

A Prime Group publication

KARENG/2016/69034

Adventure & Wildlife

A bi - monthly magazine

Rs. 200

Experience

Awesome Assam

Thrill, Passion, Scenery, Culture

Special Feature

Single Horned Rhino





Awesome Assam

Assam... Lush green Tea estates, Kaziranga, Rhino, Brahmaputra and the vivid colors of traditional dresses of the land...smiling faces, bright in the sunshine. These are the first images that one can picture when someone says Assam.

The land of the mystical forests, The largest of the seven sisters...Assam has much, much more to offer... Assam is virtually a buffet catering to vivid tastes of the modern day tourist...

Assam is well known for its Tea & Silk. The first oil well in Asia was drilled here. Assam is a state of enviable natural beauty in terms of mystical charm and varied species of flora and fauna. The charm, the precious natural wealth and the hospitable people hold visitors spellbound and make Assam a much cherished tourist destination in the country. The rugged and pristine landscape of Assam makes it a hub for adventure tourism too.

Almost every Wildlife enthusiast worth his salt has heard of Kaziranga, but Assam has much more to offer. Assam has as many as five national parks, two of which

have been designated World Heritage site by UNESCO in 1985, 20 wildlife sanctuaries & numerous reserve forests.

Assam receives more rainfall compared to most parts of India. This rain feeds the Brahmaputra River, whose tributaries and oxbow lakes provide the region with many perennial water bodies that are a hotspot for wildlife enthusiasts offering a plethora of species on display.

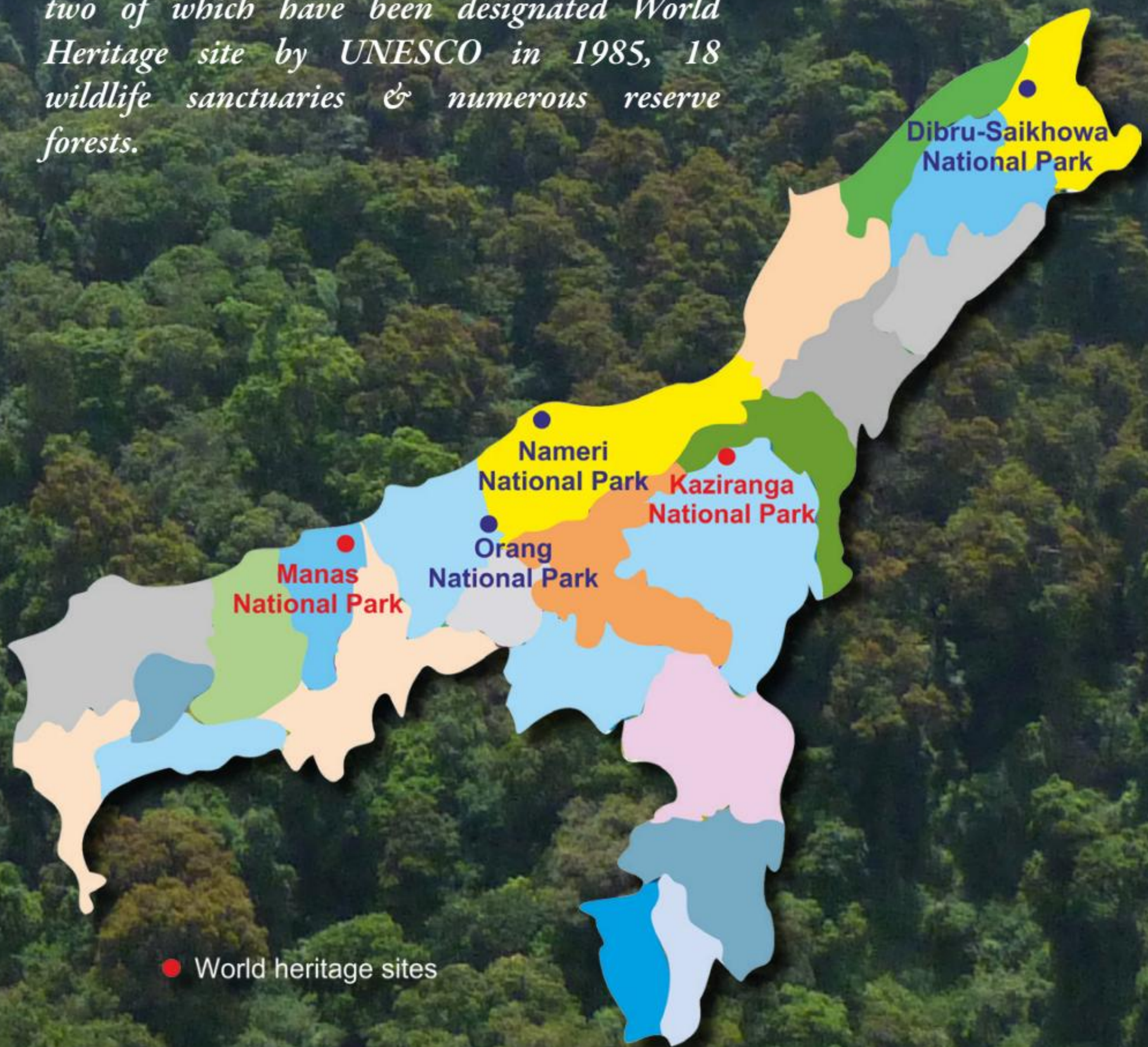
The state has conserved the one-horned Indian rhinoceros from near extinction, along with the wild water buffalo, pygmy hog, tiger and various species of Asiatic birds. It provides one of the last wild habitats for the Asian elephant.

Assam - pristine, mystical, beautiful, vibrant and vivid... all these words would be insufficient to convey the rich natural heritage and the biodiversity the state has to offer... Come let us explore the state of Awesome Assam...



18 Wildlife Sanctuaries
5 National Parks
2 World Heritage Sites

Assam has as many as five national parks, two of which have been designated World Heritage site by UNESCO in 1985, 18 wildlife sanctuaries & numerous reserve forests.





Manas National Park

photo credit: indiagetaways

Manas National Park or Manas Wildlife Sanctuary is a national park, and declared as a IUCN Category II UNESCO Natural World Heritage site, a Project Tiger reserve, an elephant reserve and a biosphere reserve in Assam, India. Located in the Himalayan foothills, it is contiguous with the Royal Manas National Park in Bhutan. The park is known for its rare and endangered endemic wildlife such as the Assam roofed turtle, hispid hare, golden langur and pygmy hog. Manas is famous for its population of the wild water buffalo.

Origin of the name

The name of the park is originated from the Manas River, which is supposed to be named after the serpent goddess Manasa. The Manas river is a major tributary of Brahmaputra River, which passes through the heart of the national park.

History

The Manas National Park was declared a sanctuary on 1 October 1928 with an area of 360 km². Manas bio-reserve was created in 1973. Prior to the declaration of the sanctuary it was a reserved forest called Manas R.F. and North Kamrup R.F. It was used by the Cooch Behar royal family and Raja of Gauripur as a hunting reserve. In 1951 and 1955 the area was increased to 391 km². It was declared a World Heritage site in December 1985 by

UNESCO. Kahitama R.F. the Kokilabari R.F. and the Panbari R.F. were added in the year 1990 to form the Manas National Park. In 1992, UNESCO declared it as a world heritage site in danger due to heavy poaching and terrorist activities. The lack of Strong security due to vehement Terrorist activities had made the park an easy target for the poachers.

On 25 February 2008 the area was increased to 950 km². On 21 June 2011, it was removed from the List of World Heritage in Danger and was commended for its efforts in conservation activities. It is one of the two parks in Assam which is a UNESCO World Heritage site due to the vivid natural heritage.

Manas forest range extends into neighboring nation of Bhutan where it is known as Royal Manas National park. There is only one forest village, Agrang, in the core of the national park. Apart from this village 56 more villages surround the park. Many more fringe villages are directly or indirectly dependent on the park.

The park is known for its rare and endangered endemic wildlife such as the Assam roofed turtle, hispid hare, golden langur and pygmy hog. Manas is famous for its population of the wild water buffalo.

Geography

Political Geography: The park area falls in five districts: Kokrajhar, Chirang, Baksa, Udalguri, and Darrang in the state of Assam in India.

The park is divided into three ranges. The western range is based at Panbari, the central at Bansbari near Barpeta Road, and the eastern at Bhuiyapara near Pathsala. The ranges are not well connected; while two major rivers need to be ford ed in going from the centre to the Panbari, there is a rough trail (the Daimari road) connecting the central to the eastern range. Most visitors come to Bansbari and then spend some time inside the forest at Mathanguri on the Manas river at the Bhutan border.

Physical Geography

Manas is located in the foothills of the Eastern Himalaya and is densely forested. The Manas river flows thorough the west of the park and is the main river within it. It is a major tributary of Brahmaputra river and splits into two separate rivers, the Beki and Bholkaduba as it reaches the plains. Five other smaller rivers also flow through the national park which lies on a wide, low-lying alluvial terrace spreading out below the foothills of the outer Himalaya. The Manas river also serves as an international border dividing India and Bhutan. The bedrock of the savannah area in the north of the

park is made up of limestone and sandstone, whereas the grasslands in the south of the park stand on deep deposits of fine alluvium. The combination of Sub-Himalayan Bhabar Terai formation along with the riverine succession continuing up to Sub-Himalayan mountain forest make it one of the richest areas of biodiversity in the world. The park is 950 km² in area and is situated at a height of 61m to 110m above mean sea level.

Climate:

The minimum temperature is around 15 degrees C and maximum temperature is around 37 degrees C.

Heavy rainfall occurs between May and September. The annual average rainfall is around 333 cm.

Natural history

Biomes - There are two major biomes present in Manas:

The grassland biomes : pygmy hog, Indian rhinoceros (re-introduced in 2007 after extinction due to heavy poaching during the Bodo uprising), bengal florican, wild Asian buffalo, etc.

The forest biomes : slow loris, capped langur, wild pig, sambar, great hornbill, Malayan giant squirrel or black giant squirrel, etc.



Flora

Vegetation: The monsoon forests of Manas lie in the Brahmaputra Valley semi-evergreen forests ecoregion. The combination of Sub-Himalayan Bhabar Terai formation with riverine succession leading up to the Himalayan subtropical broadleaf forests makes it one of the richest biodiversity areas in the world.

The main vegetation types are:

- Sub-Himalayan Light Alluvial Semi-Evergreen forests in the northern parts.
- East Himalayan mixed Moist and Dry Deciduous forests (the most common type).
- Low Alluvial Savanna Woodland, and
- Assam Valley Semi-Evergreen Alluvial Grasslands which cover almost 50% of the park.

Much of the riverine dry deciduous forest is at an early successional stage. It is replaced by moist deciduous forest away from water courses, which is succeeded by semi-evergreen climax forest in the northern part of the park. A total of 543 plant species have been recorded from the core zone. Of these, 374 species are dicotyledons (including 89 trees), 139 species monocotyledons and 30 are Pteridophytes and Gymnosperms.

The park's common trees include *Aphanamixis polystachya*, *Anthocephalus chinensis*, *Syzygium cumini*, *Syzygium formosum*, *Syzygium oblatum*, *Bauhinia purpurea*, *Mallotus philippensis*, *Cinnamomum tamala*, *Actinodaphne obvata*, *Bombax ceiba*, *Sterculia villosa*, *Dillenia indica*, *Dillenia pentagyna*, *Careya arborea*, *Lagerstroemia parviflora*, *Lagerstroemia speciosa*, *Terminalia bellirica*, *Terminalia chebula*, *Trewia polycarpa*, *Gmelina arborea*, *Oroxylum indicum* and *Bridelia* spp. The grasslands are dominated by *Imperata cylindrica*, *Saccharum naranga*, *Phragmites karka*, *Arundo donax*, *Dillenia pentagyna*, *Phyllanthus emblica*, *Bombax ceiba*, and species of *Clerodendrum*, *Leea*, *Grewia*, *Premna* and *Mussaenda*.

Fauna

The sanctuary has recorded 55 species of mammals, 380 species of birds, 50 of reptiles, and 3 species of amphibians. Out of these wildlife, 21 mammals are India's Schedule I mammals and 31 of them are threatened.

The fauna of the sanctuary include Indian elephants, Indian rhinoceros, gaurs, Asian water buffaloes, barasingha, Indian tigers, Indian leopards, clouded

leopards, Asian golden cats, dholes, capped langurs, golden langurs, Assamese macaques, slow loris, hoolock gibbons, smooth-coated otters, sloth bears, barking deers, hog deers, black panthers, sambar deers and chitals.

The park is well known for species of rare and endangered wildlife that are not found anywhere else in the world like the Assam roofed turtle, hispid hare, golden langur and pygmy hog.

The Manas hosts more than 450 species of birds. It has the largest population of the endangered Bengal florican to be found anywhere. Other major bird species include great hornbills, jungle fowls, bulbuls, brahminy ducks, kalij pheasants, egrets, pelicans, fishing eagles, crestedserpent-eagles, falcons, scarletminivets, bee-eaters, magpie robins, pied hornbills, grey hornbills, mergansers, harriers, Indian Peafowl, ospreys and herons.

Travel**BY AIR**

Nearest Airport is Guwahati (180 kms / 5 hrs drive approx.). Regular flight operates from Bagdogra, Kolkata, New Delhi, Mumbai, Bangalore, Chennai, Jaipur, Hyderabad, Goa, Dibrugarh, Jorhat by Indian Airlines (Air India), Jet Airways, Jetlite, Indigo, & Go Air. Drukair connects Bangkok & Paro (Bhutan) with Guwahati twice a week.

BY ROAD

Manas is 176 kms from Guwahati. The National Highway No. 31 adjoins Barpeta Road (not Barpeta town) which is 22 kms to Bansbari (Manas entry point where Musa Jungle Retreat is located overlooking the Park). The journey from Guwahati by road is 5 hrs. Approx.

Other road distances to Manas are:

Siliguri to Musa, Manas:	326 Km
Bagdogra to Musa, Manas:	335 Km
Kaziranga to Musa, Manas:	401 Km

BY RAIL

Guwahati is gateway to the North East India. All major cities of India are well connected to Guwahati including Rajdhani Express.

There are several train stops at Barpeta Road Railway Station, which is 22 kms to Bansbari (MusaJungle Retreat, Manas) by road.



Kaziranga National Park

photo credit: shikhar

Kaziranga National Park Located in the Golaghat and Nagaon districts of the state of Assam, India. The sanctuary, which hosts two-thirds of the world's great one-horned rhinoceroses, is a World Heritage Site. According to the census held in March 2015, jointly conducted by the Forest Department of the Government of Assam and some recognized wildlife NGOs, the rhino population in Kaziranga National Park is 2,401. It comprises 1,651 adult rhinos (663 male, 802 are females, 186 unsexed); 294 sub-adults (90 males, 114 females, 90 unsexed); 251 juveniles and 205 cubs.

Kaziranga is home to the highest density of tigers among protected areas in the world, and was declared a Tiger Reserve in 2006. The park is home to large breeding populations of elephants, wild water buffalo, and swamp deer. Kaziranga is recognized as an Important Bird Area by BirdLife International for conservation of avifaunal species. When compared with other protected areas in India, Kaziranga has achieved notable success in wildlife conservation. Located on the edge of the Eastern Himalaya biodiversity hotspot, the park combines high species diversity and visibility.

Kaziranga is a vast expanse of tall elephant grass, marshland, and dense tropical moist broadleaf

forests, criss-crossed by four major rivers, including the Brahmaputra, and the park includes numerous small bodies of water. Kaziranga has been the theme of several books, songs, and documentaries. The park celebrated its centennial in 2005 after its establishment in 1905 as a reserve forest.

History

The history of Kaziranga as a protected area can be traced back to 1904, when Mary Curzon, Baroness Curzon of Kedleston, the wife of the then Viceroy of India, Lord Curzon of Kedleston, visited the area.

After failing to see a single rhinoceros, for which the area was renowned, she persuaded her husband to take urgent measures to protect the dwindling species. Lord Curzon did the same by initiating planning for their protection. And on 1st June 1905, the Kaziranga Proposed Reserve Forest was created with an area of 232 km² (90 sq mi). Over the next three years, the park area was extended by 152 km² (59 sq mi), to the banks of the Brahmaputra River. In 1908, Kaziranga was designated a "Reserve Forest". In 1916, it was re-designated the "Kaziranga Game Sanctuary" and remained so till 1938, when hunting was prohibited and visitors were permitted to enter the park.



photo credit: kaziranga-national-park

The Kaziranga Game Sanctuary was renamed the “Kaziranga Wildlife Sanctuary” in 1950 by P. D. Stracey, the forest conservationist, in order to rid the name of hunting connotations. In 1954, the government of Assam passed the Assam (Rhinoceros) Bill, which imposed heavy penalties for rhinoceros poaching. [citation needed] Fourteen years later, in 1968, the state government passed the Assam National Park Act of 1968, declaring Kaziranga a designated national park. The 430 km² (166 sq mi) park was given official status by the central government on 11th February 1974. In 1985, Kaziranga was declared a World Heritage Site by UNESCO for its unique natural environment.

Kaziranga has been the target of several natural and man-made calamities in recent decades. Floods caused by the overflow of the river Brahmaputra, leading to significant losses of animal life. Encroachment by people along the periphery had also led to a diminished forest cover and a loss of habitat.

Geography

Kaziranga is located between latitudes 26°30' N and 26°45' N, and longitudes 93°08' E to 93°36' E within two districts in the Indian state of Assam—the Kaliabor subdivision of Nagaon district and the Bokakhat subdivision of Golaghat district.

The park is approximately 40 km (25 mi) in length from east to west, and 13 km (8 mi) in breadth from north to south. Kaziranga covers an area of 378 km² (146 sq mi), with approximately 51.14 km²

(20 sq mi) lost to erosion in recent years. A total addition of 429 km² (166 sq mi) along the present boundary of the park has been made and designated with separate national park status to provide extended habitat for increasing the population of wildlife or, as a corridor for safe movement of animals to Karbi Anglong Hills. Elevation ranges from 40 m (131 ft) to 80 m (262 ft). The park area is circumscribed by the Brahmaputra River, which forms the northern and eastern boundaries, and the Mora Diphlu, which forms the southern boundary. Other notable rivers within the park are the Diphlu and Mora Dhansiri.

Kaziranga has flat expanses of fertile, alluvial soil, formed by erosion and silt deposition by the River Brahmaputra. The landscape consists of exposed sandbars, riverine flood-formed lakes known as, beels, (which make up 5% of the surface area) and elevated regions known as, chapories, which provide retreats and shelter for animals during floods. Many artificial chapories have been built with the help of the Indian Army to ensure the safety of the animals. Kaziranga is one of the largest tracts of protected land in the sub-Himalayan belt, and due to the presence of highly diverse and visible species, has been described as a “biodiversity hotspot”. The park is located in the Indomalaya ecozone, and the dominant biomes of the region are Brahmaputra Valley semi-evergreen forests of the tropical and subtropical moist broadleaf forests biome and a frequently flooded variant of the Terai-Duar savanna and grasslands of the tropical and subtropical grasslands, savannas, and shrublands biome.

Kaziranga is also surrounded by lush green tea plantations, most of them contributing heavily to Assam's economy.

Climate

The park experiences three seasons: summer, monsoon, and winter. The winter season, between November and February, is mild and dry, with a mean high of 25 °C (77 °F) and low of 5 °C (41 °F). During this season, beels and nallahs (water channels) dry up. The summer season between March and May is hot, with temperatures reaching a high of 37 °C (99 °F). During this season, animals usually are found near water bodies. The rainy monsoon season lasts from June to September, and is responsible for most of Kaziranga's annual rainfall of 2,220 mm (87 in). During the peak months of July and August, three-fourths of the western region of the park is submerged, due to the rising water level of the Brahmaputra. It was found that 70% of the National Park was flooded as on 3 August 2016. The flooding causes most animals to migrate to elevated and forested regions outside the southern border of the park, such as the Mikir hills. 540 animals, including 13 rhinos and mostly hog deers perished in unprecedented floods of 2012. However, occasional dry spells create problems as well, such as food shortages and occasional forest fires.

Fauna

The Kaziranga national park is rich in biodiversity and is home to a vivid selection of creatures. It supports breeding populations of 35 mammalian species, out of which 15 are threatened as per the IUCN Red List. The park has the distinction of being home to the

world's largest population of the Greater One-Horned Rhinoceros (1,855), wild Asiatic water buffalo (1,666) and eastern swamp deer (468). Significant populations of large herbivores include elephants (1,940), gaur (30) and sambar (58). Small herbivores include the Indian muntjac, wild boar, and hog deer. Kaziranga has the largest population of the Wild water buffalo anywhere accounting for about 57% of the world population.

Kaziranga is one of the few wild breeding areas outside Africa for multiple species of large cats, such as Bengal tigers and leopards. Kaziranga was declared a Tiger Reserve in 2006 and has the highest density of tigers in the world (one per five km²), with a population of 118, according to the last census. Other felids include the jungle cat, fishing cat, and leopard cat. Small mammals include the rare hispid hare, Indian gray mongoose, small Indian mongooses, large Indian civet, small Indian civets, Bengal fox, golden jackal, sloth bear, Chinese pangolin, Indian pangolins, hog badger, Chinese ferret badgers, and parti-colored flying squirrel. Nine of the 14 primate species found in India occur in the park. Prominent among them are the Assamese macaque, capped and golden langur, as well as the only ape found in India, the hoolock gibbon.

Kaziranga has been identified by Birdlife International as an Important Bird Area. Almost 478 species of birds (both migratory and resident) have been spotted at the park, including 25 globally threatened and 21 near threatened species.



It is home to a variety of migratory birds, water birds, predators, scavengers, and game birds. Birds such as the lesser white-fronted goose, ferruginous duck, Baer's pochard duck and lesser adjutant, greater adjutant, black-necked stork, and Asian openbill stork migrate from Central Asia to the park during winter. Riverine birds include the Blyth's kingfisher, white-bellied heron, Dalmatian pelican, spot-billed pelican, Nordmann's greenshank, and black-bellied tern. Raptor Species include the rare eastern imperial, greater spotted, white-tailed, Pallas's fish eagle, grey-headed fish eagle, and the lesser kestrel.

Kaziranga was once home to seven species of vultures, but the vulture population reached near extinction, supposedly by feeding on animal carcasses containing the drug Diclofenac. Only the Indian vulture, slender-billed vulture, and Indian white-rumped vulture have survived. Game birds include the swamp francolin, Bengal florican, and pale-capped pigeon.

Other families of birds inhabiting Kaziranga include the great Indian hornbill and wreathed hornbill, Old World babblers such as Jerdon's and marsh babblers, weaver birds such as the common baya weaver, the threatened species of Finn's weavers, thrushes such as Hodgson's bushchat and Old World warblers such as the bristled grassbird. Other threatened species include the black-breasted

parrotbill and the rufous-vented prinia.

Kaziranga is home to two of the largest snake species in the world, the reticulated python and rock python, as well as the longest venomous snake in the world, the king cobra, inhabit the park. Other snakes found here include the Indian cobra, monocled cobra, Russell's viper, and the common krait. Monitor lizard species found in the park include the Bengal monitor and the Asian water monitor. Other reptiles include fifteen species of turtle, such as the endemic Assam roofed turtle and one species of tortoise, the brown tortoise. Coming to the marine fauna, Kaziranga's rivers are also home to the endangered Ganges dolphin, and 42 species of fish are found in waters of Kaziranga national park, including the Tetraodon.

Flora

There are Four main types of vegetation that exist in Kaziranga National park. Namely, alluvial inundated grasslands, alluvial savanna woodlands, tropical moist mixed deciduous forests, and tropical semi-evergreen forests.

There is a difference in altitude between the eastern and western areas of the park, with the western side being at a lower altitude.





photo credit: Wikimedia Commons

The western reaches of the park are dominated by grasslands. Tall elephant grass is found on higher ground, while short grasses cover the lower grounds surrounding the beels or flood-created ponds. Annual flooding, grazing by herbivores, and controlled burning maintain and fertilize the grasslands and reeds.

Common tall grasses found in the region are sugarcane, spear grass, elephant grass, and the common reed. Numerous forbs are present along with the grasses. Amidst the grasses, providing cover and shade are scattered trees-dominant species including kumbhi, Indian gooseberry, the cotton tree (in savanna woodlands), and elephant apple (in inundated grasslands).

Thick evergreen forests, near the Kanchanjhuri, Panbari, and Tamulipathar blocks, contain trees such as *Aphanamixis polystachya*, *Talauma hodgsonii*, *Dillenia indica*, *Garcinia tinctoria*, *Ficus rumphii*, *Cinnamomum bejolghota*, and species of *Syzygium*. Tropical semi-evergreen forests are present near Baguri, Bimali, and Haldibari. Common trees and shrubs are *Albizia procera*, *Duabanga grandiflora*, *Lagerstroemia speciosa*, *Crateva unilocularis*, *Sterculia urens*, *Grewia serrulata*,

Mallotus philippensis, *Bridelia retusa*, *Aphania rubra*, *Leea indica*, and *Leea umbraculifera*. There are many different aquatic species of flora in the lakes and ponds, and along the river shores. The invasive water hyacinth is very common, often choking the water bodies, but it is cleared during destructive floods. Another invasive species, *Mimosa invisa*, which is toxic to herbivores, was cleared by Kaziranga staff with help from the Wildlife Trust of India in 2005.

Conservation Activity

Kaziranga National Park has been granted maximum protection under the Indian law for wildlife conservation. Various laws, which range in dates from the Assam Forest Regulation of 1891 and the Biodiversity Conservation Act of 2002, have been enacted for protection of wildlife in the park.

For controlling poaching many steps have been taken by the park authorities including maintenance of existing and construction of new poaching camps, adequate staffing, providing mobility, patrolling, intelligence gathering, firearms and control over the use of firearms around the park. The park has about 122 anti-poaching camps scattered throughout the Park, including two floating camps on the Brahmaputra River.

There are 123 country boats, 6 mechanized boats, 4 speed boats (OBM), 2 motor launches, 20 motor vehicles and 47 departmental elephants to assist the anti-poaching squad. There are some 800 personnel, which include about 200 forest guards, game watchers, home guards, forest protection force, and temporary staff who guard the park round the clock. The foresters are provided with weapons, fixed and mobile wireless stations and more than a hundred walkie-talkies which helps in the anti-poaching activities and in fighting against the poachers. With effective protection methods the number of poaching cases has declined in the park over the past few years.

Perennial flooding and heavy rains have resulted in death of wild animals and caused damage to the conservation infrastructures. To escape the water-logged areas, many animals migrate to elevated regions outside the park boundaries where they are susceptible to hunting, hit by speeding vehicles, or subject to reprisals by villagers for damaging their crops. To mitigate the losses, the authorities have increased patrols, purchased additional speedboats for patrol, and created artificial highlands for shelter. Several corridors have been set up for the safe passage of animals across National Highway-37 which skirts around the southern boundary of the park.

To prevent the spread of epidemic diseases and to maintain the genetic distinctness of the wild species, systematic steps such as immunization of livestock in surrounding villages and fencing of sensitive areas of the park, which are susceptible to encroachment by local cattle, are undertaken periodically.

Extensive research on the reasons for straying and wildlife behaviour, erecting physical barriers, tranquilization, keeping vigil and mobile patrolling especially during the flood and cropping seasons are done by the park management from time to time.

Water pollution due to run-off from pesticides from

tea gardens, and run-off from a petroleum refinery at Numaligarh, pose a hazard to the ecology of the region. Invasive species such as Mimosa and wild rose have posed a threat to the native plants in the region. To control the growth and irradiation of invasive species, research on biological methods for controlling weeds, manual uprooting and weeding before seed settling are carried out at regular intervals. Grassland management techniques, such as controlled burning, are effected annually to avoid forest fires.

Travel

By Air to Guwahati/ Jorhat / Dibrugarh/ Silchar:

Most convenient way to reach Kohora is to take a flight to Guwahati for all those coming from outside the North-east India. Guwahati has regular flights to and from Delhi, Kolkata, Imphal, Agartalla, Bagdogra, Dibrugarh, Silchar and Jorhat. One can alight at Guwahati and proceed by road to Kohora/ Bagori; and it may take about 4-5 hours of road journey. Jorhat has flights from Guwahati and Kolkata. One can alight at Jorhat, and travel one and half hours to Kohora by road. Silchar is well connected with Guwahati and Kolkata. However, the road journey could be long and arduous. One could also alight at Dibrugarh and travel by road to Kohora, but the road journey would be long and arduous.

By Rail to Guwahati/ Jorhat:

One can reach by railways to Guwahati, which is well connected to the rest of India. From Guwahati, one can, then, go by road to Kohora. There are also trains to Jorhat from Guwahati/ Dibrugarh. One can alight at Jorhat and drive by road to Kohora.

By Road from Guwahati:

Kohora is the main tourist hub for Kaziranga. Its on the National Highway 37 (NH 37) which is linked to Guwahati on the west and Jorhat on the east. One can take buses, Cabs from Guwahati, Tezpur, Jorhat, Silchar, Shillong and Golaghat.



The Orang National Park

stronghold of rhinoceros



photo credit: assaminfo

The Orang National Park, located on the north bank of the Brahmaputra River in the Darrang and Sonitpur districts of Assam, India, covers an area of 78.81 square kilometres (30.43 sq mi).

Established as a sanctuary in 1985 and declared a national park on 13 April 1999 Orang National Park is also known as the mini Kaziranga National Park (IUCN site) since the two parks have a similar toplogy made up of marshes, streams and grasslands. The park has a rich flora and fauna, including great Indian one-horned rhinoceros, pigmy hog, elephants, wild buffalo and tigers. It is the only stronghold of rhinoceros on the north bank of the Brahmaputra river

History

The park has a chequered history of habitation. Up to 1900, it was inhabited by the local tribes. On account of an epidemic disease, the tribal population abandoned the area. However, in 1919 the British declared it as Orang Game Reserve vide notice No. 2276/R dated May 31, 1915. The game reserve came under the control of the wild life wing of the State Forest Department to meet the requirements of the Project Tiger. It was established as a wild life sanctuary in 1985, vide notification No. FRS 133/85/5 dated September 20, 1985. But in 1992, the park was renamed as Rajiv Gandhi Wildlife Sanctuary but this action had to be reversed due to public pressure against the renaming. Finally, the sanctuary was declared as National Park in 1999 vide notification No. FRW/28/90/154 April 8, 1999.

Geography

The Orang National Park, encompassing an area of 78.81 square kilometres (30.43 sq mi), lies on the north bank of the Brahmaputra river, delimited between 26.483°N 92.266°E and 26.666°N 92.45°E within the districts of Darrang and Sonitpur. Pachnoiriver, Belsiri river and Dhansiri River border the park and join the Brahmaputra river. During the monsoon season, the park becomes a veritable flood plain with the many streams overlapping each other. These flood plains constitute twelve wetlands in the park, apart from the 26 manmade water bodies.

The park is thus formed of alluvial flood plains of the many rivers and is an integral part of the Indo-Burma biodiversity hotspot. The total area of the park has been categorized into: Eastern Himalayan Moist Deciduous Forest-15.85 square kilometres (6.12 sq mi); Eastern Seasonal Swamp Forest - 3.28 square kilometres (1.27 sq mi), Eastern Wet Alluvial Grassland- 8.33 square kilometres (3.22 sq mi), Savannah Grassland- 18.17 square kilometres (7.02 sq mi), Degraded Grassland-10.36 square kilometres (4.00 sq mi), Water body- 6.13 square kilometres (2.37 sq mi), Moist Sandy area-2.66 square kilometres (1.03 sq mi) and Dry Sandy area -4.02 square kilometres (1.55 sq mi). It has a fairly flat terrain tending north to south with a gentle slope. The elevation in the park varies from 45 metres (148 ft) to 70 metres (230 ft). It is bounded on its south and east by islands and spill channels of the river. But the flat alluvial land is seen distinctly as two terraces; the lower terrace is of

recent origin on the bank of the Brahmaputra river and the other is the upper terrace to the north, separated by a high bank running through the park. The whole park is encircled by inhabited villages thus subjecting it to biotic pressure. It has fox holes built by the villagers on its west.

Fauna

Orang park contains significant breeding populations of several mammalian species. Apart from the great Indian one-horned rhinoceros (68 at the last count), which is the dominant species of the national park, the other key species sharing the habitat are the royal Bengal tiger (*Pantheratigris*), Asiatic elephant, pygmy hog, hog deer and wild boar. Some important species of the critically endangered and endangered category are the following.

The pygmy hog, a small wild pig, is critically endangered, C2a(ii) ver 3.1 as per IUCN listing, and is limited to about 75 animals in captivity, confined to a very few locations in and around north-western Assam, including the Orang National Park where it has been introduced. Other mammals reported are the blind Gangetic dolphin, Indian pangolin, hog deer (*Axis porcinus*), rhesus macaque, Bengal porcupine, Indian fox, small Indian civet, otter, leopard cat (*Prionailurus bengalensis*), fishing cat (*Felis viverrina*) and jungle cat (*Felis chaus*).

The royal Bengal tiger (*Pantheratigris tigris*), categorized as endangered on the IUCN Red List (IUCN, 2008), has an estimated population of about 19 (data source:- Forest Department of Assam; census year 2000, based on pug marks) in the park.

The great Indian one-horned rhinoceros (*Rhinoceros unicornis*) even though well conserved now in many national parks and in captivity, is still in the endangered list of IUCN and its population is estimated at 68, as per census carried out by the forest department, in 2006.

Fishes

More than 50 species of fish have been recorded in the river and channels flowing through the park.

Avian Fauna

The park is home to a variety of migratory birds, water birds, predators, scavengers and game birds. 47 families of Anatidae, Accipitridae, Addenda and Ardeiae are found in the park with maximum number of species. 222 species of birds have so far been recorded, some of which are: spot-billed pelican (*Pelicanus philippensis*), great white pelican, black-necked stork (*Ephippiorhynchus asiaticus*), greater adjutant stork (*Leptoptilos dubius*), lesser adjutant stork (*Leptoptilos javanicus*), ruddy shelduck (*Tadorna ferruginea*), gadwall (*Anas strepera*), brahminy duck, mallard (*Anas platyrhynchos*), pintail (*Anas acuta*), hornbills, Pallas's fish eagle (*Haliaeetus leucoryphus*), king fisher and woodpecker, in addition to forest and grassland birds. But Bengal florican (*Houbaropsis bengalensis*), which is in the threatened list of IUCN is one of the flagship species in the park with a population 30-40 (recorded second highest concentration as per Bombay Natural History Society (BNHS)) and is in the threatened list of IUCN. Migratory birds as far as from America such as the milky American white pelicans have also been reported in the park.



Reptiles

Among reptiles, seven species of turtle and tortoise are found, out of which turtle varieties such as *Lissemys punctata*, *Kachuga tecta* are common. Among snakes, pythons and cobras are recorded here. Indian rock python, black krait, king cobra, cobra, monitor lizard are the reptiles found here.

Flora

The park has rich vegetation of forests, natural forest, non-aquatic grass/plants. The forest species found are *Bombax ceiba*, *Dalbergiasissoo*, *Sterculiavillosa*, *Trewianudiflora*, *Zizyphusjuzuba* and *Litsaea polyantha*. Among the non aquatic grassland species the prominent are *Phragmiteskarka*, *Arundodonax*, *Imperatacylindrica* and *Saccharum spp.* The aquatic grass/plants species found are: *Andropogon spp.*, *Ipomoea reptans*, *Enhydrafluctuans*, *Nymphaea spp.* and *Water hyacinth (Eichorniaspp.)*.

Threats and conservation

From 1991, there was a serious threat to the survival of the park and its wild animals due to intense anthropogenic pressure (illegal occupation by immigrants from neighboring country) and by insurgency. The threats were identified as due to poaching, inadequate manpower for patrolling and security, wide river channels, inadequate infrastructure facilities and hardly any community awareness and participation in conservation. Poaching for wild animals became very serious, particularly of the great Indian rhinoceros whose population reduced to 48 vis-à-vis 97 rhinoceros in 1991. By undertaking anti poaching measures, its number had increased to 68 in 2006-07 but poaching and killing of rhinos are still reported. To check this continued poaching, a "Coordination Committee" with top officials of Darrang, Sonitpur and the Marigaon districts, including officials of the Forest Department of Assam has been set up. Under an initiative by the World Association of Zoos and Aquariums (WAZA), the Orang National Park was identified for conservation to evolve policies and programmes to protect the Indian rhinos and to assist in the development of the park. WWF India, the Government of Assam and the International Rhino Foundation (IRF), with support from Zoo Basel, (Switzerland) and the IRV 2020, have undertaken this operation. WWF and Government of India, under the project titled "Rhino Vision India (RVI)", have also plans to enhance the number of rhinoceros in the park to 300 by 2020, in addition to increasing the number of tigers.

Since royal Bengal tigers are also under serious threat in the park, a conservation programme sponsored by WAZA (World Association of Zoos and Aquariums) institutions and Busch Gardens has been launched. It is a closely managed tiger program called the "Species Survival Plan (SSP), with the objective to improve the genetic diversity of managed animal populations. Under this programme, the project titled "Ecological Monitoring of Wild Tigers in Orang National Park, Assam, India" has been launched, in association with AARANYAK, a non-governmental organization in India. With this funding, camera traps and geo-spatial technology are used by local researchers to monitor tiger density in the park. Community participation to help manage, mitigate and prevent conflict between humans and tigers is also envisaged.

Visitor information

The park is well connected by road, rail and air links with nearby towns in Assam.

Nearest town - Tezpur at a distance of

32 kilometres (20 mi)

Guwahati - 140 kilometres (87 mi).

It is 15 kilometres (9.3 mi) off the National Highway 52 near Orang town (Dhansirimukh), which is the nearest village that is a further 12 kilometres (7.5 mi) away.

Dhansirimukh is 127 kilometres (79 mi) away from Guwahati.

Nearest railhead is Salonibari (41 kilometres (25 mi)) & Rangapara. (Both Tezpur and Guwahati are connected very well by the rail network of India.) The nearest airport is at Salonibari, 10 kilometres (6.2 mi) from Tezpur (80 km from the park)

In Sonitpur district.

Best season to visit the park: October to April

Visiting is restricted to 7:30-9:30 am and 2:00-3:00 pm, the park gate remains closed in between.

However, advance authorization of the Divisional Forest Officer, Mangaldoi is essential to visit the park.

Among reptiles, seven species of turtle and tortoise are found, out of which turtle varieties such as Lissemys punctata, Kachuga tecta are common. Among snakes, pythons and cobras are recorded here. Indian rock python, black krait, king cobra, cobra, monitor lizard are the reptiles found here.

Wildlife Sanctuaries of Assam



The Hoollongapar Gibbon Sanctuary

Formerly known as the Gibbon Wildlife Sanctuary or Hoollongapar Reserve Forest is an isolated protected area of evergreen forest located in Assam, India. The sanctuary was officially constituted and renamed in 1997. Set aside initially in 1881, its forests used to extend to the foothills of the Patkai mountain range.

Since then, the forest has been fragmented and surrounded by tea gardens and small villages. In the early 1900s, artificial regeneration was used to develop a well-stocked forest, resulting in the site's rich biodiversity. The Hoollongapar Gibbon Sanctuary contains India's only gibbons - the hoolock gibbons, and Northeastern India's only nocturnal primate - the Bengal slow loris.

The upper canopy of the forest is dominated by the Hollong tree (*Dipterocarpus macrocarpus*), while the Nahar (*Mesua ferrea*) dominates the middle canopy. The lower canopy consists of evergreen shrubs and herbs. The habitat is threatened by illegal logging, encroachment of human settlements, and habitat fragmentation.

The Hoollongapar Gibbon Sanctuary is classified as "Assam plains alluvial semi-evergreen forests" with some wet evergreen forest patches. It receives 249 cm (98 in) of rainfall on average per year. Situated at an altitude between 100 and 120 m (330 and 390 ft), the topography gently slopes downward from southeast to northwest. The Bhogdoi River creates a waterlogged region dominated by semi-hydrophytic plants along the border of the sanctuary, helping to create three distinct habitat zones or micro-ecosystems in the park: the up-slope zone, the down-slope zone, and the flood-prone zone.

The sanctuary has a very rich biodiversity and is home to the only apes in India, the western hoolock gibbon (*Hoolock hoolock*), as well as the only nocturnal primate found in the northeast Indian states, the Bengal slow loris (*Nycticebus bengalensis*). Other primates include the stump-tailed macaque (*Macaca arctoides*), northern pig-tailed macaque (*Macaca leonina*), eastern Assamese macaque (*Macaca assamensis assamensis*), rhesus macaque (*Macaca mulatta*), and capped langur (*Trachypithecus pileatus*). Also found at the sanctuary are Indian elephants, tigers (*Panthera tigris*), leopards (*Panthera pardus*), jungle cats (*Felis chaus*), wild boar (*Sus scrofa*), three types of civet, four types of squirrel, and several other types of mammal. At least 219 species of bird and several types of snake are known to live in the park.



Garampani Wildlife Sanctuary

Garampani Wildlife Sanctuary is a 6.05-square-kilometre (2.34 sq mi) wildlife sanctuary located in Karbi Anglong district, Assam, India. It is 25 km (16 mi) from Golaghat. It is one of the oldest sanctuaries containing hot water spring and waterfalls and surrounded by Nambor Sanctuary having 51 rare species of orchid. The nearest Airport Dimapur is 55 km and Jorhat Airport is 85 km away. The road distances from nearest Towns : from Golaghat is 35 km, from Diphu is 92 km, from Guwahati is 330 km and Kaziranga is 45 km away. The best time to visit is November to April.

Bura Chapori Wildlife Sanctuary

Bura Chapori Wildlife Sanctuary is a protected area located in the state of Assam in India. This wildlife sanctuary covers 44.06 km², on the south bank of the Brahmaputra River in Sonitpur district. The area was declared a Reserved forest in 1974, it became a sanctuary in 1995. It is located 40 km from Tezpur town and 181 km away from Guwahati.

It is considered to be an ideal habitat for the Bengal florican. It is a paradise for many migratory birds. Reptiles and fish are also found here. Indian rhinoceros, tiger, leopard, wild buffalo, hog deer, wild pigs and occasionally a herd of elephants. Birds species in the area are the Bengal florican, black-necked stork, mallard, openbill stork, teal, whistling duck and many others.



Bornadi Wildlife Sanctuary

Bornadi Wildlife Sanctuary is a 26.22-square-kilometre (10.12 sq mi) wildlife sanctuary situated on the foothills of Himalayas bordering Bhutan in the north and in Udalguri district & Baksa District of Assam. This sanctuary is named after the river Bornadi which flows on its western border. It is 30 km (19 mi) from Tangla town and 130 km (81 mi) from Guwahati. The sanctuary was established in 1980 to protect the hispid hare (*Caprolagus hispidus*) and pigmy hog (*Porcula salvania*). The climate of the area is sub-tropical.

There are mammals such as the pygmy hog, golden langur, clouded leopard, hoolock gibbon and white-winged wood duck. There are also some migratory and local birds like peafowl, hornbill, swamp partridge, Bengal florican, kingfisher, woodpecker, etc.

Sonai Rupai Wildlife Sanctuary

The Sonai Rupai Wildlife Sanctuary is a protected area located in the state of Assam in India. This wildlife sanctuary covers 175 km². It is located along the foothills of the Great Himalayan Range. The area was declared as a sanctuary in 1998. It is located 52 km from Tezpur town and 193 km away from Guwahati.

Mammals: tiger, lesser cats, elephant, qaur, wild boar, hog deer and barking deer. Birds: white winged wood duck, hornbill, pelican, and various types of migratory birds. Reptiles: python, Russell's viper, etc.

Pobitora Wildlife Sanctuary

Pobitora or Pabitora Wildlife Sanctuary is a wildlife reserve in the Morigaon district of the state of Assam in India. It is located about 30 km east of Guwahati. The Pobitora Wildlife Sanctuary is about 48 km by road from Guwahati. It is a 1-hour drive through a road passing by River Brahmaputa, and a small portion of the village of Mayong. It has a dense population of the Great Indian one-horned rhinoceros. It covers 38.8 km². Though the total notified area of the park is 38.80 square kilometres, only 16 square kilometres is the effective rhino habitat. Pobitora was declared a reserved forest in 1971 and a wildlife sanctuary in 1987. It covers flat flood plains and a hillock (Raja Mayong).

Pobitora is mainly famous for its great Indian One-horned rhinoceros. Besides rhinoceros, the other animals are leopard, wild boar, Barking deer, wild buffalo etc. Assam's Pobitora Wildlife Sanctuary is also home to more than 2000 migratory birds and various reptiles. It is also an Important Bird Area. In Pobitora wildlife sanctuary, there are now around 93 rhinos, a ten per cent increase over the last six years. These 93 rhinos are surviving on merely 16 square kilometre area of the park. Pobitora has exceeded its rhino-bearing capacity and is overpopulated.

The animals have begun moving outside the sanctuary in search of food, and chances of serious man-animal conflict are quite rife. Besides, the straying animals carry the risk of contracting diseases that afflict domestic animals. Under the Indian Rhino Vision 2020 (IRV 2020) which is a joint programme of the department of environment & forests, Govt of Assam, WWF India, the International Rhino Foundation and the US fish & wildlife service, six rhinos were translocated from Pobitora and re-introduced into the Manas National Park between December 2010 and January 2011. Earlier, under the same programme, two rhinos were similarly translocated from Pobitora to the Manas national Park in 2008. Pobitora is very beautiful place.

Pobitora is also home to over 375 species of birds. Pobitora is running a successful Rhino breeding program within its sanctuary. It is running under Indian Government as "Indian Rhino vision 2020". Places to see in pobitora include Haduk Hanging bridge and Garanga Beel pond. Elephant rides and jeep safaris are major activities which are held by management.



Pani Dihing Wildlife Sanctuary

Pani Dihing Wildlife Sanctuary is a 33.93-square-kilometre (13.10 sq mi) wildlife sanctuary located in Sivasagar district, Assam. It is 22 km (14 mi) away from Sivasagar town. This protected area was established as a Bird Sanctuary in August 1999 by the Government of Assam.

The climate of the area is moist tropical and annual temperature ranges between 8-35 Celsius annually. Annual rainfall is approximately 3200 mm with a relative humidity of 65-85 %.

The sanctuary is bordered by the Brahmaputra and the Dishang rivers in the north west and south respectively.

As many as 267 species of birds including 70 species of migratory birds have been identified and recorded at Pani Dihing. The common birds seen here are bar-headed goose, greylag goose, spot-billed duck, mallards, gadwall, wigeon, garganey, shoveller, red crested pochard, common pochard, ferruginous duck, adjutant stork, kingfisher, lesser adjutant stork, open bill stork, white necked stork. The rare griffon and white-rumped vultures have also been spotted at the sanctuary.

Although an important birding area supporting a very large population of birds, Pani Dihing has suffered on account of poaching, grazing of cattle and fishing within the sanctuary premises.

Bherjan-Borajan-Padumoni Wildlife Sanctuary

Bherjan-Borajan-Padumoni Wildlife Sanctuary is a protected area located in Tinsukia district of Assam in India covering 7.22 km². This wildlife sanctuary is spread across three blocks located in Tinsukia district of Upper Assam which consist of three separate forests, namely

Bherjan, Borajan and Padumoni. It is a very important forest in terms of conservation and includes habitat for hoolock gibbon, capped langur, pig-tailed macaque, slow loris, rhesus macaque, leopard, etc.

Nabor Wildlife Sanctuary

Nabor Wildlife Sanctuary is a protected area located in Karbi Anglong district of Assam in India. This wildlife sanctuary covers an area of 37 km². The area was declared as a sanctuary on 27 July 2000. It is located 25 km from Golaghat district and 65 km from the Kaziranga National Park.

Bhelu, Gomari, Ajar, Nahor, Udiyam, Poma, Bon Som etc. It harbors 51 rare species of orchid. The mammals of the area are elephant, hoolock gibbon, stumped tailed macaque, pigtailed macaque, slow loris, Assamese macaque, rhesus macaque, tiger, leopard, fishing cat, barking deer, sambar, wild pigs, gaur, etc.

Great pied hornbill, hill myna, imperial pigeon, green pigeon, jungle fowl, pheasant, quail, whistling teal, cotton teal, plover, hawk, magpies, parrot, hornbill, racket tailed drone, rock dove, king crow, etc.

Reptiles - python, cobra and monitor lizards.

North Karbi Anglong Wildlife Sanctuaries

The Sanctuary though located in Karbi Anglong Autonomous District Council, is extremely important for the survival of Kaziranga N.P., as it is strategically located to the south of Kaziranga National Park and provides shelter to most of the animals of the park while migrating during annual floods.

Mammals : Tiger, Lesser cats, Elephant, Gaur, Sambar, Bears, Barking deer, Rhesus macaque, Hoolock gibbon, Capped langur, Slow loris etc.

How to reach : From Jorhat Airport it is about 88 kms. away and from Guwahati LGBI Airport it is about 217 kms. The Sanctuary is also 205 kms. away from Diphu.

East Karbi Anglong Wildlife Sanctuary

East Karbi Anglong Wildlife Sanctuary is located in the Assam state of India. It is situated 35 km from the city of Diphu, Karbi Anglong district. It covers an area of 221.81 km², and its elevation varies between 80 to 500 meter above sea level. The forest area was declared a wildlife sanctuary on 27 July 2000 by the Assam State Government.

The annual rainfall is around 1800 millimeter and average temperature is around 34° C and minimum of 6° C.

East Karbi Anglong Wildlife Sanctuary is a home to a great variety of wildlife, mammals and reptiles like tiger, elephant, bear, hoolock gibbon, leopard, clouded leopard, Indian pangolin, small Indian civet, pig-tailed macaque, leopard cat, sambar, barking deer, porcupine, mongoose, king cobra, monitor lizard, python and others. And around 250 bird species have been recorded till date some like, great hornbill, common green pigeon, lesser racket-tailed drongo, black hooded oriole etc.

Laokhowa Wildlife Sanctuary

Laokhowa Wildlife Sanctuary is protected area located in the state of Assam in India. This wildlife sanctuary covers 70.13 km² on the south bank of the Brahmaputra River in Nagaon district, It is situated 40 km downstream of the Kaziranga National Park and 30 km northwest of the Orang National Park on the other side of the river Brahmaputra.

It is a part of the Laokhowa-Burachapori eco-system. The sanctuary is an ideal habitat for Indian rhinoceros and Asiatic water buffaloes. Other animals found here are the royal Bengal tiger, Indian leopard, Indian boar, civet, leopard cat, hog deer, etc.

Chakrashila Wildlife Sanctuary

Chakrashila Wildlife Sanctuary is a wildlife sanctuary falling under Dhubri and Kokrajhar districts of Assam, India. It is famous for the golden langur and is the second protected habitat for golden langur in India.

Chakrashila Hill was first declared as reserve forest in 1966 and on July 14, 1994 it was recognized with the status of sanctuary by the Government of Assam. A local environmental activist group, Nature's Beckon played a vital role for this recognition.

The sanctuary covers an area of 45.568 km² (4556.8 hectares). It is around 6 km from Kokrajhar town, 68 km from Dhubri town and 219 km from Lokpriya Gopinath Bordoloi International Airport, Guwahati. The sanctuary is mainly a hilly tract running north-south and there are two lakes (Dheer Beel and Diplai Beel) on either side, which are integral to the eco-system of the sanctuary. The lower hilly reaches are covered with Sal coppice regeneration while middle and upper reaches are covered with mixed deciduous forests. The sanctuary has some tourist accommodation facility at Choraikhola,

Kokrajhar and also provides facilities for bird watching, forest trekking, and wildlife and nature photography.

Different kinds of mammals and birds, twenty-three species of reptiles including snakes, lizards and turtles, more than forty species of butterfly are found in this sanctuary. Some species of mammals recorded in this sanctuary are Indian short-tailed mole, Indian flying fox, short nosed fruit bat, Indian false vampire, Indian pipistrelle, rhesus macaque, Chinese pangolin, Asiatic jackal and Bengal fox. Hornbills are also spotted here. It is also a safe haven for a variety of endangered animals.

A total of 119 species of birds have been recorded in the Chakrashila Wildlife Sanctuary. This number includes three globally threatened species. Some of the species recorded here include black francolin (*Francolinus francolinus*), jungle bush quail (*Perdicula asiatica*), lesser whistling duck, cinnamon bittern, Indian pond heron, cattle egret, purple heron, red-necked falcon, red-headed vulture, greater spotted eagle, and bronze-winged jacana.

Marat Longri Wildlife Sanctuaries

Marat Longri Wildlife Sanctuary, spreading 451.00 sq. kms. is located in Karbi Anglong Autonomous District Council. It is an important component of Dhansiri-Lungding Elephant Reserve.

Elephant, Tiger, Leopard, Lesser Cat, Barking Deer, Wild Pig, Porcupine, Slow Loris, Pangolin. High diversity of hilly and woodland birds. Banded Krait, Rock Python, Monitor Lizard, Brown Hill Tortoise etc.

How to reach : From Dimapur Airport it is only 60 kms. away and from Diphu Railway Station it is at a distance of 8 kms. only.

Nambor - Doigrung Wildlife Sanctuary

The Nambor - Doigrung Wildlife Sanctuary located in Golaghat district of Assam in India. This wildlife sanctuary covers an area of 97.15 km². It is located 25 km from Golaghat town and about 318 km from Guwahati LGBI Airport. The forest type is tropical semi-evergreen with pockets of pure evergreen, interspersed with small forest marshes. The area was declared as a Wildlife sanctuary in 2003. The sanctuary along with Garampani Wildlife Sanctuary (6 km²) and Nambor Wildlife Sanctuary (37 km²) are a part of the Kaziranga-Karbi Anglong Elephant Reserve, which was declared on 17 April 2003, with an estimated area of 3,270 km².

Bhelu, Gomari, Ajar, Nahor, Udiyam, Poma, Bon Som etc. It harbors some rare species of orchids.

elephant, hoolock gibbon, stumped tailed macaque, pig tailed macaque, slow loris, Assamese macaque, rhesus macaque, tiger, leopard, fishing cat, barking deer, sambar, wild pigs, gaur, white winged wood duck, great pied hornbill, wreathed hornbill, adjutant stork, tortoise, monitor lizard, python, etc.

Dehing Patkai Wildlife Sanctuary

Dehing Patkai, the only rainforest in Assam. A sanctuary with an area of 111.19 km² located in the Dibrugarh and Tinsukia Districts of Assam. It falls under the category of Assam valley tropical wet evergreen forest. The rainforest stretches for more than 575 km² in the districts of Dibrugarh, Tinsukia and Sivasagar. A part of the forest was declared as a wildlife sanctuary by the Government of Assam, while another part falls under the Dibru-Deomali elephants reserve. The forest further spreads over in the Tirap and Changlang districts of Arunachal Pradesh. The Dehing Patkai forms the largest stretch of tropical low-land rainforests in India. The forest is often referred as "The Amazon of the east" owing to its large area and thick forests.

Being a completely virgin rainforest, this sanctuary is very rich in biodiversity. It is an ideal habitat for non-human primates. Till date, 47 species of mammals, 47 species of reptiles and 30 species of butterflies have been listed from here. The most common mammal species of this sanctuary are – hoolock gibbon, slow loris, pig-tailed macaque, stump-tailed macaque, capped langur, Asian elephant, tiger, black panther, leopard, gaur, Chinese pangolin, Himalayan black bear, Himalayan squirrel, leopard cat, clouded leopard, porcupine, crab eating mongoose, sambar, sun bear, binturong, barking deer, golden cat and marbled cat.

Dehing Patkai Rain forest in Upper Assam is known to harbour about 293 bird species, belonging to 174 genera and 51 families. The majority are residents (63.7%), some are winter visitors (23.1%), and very few are summer visitors (2.5%). About 10.7% are altitudinal migrants, coming mainly from the higher reaches of the western, central and eastern Himalayas. There are 13 globally threatened species here viz. the slender-billed vulture, white-winged duck, greater adjutant, greater spotted eagle, lesser adjutant, beautiful nuthatch, marsh babbler, tawny-breasted wren babbler, white-cheeked hill partridge, great hornbill, brown hornbill, Oriental darter and painted stork.

The different trees of this four layered rainforest are laden with many exotic species of orchids. There is an abundance of ferns, epiphytes, wild banana, orchids, arums, climbers and lianas in this humid forest habitat. Some of the important tree species found in this forest area are – Hollong, Mekai, Dhuna, Udiyam, Nahar, Samkothal, Bheer, Hollock, Nahor, Au – tenga (elephant apple), different species of Dimoru etc. The towering Hollong tree which is also the state tree of Assam dominates the emergent layer of this rainforest. The forests are wet tropical evergreen Assam valley forests.

The important species of overwood are Dipterocarpus macrocarpus, Mesua ferrea, Castanopsis indica, Shorea assamica, Vatica lanceaefolia, Amoorn wallichii, Dysoxylum hinectiferum etc. The other species found in understorey are Garcinia lanceaefolia, Michelia muni, Baccaurea supida, Bischofia javanica, Myristica limifolia etc. The shrub and herb layer has Glochidion spp., Alpinia spp., Mallotus philippinensis, wild banana, tree fern, pepper etc. The ground cover mainly has Melastoma, Leea and other species.

The Dehing Patkai Forest is one of the most important forests of Assam in terms of orchid diversity. So far, 101 species of orchids within 45 genera have been recorded there. Of these, 79 are epiphytic, 21 are terrestrial and 1 species is a saprophyte. Eight of the species found here are critically endangered, 15 species are endangered, 5 species are near threatened and 28 species are in the vulnerable category. Dehing Patkai Forest has the distinction of several new orchid records for the region.

Borail Wildlife Sanctuary

Borail Wildlife Sanctuary is located in the southern part of Assam, India in Cachar and Dima Hasao districts and lies between 24°55'53''-25°05'52'' N latitude and 92°27'40''-93°04'30'' E longitude. The altitude ranging between 55–1000 m above mean sea level. It spreads over 326.24 km². The annual average rainfall and temperature ranges from 2500–4000 mm and 9.2 °C to 36.2 °C respectively; whereas the Humidity varies from 62% to 83%.

The sanctuary consists of the North Cachar Reserve Forest and Borail Reserve Forest, which are classified as tropical moist evergreen and semi-evergreen forests. The forest is home to a wide diversity of wildlife.

Mammals include serow, Himalayan black bear, Hoolock gibbon, Langur, macaques, Jungle cat,

Clouded leopard, Barking deer and more. Birds found include White-backed vulture, Slender-billed vulture, partridge, pheasant, hornbill and more. Reptiles include rock python and King cobra. The nearest town is Silchar, which is 40 km away.

Amchang Wildlife Sanctuary

Amchang Wildlife Sanctuary is located in the extreme east of the Guwahati city in the state of Assam, North East India. The sanctuary covers an area of 78.64 square kilometer and is a perfect place for the Guwahati visitors to refresh themselves in touch with the nature. It is 15 km away from Guwahati Railway Station. It was declared as a wildlife sanctuary on 19th June, 2004 by the government of Assam. The sanctuary falls under East-Kamrup Forest division of Kamrup district.

Amchang wildlife sanctuary is famous for rare and endangered animals and birds. The most commonly found species of mammals are – Chinese pangolin, Slow Loris, Flying Fox, Assamese macaque, Rhesus macaque, Capped langur, Hoolock gibbon, Jungle cat, leopard cat, leopard, Elephant, wild pig, sambar, Barking deer, Porcupine, squirrel, Civet Cat etc. As the mighty river Brahmaputra is flowing adjacent to this sanctuary, it harbours hundreds of bird species including migratory birds. The most commonly seen birds are – Lesser Adjutant stork, Greater Adjutant Stork, white – backed vulture, Slender billed Vulture, Khaleej Pheasant, Green Imperial Pigeon, Lesser Pied Hornbill, Parakeet etc. Some reptiles like Python, Indian Cobra, Monitor Lizard can also be seen in this forest.

Since the sanctuary is located at the heart of Guwahati, it is easily accessible from all parts of the country. Guwahati Railway Station is just 15 km away from the park whereas the international airport is about 30 kilometers away. The easiest route to the sanctuary is from Narengi through Bonda Forest office.

Dipor Bil Wildlife Sanctuary

Dipor Bil or Deepor Beel is located to the south-west of Guwahati city, in Kamrup district of Assam. It is a permanent freshwater lake, in a former channel of the Brahmaputra River, to the south of the main river.

Considered as one of the largest beels in the Brahmaputra valley of Lower Assam, it is categorised as representative of the wetland type under the Burma monsoon forest biogeographic region. It is located 13 km South West of Guwahati on the National Highway (NH. 31), on Jalukbari- Khanapara

bypass, alongside its north western boundary. PWD road skirts the northern fringe of the Rani and Garbhanga Reserve Forests on the south. The NH 37 borders the beel on the east and north-east and the Engineering College Road on the north. Also, minor roads and tracts exist in the vicinity of the beel. The beel is about 5 km from the Guwahati Airport (GNB Int. Airport). A broad gauge railway line skirts the lake.

The beel is a natural habitat to many varieties of birds. 219 species of birds including more than 70 migratory species are reported in the beel area. The largest congregations of aquatic birds can be seen, particularly in winter, with a reported recorded count of 19,000 water birds in a day. Some of the globally threatened species of birds like spotbilled pelican (*Pelecanus philippensis*), lesser adjutant stork (*Leptoptilos javanicus*), Baer's pochard (*Aythya baeri*), Pallas' sea eagle (*Haliaeetus leucogaster*), greater adjutant stork (*Leptoptilos dubius*).

Surveys have revealed 20 amphibian, 12 lizards, 18 snakes and 6 turtle and tortoise species in the beel. Over 50 commercially viable species of fish, belonging to 19 families have been identified, which supplies stock to other nearby wetlands and rivers. The beel provides food, acts as a spawning and nursery water body; some of the species breed within the beel.

Wild Asian elephants (*Elephas maximus*), leopard, jungle cat and the protected barking deer, Chinese porcupine and sambar are found in the beel

