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Biodiversity of Cultivated Plants in Khandwa Girls College Campus

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Abstract

Our country is uniqe because of great diversity of its natural ecosystems with a great wealth of biological diversity .Biodiversity is an essential component of nature. Biodiversity in flora of any place is important component of system as it ensures the survival of human spesies by providing food, fuel, shelter and medicines. For conservation of biodiversity it is essential to plant, to protect and to maintain the growth of plants. In the study the diversity of cultivated plants in the college campus indicates richness of floral biodiversity. Efforts are made to grow the rare plants of the area.

The variety and variability among living organisms and ecological complexes in which they occur is known as biodiversity .India possess a distinct identity, not only because of its geography, history and culture but also because of great diversity of natural ecosystems. The large biodiversity is distributed all over the country in the form of forests, in wetlands, in hilly areas and in marine areas. The surveyed institution is honoured to be named after the renowned poet and freedom fighter Padamshri Dada Makhanlal Chaturvedi. It was established in 1963. The college has its own beautiful stone masonary building with a large land area.

In natural conditions the climate of area is whole dry and the soil is mainly black cotton soil with rocky surface on many places.

The present study is made to analyze phytodiversity of college campus, specially of cultivated plants . It includes important ornamental , medicinal and aquatic plants .This study will be helpful to students and also to society to develop awareness for conservation of flora which is an essential need for a better, balanced and safe environment.

Cultivated plants of the college campus were analysed, which consists of trees, shrubs, herbs, climbers and aquatic plants. Observations were made in different seasons. Phenology of plants were studied and then plants were identified with the help of relevant literature[1-3].

The diversity of the organisms is influenced by the climatic conditions of the area. Soil texture, precipitation and temperature are the main factors which determine the vegetation of the area. Annual variations in these factors influence phenology of the plants. The campus is dominated by *Azadirachata indica* and *Pongamia pinnata* trees. Various varieties of *Hibiscus rosa sinensis* is also

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Table-1. Cultivated Plants of College Campus

S.No.	Botanical Name	Common Name	Family
1	*Aloe vera* L.	Ganwar patha	Asphodelaceae
2	*Allamanda blanchetii* A.Dc	Brazilianred wine	Apocynaceae
3	*Alstonia scholaris* L.	Saptaparni	Apocynaceae
4	*Annona squamosa* L.	Sitaphal	Annonaceae
5	*Anthocephalus cadamba* Miq.	Kadam	Rubiaceae
6	*Antigonan leptopus* HK and Arn	Coral wine	Polygonaceae
7	*Asparagus racemosus* Willd	Satawar	Liliaceae
8	*Azadirachta indica* A Juss	Neem	Meliaceae
9	*Barleria prionitis* L.	Katasala	Acanthaceae
10	*Bougainvillia* sp.	Paper flower, Boogabel	Nyctaginaceae
11	*Bryophyllum calycinum* Salib	Patharchatta	Crassulaceae
12	*Callistemon lanceolatus* R Br	Bottle brush	Myrtaceae
13	*Canna indica* L. sp. pl	Keli or kadali	Cannaceae
14	*Casuarina equisetifolia* L.	Beefwoodtree, she-oak	Casurinaceae
15	*Cassia fistula* L.	Amaltas	Caesalpiniaceae
16	*Catharanthus roseus* L.	Sadabahar	Apocynaceae
17	*Citrus aurantifolia* Swingle	Nibu	Rutaceae
18	*Cissus quadrangularis* L.	Harjor	Vitaceae
19	*Chamaecrops humilis* L.		Aredacaceae
20	*Chlorophytum comosum* Thurb		Asparagaceae
21	*Chrysanthemum indicum* L.	Guldaudi	Astraceae
22	*Clitoria ternatea* L.	Gaukarna Aparajita	Leguminosae
23	*Codiaeum variegatum* L.	Garden croton	Euphorbiaceae
24	*Coleus (Plelectranthus)*sps.	Coleus	Lamiaceae
25	*Colocasia esculenta* L.		Araceae
26	*Crinum asiaticum* L.	Sudarshan	Amyryllidaceae
27	*Dalbergia sissoo* Roxb.	Sheesham	Leguminosae
28	*Delonix regia* Raf.	Gulmohar	Leguminosae
29	*Dendrocalamus strictus* (Roxb) Nees	Bans	Poaceae
30	*Dieffenbachia* Schott.		Araceae
31	*Dracena* sp. L.		Liliaceae
32	*Duranta plumier* Jaeq.	Hedge plant	Verbenaceae
33	*Emblica officinalis* Geartn.	Aamla	Euphorbiaceae
34	*Euphorbia milii* Des Moul		Euphorbiaceae
35	*Eucalyptus lanceolatus* L.	Nilgiri	Myrtaceae
36	*Ficus bengalensis* L.	Bad	Moraceae

37	*Ficus benjamina* L.	Benjamin	Moraceae
38	*Ficus racemosa* L.	Gular	Moraceae
39	*Ficus religiosa* L.	Peepal	Moraceae
40	*Furcraea foetida* L.		Agavaceae
41	*Haemanthus multiflorus* L.	Football lily	Amyrallidaceae
42	*Hamelia patens* L.		Rubiaceae
43	*Heliconia rostrata* L.		Heliconiaceae
44	*Hibiscus rosa sinensis* L.	Gudhal	Malvaceae
45	*Hydrilla verticillata* (Lf)Royle		Hydrocharitaceae
46	*Impatiens balsamina* L.	Balsam plant	Balsaminaceae
47	*Ipomea palmata* L.	Railway creeper	Convolvulaceae
48	*Ipomea quamoclit* (Quamoclit pennata)L.	Ganesh bel	Convolvulaceae
49	*Ixora coccinia* L.		Rubiaceae
50	*Jasminum sambac* Ait.	Mogra	Oleaceae
51	*Lawsonia inermis* L.	Mehandi	Lathyraceae
52	*Lilium bulbiferum*	Lily	Liliaceae
53	*Mangifera indica* L.	Aam	Anacardiaceae
54	*Melia azedarach* L.	Bakam	Meliaceae
55	*Mentha spicata* L.	Pudina	Lamiaceae
56	*Michelia champaca* L.	Sonchampa	Magnoliaceae
57	*Millingtonia hortensis* L.		Bignoniaceae
58	*Mirabilis jalpa* L.	Gulabas	Nyctanginaceae
59	*Murraya koiengii* L.	Meetha neem	Rutaceae
60	*Murraya paniculata* L.	Madhukamini	Rutaceae
61	*Nyctanthes arbortristis* L.	Harsingar	Oleaceae
62	*Nerium odorum* Sonnad	Kaner	Apocynaceae
63	*Nelumbo nucifera* Gaertn	Kumudani	Nelumbonaceae
64	*Ocimum basilicum* L.	Marua	Lamiaceae
65	*Ocimum sanctum* L.	Tulsi	Lamiaceae
66	*Opuntia dillenii* Ker Gawl	Cactus	Cactaceae
67	*Pandanus odoratissimus* Roxb.	Kevda	Pandanaceae
68	*Parkinsonia aculeata* L.		Leguminosae
69	*Passiflora incarnata* L.		Passifloraceae
70	*Pistia stratiotes* L.		Araceae
71	*Plumeria alba* L.	Champa	Apocynaceae
72	*Polyalthia logifolia* Sann.	Ashok	Annonaceae
73	*Pongamia pinnata* L.	Karanj	Leguminosae
74	*Psidium guajava* L.	Jaam	Myrtaceae
75	*Punica granatum* L.	Anar	Punicaceae
76	*Quisqualis indica* L.	Madhumalti	Combretaceae

77	*Rhoeo discolour* Hance	Rhoeo	Commelinaceae
78	*Rosa indica* L.	Gulab	Rosaceae
79	*Ricinus communis* L.	Arandi	Euphorbiaceae
80	*Russelia equisetiformis* Schult		Plantaginaceae
81	*Sansevieria cylindrica* Bojer		Haemodoraceae
82	*Sansevieria roxburghiana* Schult	Nagdamani	Haemodoraceae
83	*Syzygium jambolana* L.	Jamun	Myrtaceae
84	*Tabernaemontana altenifolia* Roxb.	Chandni	Apocynaceae
85	*Tagetes erecta* L.	Genda	Astreraceae
86	*Tecoma capensis* L.		Bignoniaceae
87	*Tecoma stans* L.		Bignoniaceae
88	*Thevetia neriifolia* Juss	Peeli kaner	Apocynaceae
89	*Tradescantia zebrina* Bosse		Commelinaceae

noted. *Pistia* and *Nelumbo* are noted as aquatic cultivated plants. Many wild seasonal and perennial plants also developed in this environment. Plants belonging to about 50 families show great variety of flora. Gymnospermic plants as *Cycas* sp., *Thuja occidentalis* and *Araucaria columnaris* are present in the garden . With macrophytes, other lower plants as Riccia rosettes, moss funeria, and mushrooms are also noted. Some specific flies, other insects, mollusks and birds are recorded in this habitat. The flora is important ecologically as well as economically. Many plants are unique as they have their medicinal values.

The plants and the communities serve as a measure of the environment. The phytodiversity of any place plays a crucial role in human lives as it is responsible for sustainable development of all crops, livestocks, soil productivity, micro flora and all other species. Study of biodiversity may become helpful to students to understand management of environment and conservation of nature. Efforts are continuously made to grow rare and unique plants of the area in the campus.

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