

OCCURRENCE OF SOME AVIAN FAUNA FROM THE ANCIENT CITY OF PAKHANGYEE ENVIRONS, YESAGYO TOWNSHIP, MAGWAY REGION, MYANMAR

Nwe Nwe Khaing

Department of Biology, Sagaing University of Education, Sagaing Division, Myanmar

DOI: 10.29322/IJSRP.9.03.2019.p8736

<http://dx.doi.org/10.29322/IJSRP.9.03.2019.p8736>

Abstract-Two study sites in Pakhangyee environs, Yesagyo Township was chosen as Thint The Village (Site I) and Myunk Pyin Village (Site II) to investigate the occurrence and distribution of birds. Throughout the study period from October, 2015 to October, 2016, a total of 46 species of birds under 35 genera belonging to 26 families and eight orders were recorded. Among them, three species were represented as waterbirds and 43 species were terrestrial ones. During the study period, one species as endemic and 39 species were found as resident. Four species as migrant and two species as local migrant were conducted in the study sites. The highest number of species was found to be in order Passeriformes (27 species, 58.70%), followed by (seven species, 15.22%) under the order Coraciiformes, (three species, 6.52%) under the order Ciconiiformes, Columbiformes, Falconiformes and Piciformes (two species, 4.35%) and the smallest numbers of species was found to be in order Cuculiformes and Strigiformes (one species, 2.17%). Among the recorded birds species total number of 43 species and a total number of individuals (4419) in Site I and a total number of 32 species and (3208) individuals in Site II were recorded.

Keywords- Avian fauna, Occurrence, Study sites.

I. INTRODUCTION

Myanmar is known to be rich in avian fauna. The current classification of living bird is a hierarchical arrangement of roughly 29 order, 187 families, over 2000 genera and over 9, 600 species. More species of birds live in tropic than in a comparable area in a temperate region. Tropical species tend to use a narrow range of habitats, may be more specialized in their foraging behavior and may be less tolerant of climate variation than temperate species (Gill, 2001). Some bird species live whole year in some area, which is called resident. These birds do not migrate and inhabit a given locality throughout the year.

There are many things about birds the appeal to people. Among these some are their beautiful colors, their welcome springtime songs, their fascinating habits, their strange migrations and apparent freedom to come and go and the fact that most of them are of economic value to man (Wallace, 1963).

The present work on occurrence of bird species was conducted in the ancient city of Pakhangyee environs, since it harbors the diversity of bird species. It is assumed necessary to record these living assets and their compatibility to different species in the study area. The objectives of the present study are:

- to investigate the characters of bird species encountered in the study area
- to assess habitual characters of bird species
- to list bird species occurred in the study area

II. MATERIALS AND METHODS

Study area

The study area was designated in the ancient city of Pakhangyee environ, Yesagyo Township. It is situated in Magway Region within the Dry Zone of Central Myanmar, which has dry and hot climate. Pakhangyee is situated N 21° 20' and E 95° 20' and

about 220' above sea level. It has an area of about 24.2973 hectare. It lies near Sithushin Pagoda. It is connected with Myunk Pyin village in the north, Thint The village in the east and railway road in the west.

Study period

The present study was conducted from October, 2015 to October, 2016 and two sites were allocated to conduct the study.

1. Thint The village (Site I)
2. Myunk Pyin village (Site II)

Site I

Thint The village is located N 21° 31' and E 95° 14'. The total area is about 36.4136 hectare. This study site contained grassland, shrubs, tall and medium trees, paddy fields, cotton and various leguminous crops are grown in cultivated field.

Site II

Myunk Pyin village is situated between N 21° 32' and E 95° 12'. The total are is about 7.8469 hectare. Habitat types of this site are shrubs, grass land, thorny scrub, cultivated field and tall and medium tree (Fig. 1)

Data collection

Birds were studied and recorded with the aid of a pair of binoculars. Birds photo were taken with a digital camera (Nikorcool, pix P600). In the present study birds were collected two consecutive days per week. Bird watching was taken during the study period between 06:30 am to 10:30 am in the field. Direct counting methods are used to record a variety of birds. Numbers of individual of birds were counted during the study period.

Identification of species

The identification method and taxonomic designation of bird species were followed after the method of King and Dickinson (1975), Robson (2011) (2015), Smythies (2001) and Kyaw Nyunt Lwin and Khin Ma Ma Thwin (2003). When a bird is spotted, it was identified down to the species level and the size, color and behavior of each species was carefully noted.

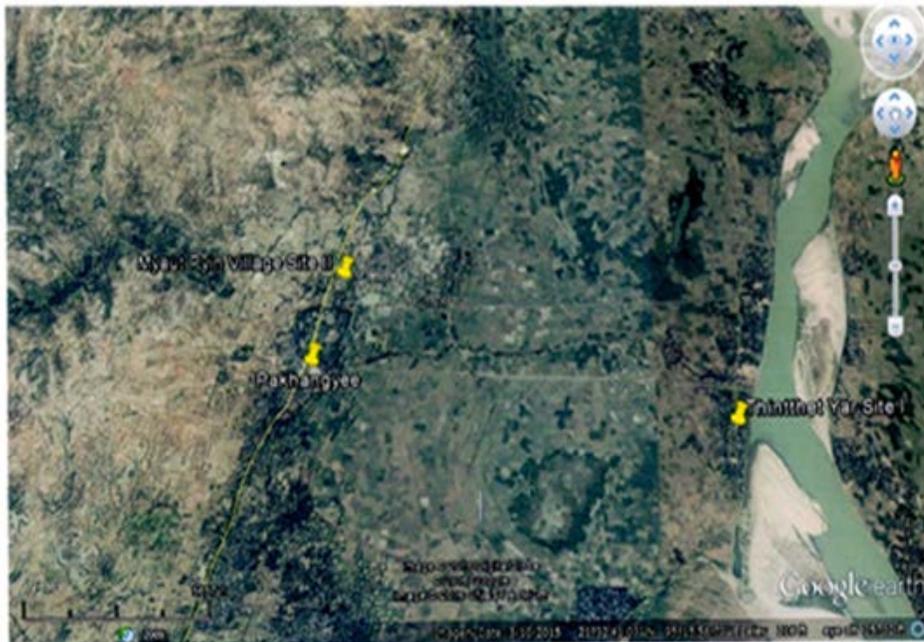


Fig.1. Location map of the study sites ,Source: From Google earth, 2016

III. OBSERVATION AND RESULTS

A total of 46 species of birds distributed under 35 genera, 26 families and eight orders were recorded during the study period.

Recorded bird species in the study sites

Throughout the study period from October, 2015 to October, 2016, a total of 46 species of birds under 35 genera belonging to 26 families and eight orders were recorded (Fig.2.). Among eight orders, Passeriformes was the largest order containing 27 species (58.70%) and next to this was order Coraciiformes (seven species, 15.22%), Ciconiiformes and Columbiformes (three species, 6.52%), Falconiformes and Piciformes (two species, 4.35%) and the smallest number of species was found to be in order Cuculiformes and Strigiformes (one species, 2.17%) (Fig.3). The number of species 43 in Site I and 32 species in Site II were recorded.

Site I-Thint The village: This area is approximately 36.4136 hectare. The natural aspects of this area enrich suitable places and shelters necessary for avifauna. Total number of species 43, and total number of individual 4419 were recorded in Site I. Among the total number of individuals, *Columba livia* (Rock Pigeon) showed the highest number of individuals (900) and *Buteo buteo* (Common Buzzard) recorded as the lowest number of individuals (three) (Fig.4,5.)

Site II-Myunk Pyin Village: This area is approximately 7.8469 hectare. Total number of species 32 and total number of individual 3208 were recorded in Site II. Among the total number of individual, *Passer domesticus* (House Sparrow) represented the highest number of individual (1275) and *Elanus caeruleus* (Black-shoulder Kite) showed the lowest number of individuals (two) (Fig.6,7). During the study period, one specie as endemic, 39 species as resident were observed. Four species as migrant and two species also local migrant were recorded in the study sites.

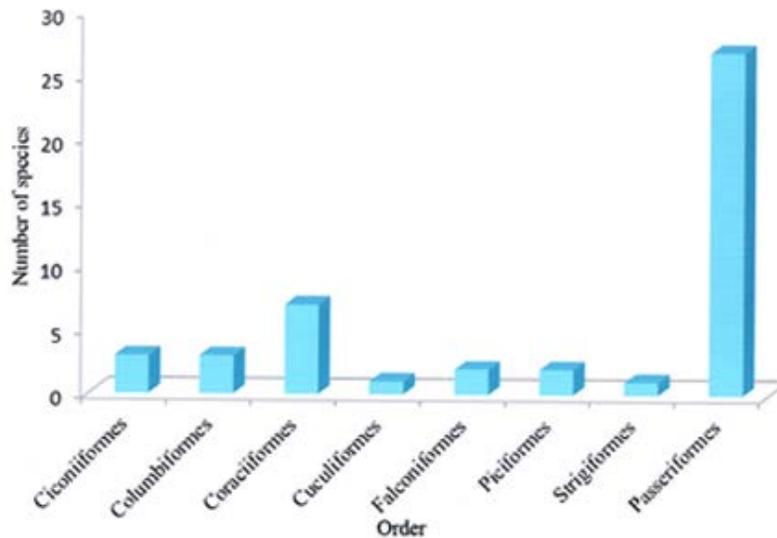


Fig.2. Bird species recorded in respective order during the study period

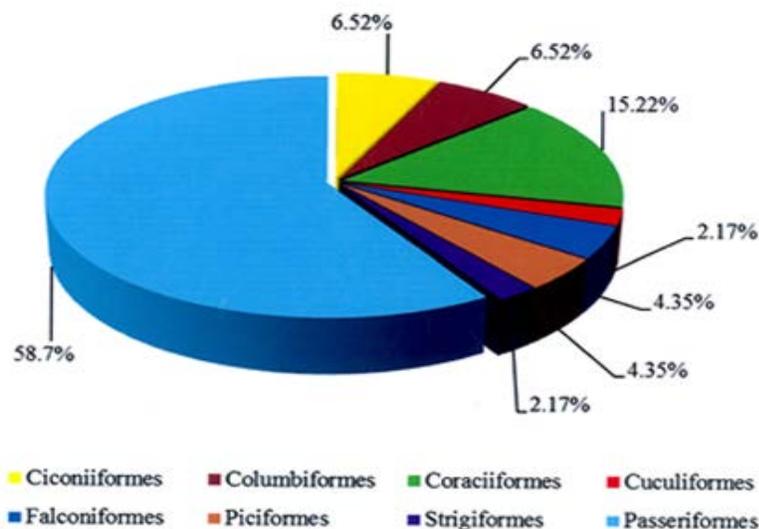


Fig.3. Percentage occurrence of bird species under respective orders

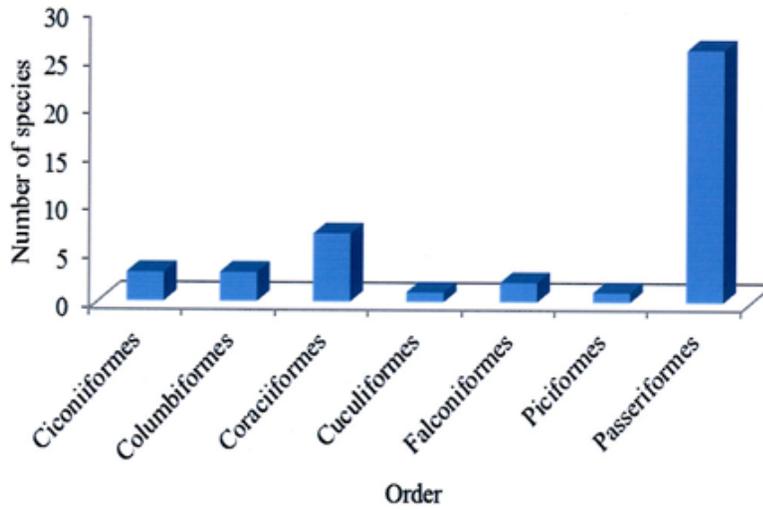


Fig.4. Recorded number of bird species in different orders in Site I

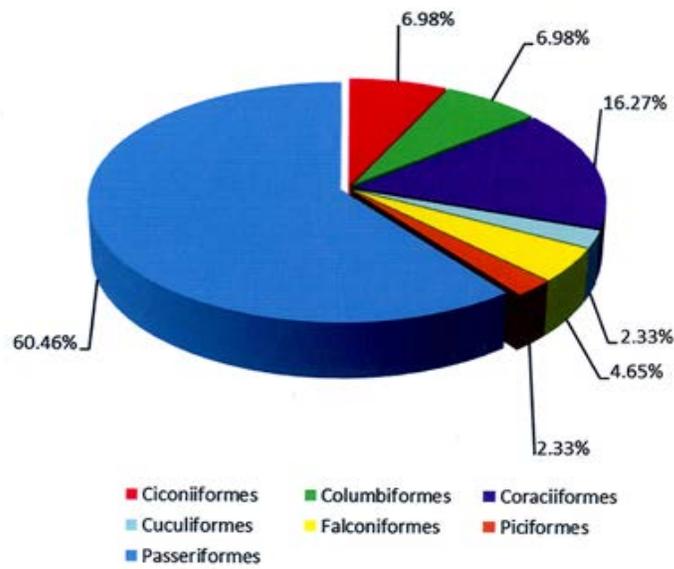


Fig.5. Percentage representation of bird species in different orders in Site I

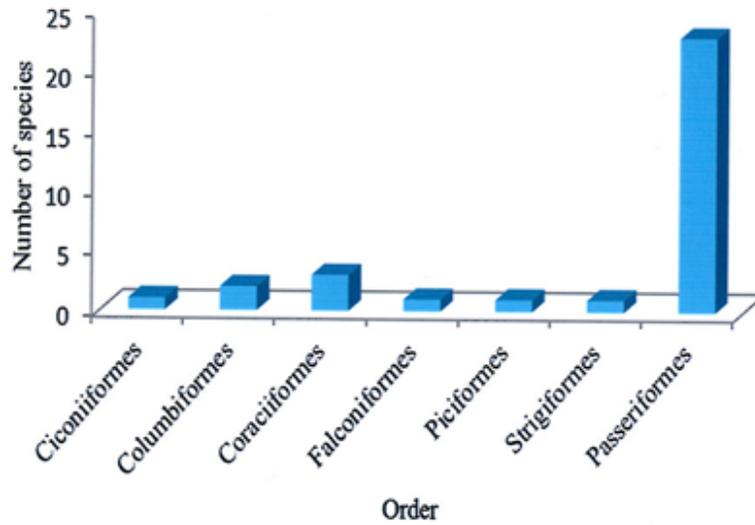


Fig.6. Recorded number of bird species in different orders in Site II

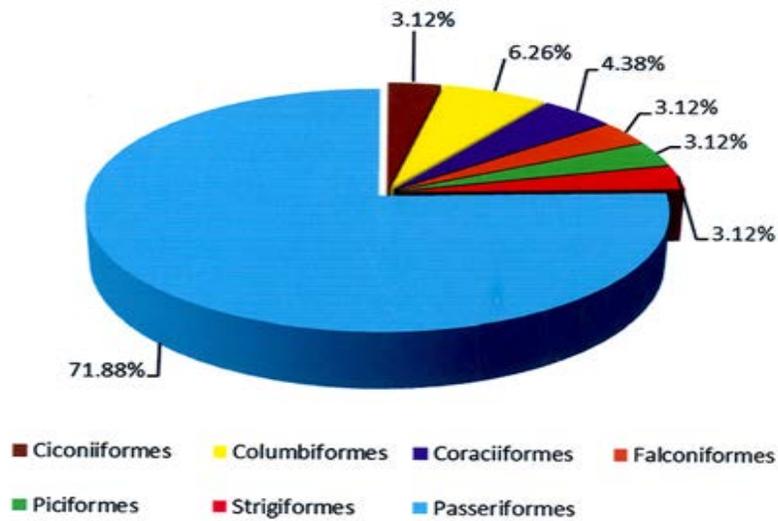


Fig.7. Percentage representation of bird species in different orders in Site II



Treron phoenicoptera
(Columbiformes)



Streptopelia chinensis
(Columbiformes)



Alcedo atthis
(Coraciiformes)



Upupa epops
(Coraciiformes)



Cacomantis merulinus
(Coraciiformes)



Elanus caeruleus
(Falconiformes)



Megalaima haemacephala
(Piciformes)



Nectarina jugularis
(Passeriformes)



Passer flaveolus
(Passeriformes)



Egretta garzetta
(Ciconiiformes)



Tyto alba
(Strigiformes)

Fig.8. Some recorded birds species in the study area

IV. DISCUSSION

The study area was designated the ancient city of Pakhangyee environs, Yesagyo Township, Magway Region. The area of Yesagyo Township is located in the Dry Zone of Central Myanmar. It consists of semi-arid plains, covered with thorny scrub-jungle and woodland especially where paddy fields and various leguminous crops are grown in cultivated field. Therefore, birds were found in the study area.

With regard to study site, total numbers of species were highest in Site I and then followed by Site II. This indicates that not only the more species but also the total numbers were highest in site I and tall trees, bushes, paddy field and various leguminous crops. Terborgh (1985) also described that the abundance of the tropical bird communities is related to food availability and seasonal changes.

In the present study, three species of water birds were found, *Bubulcus coromandus* (Cattle Egret), *Egretta garzetta* (Little Egret) and *Nycticorax nycticorax* (Black-crowned Night Heron) are aquatic in nature. These birds are found not only near water but also paddy fields and cultivated area. Black-crowned Night Heron was found from December to February. Smythies (2001) also described that all these aquatic birds were common elsewhere in Myanmar.

In this research, *Upupa epops* (Common Hoopoe) easily found while moving freely within the study area. Especially *Turdoides gularis* (White-throated Babbler) were commonly found on the thorny scrub. The Common Hoopoe and White-throated Babbler were recorded in Myanmar endemic species according to Avibase (2009).

Among recorded bird species, *Dendrocopos canicappillus* (Grey-capped pygmy wood pecker) was found on the top of the tall tree in Site II. *Megalaima haemacephala* (Coppersmith barbet) was conducted top of the trees in Site I. *Elanus caeruleus* (Black-shoulder Kite) and *Buteo buteo* (Common Buzzard) were recorded on the top of the tree, perch on telegraphic wire and in the plain during the study period. Under order Strigiformes, only one species was found in Site II. This species is *Tyto alba* (Branowl). It was found on the branch of the tree in sunset. In the present study, the highest number of species composition was found to be order Passeriformes accounting (58.70%) of the whole recorded bird species. Smythies (2001) and Strange (2002) reported that these birds were commonest birds in the Dry Zone of Central Myanmar.

V. CONCLUSION

According to research data, it was observed that Yesagyo Township hold a large number of birds which are ecologically specialized, locally endemic and but extremely sensitive to habitat loss. Deforestation, pollution, extensive agriculture and training of livestock are seriously threatening these environment and many fauna including avian species. Therefore, more researches, awareness and educator, programmers would be needed in Yesagyo Township to encourage protection and discourage activities such as hunting, netting and habitat destruction.

ACKNOWLEDGMENT

I would like to express my sincere gratitude to Dr. Aung Min Win, Rector, Pakokku University, Magway Region, Myanmar, for his valuable advice and suggestions. Profound thanks are also due to Dr. Cho Cho Win, Professor and Head, Department of Zoology, Pakokku University, Magway Region, Myanmar, for her help to do this project to continue.

REFERENCES

- [1] Gill, F.B., 2001. *Ornithology*. 2nd. W. H. Freeman and Company. New York. 766 pp.
- [2] King, B. F. and Dickinson, E. C., 1975. *A field Guide to the Birds of South East Asia*. Japan, Collin, London. pp. 1-20.
- [3] Kyaw Nyunt Lwin and Khin Ma Ma Thwin, 2003. *Birds of Myanmar*. Yangon, Myanmar.
- [4] Robson, C., 2000. *A Field Guide to the Birds of South-East Asia*. New Holland Publisher (UK), Ltd. 460 pp.
- [5] Robson, C., 2011. *A field Guide to the Birds of Southeast Asia*. New Holland Publishers (UK), Ltd, London, 544 pp.
- [6] Robson, C., 2015. *A Field Guide to the Birds to South-East Asia*. London New Holland Publisher (UK), Ltd, London. 544 pp.
- [7] Smythies, B.E., 2001. *The birds of Burma*. Oliver and Boyd, Ltd, Edinburgh, London, 601 pp.
- [8] Strange, M., 2002. *A photographic guide to the birds of South-East Asia*. Peripula Editions (HK) Ltd, Singapore, 348 pp.

- [9] Terborgh, J., 1985. Habitat Selection in Amazonian Birds, In: Habitat Selection in Birds M.L., Cody (ed.), Academic Press, New York, P, 311-338.
- [10] Wallace, G. J., 1963. *An introduction to Ornithology*. Second Edition. The MacMillan Company. New York.

AUTHOR

First Author- Nwe Nwe Khaing, Associate Professor, Department Of Biology, Sagaing University Of Education, Sagaing Division, Myanmar

email: drnwekhaing@gmail.com