



Vegetation and Characteristics of Different Physical Regions of Ramgarh Vishdhari Wildlife Sanctuary, Rajasthan

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ABSTRACT

Ramgarh Vishdhari Wildlife sanctuary is a single compact and large forest ecosystem in Haroti region. Topography concerned with the physical geography of the area, it also influences the vegetation and soil conditions. Vegetation and characteristics of different regions of this area of Rajasthan are considered in this communication.

Key words: Anogeissus pendula, Ecosystem, Ravines, Topography, Wetlands

1. INTRODUCTION

The Ramgarh Vishdhari Wildlife sanctuary lies in the south-eastern part of Rajasthan between 24° 59' 11" to 25° 53' 11" North latitude and 75° 19' 30" to 76° 49' 30" East longitudes. It is located in Bundi district of Rajasthan state and 45 Km. away from it. Different physical regions are present in the sanctuary, they can be identified based on topography, soils and vegetation characteristics. The region is affected by its location, the surrounding topography and the air masses travelling over the region, which lead to a greater local variation in weather phenomena. January is the coldest month while May and June are the hottest months during which period maximum temperature reaches up to 48° C.

Topographic factors influence vegetation by producing variations, in the climate and soil conditions of

geographical region. This hill range is generally wooded and contains root stocks of *Anogeissus pendula*. The slopes of the hills are moderate to steep, but at some places, become precipitous near the top. The main vegetation (trees and shrubs) of the area are *Acacia nilotica*, *Acacia catechu*, *Anogeissus pendula*, *Acacia leucophloea*, *Butea monosperma*, *Lanneacoromandela*, *Mitragynaparvifolia*, *Maytenusemarginatus*, *Balanites aegyptiaca*, *Capparis decidua*, *Grewia flavescens*, *Salvadora oleoides*, *Dichrostachys cinerea*, *Zizyphus mauritiana* and *Zizyphus nummularia*.

2. MATERIAL AND METHODS

Important floristic and ecological studies of various part of India have been made by various authors (Mathur, 1960; Dadhich, 1974; Shringi, 1981; Sharma, 1999; Kikim and Yadava 2001; Sharma 2002; Singh and

Singh 2002; Singh and Kushwaha. 2006; Sujana and Sivaperuman 2008; Yadav and Yadav 2008; Ali Ziada and Blunden 2009 and Gautam and Sharma 2014). In the present study different physical regions of the area and vegetation structure have been accounted. An ecological and floristic survey of the area was carried out during March 2014 to December 2020.

3. RESULTS AND DISCUSSION

In order to make the study comprehensive scientific, the study area has been divided in to five physical regions having uniformity of habitat, slope, soil, forest etc. –

1. Dang
2. Khoh, Stream and Nallah
3. Ravines
4. Valleys
5. Wetlands

These regions and their vegetation and characteristics are shown in Table 1.

TABLE – 1
PHYSICAL REGION OF RAMGARH VISHDHARI WILDLIFE
SANCTUARY

S.No	Habitat	Vegetation	Characteristics
1.	'Dang'	Mainly stunted <i>Anogeissus pendula</i> and grass lands of poor quality.	Dry and plain plateaus with little soil and moisture in depression.
2.	'Khoh', Stream and 'Nallah'	Mixed forest with <i>Anogeissus pendula</i>	Deep wide nallah, cut into rocks with slopes and flat bottom, rich in moisture and soil.
3.	Ravines	Mixed crops with good grasses, green throughout the year.	Moist throughout the year with water holes and pools. Main wildlife area in the hot dry summer season.
4.	Valleys	Mixed crop with big trees and good grass lands.	Areas with good soil depth and moisture.
5.	Wetlands	Aquatic flora, grasses on the fringe.	Water bodies where water remains throughout the year.

The topography varies from gentle slopes to steep vertical rocky cliffs; from flat topped hills of the Vindhyan to the conical hillocks and sharp ridges of the Aravallis. The tops of Vindhyan system known as 'Dang' have very shallow soil depth with little moisture

after rains and have sparse vegetation. Valleys with good depth of soil and moisture support mixed forest of good growth and composition. The availability of water is not uniforming. The wetland areas of Ramgarh Vishdhari Wildlife sanctuary support a variety of aquatic flora.

Valleys have *Anogeissus pendula* forests mixed with *Acacia catechu*, *A. leucophloea*, *Dichrostachys cinerea*, *Butea monosperma*, *Lanneacoromandela*, *Ficus benghalensis*, *F. religiosa* etc. The groundcover is mostly with grasses. Grass cover in the valleys provides ideal cover for wild animals and ground birds. Grasslands and trees form best habitat for carnivores, mainly *Anogeissus pendula* forest of poor quality mixed with *Ficus racemosa*, *Diospyros melanoxylon*, *Butea monosperma* and *Lanneacoromandela*. These are dry waterless areas and during hot summer season they appear lifeless.

In the ravines due to the poor soil, the main species are *Acacia leucophloea*, *Maytenus emarginatus*, *Balanites aegyptiaca* and *Clerodendrum phlomidis* etc. The under growth is *Zizyphus mauritiana*, *Zizyphus nummularia*, *Achyranthes aspera* and *Capparis decidua*. The main ravine area in sanctuary is Semlya Deh and Chulia Deh. On a steep slope *Euphorbia royleana* be abundant vegetation at Rameshwar and Ramjhar. Soil erosion is also related with the steepness of the slope.

4. CONCLUSION

Different ecological factors especially topography greatly influenced the vegetation and physiognomy of any habitat of area. The Ramgarh Vishdhari Wildlife sanctuary is compact, dense, large and complex forest ecosystem in Haroti region of South-east Rajasthan. Once upon a time these areas supported dense forest but at present time, many vegetations becomes rare and threatened. Vegetation and characteristics of different physical regions of Ramgarh Vishdhari Wildlife sanctuary are mentioned in this article.

Conflict of interest statement

Authors declare that they do not have any conflict of interest.

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