DESCRIPTION OF THE SURVEY AREA

India is the seventh largest country in the world and Asia’s second largest nation. It is divided into four relatively well-defined regions— the Himalayan Mountains, the Gangetic River Plains, the Southern (Deccan) Plateau, and the Islands of Lakshadweep, Andaman and Nicobar.

The climate of India is dominated by the Asiatic monsoon, most importantly by rains from the southwest. India has a rich variety of wetland habitats. The total area of wetlands (excluding rivers) in India is 58,286,000 ha or 18.4% of the country’s area, 70% is under paddy cultivation.

Keoladeo National Park (KNP), a Ramsar site as well as world heritage site, is one of the most enchanting waterfowl refuges of the world and home to rich biological diversity. The park was declared a ‘Ramsar site’ in October 1981 on the basis of ecological, botanical, zoological and limnological criteria. The word ‘Keoladeo’ signifies the location of the temple of Lord Shiva (Keoladeo) in the centre of park. Formerly it was known as ‘Ghana Bird Sanctuary’, because of dense (Ghana) forests covering the area.

Keoladeo National Park is situated between 27°7'6" to 27°12'2" North latitude and 77°29'5" to 77°33'9" East longitude with altitude. It is located 2 km south east of Bharatpur City, Rajasthan, India. The total area of the park is about 29 sq. km. (2873ha). It represents a mosaic of dry grasslands, woodlands, woodland swamps, and wetland. One third of its habitat (~11 sq. km) is wetland with a variety of microhabitats having trees, shrubs, mounds, dykes and open water with or without submerged or emergent plants. The uplands have grasslands (savannah) with species of short grasses, tall grasses, scattered trees and shrubs in varying densities. The short
grasses such as Vetiveria zizanioides (Khus grass), Desmostachya bipinnata and Cynodon dactylon were also observed at places. The habitats form complex water-land interacting systems, and are fertile. The substrate is usually covered with water periodically, though there has been a water crisis since a couple of years.

TOPOGRAPHY

The terrain of the park is almost flat with elevations varying from 173 to 176 m and a gentle slope towards a central depression. The submersible area of about 900 ha, is divided into various compartments by earthen dykes. Much of the area is bushy but it also contains semi arid woodlands and scrub savannahs. The park lies 370 meters above the sea level and is separated from surrounding villages and agricultural fields by an outer boundary wall.

It is a freshwater swamp that gets flooded during the monsoon. The area consists of a flat patchwork of marshes in the Gangetic plain, artificially created in the 1850s and maintained ever since by a system of canals, sluices and dykes. For most part of the year, the effective wetland is only 10 sq. km with the rest of the area remaining dry. Normally, water is fed into the marshes twice a year from inundations of the Gambhira and Banganga rivers, which were impounded on arable land by means of an artificial dam called Ajan Bund, to the south of the park. Dykes divide the wetland into ten units. Each unit has a system of sluice gates to control the water level. Depth of water ranges from 1-2 m during monsoon rains (June-September). From October to January, the water levels decrease although sometimes rain showers occur during December and January. The area starts drying out from February and by May and
June, the entire area dries out with water remaining only in some depressions. Therefore, for much of the year the area of wetland is only 1,000 ha.