

## Aquatic, semi-aquatic and marshland plants of Porbandar district, Gujarat

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### SUMMARY

A total account of 75 species of aquatic, semi-aquatic and marshland plants belonging to 61 genera under 37 families occurring in the erstwhile Porbandar district of Gujarat is presented in this paper. The families of angiosperms are arranged according to the modified Bentham & Hooker's system of classification. The genera under a family and species under a genus are arranged alphabetically, the families Cyperaceae, Poaceae with 10 and 6, species respectively dominate the aquatic vegetation of the district.

Key words : Aquatic plant, Semi-aquatic plant and Marshland plants.

Porbandar district occupies the western part of Gujarat lies between 21° 15' and 21° 50' North latitude and 69° 55' and 70° 25' East longitudes. It is bound in the north and north-east by the Barda hills and Junagadh district on the west and southwest by Arabian Sea and the south and southeast by the district of Rajkot. The district extends over an area of 2272. km<sup>2</sup>, and has a total population of 5,94,472 souls. Extensive tree-clad hill ranges, fine forest cover, excellent riverine system, long stretch of seashore.

The whole of the district may be divided into 3 dissimilar natural divisions; the littoral tract, a level alluvial tract and the hilly tract. Of these last two are quite conspicuous Barda hill subdivision marks the transition from the mountain passes. The country along the Bhadar river is flat and alluvial, these are long ranges of rugged hills. The country to its north and northeast is studded with hills, while to the south and west, it is plain and fertile.

The length of the seacoast in Porbandar district is nearly 106km. Sandy ridges are found along the seacoast which stretch into Koyala hill and Madhavpur.

The principal rivers in the district are Bhadar, Ojat, Vartu, Sorthi Minsar, Kalindri. Besides, there are number of small rivers, rivulets and large hill streams throughout the area.

Floristic work of this region is known through Hooker (1883), Thaker (1910), Thaker (1926), Cook (1967), Patel (1971), Malhotra & Wedhwa (1973), Shah (1978), Rao (1981), Anuradha Babu *et al* (1989). Umadevi *et al* (1989).

There had been no systematic attempt to survey and study the hydrophytes and wetland plants of Porbandar district particular.

### SOIL

Soils in Barda Hills of district on hill tops and slopes are comparatively poor and unproductive because of the large percentage of sand. The soils in the hills and the valleys are better of in humus and more water holding capacity, further, the soil is either neutral or slightly acidic and support better vegetation consisting of tree and

shrubs. The soils of plains are again sandy with low percentage of humus. It is generally structure less and coarse in texture, dark yellowish brown in colour, with pH ranging from 6.8 to 8.30 the total soluble salts and organic matter is very low.

### CLIMATE

The atmosphere of this district is temperate and humid atmosphere in seashore area. In summer, inside the district which is far away from seashore area the atmosphere is hot and dry and winter the atmosphere is cool and dry. Rain is irregular in monsoon. It experiences extremes of weather conditions.

The average annual rainfall in the district is approximately 675 mm. the monsoon arrives over the district by about the second week of June and with draws early in October About 3/4<sup>th</sup> of the annual rainfall is received during the monsoon season from June to September, July being the rainiest month. The period from March to May is one of the continuous increases of temperature and May is the hottest month. In the interior of the district both day and night temperature being to decrease gradually till. December, which is the coldest month.

### Classification of Hydrophytes of the district:

In Porbandar district, there are a wide variety of aquatic habitats for luxuriant growth of a diversified hydrophytic and wetland vegetation. Fodara dam, Khambhala dam, Amipur dam, innumerable tanks, ponds, swamps, rivers, cannals, water reservoirs are ideal habitats for many aquatic, semi-aquatic and marsh plants. The reservoirs of Bardasagar dam and its reverse canals are rich in water plants, seasonal puddles and ditches are scattered throughout the district, more commonly along the roads. They get filled up with water during the monsoon season; some dry in a short period, while in others, water may persist for a considerably long time. In the forests, the hill swamps and streams support a different type of aquatic vegetation.

The hydrophytes of the district can be classified in to the following categories talking into consideration their

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