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**Records of the  
Zoological Survey of India**

**BIRDS OF GOA**

**B. C. SAHA  
AND**

**J. M. DASGUPTA**

**ZOOLOGICAL SURVEY OF INDIA**

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*By*

**B. C. SAHA AND J. M. DASGUPTA**



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# BIRDS OF GOA

*By*

B. C. SAHA AND J. M. DASGUPTA

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## INTRODUCTION

After the merger of Goa with the Indian Union, the Zoological Survey of India sent several parties to explore the faunal wealth of this place. The paper is based on the ornithological material collected during 1968-1978. Included also are records made from Goa by Grubh and Ali (1976) and Rane (1984).

Our knowledge on the bird life of the State is limited to the records made from the adjoining areas of North Kanara by Davidson (1898) and Karnataka by Ali (1942-43). Grubh and Ali (1976) reported 88 species and subspecies and sight record of 65 species from Goa. Rane (1984) made sight records of another 30 species. A additional records of 25 species and subspecies are also made in the present report.

## PHYSIOGRAPHY

Goa lies between latitudes 14°53'—15°48' N and longitudes 73°45'—74°24' E, covering an area of about 3370 square kilometres. Tucked between the Western Ghats and the Arabian Sea, it has a warm tropical climate with temperature ranging between 31°C and 21°C. Humidity throughout the year is high, the average being 86 per cent. The southwest monsoon operates over the entire area which registers a fairly high rainfall. Average annual rainfall in Goa is about 305 cm.

Geographically, Goa forms a distinct region marked off from the adjoining areas by Western Ghats which dominate its topography. River Tirakol flowing on its north provides a boundary line with the adjoining State of Maharashtra. On the east and the south, the state abuts on the Dharwar district of Karnataka. The western part of Goa has a long coastal line of about 105 km.

Goa can be divided into three zones, laterite, the interior or middle, and the hilly. The laterite zone comprises a narrow belt of sandy soil along the coast displaying luxuriant growth of palms and coconut trees. In the middle zone, the soil is heavy and is used mostly for rice cultivation, though coconut plants are not altogether absent. The third zone is hilly and lies on the western side where lies the southern end of the Sahyadri range. The eastern tract is ornamented with a vast stretch of dense hilly forest, extending from Valpoi in the north to Canacona in the south. The forests are of evergreen and semi-evergreen types in deep gorges and ravines. Moist deciduous, mostly secondary and degraded forests occur along the foothills.

SYSTEMATIC ACCOUNT  
Order CICONIIFORMES  
Family ARDEIDAE

1. Little Green Heron. *Ardeola striatus* (Linnaeus)

Rane (1984, p. 638) noted it at Panji.

2. Indian Pond Heron. *Ardeola grayii grayii* (Sykes)

3 km West of Margao : 1 ♀ (17 Dec 1968). 10 km Southeast of Ponda : 1 ♀ (17 March 1973). Molem : 1 ♂ (4 Oct 1977).

The Pond Heron is common at streams, tanks and in the paddy fields, singly or in small parties.

Grubh and Ali (1976, p. 43) noted it at Molem and Canacona.

All the three birds are in non-breeding plumage. Baker (1929, p. 354) mentioned the presence of a maroon patch on each side of the lower breast in non-breeding birds, but Ali and Ripley (1968) do not mention such a patch, nor could we find any in the collection present at Zoological Survey of India. The first four primaries in birds collected in Dec and Mar have a variable amount of grey at the outer web and tips. Grey in the primaries are more pronounced and extend to a variable degree on the seventh primary in the autumn bird (October).

<i>Measurements :</i>	Wing	Tail	Bill (from feathers)	Tarsus
1 ♂ :	200	78	60	54
2 ♀ :	190, 195	71 (2)	58, 60	55, 58

3. Cattle Egret. *Bubulcus ibis* (Linnaeus)

The Cattle Egret was not met with by the ZSI parties. Grubh and Ali (1976, p. 43), however, noted it at Valpoi.

Family CICONIIDAE

4. Whitenecked Stork. *Ciconia episcopus* (Boddaert)

Rane (1984, p. 638) noted this species at Molem.

Order FALCONIFORMES

Family ACCIPITRIDAE

5. Blackwinged Kite. *Elanus caeruleus vociferus* (Latham)

Conacona, Cotigaon : 1 ♀ (12 Feb 1978). Valpoi, Santrem : 1 ♂ (2 Mar 1978).

The Blackwinged Kite is common in Goa, particularly in the deciduous forest along rivers or large waterpools, singly.

Grubh and Ali (1976, p. 43) spotted this species at Maem and Molem.

The female specimen has the breast and flanks tinged with pale pearly grey and not white as stated by Baker (1928, p. 126).

The specimen taken in February had granular ovary with reddish tinge.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
1 ♂ :	268	126	24.5	34
1 ♀ :	265	124	24	32

*Weight* : 1 ♂ 194g and 1 ♀ 210g.

#### 6. Indian Crested Honey Buzzard. *Pernis ptilorhynchus ruficollis* Lesson

Grubh and Ali (1976, p. 43) collected it from Canacona.

#### 7. Pariah Kite. *Milvus migrans* (Boddaert)

Grubh and Ali (1976, p. 43) sighted this species in urban areas.

#### 8. Brahminy Kite. *Haliastur indus* (Boddaert)

The Brahminy Kite in Goa was noted by Grubh and Ali (1976, p. 43) at Maem Lake environs.

#### 9. Indian Shikra. *Accipiter badius dussumieri* (Temminck)

Valpoi, c 5 km Northeast of Forest Rest House : 1 ♂ (9 Jan 1973).

Poinguinim : 2 ♂ (29 Mar 1973, 13 Feb 1978). Molem : 2 ♂, 1 ♀ (29 Sept 1977, 4 Oct 1977, 24 Feb 1978).

The Indian Shikra is commonly found singly or in pairs, in and around villages, as well as about cultivated fields.

Grubh and Ali (1976, pp. 43, 44) collected it from Molem and Valpoi, and also noted it from Canacona.

In our October specimen both the 4th primaries are moulting. The specimen of March differs from others in having pale rufous barrings on the underparts ; rufescent brownish collar on the hindneck obsolete.

The specimens taken in March and October have enlarged testes.

<i>Measurements</i> :	5 ♂	1 ♀
Wing :	179, 180, 181	203
	182, 184	
Tail :	130, 136, 139	156
	140, 152	
Bill :	20(2), 21(2), 23	23
Tarsus :	47(2), 50, 51, 55	51

*Weight* : 1 ♂ 130g ; 1 ♀ : 190g (*cf.* one female 223g, Grubh and Ali, 1976, p. 44).

10. South Indian Crested Goshawk. ***Accipiter trivirgatus peninsulæ*** Koelz

Bondla : 1 ♀ (6 Oct 1977).

It appears to be uncommon, but found singly in undisturbed deep forested areas in the vicinity of water sources, ponds and large pools.

Grubh and Ali (1976, p. 44) noted this species at Molem.

The October specimen has sheath on the bases of both the 1st primaries.

*Measurements* : 1 ♀ ; Wing 231 ; tail 181 ; bill 30 ; tarsus 61 (*Tarsus cf.* 51-57 mm Baker 1928, p. 154).

11. Besra Sparrow-Hawk. ***Accipiter virgatus*** (Temminck)

Rane (1984, p. 638) sighted this species at Molem.

12. White-eyed Buzzard-Eagle. ***Butastur teesa*** (Franklin)

Margao, 5 km east of Margao Rest House : 1 ♀ (18 Dec 1968). Valpoi, 2 km North of Forest Rest House : 1 ♀ (10 Jan 1969).

It is not uncommon. Seen singly gliding in deforested valleys and cultivated tracts, often flying quite low in search of food.

Grubh and Ali (1976, p. 44) collected a female specimen from Molem.

Our January female specimen is young in having the broad forehead and supercilium buffy white. Another female specimen of 18 December is not fully adult, the abdomen and vent unlike adults is more or less buffy white and less streaked with dark brown bars.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
2 ♀ :	281, 290	166.5, 167	31.5, 32	64(2)

13. Black Eagle. ***Ictinaetus malayensis*** (Temminck)

Grubh and Ali (1976, p. 44) sighted it at Canacona.

14. Whitebacked Vulture. ***Gyps bengalensis*** (Gmelin)

This is the commonest vulture of Goa. It was noticed by us at Panjim, soaring up in the sky. Grubh and Ali (1976, p. 44) noted it at Canacona.

15. Peninsular Serpent Eagle. ***Spilornis cheela melanotis*** (Jerdon)

This handsome Eagle was noticed by us on a very few occasions at Canacona, perched aloft, partly concealed by the foliage in a tall tree, singly. Grubh and Ali (1976, p. 44) collected it at Molem.

16. Osprey. *Pandion haliaetus* (Linnaeus)

Grubh and Ali (1976, p. 44) noted it at Canacona.

Family FALCONIDAE

17. Shahin Falcon. *Falco peregrinus peregrinator* Sundevall

Grubh and Ali (1976, p. 44) noted it at Molem.

18. European Kestrel. *Falco tinnunculus tinnunculus* Linnaeus

Molem, Colem c 5 km Northeast of Forest Rest House : 1 ♂ (2 Jan 1969). Valpoi : 1 ♀ (16 Jan 1969).

The European Kestrel occurs singly near cultivation at the foot of the hills.

Grubh and Ali (1976, p. 44) collected a male from Molem and also noted it at Canacona. They identified as *F. t. interstinctus* but in 1977, p. 357 subsequently corrected as *tinnunculus*.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
1 ♂ :	243	161.5	21	40
1 ♀ :	262	180	21	36

Order GALLIFORMES

Family PHASIANIDAE

19. Grey Quail. *Coturnix coturnix* (Linnaeus)

Grubh and Ali (1976, p. 44) noted it at Valpoi.

20. Jungle Bush Quail. *Perdica asiatica asiatica* (Latham)

Rane (1984, p. 638) noted it at Mayem.

21. Red Squirrel. *Galloperdix spadicea* (Gmelin)

Grubh and Ali (1976, p. 44) noted it in various localities of the area.

22. Grey Junglefowl. *Gallus sonneratii* (Temminck)

Molem, Colem c 2 km West of Molem Rest House ; 2 subad. ♂ (5 Jan 1969). Valpoi, 12 km East of Forest Rest House : 1 ♂ (13 Jan 1969).

The Grey Junglefowl is not an uncommon bird. Seen single as well as in parties feeding in the clearings of forest near foothills. Usually shy.

Grubh and Ali (1976, p. 44) noted it at Molem and Canacona.

The subadult male specimens collected on 5 January have their tail feathers moulting.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
1 ♂ :	220	308	36	80
2 ♂ (subad). :	195, 200	100+(2)	34, 34.5	67, 70

23. Common Peafowl. ***Pavo cristatus cristatus*** Linnaeus  
Rane (1984, p. 638) noted this species at Molem and Bondla.

Order GRUIFORMES

Family TURNICIDAE

24. Common Bustard-Quail. ***Turnix suscitator*** (Gmelin)  
Grubh and Ali (1976, p. 44) noted it at various localities in Goa.

Family RALLIDAE

25. Whitebreasted Waterhen. ***Amaurornis phoenicurus phoenicurus*** (Pennant)  
Molem : 1 ♀ (20 Feb 1978).

The Whitebreasted Waterhen is quite common, occurring in bushes and edges of cultivated paddy fields along the hill streams ; keeps singly.

Grubh and Ali (1976, p. 44) noted this species from Canacona.

The outer web of the 1st primary is, according to all latest literature white, *contra* black in our specimen. We have critically examined all the specimens present in the National Zoological Collection and did not come across any black outer-webbed 1st primary.

*Measurements* : 1 ♀ : Wing 160 ; tail 70 ; bill 36 ; tarsus 49.

*Weight* : 1 ♀ : 180g.

26. Coot. ***Fulica atra*** Linnaeus

The Coot has been noted at North Goa by Grubh and Ali (1976, p. 44).

Order CHARADRIIFORMES

Family CHARADRIIDAE

27. Redwattled Lapwing. ***Vanellus indicus indicus*** (Boddaert)

Margao : 1 juv. ♀ (17 Dec 1968). Bondla : 1 ♀ (6 Oct 1977).

Molem : 1 ♀ (21 Feb 1978).

The Redwattled Lapwing is common and found in pairs near wetland and cultivated fields.

Grubh and Ali (1976, p. 44) noted it at Molem and Canacona.

The specimen taken on December 17 is a juvenile female. Its crown is brown and feathers of the head and hindneck are sooty brown ; the feathers of chin, throat and foreneck are not pure white but white fringed with blackish. The lesser wing-coverts are rufous edged. The primary coverts, primaries and the outer secondaries are tipped rufous. In the October specimen both the 1st and the 2nd primaries are moulting.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
3 ♀	: 222, 225, 226	111, 113, 114	34, 37, 40	65, 70, 77

*Weight :* 1 ♀ (imm) : 165g.

### 28. Yellow-wattled Lapwing. *Vanellus malabaricus* (Boddaert)

Ponda : 1 unsexed (16 Mar 1973).

It is found singly or in pairs in dry open terrain along forest fringes.

The specimen is in breeding plumage. The greater coverts are white apically only, still retaining brown at the base. The outer tail feathers are margined with brown on the outer webs.

*Measurements :* 1 unsexed : Wing 195 ; tail 80 ; bill 30 ; tarsus 57.

### 29. Kentish Plover. *Charadrius alexandrinus alexandrinus* Linnaeus

Margao, Colva beach ; 2 ♀ (19 Dec 1968).

The Kentish Plover is fairly common. It is generally found in pairs, or in scattered parties with other waders, foraging along the coastal region.

The specimens are in winter plumage.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
2 ♀	: 105, 107	46, 47	19, 20	27(2)

### 30. Green Sandpiper. *Tringa ochropus* Linnaeus

Valpoi, Aravali hills : 1 ♂ (12 Jan 1969). Molem : 1 ♀ (3 Apr 1973).

The Green Sandpiper is fairly common during winter, near streams, puddles, tanks and also tidal creeks.

Grubh and Ali (1976, p. 44) noted it at Maem Lake.

The specimen taken on 3 Apr has conspicuous white spots on the back.

The ovary of the specimen was somewhat enlarged.

<i>Mcasurements :</i>	Wing	Tail	Bill	Tarsus
1 ♂	: 140	57	43	35
1 ♀	: 144	55	45	35

31. Common Sandpiper. *Tringa hypoleucos* Linnaeus

Molem : 1 unsexed (24 Feb 1978).

It is common, but not abundant, frequents streams, seashore and tidal creeks. Usually solitary.

The specimen is in winter plumage.

*Measurements* : 1 unsexed : Wing 108 ; tail 53 ; bill 29 ; tarsus 24.

*Weight* : 1 unsexed : 46g.

32. Pintail Snipe. *Gallinago stenura* (Bonaparte)

Canacona, Poinguinim : 2 ♀ (15 Feb 1978). 1 ♀ (16 Feb 1978). 1 ♀ (17 Feb 1978).

The Pintail Snipe is not uncommon in winter. It is found singly or in scattered parties, on bogs and marshes.

All the specimens had granular ovaries.

*Measurements* : 4 ♀

Wing : 125, 130, 131, 133

Tail : 46(2), 47, 48

Bill : 66, 70(2), 71

Tarsus : 33, 34, 36, 38

*Weight* : 4 ♀ : 90g, 112g, 114g and 120g.

The measurements of all the specimens are appreciably smaller than given in Baker (1929, p. 263) and Ali and Ripley (1969, p. 282).

## Family LARIDAE

33. Great Blackheaded Gull. *Larus ichthyaetus* Pallas

Margao, Colva Beach : 1 juv. ♀ (19 Dec 1968).

The Great Blackheaded Gull is common but not numerous, found singly during winter along the seaboard often dropping in the sea for fishing.

This is a juvenile specimen having the crown almost white mixed with paler brown. Rump fully mottled dark brown, but upper tail-coverts white. Underparts white excepting some under tail-coverts that have large black-brown spots. Axillaries and under wing-coverts white tipped with dark brown. The plumage of scapulars, wings and tail are worn and abraded. The specimen is in the threshold of attaining first winter plumage.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
1 juv. ♀ :	450	174	81	72

34. Brownheaded Gull. *Larus brunnicephalus* Jerdon

Margo, Colva beach : 1 subad. ♀ (19 Dec 1968).

The Brownheaded Gull is a common winter visitor. It frequents the coastal backwaters in the neighbourhood of fishing villages. This species occurs more or less gregariously, and may be seen resting on the water, or flying about and feeding on fish.

The specimen is in winter plumage. In the two outermost primaries white is restricted to the base only.

*Measurements* : 1 subad. ♀ : Wing 309 ; tail 110 ; bill 50 ; tarsus 49.

35. Blackheaded Gull. *Larus ridibundus ridibundus* Linnaeus

Panjim, Mandovi river : 1 subad. ♀ (1 Jan 1969).

It is common along the seashore and riverside.

The specimen is in winter plumage, having the crown white, patch in front of the eye, line under eye and posterior part of ear-coverts dark brown ; mantle, scapular, back and rump pale blue-grey ; upper tail-coverts, and underparts white ; tail-feathers white with white extreme tips and broad penultimate black-brown band, outermost feathers completely white ; 1st and 2nd primaries have white shaft except the blackish tip and the white is slightly broadened near the tips ; greater coverts grey, tipped buff ; median and lesser coverts dark brown with grey bases.

*Measurements* : 1 subad ♀ : Wing 301 ; tail 116 ; bill 52 ; tarsus 45.

36. Gullbilled Tern. *Gelochelidon nilotica* (Gmelin)

Grubh and Ali (1976, p. 44) noted it in North Goa.

Order COLUMBIFORMES

Family COLUMBIDAE

37. Greyfronted Green Pigeon. *Treron pompadora affinis* (Jerdon)

Molem : 1 ♂ (3 Jan 1969). 1 ♂ (3 Apr 1973). 1 ♀ (21 Feb 1978).

The Greyfronted Green Pigeon is common, particularly on fruit-bearing *Ficus* trees. It keeps in small flocks.

Grubh and Ali (1976, p. 44) collected one male from Valpoi and one female from Molem, and noted the bird in Canacona.

In the January specimen, the lower plumages of breast and abdomen are mostly grey with greenish tinge. It appears to be a subadult bird.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
2 ♂ :	142, 148	84, 93	19, 20	20, 22
1 ♀ :	143	77	19	20

*Weight* : 1 ♀ : 126g.

38. Indian Orangebreasted Green Pigeon. *Treron bicincta bicincta* (Jerdon)

Canacona, Poinguinim : 1 ♂ (10 Feb 1978).

The Indian Orangebreasted Green Pigeon does not appear to be particularly a common bird. It keeps in flocks, on fruiting trees in forest.

Although Goa is far away from Sri Lanka, in measurements our specimen agrees well with the Sri Lankan form *leggi* than the Indian *bicineta*. The subspecies *leggi* differs from *bicineta* only in being smaller in size. We have presently retained our specimen with *bicineta*, till more specimens are available for study.

*Measurements* : 1 ♂ : Wing 149 ; tail 89 ; bill 19 ; tarsus 19.

*Weight* : 126g.

#### 39. Green Pigeon. *Treron phoenicoptera* (Latham)

Rane (1984, p. 638) noted it at Bondla.

#### 40. Southern Maroonbacked Imperial Pigeon. *Ducula badia cuprea* (Jerdon)

Valpoi, Coduol : 1 ♀ (28 Feb 1978).

This bird is common, but not abundant ; seen singly or in twos on fruit-laden trees ; occupies evergreen forests.

Grubh and Ali (1976, p. 44) noted it at Canacona.

The specimen had the ovaries granular.

*Measurements* : 1 ♀ : Wing 212 ; tail 182 ; bill 34 ; tarsus 32.

*Weight* : 680g.

The minimum measurement of the wing is 221 (Ali and Ripley, 1969, p. 118). According to Baker (1928, p. 206) it is 210. Our specimen agrees well with Baker's.

#### 41. Indian Blue Rock Pigeon. *Columba livia intermedia* Strickland

Valpoi : 1 ♂ (2 Mar 1978).

The Blue Rock Pigeon is commonly found in flocks, in and around villages and towns, as well as about cultivated fields.

Grubh and Ali (1976, p. 44) noted *Columba livia* Gmelin at Canacona.

*Measurements* : 1 ♂ : Wing 213 ; tail 106 ; bill 25 ; tarsus 31.

*Weight* : 280g.

#### 42. Nilgiri Wood Pigeon. *Columba elphinstonii* (Sykes)

Molem, Colem : 1 ♂ (3 Jan 1969).

The Nilgiri Wood Pigeon is not an uncommon bird in evergreen forests, mostly affecting tall fruiting trees.

Grubh and Ali (1976, p. 44) collected it at Molem, and also noted it at Canacona.

*Measurements* : 1 ♂ : Wing 197 ; tail 146 ; bill 29 ; tarsus 25.

According to Ali and Ripley (1969, p. 133), the minimum measurements of wing and tail are 204 and 152. Ali (1969, p. 152) recorded 199 and 158 for female specimens respectively from Kerala and Karnataka. Grubh and Ali (1976, p. 44) mentioned 203 and 157 for one unsexed specimen from Goa. Our specimen then appears to be the smallest one.

43. Rufous Turtle Dove. *Streptopelia orientalis erythrocephala* (Bonaparte)

Grubh and Ali (1976, p. 44) noted it at Maem Lake environs and Molem.

44. Indian Ring Dove. *Streptopelia decaocto decaocto* (Frisvaldszky)

Canacona, Poinguinim : 1 ♀ (27 Dec 1968).

The Indian Ring Dove occurs in small numbers in cultivated areas.

Rane (1984, p. 639) noted the species at Bondla.

*Measurements* : 1 ♀ : Wing 158 ; tail 119 ; bill 22 ; tarsus 23.

45. Indian Spotted Dove. *Streptopelia chinensis suratensis* (Gmelin)

Canacona, Poinguinim : 1 ♂ (24 Dec 1968). Valpoi : 1 ♀ (1 Mar 1978).

The Indian Spotted Dove is commonly found in pairs, sometimes in loose parties in cultivated tracts in and around human habitation.

Grubh and Ali (1976, p. 44) noted *Streptopelia chinensis* (Scopoli) at Maem Lake and Molem.

The vinous-grey of underparts of our specimens is much darker than north Indian specimens which are rather vinous-red.

The three outermost left rectrices are in moult.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
1 ♂ :	128	123	20	21
1 ♀ :	128	127	20	21

*Weight* : 1 ♀ : 84g.

According to Baker (1928, p. 243) wings of South Indian birds measure 128 to 143, rarely under 132, except in Travancore. Birds from South Travancore are near *ceylonensis*, wing 128 to 133. Ali and Ripley (1969, p. 153), state that the Sri Lankan form differs from the Indian *suratensis* only in its smaller size. Measurements of wing of specimens from Sri Lanka, 128-136 and those of Peninsular birds are 132-143 (Ali and Ripley, 1969, p. 153-154). In wing-size our specimens agree with those of *ceylonensis*. It is said that the two subspecies *suratensis* and *ceylonensis* differ only in size. So we have at present retained our specimens with *suratensis*, till more specimens are available for comparison.

46. Little Brown Dove. *Streptopelia senegalensis* (Linnaeus)

Grubh and Ali (1976, p. 44) noted it at Canacona.

47. Indian Emerald Dove. *Chalcophaps indica indica* (Linnaeus)

Molem : 1 ♂ (27 Sept 1977).

The Indian Emerald Dove does not appear to be a common bird. Usually seen running about on roads through forest.

Grubh and Ali (1976, p. 44) noted it at Molem.

*Measurements* : 1 ♂ : Wing 147 ; tail (damaged) ; bill 24.5 ; tarsus 25.

## Order PSITTACIFORMES

## Family PSITTACIDAE

48. Southern Blossomheaded Parakeet. *Psittacula cyanocephala cyanocephala* (Linnaeus)

Canacona, Poinguinim : 2 ♂, 1 ♀ (23 Dec 1968), 1 ♂ (12 Feb 1978), 1 ♀ (12 Feb 1978).  
Molem : 2 ♂ (30 Sept, 4 Oct 1977). Ponda : 2 ♂, 2 ♀ (18-19 Mar 1973).

The Southern Blossomheaded Parakeet is fairly common in light forest and in cultivation. It occurs in small parties of 3 to 8 birds.

Grubh and Ali (1976, p. 45) collected it from Molem and also noted at Canacona.

A male taken on March 1973 looks almost like a female excepting a patch of red colour on the forehead, and is evidently a bird of the year.

<i>Measurements</i> :	Wing	Tail	Bill (from cere)	Tarsus
6 ♂ :	135, 136 (2), 139, 140, 144	183, 199, 202, 210, 212, 220	14, 17 (2), 18 (3)	12, 13 (3), 14 (2)
4 ♀ :	128, 129, 130, 132	144+, 170, 178, 180	16 (2), 17 18	13 (4)

*Weight* : 1 ♂ ; 82g.

49. Bluewinged Parakeet. *Psittacula columboides* (Vigors)

Molem : 1 ♂ (5 Oct 1977).

It is common in hilly terrain, occasionally in the low country ; keeps in small flocks ; affects deciduous and evergreen forests, groves and gardens.

Grubh and Ali (1976, p. 45) noted it at Canacona and Molem.

*Measurements* ; 1 ♂ : Wing 145 ; tail 227+ ; culmen (from cere) 24 ; tarsus 18.

50. Indian Lorikeet. *Loriculus vernalis* (Sparrrman)

Molem : 1 unsexed (2 Oct 1977).

The Indian Lorikeet is fairly common in evergreen forests. It is found in pairs. Grubh and Ali (1976, p. 45) noted it at Valpoi.

*Measurements* : 1 unsexed : Wing 92 ; tail 39 ; bill (from cere) 11 ; tarsus 11.

Order CUCULIFORMES

Family CUCULIDAE

51. Common Hawk-Cuckoo. *Cuculus varius varius* Vahl

Canacona : Poinguinim : 1 juv. ♀ (24 Mar 1973).

The Hawk-Cuckoo is fairly common during summer. It is found singly around villages and the edges of forests.

Rane (1984, p. 639) noted the species at Molem, Bondla and Mayem.

The specimen taken in March is in juvenile plumage.

*Measurements* : 1 juv. ♀ : Wing 186 ; tail 166 ; bill 29 ; tarsus 23.5.

52. Indian Cuckoo. *Cuculus micropterus* Gould

Grubh and Ali (1976, p. 45) noted it at Canacona.

53. Small Cuckoo. *Cuculus poliocephalus poliocephalus* Latham

Molem : 1 ♀ (24 Sept 1977).

The Small Cuckoo is generally found in forested areas.

The specimen is in hepatic phase and agrees nicely with the description of hepatic phase given by Biswas (1969, p. 542).

*Measurements* : 1 ♀ : Wing 145 ; tail 128 ; bill 24 ; tarsus 17.

54. Indian Bay Banded Cuckoo. *Cacomantis sonneratii* (Latham)

Rane (1984, p. 639) reported it from Molem.

55. Indian Plaintive Cuckoo. *Cacomantis passerinus* (Vahl)

Rane (1984, p. 639) noted this species at Molem.

56. Drongo-Cuckoo. *Surniculus lugubris* (Horsfield)

Rane (1984, p. 639) noted it at Bondla and Molem.

57. Indian Koel. *Eudynamys scolopacea scolopacea* (Linnaeus)

Margao ; 1 ♀ (17 Dec 1968) ; Valpoi : 1 subad. ♂ (13 Jan 1969).

Molem : 1 ♀ (20 Feb 1978) ; Canacona, Poinguinim : 2 ♂ (27 Mar 1973 and 10 Feb 1978) ; 2 ♀ (10-11 Feb 1978) ; Ponda ; 1 ♂ (18 Mar 1973), 2 ♀ (21-22 Mar 1973).

The Indian Koel is a common bird, frequently seen in mixed feeding flocks in banyan tree (*Ficus bengalensis*). Also found feeding on nectar of *Erithrina indica* during February-March.

Grubh and Ali (1976, p. 45) collected a single male specimen from Canacona and noted it at Molem.

The female specimen of December 1968 is pale brown with blackish head, throat and breast. Above, the white spots are much scanty. The head region is marked only by white streaks just above the eye. Spotting on the chin and throat is also infrequent. From abdomen downwards the barrings are brownish and not blackish.

The male specimen collected, January 1969, is a subadult, in having the greater coverts barred with rufous and tipped whitish ; primary coverts are also tipped with white. Outer pair of rectrices from the left side are in moult. Under tail-coverts and feathers of the abdomen and thigh are barred with whitish ; under wing-coverts barred with rufous. The glistening black of the moulted feathers are restricted to head, back, a few feathers of the rump and some feathers of the throat and upperbreast. A few primary feathers on the undersurface are mottled whitish in the inner webs.

Another male specimen of 18 Mar 1973 has not yet fully assumed the glistening black colour. The black is restricted to head, back, last two primaries from inside, two tertiaries of the left wing, upper tail-coverts, central tail feathers, lesser and median coverts and to the chin, throat and breast. Primary and greater coverts are tipped white. Undersurface of the wing (primaries only) and a few rectrices are mottled with whitish. Under wing-coverts and axillaries are also tipped whitish.

Another male specimen of 27 March 1973 has the greater coverts, primary coverts and 1st primaries and under wing-coverts tipped rufous. Under-surface of the tail are mottled rufous on the inner webs. Glistening black colour is confined to head and back, rump, upper tail-coverts, a pair of wing feathers and to the feathers of the chin, throat and upper breast ; rest of the plumage are dull brown.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
4 ♂ :	184, 185	181, 187	32 (3),	31.5, 33 (2), 34
	187, 188	188, 192	32.5	
6 ♀ :	183 (2), 185,	176, 181,	31, 32 (2),	31, 32 (2),
	187 (2), 189	189 (2),	32.5, 33,	33, 34 (2)
		191, 194	33.5	

*Weight :* 1 ♂ : 29g ; 3 ♀ : 62g, 70g and 140g.

#### 58. Small Greenbilled Malkoha. *Rhopodytes viridirostris* (Jerdon)

Ponda : 1 ♀ (20 Dec 1968).

The Small Greenbilled Malkoha is relatively a rare bird. It is found in the forests, both in the dense parts and in the thorny bushes, keeps singly or in pairs.

*Measurements* : 1 ♀ : Wing 134 ; tail 241 ; bill 34 ; tarsus 34.

59. Southern Crow-Pheasant. *Centropus sinensis parroti* Stresemann  
Canacona, Poinguinim : 1 ♂ (15 Feb 1978) ; 1 ♀ (26 Mar 1973).  
Molem : 2 ♂ (4 Jan 1969 and 30 Feb 1978).

The Crow-Pheasant is a common bird in bushes, scrub-jungle, rubber plantations, and the neighbourhood of cultivation and human habitations, keeps singly or in pairs.

Grubh and Ali (1976, p. 45) have collected a female specimen from Molem and also noted it from Canacona.

It is interesting to note that the specimen collected on February 15 has the median coverts of the right wing completely white, obviously a case of partial albinism.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
3 ♂ ;	181, 185 (2),	241, 248, 277	41, 43, 44	50, 51 (2)
1 ♀ ;	193	275	41	47

The tail of one male specimen of 4 January measures 277 and is the maximum length recorded so far.

*Weight* : 2 ♂ : 208g. and 218g.

#### Order STRIGIFORMES

#### Family STRIGIDAE

60. Ceylon Collared Scops Owl. *Otus bakkamoena bakkamoena* Pennant  
Molem : 1 unsexed (4 Oct 1977).

The Collared Scops Owl appeared to be uncommon. Occurs in forested area. Keeps singly.

*Measurements* : 1 unsexed : Wing 139 ; tail 67 ; bill 21 (from feathers) ; tarsus 32.

61. Malabar Barred Jungle Owlet. *Glaucidium radiatum malabaricum* Blyth  
Canacona, Poinguinim : 1 ♂ (25 Mar 1973). 1 ♀ (17 Feb 1978).  
Molem : 1 ♀ (5 Apr 1973). Valpoi : 2 ♂ (11 Jan 1969, 25 Sept 1977).

The Barred Jungle Owlet is fairly common. Seen singly in open forested area.

Grubh and Ali (1976, p. 45) noted the species at Maem Lake environs, Molem, Canacona, and Valpoi.

It differs from the nominate *radiatum* only in being darker and more rufous. This character is very variable and overlapping. Individual specimen may be very difficult to separate from each other and can be placed in either form,

The male specimen of September 1977 has the 3rd primaries (as) in moulting condition.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
3 ♂ :	125, 130, 134	65, 69, 75	19, 20, 21	22 (3)
2 ♀ :	129 (2)	67, 69	20, 21	22, 25
<i>Weight</i> :	1 ♀ : 120g.			

Order CAPRIMULGIFORMES

Family CAPRIMULGIDAE

62. Great Eared Nightjar. *Eurostopodus macrotis* (Vigors)

Grubh and Ali (1976, p. 45) noted it at Valpoi.

63. Indian Jungle Nightjar. *Caprimulgus indicus indicus* Latham

Molem, Colem : 1 ♂ (3 Jan 1969) ; 1 ♀ (3 Apr 1973).

The Indian Jungle Nightjar is common in teak plantation.

Grubh and Ali (1976, p. 45) collected it at Valpoi.

The overall general tone of the colour in the female is sandy brown and in the male, dark brown.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
1 ♂ :	193	145	23	15
1 ♀ :	194	134	24	15

64. Longtailed Nightjar. *Caprimulgus macrurus atripennis* Jerdon

Grubh and Ali (1976, p. 45) collected a male specimen from Canacona.

65. Franklin's or Allied Nightjar. *Caprimulgus affinis monticola* Franklin

Canacona, Poinguinim : 1 ♂ (15 Feb 1978).

Franklin's Nightjar was found singly in thorny scrub by the side of a nullah near paddy cultivation.

The specimen had enlarged testes.

*Measurements* : 1 ♂ : Wing 199 : tail 120 ; bill 22 ; tarsus 21.

*Weight* ; 1 ♂ : 60g,

## Order APODIFORMES

## Family APODIDAE

66. House Swift. *Apus affinis* (J. E. Gray)

Rane (1984, p. 639) noted it at Molem and Panaji.

67. Whiterumped Spinetail Swift. *Chaetura sylvatica* (Tickell)

Grubh and Ali (1976, p. 45) collected an unsexed specimen from Molem.

68. Palm Swift. *Cypsiurus parvus* (Lichtenstein)

Grubh and Ali (1976, p. 45) noted it at Molem.

69. Crested Tree Swift. *Hemiprocne longipennis coronata* (Tickell)

Canacona, Poinguinim : 1 ♂, 2 ♀ (28 Dec 1968). Ponda : 1 ♂ (19 Mar 1973).

The Crested Swift is commonly met with in flock in the forest, constantly on flight, preying on insects.

Grubh and Ali (1976, p. 45) noted the species at Molem and Canacona.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
2 ♂ :	155 (2)	131, 133	12 (2)	7 (2)
2 ♀ :	154, 155	124, 131	12, 13	8 (2)

## Order TROGONIFORMES

## Family TROGONIDAE

70. Malabar Trogon. *Harpactes fasciatus malabaricus* (Gould)

Canacona, Poinguinim : 1 ♂ (16 Feb 1978) ; 1 ♀ (12 Feb 1978).

Molem : 3 ♂ (31 Dec 1968, 2 Feb 1973, 25 Sept 1977).

The Malabar Trogon is not uncommon. Usually keeps singly in the forest.

Grubh and Ali (1976, p. 45) collected it at Molem, and Canacona.

The specimen collected on 31 December 1968 is an immature male still retaining buffy brown mixed with pinkish red colour of underparts ; central rectrices of the left side is lacking the black terminal band and with rounded tips, not squarely truncated like adult birds.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
4 ♂ :	123, 124, 126, 129	162, 166 (2), 169	20, 21 (2), 22	13 (2), 15 (2)
1 ♀ :	129	162	21	15

*Weight :* 1 ♀ ; 60g.

## Order CORACIIFORMES

## Family ALCEDINIDAE

71. Ceylon Small Blue Kingfisher. *Alcedo atthis taprobana* Kleinschmidt

Canacona, Poinguinim : 3 ♀ (15 Feb, 16 Feb and 17 Feb 1978).

Molem : 2 ♂ (21 Feb and 24 Feb 1978).

The Small Blue Kingfisher is common along the streams, nullah etc., perched on boulder or on branches of dead or living trees overhanging water ; seen singly.

Grubh and Ali (1976, p. 45) collected it at Molem.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
2 ♂ :	70, 72	30, 32	44 (2)	9, 10
3 ♀ :	66, 70, 71	30 (3)	43 (2), 44	9 (2), 10

*Weight* : 2 ♂ : 20 g ; 3 ♀ : 16 g, 18 g, 20 g.

72. Blue-eared Kingfisher. *Alcedo meninting* Horsfield

Grubh and Ali (1976, p. 45) collected it at Canacona and Molem. No racial determination has been made by them.

73. Threetoed Kingfisher. *Ceyx erithacus* (Linnaeus)

Rane (1984, p. 639) noted it at Colem and Molem.

74. Brownheaded Storkbilled Kingfisher. *Pelargopsis capensis capensis* (Linnaeus)

Canacona, Poinguinim : 1 subad, ♂ (15 Feb 1978).

The Brownheaded Storkbilled Kingfisher is not too common. Occasionally met with singly on trees along forest streams.

The specimen taken on 15 February is a subadult male in having the feathers of the sides of neck and breast edged with dusky brown.

Testes was not enlarged,

*Measurements* : 1 ♂ : Wing 182 ; tail 98 ; bill 91 ; tarsus 18.

*Weight* : 182g.

75. Indian Whitebreasted Kingfisher. *Halcyon smyrnensis fusca* (Boddaert)

Margao : 1 ♀ (17 Dec 1968). Ponda : 1 ♂ (19 Mar 1973).

Sanguen : 1 ♀ (4 Apr 1973). Canacona, Cotigaon : 1 ♀ (12 Feb 1978) ; Poinguinim : 1 ♀ (12 Feb 1978). Molem : 2 ♂ (30 Sept 1977, 20 Feb 1978) ; 2 unsexed (3 Oct 1977, 21 Feb 1978). Valpoi : 1 ♂ (22 Sept 1977).

The Whitebreasted Kingfisher is very common. It occurs in cultivated areas, edges of forests, in and around villages and towns near waterbodies. Found singly.

Grubh and Ali (1976, p. 46) noted the species at Maem Lake, Molem and Canacona.

Two male specimens of 22 and 30 September 1977 and one unsexed specimen collected on 3 October 1977 have the tails in moulting stage.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
4 ♂ :	113, 118, 120, 121	81 (2), 75+(2)	62, 63 (3)	15 (2), 16 (2)
4 ♀ :	118, 119, 120 (2)	81 (2), 82, 83	61, 62 (3)	15 (2), 16 (2)
2 unsexed :	117, 118	82, 74+	61, 63	15, 16
<i>Weight :</i>	3 ♂ : 64, 88, 90 g and 1 unsexed 54 g,			

#### Family MEROPIDAE

76. Chestnutheaded Bee-eater. *Merops leschenaulti leschenaulti* Vieillot  
Molem : 1 ♀ (3 Apr 1977).

The Chestnutheaded Bee-eater is fairly common ; it keeps mainly to forested areas near the vicinity of streams.

Grubh and Ali (1976, p. 46) collected it from Molem and noted it also at Maem enviorns.

*Measurements :* 1 ♀ : Wing 106, tail 82 ; bill 36 ; tarsus 10.

77. Bluetailed Bee-eater. *Merops philippinus philippinus* Linnaeus  
Canacona ; Poinguinim : 1 ♂ and 1 ♀ (16 Feb 1978).

The Bluetailed Bee-eater is found to forage in the cultivated fields of paddy, flooded with water at the edge of forest clearings in small numbers.

Grubh and Ali (1976, p. 46) noted the species at Maem Lake, near Bicholim.

<i>Measurements :</i>	Wing	Tail		Bill	Tarsus
		Central	Outer		
1 ♂ :	125	141	85	48	11
1 ♀ :	123	127	85	46	12

*Weight :* 1 ♂ : 34 g ; 1 ♀ : 30 g.

78. Indian Small Green Bee-eater. *Merops orientalis orientalis* Latham

Margao, Colva beach : 1 ♀ (19 Dec 1968). Panjim, Mandovi River shore : 1 ♀ (1 Jan 1968). Molem : 1 ♂ (2 Apr 1974). Bondla : 2 unsexed (8 Oct 1977). Canacona, Poinguinim : 1 ♂, 4 ♀ (15 Feb 1978). Valpoi, Pedrang : 1 ♂, 1 ♀ (28 Feb 1978) ; Santrem : 1 ♂, 2 ♀ (2 Mar 1978).

This bee-eater is common in the plains and the cultivated areas. It roosts on tall Eucalyptus trees in large numbers in south Goa.

Grubh and Ali (1976, p. 46) noted the species at Molem and Canacona.

The female specimen of 28 February 1978 has the central rectrices in moult and had enlarged ovary.

<i>Measurements :</i>	Wing	Tail		Bill	Tarsus
		Central	Outer		
4 ♂ :	92 (2), 94, 96	123, 127 (2), 130	69 (2), 70, 74	30, 33, 34, 36	10 (2), 11 (2)
9 ♀ :	86, 87, 90 (2), 91 (3), 92, 97	101, 105 107, 112, 121, 122, 130, 136	68, 69 (3), 70, 72, 73, 74 (2)	32 (2), 33 (3), 34 (2), 35, 37	9, 10 (6), 11 (2)
2 unsexed :	90, 98	114, 135	68,-(damaged)	33, 34	8,-(damaged)
<i>Weight :</i> 3 ♂ : 10g, 14g, 18g. 7 ♀ : 10g, 12g, 13g, 16g (4).					

79. Bluebearded Bee-eater. *Nyctornis athertoni athertoni* (Jerdine and Selby)

Molem : 1 ♀ (28 Sept 1977).

In Goa, the Bluebearded Bee-eater is indeed rare ; occurs in forest biotope.

Grubh and Ali (1976, p. 46) noted it at Molem.

The specimen has the 3rd pair of outer rectrices (as.) in moult.

*Measurement :* 1 ♀ : Wing 129 ; tail 127 ; bill 52 ; tarsus 18.

Family CORACIIDAE

80. Kashmir Roller. *Coracias garrulus somenowi* Louden and Tschudi

Grubh and Ali (1976, p. 46) collected a single immature female from Canacona.

81. Southern Roller. *Coracias benghalensis indica* Linnaeus

Canacona, Poinguinim : 1 ♀ (29 Dec 1968). Valpoi, Aravalli falls : 1 ♂ (12 Jan 1969). Molem : 1 ♂ (2 Apr 1973).

This roller is a common bird around villages. Generally it perched on telegraph wires. Seen in pairs.

Grubh and Ali (1976, p. 46) collected the species at Molem and also noted it at Canacona. No subspecific determination has been made by them. But they commented that according to the range of distribution the specimen should be considered as *indica*.

Nuchal collar was entirely absent in their specimen, but it is well defined in our specimens.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
2 ♂ :	175, 184	119, 132	44 (2)	24 (2)
1 ♀ ;	176	126	42	25

#### Family UPUPIDAE

#### 82. European Hoopoe. *Upupa epops epops* Linnaeus

Canacona, Poinguinim : 1 ♂ (31 Mar 1973). Molem, Colem : 1 ♀ (31 Dec 1968).

Only a few examples of the hoopoe were observed by us in Goa. They were seen only in the cultivated land.

Grubh and Ali (1976, p. 46) did not give the subspecific identity to their specimen. They have pointed out, the specimen under report is indeterminable as to subspecies, because the nominate subspecies *epops* is inseparable from *saturata*.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
1 ♂ :	152	105	62	22
1 ♀ :	144	100	60	20

#### Family BUCEROTIDAE

#### 83. Malabar Grey Hornbill. *Tockus griseus griseus* (Latham)

Canacona, Poinguinim : 2 ♂ (29 Dec 1968, 16 Feb 1978) ; 1 ♀ (16 Feb 1978). Molem, Colem : 3 ♂ (22 Sept 1977, 28 Sept 1977, 23 Feb 1978) ; 4 ♀ (3 Jan 1969 (2), 2 Apr 1973, 22 Sept 1977). ? 1 ♀ (27 Sept 1977).

The Malabar Grey Hornbill is not uncommon in Goa in forests with tall trees in lighter parts, such as about villages, as well as in fairly dense parts. The wild fig (*Ficus*) tree is its favourite haunt. Found singly.

Grubh and Ali (1976, p. 46) collected it at Molem and noted it at Canacona.

One male and one female specimens collected on 22 September 1977 and one male of 23 December 1968 are first year birds.

One specimen of 27 September 1977 has been sexed by the collector as female and he has also mentioned its ovary as enlarged in the field label. But from the colours of the bill it appears as an adult male in having the bill horny yellow with a brownish red tinge all over but tip *contra* waxy yellow with irregular brownish slaty patches along culmen and at base of lower mandible in adult female (Ali and Ripley 1970, p. 133). The specimen has the central pair of rectrices slightly tipped with white and the 2nd primaries are in moult.

The female specimen of 2 April 1974 has central rectrices and the next from the right side and 9th and 10th primaries of both wings in moulting sheath.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
5 ♂ :	205, 206, 208, 210, 212	217 (2), 220 (2), 223	92, 94, 100, 101. 108	41 (2), 42 (2), 44
5 ♀ :	191, 194, 195, 196, 199	201, 202, 203 (3)	83, 85, 86 (2), 92	37, 39 (3), 42
? 1 ♀ :	210	225	106	41

*Weight :* 2 ♂ : 453g, 455g ; 1 ♀ : 455g.

84. Malabar Pied Hornbill. *Anthracoceros coronatus coronatus* (Boddaert)  
Grubh and Ali (1976, p. 46) collected it at Molem and noted it also at Canacona.

85. Great Pied Hornbill. *Buceros bicornis* Linnaeus  
Grubh and Ali (1976, p. 46) has noted this species at Molem.

#### Order PICIFORMES

#### Family CAPITONIDAE

86. Western Green Barbet. *Megalaima zeylanica inornata* Walden  
Canacona, Poinguinim : 1 ♂, 1 ♀ (26 Dec 1968). Valpoi : 1 ♂, 1 ♀ (22 Sept 1977).

The Green Barbet is a common bird. Generally found in large banyan or peepul tree when the fruits are ripened. Found singly or in parties.

Grubh and Ali (1976, p. 46) collected it at Molem.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
2 ♂ :	114, 120	70, 72	34, 37	30, 33
2 ♀ :	113, 124	68, 76	37, 38	29, 30

87. Small Green Barbet. *Megalaima viridis* (Boddaert)

Ponda : 4 ♀ (18 Mar, 21 Mar 1973) ; 1 ♂ (20 Mar 1973) ; 1 unsexed (18 Mar 1973).  
Molem : 1 unsexed (30 Oct 1977).

The Small Green Barbet is a common bird occurring in all types of forest ; also gardens and groves in the neighbourhood of towns, villages and cultivation. Frequents *Ficus* trees along with bulbuls and other frugivorous birds in small parties.

Grubh and Ali (1976, p. 46) collectd it at Molem.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
1 ♂ :	99	62	26	27
4 ♀ :	98, 100 (2), 105	59, 60, 61, 64	24, 25 (2), 26	25, 28 (3)
2 unsexed :	100, 101	60 (2)	25 (2)	26 (2)

88. Malabar Crimsonthroated Barbet. *Megalaima rubricapilla malabarica* (Blyth)  
Canacona, Poinguinim : 1 ♂ (25 Dec 1968) ; 1 ♀ (27 Dec 1968).

The Malabar Crimsonthroated Barbet is a common bird. It is found singly, or in pairs on fruiting trees in forest.

Grubh and Ali (1976, p. 47) collected it at Molem.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
1 ♂ :	80	37	16	18
1 ♀ :	82	36	16	18

89. Crimsonbreasted Barbet. *Megalaima haemacephala indica* (Latham)

Canacona, Poinguinim : 1 ♂, 1 ♀ (27 Mar, 29 Mar 1973). Ponda : 1 ♂ (16 Mar 1973). Molem : 1 ♂ (20 Feb 1978).

The Crimsonbreasted Barbet is a very common bird in lightly wooded terrain about cultivation, groves of trees near villages and wooded compounds in towns. Keeps in pairs.

All the males were with enlarged testes.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
3 ♂ :	77, 78, 83	33, 34, 37	18 (2), 19+	20 (3)
1 ♀ :	78	31	20	21

*Weight* : 1 ♂ ; 32g.

#### Family PICIDAE

90. Southern Rufous Woodpecker. *Micropternus brachyurus jerdoni* (Malherbe)

Ponda : 2 ♂ (19 Mar, 21 Mar 1973). Sanguen : 1 ♀ (4 Apr 1973).

Molem : 2 ♂ (27 Sept 1977, 23 Feb 1978).

The Rufous Woodpecker is not an uncommon bird. Affects secondary jungle in pairs.

Grubh and Ali (1976, p. 47) collected it at Molem and noted at Canacona.

The male specimen taken on 27 September, has the outer rectrices in moulting sheath,

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
4 ♂ :	122 (3), 123	55, 60, 63, 65	28, 30 (3)	23.5, 24 (3)
1 ♀ :	119	62	30	24

*Weight* : 1 ♂ : 100g.

91. Small Yellownaped Woodpecker. *Picus chlorolophus* Vieillot  
Rane (1984, p. 639) noted it at Dudsagar.

92. Kerala Goldenbacked Woodpecker. *Dinopium benghalense tehminae*  
(Whistler and Kinnear)

Margao, Colva Beach : 1 ♂, 1 ♀ (19 Dec 1968). Ponda : 1 ♂ (23 Mar 1973).  
Molem : 1 ♂ (31 Dec 1968). Valpoi : 1 ♂, 2 ♀ (15 Jan 1969, 22 Sept 1977). Canacona,  
Cotigaon : 1 ♂ (12 Feb 1978).

The Goldenbacked Woodpecker is common in the forest plantations as well as in urban areas and beaches dotted with trees.

Grubh and Ali (1976, p. 47) collected the species at Canacona and identified it as *D. b. puncticolle* (Malherbe).

We agree with Grubh and Ali that it is very difficult to separate the southern birds into two subspecies *puncticolle* and *tehminae* with certainty, based on the extent of gold and orange on the back owing to much individual variation.

However, according to the range arbitrarily fixed, we are inclined to keep our specimens under *tehminae*.

The male specimen taken on September 22 has one pair of lateral rectrices next to the central pair and upper tail-coverts in moult.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
6 ♂ :	132, 142 (2), 144, 148, 149	83 (2), 89 (2), 91, 92	40, 41, 42, 43, 45, 48	26 (3), 27 (3)
2 ♀ :	138, 149	87, 96	40, 42	23, 25

*Weight* : 1 ♂ : 22 g.

93. Indian Great Black Woodpecker. *Dryocopus javensis* (Horsfield)  
Grubh and Ali (1976, p. 47) noted it at Molem and Canacona.

94. Yellowfronted Pied Woodpecker. *Picoides mahrattensis mahrattensis* (Latham)  
Ponda ; 1 ♀ (18 Mar 1973).

The Yellowfronted Pied Woodpecker is found in small numbers in the forested part of Goa.

Rane (1984, p. 639) noted this species at Molem and Bondla.

*Measurements* : 1 ♀ : Wing 96 ; tail 56 ; bill 22 ; tarsus 21.

95. Southern Browncrowned Pygmy Woodpecker. *Picoides nanus hardwickii* (Jerdon)

Molem, Colem : 1 ♂ (4 Jan 1969). Valpoi : 1 ♀ (11 Jan 1969).

The Browncrowned Pygmy Woodpecker occurs in the secondary jungle, and groves of trees in an around cultivation. Usually keeps in pairs.

Grubh and Ali (1976, p. 47) collected it at Molem and noted it also at Valpoi.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
1 ♂ :	73	33	15	15
1 ♀ :	75	33	15	15

96. Heartspotted Woodpecker. *Hemicircus canente canente* (Lesson)

Molem : 2 ♂, 1 ♀ : (3 Jan 1969, 28 Sept 1977, 22 Feb 1979).

The Heartspotted Woodpecker is not an uncommon bird in Goa.

Grubh and Ali (1976, p. 47) collected it at Molem and Canacona.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
2 ♂ :	93, 94	33, 34	23, 25	17 (2)
1 ♀ :	93	34	21	19

*Weight* : 1 ♀ : 32g.

97. Southern Larger Goldenbacked Woodpecker. *Chrysocolaptes lucidus chersonesus*  
Kloss

Canacona, Poinguinim : 1 ♂ (26 Mar 1973). Molem : 1 ♂ (2 Oct 1977). Valpoi, Pendraal : 1 ♀ (28 Feb 1978).

The Larger Goldenbacked Woodpecker is not an uncommon bird. Frequents forests biotope.

Grubh and Ali (1976, p. 47) collected it at Valpoi.

The central pairs of rectrices of one male collected on 2nd October, 1977 are in moulting sheath.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
2 ♂ :	156 (2)	87, (1 moult)	47, 50	30, 32
1 ♀ :	153	84	46	30

## Order PASSERIFORMES

## Family PITTIDAE

98. Indian Pitta. *Pitta brachyura* (Linnaeus)

Rane (1984, p. 639) noted it at Bondla and Mayem.

## Family ALAUDIDAE

99. Rufous Short-toed Lark. *Calandrella cinerea* (Gmelin)

Grubh and Ali (1976, p. 47) noted it at Canacona, in flocks.

100. Malabar Crested Lark. *Galerida malabarica* (Scopoli)

Vasco : 1 subad. ♂, 1 ♀, 1 unsexed (31 Mar 1973). Molem : 1 ♂, 2 unsexed (2 Oct 1978).

The Malabar Crested Lark is a fairly common bird ; usually seen moving on the dark soil in flocks.

Grubh and Ali (1976, p. 47) collected it at Canacona.

The male specimen of 31 March 1973 is subadult in having the feathers of upperparts barred and edged with white and with subterminal black bars.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
2 ♂ :	92, 94	48, 53	17, 19	23 (2)
1 ♀ :	91	49	17	23
3 unsexed :	89 (2), 96	48, 50, 51	17 (2),-(damaged)	23 (3)

## Family HIRUNDINIDAE

101. Crag Martin. *Hirundo rupestris* Scopoli

Grubh and Ali (1976, p. 47) collected a male specimen from Canacona.

102. Dusky Crag Martin. *Hirundo concolor* Sykes

Rane (1984, p. 639) noted it at Panaji.

103. Swallow. *Hirundo rustica* Linnaeus

Grubh and Ali (1976, p. 47) observed it at Panaji.

104. Striated Swallow. *Hirundo daurica* Linnaeus

Grubh and Ali (1976, p. 47) noted it at Molem.

105. Indian Wiretailed Swallow. *Hirundo smithii filifera* Stephens

Canacona : 1 ♂ and 1 ♀ (15 Feb 1978).

The Wiretailed Swallow is an uncommon bird. Generally seen skimming over water of streams and perching on telegraph wires near cultivated fields.

Rane (1984, p. 639) noted the species at Panaji and Mayem.

<i>Measurements</i> :	Wing	Tail		Bill	Tarsus
		Central	Lateral		
1 ♂ :	113	36	133	11	10
1 ♀ :	112	34	68	11	11

*Weights* : 1 ♂ : 10g ; 1 ♀ : 10g.

## Family LANIDAE

106. South Indian Greybacked Shrike. *Lanius schach caniceps* Blyth

Canacona, Poinguinim : 3 ♂ (13, 14 and 16 Feb 1978) ; 1 unsexed (22 Dec 1968).  
Molem : 2 ♀ (20, 21 Feb 1978). Valpoi : 1 ♂ (26 Feb 1978) ; 1 ♀ (10 Jan 1969) ; 1 unsexed (22 Sept 1977).

The Greybacked Shrike is fairly common, but patchy. Affects the neighbourhood of cultivation and forest clearings.

Grubh and Ali (1976, p. 47) collected it at Molem and also noted it at Canacona.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
4 ♂ :	93, 94,	109, 110,	21 (2),	27 (2),
	95 (2)	114 (2)	22, 23	28, 30
3 ♀ :	90, 93,	105 (2),	21 (3)	27, 28,
	96	108		29
2 unsexed :	89, 98	103, 115	19, 21	27, 28

*Weights* : 4 ♂ : 26g, 31g, 40g (2) ; 2 ♀ : 30g.107. Brown Shrike. *Lanius cristatus cristatus* Linnaeus

Margao : 1 ♀ (18 Dec 1968).

The Brown Shrike did not appear to us to be common in the area surveyed. Single specimen was seen from time to time on tops of trees and other suitable perches in open areas, in secondary jungle.

The specimen collected in December is a first year bird having crescentric barring below.

*Measurements* : 1 ♀ : Wing 85 ; tail 82 ; bill 20 ; tarsus 26.

## Family ORIOLIDAE

108. Indian Golden Oriole. *Oriolus oriolus kundoo* Sykes

Margao : 1 ♀ (18 Dec 1968). Valpoi : 1 ♀ (9 Jan 1969). Canacona, Poinguinim : 2 ♂ (24 Dec 1968, 24 Mar 1973) ; 2 ♀ (16 Feb 1978) ; 1 unsexed (19 Feb 1978). Ponda : 3 ♂ (18 Mar 1973) ; 5 ♀ (17-19 Mar 1973).

The Golden Oriole is not uncommon in the secondary deciduous and semi-evergreen forest, urban gardens with large trees, groves and orchards in cultivation and around villages. It usually occurs singly.

Grubh and Ali (1976, p. 47) collected it at Molem and noted it at Canacona.

Out of the three males collected on 18 March 1973, two are in fully adult plumage but the third one is subadult in having the yellow of the upperparts tinged with green and the yellow of the underparts duller and streaked with dull brown. The bird collected on 23 December 1968 is an immature male. The male bird of 24 March 1973 is also subadult.

Out of the nine females, three birds collected on 18 December 1968, 18 March 1973 and 16 February 1978 are in adult plumage. Six birds are collected on 9 January 1969, three on 18-19 March 1973 and one 16 February 1978 are immature in having bill horny brown and lower plumage white with brown streaks on the breast. The unsexed bird of 15 February 1978 is also immature.

The left central rectrix of the female specimen of 17 March 1973 is in moulting sheath.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
5 ♂ :	140 (2), 141, 143, 145	88, 89, 90, 94 (2)	31, 31+, 32, 33 (2)	23 (3), 24 (2)
9 ♀ :	131, 132, 133, 134, 135, 138, 140, 142, 143	79+, 81, 83, 85 (2), 90, 92, 93 (2)	28+, 29+, 30, 31 (3), 32, 33 (2)	23 (6), 24 (3)
1 unsexed :	130	85	33	23

*Weights* : 2 ♂ : 46 g, 61 g ; 1 unsexed 50 g.

108. South Indian Blackheaded Oriole. *Oriolus xanthornus maderaspatanus* Franklin

Canacona, Poinguinim : 2 ♂ (30 Mar 1973, 12 Feb 1978). Molem, Colem : 1 ♂, 1 ♀ (5 Jan 1969). Valpoi : 3 ♂ (15 Jan 1969, 22 Sept 1977).

The Blackheaded Oriole is a common bird. It occurs singly or in pairs in the deeper parts or on the edges of forests, as well as in groves about cultivation.

Grubh and Ali (1976, p. 48) noted the species at Molem and Canacona.

The female specimen under report (5 Jan 1969) appears to be a first year bird in having the yellow frontal band, and agrees with the other characters of first year birds given by Ali and Ripley (1972, p. 111).

Two male specimens collected in September had enlarged testes.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
6 ♂ :	129 (2) 130,	79 (2),	28, 30,	23, 24 (2),
	131, 134,	83 (3),	31 (4)	25 (2), 27
	140	85		
1 ♀ :	129	83	31	26

#### Family DICRURIDAE

##### 110. South Indian Black Drongo. *Dicrurus adsimilis macrocerus* Vieillot

Canacona, Poinguinim : 1 ♀ (16 Mar 1973) ; 1 subad. ♀ (23 Mar 1973) ; 1 subad. ♂ (23 Mar 1973) ; 1 ♂, 1 ♀ (10 Feb 1978) ; 1 ♂, 1 ♀ (14 Feb 1979). Valpoi : 1 ♂ (23 Sept 1977) ; 1 ♀ (2 Mar 1978).

The Black Drongo is very common in Goa. It occurs in and around villages, gardens, cultivation, light woods, open fields, etc.

Grubh and Ali (1976, p. 48) collected the species at Molem.

A male and a female specimens collected on 23 March 1973 are subadults and in first winter plumage having the feathers from the lower breast to under tail coverts fringed with white, and also the underwing-coverts are edged with white and so also the long upper tail-coverts of the female one. The female specimen has the 1st, 2nd 3rd rectrices (as.) from the right side and the 4th rectrix (as.) from the left side in moult. The 4th rectrices have a subterminal white spot.

The male specimen of 23 September 1977 have fully glossy jet black plumage. Second, 3rd and 4th primaries and 1st and 2nd outer rectrices are in moulting sheath. There is no trace of white in under wing-coverts or tail-coverts.

<i>Measurements :</i>	Wing	Tail		Bill	Tarsus
		Central	Outer		
4 ♂ :	133, 138,	92, 95,	130, 168,	24,	21,
	140, 146	99, 100	173,—(moult)	26 (2),	22 (3)
				27	

	Wing	Tail		Bill	Tarsus
		Central	Outer		
5 ♀ :	134, 135,	93, 96,	143, 150,	26 (3),	19 (2), 20,
	136, 137,	97, 104,	153, 157,	27 (2)	21, 23
	141	-(damaged)	161		

*Weights* : 2 ♂ : 35 g, 36 g ; 3 ♀ : 32 g, 34 g, 44 g.

### 111. Indian Grey Drongo. *Dicrurus leucophaeus longicaudatus* Hay

Grubh and Ali (1976, p. 48) obtained a single female specimen of this species at Molem and observed it at Canacona, in a mixed foraging party in forest.

### 112. Indian Whitebellied Drongo. *Dicrurus caerulescens caerulescens* (Linnaeus)

Molem, Colem : 2 ♀ (31 Dec 1968 ; 21 Feb 1978). Ponda : 1 ♀ (21 Mar 1973). Sanguem ; 1 ♀ (4 Apr 1973). Bondla ; 1 unsexed (8 Oct 1977). Valpoi : 1 ♂ (26 Sept 1977).

The Whitebellied Drongo is commonly seen in association with mixed hunting parties of small insectivorous birds to feed on nectar of *Salmalia* sp.

Grubh and Ali (1976, p. 48) collected it at Molem and noted at Canacona.

<i>Measurements</i> :	Wing	Tail		Bill	Tarsus
		Central	Outer		
1 ♂ :	127	92	122	25	20
4 ♀ :	120,	90, 91 (3)	114,	24, 25,	19 (2), 20,
	125 (2),		118, 120,	26, 27	21
	126		121		
1 unsexed :	123	92	119	25	20

### 113. Bronzed Drongo. *Dicrurus aeneus aeneus* Vieillot

Canacona, Poinguinim : 1 ♂ (26 Mar 1973). Sanguem : 1 ♂ (4 Apr 1973).

The Bronzed Drongo is a common bird. It frequents forested parts and plantations generally in the vicinity of water. It occurs singly or in loose parties.

Grubh and Ali (1976, p. 48) collected it at Canacona and noted it at Molem.

In April the birds were very noisy and were found chasing one another, presumably males chasing the females in nuptial display.

The testes was swollen in specimen taken on April 4.

<i>Measurements :</i>	Wing	Tail		Bill	Tarsus
		Central	Outer		
2 ♂ :	115 (2)	84 (2)	104, 105	23, 24	16 (2)

114. Haircrested Drongo. *Dicrurus hottentottus hottentottus* (Linnaeus)

Grubh and Ali (1976, p. 48) obtained two male specimens from Canacona and Valpoi.

115. Southern Large Racket-tailed Drongo. *Dicrurus paradiseus paradiseus* (Linnaeus)

Canacona, Poinguinim : 1 ♂ (10 Feb 1978). Sanguem : 1 ♂ (4 Apr 1979). Ponda : 1 ♂ (22 Mar 1973). Molem : 2 ♂ (10 Feb, 24 Feb 1978) ; 3 unsexed (3 Oct 1977). Valpoi : 1 ♂ (10 Jan 1969) ; 1 unsexed (22 Sept 1977) ; 1 ♀ (24 Sept 1977).

The Large Racket-tailed Drongo is not uncommon in Goa. It occurs in forest biotope in mixed hunting parties.

Grubh and Ali (1976, p. 48) collected it at Molem and noted it at Canacona.

A few specimens are in different stages of moulting as follows :

(1) ♂, January 10 : Racket feather of the right side much shorter than the left and is in moult.

(2) ♂, April 4 : Central tail feather of the left side retains the moulting sheath.

(3) Unsexed, September 22 : Moulting in first two pair of rectrices (central to outer) are complete ; next two pairs retain the moulting sheath ; outermost pairs (rackets) missing. Excepting the first three primaries (as.), the wings are in moult ; 4th primaries retain the moulting sheath. Axillaries, under wing-coverts and tail-coverts tipped with white.

(4) (i) 1 unsexed, October 3 : Feathers of the upper breast retain the moulting sheaths and brown colour are replaced by glistening black. Axillaries, under wing-coverts and under tail-coverts tipped with white and are not in moult.

(ii) 1 unsexed, October 3 : Axillaries, under wing-coverts and under tail-coverts are tipped with white, the former two retain the moulting sheaths ; the 5th and 10th primaries (as.) and 1st and 2nd secondaries (ds.) and two outermost pair of rectrices i.e. the racket feathers and the next one are in moult with the moulting sheaths present.

(iii) 1 unsexed, October 3 : Axillaries, under wing-coverts and under tail-coverts are tipped with white ; 4th and 5th pair of primaries (as.), 3rd pair of secondaries (as.), 5th pair of rectrices and the racket feathers are in moult and the moulting sheaths present.

<i>Measurements :</i>	Wing		Tail		Bill	Tarsus
			Central	Outer		
5 ♂ :	150, 151,	100+,	323, 355,	35, 36 (3), 37	26 (5)	
	153, 155, 159	127+, 136 (2), 140	390, 415, 483			
1 ♀ :	140	135	279	34	26	
4 unsexed :	139, 140,	129,	—(2 in moult),	—(damaged) 26 (3), 27		
	141, 148	132,	181+,			
		133,	308			
		148				

*Weights :* 2 ♂ : 60 g, 80g.

116. Ceylon Crested Black Drongo. *Dicrurus paradiseus lophorhinus* Vieillot

Canacona : 2 km. south of Poinguinim Forest Rest House : 1 ♀ (22 Dec 1968).

The Ceylon Crested Black Drongo did not appear to be common in Goa. It affects Sal and Cashew plantation.

According to Baker (1924, p. 373) it occurs in Ceylon (=Sri Lanka) and South Travancore (=Trivandrum). But Ali and Ripley (1972, p. 141) mentioned the subspecies *lophorhinus* endemic in Ceylon.

Its occurrence in Goa is of immense interest from the zoogeographical point of view (Saha and Mukherjee 1981). According to Ripley (1981 p. 168-169). "The occurrence of this specimen and the reference in Baker (1924) to the presence of this phenotype in Kerala ('Travancore') confirms my own impression that *lophorhinus* of Sri Lanka is indeed most appropriately a subspecies of *paradiseus*, closely related, but with a single morphological character. That this tailtype is perhaps confined to a minor gene shift in the population of the mainland would seem to be confirmed by the method of collecting specimens or sight records which of course represent an extremely random and haphazard sampling. More extensive field observations might reveal the presence of this tailtype character as a scarce recessive, while the phenotype has become localized and characteristic of the south-west Sri Lankan population..."

*Measurements :* 1 ♀ : Wing 141 ; bill 36 ; tail (central) 123, (outer) 212 ; tarsus 26.

Family ARTAMIDAE

117. Ashy Swallow-Shrike. *Artamus fuscus* Vieillot

Valpoi : 1 ♂, 1 ♀ (9 Jan 1969). Canacona, Poinguinim : 1 ♂ (13 Feb 1978).

The Ashy Swallow-Shrike is common particularly in coconut plantation, in flocks,

Rane (1984, p. 639) noted it at Molem.

The example taken on February 13, 1978 had breeding testes.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
2 ♂ :	130, 131	57, 58	24 (2)	16, 17
1 ♀ :	136	57	24	17

#### Family STURNIDAE

##### 118. Whiteheaded Myna. *Sturnus malabaricus blythii* (Jerdon)

Canacona, Poinguinim : 1 ♂ (27 Dec 1968) ; Chiplem : 1 ♂ (17 Feb 1978). Panjim : 1 ♂ (1 Jan 1969). Molem : 1 ♀ (19 Feb 1978).

The Whiteheaded Myna is a common bird of Goa. Generally seen feeding in flocks on *Ficus* spp., berries and nectar of *Salmalia malabarica* and *Erythrina indica* along with other birds.

Grubh and Ali (1976, p. 48) sighted it in Panaji.

The male specimen taken on 17 February, 1978 had the testes of the right side only. It was enlarged and measured 7×5 mm.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
3 ♂ :	102, 103, 105	65, 66, 67	24 (3)	22, 24, 26
1 ♀ :	93	59	24	24

*Weights :* 1 ♂ : 46g ; 1 ♀ : 34g.

##### 119. Whiteheaded Myna. *Sturnus erythropygius* (Blyth)

Rane (1984, p. 639) noted it at Molem.

##### 120. Brahminy Myna. *Sturnus pagodarum* (Gmelin)

Sankarda : 1 ♀ (12 Dec 1973).

The Brahminy Myna was met with in small flocks, in thinly wooded areas.

*Measurements :* 1 ♀ : Wing 98 ; tail 68 ; bill 21 ; tarsus 28.

The specimen is deposited in the Western Regional Station, Zoological Survey of India, Pune.

##### 121. Indian Myna. *Acridotheres tristis* (Linnaeus)

Grubh and Ali (1976, p. 48) noted it at Canacona.

##### 122. Southern Jungle Myna. *Acridotheres fuscus mahrattensis* (Sykes)

Sankarda : 1 ♂ (12 Dec 1973). Molem : 3 unsexed (4 Oct 1977).

The Jungle Myna is a common bird. It occurs in the vicinity of cultivation, settlements and villages.

Grubh and Ali (1976, p. 48) noted the species at Canacona.

The specimens of 4 October have the plumages in moulting condition as under (i) 1st primaries and central tail feathers moulting, (ii) feathers of chin and throat, frontal region retain the moulting sheath; 3rd primaries (as.) and 3rd tertiaries (as.) moulting; central pair of rectrices retaining moulting sheaths, (iii) black replacing the brown colour of crown, ear-coverts, chin and throat. A few black hackles are emerged. Upper tail-coverts and central pair of rectrices moulting.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
1 ♂ :	123	72	28	35
3 unsexed :	116, 126, 130	64+, 75, 77	26 (2), 28	35 (2), 36

### 123. Hill Myna. *Gracula religiosa* Linnaeus

Rane (1984, p. 639) noted it at Dudhsagar and Colem.

#### Family CORVIDAE

### 124. Kerela Tree Pie. *Dendrocitta vagabunda pallida* (Blyth)

Ponda : 1 ♂ (10 Mar 1973). Molem : 1 ♀ (5 Jan 1969); 1 ♂, 1 ♀ (29 Sept 1977); 1 unsexed (11 Dec 1973).

The Tree Pie is not uncommon in the light open forest of Goa. It occurs in fruit gardens and plantations. Keeps singly or in pairs.

Grubh and Ali (1976, p. 48) has sighted the species at Maem Lake, Molem and Canacona.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
2 ♂ :	146, 150	229, 239	33, 34	32, 33
2 ♀ :	140, 142	215, 219	32, 33	32, 33
1 unsexed :	140	214	31	35

### 125. Indian House Crow. *Corvus splendens splendens* Vieillot

Perhaps the most familiar Indian bird. It is very common and abundant in Goa. Birds are seen in pairs in January at Molem, sitting quietly side by side in a shady tree, preening each other's head feathers.

Grubh and Ali (1976, p. 48) noted it at Molem, Canacona and Panaji.

126. Indian Jungle Crow. *Corvus macrorhynchos culminatus* Sykes

Valpoi : 1 ♂ (11 Jan 1969).

The Jungle Crow is common and abundant. It is usually found in pairs or small parties, frequently away from human habitation.

Grubh and Ali (1976, p. 48) noted the species at Molem, Canacona, Maem and Bicholim enviorns.

*Measurements* : 1 ♂ : Wing 295 ; tail 175 ; bill 57 ; tarsus 52.

## Family CAMPEPHAGIDAE

127. Blackbacked Pied Flycatcher-Shrike. *Hemipus picatus picatus* (Sykes)

Grubh and Ali (1976, p. 49) collected a single male example from Canacona.

128. Malabar Wood Shrike. *Tephrodornis gularis sylvicola* Jerdon

Canacona, Poinguinim : 1 ♂ (25 Mar 1973). Valpoi, Pendral : 1 ♂ (28 Feb 1978).

The Wood Shrike is not an uncommon bird. It usually occurs in pairs in open parts of the forest.

Grubh and Ali (1976, p. 49) collected it at Canacona.

Our specimen collected in March 1973 had the testes enlarged.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
2 ♂ :	112, 115	82, 84	30 (2)	20, 21

129. Indian Wood Shrike. *Tephrodornis pondicerianus pondicerianus* (Gmelin)

Canacona, Poinguinim : 1 ♂, 1 ♀ (27 Mar 1973).

The common Wood Shrike is not uncommon in small flocks in light forests of Goa.

Grubh and Ali (1976, p. 49) noted the species at Maem Lake enviorns, Molem and Canacona.

The specimens had the gonads enlarged.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
1 ♂ :	90	65	22	19
1 ♀ :	84	62	23	19

130. Indian Large Cuckoo-Shrike. *Coracina novaehollandiae macei* (Lesson)

Valpoi : 1 ♂ (15 Jan 1969). Ponda : 1 ♂ (22 Mar 1973). Molem : 1 unsexed (5 Oct 1977).

The Large Cuckoo-Shrike is fairly common. It usually keep in pairs or family parties. Generally affects light jungle, rubber plantation, and fruit gardens.

Grubh and Ali (1976, p. 49) noted the species at Canacona.

Our specimen collected in March 1973 is a first year male in having the throat and breast barred instead of uniform grey like adult.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
2 ♂ :	163 (2)	121, 125	30 (2)	24, 26
1 unsexed :	157	124	28	24

131. Peninsular Blackheaded Cuckoo-Shrike. *Coracina melanoptera sykesi* (Strickland)

Molem, Colem : 1 ♂ (31 Dec 1968). Valpoi : 1 ♂ (28 Mar 1973). Ponda : 1 ♀ (21 Mar 1973). Bondla : 1 unsexed (8 Oct 1977). Canacona, Poinguinim : 2 ♂ (30 Mar 1973, 11 Feb 1978) ; 2 ♀ (30 Mar 1973, 17 Feb 1978).

The Blackheaded Cuckoo-Shrike is not uncommon. It is found singly and also in pairs flying from one branch to other in a tree or trees at the forest edges and also in plantations of cashew.

Grubh and Ali (1976, p. 49) collected it from Molem and noted at Canacona.

Our male specimens collected on 31 December 1968 and 28 March 1973 are immature, the latter having the grey-brown feathers of the crown being replaced by black.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
4 ♂ ;	96, 97, 100, 101	76 (2), 77, 78	19+, 19, 20 (2)	19 (2), 20, 22
3 ♀ :	99, 100 (2)	77, 79, 80	18+, 19, 20	20 (2), 21
1 unsexed :	96	72	20	22

*Weights :* 1 ♂ : 24g ; 1 ♀ : 27g.

132. Indian Scarlet Minivet. *Pericrocotus flammeus flammeus* (Forster)

Canacona, Poinguinim : 2 ♂ (24 Dec 1968, 16 Feb 1978) ; 1 ♀ (24 Mar 1973). Valpoi : 1 ♀ (26 Sept 1977).

The Scarlet Minivet is common in the secondary forest having cashew and 'Sal' planations. It is generally found on tops of a trees on the hill slopes.

Grubh and Ali (1976, p. 49) collected it at Molem and noted it at Canacona, in mixed foraging parties in forest.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
2 ♂ :	90, 91	89, 90	18, 20	16, 18
2 ♀ :	87, 89	86 (2)	18, 20	16, 17

*Weight :* 1 ♂ : 24g.

133. Rosy Minivet. *Pericrocotus roseus roseus* (Vieillot)

Grubh and Ali's (1976, p. 49) collection of a single example from Canacona furnishes the sole record of the Rosy Minivet from Goa.

134. Malabar Small Minivet, *Pericrocotus cinnamomeus malabaricus* (Gmelin)

Molem, Colem : 1 ♂ (4 Jan 1969). Canacona, Poinguinim : 1 ♂ (3 Mar 1973). Ponda : 2 ♂ (20 Mar 1974).

This Small Minivet is not uncommon. Frequents dry mixed forest, rubber plantations, fruit gardens, etc.

Grubh and Ali (1976, p. 49) collected it at Valpoi and noted it at Molem and Canacona.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
4 ♂ :	69 (2), 70 (2)	66, 69, 71, 72	13, 13+, 14 (2)	16 (3), 17

Family IRENIDAE

135. Peninsular Indian Iora. *Aegithina tiphia deignani* Hall

Canacona, Poinguinim : 1 ♂ (24 Mar 1973) ; 3 ♀ (29 Dec 1968, 24 Mar 1973, 14 Feb 1978). Ponda : 1 ♀ (22 Mar 1973). Vasco : 1 ♂, 1 ♀ (31 Mar 1973).

The Iora is common in Goa and usually seen in coconut groves near cultivated fields, cashew plantation, in pairs, but sometimes singly also.

Grubh and Ali (1976, p. 49) collected it at Canacona, and noted it at Molem.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
2 ♂ :	63 (2)	46, 47	16, 17	18 (2)
5 ♀ :	59, 60, 64 (3)	46, 48, 49, 50 (2)	17, 18 (4)	18 (3), 19, 20

*Weight :* 1 ♀ : 12g.

136. Southern Goldfronted Chloropsis. *Chloropsis aurifrons frontalis* (Pelzeln)

Molem, Colem : 1 ♀ (31 Dec 1968). Valpoi : 1 ♂ (9 Jan 1969). Ponda : 1 ♀ (16 Mar 1973).

The Goldfronted Chloropsis is common in the dense forests as well as in roadside forest, plantations etc.

Grubh and Ali (1976, p. 49) collected it also at Molem and Canacona.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
1 ♂ :	90	63	25	18
2 ♀ :	96 (2)	61, 63	25 (2)	19, 20

The wings of our female specimens are larger by 8 mm than the measurement given by Grubh and Ali (*op. cit.*).

137. Jerdon's Chloropsis. *Chloropsis cochinchinensis jerdoni* (Blyth)

Valpoi : 2 ♂ (11 and 15 Jan 1969). Canacona, Khawet : 1 ♂ (17 Feb 1978).

Jerdon's Chloropsis is a common bird in forest edges, groves, and large leafy trees on village outskirts of Goa. It keeps solitary or in pairs.

Grubh and Ali (1976, p. 49) collected an immature male and an adult female from Molem, Goa.

Our specimen taken on February 17 had the testes enlarged.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
3 ♂ :	87, 88,	68, 72,	25 (3)	18, 20 (2)
	89	76		

*Weight :* 1 ♂ : 26 g.

138. Fairy Bluebird. *Irena puella puella* (Latham)

Canacona : 1 ♀ (23 Dec 1968). Ponda : 1 ♂ (21 Mar 1973). Molem : 1 ♂ (2 April 1973) ; 1 ♀ (3 Apr 1973).

Fairy Bluebird is not uncommon in Goa. It is usually found in deep jungle.

Crubh and Ali (1976, p. 49) collected it at Molem and noted it at Canacona, in mixed foraging parties in forest.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
2 ♂ :	123, 128	103, 105	29, 30	19, 20
2 ♀ :	124, 126	102 (2)	30 (2)	18 (2)

Family PYCNONOTIDAE

139. Greyheaded Bulbul. *Pycnonotus priocephalus* (Jerdon)

The Greyheaded Bulbul is not uncommon in pairs in forest of Goa. We noted it at Molem. Grubh and Ali (1976, p. 49) collected it from Molem, Canacona.

140. Rubythroated Yellow Bulbul. *Pycnonotus melanicterus gularis* (Gould)

Canacona, Poinguinim : 1 ♂ and 1 ♀ (27 Dec 1968) ; 1 ♀ (26 Mar 1973). Sanguem : 1 ♂ (4 Apr 1973).

The Rubythroated Yellow Bulbul is not uncommon in pairs, usually in light forests, but one or two occur in fairly dense forests too.

Grubh and Ali (1976, p. 5) collected it at Molem and noted it at Canacona.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
2 ♂ :	76, 79	71, 74	16 (2)	15 (2)
2 ♀ :	71, 74	67, 79	14+, 16	15 (2)

141. Southern Redwhiskered Bulbul. *Pycnonotus jocosus fuscicaudatus* (Gould)

Canacona, Poinguinim : 1 ♀ (21 Mar 1973). Ponda : 1 ♂ (16 Mar 1973) ; 1 ♀ (19 Mar 1973) ; 2 ♂ (20 Mar 1973). Sanguem : 1 ♀ (4 Apr 1973). Molem : 3 ♂, 1 ♀ (20 Feb 1978) ; 1 ♂ (24 Feb 1978). Valpoi, Nanuz : 1 ♀ (27 Feb 1978).

The Redwhiskered Bulbul is fairly common in scrub jungle and light forests along hill stream. It is usually found in small flocks, also in pairs as well as mixed feeding parties with other bulbuls.

Grubh and Ali (1976, p. 50) collected it at Molem and noted it at Canacona and Maem.

Two female specimens taken on 21 March and 4 April 1973 have the second pair of rectrices from inside in moult.

One male specimen taken on 20 February and a female specimen of 27 February, 1978, had the testes and ovary enlarged,

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
7 ♂ :	82 (2), 83 (2), 84, 86 (2)	80 (6), 83	19 (2), 20 (5)	20 (2), 21, 22 (3), 23
5 ♀ :	79, 80 (2), 81, 83	75 (2), 77, 78 (2)	19 (4), 20	20 (2), 21 (3)

*Weights :* 3 ♂ : 26 g, 27 g, 34 g ; 2 ♀ : 22 g, 24 g.

142. Redvented Bulbul. *Pycnonotus cafer cafer* (Linnaeus)

Canacona, Poinguinim : 1 ♂ (20 Mar 1973) ; 1 ♂ (25 Mar 1973) ; 1 ♀ (29 Mar 1973) ; 3 ♂ (30 Mar 1973). Molem : 1 ♂ (20 Feb 1978) ; 2 ♂, 1 ♀ (21 Feb 1978). Valpoi : 1 ♂ (15 Jan 1969) ; Nanuz : 1 ♂, 1 ♀ (27 Feb 1978).

The Redvented Bulbul is a very common bird in Goa in and around villages and scrub jungle. Keeps solitary or in pairs,

Grubh and Ali (1976, p. 50) noted the species at Molem and Canacona.

In a male specimen taken on 25 March, 1973, the tail feathers are freshly emerged, still in moulting sheath. Obviously it was an accidental loss.

A female taken on 21 February, 1978 is not in fully adult plumage ; it has very brown primaries, and the crest is brown, but in size it is fully grown.

Birds taken in February had fully breeding gonads.

<i>Measurements :</i>	10 ♂	3 ♀
Wing ;	88, 90, 91, 95 (3), 96, 97 (2), 99	83, 90, 98
Tail :	70, 79 (3), 82, 85, 87, 89, 90, 92	74, 75, 82
Bill :	19 (3), 20 (4), 21 (3)	19, 20, 21
Tarsus :	21 (2), 22 (5), 23 (3)	22 (3)
<i>Weights :</i>	4 ♂ : 30 g (2), 34 g (2) ; 2 ♀ : 20 g, 28 g.	

#### 143. Whitebrowed Bulbul. *Pycnonotus luteolus luteolus* (Lesson)

Canacona, Poinguinim : 1 ♂, 1 ♀ (20 Mar 1973) ; 2 ♂ (24 Mar 1973) ; 1 ♂, 1 ♀ (27 Mar 1973) ; 1 ♀ (30 Mar 1973) ; 1 ♀ (13 Feb 1978) ; 1 ♂ (17 Feb 1978). Valpoi ; 2 ♂ (28 Mar 1973). Molem : 1 ♀ (24 Feb 1978).

The Whitebrowed Bulbul is common in Goa in pairs. It frequents scrub jungles and Lantana bushes.

Grubh and Ali (1976, p. 50) collected a female specimen at Canacona.

Birds taken in March had breeding gonads.

<i>Measurements :</i>	7 ♂	5 ♀
Wing	: 85, 86, 87 (2), 88, 89, 90	82, 84, 86, 87 (2)
Tail	: 76 (2), 77, 79, 81 (3)	75, 76, 77, 79, 80
Bill	: 20 (7)	20 (5)
Tarsus	: 21 (2), 23 (3), 24 (2)	22, 23 (3), 24
<i>Weights :</i>	1 ♂ : 30 g ; 2 ♀ : 32 g, 34 g.	

#### 144. North Sahyadri Yellowbrowed Bulbul. *Hypsipetes indicus ictericus* (Strickland)

Sanguem : 1 ♂ (4 Apr 1973). Molem : 1 unsexed (11 Dec 1973) ; 2 unsexed (4 Oct 1977) ; 1 ♂ (22 Feb 1978).

The Yellowbrowed Bulbul is not an uncommon bird. It occurs in pairs or small parties of six to seven birds in secondary jungle.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
2 ♂ :	86, 93	73, 83	21 (2)	19, 20
3 unsexed :	88, 91, 93	74, 77,	21, 22 (2)	18, 19 (2)

*Weight* : 1 ♂ : 28 g.

145. Yellowbrowed Bulbul. *Hypsipetes indicus indicus* (Jerdon)

Grubh and Ali (1976, p. 50) collected it from Valpoi and sighted at Canacona in mixed foraging parties in forest.

146. South Indian Black Bulbul. *Hypsipetes madagascariensis* (P. L. S. Müller)

Grubh and Ali (1976, p. 50) sighted it at Molem and Canacona.

Family MUSCICAPIDAE

147. Peninsular Spotted Babbler. *Pellorneum ruficeps ruficeps* Swainson

Molem : Molem Sanctuary : 1 ♂, 1 ♀ (23 Feb 1978).

The Spotted Babbler is very common in Goa and occurs in bushes, scrub, bushy undergrowths of forests, sometimes even in grassland ; keeps in pairs.

Grubh and Ali (1976, 50) collected it at Molem and also noted it at Canacona.

Birds taken in February had breeding gonads.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
1 ♂ :	72	66	20	27
1 ♀ :	71	64	19	28

*Weights* : 1 ♂ : 20 g ; 1 ♀ : 22 g.

148. Scimitar Babbler. *Pomatorhinus schisticeps* Hodgson

Grubh and Ali (1976, p. 50) noted it at Molem.

149. Blackheaded Babbler. *Rhopocichla atriceps atriceps* (Jerdon)

Molem : 1 ♂ (23 Feb 1978). Valpoi, Pendraal : 1 ♂ (28 Feb 1978).

The Blackheaded Babbler is found in the interior of the forest. Moves about the undergrowth, in parties of up to a dozen birds in association with other babblers.

Grubh and Ali (1976, p. 50) collected it at Molem and Canacona.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
2 ♂ :	58, 60	48, 49	16 (2)	21, 22

*Weights* : 2 ♂ : 12 g, 14 g.

150. Rufous Babbler. *Turdoides subrufus subrufus* (Jerdon)

We missed it in Goa, where Grubh and Ali (1976, p. 50) collected two specimens from Molem.

151. Bombay Jungle Babbler. *Turdoides striatus somervillei* (Sykes)

Canacona, Poinguinim : 1 ♂, 2 ♀ and 1 unsexed (25 Mar 1973) ; 1 ♂, 1 ♀ (26 Mar 1973) ; 1 ♂ (13 Feb 1978) ; 2 ♀ (16 Feb 1978) ; Cotigaon Sanctuary : 1 ♂ (12 Feb 1978). Ponda : 2 ♀ and 1 unsexed (16, 18 and 19 Mar 1973). Valpoi : 2 unsexed (25 Sept. 1977). Molem : 1 ♂ and 1 ♀ (4 Jan 1969 and 21 Feb 1978).

The Jungle Babbler is a common bird. Generally it is found in bushes and scrub jungles, gardens, secondary plantation, etc.

Grubh and Ali (1976, p. 50) collected it at Molem and noted it at Canacona.

Our male specimen taken on 12 February, 1978 had the testes enlarged.

<i>Measurements</i> :	5 ♂	8 ♀	3 unsexed
Wing :	98, 102, 105 (3)	91, 99 (2), 100 (2), 102, 103, 104	100, 102, 103
Tail :	95, 98, 100, 105, 107	95, 98, 99 (3), 100 (2), 101	101 (3)
Bill :	20+, 25 (3), 26	24 (2), 25 (3), 26 (2), 27	24 (2), 26
Tarsus :	35, 36, 37 (3)	35 (4), 36 (2), 37 (2)	36, 37 (2)

*Weights* : 3 ♂ : 52 g, 65 g, 70 g ; 2 ♀ : 53 g, 58 g.

152. Whitebreasted Laughing Thrush. *Garrulax jerdoni* Blyth

Rane (1984, p. 639) noted it at Dudhsagar.

153. Nilgiri Quaker Babbler. *Alcippe poiocephala poiocephala* (Jerdon)

Ponda : 1 unsexed (16 Mar 1973). Molem : 2 ♂ and 5 ♀ (3 Apr 1973) ; 1 ♂ and 1 unsexed (5 Apr 1973). Sanguem : 2 ♂ (4 Apr 1973).

The Quaker Babbler is a common bird of Goa. It occurs in parties of 10 to 12 individuals in the interior of the forest, dense bushes, sometimes even on trees.

Grubh and Ali (1976, p. 50) collected it at Molem, Canacona and Volpoi.

Three specimens collected on 3 April 1974 have the greater coverts moulting in all, primary coverts moulting in one and central tail feathers moulting in one. The two specimens collected on 4 April 1973 have the lesser wing-coverts moulting in one and greater coverts and central tail feathers moulting in the other. One unsexed

specimen of 5 April 1973 has the secondaries and greater coverts and central tail feathers moulting.

<i>Measurements</i> :	5 ♂	5 ♀	2 unsexed
Wing :	67, 69, 70, 71 (2)	66 (2), 67, 69, 71	69, 70
Tail :	61 (2), 65 (2), 66	60, 61, 63 (2), 65	61, 63
Bill :	16 (3), 17 (2)	16 (4), 17	16 (2)
Tarsus :	21 (3), 23 (2)	21 (2), 22 (2), 23	22, 23

154. Brown Flycatcher. *Muscicapa latirostris* Raffles

Molem : 1 unsexed (4 Oct 1977).

The Brown Flycatcher is uncommon in Goa. Its favourite haunt is the edge of jungle where it opens out into grassland, overgrown nullahs, etc.

*Measurements* : 1 unsexed : Wing 70 ; tail 50 ; bill 15 ; tarsus 14.

155. Brownbreasted Flycatcher. *Muscicapa muttui muttui* (Layard)

Grubh and Ali (1976, p. 50) collected it at Molem and noted at Canacona.

156. Western Redbreasted Flycatcher. *Muscicapa parva parva* Bechstein

Molem, Colem : 1 ♂ (19 Feb 1978).

The Redbreasted Flycatcher is generally found inside the forest in winter in company with other insectivorous birds.

Grubh and Ali (1976, p. 50) collected it at Molem and noted it at Canacona.

The specimen is a first winter male.

*Measurements* : 1 ♂ : Wing 67 ; tail 49 ; bill 13 ; tarsus 18.

*Weight* : 1 ♂ : 6 g.

157. Whitebrowed Blue Flycatcher. *Muscicapa superciliaris superciliaris* Jerdon

The Whitebrowed Blue Flycatcher was reported from Molem by Grubh and Ali (1976, p. 50).

158. Whitebellied Blue Flycatcher. *Muscicapa pallipes* Jerdon

Molem : 1 ♂ (3 Apr 1973) ; 2 ♀ (23 Feb 1978). Sanguem : 1 ♀ (4 Apr 1973).

The Whitebellied Blue Flycatcher is fairly common in and around forest areas. Found singly or in pairs, often in company with other insectivorous species. Flits among the undergrowth and smaller trees.

Grubh and Ali (1976, p, 50) collected it from Molem and noted it at Canacona.

One of the females collected on 23 February 1978 has ochraceous streaks on the head indicating it to be an young one.

The male specimen had the testes enlarged.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
1 ♂ :	76	59	16	18
3 ♀ :	72 (2), 74	56, 57, -(damaged)	17 (3)	18, 19 (2)

*Weights* : 2 ♀ : 13 g.

159. Bluethroated Flycatcher. *Muscicapa rubeculoides rubeculoides* (Vigors)

Valpoi : 1 ♀ (23 Mar 1973).

The Bluethroated Flycatcher is common in Goa during winter. It frequents undergrowth of bushes and low trees in forest with mixed foraging parties.

Grubh and Ali (1976, p. 51) collected it at Valpoi.

*Measurements* ; 1 ♀ : Wing 70 ; tail 52 ; bill 15 ; tarsus 18.

160. Tickell's Redbreasted Blue Flycatcher. *Muscicapa tickelliae tickelliae* (Blyth)

Canacona, Poinguinim ; 1 ♂ (30 Mar 1973). Valpoi, Pendrang : 1 ♂ (23 Feb 1978).

Tickell's Redbreasted Blue Flycatcher is a common bird in thin secondary jungle, especially those intermixed with bamboo. It keeps singly, often in mixed foraging parties.

Grubh and Ali (1976, p. 51) collected it at Molem and Valpoi and also noted it at Canacona.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
2 ♂ :	73, 74	58, 59	15, 16	19 (2)

*Weight* : 1 ♂ : 12 g.

161. Verditer Flycatcher. *Muscicapa thalassina thalassina* Swainson

Grubh and Ali (1976, p. 51) collected two specimens from Molem and Valpoi and also noted it at Canacona.

162. Whitespotted Fantail Flycatcher. *Rhipidura albicollis albogularis* (Lesson)

Ponda : 1 ♂ (16 Mar. 1973) ; 1 ♀ (20 Mar. 1973).

The Whitespotted Fantail Flycatcher is fairly common in Goa. It was observed in undergrowth of forests, and on bushes along the forest edges. It occurs singly or in pairs.

Rane (1984, p. 639) noted the species at Bondla and Mayem.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
1 ♂ :	73	91	14	19
1 ♀ :	71	90	12	19

163. Peninsular Indian Paradise Flycatcher. *Terpsiphone paradisi paradisi* (Linnaeus)

Molem : 1 ♂, 1 ♀ (4 Jan 1969) ; 2 ♂ (22 Feb 1978). Valpoi : 1 ♂ (1 Jan 1969) ; 1 ♀ (1 Mar 1978). Canacona, Poinguinim : 1 ♂ (27 Mar 1973). Ponda : 1 ♀ (21 Mar 1973). Sanguem : 1 ♀ (4 Apr 1973).

The Paradise Flycatcher is not an uncommon bird in Goa. It occurs in shady forest near stream and in secondary plantations. It keeps solitary or in pairs.

Grubh and Ali (1987, p. 51) collected it at Molem and noted it at Canacona. They identified the bird *T. p. leucogaster* (Swainson)

A male specimen taken on 27 March, 1973 is in chestnut plumage without streamers, and has the chin and throat black (at close range a metallic blue-black), and the breast ashy grey, rest of plumage greyish white.

One of our male specimens of 22 February, 1978, exhibits a few rufous feathers amongst normal white feathers on upper back and upper tail-coverts.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
White 4 ♂ :	93, 94(2), 97	102, 115(2), 120	24, 25(2), 26	17.5, 18(3)
Rufous 1 ♂ : (like ♀)	86	100	25	16
4 ♀ :	91, 88(3)	99, 100, 102, 105	22, 23, 24(2)	17, 18(2), 19

*Weights :* 2 ♂ : 16 g ; 1 ♀ : 18 g.

164. Indian Blacknaped Flycatcher. *Hypothymis azurea styani* (Hartlaub)

Molem : 2 ♀ (3 Apr 1973). Sanguem : 3 ♂, 1 ♀ (4 Apr 1973).

Valpoi, Curanzol : 1 ♂ (1 Mar 1978).

The Blacknaped Flycatcher was not uncommonly found by us in the forests around Goa. It was seen in pairs along the edges of forests as well as some distance inside.

Grubh and Ali (1976, p. 51) collected it at Valpoi and Molem and noted it at Maem enviorns and Canacona.

The testes of the specimen of 1 March, 1978 was not enlarged.

<i>Measurements</i> :	4 ♂	3 ♀
Wing :	68, 69, 70, 72	67(3)
Tail :	65, 67, 69, 71	65, 66, 67
Bill :	16(4)	16(3)
Tarsus :	16(2), 17, 18	16, 17, 18
<i>Weight</i> :	1 ♂ : 10 g.	

165. Tailor Bird. *Orthotomus sutorius* (Pennant)

Grubh and Ali (1976, p. 51) noted it at Molem, Canacona.

166. Thickbilled Warbler. *Acrocephalus aedon aedon* (Pallas)

Molem : 1 ♂ (20 Feb 1978).

Thickbilled Warbler appeared scarce in Goa. We could collect only a single specimen from bush near a stream. It keeps solitary.

The authenticity of its occurrence in Goa, which has been questioned by Ali and Ripley (1973, p. 99) is now confirmed. Ours, therefore, appears to be the only record of this bird from Goa.

The testes of the specimen was not enlarged.

*Measurements* : 1 ♂ : Wing 83 ; tail 84 ; bill 20 ; tarsus 27.

*Weight* : 1 ♂ : 20 g.

167. Blyth's Reed Warbler. *Acrocephalus dumetorum* Blyth

Canacona, Poinguinim ; 1 ♂ (23 Dec 1968) ; 1 ♀ (25 Dec 1968) : 1 ♂ (29 Mar 1973).  
Ponda : 1 ♀ (20 Mar 1973).

Although a reed warbler by name, this species is more commonly seen in bushes. Keeps singly, hopping about and creeping through bushes.

Grubh and Ali (1976, p. 51) collected it at Molem and noted it at Canacona.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
2 ♂ :	62(2)	51, 53	18(2)	22, 23
2 ♀ :	62, 63	53(2)	17+, 18,	21, 23

168. Lesser Whitethroat. *Sylvia curruca* (Linnaeus)

Rane (1984, p. 639) noted it at Bondla.

169. Olivaceous Leaf Warbler. *Phylloscopus griseolus* Blyth

Grubh and Ali (1976, p. 51) collected it from Molem.

170. Large Crowned Leaf Warbler. *Phylloscopus occipitalis occipitalis* (Blyth)

Grubh and Ali (1976, p. 51) collected it from Molem.

171. Eastern Greenish Leaf Warbler. *Phylloscopus trochiloides trochiloides* (Sundevall)  
Canacona, Poinguinim : 1 ♂ (30 Mar 1973).

The Greenish Leaf Warbler appeared to be rare in Goa.

Grubh and Ali (1976, p. 51) collected it at Canacona and identified it as *Phylloscopus tyleri* Brooks. But according to Price (1980, p. 143) "the specimen is misidentified. It is clearly a Greenish Warbler, *Phylloscopus trochiloides* (Sundevall)."

1st and 2nd primaries of the specimen are in moulting sheath.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
1 ♀ :	50	45	13	13

172. Indian Magpie-Robin. *Copsychus saularis saularis* (Linnaeus)

Valpoi : 1 ♀ (14 Jan 1969) ; Carranzol : 1 ♀ (1 Mar 1978). Poinguinim : 1 ♂ (26 Mar 1973) ; 1 ♀ (29 Mar 1973) ; 2 ♀ (10 and 17 Feb 1979). Ponda : 1 ♂ (21 Mar 1973). Molem : 3 ♂ (2 Oct 1977) ; 2 ♂, 1 ♀ (21 Feb 1978).

The Magpie-Robin is one of the commonest birds about human habitation in Goa.

Grubh and Ali (1976, p. 51) noted the species at Bicholim, Canacona and Molem. The three male specimens of 2 October, 1977 are in moult as follows :

- 1) 1st, 2nd and 3rd primaries (as.) moulting in two examples.
- 2) 2nd, 3rd and 4th primaries (as.) moulting in one example.

It has the 5th rectrices is also slightly tipped with white.

<i>Measurements</i> :	7 ♂	6 ♀
Wing :	94, 98 (4), 100 (2)	90, 92 (2), 93, 94 (2)
Tail :	79, 85, 86, 87 (2), 88 (2)	79 (2), 80 (2), 82, 85
Bill :	21, 22, 23 (4), 24	21, 22 (4), 23
Tarsus :	27, 29, 30 (2), 31 (3)	27 (2), 28 (2), 29, 30

*Weights* : 1 ♂ : 23 g ; 4 ♀ : 24, 26, 36 (2) g.

173. Malabar Shama. *Copsychus malabaricus malabaricus* (Scopoli)

Molem ; 2 ♂ (2 Apr 1973 ; 23 Feb 1978).

The Shama does not appear to be at all common in Goa. It was observed by us only a few times in the forested area.

Grubh and Ali (1976, p. 51) collected it at Canacona.

The specimen collected on 23 February, 1978 had the testes not enlarged while the other one of 1 April, 1973 had enlarged testes.

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
2 ♂ :	94, 97	165, 180	20, 21	25 (2)

174. Redstart. **Phoenicurus ochruros** (Gmelin)

Grubh and Ali (1976, p. 51) noted it at Molem.

175. Indian Collared Bush Chat. **Saxicola torquata indica** (Blyth)

Valpoi : 1 ♀ (29 Sept 1977).

The Indian Bush Chat is not particularly common in Goa. An example was seen by the party member in bush.

Literature on Indian avifauna mentioned its occurrence in southern Karnataka as winter migrant. Grubh and Ali (1976) failed to locate it in Goa. Ours, therefore, appears to be the only record of this bird beyond southern Karnataka as far west in Goa.

The wing patch of our specimen is fulvous instead of white as stated by Ali and Ripley (1973, p. 128). The tail is bluish brown, tip edged with fulvus.

*Measurements* ; 1 ♀ : Wing 65 ; tail 49 ; bill 14 ; tarsus 22.

176. Pied Bush Chat. **Saxicola caprata** (Linnaeus)

Rane (1984, P. 639) noted it at Panaji and Mayem.

177. Blackbacked Indian Robin. **Saxicoloides fulicata fulicata** (Linnaeus)

Ponda : 1 ♀ (18 Mar 1973).

The Blackbacked Robin is not an uncommon bird in Goa. It affects dry stony ground with short grass.

Grubh and Ali (1976) noted the species at Canacona.

*Measurements* ; 1 ♀ : Wing 70 ; tail 60 ; bill 15 ; tarsus 26.

178. Blueheaded Rock Thrush. **Monticola cinclorhynchus** (Vigors)

Grubh and Ali (1976, p. 52) collected it at Molem and Canacona.

179. Indian Blue Rock Thrush. **Monticola solitarius pandoo** (Sykes)

Molem, Colem : 1 ♂ (2 Jan 1969).

The Blue Rock Thrush is not an uncommon bird of Goa. The example was observed by the party singly on rocky hillsides.

Grubh and Ali (1976, p. 52) noted the species at Molem and Canacona.

In the field label the sex indication is ♂ but the plumage of the specimen has certain amount of bluish tinge in both upper and underparts, thus tending towards feminine characters.

The specimen is in winter plumage.

*Measurements* : ? 1 ♀ ; Wing 119 ; tail 83 ; bill 28 ; tarsus 29.

180. Malabar Whistling Thrush. *Myiophoneus horsfieldii* (Vigors)

Grubb and Ali (1976, p. 52) noted the species at Molem.

181. Whitethroated Ground Thrush. *Zoothera citrina cyanotus* (Jardine and Selby)

Canacona, Poinguinim : 1 ♂ (26 Dec 1968) ; 1 ♀ (27 Mar 1973) ; 1 ♂, 1 ♀ (29 Mar 1973) ; 3 ♂ (11, 16, 17 Feb 1978). Ponda : 1 ♂ (18 Mar 1973). Molem : 1 ♀ (21 Feb 1973).

The Whitethroated Ground Thrush is common in Goa in shady bushes at the foothills and also near the vicinity of water.

Grubb and Ali (1976, p. 52) collected it at Molem and Valpoi and noted it at Canacona.

The collected birds are in quite fresh plumage.

<i>Measurements</i> :	8 ♂	1 ♀
Wing :	105 (2), 106 (3), 109 (3)	102
Tail :	72 (2), 73 (3), 74, 75, 77	69
Bill :	23 (2), 24 (4), 25 (2)	23
Tarsus :	28, 30, 31 (5), 32	30

*Weights* : 4 ♂ : 42 g, 46 g, 50 g (2).

182. Tickell's Thrush. *Turdus unicolor* (Tickell)

Molem : 1 ♂ (21 Feb 1978).

This thrush appeared rare indeed in Goa. It was observed at the edges of forest.

The specimen is a young male having olive-brown colour and slightly streaked throat. It is likely to be confused with a female Blackbird, but its rufous under wing-coverts are diagnostic for the species.

Further, the species is previously known from as far southeast as northeastern Andhra. Now, it is being recorded for the first time from Goa i.e., beyond 16° latitude.

*Measurements* : 1 ♂ : Wing 122 ; tail 82 ; bill 24 ; tarsus 32.

*Weights* : 1 ♂ : 46 g.

183. Blackcapped Blackbird. *Turdus merula nigropileus* (Lafresnaye)

Canacona, Poinguinim : 1 ♂ (11 Feb 1978), 1 ♀ (14 Feb 1978),

Molem : 2 ♂ (20-21 Feb 1978).

The Blackcapped Blackbird is quite common in the forests of Goa during winter. It usually occurs singly in bushes near stream.

Grubh and Ali (1976, p. 52) collected it at Molem and Valpoi and noted it at Canacona.

Out of the three male specimens, the one collected on 20 February 1978 has an ill-defined collar. The other two male specimens are subadults.

The measurements of wings of all the three males are smaller than the minimum length of the wings given by Baker (1924, p. 128), followed by Ali and Ripley (1973, p. 119).

<i>Measurements :</i>	Wing	Tail	Bill	Tarsus
3 ♂ :	113, 122, 123	88 (2), 92	27 (2), 28	32 (3)
1 ♀ :	116	87	27	32

*Weights :* 3 ♂ : 76 g ; 68 g, 1 ♀ : 69 g.

#### Family PARIDAE

##### 184. Grey Tit. *Parus major* Linnaeus

Rane (1984, p. 639) noted it at Bondla.

##### 185. Blackspotted Yellow Tit. *Parus xanthogenys* Vigors

Rane (1984, p. 639) noted it at Molem and Bondla.

#### Family SITTIDAE

##### 186. Chestnutbellied Nuthatch. *Sitta castanea* Lesson

Rane (1984, p. 639) noted it at Molem.

##### 187. Velvetfronted Nuthatch. *Sitta frontalis frontalis* Swainson

Grubh and Ali (1976, p. 52) collected a male specimen from Molem.

#### Family MOTACILLIDAE

##### 188. Indian Tree Pipit. *Anthus hodgsoni hodgsoni* Richmond

Canacona, Cotigaon : 1 ♂ (12 Feb 1978).

The Indian Tree Pipit is a very common bird of Goa during winter. It frequents Eucalyptus plantations in loose flocks.

Grubh and Ali (1976, p. 52) collected it at Molem and identified up to species.

*Measurements :* 1 ♂ : Wing 83 ; tail 63 ; bill 16 ; tarsus 22.

*Weight :* 1 ♂ : 22 g.

189. Tree Pipit. *Anthus trivialis* (Linnaeus)

Grubh and Ali (1976, p. 52) collected it at Molem.

190. Forest wagtail. *Motacilla indica* Gmelin

Molem : 2 (unsexed) (4 Oct 1977).

The Forest Wagtail is not an uncommon bird of Goa during winter. Frequently seen to move about on forest paths.

Grubh and Ali (1976, p. 52) collected it at Molem.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
2 (unsexed) :	80 (2)	71, -(damaged)	17, 18	22 (2)

191. Grey Wagtail. *Motacilla cinerea cinerea* Tunstall

Molem : 1 unsexed (20 Feb 1978). Ponda : 1 ♀ (19 Mar 1973) ; 1 ♂ (20 Mar 1973).  
Valpoi : Curanzol : 1 ♀ (1 Mar 1978).

The Grey Wagtail is a common bird about streams and tanks on the edges of forests in Goa.

Grubh and Ali (1976, p. 52) noted the species at Molem.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
1 ♂ :	82	—(damaged)	16	18
2 ♀ :	80, 81	88, 92	16(2)	20, 21
1 (unsexed) :	81	89	16	21

*Weights* : 1 ♀ : 16 g ; 1 (unsexed) : 10 g.

192. Large Pied Wagtail. *Motacilla maderaspatensis* Gmelin

Grubh and Ali (1976, p. 52) noted it near Mapsa.

## Family DICAEDAE

193. Thickbilled Flowerpecker. *Dicaeum agile agile* (Tickell)

A diminutive restless bird found singly in a flowering tree at Valpoi. The shrill twittering call with constant *chick chick* draws attention to this bird.

Grubh and Ali (1976, p. 53) noted it at Valpoi.

194. Nilgiri Flowerpecker. *Dicaeum concolor concolor* Jerdon

Canacona, Poinguinim : 1 ♂ (25 Mar 1973).

The Nilgiri Flowerpecker is common in Goa especially in the forests on the bases of the hills. It occurs in pairs in bushes as well as on trees in the vicinity of villages.

Grubh and Ali (1976, p. 53) collected the species at Molem and Canacona.

Testes were enlarged.

*Measurements* : 1 ♂ : Wing 46 ; tail 23 ; bill 13 ; tarsus 12.

Family NECTARINIIDAE

195. Indian Purplerumped Sunbird. *Nectarinia zeylonica flaviventris* (Hermann)

Canacona, Poinguinim : 1 ♂ (24 Mar 1973) ; 1 ♀ (16 Feb 1978).

The Purplerumped Sunbird is not uncommon in Goa in gardens, on hedges, bushes, and smaller trees about villages and edges of forests. It occurs in pairs.

Grubh and Ali (1976, p. 53) collected it at Canacona and noted it at Molem.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
1 ♂ :	55	33	18	17
1 ♀ :	51	30	19	14

*Weight* : 1 ♀ : 7 g.

196. Small Sunbird. *Nectarinia minima* (Sykes)

The range of the Small Sunbird includes Goa. Grubh and Ali (1976, p. 53) collected two female specimens from Molem and Valpoi and noted it at Canacona.

197. Marnoonbreasted Sunbird. *Nectarinia lotenia hindustanica* (Whistler)

Grubh and Ali (1976, p. 53) collected it at Molem and noted it at Canacona.

198. Indian Purple Sunbird. *Nectarinia asiatica asiatica* (Latham)

Ponda : 1 ♂, 1 ♀ (20 Mar 1973). Valpoi, Nanuz 1 ♂ (26 Feb 1978) ; Coduol : 1 ♂ (28 Feb 1978).

The Purple Sunbird is a common bird in Goa. It frequents secondary forest, orchards and flowering trees.

Grubh and Ali (1976, p. 53) collected it at Molem and noted it at Canacona.

The male specimen of 26 February, 1978 had the testes enlarged.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
3 ♂ :	54, 56(2)	34(2), 36	21, 22(2)	15(2), 16
1 ♀ :	52	31	22	14

*Weights* : 2 ♂ : 6 g(2).

199. Yellowbacked Sunbird. *Aethopyga siparaja* (Raffles)

Rane (1984, p. 639) noted it at Bondla and Mayem.

200. Little Spiderhunter. *Arachnothera longirostris longirostris* (Latham)

Molem : 1 ♂ (27 Sept 1977). Canacona, Poinguinim : 1 ♂ (13 Feb 1978).

We found this Spiderhunter as a common bird of Goa. It was abundant at Molem, and occurred in pairs on flowering trees in the forests.

Both the specimens had the testes enlarged. The specimen collected on 27 September, 1977 had only the left testes, and its upper plumage was worn.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
2 ♂ :	63, 64	—(damaged), 40	35, 37	15(2)

*Weight* : 1 ♂ : 12 g.

## Family ZOSTEROPIDAE

201. White-eye. *Zosterops palpebrosa* (Temminck)

Rane (1984, p. 639) noted it at Bondla.

## Family PLOCEIDAE

202. Indian House Sparrow. *Passer domesticus indicus* Jardine and Selby

Canacona, Poinguinim : 1 ♂ (29 Mar 1973).

The House Sparrow is common in human habitation.

Grubh and Ali (1976, p. 53) noted the species at Panaji.

Our specimen had the testes enlarged.

*Measurements* : 1 ♂ : Wing 75 ; tail 55 ; bill 13 ; tarsus 20.

203. Indian Yellowthroated Sparrow. *Petronia xanthocollis xanthocollis* (Burton)

Valpoi : 2 ♂ (23 Mar 1973) ; Santrem : 1 ♀ (2 Mar 1978). Canacona, Poinguinim : 1 ♂, 2 ♀ (29 Mar 1973) ; 1 ♀ (30 Mar 1973). Vasco : 2 ♂, 1 ♀ (31 Mar 1973). Molem : 1 ♂ (19 Feb 1978).

The Yellowthroated Sparrow was met with in Goa in small, loose parties on scrub and hedges bordering cultivation.

The only other record of this species from Goa was made from Molem and Canacona by Grubh and Ali (1976, p. 53).

Two specimens of 19 February and 2 March, 1978 differ from the others in being decidedly darker than the nominate *xanthocollis* on the upper plumage and in having the whole lower plumage tinged with rufous excepting the lemon yellow throat patch.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
6 ♂ :	79, 81, 82, 83 (2), 84	49, 50 (2), 51, 52, 53	14+, 16 (5)	18 (3), 16 (3)
5 ♀ :	76 (2), 78 (2), 79	45, 47 (2), 48 (2)	15, 16 (4)	16 (2), 17 (2) 18

*Weights* : 1 ♂ : 14 g ; 1 ♀ : 21 g.

204. Indian Baya. *Ploceus philippinus philippinus* (Linnaeus)

We did not find it, but Grubh and Ali (1976, p. 53) collected a single specimen from Molem.

205. Travancore Baya. *Ploceus philippinus travancorensis* Whistler

Valpoi, Nanuz : 1 ♂ (26 Feb 1978).

It occurs in cultivated fields, especially in the sugarcane cultivation in association with other birds.

The occurrence of both *philippinus* and *travancorensis* in the same locality is rather intriguing. We are sure about no mix up in the labelling of our specimen and was collected while feeding on nectar of *Erythrina* sp.

The specimen was in non-breeding dress.

*Measurements* : 1 ♂ : Wing 71 ; tail 47 ; bill 20 ; tarsus 22.

206. Southern Whitebacked Munia. *Lonchura striata striata* (Linnaeus)

Ponda : 2 ♂ (18, 24 Mar 1973). Molem : 6 unsexed (15 Oct 1977). Canacona, Poinguinim : 1 ♂ (14 Feb 1978), 1 ♂, 1 juv., unsexed (15 Feb 1978).

The Whitebacked Munia is common in Goa. It occurs in flocks in cultivated fields, especially those that are near forests.

Grubh and Ali (1976, p. 53) collected an unsexed specimen from Valpoi.

The male and the unsexed specimen of 15 February, 1978 are juveniles in having dark brown throat with paler fringes ; breast feathers have narrow brown edges which give somewhat squamated appearance and the shaft streaks in the upper plumage are less prominent.

A specimen taken on 14 February, 1978 had the testes enlarged.

<i>Measurements</i> :	Wing	Tail	Bill	Tarsus
4 ♂ :	50, 51 (2), 53	35, 37, 38, 39	13 (3), 14	14 (4)
7 unsexed :	50, 51, 52 (2), 53 (2), 55	36, 37, 38, 39, 40, 42, 43	13 (2), 14 (5)	13 (2), 14 (5)

*Weights* : 2 ♂ : 10 g (2) ; 1 unsexed : 10 g.

207. Indian Spotted Munia. *Lonchura punctulata punctulata* (Linnaeus)

Volpoi : Caranzol : 1 ♂ (1 Mar 1978).

The Spotted Munia is common practically all over Goa. It frequents paddy fields in company with other munias.

The specimen under report is very worn. Its upper and lower plumage as in the breeding bird. The bird had non-breeding gonads in March.

*Measurements* : 1 ♂ : Wing 50 ; tail 33 (+) ; bill 13 ; tarsus 16.

Wing is 4 mm smaller than indicated by Ali and Ripley 1974 : 144.

## Family EMBERIZIDAE

208. Blackheaded Bunting. *Emberiza melanocephala* Scopoli

Grubh and Ali (1976, p. 53) collected a female specimen from Molem.

## SUMMARY

A comprehensive information on the bird life of Goa has been furnished based on the published accounts as well as collection made. The bird community of the region comprises of 208 species and subspecies belonging to 124 genera, 44 families and 15 orders.

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