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Phytogeographical Distribution of *Maytenus emarginata* of Churu District, Rajasthan

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Abstract: ***As we know that the area under district i.e. Churu district belongs to the State of Rajasthan, the State of Rajasthan is located in north-western India.***

1. Introduction

The district of Churu lies in the north-east of Rajasthan State at an altitude of 286.207 metres above the mean sea level. From geographical spread point of view has extension from 27°24' to 29° north latitudes and 73°40' to 75°41' east longitudes. It is bounded by Hanumangarh in north, Bikaner in west, Nagaur in south and Sikar, Jhunjhunu districts and boundaries of Haryana State in the east. It covers six tehsils namely : Taranagar, Rajgarh, Churu, Sardarshahr, Ratangarh and Sujangarh. (Figure1-1)

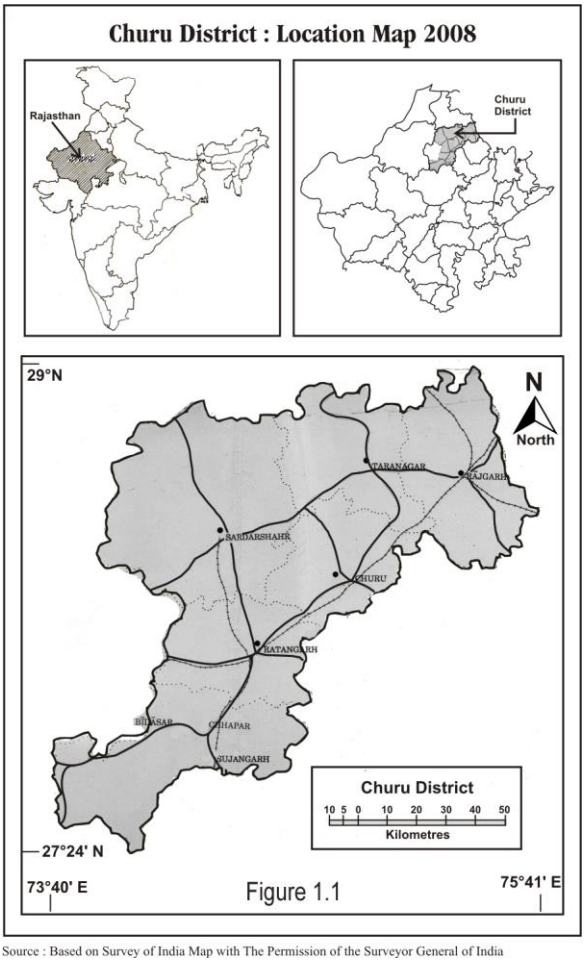


Figure 1.1

Source : Based on Survey of India Map with The Permission of the Surveyor General of India

2. Review Of Literature

The area under research work was studied by following botanists and time to time viz; first of all the Sekhawati region was touched from vegetational study point of view by Mulay and Ratnam (1950), Bikaner and pilani neighbourhood areas by joshi (1956 and 1958), vegetation of chirawa by Nair (1956), again Nair and Joshi for Pilani and neighbourhood areas (1957), vegetation of harsh nath in aravalli's hills was studied by Nair and Nathawat (1957), vegetation of Jhunjhunu, Manderella and neighbourhood by Nair (1961), vegetation of ajit sagar dam by Nair and Kanodia (1959); Nair, Kandodia and Thomas (1961) studied the vegetation of Khetri town and neghbourhood areas and vegetation of Lohargal and it's neighbourhood areas of Sikar district by Nair and Malhotra (1961). After the work of Nair and Malhotra (1961), i.e. four decades ago. the area was again left for any sort of further research work in the field of applied Botany.

A significant, very authentic taxonomic work was contributed in the field of botany by Bhandari with the publcation of a book Flora of the Indian desert (1990). From the field of applied phytogeography point of view. Charan gave a valuable contribution with a publication of a book on Plant Geography (1992). Bhattacharjee (2000) gave a very valuable autheontic contribution through the publication of a book on Handbook of Medicinal Plants in which he presented the medicinal plants of Indian Sub-continental back ground with their coloured photographs also and Sharma (2007) gave a very valuable autheontic contribution through the publication of a book on Medical Plant Geography.

3. Objectives

As the nature of the research work, it becomes the prime most duty of a phytogeographer to trace out to identify the plants and than their geographic interpretation from their origin point of view, their cartographic presentation from spatial distribution point of view and lastly also to prepare their layout planning map for on going plantation programme at least for the applied plant species for the area under study. The study will covers also the change detection aspect in the green coverage of the area under study.

4. Hypothesis

Naturally, the present study will cover the present position of phytogeographic pattern of spatial distribution of applied plant species, so a phytogeographer can propose their allocation of sites of coinciding habitats from their conservation point of view for the welfare of future generation of the area under study.

we can conserve those plant species which have their appled values for the welfare of human beings inhabiting in that particular area or the area under study. for this purpose, a phytogeographer has to give an account of the layout maps of that area under study which covers the allocation of the sites with favourable habitats according the nature of the existing applied plant species for the area under investigation.

5. Methodology

Applied categorization of those listed applied plant spices will be carried out into their main applied categories, viz; plants for fuel purpose, plants for fodder purpose, plant species for medicinal use, plants for edible purpose, and plant species for commercial values.

To illustrate the frequency of distribution of particular plant species the prescribed method of Raunkier's will be exercised to show whether the particular plant species is rare, frequent, common or abundant for the area under investigation. The nature of habitats and the eco-climatic conditions will be dealt as a part and portion of the study to support the phyto-climatic account of the research problem for the area under study.

From phytogeographic study point of view, a cartographic interpretation of the multi-purpose plant species will be dealt at two levels i.e. at macro-level and at microlevel, basically it may be dealt phytogeographic sense.

Phyto-Geography Of Maytenus Emarginata

1. Name of the Specimen :

MAYTENUS EMARGINATA

2. Local Name :

Kankera, Kankeda, Kankedo

3. Botanical Name :

Maytenus emarginata

4. Family :

Celastraceae.

5. Morphology :

The tree belongs to the family - Celastraceac. A small, compact tree of 3 to 5 M. high, young branches are purple (Plate : 1.1).

6. Flowering and Fruiting

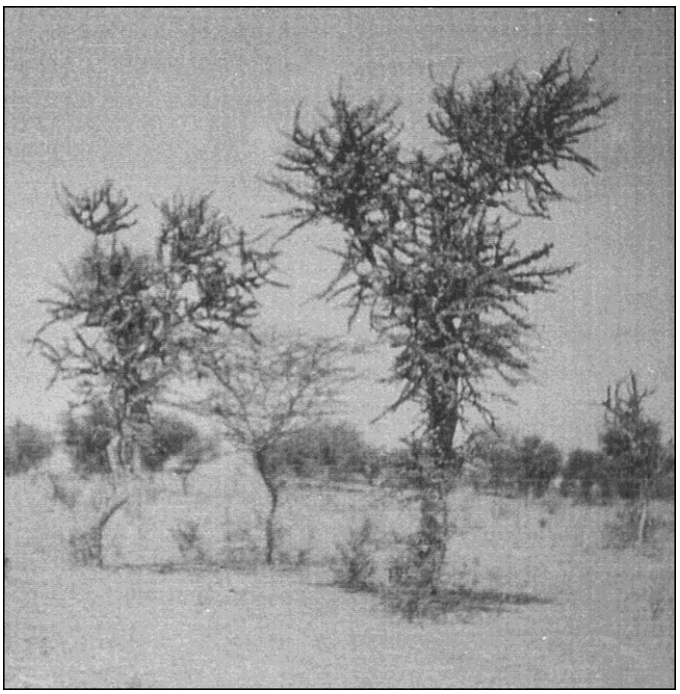
Flowers are located on the spines. The period follows from the month of October to February annually.

7. Vegetation Group

It belongs to the vegetation group of tree. From Xerophytic categorization point of view- the tree belongs to the category of spiny and thorny where as from life forms classification point of view it belongs to the group of microphanerophytes. As far as leaf-class is concerned it falls in the class of microphylls.

8. Eco-climatic Conditions and Habitat

Generally it is found common in open fields. On the basis of field observations it is revealed that the tree species have it's occurrence on many habitats viz; sand dunes, sandy plains, margins of riverine habitat, gravel and compact soil, foot hill areas of stony and rocky habitat except the elevated portion of hilly patches i.e. on mountain ranges. It's one of the most favourable topography is the open fields of sand dunes as well as sandy plains areas. Arid and Semi arid climate is suitable for it's growth and development. It is a drought resistant plant species. Rainfall requirement is very less i.e. 20 to 70 cm annual.



9. Applied Uses

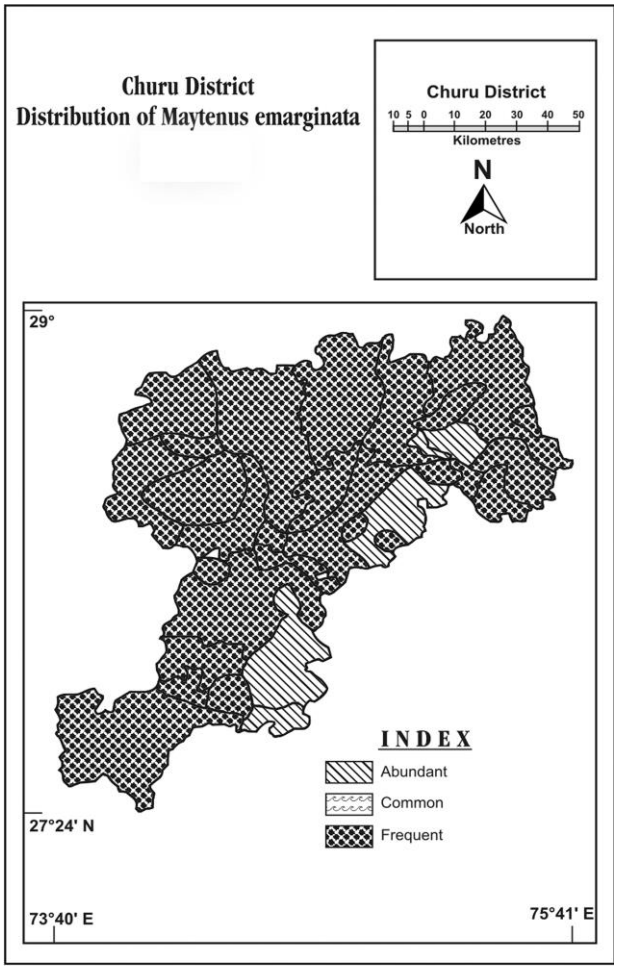
Out of five, the tree has three applied categories viz; fuel, medicinal and commercial.

A. Fuel Purpose :

From burning efficiency point of view, it bears medium quality due to durability in this aspect. It is used for domestic purpose.

B. Medicinal Purpose :

The leaves burnt and mixed with Desi Ghee form an ointment used to heal sores. The fruits are also used in medicines to purify blood.



Source : Forest Survey of India Dehradun, Forest Deptt. Govt. of Rajasthan, Jaipur & Field Survey

C. Commercial Purpose

Coal is prepared from it's wood. It has local commercial market value and the tree as a whole is sold at the rate of Rs. 200 to 500 which depends on it's size.

10. Phyto-geographical Distribution

It has wide range of geographical extension in the world i.e. at global level. It covers the countries and provinces viz; Malaya, Australia, Burma, Arabia, Afghanistan, Pakistan and India. In India it is found in the states of Madhya Pradesh, Uttar Pradesh, Punjabl Haryana, Maharashtra, Gujrat, Delhi, Bihar, Tamil Nadu and Rajasthan.

It has two district areas of occurrence from phytogeographic pattern of distribution, one lies in north-western portion of Churu district Another is located in two parts in Sujangarh tehsil where trees density area. Besides this, two areas of abundant occurrence in Rajgarh tehsil, and one in Churu tehsil where tree density is observed high except the high elevated portions of hilly patches (Figure : 1.1). Generally, throughout the area under study, the tree community shows it's frequent occurrence. Rarely it may not be seen in any area of Churu district. Rarely it may not be seen in any area of Churu district.

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