

BIODIVERSITY REPORT

1.0 BIODIVERSITY OF JAMWA RAMGARH SANCTUARY

Biodiversity with references to flora and fauna, both Provide habitats for various migratory and resident birds. The birds commonly sighted included some endangered, uncommon, vulnerable, threatened and near threatened species.

Type of Forest with Major Species: Under broad category the forests are "Dry Tropical Forests". According to the classification of forests types of India by H.G.Champion and S.K.Seth, the forests met within the tract fall under group 5- "Tropical Dry Deciduous Forest" and Group 6" Tropical Thorn Forests."

The forest is scattered over a large area on various geological and soil formations, and vary greatly in composition and quality. Edaphic and biotic factors determine their distribution. Good forest growth occurs in valleys where better soil and moisture conditions exist. The main species of the tree which cover over 80 percent of the area is Dhok (*Anogeissus pendula*). Its associates like Salar (*Boswellia serrata*), and Gurjan (*Linnaea coromandelica*) grow on rocks and dry areas. Khair (*Acacia catechu*) is common in valleys and Bamboo (*Dendrocalamus strictus*) grow in extremely limited extent along with well drained reaches of the streams and moist, cooler aspects of the hill where soil formation still exists. It is also found in valleys. The trees are generally slow growing and attain poor height. The height of trees varies from 4.5 meters to 7.5 metres. In favorable localities the height up to 12 meters is attained. Imli (*Tamarindus indica*), Aam (*Mangifera indica*), Jamun (*Syzygium cumini*), Tendu (*Diospyros melanoxylon*), Bahera (*Terminalia bellirica*), Arjun (*Terminalia arjuna*), Churel (*Holoptelia integrifolia*), Siris (*Albizia lebbek*), Ficus spp. etc. Which grow in moist localities attain large size, both in crown spread and height. Where valleys fan out in open and where they flatten and become wide, Dhak (*Butea monosperma*) grows gregariously. These forests have been classified on the basis of their composition as follows: (i) Dhok forest (ii) Salar forest (iii) Khair forest (iv) Miscellaneous forest - Further divided into four types (a) Dhak forest (b) Forest along nallas (c) Scrub forest (d) Bamboo forest.

Jamwa Ramgarh Wild Life Sanctuary is one of the important areas for biodiversity conservation in the state of Rajasthan, which wholly lies in the civil district of Jaipur of Rajasthan and located in the oldest hill ranges of the Aravallies (27°02'49N and 76°03'20E). The sanctuary lies on Jaipur-Alwar route via Jamwaramgarh village at a distance of 40 Kms from Jaipur. It is an extension of Sariska Tiger reserve. Jamwa Ramgarh Wildlife Sanctuary is declared as Sanctuary vide state Government's notification F11/19/raj/8/01 dated 31-5-1982. The total area of the Sanctuary is 300 Sq.Kms including 233.71 Sq.Kms. notified forest land and 66.29 Sq.Km of adjoining Revenue area.

The floral constituents of the sanctuary are mostly edaphoclimatic climax type forests. As per the Champion and Seth (1968) classification, the forests of the sanctuary is

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tropical dry deciduous type, dominated by *Anogeissus pendula*, *Boswellia serrata*, *Butea monosperma*, *Acacia senegal*, *Acacia nilotica*, *Acacia catechu*, *Lannea coromandelica*, *Euphorbia nivulia*, *Mitragyna parvifolia*, *Ziziphus nummularia*. The vegetation cover varies from place to place owing to edaphic and biotic changes. About 45 % of the area is well wooded and the rest has become degraded, because of excessive biotic interferences. Trees shed their leaves in December and January, and renewal takes place in June and July. The mean daily maximum temperature in May is 40.6°C and mean daily minimum is 25.8°C. In May and June the maximum temperature may sometimes go up to 48.0°C. After mid-November both day and night temperature drop rapidly till January which is the coldest month with the daily mean maximum temperature at 22.0°C and minimum at 3°C.

Nahargarh Wildlife sanctuary is located in the vicinity of Nahargarh Fort, outside Jaipur located on the outskirts of the city near Jaipur- Delhi highway. This Biological Park is spread over 7.2 sq km of Nahargarh Sanctuary Park. This park consists of granite rocks, quartzite rocks and also consists of the region covered by dry deciduous and tropical rain forests. Wild life animals are provided comfortable environment in National Biological Park as their main aim to serve animals. Healthy food as well good care is also provided to the animals in this National Park which is deserved by them. The caretakers in this park are also very animal friendly and take care of animals that are under their wards. There are currently 23 lions and 12 tigers at National Biological Park according to the Central Zoo Authority. Other animals are also there in rescue centre which includes animals like Leopard, Asiatic Lion, Sloth Bear, Caracal, and several species of Deer, Gharials, Crocodile Pangolin Jackal, Wild Dog, Wolf, Hyena, Jungle Civet and Fishing Cats, Ratel, Common and Desert Fox, Rhesus Monkey and Langur. A rehabilitation centre of lions and tigers that are rescued from circuses is also there. Some of the species which were dissipated have been reintroduced and today the variety of animals in the park also includes Leopard, Sloth Bear, Caracal, several species of Deer, Gharial, Crocodile and Otter in its wetlands, Pangolin Jackal, Wild Dog, Wolf, Hyena, Jungle Civet and Fishing Cats, Ratel, Common and Desert Fox, Wild Boar, Rhesus Monkey and Langur, and, of course, a host of avian species. Rajasthan government is doing their best to upgrade this park for tourist purpose. Some of the rare species such as Tiger and Asiatic Lion have not shifted yet. The department of forest is preparing to open Nahargarh Biological Park and the rescue centre for tourists. This park was not open for public visit or tourists. It will receive huge fanfare from lovers of nature once

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opened for public and would become the first ecotourism site near Jaipur. A few years ago, Government of India imposed a ban on performance of lion, tiger, panther, bear and monkey in circuses.

The Nahargarh biological park has about 220 types of birds, 450 varieties of flora and fauna besides the jungle cat, reptiles and panthers. But for years it has been the Rescue Centre, situated at a small portion of the park that has been drawing all the attention.

The Government thinks to build back an area where the Aravalli ranges and wetlands are in harmony with the faunal species, and where natural breeding can occur in the wild. This will help to regain other depleted areas with species breed in the wild, and it can also assist educational programs on nature education. The Nahargarh Biological Park is a home to a wide variety of fauna and flora is also a well known sanctuary. Other famous sanctuaries include the Jhalana Nature Trail, Machia Safari Park, Arboretum Park and Amrita Devi Park. These parks are main part of wildlife in Rajasthan. The tourist safari would begin in a short period. Government of India aims to bridge the gap between the public and park by introducing the tourist safari. For this purpose guides will be recruited and Safari vehicles will be engaged to assist the visitors there are two routes which are there for the safari and it will take about three hours to complete the 8-10 km safari in the park. The main aim behind this is to build interest among the public for the park as well as to promote it as an eco-tourism destination.

CONCLUSION:

The present study of diversity and status of terrestrial avifauna in Jamwa Ramgarh Wildlife Sanctuary, Rajasthan, India shows that Sanctuary represents a sound avifaunal diversity. The sanctuary lies in an important ecological zone (the Aravalli mountain ranges) and forms an ecotone between a desert ecosystem and hilly areas. The hills of the sanctuary act as a barrier, checking the eastward extension of the Thar Desert.

As many as 51 villages (Sankotda, Nangal, Tulsidass, Pataalka baas , GhataJaldhari , Bhavni , Basna , Kharad , Toda meena ,Harampur , Bhavgarh , Ghoreth ,Godiana ,Raipur , SamredKhurd ,Asthalika baas , Raisar , Jharunda ,Jojrala , Khawa , Luneta , PaladiKhurd , Kelaka baas ,Kharkada ,Bahlod , PaladiKalaa, Jaisinghpura ,Sarjoli ,Chawaka bas , Buj ,Lalpura , Manota , Palasana, Jhol , Guwara-Jogian , Dodadungar ,Lothaka bas ,Papad , Gurawanal ,Rampura , Jaitpurgujara , Jamwaramgarh ,Nitata ,

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eghrajasinghpura ,Bishanpura , Nayabaas , Narpatiyabas , Badiyawala , Chugalpura, Koliana , Pali and B isori) are situated inside the sanctuary area. Most people of these villages are chiefly dependent on agriculture for their livelihood. Therefore, a variety of habitats and environments of this sanctuary attract and support a variety of bird species.

The sanctuary suffers water scarcity during most periods of the year. Only a few water bodies present in this area support aquatic avifauna. The presence of several villages in and around the sanctuary is another important problem for the avifauna of this region. It was observed that increasing human population and interference in the protected areas are disturbing many shy and visiting bird species. Livestock grazing is another leading problem that leads to habitat destruction. After agriculture, local inhabitants also depend on the sanctuary for livestock grazing. Overgrazing led to the destruction of plant seedlings and restricted forest regeneration.

In conclusion, it can be said that the JamwaRamgarh Wildlife Sanctuary, which supports a good number of bird species. This is the important report on the avifauna of this area. Furthermore, the bird's conservation plans necessary to prepare on the basis of more field work and scientific studies for the area. Livestock grazing should be banned completely inside the sanctuary area. The number and diversity of bird's species are strongly positively correlated with aspects of vegetation structure that is, the more complex the structure or composition of the vegetation, the more likely that habitat will contain more bird species. Continuous monitoring of avian fauna is an excellent means of monitoring forest health, and it will also help to foster a sustainable improvement of the habitat. In the future, with the improvement of the forest cover, proper management programs and strategies in the sanctuary will not only increase the number of resident bird species but will also attract migratory and vagrant species.