

Ecological Diversity of Flora and Fauna at Curzon Hall, University Of Dhaka, Bangladesh

Sadniman Rahman

Dept. of Zoology, University of Dhaka, Dhaka-1000, Bangladesh

Abstract: The diversity of local flora and fauna at the Curzon Hall premises, University of Dhaka, Bangladesh was studied from April 2nd, 2014 to January 10th, 2015. A total of 98 species of flora and fauna were found during the study. The study was done to observe the condition of the biodiversity and also to conserve them.

Keyword: Ecology, diversity, local flora, fauna, Curzon Hall.

1. INTRODUCTION

Bangladesh having an area of 1,47,570 sq km, among them arable land 67%, forest and woodland 16%^[1] and harbours about 650 species of birds (Siddiqui et al, 2008) or a total of 628 species^[2]. Although a total of 718 species under 64 families was reported by Khan (2010). Among them 41 were threatened^[3]. This is undoubtedly an extraordinary situation that such a great variety exists in overpopulated (more than 800 people/km²) country with a very limited range of habitats. But it's a matter of sorrow that there was no conservation awareness of this wealth. Bangladesh in general possesses luxuriant vegetation. Bangladesh has four different areas of vegetation. The eastern zone, consisting of parts of the Sylhet and Chittagong areas. The central zone, covering parts of the country to the north of Dhaka. The southern zone along the Bay of Bengal contains the vast wetlands of the Sunder bans with their distinctive mangrove vegetation^[4]. Curzon Hall premises represent a small part of the total ecosystem of Bangladesh. This is the ecological study to find out the number of flora and fauna present in the Curzon Hall, University of Dhaka, Bangladesh. Ecology is the scientific study of interactions among organisms and their environment and ecosystem is a community of living organisms (plants, animals and microbes) in conjunction with the nonliving components^{[5],[6]}. We considered Curzon Hall premises a suitable place for the study of local diversity.

2. MATERIALS AND METHODS

The study was based on direct field observation that took place on April 2nd, 2014 to January 10th, 2015. Data collection was also done at that time. During observation, movement was kept at a uniform speed. Two binoculars were used to observe the birds closely, digital SLR camera (Canon 600D with 55mm-250mm lens) was used to take the picture of the birds and the plants to identify later at laboratory and a GPS tracker was kept. For identification of birds, "A Photographic Guide To Birds of Bangladesh" by Ronald R. Halder (2010) was followed^[7]. During analysis of data in the laboratory after taking the pictures, the collected data were compared with the mentioned book. The study was conducted at Curzon Hall premises that consist of about 9 acres. It is located in the midst of Dhaka Metropolis geographically 23°43'33.99"N and 90°24'9.43"E. The ground of the campus is covered by green grass. It's considered as a perfect "oasis".

3. RESULTS AND DISCUSSION

Curzon Hall having an area of 9 acres, is a great source of local diversity. (See fig.1). A total of 90 species of flora and fauna were recorded in Curzon Hall premises. Among the birds The House Sparrow, The House Crow were the commonest.

The pond is a great source of fishes. But only *Glossogobius guiris* was found during the observation. Duckweeds, *Nymphaeaceae* and Guppy fishes were found in a large number in a small pool in front of the Physics department. There

were also a large number of trees. Some of them are local and some are foreign trees. A large number of medicinal plants were also found during the observation.



Fig.1 Map (taken from Google Earth) of Curzon Hall premises, numbers showing the major structures of the area, black line depicting the boundary of the study area

1. Curzon Hall 2. Dept. of Applied Physics 3. Dept. of Geology 4. Dept. of Fisheries 5. Dept. of Applied Chemistry 6. Dept. of Zoology 7. Pond 8. Dept. of Botany and Centre for Conservation of Medicinal Plants 9. Dept. of Chemistry 10. Dept. Biochemistry and Molecular Biology , 11. Dept. of Soil, Water and Environment 12. Botanical Garden 13. And 14. Dormitories of University of Dhaka.

Sl. No.	Scientific Name	Common Name
1.	<i>Passer domesticus</i>	House Sparrow
2.	<i>Cinnyris asiaticus</i>	Purple Sunbird
3.	<i>Orthotomus sutorius</i>	Common tailor bird
4.	<i>Copsychus saularis</i>	Magpie Robin
5.	<i>Pycnonotus cafer</i>	Red-vented Bulbul
6.	<i>Corvus splendens</i>	House Crow
7.	<i>Corvus macrorhynchos</i>	Large-billed crow
8.	<i>Gracula religiosa</i>	Hill Mayna
9.	<i>Dicrurus macrocercus</i>	Black Dongro
10.	<i>Dendrocopos canicapillus</i>	Pygmy Woodpecker
11.	<i>Alcedo atthis</i>	Common Kingfisher
12.	<i>Apus affinis</i>	House Swift (Ababeel)
13.	<i>Tyto alba</i>	Barn Owl
14.	<i>Psittacula krameri</i>	Indian Ring-necked parakeet
15.	<i>Spilopelia chinensis</i>	Spotted Dove

16.	<i>Columba livia</i>	Rock Pigeon
17.	<i>Xylocopa violacea</i>	Carpenter bee
18.	<i>Gracupica contra</i>	Pied Mayna
19.	<i>Dendrocopos macei</i>	Fulvous-breasted Woodpecker
20.	<i>Athene brama</i>	Spotted Owlet
21.	<i>Milvus migrans</i>	Black kite
22.	<i>Acridotheres tristis</i>	Common Myna
23.	<i>Sturnia malabarica</i>	Chestnut-tailed Starling
24.	<i>Copsychus saularis</i>	Magpie Robin
25.	<i>Glossogobius giuris</i>	Tank Goby
26.	<i>Anisoptera</i>	Dragonfly
27.	<i>Tettigoniidae</i>	Long horn grasshopper
28.	<i>Caelifera</i>	Short horn grasshopper
29.	<i>Lamnaceae</i>	Duckweeds
30.	<i>Nymphaea nouchali</i>	Water lily
31.	<i>Lantana sp.</i>	Lantana
32.	<i>Cycas revoluta</i>	Cycas
33.	<i>Pinus sp.</i>	Pine
34.	<i>Caesalpinia pulcherrima</i>	Radhachura
35.	<i>Lagerstroemia thorelii</i>	Barsha Jarul
36.	<i>Lagerstroemia indica</i>	Choto Jarul
37.	<i>Holarrhena antidysenterica</i>	Kurchi
38.	<i>Quisqualis indica</i>	Madhuri Lata
39.	<i>Courouptia guianensis</i>	Naglingam
40.	<i>Catharanthus roseus</i>	Nayantara
41.	<i>Plumeria alba</i>	Champa
42.	<i>Gomphrena globosa</i>	BottamPhul
43.	<i>Codiaeum variegatum</i>	Patabahar
44.	<i>Cassia fistula</i>	Sonalu
45.	<i>Jatropha integerrima</i>	Jayati
46.	<i>Ixora chinensis</i>	Rangan Phul
47.	<i>Duranta repens</i>	Kantamehedi
48.	<i>Polyalthia longifolia</i>	Debdaru
49.	<i>Canna indica</i>	Kolabati
50.	<i>Mesua ferrea</i>	Nageshwar
51.	<i>Mussaenda erythrophylla</i>	Macchenda
52.	<i>Swietenia mahagani</i>	Mahogani
53.	<i>Melia azedarach</i>	Neem

54.	<i>Bougainvillea glabra</i>	Bagan Bilash
55.	<i>Michelia champaca</i>	Champa
56.	<i>Albizia lebbeck</i>	Siris
57.	<i>Coccinia grandis</i>	Telakucha
58.	<i>Impatiens balsamina</i>	Dupati
59.	<i>Salvia splendens</i>	Salvia
60.	<i>Clerodendrum thomsonae</i>	Bleeding-heart
61.	<i>Ravenala madagascariensis</i>	Panthopadop
62.	<i>Marsilea sp.</i>	Four leaf clover
63.	<i>Allamanda sp.</i>	Golden Trumpet
65.	<i>Clerodendrum thomsoniae</i>	Bleeding-heart
66.	<i>Ravenala madagascariensis</i>	Traveller's Palm
67.	<i>Bufo melanostictus</i>	Common Indian Toad
68.	<i>Albizia saman</i>	Rain tree
69.	<i>Brunfelsia australis</i>	Yesterday- Today- Tomorrow
70.	<i>Hibiscus mutabilis</i>	Sthalpadma
71.	<i>Calotropis procera</i>	Akand
72.	<i>Brunfelsia latifolia</i>	Brunfelsia
73.	<i>Papilio polytes</i>	Common Mormon
74.	<i>Euploera core</i>	Common Crow
75.	<i>Eurema hecabe</i>	Common Grass Yellow
76.	<i>Junonia almana</i>	Peacock Pansy
77.	<i>Appias libythea</i>	Striped Albatross
78.	1. <i>Castalius rosimon</i>	Common Pierrot
79.	<i>Delias eucharis</i>	Common Jezbel
80.	<i>Leptosia nina</i>	Psyche
81.	<i>Junonia orithya</i>	Blue Pansy
82.	<i>Tirumala limniace</i>	Blue Tiger

83.	<i>Melanistis leda</i>	Common Evening Brown
84.	<i>Eurema hecabe</i>	Common Grass Yellow
85.	<i>Graphium Jay</i>	Common Jay
86.	<i>Danaus chrysippus</i>	Plain Tiger
87.	<i>Danaus Genutia</i>	Striped Tiger
88.	<i>Scutiphora pedicellata</i>	Jewel bug
89.	<i>Graphium Agamemnon</i>	Tailed Jay
90.	<i>Halyomorpha halys</i>	Stink bug
91	<i>Euphyctis cyanophilctis</i>	Skipper frog
92	<i>Achatina fulica</i>	Giant African land snail
93	<i>Gerridae</i>	Water staidler
94	<i>Nepidae</i>	Water scorpion
95	<i>Poecilia reticulate</i>	Endler's Guppy
96	<i>Pezoporus flaviventris</i>	Ground parrot
97	<i>Herpestes edwardsii</i>	Indian grey mongoose
98	<i>Xenochrophis piscator</i>	Asiatic water snake

4. CONCLUSION

In Curzon Hall, the biodiversity condition is still in a good level. But it needs to be maintained. The ecological imbalance may create a disaster if it is not conserved in a proper way. There is a huge amount of vegetation for the animals. The study was held mainly during the summer season. The study was done every day from 6:30 am to 11:30 am. Sometimes the field study was postponed because of rain.

REFERENCES

- [1] <http://www.bangla2000.com/bangladesh/geography.shtm>.
- [2] Ali, S. & Ripley, S.D. 1968-1974. The Books of the birds of India and Pakistan. Vols. 1-10. Oxford University Press.
- [3] Bombay, London, New York.
- [4] Annonymus. 2000, Red book of threatened birds, IUCN-World Conservation Union.
- [5] <http://www.britannica.com/EBchecked/topic/51736/Bangladesh/33426/Plant-and-animal-life>.
- [6] <http://en.wikipedia.org/wiki/Ecosystem>.
- [7] <http://en.wikipedia.org/wiki/Ecology>.
- [8] Halder. R. R. 2010, A photographic Guide To The Birds of Bangladesh, Oxford University Press.