

## FLORISTIC DIVERSITY: A CASE STUDY OF THE FLORA AT GOVERNMENT SERCHHIP COLLEGE, SERCHHIP, MIZORAM, INDIA.

Lalmangaihzuali Ralte<sup>1\*</sup>, Malsawmtluangi<sup>2</sup>, Laldinpuia Rokhum<sup>3</sup>

<sup>1, 2 & 3</sup> Department of Botany, Government Serchhip College, Serchhip, Mizoram, India.

\*Corresponding author: Department of Botany, Govt. Serchhip College, Serchhip, Mizoram, India

796181

Email: teteiralte@gmail.com

### KEYWORDS

*Floristic Diversity  
Government Serchhip  
College  
species  
habit  
dominant*

Received on :  
04.01.2020

Accepted on :  
04.04.2020

### ABSTRACT

This study documents the floristic diversity associated with the flora of Government Serchhip College, Serchhip, Mizoram, India. The study aimed to document plant species within the campus. A total of 151 plant species belonging to 131 genera and 66 families were recorded. Euphorbiaceae and Moraceae emerged as the most dominant family, followed by Asteraceae. The study highlights the rich biodiversity present in the region, emphasizing the need for conservation efforts.

### INTRODUCTION

India is one of the most biodiversity-rich countries in the world. Species identification is a fundamental requirement for documenting biodiversity and understanding their relationships, comprehending ecological and evolutionary processes, and serving as basic input for conservation and management [1,2]. Diversity encompasses the range of variations or differences among a set of entities; thus, biological diversity pertains to the variety within the living world. However, the term 'biodiversity' is most commonly used to denote the 'variety of life.' [3,4]. The concept of biological diversity has been employed since at least 1980, with authors such as Lovejoy [5] defining it simply as the number of species, and Norse [6] incorporating both genetic diversity and species richness. Species of organisms are not uniformly distributed across the planet but in various spatial patterns. The level of ecological diversity is structured and characterized by the diversity of associations that species form through interactions with each other and their physical environment. Complex patterns of species aggregation may arise from the interplay of historical, physical, and functional factors.

Serchhip District, Mizoram is selected for the present study. Located in the part of Mizoram with 23°35'N and 23° N latitude and between 92°41' E and 93°10' E longitude and altitude ranging from 912 meters to 1281 meter m.s.l, occupying an area of 1422 sq km. The predominant forest cover type in Serchhip district is classified mainly as Tropical Wet Evergreen Forests (34.1%), followed by Mixed Forests (32%), Bamboo Forests (20%), Montane Subtropical Forests (13.5%) and Temperate Forests (0.4%) of the total forest area [7]. The study focused on understanding the forest and biodiversity of the Government Serchhip College campus, through documentation on the floristic diversity of the campus, which will enhance their identification, conservation, and management, as well as contribute significantly to understanding their potential.

### STUDY AREA

The present study focuses on Government Serchhip College, Serchhip District, located in Mizoram at a latitude of 23°10' North and a

longitude of 92° 65' East, with an elevation ranging from 912 meters to 1281 meters above sea level. Covering an area of 1422 square kilometres, Serchhip is situated approximately 120 kilometres east of the state capital, Aizawl. According to the 2011 census, Serchhip has a population of 64,938, with 32,861 males and 32,086 females, and boasts an average literacy rate of 97.91%. The forest of Serchhip falls under Tropical wet evergreen forest which comprises valuable species of timber and domestic resources. The forest is also interrupted by overlapping bamboo. The climate is humid tropical, characterized by short winters, and long summers with heavy rainfall. The temperature mainly ranges from 110 C to 310 C. It rains heavily from May to September with an average rainfall of 250 cm per annum.

Government Serchhip College has an eco-friendly campus, favoured by its topography, moderate rainfall, and climatic conditions, resulting in high species diversity. Over 75% of the campus is green, featuring a diverse range of trees, shrubs, and herbs. The college harbours rich floral diversity including plants with ethnomedicinal and medicinal significance. An extensive plantation drive has been added to the campus's lush green area with a full canopy, attracting a variety of fauna, including insects, birds, reptiles, and small mammals.

To obtain land use data for our institution, GPS points and Google Earth were employed for data geo-referencing. The creation of a land use map involved several steps: data acquisition, geo-coding, and geo-referencing of satellite imagery. Supervised classification was conducted using ground truth data collected during a field survey. The resulting GIS output, presented as a land use map, illustrates the various land uses within the institution's area. The total area of the college is 164167.26 square meters. Based on the data analysis, the land use categories for the Government Serchhip College campus are as follows:

Sl. No.	LAND USE	AREA COVER (Square Meter)
1.	Built up Area	31042.26
2.	Dense Forest Cover	75048
3.	Open Forest Cover	50109
4.	Teak Plantation	7968
<b>Total Area Coverage</b>		<b>164167.26</b>

Table 1: Land Use Area Coverage of Government Serchhip College.

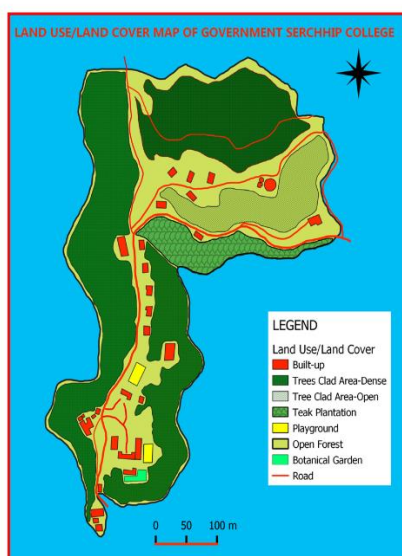


Figure 1: Land Use Land Cover Map of Government Serchhip College.

#### MATERIALS AND METHOD

The study was carried out extensively for six months from June to December 2019, involving weekly observations to collect and identify plant species. The following data were recorded for each species: habit, botanical name, family, and habit, classified according to the Bentham and Hooker system. Herbariums were collected for further species identification and verification. Plant species were identified with the help of Regional Flora and Herbaria of Botanical Survey of India (BSI), Shillong, Meghalaya. The primary objective of this study is to document the wide distribution of plants within the institute campus. An effective analysis has been performed to identify the diversity of species with the available plants.

#### RESULTS

##### Habit:

The study area consists of 151 species categorised under various habits, tree being dominant (82) followed by herb (31), shrub (23), climber (9), under shrub (3) and grass (3). The comparative account of the habits of plant species reported from the study is given in

Figure 2. 81 tree species have been identified which fall under three types mainly evergreen, which shows the most occurrence, deciduous and semi-evergreen (Figure 3).

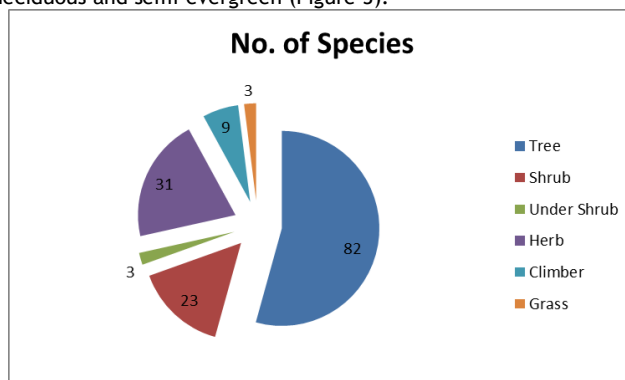


Figure 2: Different habit of the recorded species.

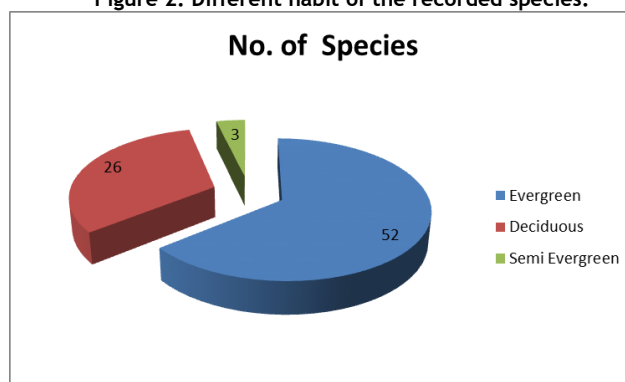


Figure 3: Different tree types

#### Floristic Diversity

Floristic diversity identified from the study site comprises 151 species of plants under 131 genera belonging to 66 families (Table 2). The dominant families in the campus representing the maximum number of species were Euphorbiaceae (9 species) and Moraceae (9 species), Asteraceae (7 species), Lauraceae (6), Solanaceae (6), Verbanaceae (6), Rutaceae (5), Fabaceae (5), Rutaceae (5), Arecaceae (4), Ceasalpinaceae (4), Mimaceae (4), Poaceae (4), Zingiberaceae (3), Rutaceae (3), Fagaceae (3), Clusiaceae (3) and the remaining families were represented by 2 and 1 species each (Figure 4). The number of genera recorded ranges from 7 to 1, where the dominant genera are *Ficus* sp. (7 species) followed by *Solanum* sp. (4 species) and *Syzygium* sp. (3 species). The rest are within 2 or 1 genera (Figure 5).

Family	Genera	Species
66	131	151

Table 2: Floristic Diversity of the Campus

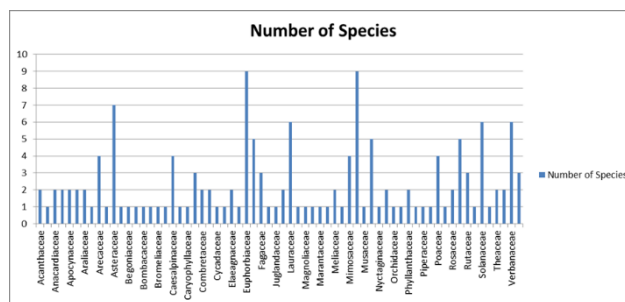


Figure 4: Dominant families with numbers of species.

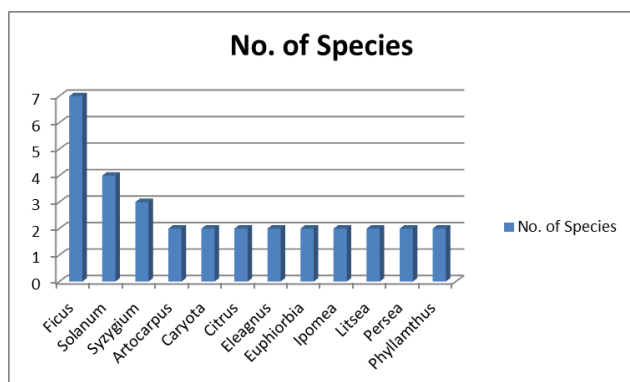


Figure 5: Dominant genera with number of species.

The institution's vegetation featured a multi-layered structure, with herbs, shrubs, and trees forming three to four distinct vertical strata, showcasing a diverse and heterogeneous mix of species. During the assessment, a complete list of the floristic diversity of the study site was identified and documented. Their scientific names, families, common names, local names, tree types and habits were listed. The list of flora on the campus is highlighted in the tables (Tables 3 & 4) given below.

Sl No	Botanical Name	Family	Common Name	Local Name	Type
1.	<i>Albizia chinensis</i>	Mimosaceae	Chinese Albizia	Vang	Deciduous
2.	<i>Alstonia scholaris</i>	Apocynaceae	Devil Tree	Thuamriat	Evergreen
3.	<i>Anogeissus acuminata</i>	Combretaceae	Yon	Zairum	Deciduous
4.	<i>Aralia foliosa</i>	Araliaceae		Chimchawk	Evergreen
5.	<i>Araucaria cookii</i>	Araucariaceae	Christmas Tree	Far zarmawi	Evergreen
6.	<i>Areca catechu</i>	Arecaceae	Betel nut palm	Kuhva kung	Evergreen
7.	<i>Artocarpus heterophylla</i>	Moraceae	Jack fruit	Lamkhuang	Evergreen
8.	<i>Artocarpus lakoocha</i>	Moraceae	Monkey Jack	Theitat	Deciduous
9.	<i>Averrhoa carambola</i>	Oxilidaceae	Carambola tree	Theiherawt	Evergreen
10.	<i>Azadirachta indica</i>	Meliaceae	Neem tree	Neem	Semi-evergreen
11.	<i>Baccaurea ramiflora</i>	Euphorbiaceae	Bhooby Tree	Pangkai	Evergreen
12.	<i>Balakata baccata</i>	Euphorbiaceae	Mouse Deer Rubber Tree	Thingvawkpui	Evergreen
13.	<i>Bauhinia variegata</i>	Caesalpinaceae	Mountain Ebony	Vaube	Deciduous
14.	<i>Bischofia javanica</i>	Euphorbiaceae	Bishop wood	Khuangthli	Evergreen
15.	<i>Bombax insigne</i>	Bombacaceae	Showy Silk Cotton Tree	Pang	Deciduous
16.	<i>Callicarpa arborea</i>	Verbanaceae		Hnahkiah	Evergreen
17.	<i>Callophyllum polyanthum</i>	Clusiaceae	Spar Tree	Sentezel	Evergreen
18.	<i>Canarium resiniferum</i>	Burseraceae	East Indian Copal	Beraw	Evergreen or Deciduous
19.	<i>Carallia brachiata</i>	Rhizophoraceae	Corkwood	Theiria	Evergreen
20.	<i>Caryota mitis</i>	Aracaceae	Burmese Fish tail Palm	Meihle	Evergreen
21.	<i>Caryota urens</i>	Arecaceae	Solitary Fishtail - palm	Tum	Evergreen
22.	<i>Cassia nodosa</i>	Caesalpinaceae	Pink and White Shower	Makpazangka ng	Evergreen
23.	<i>Castanopsis tribuloides</i>	Fagaceae	Chestnut	Thingsia	Evergreen
24.	<i>Cerasus cerasoides</i>	Rosaceae	Wild Himalayan Cherry	Tlaizawng	Deciduous
25.	<i>Cinnamomum tamala</i>	Lauraceae	Bay leaf	Tespatta	Evergreen

26.	<i>Citrus grandis</i>	Rutaceae	Pumelo	Sertawk	Evergreen
27.	<i>Citrus macroptera</i>	Rutaceae		Hatkora	Evergreen
28.	<i>Cocos nucifera</i>	Areaceae	Coconut Palm	Coconut	Evergreen
29.	<i>Cordia fragrantissima</i>	Boraginaceae		Muk	Deciduous
30.	<i>Cordyline indivisa</i>	Asparagaceae	Blue Draceana		Evergreen
31.	<i>Cycas pectinata</i>	Cycadaceae	Cycad	Cycas	Evergreen
32.	<i>Delonix regia</i>	Caesalpiniaceae	May Flower	April par	Deciduous
33.	<i>Derris robusta</i>	Fabaceae		Thingkha	Deciduous
34.	<i>Dimocarpus longan</i>	Sapindaceae	Eye Ball Tree	Theifeihmung	Evergreen
35.	<i>Duabanga grandiflora</i>	Sonneratiaceae	Duabanga	Zuang	Semi - evergreen
36.	<i>Eleocarpus tectorius</i>	Elaeocarpaceae		Umkhal	Evergreen
37.	<i>Engelhardtia spicata</i>	Juglandaceae		Hnum	Deciduous
38.	<i>Erythrina stricta</i>	Fabaceae	Indian Coral Tree	Fartuah	Deciduous
39.	<i>Eucalyptus globulus</i>	Myrtaceae	Blue Gum	Nawhalh thingg	Evergreen
40.	<i>Eurya acuminata</i>	Theaceae		Sihneh	Evergreen
41.	<i>Ficus benjanima</i>	Moraceae	Sacred Fig	Rihnim	Evergreen
42.	<i>Ficus curtipes</i>	Moraceae	Blunt Leaf fig	Hnahhlun	Evergreen
43.	<i>Ficus elastica</i>	Moraceae	Indian Rubber	Hmawng	Evergreen
44.	<i>Ficus hirta</i>	Moraceae	Hairy fig	Sazutheipui	Deciduous
45.	<i>Ficus retusa</i>	Moraceae	Indian Laurel Fig	Bung	Deciduous
46.	<i>Ficus semicordata</i>	Moraceae	Drooping fig	Theipui	Evergreen
47.	<i>Ficus virens</i>	Moraceae	White Fig	Zaihri	Deciduous
48.	<i>Flueggea virosa</i>	Euphorbiaceae	White Berry Bush	Saisiak	Evergreen
49.	<i>Glochiodion heyneanum</i>	Euphorbiaceae	Velvety melon Feather Foil	Thingpawnh hia	Evergreen
50.	<i>Gmelina arborea</i>	Verbenaceae	Beech wood	Thlanvawng	Deciduous
51.	<i>Haldina cordifolia</i>	Rubiaceae	Yellow Teak	Lungkhup	Deciduous
52.	<i>Lagerstroemia speciosa</i>	Lythraceae	Queen's Flower	Chawnpui	Deciduous
53.	<i>Ligustrum robustum</i>	Oleaceae	Wild Privet	Chawmzil	Evergreen
54.	<i>Lithocarpus dealbatus</i>	Fagaceae	Spike Oak	Fah	Evergreen
55.	<i>Litsea cubeba</i>	Lauraceae	Cubeba	Sernam	Deciduous
56.	<i>Litsea monopelata</i>	Lauraceae	Common Grey Mango Laurel	Nauthak	Evergreen
57.	<i>Macaranga indica</i>	Euphorbiaceae	Papri	Hnahkhar	Evergreen

58.	<i>Machilus glaucescens</i>	Lauraceae		Bulbawr	Evergreen
59.	<i>Mangifera indica</i>	Anacardiaceae	Mango tree	Theihai	Evergreen
60.	<i>Messua ferrea</i>	Clusiaceae	Iron wood tree	Herhse	Evergreen
61.	<i>Michelia oblonga</i>	Magnoliaceae	Champ	Ngiau	Evergreen
62.	<i>Murraya koenigii</i>	Rutaceae	Curry leaf Tree	Karipata	Deciduous
63.	<i>Olea salicifolia</i>	Oleaceae	Widow leaved olive tree	Thingthiang	Evergreen
64.	<i>Oroxylum indicum</i>	Bignoniaceae	Trumpet flower	Archangkawm	Deciduous
65.	<i>Parkia roxburghii</i>	Mimosaceae	Tree Bean	Zawngtah	Deciduous
66.	<i>Persea americana</i>	Lauraceae	Avocado	Butter Fruit	Evergreen
67.	<i>Persea minutiflora</i>	Lauraceae		Nghalenglutar	Evergreen
68.	<i>Phyllanthus emblica</i>	Phyllanthaceae	Indian Gooseberry	Sunhlu	Deciduous
69.	<i>Phyllanthus acidus</i>	Phyllanthaceae	Star Gooseberry	Kawlsunhlu	Deciduous
70.	<i>Pinus kesiya</i>	Pinaceae	Khasi pine	Far	Evergreen
71.	<i>Psidium guajava</i>	Myrtaceae	Guava	Kawlthei	Evergreen
72.	<i>Quercus helferiana</i>	Fagaceae		Hlai	Evergreen
73.	<i>Schima wallichi</i>	Theaceae	Needle wood	Khiang	Evergreen
74.	<i>Semecarpus anacardium</i>	Anacardiaceae	Marking Nut Tree	Kawhtebel	Deciduous
75.	<i>Syzygium claviflorum</i>	Myrtaceae	Trumpet Satinash	Lenhmui	Evergreen
76.	<i>Syzygium cumini</i>	Myrtaceae	Black berry	Hmuipui	Evergreen
77.	<i>Syzygium grande</i>	Myrtaceae		Theichhawl	Evergreen
78.	<i>Tectona grandis</i>	Verbanaceae	Teak	Teak	Deciduous
79.	<i>Terminallia myriocarpa</i>	Combretaceae	Hollock	Char	Evergreen
80.	<i>Toona ciliata</i>	Meliaceae	Red Cedar	Tei	Deciduous
81.	<i>Vitex glabrata</i>	Verbenaceae		Thingkhawilu	Deciduous
82.	<i>Wendlandia budleioides</i>	Rubiaceae		Batling	Evergreen

Table 4: List of climbers, shrubs, grass and herbs in the College Campus:

Sl. No.	Botanical Name	Family	Common Name	Local Name	Habit
1.	<i>Amomum maximum</i>	Zingiberaceae	Java cardamon	Aidu	Herb
2.	<i>Ananas comosus</i>	Bromeliaceae	Pineapple	Lakhuih	Herb
3.	<i>Begonia dioica</i>	Begoniaceae		Sekhupthur	Herb
4.	<i>Bidens pilosa</i>	Asteraceae	Spanish Needle	Vawkpuithal	Herb
5.	<i>Bougainvillea spectabilis</i>	Nyctaginaceae	Bougainvillea	Saron	Shrub
6.	<i>Cajanas cajan</i>	Fabaceae	Lentil	Behliang	Shrub
7.	<i>Calocasia</i>	Araceae	Taro	Dawl	Herb

	<i>esculata</i>				
8.	<i>Canavalia ensiformis</i>	Fabaceae	Broad Bean	Broad beans	Climber
9.	<i>Capsicum annum</i>	Solanaceae	Red Pepper	Hmarchate	Shrub
10.	<i>Capsicum frutescens</i>	Solanaceae	Chilli	Hmarchapui	Shrub
11.	<i>Celosia argentea</i>	Amaranthaceae	Cock's Comb	Zamzo	Herb
12.	<i>Centella asiatica</i>	Apiaceae	Indian Pennywort	Hnahbial	Herb
13.	<i>Cheilocostus speciosus</i>	Zingiberaceae	Crepe Ginger	Sumbul	Herb
14.	<i>Chromolaena odorata</i>	Asteraceae	Christmas Bush	Tlangsam	Shrub
15.	<i>Chrysopogon aciculatus</i>	Poaceae	Love Grass	Phul	Grass
16.	<i>Clerodendrum wallichii</i>	Verbanaceae	Bridal Veil	Phuihnam	Shrub
17.	<i>Conyza leucantha</i>	Astertaceae	Fleabane	Buar	Herb
18.	<i>Curcuma ceasia</i>	Zingiberaceae	Black Turmeric	Ailaidum	Herb
19.	<i>Dendrocnide sinuata</i>	Urticaceae	Devil Nettle	Thakpui	Shrub
20.	<i>Dioscorea alata</i>	Dioscoreaceae	White Yam	Bachhim	Herb
21.	<i>Diplazium esculentum</i>	Athyriaceae	Vegetable Fern	Chakawk	Herb
22.	<i>Drymaria cordata</i>	Caryophyllaceae	Tropical Chickweed	Changkalrit	Herb
23.	<i>Eleagnus pyriformis</i>	Eleagnaceae		Sarzuk	Shrub
24.	<i>Eleagnus pyriformis</i>	Elaeagnaceae		Sarzuk	Shrub
25.	<i>Elsholtzia communis</i>	Lamiaceae		Lengser	Herb
26.	<i>Enatda phaseoloides</i>	Mimosaceae	Match Box Bean	Kawi hroi	Climber
27.	<i>Eryngium foetidum</i>	Apiaceae	Wild coriander	Bahkhawr	Herb
28.	<i>Euphorbia hirta</i>	Euphorbiaceae	Asthma Plant	Zawhte hlo	Herb
29.	<i>Euphorbia milii</i>	Euphorbiaceae	Christ Plant	Hling lukhum	Shrub
30.	<i>Garcinia lanceifolia</i>	Clusiaceae		Chengkek	Shrub
31.	<i>Girardinia diversioflora</i>	Urticaceae	Himalayan Nettle	Kangthai	Under Shrub
32.	<i>Gnetum gnemone</i>	Verbanaceae	Joint Fir	Pelh	Under shrub
33.	<i>Heliconia rostrata</i>	Heliconiaceae	False Bird of Paradise	Changel pangpar	Herb
34.	<i>Hibiscus rosa sinensis</i>	Malvaceae	China Rose	Midum pangpar	Shrub
35.	<i>Homalomena aromatica</i>	Araceae	Homalomena	Anchiri	Herb
36.	<i>Imperata cylindrica</i>	Poaceae	Blady Grass	Di	Grass
37.	<i>Ipomea batatas</i>	Convulvulaceae	Sweet Potato	Kawlbahra	Herb
38.	<i>Ipomoea quamoclit</i>	Convulvulaceae	Cypree Vine	Rimenhawii	Climber
39.	<i>Justica adhatoda</i>	Acanthaceae	Malabar Nut	Kawldai	Shrub
40.	<i>Lobelia angulata</i>	Campanulaceae	Blue Star Creeper	Choakathi	Herb
41.	<i>Manihot esculenta</i>	Euphorbiaceae	Tapioca	Pangbal	Shurb
42.	<i>Maranta arundinaceae</i>	Marantaceae	Arrowroot	Hnahthial	Herb
43.	<i>Melastoma malabathricum</i>	Melastomaceae	Malabar Blackmouth	Builukham	Shrub
44.	<i>Mikania micrantha</i>	Asteraceae	Bitter Vine	Japan hlo	Climber
45.	<i>Mimosa pudica</i>	Mimosaceae	Touch- me -not	Hlo nuar	Shrub
46.	<i>Mucuna bracteata</i>	Fabaceae	Elephant cowitch	Hruidak	Climber
47.	<i>Musa acuminata</i>	Musaceae	Cavendish	Balhla	Herb

			Banana		
48.	<i>Mussaendra glabra</i>	Rubiaceae	Tropical Dogwood	Vakep	Shrub
49.	<i>Ocimum americanum</i>	Lamiaceae	Wild Basil	Runhmui	Herb
50.	<i>Paederia foetida</i>	Rubiaceae	Skunk Vine	Vawihuih hru	Climber
51.	<i>Piper betel</i>	Piperaceae	Betel Vine	Panhnah	Climber
52.	<i>Plantago major</i>	Plantaginaceae	Broad Leaf Plantain	Kelbe an	Herb
53.	<i>Renanthera imschootiana</i>	Orchidaceae	Red Vanda	Senhripar	Herb
54.	<i>Rubus birmanicus</i>	Rosaceae		Sialinuchhu	Shrub
55.	<i>Saccharum longisetosum</i>	Poaceae		Luang	Herb
56.	<i>Schefflera venulosa</i>	Araliaceae	Dwarf Umbrella Plant		Shrub
57.	<i>Senna alata</i>	Caesalpiniaceae	Ringworm Shrub	Tuihlo	Shrub
58.	<i>Solanum anguivi</i>	Solanaceae	Indian Night shade	Tawkte	Shrub
59.	<i>Solanum nigrum</i>	Solanaceae	Black Night shade	Anhling	Herb
60.	<i>Solanum rudepannum</i>	Solanaceae	Turkey Berry	Tawkpui	Shrub
61.	<i>Solanum viarum</i>	Solanaceae		Athlo	Under shrub
62.	<i>Spemacoce hispida</i>	Rubiaceae	Shaggy Button weed	Congres hlo	Herb
63.	<i>Stevia rebaudiana</i>	Asteraceae	Candy leaf	Hnahthlum	Herb
64.	<i>Tabernaemontana divaricata</i>	Apocynaceae	Wax Flower	Kelte bengbeh	Shrub
65.	<i>Tagetes erecta</i>	Asteraceae	African Marigold	Derhken	Herb
66.	<i>Tinospora cordifolia</i>	Menispermaceae	Moonseed	Hruivankai	Climber
67.	<i>Thunbergia alata</i>	Acanthaceae	Blue Trumpet Vine	Vako	Climber
68.	<i>Thysanolaena maxima</i>	Poaceae	Broom Grass	Hmunphiah	Grass
69.	<i>Xanthium strumarium</i>	Asteraceae	Common Cocklebur	Chabet	Herb

## CONCLUSION

The study site remains unexplored and species unidentified until the present study. The findings proved the presence of large variability in the floral diversity of the campus ecosystem. These findings suggest that the structure and composition of different forest strata are interconnected [8] and influence each other, with open canopies and diverse upper layers promoting greater diversity in lower layers [9]. The documentation provides valuable insights into the current state of plant diversity, highlighting the significant contribution to the understanding and management of the ecosystem.

In the past, campus development and construction projects have led to widespread tree felling, significantly impacting the floristic composition and resulting in the loss of numerous plant species. However, the institution has taken proactive measures to conserve and enhance the campus flora through collaborative efforts of the Eco Club, NSS Unit, Department of Botany, and Environmental Management Committee. These initiatives include the establishment of protected areas, planting of new species, and minimization of human interference, aiming to restore and enrich the natural floristic diversity. The study's findings emphasized the need to prioritize conservation and establishment of additional protected areas. Furthermore, the Indo-Burma biodiversity hotspot, the mountainous region of Mizoram has numerous unique and diverse flora and fauna, characterized by a rich cultural heritage and a deep connection between the native people and the natural environment [10] which underscores the importance of educating local communities within and adjacent to the institution to minimize stress and interference, thereby ensuring the long-term

preservation of the campus's floristic diversity.

## REFERENCES

- Begon M, Townsend, C. and Harper, J. (2006), Ecology: From Individuals to Ecosystem, Oxford: Blackwell Publishing Ltd.
- Bisby, F.A. (2000), "The Quiet Revolution: Biodiversity Informatics and the Internet", Science, 289. 2309-2312.
- Harper J. L. & Hawksworth, D. L. 1995. Preface, in D. L. Hawksworth eds., Biodiversity Measurement and Estimation. Oxford: Chapman and Hall, 5-12.
- Norse E. A., Rosenbaum K. L., Wilcove, D. S., Wilcox B. A., Romme W. H., Johnston D. W. & Stout M. L. 1986. Conserving Biological Diversity in our National Forests. Washington, D.C.: The Wilderness Society.
- Lovejoy T. E. 1980. Changes in biodiversity, in G. O. Barney eds., The Global 2000 Report to the President. Harmondsworth: Penguin Books. 327-332.
- Norse E. A. & McManus R. E. 1980. Ecology and living resources, biological diversity, environmental quality: The Eleventh Annual Report of the Council on Environmental Quality Washington, D. C.: Council on Environmental Quality. 31-80.
- Environment, Forests & Climate Change Department, Government of Mizoram, Aizawl. (2020). Vulnerability Assessment of Forest and Biodiversity Sector due to Climate Change in Serchhip District, Mizoram. 16 -18

- Zobel R.W., Del Tredichi p. & Torrey J.G. 1976. Method for growing plants aeroponically. *Plant Physiology*. 57. 344-346
- Kharkwal G. 2007. Distribution characteristics of the tree species in Central Himalaya, India. *International Journal of Botany*. 3(2) 226-228
- A.R. Barbhuiyaa\*, U.K. Sahoob and K. Upadhyaya. Plant diversity in the indigenous home gardens in the Eastern Himalayan region of Mizoram, Northeast India. *Concordia University Research Repository*. 8-9