

FLORA AND FAUNA

FOREST

According to the 11th State of Forest Report, 2011 (Odisha Forest Status), the State has a recorded forest area measuring 58,136 sq.kms. This includes 26,329 sq.kms. (45.2 per cent) of reserve forests, 15,525 sq.kms. (26.70 per cent) of protected forests and 16,282 sq.kms. (28.01 per cent) of un-classed forests. The total recorded forest area of Odisha was 37.34 per cent of its total geographical area.

The actual forest cover of Odisha in 2009 was 48,903 sq.kms., which constitutes 31.41 per cent of the State's geographical area in terms of forest canopy density classes. The Corresponding Figure for 2007 was 48,855 sq.kms. Thus, the actual forest cover increased by 48 sq.kms. from 2007 to 2009. This increase in Forest Cover is due to conservation measures and improvement in scrub area.

The Forest Department has been constantly endeavouring to protect the forest areas and regenerate the degraded forests. This is attributed to both afforestation and protection of forest through the successful participatory Forest Management efforts. Based on the relief, rainfall and vegetation types, the forests of Odisha are divided into the following types:

(i) **Northern Tropical Semi-evergreen Forests :** These occur in the lower hills and valleys above 600 m elevation in the forest divisions of Mayurbhanj, Dhenkanal, Athgarh, Puri, Nayagarh, Parlakhemidi, Koraput and Kalahandi. While the top storey trees are deciduous and remain leafless for a short time, the second storey is evergreen. The important tree species are: Arjun, Mango, Mankar Kendu (*Diospyros embryopteris*), Champak, Rai, Manda and Nageswar.

(ii) **Tropical Moist Deciduous Forests also known as Monsoon Forests :** These occur in the lower elevations in Mayurbhanj and Keonjhar districts and the districts bordering on Madhya Pradesh and Andhra Pradesh. The top canopy is formed by Sal (*Shorea robusta*) and its allies Asan, Piasal, Kurum, Kangra and Dhawra and Daba bamboo (*Bamboosa arundinacea*).

(iii) **Tropical Dry Deciduous Forests :** They occur in the drier central and western areas in parts of Balangir, Kalahandi, Sambalpur, Khariar, Deogarh and Gobindpur divisions. Teak instead of Sal, and Salia bamboo (*Dendrocalamus strictus*) instead of Daba bamboo predominate in these forests.

(iv) **Tidal Mangrove Forests:** These are limited in extent, scattered and confined to the sea-coast, especially in Bhitara Kanika (Balasore) and the Mahanadi delta. The characteristic tree species are Karika (*Bruquiera*), Sundari (*Heritiera*), Bani (*Avicennia*), Rai (*Rhizophora*), Guan (*Exocaria*), etc. As Hental (*Phoenix paludosa*) grows here abundantly in clusters, the mangrove forests are locally called 'Hental van' or Hental forests.

Forests are a major constituent of the state's natural resources in the form of timber, firewood and a large number of profitable forest products like sabai grass, lac, resin, catechu, tassar silk, honey,

natural dyes, etc. The valuable timber species are Teak, Seasum or Rose wood, Piasal, Kassi, Kurum, Arjun, Gambhari, Giringa and such other varieties of polishable wood that are used for furniture, and Sal, Asan, Dhau, Bandhan, Kangra, etc. which are hard and utilised in various construction works. Kendu (*Diospyros xylocarpus*) leaves which are used for wrapping bidi constitute a profitable source of revenue as they are largely in demand all over the country. Bamboo is of extensive utility not only in the life of the common man but also as essential raw material for paper industry. It is used in the paper mills of the state and supplied outside, especially to West Bengal. Sabai grass is also used for making paper pulp, but mostly for rope making. Sericulture, undertaken in the forest areas, provides a good source of income to the people. Certain parts of the forest, for example the Gandhamardan hill in Balangir, abound in medicinal plants and herbs. *Nux vomica* which grows widely in most forests and *Rauwolfia serpentina*, which grows in the jungles of the south are common examples.

WILDLIFE

In 1967 a wild tigress of the jungle named Kanan managed to creep into the zoo at Nandankanan, climb up a concrete wall and leap into its tiger enclosure as if to opt for a membership by way of choosing a mate. In the seventies another female tiger named Khairi made history by leading a domestic life as a tiger-daughter in the home of a forest official in Similipal. Such romantic instances are there in wildlife. In fact, the wilds and forests of Odisha are vibrant with animals, the beauty and variety of which are amazing.

Animals

Living in the deep, dense forests are a few tigers confined to their natural habitats. However a natural habitat is improvised for the species in the Project Tiger, Similipal, which was launched as a part of the national programme in 1973 with only 17 inmates to start with; today their number stands at 101 wildlife census 2005. The Project Tiger covers an area of 850 sq. km in the heart of the 2750 sq. km wide Similipal Reserve Forest. The Odishan tiger belongs to the race of panther (*Panthera tigris* — Odia, Badabagha), the other reported species like leopard (last reported in 1960 from Dhenkanal) and cheetah are by now extinct. The Nandankanan Biological Park is famous for its white tigers.

A large number of carnivores inhabit the forests in almost all districts. They (with their local names given in brackets) are the common wolf (heta), sloth bear (bhalu), honey badger or ratel (gada bhalu), hyaena (gadhia or nekeda bagha), jackal, wild dog (balia kukura), leopard cat (baghata), jungle cat (bana bilei), civet cat (katasha), otter, teddy cat (saliapatini) and the common mongoose (hatia neula). The wolf of the species *Canis lupus pallipes* is occasionally seen in the jungles of Deogarh, Angul and Koraput.

Historically, the pride of place among the wild animals of Odisha goes to the elephant. In the past Odisha used to have an elephant wing in its army and the historic royal dynasties took pride in calling themselves 'Gajapati' or the lord of elephants. Odisha's famed elephants are found in the jungles of Mayurbhanj, Keonjhar, Dhenkanal, Puri (near Balugan), Ganjam and Sambalpur districts. The Wild Life Sanctuary at Chandaka provides a natural forest abode to elephants. There are elephants in the Mahanadi Baisipali Sanctuary near Nayagarh and Ushakothi Sanctuary on the National Highway No.6 some 40 km from Sambalpur. The latter offers shelter to bisons (gayala) in particular and any visitor to the sanctuary is sure to meet a herd of them.

Other animals found widely in forest areas include: the wild bear (barha), spotted deer (chital), sambar, the barking deer (kutra), the black faced langur or Hanuman monkey, the pink-faced bandar (patimankada), several species of bats, the tailed hare and pangolin (bajra kapta), porcupine (jhinka), the giant squirrel and palm squirrel. Found in the restricted areas are the wild buffaloes (arana mainshi) traceable in Balimela and Sunabeda areas; four-horned antelope charisinga in the isolated corners of Cuttack, Puri, Dhenkanal, Sambalpur and Mayurbhanj districts and the black buck (krushnasara or baliharina) in Bhetanai near Aska in Ganjam district. The Irrawadi dolphin (bhuasuni machha) and the gangetic dolphin (sisumara) are found in the Chilika and the rivers respectively.

Birds

The bird kingdom of Odisha, vast, varied and colourful, offers a most attractive sight. Here is a list of some typical birds representing different orders of the bird families, with their local names given in brackets:

Grebe (hansarali), cormorant and darter (pani-kua and panikoili), grey heron and pond heron (badakanka and kantibaga), white-necked and black-necked stork (gendalia), flamingo (marala/era) and ibis (bajeni), brahmyn duck (chakua-chakoi), bar-headed goose (kaja) and whistling teal (sarali); king vulture (phula shaguna), tawny eagle (chhanchana), kestrel (baja), brahmyn kite (sankha chila) and pariah kite (matia chila), peacock (mayura), partridge (titir) and quail (punduki chadhei), crane (sarasa) and waterhen (dahuka), jacana (pani dahuka), plover (tentei), sandpiper (cha-chadhei), snipe (kadua-khurnpi) and tern (machhakhia); rock-pigeon (deuli para), green pigeon (harada chadhei), spotted and ring doves (kantikiri, kapta); parrot (sua) and parakeet (madana); cuckoo (koili) and crow pheasant (kumhatia); owl and barn owl (lakshmi pecha); nightjar (bhui chhapuli); horn-bill (dhanesh); kingfisher (machharanka); copper barbet (tukura basanta) and woodpecker (kathahana); drongos (kajalapati) and oriole (haladibasanta); jungle and common myna (bani, ghukalika, sari), bulbul (gobara chadhei), weaver bird (baya chadhei) and babbler bird (satabhaya), etc. in addition to the types commonly observed like crows and sparrows. Odisha has an almost inexhaustible treasury of folk songs and folk lore poetising most of the birds listed above. Birds constitute a befitting accompaniment to the rhythm of rural life along with the soul stirring song birds that put up the daily rounds of morning and evening choirs.

Reptiles

Among the reptiles the most endangered species today is the crocodile on account of the high price offered for its skin. Odisha has all the three species of crocodile, namely the Gharial, the estuarine crocodile (Baula) and the marsh crocodile and sanctuaries have been set up for their preservation and growth. The Gharials which are found only in the Mahanadi and its tributaries are reared in the sanctuary at Satkoshia on the river Mahanadi covering an area of 795.5 sq km. The other two types have their resort in Bhitara Kanika covering an area of 161.76 sq. km of water encompassed with mangrove forests. To each of these sanctuaries is attached a corresponding Crocodile Research and Conservation unit. There is also a small crocodile sanctuary at Ramirth inside the Similipal forest.

There are two important species of turtle commonly found in Odisha— the Green Turtle, a big marine species attaining a length of 1.2 metres and weighing between 135 to 180 kg each found in the Chilika and the Pacific or Olive Ridley Sea Turtle (*Lepidochelys olivacea*), a migratory species. The latter come in thousands from far off parts of the Pacific coasts during winter to lay their eggs at Gahiramatha and Satabhaya in Bhitara Kanika. The place where these turtles lay eggs has come to be known as 'Arribada' (a Spanish word meaning breeding ground).

As usual there are the snakes and frogs of different species as in any other part of the country.