



## Floristic diversity study of Bayad Taluka, district Aravalli, Gujarat, India

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### Abstract

During research work, total 586 plant species were recorded in Bayad taluka. Belonging to 105 families, of which 84 families are of dicots and 21 families are monocots. I have reported 389 genera of which 313 genera of dicots and 76 genera are monocots. Total 586 species of which 307 species of herbs, 90 species shrubs, 111 species trees, 72 species of climber and 06 species of parasites. 474 species belong to dicots and 111 species to monocots.

**Keywords:** floristic study, Bayad Taluka, Aravalli

### Introduction

Floristic studies help us to assess the plant wealth and its capability of any given area. Floristic studies also help us to find out the basic aspects of biology such as speciation, isolation, endemism and evolution. In present time flowering plants are the most powerful and dominant plants in the world. Floristic study documents of all the plant species found within a specific geographical area. Some enthusiastic and large-scale floristic projects involve development of keys, descriptions, and interpretation of the plants, although some may produce a simple list of the species. Flora of any area is not fixed up. It is change from time to time. The total number of species may be changed; dominant species may be replaced with other species; the floristic composition like family, genus, species ratio may be changed.

Bayad taluka is between 23° 22'00" North latitude and 73°24'00" East longitude of North Gujarat. Bayad taluka is situated in Aravalli district of northern part of Gujarat state, India. A quality and notable work done by some authors on the floristic diversity in the different regions like Bentham and Hooker (1862-1883) [2], Hooker (1872-1897) [6], Cooke (1901-03) [4], Cooke (1908) [5], Thakar (1910) [28], Saxton and Sedgwick (1918) [19], Saxton (1922) [18], Thakar (1926) [27], Sutaria (1941) [26], Santapau (1954,62) [16, 17], Shah (1969) [22], Yogi (1970) [32], Patel (1971) [13], Thaker (1974) [30], Shah (1978) [20], G.V (1981), Gopal (1983), Jain (1987) [8], Bole (1988), Reddy (1989), Shastri (1996), Jain (1996), Punjani (1997), Singh (2000) [25], Ant (2001), Patel (2002), Singh (2002) [24], Jangid (2003), Jangid (2005) [9], Desai (2007), Tyagi & Khan (2008) [31], Parmar (2012) [10], Bendre and Kumar (2014) [1], Parmar (2015) [11], Patel (2016) [12], Ruchi (2016), Shah (2017) [21], Bhagat and Jangid (2019) and Bhagat(2022).

In future, the result of the present work will be published in the Gujarati language, which will be a good service of our society

### Materials and Methods

The plants were collected from the different villages and forest area of the Bayad taluka. The collected plants were

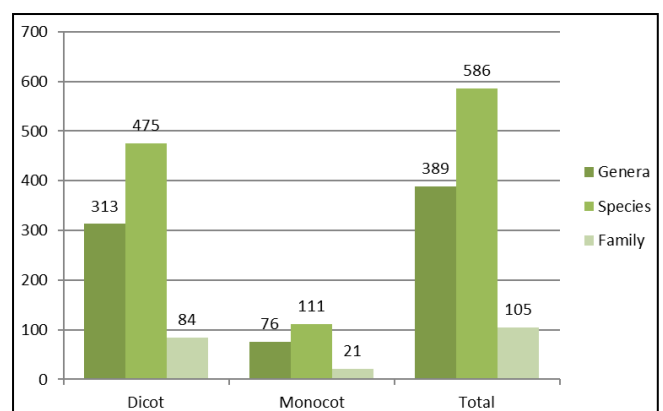
brought to the laboratory, identified by Gujarat flora (Shah,1978) [20] and classified to species level. The details of plants have been collected by dialogues and discussion with rural, tribal and knowledgeable people from different villages of Bayad taluka.

### Results and Discussion

Total 586 angiosperm plants were recorded in Bayad taluka. Belonging to 105 families, of which 84 families are of dicots and 21 families are monocots. I have reported 389 genera of which 313 genera of dicots and 76 genera are monocots. Total reported 586 species of which 307 species of herbs, 90 species shrubs, 111 species trees, 72 species of climber and 06 species of parasites. 474 species belong to dicots and 111 species to monocots.

**Table 1:** comparison to the dicot and monocot genus, species and families

	Genus	Species	Families
Dicot	313	475	84
Monocot	76	111	21
Total	389	586	105

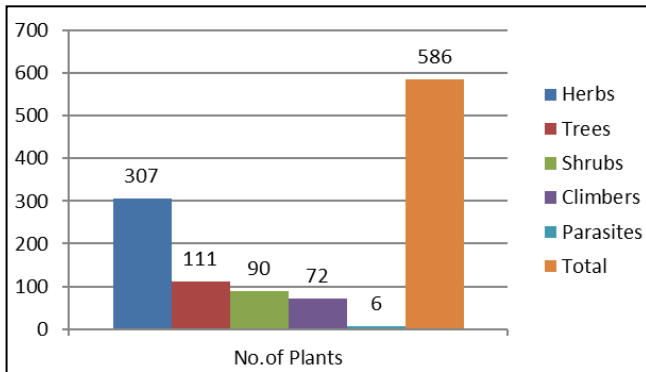


**Fig 1**

Total 389 genus, out of them 313 are dicots and 76 are monocots. Total 586 species, out of them 475 are dicots and 111 are monocots and 105 families, of which 84 families are of dicots and 21 families are monocots.

**Table 2:** The comparism of the habitat types

Sr.no	Habitat	Number of plants	Total%
1	Herbs	307	52.39%
2	Trees	111	18.94%
3	Shrubs	90	15.36%
4	Climbers	72	12.29%
5	Parasites	06	1.02%
	TOTAL	586	100%

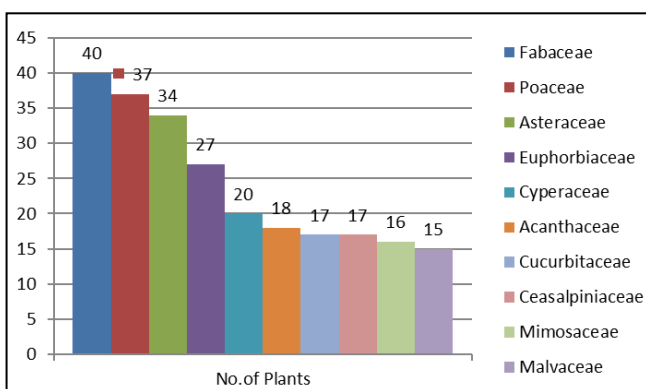


**Fig 2**

- Above table 2 it can be concluded that herbs (307) are the highest in number as compare to the other habitats in Bayad taluka.

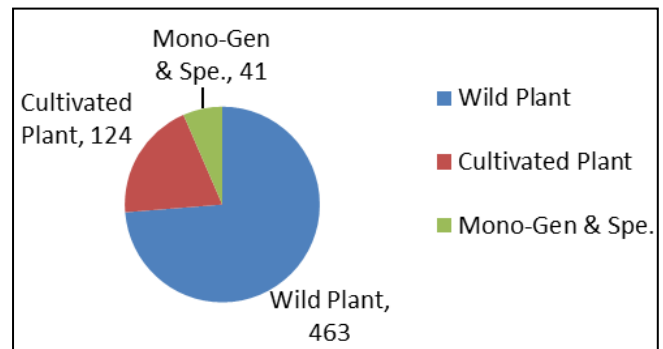
**Table 3:** list of dominant families

Sr. No.	Families	No. of Plant Species
001	Fabaceae	40
002	Poaceae	37
003	Asteraceae	34
004	Euphorbiaceae	27
005	Cyperaceae	20
006	Acanthaceae	18
007	Cucurbitaceae	17
008	Ceasalpiniaceae	17
009	Mimosaceae	16
010	Malvaceae	15



**Fig 3**

- Above table 3 it can be concluded that Fabaceae (40) family is the dominant as compare to the other families in the Bayad taluka.
- Out of 586 plants, 41 plant species are mono-generic and mono-specific, 463 are wild and 124 are cultivated plants in the Bayad taluka.



**Fig 4**

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