



A Study On Xerophytes Plants In Taranagar Area Of Churu District (Rajasthan)

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Abstract- This study was conducted on Xerophytes plants in Taranagar region of Churu district of Rajasthan. The study area is very dry and sandy. The Thar Desert is spread all around here. Extreme cold and extreme heat are the main climatic features here. The researcher has studied the Xerophytes plants in the mentioned study area. For this study author applies various method such as - field study and direct observation method etc. This study provides general information about the xerophytes plants of Taranagar area. The author has reported a total of 25 Xerophytes plants in the study area.

Key words-Xerophytes, plants, thar, desert, Taranagar, Rajasthan.

Introduction- Many biological resources are present in the environment with the various biotic things. Various organisms maintain the beauty of the environment and they included as biotic component of the environment. Trees, plants, and animals form the biotic component of the environment.

Various mammals, reptiles, birds, fishes, insects etc. are found on the earth. For these animals, plants are the producers in the environment that is, the presence of plants on the earth is very useful and important. There are many types of plants found on the earth.

Based on the habitats and need of water, plants are Hydrophytes, Mesophytes Xerophytes etc. Plants with aquatic habitats are known as Hydrophytes and plants with medium habitats are called Mesophytes. Medium water habitats and plants growing in dry environmental conditions are known as Xerophytes.

Xerophytes are very unique creature in the desert conditions. These are adapted to live in hot and dry environmental conditions. Xerophytes usually live in very hot, dry, desert conditions, so they need to have special adaptations to reduce water loss i.e. Xerophytes need to reduce transpiration. Due to the heat of the environment and low water vapor in the air, these plants are at a very high risk of losing water through transpiration.

Xerophytes have developed many adaptations to survive in extreme conditions. Xerophytes have deep roots that can easily reach underground water sources. They have small leaves that reduce water loss through transpiration. They also have spine that also reduce water loss. Special adaptations such as waxy or hairy surface and water storage are also found in xerophytes. These plants also store water in their stems, leaves or roots.

In this research the researcher has studied the current status and diversity of Xerophytes plants found in the study area.

Study area – Rajasthan is a very important state of India in terms of area and vegetation. The Rajasthan situated north western India, which also famous as Land of Kings. The study was done in Taranagar region of Churu district in Rajasthan. This is very dry area. The climate of Taranagar is arid and semi arid. The Thar Desert is spread far and wide in this region.

The cold winds of north western India make this place coldest in winter season (**0°C**). The heat here is also very extreme during summers (**50°C and above**). There are sand dunes in this area, so the land area here is mostly covered with sandy soil. Thus, the study area Taranagar is a desert and arid climate area where both extreme cold and extreme heat conditions occur.

Methodology-

Methods – The study was completed in Taranagar region of Churu district (Rajasthan). The Researcher used various methods for this study. Mainly Field survey method, direct observation method and photography/videography methods were applied for this work.

Materials - During the study sampling bottles, Poly bags, camera, mobile phone, paper, Pen, etc. materials are used by researcher.

Results and Discussion- The study area is mostly desert type area so, many Xerophytes plants are found in the study area. The author has reported a total of 25 Xerophytes plants in the study area in this study. Through this study the author has listed the xerophytes plants of the Taranagar region which are listed in Table -01

Table -01

Xerophytes Plants of Taranagar Region (Churu, Rajasthan)

S.N.	Common Name	Botanical Name	Family
1	Kair	<i>Capparis decidua</i>	Capparaceae
2	Khejri	<i>Prosopis cineraria</i>	Fabaceae
3	Sheesham	<i>Delbergia sissoo</i>	Fabaceae
4	Imli	<i>Tamarandus indica</i>	Fabaceae
5	Siris	<i>Albizia lebbeck</i>	Fabaceae
6	Babul	<i>Acacia nilotica</i>	Fabaceae
7	Sinniya	<i>Cassia augustifolia</i>	Fabaceae
8	Rohida	<i>Tecomella undulata</i>	Bignoniaceae
9	Nagfani	<i>Opuntia ficus- indica</i>	Cactaceae
10	Bargad	<i>Ficus benghalensis</i>	Moraceae
11	Pipal	<i>Ficus religiosa</i>	Moraceae
12	Kaner	<i>Nerium indicum</i>	Apocynaceae
13	Bui	<i>Aerva javanica</i>	Amaranthaceae
14	Ber/Beri	<i>Ziziphus mauritiana</i>	Rhamnaceae
15	Neem	<i>Azadirachta indica</i>	Meliaceae
16	Aak	<i>Calotropus procera</i>	Asclepiadeceae
18	Phog	<i>Colligonum polygonides</i>	Polygonaceae
19	Khimp	<i>Leptadenia pyrotechnica</i>	Apocynaceae
20	Jaal	<i>Salvadora oleoides</i>	Salvadoraceae
21	Pilu	<i>Salvadora persica</i>	Salvadoraceae
22	Gwarpatha /Ghritkumari	<i>Aloe vera</i>	Asphodelaceae
23	Jojoba	<i>Simmondsia</i>	Simmondsiaceae
24	Tulsi	<i>Ocimum</i>	Lamiaceae
25	Gundi	<i>Cordia dichotoma</i>	Boraginaceae

Conclusion- The study was completed in Taranagar region of Churu district (Rajasthan). This study gives us the information about the current status of Xerophytes plants and diversity of Xerophytes plants that present in study area.

Total 25 xerophytes plants reported by the researcher such as- Phog, Aak, Ghritkumari, Babul, Kair, Neem, Pipal, Ber, Khejri, Rohida, Nagfani, Sheesham, etc. Rohida, Neem, Khejri, Sheesham, kair these are very useful and important plants. These Xerophytes are the beauty of this ecosystem. These plants are playing a very important role for the environment. These plants are very useful for the balance of the food chain and desert ecosystem.

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