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A RECORD OF THE PLANT WEALTH OF KHYATI INSTITUTE OF SCIENCE, GUJARAT

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Abstract : Plant Biodiversity is important in human life for many reasons. It is also considered by many to have intrinsic value—that is, each species has a value and a right to exist, whether or not it is known to have value to humans. The Plant biodiversity provides Ecological life support, Cultural values, Economic values and scientific values. Local biodiversity and its care is very important in today's era. To care of species and to make them available for next generation it is necessary to list out the data form local surroundings. As urbanization is increasing the green cover is decreasing this is very common problem in world. But if we have information regarding local species of particular areas, we again can use the data to rebuild the artificial ecosystem of that area. Given work was conducted near the Khyati Foundation, shilaj, Ahmedabad. This area is very famous for its Greenery and plantation. The area has rich vegetation involving many different types of tree species. In this study 50 species of trees belonging to different families were found to be present.

IndexTerms - *Tree, species, rare, Khyati foundation, Ahmedabad.*

INTRODUCTION:

Though the flora of Gujarat is now better known through the works of Saxton and Sedgwick (1918), Santapau H (1954, 1955 and 1962), Chavan *et al*. (1961), Shah (1978), Singh and Parabia (2003), etc. There is no authentic record of plants of Khyati Institute of Science in Ahmedabad Shilaj. Shilaj – Palodiya area is very rich in plant resources and also a very important green belt of Ahmedabad Gujarat. So this work was carried out during May 2018 to June 2019 in which the different tree species were recorded. In this paper the data is given which was recorded during the entire work. Main motto behind the study to protect the biodiversity who provides functioning ecosystems that supply oxygen, clean air and water. It is also represents a wealth of systematic ecological data that help us to understand the natural world and its origins. Any loss or deterioration in the condition of biodiversity can compromise all the values of Natural ecosystem, food chain, atmosphere etc. Trees play a very important key role in the environment as they are major contributors of oxygen in the environment as well as absorb harmful gases like carbon dioxide and some of them also absorb carbon monoxide thereby helping to reduce the pollution levels.

MATERIAL AND METHODS:

The campus of Khyati institute of Science being very large area under green zone. Frequent visit were made to every region during May 2018 to June 2019. The identification of plants was done with the help of flora (Cooke, 1968 and Shah, 1978) and plants were recorded. Photographs of some plant species were also taken during the field trips. The plants that were recorded were arranged in a table in accordance with the Bentham and Hooker's classification system.

RESULTS AND DISCUSSION:

A total of 50 Plant species belonging various families were recorded from the campus of the institute. Table-1 shows the number of families, genera and species belonging to dicotyledons and monocotyledons vernacular name (Column-3), family (Column-4). The major families are found to be Leguminosae with 15 tree species followed by Myrtaceae, Bignoniaceae and Urticaceae and Combretaceae species of trees. Out of the given genera *Azadirachta*, *Polyalthia, Mimusops, Cassia, Kigelia,Ailanthus* are dominant. The study revealed the presence of many important and rare trees in the campus. Trees like *Adansonia digitata* L., *Saraca indica* L., *Bombax ceiba* D.C., *Guacum officinalis* L. found to be in rare place in selected area. These trees have great ethnobotanical, environmental and mythological importance also. In spite of this, their numbers are considerably less not only in the Ahmedabad city but also in many parts of the state. However, the college authorities have been successful in preserving these important trees in the campus enriching the vegetation. Most of the trees in the campus are evergreen and play an important role in reducing the carbon dioxide levels, also purifying the air and making the environment more serene. The presence of large number of trees is one reason that the campus provides pollution free atmosphere.

Table-1:

Sr. No	Botanical Name	Local Name	Family
1	*Annona squamosa* L	Sitafal	Annonaceae
2	*Polyalthia longifolia* Benth.& Hook.	Asopalav	Annonaceae
3	*Thespesia populnea* Soland.	Paras piplo	Malvaceae
4	*Bombax ceiba* DC.	Shimlo	Bombacaceae
5	*Murraya koenigii* (L.) Spr.	Curry patta	Rutaceae
6	*Ailanthus excelsa* Desf.	Arduso	Simaroubaceaea
7	*Azadirachta indica*, A. Juss	Neem	Meliaceae
8	*Melia azadirach*, L.	Bakanlimdo	Meliaceae
9	*Zizyphus jujuba*, Lamk. Bor,	Indian plum	Rhamnaceae
10	*Mangifera indica* L.	Mango	Anacardiaceae
11	*Moringa oleifera* Lamk.	Saragvo	Moringaceaea
12	*Butea monosperma* (Lam.) Taub.	Khakhro	Leguminosae S.FPapillionaceae
13	*Dalbergia latefolia* Roxb.	Indian rosewood	Leguminosae S.FPapillionaceae
14	*Delonix regia* (Boj.) Raf.	Gulmohur	Leguminosae S.FCaesalpiniaceae
15	*Cassia fistula* L.	Garmalo	Leguminosae S.FCaesalpiniaceae
16	*Saraca indica* Linn.	Ashok	Leguminosae S.FCaesalpiniaceae
17	*Tamarindus indica* L.	Amli	Leguminosae S.FCaesalpiniaceae
18	*Bauhinia purpurea* L.	Kanchnar	Leguminosae S.FCaesalpiniaceae
19	*Prosopis spicigera* L.	Khijado	Leguminosae S.F- Mimosaceae
20	*Acacia arabica* Willd.	Babool,	Leguminosae
21	*Terminalia catappa* L.	Deshi badam	Combretaceae
22	*Terminalia bellerica* Roxb.	Baheda	Combretaceae
23	*Terminalia arjuna* Wight and Arn.	Arjun sadad	Combretaceae
24	*Syzygium malaccensis* Merrt Perry	Safed jambu	Myrtaceaea
25	*Psidium guajava* L	Jamphal	Myrtaceae
26	*Eucalyptus globules* Labill.	Nilgiri	Myrtaceae
27	*Callistemon lanceolatus* D.C.	Bottlebrush	Myrtaceae
28	*Carica papaya* L.	Papaya	Caricaceae
29	*Manilkara hexandra* Roxb.	Rayan	Sapotaceae
30	*Manilkara zapota* (L.)	Van Royen. Chiku	Sapotaceae
31	*Alstonia scholaris* R.Br.	Saptaparni	Apocynaceae
32	*Plumeria rubra* L.	Champo	Apocynaceae
33	*Cordia rothii* Roem. & Schult.	Nana gunda	Boraginaceae
34	*Heterophragma adenophyllum*	Seem.	Bignoniaceae
35	*Millingtonia hortensis* L. f.	Deshi buch, Indiancork tree	Bignoniaceae
36	*Tectona grandis* L.	Teak	Verbenaceae
37	*Gmelina arborea* Roxb.	Shevan	Verbenaceae
38	*Tectona grandis* L.	Teak	Verbenaceae
39	*Gmelina arborea* Roxb.	Shevan	Verbenaceae
40	*Vitex negundo* L.	Nirgundi	Verbenaceae
41	*Emblica officinalis* Gaertn.	Amla, Indian gooseberry	Euphorbiaceae
42	*Putranjiva roxburghii* Wall.	Putranjiva	Euphorbiaceae
49	*Ficus benghalensis* L.	Vad, Banyan Tree	Urticaceae
44	*Ficus religiosa*, L.	Piplo, Peepal	Urticaceae
45	*Ficua glomerata* Roxb.	Umaro, Cluster fig tree	Urticaceae
46	*Casuarina equisetifolia* L.	Sharu, Whistling Pine	Casuarinaceae
47	*Phoenix dactylifera* Roxb.	Khajur	Arecaceae
48	*Caryota urens* L.	Shivjata	Arecaceae
49	*Livistona rotundifolia* Maertn.	Fan palm	Arecaceae
50	*Prosopis juliflora*	Gando Baval	Fabaceae

Conclusions:

Nowadays, this type of diversity is very difficult to find gardens or in college campuses. So, it is very essential to take substantial measures to retain this diversity in this manner itself. Also, the rare trees that are present in nearby surroundings should be planted in more numbers and research should be done to find out the ways of increasing their numbers. The Khyati foundation area converting in urbanization and it is need of time to conserve the area in its biological form. Awareness among the common people is needed to preserve the biodiversity. It should be the moral responsibility for community to protect this existing diversity.

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