

A Study on the Avian Fauna of Melpadom Wetland, Upper Kuttanad a Ramsar Site, Kerala, India

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Abstract- *The current study was conducted in Melpadom, a large wetland area part of Vembanad kole wetlands a Ramsar site. The unique feature of Upper kuttanad supports a huge diversity of avian fauna. A total of 120 avian species were recorded from 44 families belongs to 14 orders in the study area. The study reports four nearly threatened birds.*

Keywords- Upper kuttanad, Melpadom, Ramsar site, Wetland, Vembanad Kole

I. INTRODUCTION

Wetlands are the highly productive ecosystem supporting huge varieties of biological communities. Presently 169 million hectares of wetlands, designated for inclusion in the Ramsar List of Wetlands of International Importance. Wetlands are important bird habitats and birds use them for feeding, roosting, nesting and rearing young (Weller, M.W., 1999, Stewart, R.E., 2001). Vembanad Kole is the largest wetland area in Kerala attracting a huge number of migratory birds. Extensive studies on wetlands and their avifauna have been carried out in different geographic areas. These include ecosystem studies, food and feeding habits of birds, their behaviour, breeding biology and population studies (Kushlan, 1979, Mock et al, 1980, Hafner et al, 1986, Fasola, 1986, Hafner et al, 1993, Fasola et al, 1993). In Kerala, the wetlands are the least studied ecosystem (Nameer, 1998).

In Kerala, many researchers have carried out different studies on avian diversity; distribution and abundance in different ecosystems. However, few investigators put their efforts in the Upper Kuttanad part of Kuttanad wetlands. Narayanan et al, 2011 had made a detailed investigation of Kuttanad wetlands southern portion of Vembanad Kole wetland. This Twelve- year survey reports Two-hundred-and-twenty-five taxa of birds belonging to 15 orders and 59 families were recorded. Among the birds recorded, 38% were migrants. Fifty-five species were found to breed in the area. However, there is no any evidence of study which had been conducted before within the present study area. Thus, this study was conducted with the objective of providing basic information about the status distribution, abundance of avian species in this study area.

II. MATERIAL AND METHODS

The current study was conducted Melpadom is a large paddy field situated in Alappuzha district (9.5617° N and 76.4737° E) (Fig.1). Thousands of migratory birds flock to roost in this area. The birds recorded from this area were mostly wetland birds. For the convenience of the survey, the area Melpadom is divided into two blocks, Melpadom bund area and Melpadom Semithery (Cemetery) area. The survey was conducted during a period of 2 years from 2014 June to 2016 May. In this survey, an overall view of the avian fauna and topographical features of the area was assessed. The Line transect method (Burnham et al., 1980) was employed for data collection.

III. RESULT

A total of 120 species of birds belonged to 14 orders and 44 families were identified from Melpadom wetlands (Table.1). Order Passeriformes possess the most diversified families (20) and species (44). A Maximum number of species was recorded from the families Scolopacidae (14) followed by Ardeidae (12) (fig.2 & 3). Melpadom is a perfect wetland area support a huge number of avian fauna, not only wetland birds, but some non-wetland species were also reported from this area. This high number of species reports from that area could be due to the edge effect. Among the birds recorded, 38% constitute migrants and 50% residents, 11% local migrants and 1 % belonging the category stragglers from the hill (Fig. 4). Four globally threatened species such as Darter, Oriental White ibis, Black tailed Godwit and painted stork were recorded during the study period.

IV. DISCUSSION

Melpadom provides ideal habitat for both resident and migratory avian fauna. Many birds need functional access to a wetland or wetland products during their life cycle. Large numbers of birds are wetland- dependent, during their migratory and breeding season. Availability of food in good quantity and quality constitutes one of the prime requisites of birds, which in turn attracts them in large numbers to the surplus areas (Kezia and Ann Maria, 2017). Wetland being a highly productive area caters to the needs of avifauna with diverse feeding habits. This study undoubtedly conveys the

idea that the distribution of the birds in the region is related to the habitat than other factors. Therefore, habitat restoration and preservation are the key factor in the conservation of the bird fauna of the region.

V. CONCLUSION

The study covey the idea that if the present ecological characteristic of this wetland supports a huge number of birds, any deterioration in the habitat will ultimately affect the avian diversity. Proper awareness class regarding the importance of birds to the local people, through different programs, will ultimately help the protection of birds of this region.

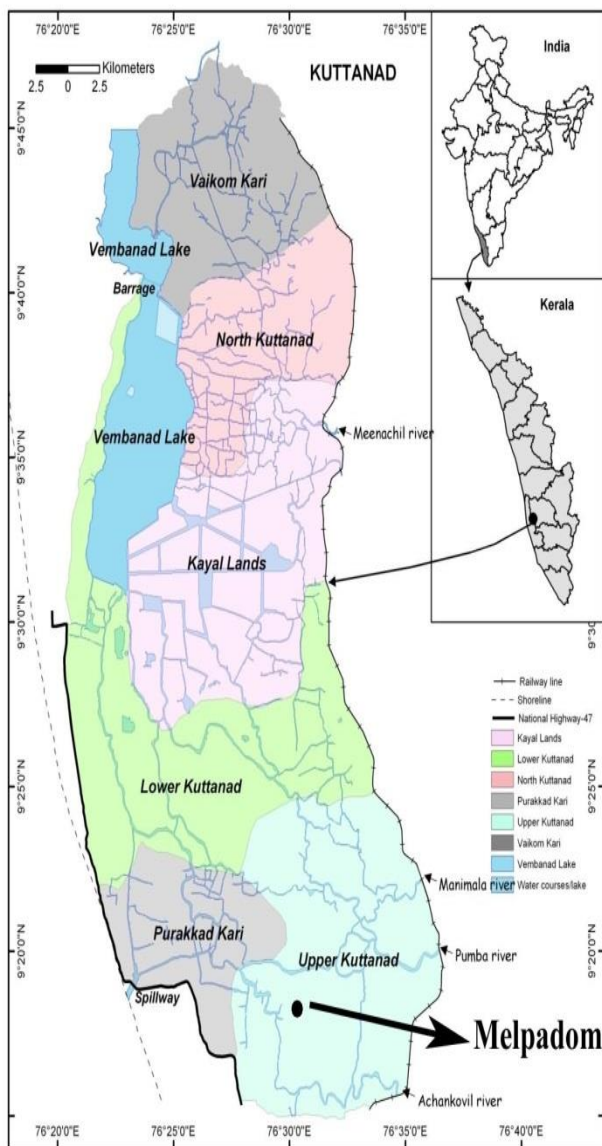


Fig.1. Study area (Six divisions of Kuttanad wetlands)

SI. No	Sampling site	Status of Birds
Resident		
1	Little Grebe	C
2	Little Cormorant	A
3	Indian Shag	C
4	Darter	C
5	Little Egret	A
6	Purple Heron	C
7	Large Egret	C
8	Median Egret	A
9	Indian Pond-Heron	A
10	Black-crowned Night-Heron	U
11	Cotton Teal	C
12	Shikra	U
13	White-breasted Waterhen	C
14	Ruddy-breasted Crake	U
15	Purple Moorhen	C
16	Pheasant-tailed Jacana	U
17	Bronze-winged Jacana	C
18	Red-wattled Lapwing	C
19	Black-winged Stilt	U
20	Blue Rock Pigeon	C
21	Rose-ringed Parakeet	C
22	Plum-headed Parakeet	C
23	Asian Koel	C
24	Greater Coucal	C
25	Brown Hawk-Owl	O
26	Jungle Owlet	C
27	Asian Palm-Swift	C
28	Small Blue Kingfisher	C
29	Stork-billed Kingfisher	C
30	White-breasted Kingfisher	C
31	Pied Kingfisher	C
32	Small Bee-eater	C
33	Indian Roller	U
34	White-cheeked Barbet	C
35	Lesser Goldenbacked Woodpecker	C
36	Red-whiskered Bulbul	C
37	Common Iora	C
38	Oriental Magpie-Robin	C
39	Jungle Babbler	C
40	Ashy Prinia	C
41	Plain Prinia	C
42	Streaked Fantail-Warbler	C
43	Indian Great Reed-Warbler	C
44	Common Tailorbird	C
45	Tickell's Flowerpecker	C
46	Purple-rumped Sunbird	C
47	Purple Sunbird	C
48	White-rumped Munia	C

49	Spotted Munia	U
50	Baya Weaver	C
51	Streaked Weaver	U
52	Common Myna	C
53	Jungle Myna	C
54	Black-headed Oriole	C
55	Black Drongo	C
56	Greater Racket-tailed Drongo	C
57	Ashy Woodswallow	C
58	Indian Tree Pie	C
59	House Crow	C
60	Jungle Crow	C
Migrants		
1	Western Reef-Egret	U
2	Cattle Egret	A
3	Painted Stork	U
4	Asian Openbill-Stork	U
5	Glossy Ibis	C
6	Oriental White Ibis	C
7	Northern Pintail	U
8	Brahminy Kite	C
9	Western Marsh-Harrier	U
10	Booted Eagle	U
11	Common Moorhen	U
12	Common Coot	U
13	Pacific Golden-Plover	C
14	Little Ringed Plover	U
15	Kentish Plover	U
16	Lesser Sand-Plover	O
17	Common Snipe	U
18	Marsh Sandpiper	U
19	Common Redshank	U
20	Spotted Redshank	O
21	Common Greenshank	U
22	Green Sandpiper	U
23	Wood Sandpiper	C
24	Common Sandpiper	C
25	Temminck's Stint	U
26	Little Stint	U
27	Curlew Sandpiper	O
28	Black-tailed Godwit	C
29	Ruff	U
30	Terek Sandpiper	O
31	Gull-billed Tern	O
32	Whiskered Tern	C
33	Grey-bellied Cuckoo	O
34	Blue-tailed Bee eater	C
35	Common Swallow	C
36	Grey Wagtail	U
37	Yellow Wagtail	C
38	Brown Shrike	U
39	Blyth's Reed-Warbler	C
40	Asian Brown Flycatcher	O
41	Asian Paradise-Flycatcher	U

42	Yellow-throated Sparrow	U
43	Grey-headed Starling	C
44	Rosy Starling	U
45	Eurasian Golden Oriole	C
46	Greenish Leaf-Warbler	U
Local Migrants		
1	Grey Heron	C
2	Woolly-necked Stork	U
3	Spot-billed Duck	U
4	Small Pratincole	U
5	Spotted Dove	U
6	Indian Hanging-Parrot	U
7	Eastern Sky Lark	U
8	Red-rumped Swallow	C
9	Paddy field Pipit	C
10	Black-headed Munia	U
11	Bronzed Drongo	U
12	Alpine Swift	U
13	Malabar Crested Lark	O
Strugglers from Hill		
1	Blyth's Myna	U

Table.1. Status of Birds in Melpadom wetland.

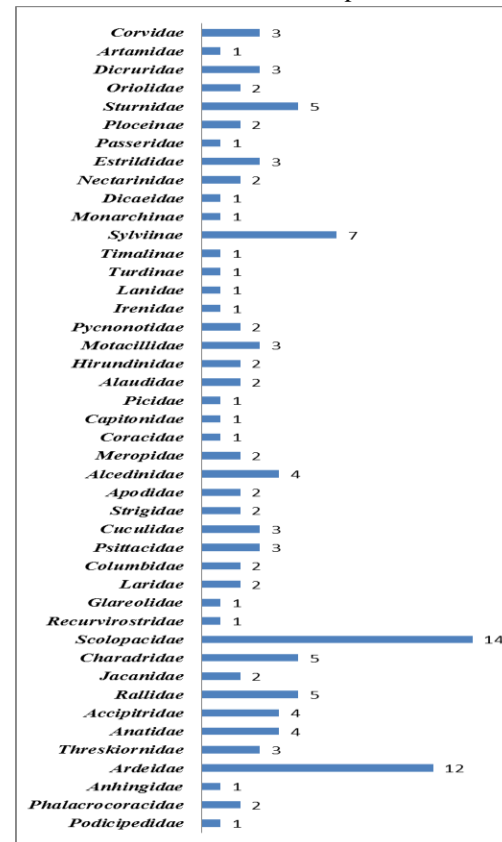


Fig.3. Family wise number of species reported from Melpadom.

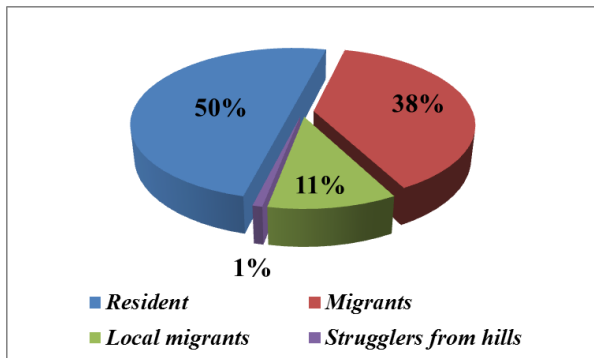


Fig.4. Status of the birds recorded from the Kuttanad

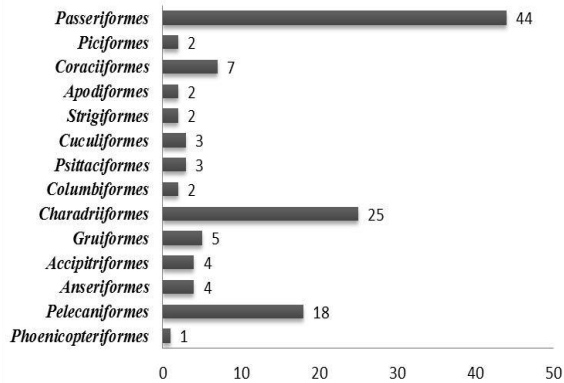


Fig.5, Order wise Species number

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