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WILD LIFE IN THE SUNDARBAN, WEST BENGAL

By

A. K MUKHERJEE

Zoological Survey of India, Calcutta

Abstract

The mangrove forest of the Sundarban is spread over 2403 km² (land-mass) on the delta island facing the Bay of Bengal. The major plant community comprises 10 species of trees, 2 species of palms and a single species of sand binding grass. 'Baen' (*Avicennia* sp), is the most common tree and, Sundri (*Heritiera* sp.), after which the forest is named, is very poorly represented.

The vertebrate fauna comprises 35 species of mammals, large number of birds and fishes, several reptiles, amphibians, etc Big and small colonies of breeding birds, specially of water-birds are common during the monsoons. The most important carnivore, the tiger, much depends on herbivores, i.e. the Spotted Deer, Wild Boar and the Rhesus Monkey, which are all present in fair numbers. The tiger, like the fishing cat, also preys upon crustaceans and fishes. All these animals lead an amphibious life and do not depend on sweet water. The Estuarine Crocodile, which was common 30 years ago, is rare and the population of the Water Monitor is also dwindling rapidly. Some animals which have disappeared from this swamp within the last 100 years are the Javan Rhinoceros, Swamp Deer, Wild Buffalo, and the Barking Deer. Factors responsible for gradual upset in the balance of nature are mainly, increase in the salinity and the pollution of river water. Illegal hunting, fire wood and timber collection have created additional pressure on the biota.

I. Introduction

The mangrove forest of the Sundarban is spread over 2400 sq km (approx. land mass) on the delta islands and faces the Bay of Bengal. Till the end of the 18th century this forest had flourished within a few kilometres south of Calcutta. It was felt necessary to clear the forest to improve the arroundings of the then Capital of the British India, which also provided opportunities for extension of cultivation and human settlement and also to clear the hideouts of sea pirates and criminals. In 1773, Collector General Mr. Claude Russel executed reclamation and within 50 years almost half the Sundarban Forested Area was lost and gradually the original forest area of 8200 sq km was reduced to 2400 sq km. The deforested reclaimed area known as 'Abad' serves as a typical example of environmental changes and its effect on the biota. From the reclaimed area, almost all the natural resources such as firewood, timber, thatching palm leaves and grass, food-fishes and other sporting animals were lost. As a result the remaining forested area has been subjected to human pressure for his living. Firewood, timber, fish, venison, pork, honey and wax are regular traffic with or without official permit. More-

over due to inadequate supply of freshwater from rivers of Ganga and Brahamaputra systems, there is a gradual increase in salinity in estuarine rivers and added to it is the draining of mills and factory effluents into the rivers which have rendered conditions unsuitable to the thriving of certain species of plants and animals. The major part of the Sundarban within the Indian territory has almost lost the valuable timber tree, like the '*Sundari*' after which the forest is named and the 'Golpata' a palm, leaves of which are very much in use for thatching, has been greatly reduced in number. Most of the trees have become stunted and leaves have turned leathery. The *Sundari* is now confined only along the border of India-Bangladesh, and *Golpata* in the lower reaches of the estuaries.

II. Wild Life in Sundarban

Within the course of about 100 years, some animals known from this area have disappeared and some are losing ground. Such animals are :

1. Javan Rhinoceros (*Rhinoceros sondiacus*)

The species was well known throughout the Sundarban and is also said to have occurred as far south as the Mahanadi delta in Orissa. The last record of this rhinoceros is based on a specimen collected in 1870 and displayed in the Zoological Galleries of the Indian Museum.

2. Wild Buffalo (*Bubalus bubalis*)

The Wild Buffalo roamed about in the Sundarban till 1885 and by the end of the 19th century the whole population was wiped out.

3. Swamp Deer (*Cervus davaucelli*)

The Swamp Deer existed in fair number till the early part of the present century. It is no more in the Sundarban within the Indian limits.

4. Barking Deer (*Muntiacus muntjak*)

The Barking Deer represented about four per cent of the total deer population in the early part of the present century. It doubtfully exists in Halliday and Bullcherry and some other seaface islands.

5. Fishing Cat (*Felis viverrina*)

It was known to exist some 50 years ago but recent surveys do not reveal its presence in negotiable islands. A few may be present in some sea-face islands.

6. Estuarine Crocodile (*Crocodylus porosus*)

The Crocodile was quite common half a century back and was frequently met with in Matla, Raimangal, Jhilla and Gosaba rivers in the northern parts of the Sundarban. It prayed on domestic animals and also sometimes devoured man, fishing in inhabitated areas. In the recent years due to increase in the river traffic, excessive hunting pressure for its

skin, flesh and oil and also pollution of water, its numbur has been seriously reduced. Only in undisturbed regions in southern parts of the Sundarban it may be seen. Attempts are being made to increase its number by collection of eggs to hatch them in captivity. In Bhagwatpur, south-west Sundarban, a crocodile farm has been started and it is a happy news that some 80 crocodile hatchlings have been obtained from two egg clutches in 1977 and the young crocodiles are doing well.

7. Water monitor (*Varanus salvator*)

The Water Monitor was quite common throughout the Sundarban but in recent years craze for monitor skin for shoes, bags and belts etc., have reduced their number from greater part of the Sundarban specially in areas contiguous to habitation. Its number in protected sanctuaries is satisfactory.

8. Indian Python (*Python molurus*)

Dealers of live-stock and skins have not spared the Sundarban Python which attains a considerable length and girth and has lusturous skin. Its population has greatly decreased.

The successful animals, that have been able to withstand the changing environment in the forested areas, have undergone some physiological changes and modified their habits. They drink salt water or tolerate certain degrees of salinity and live on specialised plants or animals that are peculiar to salt-water. Almost all mammals lead amphibious life. The following important animals and their peculiarities and status are worth mentioning :—

1. Tiger (*Panthera tigris*)

The Tiger is quite common. It leads an amphibious life, quite capable of crossing wide rivers and moves about from one island to another. During tidal bores it clings to low mangrove branches or is driven to elevated parts of some islands. Besides hunting wild animals such as the Spotted Deer, Wild Boar, large marsh birds, it often attacks man who comes to work in the forest. It is the only man-eating tiger population known in the world. During 1881-1884, some 329 men were carried away. It also enters villages bordering forest for cattle lifting. It has been seen to fish in shallow waters in creeks.

During in last five years its number has increased. The present population is comprised of 187 individuals (1977) in the Tiger Project area.

2. Spotted Deer (*Axis axis*)

It occurs in quite good number. Like other deer it does not depend much on grass but generally feeds on 'Keora' (*Sonneratia apetala*) leaves, fruits and buds. Since 'Keora' is more common near the sea, the population of the Spotted Deer is more on sea-face islands It has been seen to drink saline water. Besides 'Keora' it also browses on the leaves and shoots of

young trees like *Sonneratia, Excoecaria, Rhizophora,* but strangely it does not take the common grass 'Bani Dhan' (*Oryza coarctata*) which grows plentifully everywhere.

3. Wild Boar (*Sus scrofa*)

The Wild Boar is perhaps the most adapted of all the mammals in this saline marsh. It feeds practically on all underground tubers but prefers dead fishes, crustaceans, molluscs, and scavanges on everything in forest including offal. It has been seen to dig in sand bank to drink percolated saline water. It is common in all parts of the forest.

4. Rhesus monkey (*Macaca mulatta*)

Under conditions unfavourable to any primate to live in the saline marsh where sweet water does not normally occur except during the monsoon, the Rhesus has adapted itself by modifying its habits. It behaves as a leaf-eating monkey as well as a crab-eating monkey. The tender leaves of *Keora* are its favourite food but succulent leathery leaves of other mangrove trees are also taken. It licks dew drops to compensate sweet water when sweet water, accumulated in small ditches during monsoon, dries up. It has been observed to eat crabs, mushrooms and honey combs. It is very shy. On man's approach it descends down the tree and runs to climb trees in the interior. Troups consisting of 20-30 individuals have been seen along the Indo-Bangladesh border and the sea-face islands. Its distribution and movement is almost that of the Spotted Deer.

III. Protection and Conservation

The Sundarban has three official sanctuaries namely (i) Lothian Island, (ii) Halliday Island, (iii) Sajnakhali (Pakirala). The sanctuary area covers 402 sq km. While the first two are chiefly for the Chital and Wild Boar, the last one is mainly a vast breeding area of water birds, having an area of 358 sq km. The more important resident birds that breed in the sanctuary are the Little Cormorant (*Phalacrocorax niger*), The Openbill Stork (*Anastomus oscitans*), Large Egret (*Egretta alba*), Smaller Egret (*Egretta intermedia*), Little Egret (*Egretta garzetta*), Cattle Egret (*Bubulcus ibis*), Purple Heron (*Ardea purpurea*), Night Heron (*Nycticorax nycticorax*). Besides these there are two pheasants namely the Red Jungle Fowl (*Galius gallus*) which is in fair number and the Swamp Partridge (*Francolinus gularis*) which are very few. The water monitor is quite common that predates on chicks and eggs of birds. Besides, there are tigers, cheetals and boars. The Tiger Project area which is 1330 km^2 includes the Sajnakhali sanctuary.

IV. Suggestions for Conservation of Wild Life

1. Since the Sundarban is a very vast area, vigilence of the whole stretch is not practicable with the present staff, more men and petrol boats

are necessary. In the sanctuary new plants should not be introduced. Even digging of tanks for freshwater should be avoided.

2. The tigers that visit the reclaimed area for cattle lifting should be captured by tranquilization or by traps and sent to Zoological parks. Public opinion of killing them for damage to cattle life should be curbed.

3. Frequent petrolling of speed boats, motorized launches should be avoided in the sanctuary areas.

4. Mass education by audio-visual method should be imparted to the villagers to let the forest and its product grow for their future benefit.