



A review on plant diversity in Mehsana, Gujarat

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Abstract

Mehsana district comprises ten talukas: Mehsana, Kadi, Visnagar, Vijapur, Vadnagar, Kheralu, Becharaji, Satlasana, Jotana and Unjha. The area of Mehsana District is 5600 sq. k.m. Meshana, Gujarat, like many regions in India, has a diverse range of plant species. However, without specific data or research on the flora of Meshana, it's challenging to provide detailed information. (2018) Generally, Gujarat's vegetation includes various types of trees, shrubs, grasses, and flowering plants adapted to its diverse ecosystems, including dry deciduous forests, thorn forests, grasslands, and coastal habitats (2020). To obtain more detailed information about plant diversity in Meshana, you may need to consult local botanical surveys or research papers specific to the area. The results reveal a rich and diverse flora in Kheralu and Satlasana Taluka consisting 239 plant species belonging to 195 genera and 68 angiosperm families. Visnagar. Study result containing total 320 species belonging from the 72 family there are various types of plant herb, shrub, tree, climber, and lineae are included plant diversity. the outcome of study can be used constructively in planing sustainability of environment. in present review a detailed background of the plant diversity of Meshana district of Gujarat is given.

Keywords: Plant diversity, meshana, Gujarat

Introduction

Lack nature habitat and spices extinctions around the world have served to focus extreme global attention of biodiversity (2023). Gujarat, like many regions in India, has a diverse range of plant species. However, without specific data or research on the flora of Meshana, it's challenging to provide detailed information (2020). Generally, Gujarat's vegetation includes various types of trees, shrubs, grasses, and flowering plants adapted to its diverse ecosystems, including dry deciduous forests, thorn forests, grasslands, and coastal habitats. To obtain more detailed information about plant diversity in Meshana, you may need to consult local botanical surveys or research papers specific to the area. (2020) There are more than 400 different species of plants in Gujarat. One of India's greatest dry deciduous forests, comprising teak, *Boswellia serrata*, *Anogeissus latifolia*, *Diospyros*, and other trees, may be found Gujarat (2022) Biodiversity of plants ensures a resource for new food crops and medicines. Plant life balances ecosystems, protects watersheds, mitigates erosion, moderates climate, and provides shelter for many animal species. Threats to plant diversity, however, come from many angles. (2023). Vegetation regions can be divided into five major types: forest, grassland, tundra, desert, and ice sheet. Climate, soil, the ability of soil to hold water, and the slope, or angle, of the land all determine what types of plants will grow in a particular region.

<https://education.nationalgeographic.org/resources/vegetation-region/>

Study area: Mehsana district comprises ten talukas: Mehsana, Kadi, Visnagar, Vijapur, Vadnagar, Kheralu, Becharaji, Satlasana, Jotana and Unjha. The area of Mehsana District is 5600 sq. k.m. The average annual highest temperature in Mehsana is 41.4°C (106.5°F), and the June 4th is the hottest day on average. How cold does it get in Mehsana? The average annual lowest temperature in

Mehsana is 11.8°C (53.2°F), and the January 5th is the coldest day on average. Rainfall: Cumulative: Gujarat: Mahesana: Actual data is updated daily, averaging 7.500 mm from Jun 2018 to 05 Feb 2024, with 2035 observations. The data reached an all-time high of 836.800 mm in 30 Sep 2022 and a record low of 0.000 mm in. North Gujarat Climate of the area is semi-arid with irregular rainfall. It is strongly periodical and seasonal. There are three main seasons: Winter (November- February), Summer (March-June) and Monsoon (July-October). Winter is the period of cold weather. Warm dry weather remains during summer. The hottest month of the year is May. Westerly to south-westerly winds prevail during monsoon. Variable climate has experienced through out the year, which mainly affects on vegetation and arthropod abundance.

Plant diversity in India

India is incredibly rich in plant diversity, boasting over 18,000 species of flowering plants. This diversity is due to India's varied climates, topography, and ecosystems, ranging from tropical rainforests to alpine meadows. (2018) The country is home to numerous endemic species and has a long history of traditional knowledge and use of medicinal plants. Additionally, India is a biodiversity hotspot, meaning it has a high level of species richness and a significant number of species found nowhere else on Earth. (1990)

Plant diversity in Gujarat

Gujarat, located in western India, also showcases impressive plant diversity. Despite being primarily a semi-arid region, Gujarat's diverse geography, including coastal areas, forests, grasslands, and desert regions, supports a wide variety of plant species (2020). Some notable plant species found in Gujarat include mangroves along the coast, thorny bushes and cacti in the desert regions, deciduous and evergreen forests in the eastern parts, and various medicinal

plants used in traditional Ayurvedic medicine. Additionally, Gujarat's rich cultural heritage has contributed to the preservation and propagation of many indigenous plant species through agriculture and horticulture practices (2022) Meshana district, located in Gujarat, likely exhibits a diverse range of plant species typical of the region's semi-arid environment. While specific data on plant diversity in Meshana may not be readily available, it can be assumed to host a mix of flora found in the broader region. This may include species like thorny bushes, grasses, shrubs, and trees adapted to the semi-arid climate. Some common plant species found in similar areas of Gujarat include Acacia, Prosopis, Ziziphus, Salvadora, Capparis, and various grass species. Additionally, local flora might include plants of medicinal and cultural significance to the communities residing in the district. (<https://mahesana.nic.in/>)

Plant diversity in Ecological significance of Meshana, Gujarat

Biodiversity of plants ensures a resource for new food crops and medicines. Plant life balances ecosystems, protects watersheds, mitigates erosion, moderates climate, and provides shelter for many animal species. Threats to plant diversity, however, come from many angles. That means that if one part of a natural environment becomes too dominant, another part will bring balance back to the system. The diversity of plant life exists for many reasons, one being adaptive change Biodiversity of plants ensures a resource for new food crops and medicines. Plant life balances ecosystems, protects watersheds, mitigates erosion, moderates climate, and provides shelter for many animal species. Threats to plant diversity, however, come from many angles. (2023) Explore the ecological significance of within the larger context of biodiversity conservation in Gujarat. Discuss the interplay between flora and fauna and their impact on the ecosystem. Conventional approaches to ecology often lack the necessary integration to make a compelling case for the critical importance of biodiversity to ecosystem functioning and human wellbeing. This linear approach does not prepare one for understanding and applying ecology in the context of the modern world. A different, rather unconventional approach is needed for understanding ecology and environmental biology (Caffarra 2011)

Plant conservation Of Meshana, Gujarat Conservation

Plant diversity conservation refers to the efforts aimed at preserving the variety of plant species, both wild and cultivated, to maintain ecosystems' health and resilience. It involves various strategies such as establishing protected areas, seed banks, botanical gardens, and promoting sustainable land management practices to prevent habitat loss, overexploitation, and extinction of plant species (2013) Forest conservation is the practice of planting and maintaining forested areas for the benefit and sustainability of future generations. The conservation of forest also stands & aims at a quick shift in the composition of trees species and age distribution. (k l Patel 2018). We then critically reflect upon the tensions and opportunities that become apparent through a focus on the role of diverse values of nature for promoting just and sustainable futures. Finally, we explore the implications of the diverse values of nature for the design of transformative pathways for life on earth and for the people (Pawar and Rothkar, 2015;)

Conclusion

Mehsana district comprises ten talukas: Mehsana, Kadi, Visnagar, Vijapur, Vadnagar, Kheralu, Becharaji, Satlasana, Jotana and Unjha. The area of Mehsana District is 5600 sq. k.m. In the north borders there is Banaskantha District and in the west there is the border of Patan district. There are 620 villages in Mahesana district o.n available data and research, the conclusion regarding plant diversity in Gujarat would likely depend on various factors such as the specific region within Gujarat, the types of ecosystems present, and the level of human impact. Summarize the key findings and their implications. Reiterate the importance of Tranga Hills in biodiversity conservation. Increase in wildlife population due to successful conservation and awareness may need more space and suitable habitat for their movement and survival however on the other hand continuous growth of human population and changing land use pattern may alter the wildlife habitat. (2020) Land use change may show significant impact on forests leading to habitat destruction, increased human-wildlife conflicts, and land degradation. These changes are also associated with wildlife losses and blockage of wildlife corridors (Banerjee *et al.*, 2020 and Bennet, 2003). There is a need to formulate the habitat restoration and management plan of this area with the special focus to the important wildlife such as leopard and sloth bear. The area should also be declared as ecological sensitive zone as it is very important wildlife. The activities such as, mining, widening of roads, agricultural expansion and excessive tourism need to be restricted to inhibit the further change in land use pattern. Moreover, long term monitoring of this area with respect to change in climate and human pressure will provide the insight to make future conservation strategies of this small yet important forest patch. p(unit.R2020)

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