looks; communal roosting sites, with other birds.

Very smart looking bird, found preferring forest edges and near human habitation. Seen along with the wandering cattle inside the forest. Flowering trees like *Butea*, *Madhuca*, *Bombax* and *Erythrina* attract this bird. It was found to be largely omnivorous. Wild figs and small fruits were also consumed. It was less arboreal. Found in the middlestorey in the forest and also in forest clearings with other birds on some *Ficus* or any other flowering or fruiting trees at Tukner, Kalvat, Ladvā and near Piplod. Very vocal during breeding season. A good pollinating agent. **Resident and Uncommon.**

Sturnus roseus - Rosy Pastor or Rosecoloured Starling

A rose-pink myna-like bird with long, recumbent, pointed crest on crown and nape. Gregarious; flocks often contain young birds, crestless, dull brown; often along with other mynas on flowering *Erythrina*, *Bombax* trees; cause enormous damage to standing crop; seen also around grazing cattle and damp openlands; overall an aggressive and extremely noisy bird; huge roosting colonies, resulting in deafening clamour before settling.

This bird was rather scarce in the SWS. Near cropfield, in the openland along with cattle and on the flowering trees they were usually spotted. Their migration to this part of India seems to be coinciding with flowering of trees like *Erythrina* and *Bombax* as well as ripening of crop. With abundance of food they were found enjoying their stay here. Insects that were attracted to nectar were also seen captured. Benefits the flowering tree by cross-pollinating it. **Winter Visitor and Scarce.**

Acridotheres tristis - Common Myna

A familiar perky, well-groomed bird. Solitary, or in scattered pairs or small, loose bands; amongst our commonest, most familiar birds; hardly ever strays far from man and habitation; rather haughty and confident in looks; aggressive, curious and noisy; struts about on ground, picks out worms; attends to grazing cattle, refuse dumps.

As the name suggests it was very commonly found all over the study area. Wherever there was human habitation, agricultural practice, grazing cattle, patch of scrubland presence of this bird was a surety. Did not get scared by human presence or interference. Its curious nature and its omnivorous feeding habit may be making it a successful bird which can be found in all types of habitat. **Resident and Very common.**

Acridotheres ginginianus - Bank Myna

Flocks in open country and human habitation; partial local migrant; partial to moist grasslands, less arboreal; frequently in attendance on grazing cattle, capturing the insects disturbed.

Small rivulets and nallahs with earth cuttings provide nesting sites to these birds. Abundant prey-base in form of insects provide food along with nectar and *Ficus* figs. It was less arboreal, found in middlestorey and in the cropfields too. Spotted near village settlements like Mozda, Sagai and Shisha, where there was a small patch of forest also existing. **Resident and Uncommon.**

FAMILY CORVIDAE

Dendrocitta vagabunda - Indian Tree Pie

A long-tailed chestnut-brown bird; pairs or small parties; often seen in mixed hunting parties, appearing as leader of pack; feeds up in trees, but also descends low into bushes and onto ground to pick termites; bold and noisy, rather tame and confiding in certain areas; inquisitive, like other crow family birds.

It was commonly encountered either on a tree top or on a branch of a dry tree along with other birds in a mixed hunting party. Fruiting and flowering trees were visited and insects and small animals were also captured for food. Found leading the group of birds to a flowering tree. Sometimes a pair was seen perched on two adjacent trees calling each other. Forest floor, uuderstorey, middlestorey and canopy, all the four layers, were visited by this bird. Seen at almost all places in the SWS. **Resident and Common.**

Corvus splendens - House Crow

An integral and conspicuous part of India; described as an extension of man's society; street-smart, sharp, swift, sociable, sinister, the crow is almost totally commensal on man; mobs other birds, even large raptors; performs important scavenging services; occasionally flies very high into skies, either when flying long-distance, or simply for fun; communal roost-sites.

Perhaps the most familiar bird of India. Found living in close association with humans. It was audacious, cunning and uncannily wary. It is omnivorous and a useful scavenger but a great bully and therefore a serious menace to other bird species. Spotted commonly in all parts of SWS. Also seen along with other birds on flowering trees like *Bombax*, taking flower nectar, flower petals and also devouring insects attracted to the flowers. **Resident and Common.**

Corvus macrorhynchos - Jungle Crow

Glossy black bird with heavy beak, with culmen-curve noticeable. Solitary or in groups of two to six; commoner around villages and only small numbers in urban areas; overall not as 'enterprising' as the familiar house crow; in forested areas, its behaviour often indicates presence of carnivore-kill.

Pairs of this bird were seen at many places in the forest. Apart from house crow this was also commonly sighted. It was inquisitive but not enterprising as the house crow. Its glossy black colour and its size revealed its presence from far away. It is omnivorous and that was the reason why it was supported in this area. **Resident and Common.**

FAMILY CAMPEPHAGIDAE

Tephrodornis pondicerianus - Common Wood Shrike

A plain greyish brown bird with hook-tipped shrike bill. Pairs or small parties; quiet for greater part of year, vocal when breeding (February-May); keeps to middle-levels of trees, hopping about, sometimes coming to ground.

Along with other small insectivorous birds this bird was seen enjoying hunting in the foliated trees. Air-sallies, foliage gleaning and bark gleaning was also observed so as to catch small insects. Its habit of hunting in foliated trees and its quiet nature make its abundance scarce and may be overlooked by observer. Seen near Kelda Khadi, Dhir Khadi and at Ninai Ghat. **Resident and Scarce.**

Coracina novaehollandiae - Large Cuckoo Shrike

A rather thickset grey bird. Pairs or small bands of 4-6 birds; characteristic flight over forest, few wing-beats and a glide, often calls in flight; flicks wings on perching; keeps to upper branches, but may descend into bush; very active and noisy when breeding (March-June).

Good forested patches like Vav, Kalvat, Waghumar, Chopadi, etc. support this bird. Almost always seen in pairs either flying over tree top or capturing insects from the foliage from canopy. Very rarely seen on the lower branches or in the bushes. It is a very active bird with a peculiar flight. It became vocal during breeding season otherwise remained quiet and there were chances that it might have been overlooked. **Resident and Scarce.**

Coracina melanoptera - Blackheaded Cuckoo-shrike

Solitary or in pairs, only occasionally several together; often part of mixed-hunting bands; keeps for most part to leafy, upper branches, probes the foliage for insects; methodically checks foliage before flying off to another grove or forest patch.

Thorough foliage gleaning was a peculiarity of this bird. Along with other small insectivorous birds seen moving in the upper branches of the trees capturing insects. Short air sallies were also seen. Due to local migration sometimes sudden disappearance from the area was observed. Spotted at Dhir Khadi, Zarvani, near Thavadia and Kokam. **Resident/Local Migratory and Scarce.**

Pericrocotus cinnamomeus - Small Minivet

Pairs of small flocks; keeps to treetops, actively moving amidst foliage; flutters and flits about in an untiring hunt for small insects, often in association with other small birds; also hunt in flycatcher style.

They were found in mixed hunting parties of small insectivorous birds. Always seen in pairs on forest edges and forest clearings. Usually spotted in the foliated canopy of the trees near Namgir, Kalvat, Piplod and Sagai. Due to its small size and active nature, not very easily sighted. Insects, larvae and caterpillars were captured by gleaning foliage. Sometimes seen taking nectar. **Resident and Scarce.**

FAMILY IRENIDAE

Aegithina tiphia - Common Iora

A black and yellow tit-like bird. Pairs keep to leafy branches, often with other small birds; moves energetically amidst branches in their hunt for insects, caterpillars; their rich call-notes often a giveaway of their presence in an area.

The colour of the bird found to be camouflaging in the foliage of the tree that it was found visiting. But the pairs kept in touch with musical calls and whistles which gave away their presence. Seen very actively hunting for insects from the leaves and hopping from twig to twig in search of food and manoeuvre for capturing insects. Also found along with other small birds on a tree. Its typical musical call- notes were very frequently heard from different parts of forest. Very rarely seen in the interior of forests otherwise very commonly encountered in rest of the area. **Resident and Very common.**

Chloropsis aurifrons - Goldenfronted Chloropsis or Leaf Bird or Green Bulbul

A spruce grass-green bird with slender, curved bill. Pairs in leafy canopy; lively birds, actively hunts in foliage; their wide range of whistling and harsh notes immediately attracting attention; owing to greenish plumage, difficult bird to see in foliage; rather aggressive, driving away other birds especially on flowering trees.

Found hunting in foliage, where its grass-green plumage could blend perfectly, therefore far often heard than seen from the forest interiors at places like Kalvat, Fulsar, Sagai, Piplod, Waghumar, etc. Flowering trees attract this bird very much. Seen driving away other birds on such trees. Berries of *Loranthus* and other trees and figs of *Ficus* sp. were devoured by them and in turn seed dispersal was carried out. Help in cross pollination also. Sometimes migratory birds were mimicked during a season, when they were absent thereby intriguing and confounding the observer. **Resident and Common.**

Chloropsis cochinchinensis - Goldmantled Chloropsis

Solitary or pairs in leafy canopy; often in mixed-hunting parties; a noisy bully on flowering trees, driving away others; important agents of pollination.

It seems to be preferring less thickly-wooded country. Invariably found present at flowers of *Erythrina*, *Bombax*, *Butea* and other trees, feeding greedily on the nectar. Often seen chasing away other bird visitors from the trees. Mimicry of other birds was

done very aptly, by which easily could fool the observer. Seen once near Dhirkhadi and also near Sagai on tree tops. **Resident and Rare.**

FAMILY PYCNONOTIDAE

Pycnonotus jocosus - Redwhiskered Bulbul

Sociable; pairs or small flocks, occasionally gatherings of up to 100 birds; lively and energetic; feeds in canopy, low bush and on ground; enlivens their surroundings with cheerful whistling notes; tame and confiding in some areas; popular cage bird.

Small flocks of this birds were seen on tree tops or in bush. Found feeding on small berries, figs and also seen visiting flowers for flower nectar. These birds were found preferring better wooded localities inside forest like Ninai Ghat, Mozda(near river), Waghumar, Chopdi, etc. It was found along with other bulbuls and other small insectivorous birds. Also seen in the middle story catching insects. Its call was very musical and could be distinguished from the call of other three bulbuls. It was very active in nature; lively and energetic behaviour was very strikingly noticed whenever spotted. **Resident and Common.**

Pycnonotus leucogenys - Whitecheeked Bulbul

An earthbrown bulbul with glistening white cheeks and sulphur yellow under root of tail. Pairs of scattered parties, in gardens and open scrub country; jaunty and vivacious; tame and confiding; has a variety of cheery notes.

Usually seen in bushes and edges of forest around Sagai, Kelda Khadi, Sankli Khadi and Dabchar. Scattered parties were always active and on the move in search of food. Could attract attention by their pleasant calls. Flower nectar, berries and insects were taken as food. Once seen capturing winged termites after the first showers of rain. Not seen in the interior forest on many occasions. **Resident and Very common.**

Pycnonotus cafer - Redvented Bulbul

A perky smoke-brown bird. Pairs or small flocks, but large number gather to feed; arboreal, keeps to middle levels of trees and bushes; a well-known Indian bird; rather attached to man's neighbourhood; pleasantly noisy and cheerful, lively and quarrelsome, often kept as a pet; indulges in dust-bathing; also hunts flycatcher style.

Very commonly sighted in SWS, may it be interior forest, forest clearing, bushes near rivulets or streams, near human settlement or open scrubland. Small parties of these birds were seen announcing their presence by their cheerful and lively calls. Food is plenty for them in SWS as they consume fruits, berries, nectar as well as insects. Seen performing short air-sallies for capturing small winged insects. **Resident and Very common.**

Pycnonotus luteolus - Whitebrowed Bulbul

Uncrested, sober brownish, olive-green bird. Pairs or small parties; not an easy bird to see; skulks in dense, low growth, from where its chattering calls suddenly explode; seen only momentarily when it emerges on bush tops, or flies low from one bush-patch to another; usually does not associate with other birds.

Unobtrusive, skulking bird, seen keeping to bushes of Understorey. More heard than seen near Kalvat, Thavadia, Tukner, etc. Its plumage and skulking nature were the reasons for its scarce abundance. Tried patience of the observer for thorough observation because of its momentary appearance on bush top. Never spotted along with other birds. All species of bulbuls, being predominantly fruit and berry eaters, play an important role in the dispersal of seeds and dissemination of plant life. **Resident and Scarce.**

SUBFAMILY TIMALINAE

Turdoides caudatus - Common Babbler

A slim earthy brown babbler. Pairs or small bands in open scrub; skulker, works its way low in bush or on ground; moves with peculiar bouncing hop on the ground, the long, loose-looking tail cocked-up; extremely wary, vanishes into scrub at slightest alarm; weak flight, evident when flock moves from one scrub-patch to another, in ones and twos.

Small parties of these birds were seen usually near human habitation and near and around agricultural fields. Due to increased human establishments and increased area under agricultural practice, presence of this bird became more common. Openland and low bushes were their usual hunting places. Its peculiar mode of movement used to attract attention. Understorey of the forest edges was inhabited by them. Found near Mal, Samot, Sakva, Nani Singloti, Moti Singloti and such places where human habitation is

more. Their call is short, pleasant, trilling whistle, which could be heard from the bushes near village huts. **Resident and Uncommon.**

Turdoides malcolmi - Large Grey Babbler

Gregarious; flocks in open country, sometimes dozens together; extremely noisy; moves on ground and in medium-sized trees; hops about, turning over leaves on ground; weak flight, never for long; at any sign of danger, the flock comes together.

Large flocks of these birds were seen moving in a 'sisterhood' from bush to bush in areas such as Bhilvasi, Zarvani, Mozda, Andu and in such places. Also seen on small trees. Due to its weak flight never seen in the canopy or flying high above the forest. Because of habitat alteration, these birds were very commonly found in the interiors because forest is interspersed with patches of cropfields. **Resident and Very common.**

Turdoides striatus - Jungle Babbler

An earthy brown frowzled and untidy looking bird. Gregarious; small parties, 6 to 15 birds; also referred to as 'Satbhai'(seven brothers); 'seven sisters' in English, as usually there are about 5 to 7 birds in a flock; spends much time on ground, rummaging; sometimes flies into branches above, especially when alarmed, appears ruffled and agitated and breaks into a squeaking chorus; social birds, all come together if one member is in some problem.

Very commonly heard from the bamboo forest as well as from other parts of SWS. Flocks or 'sisterhood' seen hopping about on the forest floor rummaging amongst the fallen leaves and mulch for moths and other insects. They were usually found forming the nucleus of the mixed hunting parties of birds in forest. The flock used to keep up a constant conversational chatter and squeaking which sometimes used to develop into loud discordant wrangling. Usually heard from bamboo thickets at Vav and its surroundings, on the way to Waghumar, Chopadi and Namgir, when approached. Wild figs, berries, insects, larvae, spiders as well as nectar were taken as a food while hunting in a mixed party. **Resident and Very common.**

SUBFAMILY MUSCICAPINAE

Muscicapa parva - Redbreasted Flycatcher

A plain brown flycatcher with partly cocked black and white tail. Solitary or in scattered pairs in shaded areas; may descend to ground, but prefers low and middle branches; flicks wings and lifts tail; launches short aerial sallies; hunts till late in evening; calls often.

During winter commonly seen in the interior forest as well as trees bordering streams and rivulets. The common sites for spotting this bird were Sankli Khadi, Mozda (near river), Sagai, Kelda Khadi and near Ninai Ghat. Usually found keeping to middlestorey of the shaded trees. Also seen in bushes capturing insects. Its style of capturing insects was typical of all the flycatchers. They were seen launching short twisting aerial sallies for hunting winged insects. It used to descend to the forest floor momentarily to pick up crawling prey and immediately flit back into an overhanging branch. **Winter Visitor and Common.**

Muscicapa tickelliae - Tickell's Blue Flycatcher

A blue bird with bright azure forehead, eyebrows and shoulder patches. Usually in pairs in shaded areas, often in mixed-hunting parties; vicinity of wooded streams are favoured haunts; flits about intermittently or launches short sorties; has favourite perches; often breaks into fluty song.

Commonly sighted around forest streams either flitting from one tree to another or capturing winged insects by launching short agile sallies. It constantly used to utter a pleasing song which proclaimed its presence from a thicket long before the bird was seen. It was partial to bamboo-clad ravines and shaded areas. Usually quietly found moving about in the tree or bushes but sometimes its fluty song was heard. Near all the nallahs, small rivulets and streams in the SWS they were spotted. **Resident and Common.**

Muscicapa thalassina - Verditer Flycatcher

Solitary or in pairs in winter, sometimes with other birds; restless, flicking tail, swooping about, ever on the move, occasionally descending quite low; rather more noticeable because of its continuous movement and habit of perching in open exposed positions, like bare twig on tree top.

This restless bird was seen making agile aerial sallies after dipterous insects near Sagai, on the way to Kokati and Kokam and at Vav and Kalvat. Seen capturing them in midair in the typical flycatcher manner. Usually spotted on exposed perch, restlessly hawking insects from there. Very rarely seen coming to the forest floor, mainly seen keeping to middlestorey. Its habit of continuously moving, flicking tail and swooping used to make it noticeable in spite of its scarce abundance. **Winter Visitor and Scarce.**

Culicicapa ceylonensis - Greyheaded Flycatcher

A tiny, restless greenish yellow flycatcher. Solitary or in pairs, occasionally several in vicinity,

especially in mixed parties; a forest bird, typical flycatcher, excitedly flitting about, launching aerial sallies and generally on the move; wherever this bird is, its cheerful unmistakable calls heard.

Its small size and restless nature make it very difficult to observe it thoroughly. Usually seen singly, flitting and flycatching from branches in the forest near Mozda, Sagai, on the way to Chopdi, at Kalvat and near Fulsar. It is a typical forest bird. Very active and seen making lively aerial swoops after flies, turning, twisting, looping-the-loop dextrously and then returning to its perch. It has got a pretty whistling song which was heard from the foliage of the middlestorey of interior forest before this tiny bird could be seen. **Winter Visitor and Scarce.**

Rhipidura aureola - Whitebrowed Fantail Flycatcher

Solitary or in pairs; lively bird, flits about tirelessly in low growth and middle levels, fans tail, flicks wings or bursts into a whistling trill; makes short hunting dashes in air; quite tame and confiding.

This flycatcher was very commonly encountered in any part of SWS. Its habit of fanning the tail used to make it worth watching. It is tame and confiding and that was the reason why it was found near human habitation. Could enjoy company of humans in near vicinity. Low growth of forest edges and forest clearings or middlestorey of forest interiors were its favourite haunting places. **Resident and Common.**

Rhipidura albicollis albogularis - Whitespotted Fantail Flycatcher

A cheery restless smoke brown bird. Pairs in wooded country; affects secondary jungle; flits tirelessly in foliage and on ground, waltzing and pirouetting; launches graceful aerial looping-the-loop sallies after flies and gnats.

Foliage gleaning in order to catch insects as well as carrying out short aerial sallies were the most commonly encountered jobs. Often seen picking prey from ground. Very restless bird of forest interior and forest clearings. Used to remain hunting in the middlestorey most part of the day. Very commonly comes across from many parts of the SWS. **Resident and Common.**

Terpsiphone paradisi - Paradise Flycatcher

Solitary or pairs; makes short sallies, flits through trees, the tail streamers floating; strictly arboreal, sometimes descending into taller bushes; cheerful disposition.

It was resident but local migration was also noticed. It was seen frequenting light deciduous forest with bamboo-clad ravines, also in forest interiors with bamboo. The male has tail ribbons which were looping and trailing behind as he used to twist and turn in the air after flies. These agile fairy like movements were a spectacle of exquisite charm. The female and subadult males were also seen capturing insects by making short aerial sallies. Usually seen in the canopy and middlestorey, very rarely in the understorey of the forest at Kokam, Sagai, near Ninai Ghat, Fulsar, Vav, Kalvat, Tukner and once at Sanbar. **Resident and Common.**

SUBFAMILY SILVIINAE

Cisticola juncidis - Streaked Fantail Warbler

A tiny bird, dark-streaked fulvous brown, with a short tail constantly flicked open like a fan. Pairs or several birds over open expanse; great skulker, lurking in low growth; usually seen during short, jerky flights, low over ground; soon dives into cover; most active when breeding, during rains; striking display of male, soaring erratically, falling and rising, incessantly uttering sharp, creaking notes; adults arrive on nest in similar fashion.

Tall grass and reeds scattered over the area were the places which these birds were found inhabiting normally. Open countryside as well as cropfields and marshes adjoining rivulets or streams such as near Andu, Mozda, Shisha, Kalvat, ladva, etc. were also preferred by them. Their skulking nature and their streaked plumage seems to be helping them in clamouflaging in grass and reeds. When flushed, flew short distance and dived into grass again. The curious mounting zigzag flight in which the fan shaped tail was conspicuous and its typical sharp call accompanying it, announced its presence in any locality. **Resident/Local Migratory and Scarce.**

Prinia hodgsoni - Franklin's Wren-Warbler

Small bands ever on the move; keep to low growth but often clambers into middle levels; singing males may climb to top of trees; few nearly always present in mixed-hunting parties of small birds; nest like tailor-bird's.

Pairs of these birds were seen in open scrub land as well as grassy patches. Areas near Nani Singloti, Andu, Mal, Samot as well as places like Mozda (river) and Kelda Khadi were preferred. Forest edges and forest clearings interspersed with cropland were their favourite sites. Often seen in low bushes as well as occasionally in the

middlestorey of the trees bordering the forest. Found feeding upon insects and flower nectar. In search of food spotted moving in the mixed hunting parties. Very rarely seen in the canopy of the trees. **Resident and Scarce.**

Prinia socialis - Ashy Wren-Warbler

Mostly in pairs; common and familiar as tailor-bird in some areas; actively moves in undergrowth; often flicks and erects tail; typical jerky flight when flying to another bush; noisy and excited when breeding.

Found keeping to bushes and thickets bordering forest streams and scrubland. Seen hopping about quietly amongst bushes near Mozda, Shisha, Sagai and at other such places, shaking its tail loosely up and down and uttering a sharp nasal call from time to time. During the breeding season males were seen warbling excitedly from exposed perches. Visit flowers for its nectar as well as for capturing insects that get attracted to the flowers. **Resident and Fairly common.**

Orthotomus sutorius - Tailor Bird

A small restless olive green bird. One of India's best known birds; usually in pairs together; rather common amidst habitation, but keeps to bushes; remains unseen even when at arm's length, but very vocal; tail often coked, carried almost to the back; clambers up into trees more than other related warblers.

Its loud, cheerful, familiar call could be heard from bushes but used to take time to spot it. Seen getting camouflaged among the foliage but its restless nature used to giveaway its presence. It was seen almost every where in the study area. At some places seen in the bush eg. at Piplod and at other in the canopy or middlestorey of the flowering tree eg. at Saribar. On some instances pairs were heard calling and by doing that keeping in touch with each other (around Sagai). **Resident and Fairly common.**

Sylvia hortensis - Orphean Warbler

A slender, bush hunting, arboreal bird. Singly in wasteland about cultivation, or amongst thorn bushes; hops singly amongst thorny bushes hunting insects and caterpillars, occasionally descending to ground; fond of flower nectar.

Sighted very rarely in the area. Once seen near cropfield hunting insects near Sagai. At other time seen on a tree near agricultural land near Moti Singloti. Foliage

gleaning was observed. Seen visiting flowers for flower nectar near Tukner. **Winter Visitor and Rare.**

Sylvia curruca blythi - Lesser Whitethroat

An earthy brown bird. Mostly solitary; secretive, skulking; moves or creeps in dense bush growth; jabs with beak at out of reach insect.

It was seen on very few occasions. It was very restless, skulking and secretive bird, thus making its thorough observation almost impossible. Its habit of capturing out of reach insects by jabs with its beak gave opportunity to the observer to note down details of it. Observed creeping and flitting restlessly amongst tangles of twigs and foliage in search of caterpillars and insects at Kalvat and once near Kelda Khadi. **Winter Visitor and Uncommon.**

SUBFAMILY TURDINAE

Erithacus svecicus - Bluethroat

A sprightly, robin like olive brown bird. Mostly solitary; great skulker, preferring damp areas with good grass and bush growth; cocks tail, straightens up a bit to look around; extremely wary; emerges in open but quickly vanishes into growth; appearing rather tame and confiding, but difficult to observe.

Forest streams, marshy areas next to rivulets and reedbeds of rivers provide good hideouts to such birds. It requires patience to observe this skulker, because of its nature of hiding even on slightest danger. It was seen hopping about quietly with tail cocked at water's edge at Mozda near river or in and out of marshy reeds and bushes, stopping every now and again to pick up insects near Kelda Khadi. **Winter Visitor and Rare.**

Copsychus saularis - Magpie-Robin

A trim black and white bird with cocked tail. A familiar bird of India. Solitary or in pairs, sometimes with other birds in mixed parties; hops on ground, preferring shaded areas; common about habitation; when perched, often cocks tail; flicks tail often, especially when making short sallies; active at dusk; remarkable songster, very rich voice.

This bird, one of India's finest and remarkable songster very commonly come across in every part of SWS. It was shy, silent and unobtrusive during non-breeding season. But became conspicuous during breeding season. It was very hard to miss the

rich song of the male during this season from favourite tree-top or post. Usually found preferring forest floor and understorey for hunting insects. Could fool the observer very smartly by mimicking other bird's call. Early morning and late evenings were favoured for activity like singing. **Resident and Very common.**

Phoenicurus ochruros rufiventris - Black Redstart

A slim, active black and orange-chestnut bird. Mostly solitary in winter, when common all over India; easy bird to observe, in winter and in its open high altitude summer country; perches on overhead wires, poles, rocks, stumps; characteristic shivering of tail and jerky body movements; makes short dashes to ground, soon returning to perch with catch; rather confiding in summer.

This active bird was met with during winter season around villages and cultivation at Mal, Samot, Dumkhal, etc., in groves of trees and dry scrub jungle. Seen flitting from perch to perch either on wires or stumps or branch, ceaselessly quivering its tail. It was observed picking up insects and spiders from ground near Nani Singloti and Sagai. Winged insects, sometimes captured in the air like a flycatcher. **Winter Visitor and Scarce.**

Saxicola caprata - Pied Bushchat

Solitary or in pairs; perches on a bush, overhead wire, pole or some earth mound; makes short sallies on to ground, either devouring prey on ground or carrying to perch; active, sometimes guards feeding territories in winter; flicks and spreads wings; fascinating display-flight of courting male (April-May).

Local migration during winter was noticed. Sparsely scrubbed country and hillsides were preferred. Commonly found in the neighbourhood of village and cropfields. Seen darting down to the ground from an exposed perch on a stake or bush top to pick up insect prey. Pretty whistling song and display-flight of courting male were fascinating and spectacular. Spotted in and around human habitations of southern and southwestern and eastern boundaries of SWS. **Resident and Scarce.**

Saxicoloides fulicata - Indian Robin

A sprightly black bird. Solitary or in pairs in open country, and often in and around habitation; rather suspicious and maintains safe distance between man and itself; hunts on ground, hopping or running in short spurts; when on ground, holds head high and often cocks tail, right up to back, flashing the chestnut vent and undertail.

Usually seen in pairs in lightly wooded country and almost in all parts of SWS. Seen hopping or running short distances on the ground, mounting a rock, termite mound or fencepost and tossing upward the jaunty cocked tail. Though it was familiar it kept safe distance with humans. Seen all along the human habitation as well as in the area under agricultural practice. Its abundance is a result of habitat alteration. **Resident and Very common.**

Monticola solitarius - Blue Rock Thrush

Solitary; has favoured sites, often around habitation; perches on rocks, stumps; has a rather upright postures; flies onto ground to feed, but sometimes launches short aerial sallies.

It is a sedentary bird. Usually seen singly near Surpan, Dumkhal and at Zarvani, frequenting boulder-strewn hill sides, rocky areas and human habitation. Noticed keeping the same neighbourhood day after day and even in successive seasons. It was observed picking up small insects from ground by salliyng down and flying back to perch. A silent bird, but the male's sweet whistling song was often heard. **Winter Visitor and Scarce.**

Zoothra citrina cyanotus - Whitethroated Ground Thrush

A plump, short tailed, long legged thrush. Usually in pairs; feeds on ground, rummaging in leaf-litter and under thick growth; flies into leafy branch if disturbed; occasionally associates with laughing thrushes and babblers; vocal and restless when breeding.

A bird of forest floor and understorey. Seen keeping to forest, both deciduous and evergreen forest patches near forest streams. Found preferring overgrown ravines and nallahs. Seen rummaging through leaf-litter on forest floor for feeding on insects as well as windfallen berries. Local migration was also noticed. Seen near Mathavali and Patavali, on forest floor and flew silently to the nearby branch when approached and once seen near Sagai (river). Not seen on many occasions, might have been missed due to its silent nature. **Resident/Local Migratory and Rare.**

Turdus merula nigropileus - Blackbird

A plain grey-brown bird with a black cap. Solitary or pairs, sometimes with other birds; rummages on forest floor but also moves up in leafy branches; rather confiding.

Seen on forest floor and lower branches with other birds. Feeds in trees on drupes and flower nectar. Sighted hopping about on the ground turning over and flicking

aside dry leaves in search of insects and windfallen fruits. Loud, rich and melodious song of male was heard from a tree top near Jharvani. Once heard mimicking calls of other birds interwoven in its song at Kokam. **Local Migratory and Rare.**

FAMILY PARIDAE

Parus major - Grey Tit

Pairs or small bands, often with other small birds; restless, clings upside down, and indulges in all sorts of acrobatic displays as it hunts amongst leaves and branches; holds food fast between feet and pecks at it noisily, tame and confiding.

Most commonly come across all over the study area. Seen frequenting dense wooded localities. Often observed hunting in association with other small insectivorous birds. Seen clinging to sprigs, flowering stems and tree trunks, etc. upside down and in other acrobatic positions in search of food. Foliage gleaning and bark gleaning were practiced for capturing food-insects, their eggs and larvae. Flower buds, fruits and seeds were also consumed. It was seen moving very actively from canopy to middlestorey and also to understorey, in search of food. **Resident and Very common.**

Parus xanthogenys - Yellowcheeked Tit

A black and yellow tit with prominent pointed black crest. Pairs or small flocks, often with other small birds; arboreal, active; feeds in foliage.

A very restless bird, always on move in search of food. Seen moving in family parties, hunting insects in company with other small insectivorous birds in foliated canopy. Its lively chee.... chee.... call was heard while it was in quest for food. Very commonly met with from all parts of forests, may it be thick forest in the interiors (near Chopadi and Ladva), or forest clearing or forest edge (near Mathavali, Patavali or Andu). **Resident and Very common.**

FAMILY SITTIDAE

Sitta frontalis - Velvetfronted Nuthatch

A short-tailed bird with relatively long heavy pointed bill. Pairs or several in mixed hunting parties; creeps about on stems and branches; fond of moss-covered trees; also clings upside down; active and agile, quickly moves from tree to tree; calls often, till long after sunset; also checks fallen logs and felled branches.

This active and agile bird was seen creeping up and around branches of trees in better wooded forest tracts near Kokam, Sagai, Mathavali, Waghumar, etc. Most commonly met with amongst the mixed hunting parties of small insectivorous birds that rove the forested areas of which the usual members are tits, flycatchers, minivets and warblers. Seen scuttling jerkily up and down or sideways and around trunks and branches of trees. Clinging to the undersurface of a bough and running along it back downwards with surprising agility. Its call was a loud, cheeping whistle. **Resident and Scarce.**

Salpornis spilonotos - Spotted Grey Creeper

Mostly solitary, though another bird is usually in vicinity; active, climbing up tree-stems and branches, especially trees that have deep-fissured bark; works from near ground level to uppermost branches, probing crevices.

Very rarely sighted. Spotted a single bird climbing up tree stems and tapping the bark to catch hiding insects. Its usual pattern was, working from near ground level to uppermost branches having deep-fissured bark. Near Bhilvasi and Umarva it was found climbing on trees. **Resident and Rare.**

FAMILY MOTACILLIDAE

Anthus novaeseelandiae - Paddyfield Pipit

Pairs or several scattered on ground; run in short spurts; when disturbed, utters feeble note as it takes off; singing males perch on grass-tufts and small bushes.

This slim bird with slender bill and longish tail was seen running about briskly in short spurts, wagging its tail up and down. Mainly a terrestrial bird, spotted in open country, around cropfields and grass covered hillsides. Those hills which were once covered with trees and now wear barren look, harbour such birds. Several birds were spotted in open fellow land near Mathavali, Kanjal, Ladva and Thavadiya. They caught attention due to their undulating flight accompanied by distinctive feeble notes. **Resident and Rare.**

Motacilla indica - Forest Wagtail

Solitary or in pairs in forest paths and below trees; characteristic sideways movement of tail and rear part of body as it runs on ground; spends considerable time up in branches also, either when disturbed or sometimes resting during day; also runs on horizontal branches, picking insects.

It was seen very rarely. Once near Patavali, it was spotted running on ground with its characteristic sideways movements of tail and part of body. Near Surpan it was found near the river. Forest streams and shaded forest paths were other favoured places. Found keeping to understorey and forest floor for roosting and feeding. **Winter Visitor and Rare.**

***Motacilla flava* - Yellow Wagtail**

A slim, long tailed bird. Small flocks on marshy ground; moves gently or in short runs; very active, wags tail frequently; often huge congregations, in paddy cultivation and prior to departure to breeding grounds.

These birds are commonest winter visitors. Seen running about in short spurts with brisk mincing steps near cultivation, marshy places on river and stream-side. Found picking up tiny insects from ground, occasionally springing into the air to capture fleeing midges. Its undulating flight with a few quick wing flaps followed by a pause is a peculiarity. Spotted practically all over the SWS. **Winter Visitor and Fairly common.**

***Motacilla cinerea* - Grey Wagtail**

A sprightly, slim, long tailed bird. Mostly solitary or in pairs; typical wagtail, feeding on ground, incessantly wagging tail; settles on house roofs and overhead wires.

Seen running about singly on ground near rocky streams and thickets in wooded country and forest glades. Tiny insects were captured by briskly running and chasing them, turning and twisting with agility in their pursuit. Winged insects were captured by springing up into the air. The tail was incessantly and characteristically wagged up and down. Observed flying in a series of long undulating curves, produced by alternate quick flapping and closing of the wings in almost all parts of the study area. **Winter Visitor and Fairly common.**

***Motacilla alba* - White or Pied Wagtail**

Usually in pairs or small bands, often two races mixing freely; associates also with other species; prefers damp areas, even entering shallow water; runs on ground, wagging tail constantly.

Scattered parties or small flocks came across running about and feeding on open marshy land and cropfields. Seen also with other species near riverbanks (at Devganga river), nullahs, small rivulets (near Kelda Khadi and at Bogach village near river) picking

up tiny insects and constantly wagging its tail. Steams and rivulets crisscrossing the area fulfill their requirements. **Winter Visitor and Fairly common.**

***Motacilla maderaspatensis* - Large Pied Wagtail**

A large wagtail with familiar magpie robin plumage pattern. Mostly in pairs, though small parties may feed together in winter; a bird of flowing waters, being especially fond of rock-strewn rivers, though it may be seen on ponds or tanks; feeds at edge of water, wagging tail frequently; also rides on the ferry boats plying on rivers.

The only resident species of wagtail in the area. Seem to be preferring rocky streams, rivers, rivulets and enjoying even wet patches of cultivated land. It was hard to overlook this rather large wagtail. Seen feeding at the edge of water frequently wagging its tail at Surpan, Mozda, Fulsar, etc. Its loud, pleasant whistling call was often heard from a nearby perch. **Resident and Fairly common.**

FAMILY DICAEDIDAE

***Dicaeum agile* - Thickbilled Flowerpecker**

Solitary or in pairs in canopy foliage; arboreal, restless; flicks tail often as it hunts under leaves or along branches; frequents parasitic clumps of *Loranthus* and *Viscum*.

This flowerpecker, a very restless arboreal bird was always seen either high up in the canopy or in the middlestorey. Seen feeding upon berries of parasitic plants like *Loranthus* and *Viscum* from different parts of SWS like Chopadi, Vav, Waghumar, Knjal and Ladva. Peepul (*Ficus religiosa*) figs and other fruits were also devoured. Foliage gleaning and bark gleaning in order to capture insects was also observed. Believed responsible for the spread of parasitic plants. The edible pulp of berries of these parasites was stripped off by manipulating berry in bill and the viscous seed was wiped onto a neighbouring branch. Thus spreading the infestation among branches of the same tree than to distant ones. Observed spreading its stumpy tail and screwing it restlessly from side to side while it was perched. **Resident and Scarce.**

***Dicaeum erythrorhynchos* - Tickell's Flowerpecker**

A diminutive, restless, olive brown bird with short, slender, slightly curved, flesh coloured bill. Solitary or two to three birds in a canopy; frequents parasitic *Loranthus* and *Viscum*; flits from clump to clump; strictly arboreal, restless; territorial even when feeding.

Berries of the noxious plant parasites *Loranthus* and *Viscum* were the staple food of these birds. Very active, restless and strictly arboreal flowerpeckers were very difficult to observe on the large foliated trees. Seen frequenting middlestorey and canopy of trees infested with parasites near Fulsar, Waghumar, Namgir, Sagai, Kanjal and Ladva. The ripe berries of these parasites were swallowed wholly and the sticky, slimy seeds were excreted on to another branch of the same host or of a neighbouring tree. Thus spreading the infestation. Small insects were also seen captured by foliage gleaning. **Resident and Scarce.**

FAMILY NECTARINIIDAE

Nectarinia zeylonica - Purplerumped Sunbird

Usually pairs; very active, flits from flower to flower; occasionally descends into flowering gardens.

Pairs of this bird were seen in many parts of the forest. Flowering trees like *Holorrhena* and *Butea* attract these birds for nectar. In search of nectar it visits flowers and help in cross-pollinating numerous plant species. Even pernicious tree-parasite *Loranthus* got cross-pollinated by these birds. **Resident and Scarce.**

Nectarinia lotenia - Loten's Sunbird

Solitary or in pairs, spending much time in upper branches; *Loranthus* flowers are a favourite; this and other sunbirds are important pollinating agents of many flowering trees.

It is more or less like purple sunbird but a maroon band across the breast and a distinctive long, curved beak set this bird apart. This restless bird was first heard by its fairly loud and sharp call than seen in the foliated tree. Spotted on flowering trees near Saribar, Ninai Ghat, Kanjal, Sagai, etc. *Loranthus* flowers being favourite, attract them to the canopy of the infested tree. Spiders and insects were also captured en route. **Resident and Common.**

Nectarinia asiatica - Purple Sunbird

Solitary or in pairs; an important pollinating agent, almost always seen around flowering trees and bushes; displays amazing agility and acrobatic prowess when feeding; sometimes hunts flycatcher style.

This sunbird, which was very commonly met with in all parts of SWS was an important cross-pollinator. Plenty of flowering trees providing flower nectar, round the year, support this and other sunbirds successfully. Its slender curved bill and tubular tongue are the adaptation for its mode of feeding i.e. by probing into flower tubes and sucking the nectar. Insects were also devoured from the foliage of the trees they visit, by displaying their agility in capturing insects in flycatcher style. **Resident and Very common.**

Aethopyga siparaja - Yellowbacked Sunbird

A brilliantly coloured bird. Solitary or in pairs; active gymnast, hanging upside down and sideways as it probes flowers; also hovers; moves a lot in forest, between tall bushes and canopy.

Very active and restless bird spotted flitting about like a gem in the sunshine among blossoming shrubs and trees. To probe into the flower tubes for nectar it hanged itself upside down and in other acrobatic positions. Very difficult to observe thoroughly because of its skulking nature. Seen among the woody climbers of *Bauhinia* spread near Kokam, in the middlestorey near Saribar, on the way to Chopadi and near Namgir. **Resident and Rare.**

FAMILY ZOSTEROPIDAE

Zosterops palpebrosa - White-eye

A tiny, square tailed bird with slender, pointed, slightly curved bill. Small parties, occasionally up to forty birds, either by themselves or in association with other small birds; keeps to foliage and bushes; actively moves amongst leafy branches, clinging sideways and upside down; checks through leaves and sprigs for insects and also spends considerable time at flowers; calls often, both when in branches and when flying in small bands from tree to tree.

Very commonly sighted in mixed hunting parties as well as in pairs on trees in almost all parts of SWS. Seen hunting energetically among the foliage of trees for insects. Often observed clinging upside down and peering into likely nooks and crannies in the manner of tits. Foliage gleaning and bark gleaning were other activities came across. Flower nectar and fleshy pulp of fruits and berries comprise its food. Seed dispersal and pollination were carried out by these tiny birds which were very important in propagating plant community. **Resident/Local Migratory and Very common.**

FAMILY PLOCEIDAE

SUBFAMILY PASSERINAE*Passer domesticus* - House Sparrow

Undoubtedly our most familiar bird. Small parties to large gatherings; mostly commensal on man, feeding and nesting in and around habitation; also feeds in cultivation; hundreds roost together.

These omnivorous birds were a confirmed hanger-on of humans. Around human habitation of outlying forest, these birds were invariably found feeding on grains, insects, fruits, buds, flower nectar, etc. Sometimes seen collecting in enormous flocks and doing damage to ripening crops. Community roosting in large, leafy trees come across near villages like Andu, Sagai, Mathavali, etc. Its medley chirping call notes were very well known. **Resident and Very common.**

Passer montanus - Tree Sparrow

Gregarious mountain bird; mostly feeds on ground picking seeds; may associate with other birds; often perches on dry branches, overhead wires.

Very rarely spotted in the study area. It was once spotted perching on overhead wires on way to Mohbi and Shisha. Two or three times seen feeding on ground along with other small granivorous and insectivorous birds. **Winter Visitor and Rare.**

Petronia xanthocollis - Yellowthroated Sparrow

A pale earth brown sparrow with a conspicuous chestnut 'shoulder-patch'. Gregarious during monsoon and winter; moves considerably in some areas; keeps to tall, leafy trees in forest; may escape notice were it not for its characteristic, frequent chirping; feeds on ground and also on flowering trees.

These birds were not so closely associated with man as the house sparrow. Kept to open scrub country and light deciduous forest tracts. It was seen gleaning grains and grass seeds in and around cropfields. Also seen feeding upon berries, nectar and moths and other insects near village settlements of Mal, Samot and other such places. For capturing insects and taking flower nectar frequents tall, leafy trees in flowering season. Could be mistaken with house sparrow but its characteristic chirping call notes helps in differentiation. **Resident/Local Migratory and Scarce.**

SUBFAMILY PLOCEINAE

Ploceus phillippinus - Baya (Plate VIII b)

Gregarious; one of the most familiar and common birds of India, best known for its nest; keeps to cultivated areas, interspersed with trees; feeds on ground and in standing crop.

Seen frequenting cropfields for gleaning seeds. Found roosting in reed beds near waterbody or rivers at the places such as Mozda (near river), Sagai (near river) and on the way to Mohbi. They were seen moving a considerable distance locally in search of food and nesting material. Cropfields interspersed with trees were favoured for nest building. Insects and flower nectar were devoured in addition to grains and seeds.

Resident and Scarce.

Ploceus manyar - Streaked Weaver Bird

Gregarious; prefers tall grass, reed beds in well-watered areas; active, as a rule not flying into trees; often nests close to other weavers.

Prefer marshy areas with reed beds and water nearby. Found feeding upon grains, seeds, insects and nectar. Usually stream-side grass patches seems to harbour these birds. Seen near Kelda Khadi, Mozda (near river), Sankli Khadi, etc. frequenting reed beds and tall grass. **Resident and Rare.**

SUBFAMILY ESTRILIDINAE

Lonchura malabarica - Whitethroated Munia

A plain earthy brown, thickbilled little finch. Gregarious, mostly keeps to scrub in open country; feeds on ground and on standing crop, especially millet; overall a rather 'dull' bird, both in colour and demeanour.

Flocks of these birds, either on overhead wires or frequenting cropfields were a very common sight in the study area. Seen preferring open scrub country, forest edges. Very rarely found in forest clearings. These gregarious birds were seen feeding upon grass seeds and grains. Degradation of forest and established agricultural practice in some areas like Mal, Samot, Sakva, Sagbara, etc. make abundance of these bird very common. **Resident and Very common.**

Plate VIII a. Indian Roller a very common bird in all parts of the sanctuary.

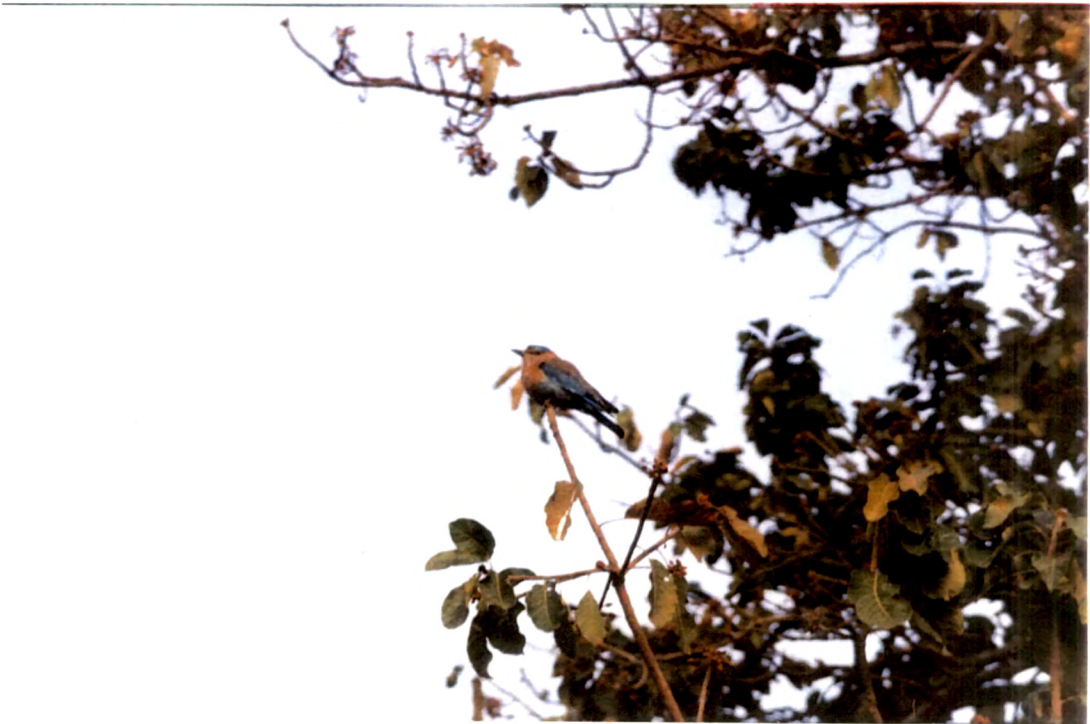


Plate VIII b. Baya with its nest-agricultural practice may increase their number.



***Lonchura punctulata* - Spotted Munia**

Sociable, moving in flocks of six to several dozen birds, often with other munias, weaver birds; feeds on ground and low bush, but rests in trees.

Large flocks of these birds flying over cultivated land commonly come across in SWS. Seen hopping about on ground gleaning grass seeds near village like Sagai, Mal, Samot, Fulsar, Mathavali, Patavali and Andu. These birds were seen occasionally also devouring winged termites, embiids, earwigs, etc. from ground. When disturbed flew up into trees and bushes. They fly in disorderly closepacked undulating rabbles, which is very typical of all the munias. **Resident and Very common.**

FAMILY EMBERIZIDAE***Melophus lathami* - Crested Bunting**

A black and chestnut, crested, sparrow-like bird. Small flocks, often spread wide over an area; feeds on ground, on paths, meadows and on tar roads, especially along mountainsides; perches on ruins, walls, stones and low bushes; on ground, an active and upright bird.

Scattered parties or pairs of these birds were spotted on stony, scrub-covered hillsides and about forest cultivation. Gleaning grass seeds and grains on the ground was observed. Fly up into the bushes when disturbed. Seen at Pankhala, Umarva, Sagai, Kalvat and Fulsar. **Resident and Uncommon.**

CONCLUSIONS

On the whole, during the tenure of study 175 species of birds were spotted. They belong to 47 families, 7 subfamilies and 123 genera. Analysis of occurrence of birds in the sanctuary round the year reveals that 131 birds are resident, 27 are winter visitor, 7 are resident/local migratory, 1 local migratory, 1 breeding visitor, 1 monsoon visitor, 1 vagrant, 2 resident/winter visitor and 1 breeding/monsoon visitor (Figure II.1). Classification according to number, however, reveals that 27 species are encountered very commonly, 22 commonly, 14 fairly common and 22 uncommon. Whereas 48 species of birds are scarce and 42 are rare (Figure II.2). The probable reasons for this have been discussed in detail in General Considerations and Recommendations.

FIGURE II.1. YEAR ROUND OCCURRENCE OF BIRDS IN SWS

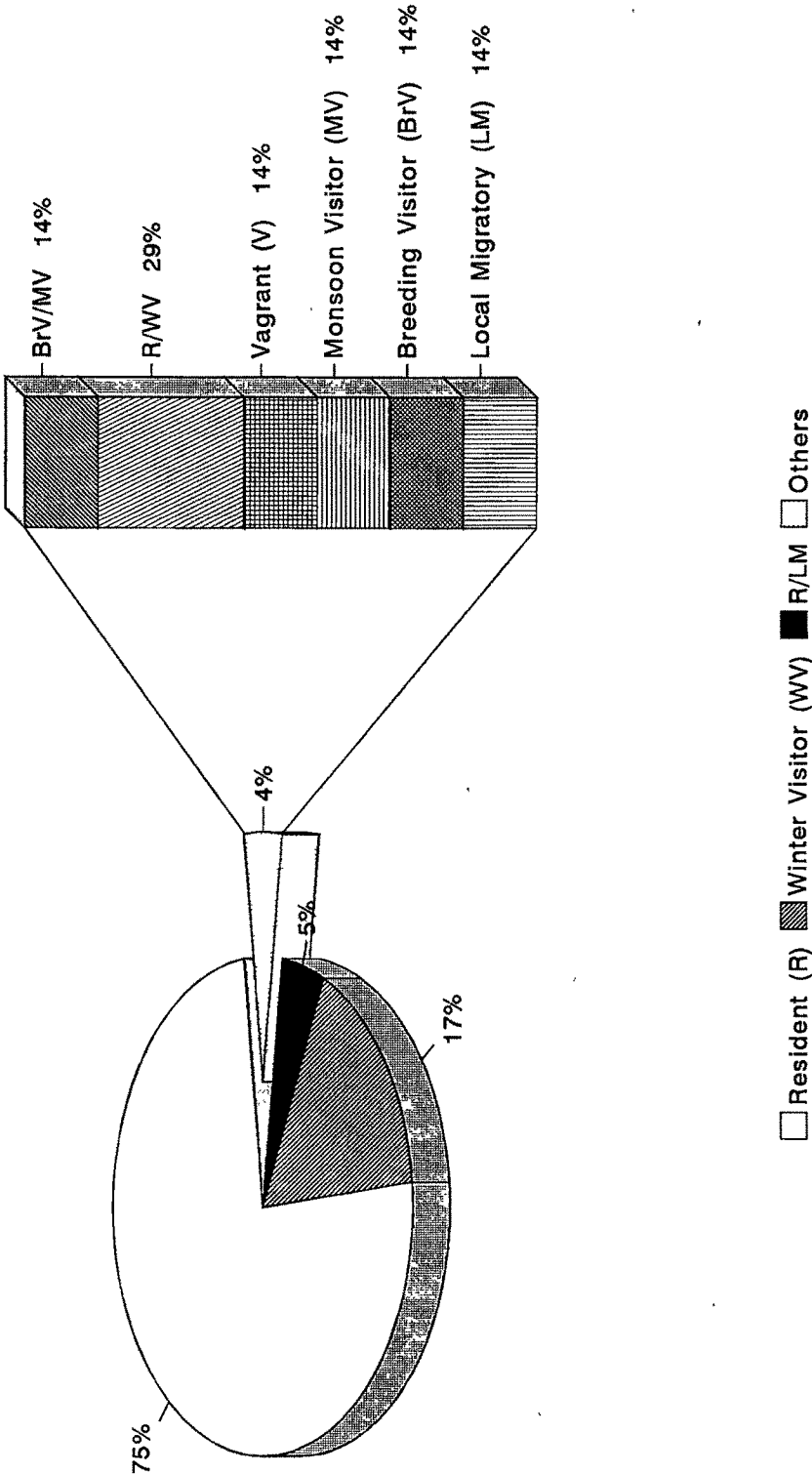


FIGURE II.2. ABUNDANCE OF BIRDS IN SWS

