

**ANIMAL DIVERSITY OF UNPROTECTED FOREST AREAS OF SAGAR (M.P.)****Dr. Mukesh Kumar Napit\***

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**ABSTRACT**

Wild life conservation includes all human efforts to preserve wild animals from extinction. It involves the protection and wise management of wild species and their environment. Some species have become extinct due to natural causes but the greatest danger to wild life result from human activities. Thus we ourselves have created this need for wild life conservation. The progress of man throughout has been beneficial for the human race but it is the wild that has suffered through the years. Invention of sophisticated weapons, industrialization, urbanization, ever increasing human population have been some of the major causes for the dwindle of our once rich wild life resource. Hunting, clearing of forests, draining of swamps and damming of rivers for irrigation and industry, this is what we appraise of man's progress. These activities have vastly reduced the natural habitats of our wild life and many species are endangered or nearly extinct.

**KEYWORDS:** Flora and Fauna, Diversity, Endangered species, Conservation.**INTRODUCTION**

Unprotected forest areas of Sagar is a unique area where in five major river basins of M.P. are encompassed, namely the Betwa and Narmada. There fourths of the falls in the Betwa and one fourth in the Narmada catchment. This unprotected areas are located in three districts of M.P. namely Sagar, Damoh and Narsingpur with Sagar as its Head quarters thus it is one of the unique unprotected areas where such a great transitional biodiversity exist. The forest is continuous and has similar ecological and geomorphological characters in the three districts. Mishra (1961), worked on ecological studies of some forest of sagar Madhya Pradesh.

Water sources are in equal distribution throughout the all unprotected forest areas except in the tract in south-west Nauradehi and Dongargaon ranges. The tract in the middle of the sanctuary has plenty of water sources. The tract in the middle of the sanctuary has plenty of water sources. The number of water sources per unit area decrease towards north and south. In east the Biarma river acts as the major source of water, Chevla tank is the important water sources in north. Else where Jhiriyas form the important water sources.

The sanctuary is situated mostly on Vindhyan range of hills. The tract consists of series of level or undulating plains transversed by broken ranges of low flat topped hills. Vishwakarma, (1986) geographical studies of diet and health in Sagar city.

In the present investigation a study of fauna diversity in the forest areas of Sagar was undertaken. Unprotected areas of forest were studies.

Sagar city is situated in the center of Madhya Pradesh. It is located on the highest land of Vindhya mountain, which make it strong. The total geographical area of the district is 10246 sq. km., of which about one third (2991 sq km.) is covered by forests.

**AREA AND TOPOGRAPHY****Climatic Conditions**

The climate of Sagar is seasonal with three well marked seasons viz. rainy, winter and summer on the basis of temperature, rainfall and relative humidity.

According to climatic condition, rainy season in Sagar begins from the middle of June and continues up to September. Annual rainfall in Sagar during study period 2001-2004 was recorded. Rain-fall was respectively maximum in July, August and mid September. Thus during the four consecutive years viz. 2001 to 2004 total maximum rainfall recorded was 1100C.

**Temperature**

On the basis of past four years temperature records, it is moderate with average minimum and maximum temperature of 13.42<sup>0</sup>C and 41.40<sup>0</sup>C respectively. In summer the temperature goes up to 47<sup>0</sup>C and in winter it comes down to 27.12<sup>0</sup>C. Variation in temperature during summer and winter are of high magnitude, mostly mean

maximum and minimum temperatures range from 41.40 to 11.44 respectively.

### Relative Humidity

Humidity an important factor which is recorded with the growth of herbaceous layer, micro flora and disappearance of dead plant material. It was higher in rainy season, moderate in winter and least in summer season.

### Vegetation

Forest vegetation of the district can be classified as, tropical dry deciduous mixed type on the basis of climatic conditions. The forests are restricted to hilly areas mostly and may be divided into under mentioned types on the basis of constitute species.

Vegetation is an important aspect to the wild animals. The basic need of the herbivores present in the study area are fulfilled by this vegetation cover. The animals are directly affected by water sources. Distribution of three types of water sources (Ponds, spring and Nallah bed) were observed in the different sectors of the forest.

### MATERIAL AND METHODS

The forest ecology with respect to vegetation, soil texture and climatic condition have been observed.

Field studies were conducted on a full time basis. All these areas were visited regularly from March 2018 to July 2021. The observation presented in this thesis are based on direct observation as well as identification and analysis of field symptoms and keeping the wild animals under observation for a length of time. The field observation were made in certain definite points in the forest reserves. Time of observation was restricted to few hours in the morning and evening as well as.

Animals were photographed during field studies in the different seasons viz. summer, winter and rainy season. Studies of 2-4 days duration were conducted in July, August, September, October, November, December, January, February, March, April, May and June in unprotected forest areas. Protected Nauradehi wild life sanctuary is closed from July to October so study was conducted during November, December, January, February, March, April, May and June in 2018-2021.

Technique and procedure undertaken was is mainly based on keen observation to locate and identify the specific animals. Animal evidences are normally concentrated along the routes frequently visited by wild animals. Wild animals move along selected routes in the forest. Observations were facilitated by use of binoculars and cameras, diary and pen. Most efficient method of observing animals directly was from trees or Machans, Basic field observation were based on direct observations, identification and interpretation of field symptoms.

### CONSERVATION OF WILD LIFE

Wild life conservation includes all human efforts to preserve wild animals from extinction. It involves the unprotection and wise management of wild species and their environment. Some species have become extinct due to natural causes but the greatest danger to wild life result from human activities. Thus we ourselves have created this need for wild life conservation.

The progress of man throughout has been beneficial for the human race but it is the wild life that has suffered through the years. Invention of sophisticated weapons, industrialization, urbanization, ever increasing human population have been some of the major causes for the dwindle of our once rich wild life resource. Hunting, clearing of forests, draining of swamps and damming of rivers for irrigation and industry, this is what we appraise of man's progress. These activities have vastly reduced the natural habitats of our wild life and many species are endangered or nearly extinct.

### CONCLUSION

To conclude the study of fauna diversity shows that many wild animal which were found in these forest areas many years back have now vanished or reduced to a very few due to human interference. Unprotected areas of forest also need to be protected so that the fauna diversity of these regions conserved.

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