Ability Enhancement Compulsory Course - 2

B.A. / B.Sc. / B.Com Semester 2

Project Prototype – 1 (English Version)

Biodiversity Study of Local Area

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Introduction:

The environmental health of any area depends and can be assessed by study of the biodiversity of the region. Actually, biodiversity can be considered as a indicator of natural environmental condition as biota need overall integrity of all the components of the environment for their survival. As a result, environmental degradation of any kind impact heavily on the biodiversity of the area. For example, polluted soil stuns the growth and flowering of plants and hence is responsible for habitat loss of fauna including birds and butterflies. Consequently, the area faces overall loss of biodiversity.

[Introduction can further be elaborated in this line and may include standard definition of Biodiversity, importance of biodiversity and other aspects as per the wish, but mentioning the source you have used.]

Rationale of the study:

It is not always important that we must go for field visit at a far away area to study biodiversity. But, it can be done in near proximity of our home too. Actually, we never pay attention to the local biodiversity as we don't understand the importance of the biota available in our neighbourhood. And hence we fail to note the presence of some important species which in due course disappears from the area without being recorded. It is also, important to have an idea about the array of plants with medicinal or other important uses around us and we gradually loose our traditional knowledge on biotic resource bases. In this scope of project work I would like to fill the gap as much as possible.

[Anyone interested to work with only flora or particular type of faunal diversity like avifauna or butterfly diversity may do so, but the rationale of the study should be changed accordingly.

Objectives:

1. To prepare a list of local flora and fauna.
2. In case of flora, to make a documentation of the uses.
3. In case of fauna, to have documentation of their habit and habitat.

Methodology:

With the aim of conducting the above said project work, I have to visit the study area several times and made a checklist of all the species I encountered.

Specifically, I/ we have visited the area for 10 days and took note of the biodiversity of the area everyday in form of a check list. However, as plants are not moving so, we need not to note their presence at same place everyday, but for fauna we did so.
Naturally, we are not well acquainted with all the flora and fauna, we consulted the local people for identification and also we consulted our professor for further confirmation. The uses of floral diversity were however, noted through consultation with the local people particularly, the elderly people.

Observation / Result:

The floral and faunal diversity of the area as noted by me/us has been given in the following table (day wise):

Table 1 : Day wise Avifauna diversity checklist:

Species	**Day 1**	**Day 2**	**Day 3**	**Day 4**	**Day 5**	**Day 6**	**Day 7**	**Day 8**	**Day 9**	**Day 10**
Common Crow	10	8	12	3	6	0	7	10	14	2
Sparrow	12	15	6	9	7	10	11	0	0	2
Moyna	8	9	4	5	5	12	7	15	16	9
Jungle Moyna	4	2	0	0	0	0	5	0	0	3
Pond heron	2	1	3	0	0	0	0	2	0	0
Cattle egret	6	4	3	8	8	0	4	2	0	6
Little egret	0	0	2	0	3	2	1	0	4	0
-Sun bird	0	2	3	2	6	5	0	0	4	2
Tailor Bird	0	2	6	0	0	0	2	3	0	0
Black oriole	1	2	0	1	0	0	0	3	0	2
Coppersmith Barbet	3	1	1	0	0	0	1	2	0	1
Common Kingfisher	1	0	0	0	1	2	0	0	1	0
White breasted Kingfisher	2	3	2	2	0	1	3	2	0	4
Large flameback	1	0	2	0	0	0	0	0	0	1
Green bee eater	0	0	0	0	4	3	0	2	0	2
Tree pie	0	2	0	2	1	0	0	0	0	1
Cuckoo	0	0	0	1	1	0	1	2	0	1
Bulbul	6	6	3	4	0	2	0	5	0	0
Black Drongo	2	3	2	0	1	2	0	3	0	0

List of Butterfly (Day wise)

Species	**Day 1**	**Day 2**	**Day 3**	**Day 4**	**Day 5**	**Day 6**	**Day 7**	**Day 8**	**Day 9**	**Day 10**
Stripped tiger	3	2	0	0	0	0	0	4	2	0
Psyche	3	3	0	4	2	0	5	0	3	4
Common crow	1	0	3	0	1	4	2	0	0	2
Common Marmon	0	0	0	1	1	2	0	1	3	2
Common Yellow	5	4	5	2	0	0	0	0	0	1
Grey Pansy	3	4	2	0	5	0	4	2	0	4
Peacock Pansy	0	1	0	0	0	0	2	0	0	0

Checklist of Plants (Area wise)

Species	**Scientific name**	**Sub Area 1**	**Sun Area 2**	**Sub Area 3**	**Sub Area 4**
Debdaru (T)	*Polyalthia longifolia*	+	+	-	-
Mango (T)	*Mangifera indica*	+	+	+	+
Kanchan (T)	*Bauhinia sp.*	-	+	-	+
Chhatim (T)	*Alstonia scholaris*	+	+	+	+
Gulmohor (T)	*Delonix regia*	+	+	+	-
Arjun (T)	*Terminalia arjuna*	-	+	-	-
Amaltas (T)	*Cassia fistula*	-	-	+	+
Mehgini (T)	*Swietenia sp.*	+	-	-	-
Jackfruit (T)	*Artocarpus heterophyllus*	+	-	-	+
Acasia (T)	*Acacia sp.*	-	+	-	-
Kachu (H)	*Colocasia sp.*	-	-	+	+
Kansira (H)	*Commelina sp.*	+		+	+
Cactus (Xe)	*Opuntia sp.*	+	+	-	-
Bajbaran (Xe)	*Euphorbia sp.*	+	-	-	-
Maleri (H)	*Mikania scandens*	+	+	+	+
Bramhi (H)	*Bacopa monnieri*		-	+	-
Detura (S)	*Detura sp.*	+	+	-	-
Akand (S)	*Calotropis sp*		+	-	-
Putush (S)	*Lantana camara*	+	-	+	+

T = Tree , S = Shrub, H = Herb, Xe = Xerophytic plant

[*You may include an additional table with the names of all species identified along with the scientific names, type, abundance and special uses. In that case the sub-area concept will not be there.*] A very short table of that kind is given below:

Sl. No.	Local name	Scientific name	type	abundance	Uses
1.	Aam	*Mangifera indica*	Tree	++++	
2.	Kachu	*Colocasia sp.*	Herb	++	

+ indicates the abundance (more + means more number of occurrence)

Discussion:

It seems that the aim of the project is quite successfully attended. During the ten days visit ____ species of plants, _____species of Birds and _____Species if butterflies, _____ species of reptiles, _____species of dragonflies etc. were identified and enlisted.

At the end it can be concluded that the project helped me in understanding the biodiversity of the local area along with their importance. However, this checklist may also serve a purpose of further more intense scientific studies in future as a baseline data source.

Acknowledgement:

References / Bibliography: