

COUNTING FLORAL DIVERSITY DURING TRANSECT WALK IN KAZIRANGA NATIONAL PARK

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Abstract

The paper is a collection of plant species during transect walk in Kaziranga National Park, Assam. Count station was done at 400 × 5 m each along the transect line (2000 m). The collected specimen divides into tree (more than 6 m); shrubs (less than 6 m) and herbs (not more than 1 m) according to their physiological structure. Out of the 100 floral species identified, 63 were trees, 12 shrubs, 24 herbs and 1 climber. Euphorbiaceae, Poaceae and Verbenaceae were the most dominant families.

Keywords: Kaziranga; Floral diversity; Transect

INTRODUCTION

Kaziranga National park is one of the biodiversity hotspot regions of the world (Mittermeier et al., 2005). It is located in Bokakhat and Kaliabor sub-divisions of Golaghat and Nagaon districts in Assam. Kaziranga National Park covers an area of 430 km² divided into four ranges namely Kaziranga, Eastern, Western and Bura Pahar. The headquarters of the four ranges are Kohora, Agoratoli, Bagori and Ghora-kati. The Kaziranga National Park was declared as Tiger reserve in 2006. Besides, the park is also home to herbivore such as Asiatic Elephant, Asiatic wild Buffalo, Hog Deer and Eastern Swamp Deer.

MATERIALS AND METHODS

The standard method of Jain and Rao (1977) was used for plant collection. Various literatures were referred for identification of collected plant species. The collected herbarium specimens were deposited to the Museum of Aaranyak, Guwahati.

RESULTS AND DISCUSSION

The present study recorded 100 species belonging to 90 genera and 51 families. This includes 63 trees, 24 herbs, 12 shrubs and 1 climber (Table 1-4). The most dominant family was Euphorbiaceae with 10 species, followed by Poaceae (7 species), Verbenaceae (6 species) and Lauraceae (5 species). Bignoniaceae, Mimosaceae and Papilionaceae comprises 4 species each, Asteraceae, Elaeocarpaceae, Lythraceae, Moraceae and Rubiaceae consists 3 species each, and Apocynaceae, Bombacaceae, Boraginaceae, Marantaceae, Myrtaceae and Zingiberaceae consists 2 species each. 31 mono-phyletic families were also recorded. Verbenaceae was found as the most dominant family among shrubs and Poaceae among the herbs. *Mimosa invisa* and *Rosa acicularis* were found growing invasively within the Park area posing a great threat to the native species.

Table 1: Trees of Kaziranga National Park

Sl	Scientific name	Family
1.	<i>Aesculus assamica</i>	Hippocastanaceae
2.	<i>Albizia lebbek</i>	Mimosaceae
3.	<i>Albizia procera</i>	Mimosaceae
4.	<i>Alstonia scholaris</i>	Apocynaceae

5.	<i>Anthocephalus chinensis</i>	Rubiaceae
6.	<i>Aphanamixis polystachya</i>	Meliaceae
7.	<i>Aporosa wallichii</i>	Phyllanthaceae
8.	<i>Artocarpus heterophyllus</i>	Moraceae
9.	<i>Bauhinia variegata</i>	Papilionaceae
10.	<i>Bischofia javanica</i>	Euphorbiaceae
11.	<i>Bombax ceiba</i>	Bombacaceae
12.	<i>Bombax insigne</i>	Bombacaceae
13.	<i>Bridelia retusa</i>	Euphorbiaceae
14.	<i>Bridelia stipularis</i>	Euphorbiaceae
15.	<i>Canarium resiniferum</i>	Burseraceae
16.	<i>Carallia lucida</i>	Rhizophoraceae
17.	<i>Careya arborea</i>	Lecythidaceae
18.	<i>Catunaregam spinosa</i>	Rubiaceae
19.	<i>Cinnamomum bejolghota</i>	Lauraceae
20.	<i>Cordia myxa</i>	Boraginaceae
21.	<i>Crateva unilocularis</i>	Capparaceae
22.	<i>Dalbergia sissoo</i>	Fabaceae
23.	<i>Dillenia indica</i>	Dilleniaceae
24.	<i>Dysoxylum reticulatum</i>	Annonaceae
25.	<i>Echinocarpus sp</i>	Elaeocarpaceae
26.	<i>Elaeocarpus floribundus</i>	Elaeocarpaceae
27.	<i>Elaeocarpus armenica</i>	Elaeocarpaceae
28.	<i>Embllica officinalis</i>	Euphorbiaceae
29.	<i>Erythrina acuminata</i>	Papilionaceae
30.	<i>Erythrina variegata</i>	Papilionaceae
31.	<i>Eugenia sp</i>	Myrtaceae
32.	<i>Ficus sp</i>	Moraceae
33.	<i>Garcinia tinctoria</i>	Clusiaceae
34.	<i>Glochidion ferdinandi</i>	Euphorbiaceae
35.	<i>Glochidium ellipticum</i>	Euphorbiaceae
36.	<i>Gmelina arborea</i>	Verbenaceae

37.	<i>Holigarna longifolia</i>	Anacardaceae
38.	<i>Holorrhena pubescens</i>	Apocynaceae
39.	<i>Lagerstroemia floribunda</i>	Lythraceae
40.	<i>Lagerstroemia parviflora</i>	Lythraceae
41.	<i>Lasia spinosa</i>	Araceae
42.	<i>Litsea monopetala</i>	Lauraceae
43.	<i>Litsea salicifolia</i>	Lauraceae
44.	<i>Macaranga indica</i>	Euphorbiaceae
45.	<i>Mallotus philippinensis</i>	Euphorbiaceae
46.	<i>Oroxylum indicum</i>	Bignoniaceae
47.	<i>Palaquium obovatum</i>	Sapotaceae
48.	<i>Phoebe lanceolata</i>	Lauraceae
49.	<i>Premna bengalensis</i>	Lamiaceae
50.	<i>Pterospermum acerifolium</i>	Malvaceae
51.	<i>Schima wallichii</i>	Theaceae
52.	<i>Sterculia villosa</i>	Sterculiaceae
53.	<i>Stereospermum suaveolens</i>	Bignoniaceae
54.	<i>Stereospermum personatum</i>	Bignoniaceae
55.	<i>Streblus asper</i>	Moraceae
56.	<i>Syzizium formosum</i>	Myrtaceae
57.	<i>Talauma hodgsonii</i>	Magnoliaceae
58.	<i>Tamarindus indica</i>	Caesalpiniaceae
59.	<i>Tamarix dioica</i>	Tamaricaceae
60.	<i>Tetrameles nudiflora</i>	Tetramelaceae
61.	<i>Trewia nudiflora</i>	Euphorbiaceae
62.	<i>Uncaria sinensis</i>	Rubiaceae
63.	<i>Vitex sp</i>	Verbenaceae

Table 2: Shrubs of Kaziranga National Park

Sl	Scientific name	Family
1.	<i>Ardisia sp</i>	Primulaceae
2.	<i>Clerodendrum indicum</i>	Verbenaceae

3.	<i>Chloranthus elatior</i>	Chloranthaceae
4.	<i>Clerodendrum viscosum</i>	Verbenaceae
5.	<i>Eupatorium odoratum</i>	Asteraceae
6.	<i>Glycosmis arborea</i>	Rutaceae
7.	<i>Lagerstroemia reginae</i>	Lythraceae
8.	<i>Leea indica</i>	Vitaceae
9.	<i>Litsea salicifolia</i>	Lauraceae
10.	<i>Phynium sp</i>	Marantaceae
11.	<i>Sterospermum personatum</i>	Bignoniaceae
12.	<i>Ziziphus mauritiana</i>	Rhamnaceae

Table 3: Herbs of Kaziranga National Park

Sl	Scientific name	Family
1.	<i>Alpinia allughas</i>	Zingiberaceae
2.	<i>Ageratum conyzoides</i>	Asteraceae
3.	<i>Arundo donax</i>	Poaceae
4.	<i>Diplazium esculentum</i>	Athyriaceae
5.	<i>Desmodium concinnum</i>	Papilionaceae
6.	<i>Erianthus revinae</i>	Poaceae
7.	<i>Eulophia species</i>	Orchidaceae
8.	<i>Forrestia hookeri</i>	Commelinaceae
9.	<i>Glochidion ferdinandi</i>	Euphorbiaceae
10.	<i>Heliotropium indicum</i>	Boraginaceae
11.	<i>Imperata cylindrica</i>	Poaceae
12.	<i>Mimosa rubicaulis</i>	Mimosaceae

13.	<i>Mimosa invasa</i>	Mimosaceae
14.	<i>Phragmites karka</i>	Poaceae
15.	<i>Phrynium pubinerve</i>	Marantaceae
16.	<i>Saccharum munja</i>	Poaceae
17.	<i>Solena heterophylla</i>	Cucurbitaceae
18.	<i>Spilanthes acmella</i>	Asteraceae
19.	<i>Stachytarpheta indica</i>	Verbenaceae
20.	<i>Saccharum narenga</i>	Poaceae
21.	<i>Stenochlaena palustris</i>	Blechnaceae
22.	<i>Vetiverria zizanoides</i>	Poaceae
23.	<i>Vitex negundo</i>	Verbenaceae
24.	<i>Zinziber rubens</i>	Zingiberaceae

Table 4: Climber of Kaziranga National Park

Sl	Scientific name	Family
1	<i>Calamus sp</i>	Cannaceae

ACKNOWLEDGEMENT

Forest staffs of Kaziranga National Park are highly acknowledged.

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