

KEOLADEO BIRD SANCTUARY, BHARATPURLOCATION:

The 29 sq.km. of the Sanctuary of Keoladeo Bird Sanctuary is located between lat  $27^{\circ} 13'$  and long  $77^{\circ} 32'$ . It is 50 kms in the west of city of Agra.

GEOGRAPHY:

The Wetland is a part of the Indogangetic Great Plains. It is a fresh water swamp and is flooded during the monsoon. For most part of the year, effective wetland is only 10 sq. kms. The rest of the area remains dry. Dykes divide the Wetland into ten units. Each unit has a system of sluice gates to control its water level. Depth of water ranges from 1 metre to 2 metre during rains (July, August and September). In subsequent months, October to January, the level gets lowered. The area starts drying from February. In May & June, the entire area dries. Water remains only in some depressions. This alternate wetting and drying helps to maintain the ecology of the fresh water swamp, ideal for water-fowl and resident water birds. Arrangement to pump water from deep tube wells to fill small depressions to save seeds, spores and other aquatic life also exist. They are also helpful in extreme years of drought.

CLIMATE:

Climate is hot in summer, the maximum temp rises to  $51^{\circ}\text{c}$  ( $115^{\circ}\text{F}$ ) in June, and cold in winter,  $0^{\circ}\text{c}$  ( $32^{\circ}\text{c}$ ) in January. Fog is common in December and January. Monsoon is the main source of precipitation. Major rainfall occurs in the months of July, August and September. Sometimes rain showers occur during December and January. Average rainfall is 662 m.m.

FLORA:

Natural vegetation of the Sanctuary is dry deciduous dominated by *Acacia nilotica* and aporodic trees of *Myrtigyna*

In moist localities evergreen species like *Ficus religiosa*, *Syzygium cumini* occur. Date palm, phoenix sylvestric, is grown on road sides. In areas where water stays for a short period, *Zyziphus-jujuba*, *prosoopis cineraria* are the dominant species. Over highly saline soils, which are the results of bad internal drainage *salvidora oleoides* occur. This is a Xerophytic ever-green tree. *Capparis decidua* also grows as bushes in the dry areas. All these trees provide sufficient feeding material for the birds and animals of the sanctuary. Khas grass (*Vetiveria zizanioides*) is the ruling graminee of the reserve. *Cynodon dactylon* provides good cover but serves as poor forage except when young. Aquatic vegetation is rich. Lilies are conspicuous by their spread and flowering. There are three species *Nymphaea nouchatia*, *N. Stellata*, *N. Cristata*. Also the true lotus (*Nilumbium*) grows. *Ipomia*, *Cyperus* species and *Typha augustata* reed dominate in some area. Wild rice produces grain which ripe in late November and serve as rich resource of duck food. Duck weeds and *Azola* (*Pteridophyta*) are the free floating plants. *Vallesneria*, hydrilla, and naga, chara are some of the submerged plants. They are rich source of food for the aquatic fauna. Macro and micro fauna is also rich which maintain the population snales, fishes and frogs.

#### FAUNA:

The Bird Sanctuary, as the name suggests, is rich in bird species and population. There are 353 species of birds so far identified. A latest check list of birds is enclosed herewith. Sambar (*Cervus unicolor*), Chital (*Axis axis*), Nilgai (*Boselaphus tragocamelus*), Wild bear (*Sus crofa*) and black bucks (*Antilope cervicapra*) Hare (*Lepus migricollis*), Porcupine (*Hystric indica*) are the rodants and the main herbivores. Large predator is conspicuous by its absence. The last leopard was shot-out in 1964. Jungla cat (*Felis chaus*), smooth Indian Otter (*Lutra perspicillata*), mongoose (*Herpester edwardsi*) do occur in the sanctuary. Monitor lizards, water snakes, cobra, crate, rat snake, Dhawan, and pythons are common.

## LEGAL PROTECTION:

The area has been declared a wildlife sanctuary under the Wildlife (Protection) Act, 1972. Earlier it was notified as a Reserve area under the State Wild animals and Birds Protection Act, 1951. It has now been notified and to be declared as a National Park under the Wildlife (Protection) Act, 1972. A strong wall fencing has been raised to protect the sanctuary from grazing of domestic stock and killing of wildlife by poachers.

## OWNERSHIP OF PROPERTY:

It is a Reserve forest under the Rajasthan Forest Act, 1953 and, therefore, it is the property of the State of Rajasthan of the Indian Union.

## INTERNATIONAL IMPORTANCE:

The Sanctuary is the richest bird area in the world. It is known for nesting of its resident birds and visiting migratory birds including water birds. The rarest Siberian cranes arrive here to winter. According to Sir Peter Scott Keoladeo Sanctuary is the world's best bird area.

## SCIENTIFIC RESEARCH:

Bird ringing operations have been carried out by the Bombay Natural History Society, for the last 40 years. The society has intensified their operations. Interesting discoveries have been made. Limnological studies have been conducted by the Zoology Department of the University of Rajasthan, Jaipur. Monitoring of the population dynamics of birds has been undertaken by the Sanctuary management.

The Sanctuary is headed by Deputy Chief Wildlife Warden who is assisted by one Ranger, 3 Foresters and 20 Wildlife Guards. There is an exclusive Research Officer who looks after the research programme. The administration of the Sanctuary is under the Chief Wildlife Warden of Rajasthan.

Check list of birds, list of fishes, and a map of the Sanctuary are enclosed herewith.