

# Assessment on Occurrence Status of Avifauna in Shwesettaw Wildlife Sanctuary, Magway Region

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**Abstract:- A total of 45 species of birds belonging to 40 genera under 29 families and 11 orders were recorded in Shwesettaw Wildlife Sanctuary, Magway Region. The study period lasted December 2017 to November 2018. Among the total species, three species *Vanellus duvaucelli*, *Vanellus indicus* and *Ardea alba* were aquatic birds comprising under two genera, two families and two orders, whereas 42 terrestrial birds species belong to 38 genera, 27 families and nine orders were recorded. Of 45 species, 43 are resident and one species winter visitor and one breeding visitor. Order Passeriformes represented by 21 species belonging to 16 families to 46.67% of the total avifauna species followed by 8.89% (Galliformes and Coraciiformes), 6.67% (Columbiformes and Accipitriformes), 4.44% (Pciformes, Pisttacciformes, Strigiformes and Charadriiformes) and 2.22% (Falconiformes and Pelicaniformes). Among the total species *Crypsirina cucullata*, *Turdoides gularis* and *Mirafra microptera* are endemic species, *Pavamenticus* was endanger species and five species like *Pisttacula roseta*, *Pisttacula alexandri*, *Vanellus duvaucelli*, *Polihierax insignis* and *Crypsirina cucullata* were Near threatened species during the study period.**

**Keywords:- Endemic, Resident, Near Threatened, Least Concern, Endanger**

## I. INTRODUCTION

Birds are the best-know classes of vertebrate animals are occur worldwide in nearly all (habitats and provide many ecosystem services). Avian species assemblages are potent indicators of ecosystem health and functioning. Birds are also known to be responsive to any kind of changes to their ambient conditions hence can be used as bio-indicator [1].

Myanmar supports species diversity of 1110 avian fauna [2].The Important Bird Areas (IBAS) in Myanmar were identified by Birdlife International in 2004 as the starting point for defining KBAs (Key Biodiversity Area). IBAs (Important Bird Area) are internationally important sites for bird conservation, defined on the basis of their importance for globally threatened, restricted-ranged, biome-restricted and/ or congregatory bird species. Of the 55 IBAs in Myanmar, 43 support globally threatened

species, 13 have restricted range species, 27 have biomerestricted species and 25 qualify as IBAs because they hold large congregations of waterbirds[3].

Shwesettaw Wildlife Sanctuary is one of Important Bird Areas (IBA) of Myanmar and occurred with Endemic Birds, a 546 km<sup>2</sup> wildlife and forestry reserve (20° 04' N; 94° 36' E) lies in the southwestern part of the Myanmar central dry zone. This area has a strong seasonal shift from heavy monsoon rains (May to November; annual rainfall average, 70 cm) to a total absence of rainfall (December to April). A dry tropical deciduous forest covers much of the Sanctuary with an indaing forest occupying the southeastern quarter. Both forest types have an open canopy, and a grass ground cover is widespread. The Mone River forms the northern border of the Sanctuary and the Man River the southern border. Both streams flow eastward and empty into the Ayeyarwady River[4].

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The objectives are:

- to identify and record the avifauna from Shwesettaw Wildlife Area
- to assess the species occurrence, status and composition of bird species

## II. MATERIALS AND METHODS

Shwesettaw Wildlife Area lies on the northern edge of the central plains of Myanmar (Latitude 20° 3' - 20° 19' N and 94° 22' - 94° 42' E) and covering an area of 552.70 square kilometers. Data collections of field trips were conducted from December 2017 to November 2018.The bird species were identified referring to the taxonomic descriptions [5, 6, 7, and 8]. Study site was visited once a month. The collection of data was made using point count method [9]. At every point observation was made by standing and recording all the birds seen or heard at a fixed distance (25m radius) for 10 minutes. To minimize disturbance 3 to 5 min time lapse was taken prior to observing. The minimum distance between two points was 200m. All counts were conducted during the first 3 hours after sunrise. Status of the bird has been worked out and different status categories like resident, winter visitor, passage migrant, non-breeding visitor and breeding visitor

have been assigned strictly with reference to the study area on the basis of presence or absence method [9].

### III. RESULTS

A total of 45 bird species belong to 40 genera 29 families and 11 orders were recorded during the study period. Among the total species, *Vanellus duvaucelli*, *Vanellus indicus* and *Ardea alba* were aquatic birds comprising under two genera, two families and two orders. The rest of 42 species were terrestrial birds belong to 38 genera, 27 families and nine orders.

In the present study, *Ardea alba* was winter visitor, and *Motacilla alba* was breeding visitor and the rest of species were residential. When the number of species confined to different families was considered, it was revealed that, the number of species confined to the family Phasianidae was found to be the highest (four species) followed by those of Columbidae, Accipitridae and Corvidae with (three species each). Seven families namely Alcedinidae, Psittaculidae, Strigidae, Charadriidae, Campephagidae, Pycnonotidae and Timaliidae were represented by (two species each) while the remaining

families were represented by only one species each (Table 1).

During the study, three endemic species, *Crypsirina cucullata* (Hooded Treepie), *Turdoides gularis* (White-throated Babbler), and *Mirafra microptera* (Burmese Bushlark) were recorded. Based on IUCN 2018 [10], *Pavamenticus* was endanger species and species like *Pistaccula roseta*, *Pistaccula alexandri*, *Vanellus duvaucelli*, *Polihierax insignis* and *Crypsirina cucullata* were Near threatened species.

During study period, order Passeriformes represented by 16 families and 21 species contributed to about 46.67% of the total avifauna species.

The second dominant orders were Galliformes and Coraciiformes (four species of each, 8.89%), Columbiformes and Accipitiformes (three species of each 6.67%), Peiformes, Pistaciformes, Strigiformes and Charadriiformes (two species of each 4.44%), Falconiformes and Pelicaniformes (only one species of each 2.22%).

No	Family	Scientific Name	IUCN RED List	Status
1	Phasianidae	<i>Gallus gallus</i>	LC	R
2		<i>Lopbura leucomelanos</i>	LC	R
3		<i>Pavo muticus</i>	EN	R
4		<i>Picus xantnopygaeus</i>	LC	R
5	Picidae	<i>Dinopium javanense</i>	LC	R
6	Megalaimidae	<i>Megalaima haemacephala</i>	LC	R
7	Coraciidae	<i>Caracias benghalensis</i>	LC	R
8	Alcedinidae	<i>Alcedo atthis</i>	LC	R
9		<i>Halcyon smyrnensis</i>	LC	R
10	Meropidae	<i>Merops orientalis</i>	LC	R
11	Psittaculidae	<i>Pistaccula roseate</i>	NT	R
12		<i>Psittacula alexandri</i>	NT	R
13	Strigidae	<i>Glaucidium cuculoides</i>	LC	R
14		<i>Ketupa zeylonensis</i>	LC	R
15	Columbidae	<i>Streptopelia decaocto</i>	LC	R
16		<i>Streptopelia chinensis</i>	LC	R
17		<i>Treron phoenicoptera</i>	LC	R
18	Charadriidae	<i>Vanellus duvaucelli</i>	NT	R
19		<i>Vanellus indicus</i>	LC	R
20	Accipitridae	<i>Aviceda leuphotes</i>	LC	R
21		<i>Spizaetus cirrbatus</i>	LC	R
22		<i>Elanus caeruleus</i>	LC	R
23	Falconidae	<i>Polihierax insignis</i>	NT	R
24	Ardeidae	<i>Cosmerodius alba</i>	LC	WV
25	Aegithinidae	<i>Aegithina tiphia</i>	LC	R
26	Laniidae	<i>Lanius collurioide</i>	LC	R
27	Corvidae	<i>Urocissa erythrorbyncha</i>	LC	R
28	Corvidae	<i>Dendrocitta vagabunda</i>	LC	R
29		<i>Crypsirina cucullata</i>	NT	R
30	Oriolidae	<i>Oriolus tenuirostris</i>	LC	R
31	Campephagidae	<i>Pericrocotus cinnantomeus</i>	LC	R
32		<i>Pericrocotus reseau</i>	LC	R

33	Dicruridae	<i>Dicrurus macrocerous</i>	LC	R
34	Rhipiduridae	<i>Rhipidura albicollis</i>	LC	R
35	Monarchidae	<i>Terpsiphone paradise</i>	LC	R
36	Muscicapidae	<i>Copsychus saularis</i>	LC	R
37	Sturnidae	<i>Sturnus bumannicus</i>	LC	R
38	Pycnonotidae	<i>Pyononotus blanfordi</i>	LC	R
39	Pycnonotidae	<i>Pyononotus cafer</i>	LC	R
40	Timaliidae	<i>Chrysomma sinennse</i>	LC	R
41		<i>Turdoides gularis</i>	LC	R
42	Alaudidae	<i>Miraфра microptera</i>	LC	R
43	Nectariniidae	<i>Nectarinia asiatica</i>	LC	R
44	Motacillidae	<i>Motacilla alba</i>	LC	BV
45	Estrildidae	<i>Lonchura punctulata</i>	LC	R

Table 1:- List of the Species Studied and Their IUCN Status

LC - Least Concern R – Resident EN - Endangered  
 WV - Winter Visitor NT - Near Threatened BV- Breeding Visitor

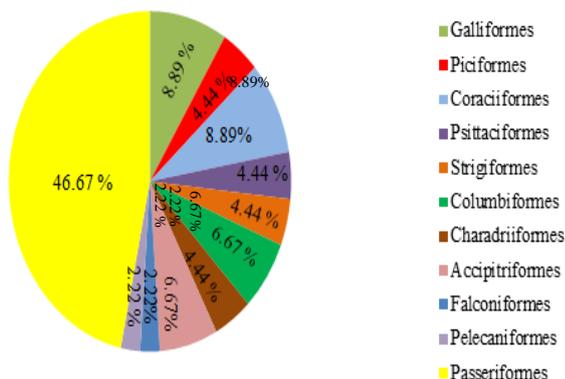


Fig 1:- The Percentage Species Composition in Different Orders

IV. DISCUSSION

A total of 45 bird species belonging to 40 genera, 29 families under 11 orders was recorded in Shwese ttaw Wildlife Area during December 2017 to November 2018. Among the total species, three species, *Vanellus duvaucelli*, *Vanellus indicus* and *Ardea alba* were aquatic birds comprising under two genera, two families and two orders whereas 42 terrestrial bird species belong to 38 genera, 27 families and nine orders were recorded.

During study period, order Passeriformes represented by 16 families and 21 species contributed to about 46.67% of the total avifauna species. The second dominant orders were Galliformes and Coraciiformes (four species of each, 8.89%), Columbiformes and Accipitriformes (three species of each 6.67%), Piciformes, Psittaciformes, Strigiformes and Charadriiformes (two species of each 4.44%), Falconiformes and Pelecaniformes (only one species of each).

The Baker [11] described that passerine or perching birds (order- Passeriformes) comprise one half of all bird species. Moreover Passeriformes represents as the largest

order among all recorded birds in Myanmar and South-East- Asia [5, 7].

Nest When the number of species confined to different families was considered, it was revealed that, the number of species confined to the family Phasianidae was found to be the highest (four species) followed by those of Columbidae, Accipitridae and Corvidae with (three species each). Seven families namely Alcedinidae, Psittaculidae, Strigidae, Charadriidae, Campephagidae, Pycnonotidae and Timaliidae were represented by (two species each). While the remaining families were represented by (only one species each).

In the present study, 43 species were residents, one species, *Cosmerodius alba* was winter visitor and *Motacilla alba* was breeding visitor.

This work characterizes the composition of avian fauna in Shwese ttaw Wildlife Sanctuary that is included as one of Important Bird Areas (IBAs) in Myanmar. The present study documented three endemic species, one endanger species, five near threatened species and one migratory species. The data in this work may be useful as baseline information to account the bird species of Myanmar.

V. CONCLUSION

A total of 45 species of birds belonging to 40 genera under 29 families and 11 orders were recorded in Shwese ttaw Wildlife Sanctuary, Magway Region. Out of total species, three species were aquatic birds and 42 terrestrial bird species. Of 45 species, 43 are resident and one species winter visitor and one breeding visitor. Order Passeriformes was the largest order and the lowest orders was Falconiformes and Peicaniformes. These endemic species, one endanger species and five near threatened species were recorded.

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