

The birds of Wynaad, southern India

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A survey of birds of the Wynaad district of Kerala was conducted from June 1985 to September 1988. A total of 275 species was recorded, including 15 which had not previously been recorded in the state of Kerala. Records of 30 other species that have occurred in Wynaad were located in the published literature. Nine of the species are endemic to the Western Ghats and several others have disjunct distributions in the Indian subcontinent. Of the resident species 41 were confined to evergreen and semi-evergreen biotopes and 66 occurred only in deciduous biotopes. A total of 150 species showed evidence of breeding, including the rarely recorded Ceylon Frogmouth *Batrachostomus moniliger*. Nineteen species had not previously been recorded as breeding in Kerala, including the Asian Brown Flycatcher *Muscicapa dauurica*, a species previously believed to be only a winter visitor. Evidence of decline in numbers of some species is presented; comparison with the results of the only previous survey (Davison 1883) indicates that 20 resident species have undergone a considerable decline and 17 resident species were not observed at all.

INTRODUCTION

Little information is available on the avifauna of Wynaad. William Davison (1883) carried out a survey from 23 March to 31 May 1881 (and subsequently collected some further specimens which were reported on by Whistler and Kinnear (1930-1937); these studies highlighted the presence of an interesting avifauna in Wynaad. Subsequently, J. Darling collected eggs and some specimens of birds in the 1880s (Hume 1890, Whistler and Kinnear 1930-1937), and A. M. Primrose (1904) provided information on 11 species of raptors from the area. Salim Ali's surveys in Kerala (Ali 1969) did not adequately cover Wynaad, even though it is perhaps the richest area faunistically in Kerala and he appears to have overlooked 11 species recorded in Wynaad which are additional to the species included in *The birds of Kerala*.

Wynaad is an elevated plateau in the Western Ghats, between 11°58'N and 11°30'N and 75°45'E and 76°28'E (Figure 1). It is an extension of the Deccan plateau to the west, bounded by Coorg and Mysore in the north and east, Nilgiri in the south and Malappuram and Calicut in the south-west. The Ghat section is separated by the Brahmagiri Dindimal ranges, running at right angles to the Western Ghats, with the Nilgiri Kunda ranges forming the south-eastern limit, and the eastern portion merging into the Karnataka table land. Formerly Wynaad consisted of South-East Wynaad (Nilgiri Wynaad), South Wynaad and North Wynaad. South-East Wynaad was transferred to Tamil Nadu, leaving the other two regions to form the current Wynaad district with an area of 2,125 km². The average altitude of the plateau is 700 m, but many peaks exceed 1,500 m. The only river, the Kabani, originates in the Western Ghats and flows east.

The climate on the plateau is quite different from that of the plains. The temperature of the former ranges from 13°–33°C, whereas at the foot of the Ghats the range is from 21°–38°C. From November to January mist is common and, following a few showers in April and May, the South-West Monsoon brings 75% of the annual rainfall from June to August. There is a rainfall gradient from west to east, a fact that is reflected in the vegetation.

On the plateau moist deciduous forest is the characteristic vegetation, whereas the slopes of the Western Ghats and of the Dindimal and Brahmagiri ranges are clothed in evergreen forest. Deciduous forest occupies a zone extending from the north through the east to the south. The forest quality gradually deteriorates as one moves eastwards from the Ghats, leading to stunted trees on the eastern border.

Modern forestry operations and plantations began in Wynaad at the time of the Forest Act of 1882. Selective felling and indiscriminate destruction of forest have increased in the post-independence period and the large-scale migration of agriculturists from central Kerala from the 1950s onwards sealed the fate of the pristine forest in the region. Much of the vast forest has been reduced to a precarious fringe along the south-eastern border and in central areas there are now vast expanses of gardens and plantations. Even the remaining forests, including the evergreen/semi-evergreen portion at Tirunelly in the Brahmagiris and those at Periya are being destroyed by commercial felling and tribal rehabilitation programmes. The Forest Department are now planting *Eucalyptus* and other exotic trees in the grasslands above the shola forest, thereby threatening the entire ecosystem.

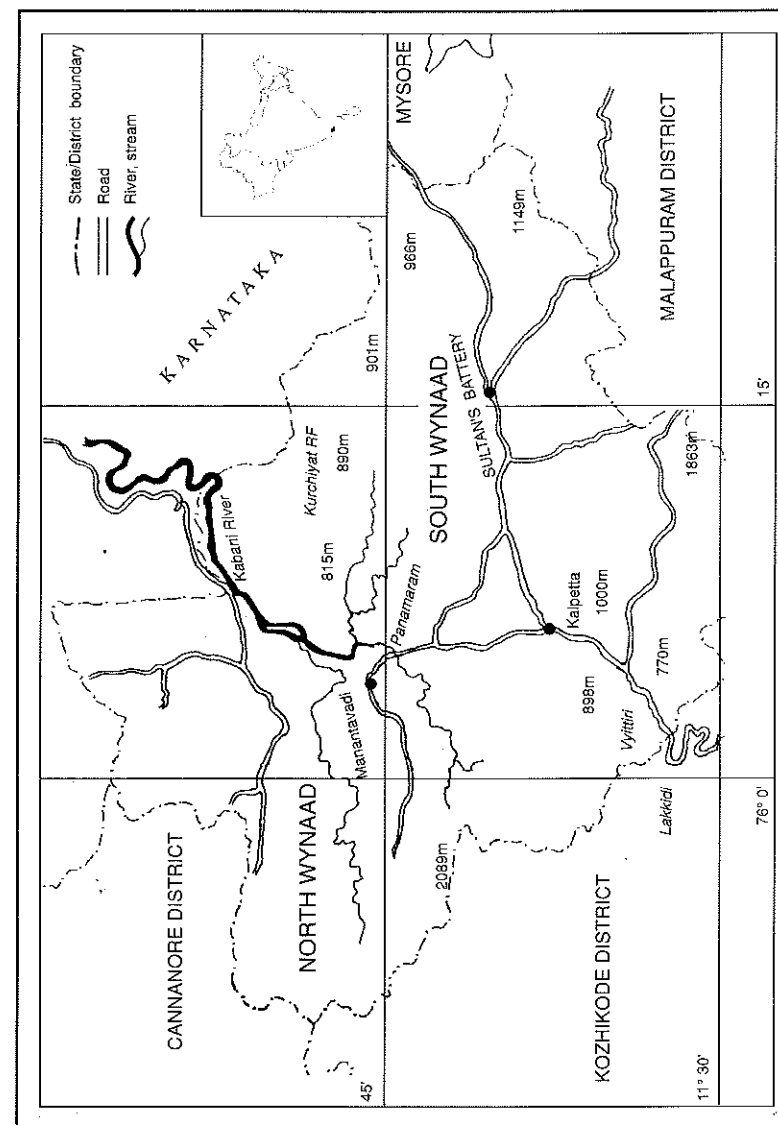
Wynaad Wildlife Sanctuary

The Wynaad Wildlife Sanctuary covers an area of 344.44 km² in the east and south-east of Wynaad. There are two isolated segments: Tholpetty Wildlife Range in the north and the Kurchiyat, Sultan's Battery and Muthanga wildlife Ranges in the south. The two segments are separated by a wide area of cultivation. There are extensive plantations and several cultivated enclosures within the sanctuary which constitute the major portion of the reserve.

METHODS OF STUDY

Birds were observed in 12 localities in Wynaad, from July 1985 to September 1988. These localities were selected on the basis of topography, vegetation and land use. Observations, which included notes on climate, topography, altitude and vegetation, were conducted from 07h00 to 15h00 and each locality was visited once every three months. The number of bird species in different habitats and information on food and nesting behaviour was

Figure.



recorded. Evidence of breeding and egg-laying dates were determined by noting the following: birds carrying nesting materials or food for the young, or feeding recently fledged young; in the case of hole-nesting species observations of birds entering suitable holes was considered adequate.

RESULTS

A total of 275 species was observed during the survey in Wynaad and a search of the relevant literature revealed another 30 species that have been recorded previously (Appendix). Of the resident species 41 were confined to evergreen/semi-evergreen biotopes and 66 to the deciduous biotopes. Some intermediate zone (moist deciduous) species were found in both evergreen and deciduous biotopes; species such as Brown-capped Woodpecker *Dendrocopos nanus*, Yellow-browed Bulbul *Iole indica*, Dark-fronted Babbler *Rhopocichla atriceps*, Rufous Babbler *Turdoides subrufus*, Brown-cheeked Fulvetta *Alcippe poioicephala*, Tickell's Blue-Flycatcher *Cyornis tickelliae*, Black-naped Monarch *Hypothymis azurea*, White-rumped Shama *Copsychus malabaricus*, Black-lored Tit *Parus xanthogenys*, Velvet-fronted Nuthatch *Sitta frontalis* and Oriental White-eye *Zosterops palpebrosus* were generally more common in the moist deciduous biotope; they have been treated as species of this zone in this paper. There are differences in the numbers of species found in evergreen forests and in deciduous forests. The largest numbers of both birds and species were observed in the semi-evergreen forests at Tirunelly and in the moist deciduous forests at Muthanga and Kupadi respectively. The forest around Lakkidi and Vyittiri had a rich avifauna, mostly represented by passerine species. There is evidence of a steady decline in bird populations in this area over the last decade, mostly due to developmental projects and forest destruction.

Species endemic to south-west India or with disjunct distributions

Nine species of the evergreen/semi-evergreen biotope are endemic to the Western Ghats: Malabar Parakeet *Psittacula columboides*, Nilgiri Wood-Pigeon *Columba elphinstonii*, Black-and-rufous Flycatcher *Ficedula nigrorufa*, White-bellied Blue-Flycatcher *Cyornis pallipes*, Wynaad Laughingthrush *Garrulax delesserti*, Rufous-breasted Laughingthrush *G. cachinnans*, Grey-breasted Laughingthrush *G. jerdoni*, Hill Swallow *Hirundo domicola* and Nilgiri Pipit *Anthus nilghiriensis*. Several other species occur in the Western Ghats and elsewhere in the Indian subcontinent, but discontinuously, either in Sri Lanka or in the eastern Himalayas: Jerdon's Baza *Aviceda jerdoni*, Rufous-bellied Eagle *Hieraaetus kienerii*, Ceylon Frogmouth *Batrachostomus moniliger*, Malabar Trogon *Harpactes fasciatus*, Blue-bearded Bee-eater *Nyctyornis athertoni*, Dollarbird *Eurystomus orientalis*, Great Hornbill *Buceros bicornis*.

Altitudinal distribution of birds

Most of the recorded species occur below 1,400 m; above this altitude there is a much smaller number of species. The Black Bulbul *Hypsipetes leucocephalus* is usually found only above 900 m (200 m above the average altitude of the plateau) and is most numerous above 1,000 m. A few species, such as the White-bellied Shortwing *Brachypteryx major* and Golden-headed Cisticola *Cisticola exilis* are found only above 1,200 m. The Indian Swiftlet *Collocalia unicolor* was found at a wide range of altitudes but the largest numbers observed were those roosting above 1,400 m in rocky caves on the Brahmigiris.

Winter visitors

Fifty-nine species of winter visitors were recorded, with the largest numbers of wintering birds occurring from November to February. In nearby Coorg, Betts (1950), reported that winter visitors began to arrive at the end of August, and that they began to leave at the end of February, with some remaining until the end of April.

Breeding behaviour

A total of 150 species showed evidence of breeding, including nineteen species for which the breeding records were apparently the first for Kerala; these are annotated in the Appendix with '#'. A large colony of breeding herons was found near the Panamaram bridge on the Kalpetta-Manantavadi road, containing Little Egrets *Egretta garzetta*, Great Egrets *Casmerodius albus*, Intermediate Egrets *Mesophoyx intermedia*, Cattle Egrets *Bubulcus ibis*, Indian Pond-Herons *Ardeola grayii*, Black-crowned Night-Herons *Nycticorax nycticorax* and also Little Cormorants *Phalacrocorax niger*. A pair of Black Bitterns *Ixobrychus flavicollis* was nesting in a nearby bush in June. The birds in this colony were hunted by various people, some of whom travelled from some distance. In addition to the newly recorded breeding species the rarely recorded Ceylon Frogmouth *Batrachostomus moniliger* was found breeding.

Apparent population declines since 1881

Of the resident species recorded in Wynaad, 20 have apparently declined since 1881, being considered 'common' by Davison but found only occasionally or rarely during this survey. A further 17 resident species were not found at all in the current survey - some of these are unobtrusive species that may have been overlooked, but others have clearly declined. The Red-naped Ibis *Pseudibis papillosa* was found in noisy flocks at Manantavadi by Davison in April 1881, but has now disappeared. Waterbirds, raptors and gamebirds have apparently declined in numbers generally since Davison's survey. These declines are most probably due to habitat destruction and hunting.

New sight records for Kerala

Fifteen species were recorded for the first time in Kerala. These are annotated in the Appendix with an asterisk. The most significant of these are the White-winged Tit *Parus nuchalis* (previously recorded only very locally in Gujarat, south-central Rajasthan, one locality in the Eastern Ghats, Bangalore and the Biligirangan Hills) and the Rufous-breasted Laughingthrush (recorded previously only in the Nilgiris).

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APPENDIX

BIRD SPECIES RECORDED IN WYNAAD

	Davison (1883)	This survey	Others	Habitat	Status
GREY FRANCOLIN <i>Francolinus pondicerianus</i>	-	O	-	D	RE+
RAIN QUAIL <i>Coturnix coromandelica</i>	x	-	-	MD	RE
BLUE-BREASTED QUAIL <i>Coturnix chinensis</i>	O	-	-	MD	RE
JUNGLE BUSH-QUAIL <i>Pardicula asiatica</i>	-	O	Wh	D	RE+
PAINTED BUSH-QUAIL <i>Pardicula erythrorhyncha</i>	C	R	Hu	MD/D	RE+
RED SPURFOWL <i>Galloperdix spadicea</i>	C	O	Di, Hu	MD	RE+
GREY JUNGLEFOWL <i>Gallus sonneratii</i>	C	O	-	E/D	RE+
INDIAN PEAFOWL <i>Pavo cristatus</i>	O	R	Ba	D	RE+
#LESSER WHISTLING-DUCK <i>Dendrocygna javanica</i>	x	R	-	?	RE+
[COMB DUCK <i>Sarkidiornis melanotos</i>	?	-	-	-]
COTTON PYGMY-GOOSE <i>Nettapus coromandelianus</i>	x	O	-	?	RE
[GADWALL <i>Anas strepera</i>	?	-	-	-]
*NORTHERN PINTAIL <i>Anas acuta</i>	R	-	-	?	W
GARGANEY <i>Anas querquedula</i>	x	O	-	?	W
*NORTHERN SHOVELLER <i>Anas clypeata</i>	x	-	-	?	W
YELLOW-LEGGED BUTTONQUAIL <i>Turnix tanki</i>	R	-	-	?	RE
SPECKLED PICULET <i>Picumnus innominatus</i>	x	O	H, Wh	E	RE
#BROWN-CAPPED WOODPECKER <i>Dendrocopos nanus</i>	x	C	J	MD	RE+
#YELLOW-CROWNED WOODPECKER <i>Dendrocopos mahrattensis</i>	O	C	-	D	RE+
RUFIOUS WOODPECKER <i>Ceuleus brachyurus</i>	O	O	J	SE/D	RE
WHITE-BELLIED WOODPECKER <i>Dryocopus javensis</i>	C	O	-	E/MD	RE
LESSER YELLOWNAPE <i>Picus chlorolophus</i>	O	C	-	D	RE+
COMMON FLAMEBACK <i>Dinopium javanense</i>	O	C	-	E?	RE+
BLACK-RUMPED FLAMEBACK <i>Dinopium benghalense</i>	C	C	-	SE/D	RE+
GREATER FLAMEBACK <i>Chrysocolaptes lucidus</i>	C	O	-	E/MD	RE
WHITE-NAPED WOODPECKER <i>Chrysocolaptes festivus</i>	-	R	-	D/MD	RE
HEART-SPOTTED WOODPECKER <i>Hemicircus canente</i>	O	C	J	E/MD	RE+
BROWN-HEADED BARBET <i>Megalaima zeylanica</i>	-	O	-	D	RE+
WHITE-CHEEKED BARBET <i>Megalaima viridis</i>	C	C	Hu	E/MD	RE+
CRIMSON-FRONTED BARBET <i>Megalaima rubricapilla</i>	C	C	-	E	RE+
COPPERSMITH BARBET <i>Megalaima haemacephala</i>	O	O	-	D	RE+
MALABAR GREY-HORNBILL <i>Ocyroceros griseus</i>	x	C	-	E/SE	RE+
MALABAR PIED-HORNBILL <i>Anthracoceros coronatus</i>	x	R	-	E/SE	RE
GREAT HORNBILL <i>Buceros bicornis</i>	C	R (heard once)	-	E	RE
EURASIAN HOOPOE <i>Upupa epops</i>	C	O	-	D	RE
MALABAR TROGON <i>Harporhynchus fasciatus</i>	C	C	J	E/SE	RE+
INDIAN ROLLER <i>Coracias benghalensis</i>	O	C	-	D	RE+
DOLLARBIRD <i>Eurystomus orientalis</i>	R	R (seen twice)	-	E	RE
COMMON KINGFISHER <i>Alcedo atthis</i>	C	C	Hu	?	RE+
BLUE-EARED KINGFISHER <i>Alcedo meninting</i>	?	O	-	E/D	RE
BLACK-BACKED KINGFISHER <i>Ceyx erithacus</i>	-	R	-	E	?
STORK-BILLED KINGFISHER <i>Pelargopsis capensis</i>	x	C	-	SE	RE+
WHITE-THROATED KINGFISHER <i>Halcyon smyrnensis</i>	-	C	-	?	RE+
BLACK-CAPPED KINGFISHER <i>Halcyon pileata</i>	-	R	-	?	RE
PIED KINGFISHER <i>Ceryle rudis</i>	?	C	-	?	RE+
BLUE-BEARDED BEB-EATER <i>Nyctyornis athertoni</i>	x	R	-	D	RE

	Davison (1883)	This survey	Others	Habitat	Status
LITTLE GREEN BEE-EATER <i>Merops orientalis</i>	C	C	-	?	RE+
BLUE-TAILED BEE-EATER <i>Merops philippinus</i>	x	R	-	?	W
CHESTNUT-HEADED BEE-EATER <i>Merops leschenaulti</i>	O	C	Hu	E/MD	RE+
PIED CUCKOO <i>Oxylophus jacobinus</i>	O	-	-	MD/D	RE
*LARGE HAWK-CUCKOO <i>Cuculus sparverioides</i>	-	O	-	MD	W
COMMON HAWK-CUCKOO <i>Cuculus varius</i>	C	O	-	D	RE+
INDIAN CUCKOO <i>Cuculus micropterus</i>	O	R	-	?	?
COMMON CUCKOO <i>Cuculus canorus</i>	-	O	-	MD	W
ORIENTAL CUCKOO <i>Cuculus saturatus</i>	?	-	-	Blanford (1893) discredited Davison's record	
#BANDED BAY CUCKOO <i>Cacomantis sonneratii</i>	-	C	Wh	SE	RE+
GREY-BELLIED CUCKOO <i>Cacomantis passerinus</i>	O	R	-	SE/D	RE
DRONGO CUCKOO <i>Surniculus lugubris</i>	-	R	J	D	RE
ASIAN KOEL <i>Eudynamis scolopacea</i>	C	C	-	?	RE
BLUB-FACED MALKOHA <i>Phaenicochaetus viridivostrius</i>	O	-	-	MD	RE
SIRKEER MALKOHA <i>Phaenicochaetus leschenaultii</i>	-	R	-	D	RE
GREATER COUCAL <i>Centropus sinensis</i>	C	C	-	SE/D	RE+
LESSER COUCAL <i>Centropus bengalensis</i>	R	-	-	?	RE
VERNAL HANGING-PARROT <i>Loriculus vernalis</i>	C	C	-	E/D	RE+
ROSE-RINGED PARAKEET <i>Psittacula krameri</i>	-	C	-	?	RE+
PLUM-HEADED PARAKEET <i>Psittacula cyanocephala</i>	x	C	-	SE	RE+
MALABAR PARAKEET <i>Psittacula columboides</i>	x	C	-	E/SE	RE+
INDIAN SWIFTLET <i>Collocalia unicolor</i>	C	C	-	?	RE+
WHITE-RUMPED SPINETAILED <i>Zonotrichia sylvatica</i>	x	C	-	E/MD	RE
BROWN-BACKED NEEDLETAIL <i>Hirundapus giganteus</i>	x	C	Jd	B	RE
ASIAN PALM-SWIFT <i>Cypsiurus balasorensis</i>	x	C	-	?	RE+
ALPINE SWIFT <i>Tachymarptis melba</i>	-	O	-	?	RE
LITTLE SWIFT <i>Apus affinis</i>	-	C	-	?	RE+
CRESTED TREESWIFT <i>Hemiprocne coronata</i>	O	R (9 seen)	-	SE/D	RE
ORIENTAL SCOPS-OWL <i>Otus sunia</i>	x	-	-	MD	RE
INDIAN SCOPS-OWL <i>Otus bakkamoena</i>	-	O	P (C)	MD	RE
SPOT-BELLIED EAGLE-OWL <i>Bubo nipalensis</i>	-	O	P	SE	RE+
BROWN FISH-OWL <i>Katupa zeylonensis</i>	x	R (seen twice)	P (C)	?	RE
BROWN WOOD-OWL <i>Strix leptogrammica</i>	x	C	-	MD	RE+
JUNGLE OWLET <i>Glaucidium radiatum</i>	-	C	-	MD	RE
BROWN HAWK-OWL <i>Ninox scutulata</i>	x	O	-	SE/D	RE
CEYLON FROGMOUTH <i>Batrachostomus moniliger</i>	-	R	Jd	SE	RE+
GREY NIGHTJAR <i>Caprimulgus indicus</i>	O	R	-	D	RE
JERDON'S NIGHTJAR <i>Caprimulgus atripennis</i>	x	-	-	?	RE
ROCK PIGEON <i>Columba livia</i>	-	C	-	?	RE+
NILGIRI WOOD-PIGEON <i>Columba elphinstonii</i>	-	R	-	E/SE	RE
ORIENTAL TURTLE-DOVE <i>Streptopelia orientalis</i>	R	-	-	SE/D	?
SPOTTED DOVE <i>Streptopelia chinensis</i>	C	C	-	SE/D	RE+
EMERALD DOVE <i>Chalcophaps indica</i>	O	C	Hu, J	E/D	RE+
ORANGE-BREASTED GREEN-PIGEON <i>Tyreron bicincta</i>	R	-	-	SE	RE
POMPADOOR GREEN-PIGEON <i>Tyreron pompadora</i>	O	C	Hu	SE	RE+
YELLOW-FOOTED GREEN-PIGEON <i>Tyreron phoenicoptera</i>	x	O	-	D	RE+
MOUNTAIN IMPERIAL PIGEON <i>Ducula badia</i>	C	C	J	E	RE
SLATY-BREASTED RAIL <i>Gallinulus striatus</i>	R	-	Hu	We	RE
WHITE-BREASTED WATERHEN <i>Amurornis phoenicurus</i>	C	O	-	We	RE
BAILLON'S CRAKE <i>Porzana pusilla</i>	x	-	-	We	?
RUDDY-BREASTED CRAKE <i>Porzana fusca</i>	R	R	-	We	RE
#COMMON MOORHEN <i>Gallinula chloropus</i>	x	O	-	We	RE+

	Davison (1883)	This survey	Others	Habitat	Status
EURASIAN WOODCOCK <i>Scolopax rusticola</i>	-	-	Wh	?	W
[SOLITARY SNIPE <i>Scolopax solitaria</i>	-	-	Wh?		J
WOOD SNIPE <i>Gallinago nemorica</i>	x	R	Di, Ph ¹	We	W
PINTAIL SNIPE <i>Gallinago stenura</i>	x	O	Di, Ph ² , We		W
			Wh		
COMMON SNIPE <i>Gallinago gallinago</i>	x	O	Ph ²	We	W
COMMON REDSHANK <i>Tringa totanus</i>	-	O	-	We	W
COMMON GREENSHANK <i>Tringa nebularia</i>	x	-	-	We	W
WOOD SANDPIPER <i>Tringa glareola</i>	x	O	-	We	W
COMMON SANDPIPER <i>Tringa hypoleucos</i>	x	C	-	We	W
*RUFF <i>Philomachus pugnax</i>	-	O	-	We	W
GREATER PAINTED-SNIPE <i>Rostratula benghalensis</i>	x	O	-	We	W
PHEASANT-TAILED JACANA <i>Hydrophasianus chirurgus</i>	-	O	-	We	RE
BRONZE-WINGED JACANA <i>Metopidius indicus</i>	x	O	-	We	RE+
LITTLE RINGED PLOVER <i>Charadrius dubius</i>	x	C	-	We	W
KENTISH PLOVER <i>Charadrius alexandrinus</i>	-	O	-	We	W
YELLOW-WATTLED LAPWING <i>Vanellus malabaricus</i>	-	-	Wh		
			(31 January 1883, Davison)		
RED-WATTLED LAPWING <i>Vanellus indicus</i>	C	C	-	We	RE+
[BLACK-BELLIED TERN <i>Sterna acuticauda</i>	?	-	-		J
JERDON'S BAZA <i>Aviceda jerdoni</i>	-	-	Hu, Wh		
			(17 October 1877, Darling)		
#ORIENTAL HONEY-BUZZARD <i>Pennis pitiorhynchus</i>	x	C	-	SE/MD	RE+
#BLACK-WINGED KITE <i>Elaanus caeruleus</i>	-	O	P, Wh	?	RE+
BLACK KITE <i>Milvus migrans</i>	-	C	-	E/D	RE+
BRAHMINY KITE <i>Haliastur indus</i>	C	O	-	E/D	RE+
GREY-HEADED FISH-EAGLE <i>Ichthyophaga ichthyaetus</i>	-	O	-	SE	RE
EGYPTIAN VULTURE <i>Neophron percnopterus</i>	C	R (1 record)	P (U)	D	RE
WHITE-RUMPED VULTURE <i>Gyps bengalensis</i>	C	R (2 seen)	P (C)	D	RE
LONG-BILLED VULTURE <i>Gyps indicus</i>	O	-	-	?	RE
RED-HEADED VULTURE <i>Sarcogyps calvus</i>	R	-	P (C)	D	RE
CRESTED SERPENT-EAGLE <i>Spilornis cheela</i>	C	O	P (C)	MD	RE+
WESTERN MARSH-HARRIER <i>Circus aeruginosus</i>	-	O	-	D	W
PALLID HARRIER <i>Circus macrorurus</i>	-	R	Wh	MD	W
PIED HARRIER <i>Circus melanoleucos</i>	x	-	-	?	W
MONTAGU'S HARRIER <i>Circus pygargus</i>	-	R	-	SE	W
CRESTED GOSHAWK <i>Accipiter trivirgatus</i>	C	R (2 seen)	P (U)	E	RE
SHIKRA <i>Accipiter badius</i>	C	R (5 seen)	P (C)	D	RE+
BESRA <i>Accipiter virgatus</i>	-	O	-	E	RE
EURASIAN SPARROWHAWK <i>Accipiter nisus</i>	-	R	-	?	W
*NORTHERN GOSHAWK <i>Accipiter gentilis</i>	-	R	-	MD	W
COMMON BUZZARD <i>Buteo buteo</i>	x	R	-	?	W
BLACK EAGLE <i>Ictinaetus malayensis</i>	-	O (3 pairs)	-	E/SE	RE
BONELLI'S EAGLE <i>Hieraetus fasciatus</i>	-	R	-	SE	RE
BOOTED EAGLE <i>Hieraetus pennatus</i>	C	R (3 seen)	-	SE	RE/W
RUFIOUS-BELLIED EAGLE <i>Hieraetus kienerii</i>	-	R	P?	E	RE
CHANGEABLE HAWK-EAGLE <i>Spizaetus cirrhatus</i>	x	C	P	D	RE+
MOUNTAIN HAWK-EAGLE <i>Spizaetus nipalensis</i>	-	R	-	E	RE
*LESSER KESTREL <i>Falco naumanni</i>	-	R	-	G	W
COMMON KESTREL <i>Falco tinnunculus</i>	C	O (5 pairs)	-	G	RE+
RED-NECKED FALCON <i>Falco chiochiera</i>	x	R	-	G	RE
FLAGGAR FALCON <i>Falco jugger</i>	-	-	Wh		
			(5 January 1878, Darling)		
PEREGRINE FALCON <i>Falco peregrinus</i>	x	-	-	MD	?

	Davison (1883)	This survey	Others	Habitat	Status
LITTLE GREBE <i>Tachybaptus ruficollis</i>	x	O	-	We	RE+
ORIENTAL DARTER <i>Anhinga melanogaster</i>	x	R	-	We	RE
#LITTLE CORMORANT <i>Phalacrocorax niger</i>	?	C	-	We	RE+
#LITTLE EGRET <i>Egretta garzetta</i>	-	C	-	We	RE+
#GREAT EGRET <i>Casmerodius albus</i>	-	O	-	We	RE+
#INTERMEDIATE EGRET <i>Mesophoyx intermedia</i>	-	C	-	We	RE+
#CATTLE EGRET <i>Bubulcus ibis</i>	-	C	-	We	RE+
INDIAN POND-HERON <i>Ardeola grayii</i>	C	C	-	We	RE+
STRIATED HERON <i>Butorides striatus</i>	x	x	-	We	RE+
#BLACK-CROWNED NIGHT-HERON <i>Nycticorax nycticorax</i>	x	O	-	We	RE+
#YELLOW BITTERN <i>Ixobrychus sinensis</i>	-	R	-	We	RE+
CINNAMON BITTERN <i>Ixobrychus cinnamomeus</i>	R	R	-	We	RE
BLACK BITTERN <i>Ixobrychus flavicollis</i>	x	O	-	We	RE+
RED-NAPE IBIS <i>Pseudibis papillosa</i>	x	-	-	We	RE
WOOLLY-NECKED STORK <i>Ciconia episcopus</i>	R	-	-	We	RE
*WHITE STORK <i>Ciconia ciconia</i>	-	O	-	We	W
INDIAN PITTA <i>Pitta brachyura</i>	x	O	-	E/D	W
#GREY-HEADED CANARY-FLYCATCHER <i>Culicicapa ceylonensis</i>	C	C	Hu	E/MD	RE+
ASIAN FAIRY-BLUEBIRD <i>Irena puella</i>	x	C	J	E/SE	RE+
BLUE-WINGED LEAFBIRD <i>Chloropsis cochinchinensis</i>	-	C	-	?	RE
GOLDEN-FRONTED LEAFBIRD <i>Chloropsis aurifrons</i>	C	C	-	D	RE+
BROWN SHRIKE <i>Lanius cristatus</i>	-	C	-	E/MD	W
BAY-BACKED SHRIKE <i>Lanius vittatus</i>	-	C	-	D	RE+
LONG-TAILED SHRIKE <i>Lanius schach</i>	O	C	-	MD	RE+
RUFOUS TREPPIE <i>Dendrocitta vagabunda</i>	C	C	-	SE/D	RE+
WHITE-BELLIED TREPPIE <i>Dendrocitta leucogastra</i>	C	O (12 records)	-	E	RE+
HOUSE CROW <i>Corvus splendens</i>	C	C	-	?	RE+
JUNGLE CROW <i>Corvus leuallantii</i>	C	C	-	?	RE+
ASHY WOOD-SWALLOW <i>Artamus fuscus</i>	x	C	-	D	RE+
EURASIAN GOLDEN-ORIOLE <i>Oriolus oriolus</i>	C	C	-	?	W
BLACK-NAPE ORIOLE <i>Oriolus chinensis</i>	R	O	-	?	W
BLACK-HOOED ORIOLE <i>Oriolus xanthornus</i>	x	C	-	E/D	RE+
LARGE CUCKOO-SHRIKE <i>Coracina nacei</i>	O	O	-	SE/D	RE+
BLACK-HEADED CUCKOO-SHRIKE <i>Coracina melanoptera</i>	O	C	-	D	RE+
SMALL MINIVET <i>Pericrocotus cinnamomeus</i>	R	C	-	MD/D	RE+
SCARLET MINIVET <i>Pericrocotus flammeus</i>	C	C	Hu, J	E/MD	RE+
BAR-WINGED FLYCATCHER-SHRIKE <i>Hemipus picatus</i>	C	C	-	E/MD	RE+
WHITE-THROATED FANTAIL <i>Rhipidura albicollis</i>	O	-	-	D	RE
WHITE-BROWED FANTAIL <i>Rhipidura aureola</i>	R	O	-	D	RE+
BLACK DRONGO <i>Dicurus macrocerus</i>	O	C	-	MD/D	RE+
ASHY DRONGO <i>Dicurus leucophaeus</i>	O	O	-	E/D	W
WHITE-BELLIED DRONGO <i>Dicurus caerulescens</i>	x	C	-	D	RE+
BRONZED DRONGO <i>Dicurus aeneus</i>	-	C	-	E/MD	RE+
HAIR-CRESTED DRONGO <i>Dicurus hottentottus</i>	-	O	-	E	RE
GREATER RACKET-TAILED DRONGO <i>Dicurus paradiseus</i>	O	C	J	E/D	RE+
BLACK-NAPE MONARCH <i>Hypothymis azurea</i>	C	C	J	E/MD	RE+
ASIAN PARADISE-FLYCATCHER <i>Terpsiphone paradisi</i>	-	C	-	?	W
COMMON IORA <i>Aegithina tiphia</i>	C	C	Hu	?	RE+
LARGE WOODSHRIKE <i>Tephrodornis gularis</i>	O	C	-	E/MD	RE+
COMMON WOODSHRIKE <i>Tephrodornis pondicerianus</i>	O	C	-	D	RE+
BLUE-CAPPED ROCK-THRUSH <i>Monticola cinclorhynchus</i>	x	C	-	SE	W
BLUE ROCK-THRUSH <i>Monticola solitarius</i>	-	O	-	?	W
MALABAR WHISTLING-THRUSH <i>Myiophonus horsfieldii</i>	-	O	-	?	RE+
ORANGE-HEADED THRUSH <i>Zosterops citrina</i>	x	C	Hu, J	E/MD	RE+

	Davison (1883)	This survey	Others	Habitat	Status
SCALY THRUSH <i>Zosterops dauma</i>	R	-	Je	E	RE
EURASIAN BLACKBIRD <i>Turdus merula</i>	-	R	-	E	RE
WHITE-BELLIED SHORTWING <i>Brachypteryx major</i>	-	R	-	E	RE
*DARK-SIDED FLYCATCHER <i>Muscicapa sibirica</i>	-	R	-	SE	W
#ASIAN BROWN-FLYCATCHER <i>Muscicapa dauurica</i>	C	C	-	?	RE+
RUSTY-TAILED FLYCATCHER <i>Muscicapa ruficauda</i>	O	C	-	E	W
BROWN-BREASTED FLYCATCHER <i>Muscicapa muttui</i>	-	O	Wh	E	W
RED-BREASTED FLYCATCHER <i>Ficedula parva</i>	-	O	-	SE	W
BLACK-AND-RUFIOUS FLYCATCHER <i>Ficedula nigrorufa</i>	R	R (seen once)	-	E	RE
VERDITER FLYCATCHER <i>Eumyias thalassina</i>	-	O	Wh	MD	W
NILGIRI FLYCATCHER <i>Eumyias albicaudata</i>	-	O	B	E	RE
WHITE-BELLIED BLUE-FLYCATCHER <i>Cyornis pallipes</i>	O	O	-	E	RE+
BLUE-THROATED FLYCATCHER <i>Cyornis rubeculoides</i>	O	R	-	E/MD	W
TICKELL'S BLUE-FLYCATCHER <i>Cyornis tickelliae</i>	C	C	-	MD	RE+
BLUETHROAT <i>Luscinia svecica</i>	C	R	-	?	W
INDIAN BLUE ROBIN <i>Luscinia brunnea</i>	C	C	-	E	W
ORIENTAL MAGPIE-ROBIN <i>Copsychus saularis</i>	C	C	Hu	?	RE+
WHITE-RUMPED SHAMA <i>Copsychus malabaricus</i>	R	O	J	MD	RE+
*BLACK REDSTART <i>Phoenicurus ochruros</i>	-	R	-	?	W
*SIBERIAN STONECHAT <i>Saxicola maura</i>	-	O	-	?	W
PIED BUSHCHAT <i>Saxicola caprata</i>	R	C	Hu	?	RE+
CHESTNUT-TAILED STARLING <i>Sturnus malabaricus</i>	O	C	-	MD/D	RE+
BRAHMIN STARLING <i>Sturnus pagodarum</i>	-	O	-	D	RE+
COMMON MYNA <i>Acridotheres tristis</i>	C	C	-	MD/D	RE+
JUNGLE MYNA <i>Acridotheres fuscus</i>	C	C	J	SE/D	RE+
HILL MYNA <i>Gracula religiosa</i>	C	C	Hu	E/MD	RE+
*CHESTNUT-BELLIED NUTHATCH <i>Sitta castanea</i>	O	O	-	D	RE+
VELVET-FRONTED NUTHATCH <i>Sitta frontalis</i>	C	C	-	E/MD	RE+
GREAT TIT <i>Parus major</i>	C	C	-	D	RE+
*WHITE-WINGED TIT <i>Parus nuchalis</i>	-	R	-	MD	RE
BLACK-LORED TIT <i>Parus xanthogenys</i>	C	C	-	E/MD	RE+
DUSKY CRAG-MARTIN <i>Hirundo concolor</i>	-	C	Wh	?	RE+
BARN SWALLOW <i>Hirundo rustica</i>	x	C	-	?	W
HILL SWALLOW <i>Hirundo domicola</i>	-	O	-	?	RE+
*WIRE-TAILED SWALLOW <i>Hirundo smithii</i>	-	C	-	?	RE+
RED-RUMPED SWALLOW <i>Hirundo danrica</i>	x	C	-	?	RE+
*NORTHERN HOUSE-MARTIN <i>Delichon urbica</i>	-	O	-	?	W
GREY-HEADED BULBUL <i>Pycnonotus priocephalus</i>	C	R (10 seen)	-	E	RE
BLACK-CRESTED BULBUL <i>Pycnonotus melanicterus</i>	O	O	-	E/SE	RE+
RED-WHISKERED BULBUL <i>Pycnonotus jocosus</i>	C	C	Hu	E/D	RE+
RED-VENTED BULBUL <i>Pycnonotus cafer</i>	-	C	-	SE/D	RE+
WHITE-BROWED BULBUL <i>Pycnonotus luteolus</i>	R	C	-	D	RE+
YELLOW-BROWED BULBUL <i>Iole indica</i>	x	C	-	E/MD	RE+
BLACK BULBUL <i>Hyppipetes leucocephalus</i>	-	C	Hu	E	RE+
ZITTING CISTICOLA <i>Cisticola juncidis</i>	O	C	-	G	RE
#GOLDEN-HEADED CISTICOLA <i>Cisticola exilis</i>	R	C	-	SE	RE+
GREY-BREASTED PRINIA <i>Prinia hodgsonii</i>	O	C	Wh	D	RE+
JUNGLE PRINIA <i>Prinia sylvatica</i>	-	C	-	MD	RE
PLAIN PRINIA <i>Prinia inornata</i>	x	C	-	D	RE
ORIENTAL WHITE-EYE <i>Zosterops palpebrosus</i>	R	C	-	E/MD	RE+
GRASSHOPPER WARBLER <i>Locustella naevia</i>	-	C	-	D	W
PADDYFIELD WARBLER <i>Acrocephalus agricola</i>	R	-	Wh	?	W
BLYTH'S REED-WARBLER <i>Acrocephalus dumetorum</i>	x	C (decrease since 1979)	-	?	W

	Davison (1883)	This survey	Others	Habitat	Status
CLAMOROUS REED-WARBLER <i>Acrocephalus stentoreus</i>	?	C	-	SE	W
THICK-BILLED WARBLER <i>Acrocephalus aedon</i>	-	C	-	MD	W
BOOTED WARBLER <i>Hippolais caligata</i>	-	C	-	D	W
COMMON TAILORBIRD <i>Orthotomus sutorius</i>	C	C	-	E/D	RE+
TICKELL'S LEAF-WARBLER <i>Phylloscopus affinis</i>	-	O	-	E	W
GREENISH WARBLER <i>Phylloscopus trochiloides</i>	C	C	-	E/MD	W
YELLOWISH-BREASTED WARBLER <i>Phylloscopus nitidus</i>	x	C	-	?	W
LARGE-BILLED LEAF-WARBLER <i>Phylloscopus magnirostris</i>	R	C	-	E	W
*TYTLER'S LEAF-WARBLER <i>Phylloscopus tytleri</i>	-	O	-	E	W
WESTERN CROWNED-WARBLER <i>Phylloscopus occipitalis</i>	-	C	-	E	W
BROAD-TAILED GRASSBIRD <i>Schoenicola platyura</i>	R	-	-	?	RE
WYNAAD LAUGHINGTHRUSH <i>Garrulax delesserti</i>	-	C	-	E/MD	RE+
*RUFIOUS-BREASTED LAUGHINGTHRUSH <i>Garrulax cachinnans</i>	-	R	-	?	RE
GREY-BREASTED LAUGHINGTHRUSH <i>Garrulax jerdoni</i>	-	O	-	E	RE+
PUFF-THROATED BABBLER <i>Pellonoreum ruficeps</i>	x	O	J	E/MD	RE+
INDIAN SCIMITAR-BABBLER <i>Ponatorhinus horsfieldii</i>	C	C	Hu, J	E/MD	RE+
TAWNY-BELLIED BABBLER <i>Dumetia hyperythra</i>	C	C	Hu	D	RE+
DARK-FRONTED BABBLER <i>Rhopocichla atriceps</i>	C	C	J	E/MD	RE+
YELLOW-EYED BABBLER <i>Chrysomma sinense</i>	?	O	-	D	RE
RUFIOUS BABBLER <i>Turdoides subrufus</i>	C	C	J	E/D	RE+
JUNGLE BABBLER <i>Turdoides striatus</i>	C	C	-	D	RE+
BROWN-CHEEKED FULVETTA <i>Alcippe poioicephala</i>	x	C	Hu	E/MD	RE+
*LESSER WHITETHROAT <i>Sylvia curruca</i>	-	O	-	MD	W
RUFIOUS-WINGED LARK <i>Mivafra assamica</i>	-	C	-	G	RE+
ASHY-CROWNED SPARROW-LARK <i>Eremopterix grisea</i>	-	O	-	G	RE
MALABAR LARK <i>Galerida malabarica</i> L.	-	O	Wh	G	RE+
ORIENTAL SKYLARK <i>Alauda gulgula</i>	C	O	-	G	RE
#THICK-BILLED FLOWERPECKER <i>Dicaeum agile</i>	-	O	Wh	?	RE+
PALE-BILLED FLOWERPECKER <i>Dicaeum erythrorhynchos</i>	x	C	-	MD/D	RE+
PLAIN FLOWERPECKER <i>Dicaeum concolor</i>	C	C	-	E/MD	RE+
PURPLE-RUMPED SUNBIRD <i>Nectarinia zeylonica</i>	O	C	-	D	RE+
CRIMSON-BACKED SUNBIRD <i>Nectarinia minima</i>	C	C	-	E	RE+
PURPLE SUNBIRD <i>Nectarinia asiatica</i>	-	C	-	MD/D	RE+
LONG-BILLED SUNBIRD <i>Nectarinia lotenia</i>	x	C	-	MD	RE+
LITTLE SPIDERHUNTER <i>Arachnothera longirostra</i>	C	C	-	E/MD	RE+
HOUSE SPARROW <i>Passer domesticus</i>	C	C	-	?	RE+
CHESTNUT-SHOULDERED PETRONIA <i>Petronia xanthocollis</i>	x	C	-	D	RE+
FOREST WAGTAIL <i>Dendronanthus indicus</i>	R	O	-	E/D	W
WHITE WAGTAIL <i>Motacilla alba</i>	-	O	-	?	W
WHITE-BROWED WAGTAIL <i>Motacilla maderaspatensis</i>	O	O	-	?	RE+
YELLOW-HODED WAGTAIL <i>Motacilla citreola</i>	x	-	-	?	W
YELLOW WAGTAIL <i>Motacilla flava</i>	x	O	-	?	W
GREY WAGTAIL <i>Motacilla cinerea</i>	C	O	-	?	W
PADDYFIELD PIPIT <i>Anthus rufulus</i>	C	C	-	G	RE+
OLIVE-BACKED PIPIT <i>Anthus hodgsoni</i>	C	O	-	D	W
NILGIRI PIPIT <i>Anthus nilghiriensis</i>	-	O	-	?	RE
STREAKED WEAVER <i>Ploceus manyar</i>	-	O	-	?	RE
BAYA WEAVER <i>Ploceus philippinus</i>	x	C	-	?	RE+
*RED AVADAVAT <i>Amandava amandava</i>	-	O	-	D	RE
WHITE-RUMPED MUNIA <i>Lonchura striata</i>	-	O	Hu, J	SE/D	RE+
BLACK-THROATED MUNIA <i>Lonchura kelaarti</i>	O	C	-	E	RE+
SCALY-BREASTED MUNIA <i>Lonchura punctulata</i>	-	C	-	SE/D	RE+

	Davison (1883)	This survey	Others	Habitat	Status
BLACK-HEADED MUNIA <i>Lonchura malacca</i>	R	C	-	?	RE+
COMMON ROSEFINCH <i>Carpodacus erythrinus</i>	x	O	-	SE	W
[RED-HEADED BUNTING <i>Emberiza bruniceps</i>	?	-	-]

Key:

* = new records for Kerala

= new breeding records for Kerala

¶ = species recorded from Kerala prior to 1969 but omitted in error by Ali (1969)

[] = doubtfully recorded species

Occurrence: C = common; O = occasional; R = rare**Other references:** B = Baker (1924); Ba = Baker and Inglis (1930); Di = Ditmas (1883); H = Hume (1877); Hu = Hume (1890); J = Jerdon (1839-1840); Jd = Jerdon (1844); Je = Jerdon (1862); P = Primrose (1904); Ph¹ = Phythian Adams (1928); Ph² = Phythian Adams (1948); Wh = Whistler and Kinnear (1930-1937)**Habitat:** E = evergreen; SE = semi-evergreen; MD = moist deciduous; D = deciduous; G = grassland; We = wetland**Status:** RE = resident; RE+ = resident and evidence of breeding noted; W = winter visitor