

# Plant Diversity at Katyayani Temple Area, Kolhapur

P. A. Sonar<sup>1</sup>, V. B. Nalawade<sup>2</sup>, M. N. Desai<sup>3</sup>

Assistant Professor, Department of Botany, Dr. T. C. College, Nandwal<sup>1</sup>

Assistant Professor, Department of Zoology, Dr. T. C. College, Nandwal<sup>2</sup>

Principal, Dr. T. C. College, Kolhapur<sup>3</sup>

**Abstract:** Plant diversity has an important role in maintaining the ecological balance and they are the indicator of health of the ecosystem. Plant diversity refers to the variety and variability of plants in a given region. Plant diversity provides a space to birds for nesting, feeding and breeding. The present study was taken plant diversity carried out in the selected area of Katyayani Temple, Kolhapur district. Most of the species belongs to family Fabaceae at this region. Katyayani Temple is located at Kolhapur district (16° 37'9.2208 and 74°12'0952."'). During survey Identified 50 plants belonging to 27 families. Each plant is studies with respect to its botanical name, Common name and Family name.

**Keywords:** Plants Diversity, Katyayani Temple, Kolhapur, Fabaceae, etc.

## I. INTRODUCTION

The natural environment i.e., the surrounding where we all interact, the plants in their natural habitat is one of the most interesting things that is needed to be studied. Plants as one of the land resources of the ecosystem have an importance role on the living of creatures, nature, preservation and ecosystem balance. Diversity is regarded as the result of species interaction or community adaptation to its environment over its evolutionary time (Whittaker, 1972; Rice and Westboy, 1982).

Developing technology and industry and population increase and some other factors have pressed the natural resources (Heydari and Mahdavi 2009). The results of these changes cause a big problem to be existed for natural resources. Some species are subjected to extinction in the world through different grades. In recent several years, in the environmental assemblies of the universe, two subjects of biological variety and climate changes have been expressed as the main problems of the human being's specifications of living communities.

Katyayani Devi Temple is located in Kolhapur. Katyayani Temple is 10 Kilometers away from famous Mahalaxmi temple of Kolhapur and it is also 10 km away from the famous spot of Kolhapur Rankala Lake. The main centre of attraction of this temple is the idol of Devi Maa Katyayani. Plant diversity survey was done by many researchers but plant diversity of Katyayani temple area is still neglected by many sciences and technology college and universities. Hence in the present study was aimed for identification of different trees in Katyayni Temple area, Kolhapur.

## II. MATERIALS AND METHODS

### Description of Study Area:

Katyayani Temple is located at Kolhapur district (16° 37'9.2208 and 74°12'0952."') of Maharashtra state. Katyayani Temple is 10 Kilometers away from famous Mahalaxmi temple of Kolhapur. The average amount of annual precipitation is 29000mm.on average July is the wittiest with 900 mm of precipitation and on average January is the driest month with 0.0mm precipitation. The temperature in this area as an average 24.9° C.

### Survey Method:

Collected plants specimens were identified by using pertinent taxonomic literature such as Flora of Maharashtra (Singh and Karthikeyan 2000) and Flora of Kolhapur district (Yadav and Sardesai, 2002).



Verbascum maxicana



Aemone maxicana



Cordia dichotoma



Cosmos sulphureus



Flemingia



Incensae tribale



Crotalaria rectusa



Ficus Racemosa

### III. RESULT AND DISCUSSION

The geography of the Katyayani region is very unique and diverse system that is high and rich source of plant diversity. In the present study a total of 50 plant species with 10 general of family fabaceae (legumes) from Katyayni Temple. Diversity of herbaceous flora (10 species). dominants area followed by shrubs (13 species), tree (22 species) and climbers (3 species).

In the present investigation we are concluded that, maximum plant diversity is found in family fabacea because of the commonly grows in rainy and dry season. Asterceae and Moraceae family grown temperate and sub-tropical climate and in convolvulaceae family dry Mediterranean area. Overall climatic condition is present in Katyayani Temple area.

Sr.No.	Botanical Name	Common Name	Family
1	<i>Aerides maculosa</i>	Fox brush orchid	Orchidaceae
2	<i>Albizia saman</i>	Rain Tree	Fabaceae
3	<i>Tamarindus indica</i>	Tamarind	Fabaceae
4	<i>Dalbergia sisso</i>	Shisham	Fabaceae
5	<i>Bauhinia variegata</i>	Orchid tree	Fabaceae
6	<i>Pithecellobium dulce</i>	Manila Tamarind	Fabaceae
7	<i>Flemingia</i>		Fabaceae

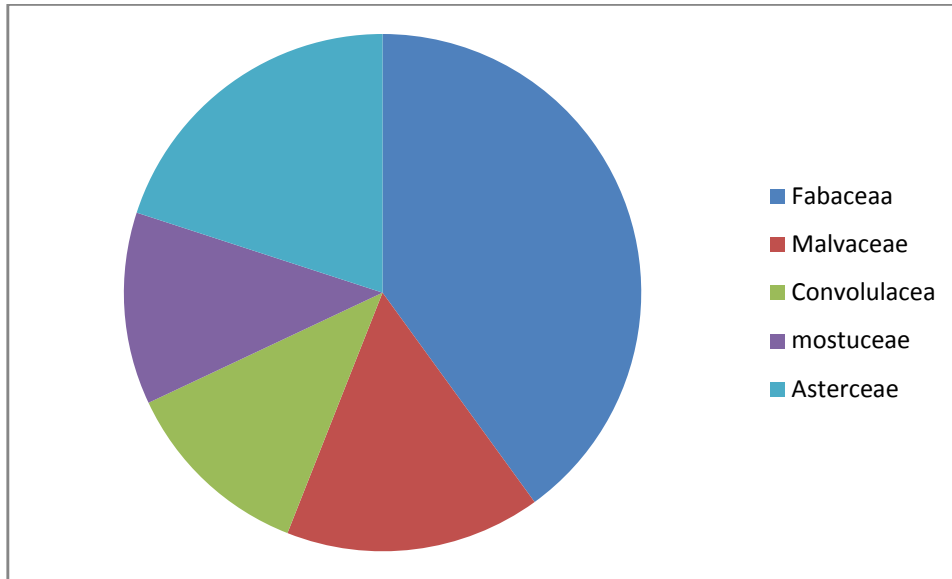


8	<i>Crotalaria retusa</i>	Rattleweed	Fabaceae
9	<i>Pongamia Pinnata</i>	Karanja	Fabaceae
10	<i>Acacia nilotica</i>	Babul	Fabaceae
11	<i>Mucuna pruriens</i>	Velvet bean	Fabaceae
12	<i>Abelmoschus esculentus</i>	Lady's finger	Malvaceae
13	<i>Urena lobata</i>	Caesarweed	Malvaceae
14	<i>Grewia asiatica</i>	Falsa	Malvaceae
15	<i>Triumfetta rhomboidea</i>	Diamond burbark	Malvaceae
16	<i>Ipomoea hederifolia</i>	Scarlet creeper	Convolvulaceae
17	<i>Ipomoea triloba</i>	Little bell	Convolvulaceae
18	<i>Ipomoea nil</i>	Morning glory	Convolvulaceae
19	<i>Ficus racemosa</i>	Cluster fig	Moraceae
20	<i>Ficus relegiosa</i>	Peepal tree	Moraceae
21	<i>Ficus benghalensis</i>	Banyan	Moraceae
22	<i>Eupatorium quadratum</i>		Asteraceae
23	<i>Tithonia rotundifolia</i>	Red sunflower	Asteraceae
24	<i>Tridax procumbens</i>	Coatbultons	Asteraceae
25	<i>Barleria prionitis</i>	Yellow Hedge Baerleria	Acanthaceae
26	<i>Hygrophila schulli</i>	Gokulakanta	Acanthaceae
27	<i>Terminalia arjuna</i>	Arjun tree	Combentaceae
28	<i>Cordia dichotoma</i>	Indian cherry	Boraginaceae
29	<i>Sorghum controversum</i>	Indian millet	Poaceae
30	<i>Dendrocalamus strictus</i>	Bamboo	Poaceae
31	<i>Eucalyptus globulus</i>	Forest red gum	Myrtaceae
32	<i>Syzigium cumini</i>	Blackberry	Myrtaceae
33	<i>Lantana camara</i>	Ghaneri	Verbenaceae
34	<i>Mallotus philippensis</i>	Kumkum tree	Euphorbiaceae
35	<i>Ixora brachiata</i>	Kurati	Rubiaceae
36	<i>Terminalia elliptica</i>	Indian laurel	Combentaceae
37	<i>Cocculus hirsutus</i>	Vasan vel	Menispermaceae
38	<i>Phyllanthus emblica</i>	Amla	Phyllanthaceae
39	<i>Hyptis suaveolens</i>	Pingut	Lamiaceae
40	<i>Ziziphus rugosa</i>	Toran	Rhamnaceae
41	<i>Leucas lanata</i>	Woolly leucas	Lamiaceae
42	<i>Argemone Mexicana</i>	Maxican poppy	Papaveraceae
43	<i>Phoenix sylvestris</i>	Silver date palm	Arecaceae
44	<i>Bougainvillea glabra</i>	Paper flower	Nyctaginaceae
45	<i>Crassocephalum crepidioides</i>	Fireweed	Asteraceae
46	<i>Tecoma stans</i>	Yellow bell	Bignoniaceae
47	<i>Cocos nucifera</i>	Coconut	Asteraceae
48	<i>Duranta erecta</i>	Sky flower	Verbenaceae
49	<i>Piper betle</i>	Betel vine	Piperaceae
50	<i>Mangifera indica</i>	Mango	Anacardiaceae



**Table1:** Dominant Family Species

Sr.No.	Name of Family	No
1	Faabaceae	10
2	Malvaceae	4
3	Convolucaeae	3
4	Moraceae	3
5	Asterceae	5



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**REFERENCES**

- [1] M.Heyaadi and Ali Mahadavi (2009): - The survey of plant Species Diversity and Richness between Ecological species Groups (Zagros Ecosystem,Ilam).Journal of Applied Sciences 9(4):745-751.
- [2] Rice B, Westoby M (1982): Plant species richness at the 0.1-hectare scale in Australian vegetation compared to other continents. Vegetation 52:129-140.
- [3] Whittaker RH (1975): Communities and Ecosystems. MacMillan Publishers, New York.
- [4] Yadav S and Serdesai S.S (2002): Flora of Kolhapur District. Book.
- [5] Singh, N. P. and S. Flora of Maharashtra State: Dicotyledones. Vol. I. Botanical Survey of IndiaKarthikeyan(Ed.). 2000.