



# UNIT III

# WILDLIFE SANCTUARIES & NATIONAL PARKS



# *Wildlife Sanctuary*

- *Wildlife Sanctuary is a natural protected habitat for a particular species of animal and birds, especially the rare and endangered species.*
- *The sanctuary supports very limited human activity and could be owned by a private organization that house wide variety of birds and animal species.*
- *Wildlife sanctuaries usually do not have properly marked boundaries and grazing of livestock can be permitted inside a Sanctuary.*

- *Total Sanctuary: 531*  
*Largest Sanctuary: Great Indian Bustard Sanctuary*  
*Private Wildlife Sanctuary: Sai Sanctuary in Karnataka*  
*Famous Sanctuary: Bhadra Wildlife Sanctuary*

# *National Parks*

- *National Parks are symbol of national pride and has greater degree of protection.*
- *Many national parks were initially wildlife sanctuaries then upgraded as a National Park.*
- *The national park is home to all variety of birds, animal species and no human habitation is permitted in main area.*
- *These protected area are established by central and state government for the conservation of wild animals.*
- *Total National Park: 103*  
*Largest National Park: Hemis National Park*  
*Famous National Park: Corbett National Park*

# *Biosphere Reserves*

- *Biosphere Reserves are protected large areas of natural habitat, that includes a national park and animal wildlife sanctuary.*
- *There are 18 Biosphere Reserves in India.*

# *Hemis National Park*

- *Located in the eastern part of Ladakh district in Jammu and Kashmir in north India, Hemis National Park is the largest national park in South Asia.*
- *Hemis National Park also has the distinction of being among the largest contiguous protected region, second only to Nanda Devi Biosphere Reserve.*
- *It is known for some rare species like the bharal and the snow leopard.*

## *Manas National Park*

- *Located in the foothills of eastern Himalayas, Assam, India.*
- *Manas at one time is a National park, a UNESCO heritage site, an Elephant reserve and a Project tiger reserve.*
- *It is also recognized as an important biosphere reserve.*
- *Year of Establishment: 1928.*
- *Tiger Reserve (1973), World Heritage site (1985)*



- *It has dense forests throughout.*
- *The Manas river flows through the west of the park and is the main river within it.*
- *The Manas River also serves as an international border dividing India and Bhutan.*
- *It is a major tributary of Brahmaputra River and splits into two separate rivers, the Beki and Bholkaduba as it reaches the plains.*

- *Dominant Fauna*
- *The sanctuary has recorded 55 species of mammals, 380 species of birds, 50 of reptiles, and 3 species of amphibians.*
- *Animals – Tigers, Leopard, Indian Rhinoceros, Clouded Leopard, Black Panther, Asian golden cat, Asian Elephants, Indian Rhinoceros, Sambar Deer, Chital*



# *Kaziranga National Park*

- *Situated on the banks of river Brahmaputra Kaziranga National Park is one of the major wildlife tourist's attractions in India.*
- *Popularized as the home of the “Big Five”, Kaziranga National Park is the perfect place to spot a few wild animals such as Rhinoceros, Tiger, Elephant, Wild Buffalo and Swamp Deer.*
- *It has perfect topography with a river and its varied grasslands wind.*




- *The park has also been demarcated as an important bird area by the Birdlife International in order to promote the conservation of endangered species.*
- *It is noteworthy to mention that it is the host for two third of world's population of endangered Indian one-horned rhinoceros and also declared as a tiger reserve in 2006, holding the highest density of tigers in the world.*
- *The park is also a domicile for large breeding inhabitants of Elephants, wild water buffaloes and Swamp Deer*

- *Covering an approximate area of 430 square kilometers, Kaziranga was declared as a World Heritage Site by UNESCO for its unique natural environment in the year of 1985.*

# *Periyar National Park*

- *Situated within the confines of the Western Ghats in the southern Indian state of Kerala, Periyar National Park Kerala , Elephant & Tiger Reserve is one of the most captivating wildlife parks in the world.*
- *Elephant in Periyar is another major attraction.*
- *The park is often called the Periyar Wildlife Sanctuary or Thekkady.*
- *The park is often called the Periyar Wildlife Sanctuary or Thekkady. It is located high in the Cardamom Hills and Pandalam Hills of the south Western Ghats along the border with Tamil Nadu.*

- 
- *The park is a repository of rare, endemic and endangered flora and fauna and forms the major watershed of two important rivers of Kerala, the Periyar and the Pamba.*





# *Eravikulam National Park*

- *Eravikulam National Park national park located along the Western Ghats in the Idukki district of Kerala.*
- *It is the first national park in Kerala.*
- *Eravikulam National Park is a UNESCO World Heritage Site.*
- *Anamudi, the highest peak (2695 m) south of Himalayas, stands majestically in the core area of the national park.*
- *It is home to the endangered mountain goat of South India, the Nilgiri Tahr*



# *Desert National Park*

- *The Desert National Park is located in western India in the sand dunes of Rajasthan near Jaisalmer.*
- *One of the largest national parks in India, extending over an area of 3,100 sq. km.,*
- *More than 60 per cent of it is simply semi-arid desert.*
- *Chinkara, blackbuck, nilgai, wolves, desert cats, the Spotted and Tawny Eagle and the endangered Great Indian Bustard are all found here.*

GOVT. OF RAJASTHAN

# DESERT NATIONAL PARK

GOVT. OF RAJASTHAN VIDE NOTIFICATION No. F11(35) FOREST/37 JAIPUR DATED 16-11-2000 HAS DECIDED FOLLOWING FEE FOR DESERT NATIONAL PARK SANCTUARY WITH EFFECT FROM -1-12-2000 :-

A) ENTRANCE FEE

B) VEHICLE FEE

C) CAMERA FEE

INDIAN - Rs. 10

NON INDIAN - Rs. 80/-

STUDENT - Rs. 2/-

BUS - R. 100/-

JEEP/CAR/MINI BUS/CANTER - Rs. 65/-

TWOWHEELER - Rs. 20/-

MOVIES 8MM, 16MM-VEDEO

VEDEO MOVIE CAMERA USED BY

MOVIES & VEDEO FOR

CAMERA (BY AMATEUR)

PROFESSIONAL FOR OTHER THAN

FEATURE FILM

PHOTOGRAPHER)

FEATUR FILM BY COMPANY/AGENCIES

FEE

SECURITY

INDIAN

FOREIGNER

Rs. 3000

Rs. 5000/-

Rs. 15000

Rs. 25000/-

Rs. 20000

Rs. 40000

F) GOVT. FOREST, GND.

G) OR INFANT THER

RS. 100 IS ON DESK

# *Valley of Flowers*

- *Valley of Flowers National Park is located in the state of Uttarakhand and is known for its meadows of endemic alpine flowers and the variety of flora.*
- *This richly diverse area is also home to rare and endangered animals, including the Asiatic black bear, snow leopard, musk deer, blue sheep.*



# *Great Indian Bustard Sanctuary*

- *Great Indian Bustard Sanctuary (established in 1979, also known as the Jawaharlal Nehru Bustard Sanctuary of Maharashtra) is a wildlife sanctuary for the great Indian bustard at Solapur, Maharashtra.*
- *The land is drought-prone and semi-arid.*
- *Maharashtra is one of the states of India where great Indian bustards are still seen.*






# *Parambikulam Wildlife Sanctuary*

- *The Parambikulam Wildlife Sanctuary is located in a valley between the Annamalai ranges of Tamil Nadu and the Nelliampathy ranges of Kerala. It is located in the Palakkad District of Kerala*
- *It was declared as Tiger Reserve in 2009.*
- *Apart from tigers the sanctuary also has 39 species of mammals, 16 species of amphibians, 61 species of reptiles, 47 species of fish, over 1000 species of insects and 124 species of butterflies have been reported from the region*

- *Parambikulam Wildlife Sanctuary was declared as part of the Parambikulam Tiger Reserve on February 19, 2010.*
- *The Western Ghats, Anamalai Sub-Cluster, including all of Parambikulam Wildlife Sanctuary, is under consideration by the UNESCO World Heritage Committee for selection as a World Heritage Site.*

- 
- *Parambikulam was once home to some of south India's finest stands of teak.*
  - *Little remains of the original teak forests, other than the famous Kannimari teak tree, the largest in Asia as most of these have now been replaced by teak plantations.*

# *Zones*

- *The sanctuary is divided into three zones:*
- *Tourism zone – Tourism activities like trekking, accommodation and nature tourism.*
- *Buffer Zone – maintaining the flora and fauna*
- *Core Zone- Main area of the sanctuary*

# Idukki Wildlife Sanctuary

- *Idukki Wildlife Sanctuary which came into existence in 1976, is located in the Thodupuzha and Udumbanchola taluks in Idukki district*
- *The world famous Idukki arch dam and the vast increase the importance of the area.*
- *The Idukki reservoir formed by three dams-Cheruthoni, Idukki and Kulamavu-extends to 33 sq km.*

- ***ANIMALS - Elephants, Porcupine, Sambar Deer, Wild dogs, Jungle cats, Malabar Giant Squirrel, Wild boar etc.***
- ***SNAKES Cobra, Viper, Krait and a large number of non-poisonous snakes***

# *Chinnar Wildlife Sanctuary*

- *Chinnar Wildlife Sanctuary is a unique protected area located in the Idukki District of the Western Ghats of Kerala .It is in the eastern slope of the Western Ghats, adjoining Tamilnadu.*
- *The area is diverse in eco systems and rich in ethnic cultural heritage.*
- *It is a well known repository of medicinal plants and supports a healthy population of grizzled giant squirrel, star tortoise, tufted grey langur, gaur, spotted deer etc*



- *Chinnar is the habitat for the endangered Giant Grizzled Squirrel of India.*
- *Rich in wildlife, the mixed deciduous forests here are ideal for trekking.*
- *Due to this extensive variation of rainfall, Chinnar is blessed with a wide array of habitat types like deciduous forests, dry thorn scrub and grasslands.*
- *There is an extensive sandalwood forest nearby the sanctuary, which is an added attraction.*

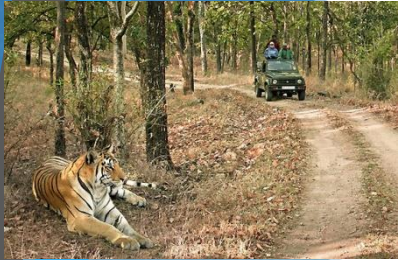
# Anamalai Tiger Reserve

- *Anamalai Tiger Reserve, earlier known as Indira Gandhi Wildlife Sanctuary and National Park and previously as Anamalai Wildlife Sanctuary, is a protected area located in the Anaimalai Hills of Coimbatore District in Tamil Nadu.*
- *The Anamalai wildlife sanctuary has various kinds of fauna like Panther, Elephant, Gaur, Sloth Bear, Tiger, Deer, Wild Bear.*



# Corbett National Park

- *Location : Nainital district of Uttarakhand.*
- *India's one of the first and well-known national park for tigers.*
- *'Jim Corbett National Park' was the first national park of India, which was established in 1936 as Hailey National Park in the hill state of Uttarakhand in Northern India.*
- *called the paradise of Tigers for the fact that it holds a large population of tigers.*
- *Named after the legendary tiger hunter turned naturalist Jim Corbett (1875-1955), the proud destination It is one of the most famous wildlife destinations in India.*



- *It is also being honoured as the place where Project Tiger was first launched in 1973.*
- *This is the finest national park of India which is well known for rich and varied wildlife including royal Bengal tiger, elephant, four to five species of deer and rich birdlife.*

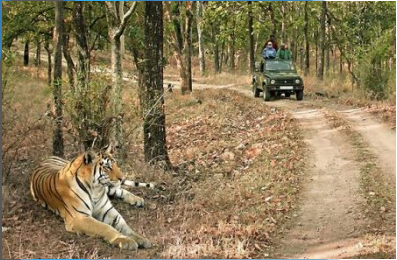
## *Kanha National Park*



- *Location : Madhya Pradesh.*
- *It's a dense and rich area of bamboo forests .*
- *It has beautiful lakes, running streams and wide grasslands.*
- *Kanha Tiger Reserve also called Kanha National Park is one of the tiger reserves and the largest national park of Madhya Pradesh. The Kanha National Park in Madhya Pradesh came into being in 1955 and forms the core of the Kanha Tiger Reserve.*
- *It is a large park and known for research and conservation programs to preserve many endangered species like white tiger, hippopotamus.*

- *The park has a significant population of Royal Bengal Tiger, leopards, the sloth bear, and Indian wild dog.*
- *The forest depicted in the famous novel by Rudyard Kipling, The Jungle Book is said to be based on the jungles of this reserve*

# Bandhavgarh National Park



- *Location : Madhya Pradesh.*
- *It has highest population of tigers than any other parks in India.*
- *It was declared a national park in 1968.*
- *It is best for its scenic surrounding, the dense and eye capturing valleys and beautiful rocky terrain and an ancient fort.*
- *It is one of the best location to spot tigers and a variety of birds and wildlife.*
- *The park has a large breeding population of leopards, and various species of deer.*

- *It has the highest density of tiger population in the country.*
- *The forests of Bandhavgarh are the white tiger jungles of the yesteryears. However, no white tigers have been reported from the wild in the last 50 years*



# Ranthambore National Park



- *Location : Rajasthan.*
- *It is located at the junction between the Aravali Hill ranges and the Vindhyan plateau.*
- *It serves as a rich heritage of various plants and animals.*
- *Ranthambore national park was declared a wildlife sanctuary in 1957 and in 1974 it gained the protection of "Project Tiger".*
- *It got it's status of a National Park in 1981.*
- *It has a huge number of tigers.*
- *It is major wildlife tourist attraction and pulled attention of wildlife lover and photographers*

- *It is one of the famous and former hunting grounds of the Maharajas of Jaipur.*
- *The park is majorly famous for its tigers .*
- *Tigers can be easily spotted even during the day time.*
- *Ranthambore is also known for famous heritage site due to ruins and Fort.*

# ***Pench National Park***

- *It is located on the southern boundary of Madhya Pradesh, bordering Maharashtra and is named after the name of the river Pench which streams through this area.*
- *The Pench National Park, like it did in the iconic 'The Jungle Book', still brings humans in close contact with wildlife.*
- *Rudyard Kipling based Mowgli's adventures, and his battle with the furious Sher Khan, on this very place.*

# Sunderban National Park



- *Location : West Bengal.*
- *Sunderbans is a dense mangrove forest which is unique and magnificent place to visit.*
- *The Sundarbans are a part of the world's largest delta formed by the rivers Ganges, Brahmaputra and Meghna.*
- *It is a wide swamp which can be explored only using boats.*
- *Its a refuge for migrating birds and a reserve for rare and preserved wildlife .*
- *It is one of the largest reserves for the Bengal tiger. The whole area is kingdom of the famous Royal BengalTigers.*



- *The Sundarbans is named after the Sundari trees which are found in bulk in this area.*
- *It was created as wildlife sanctuary in 1977 and later as national park on 4th May 1984.*
- *Apart from Bengal Tiger other chief wild life species present in this park are Macaques, Indian Grey Mongoose, Leopard Cats, Ridley Sea Turtle, Wild Boar, Jungle Cat, Fox, Flying Fox, Fishing Cats, Chital, Pangolin and a lot others.*

# Gir Forest National Park

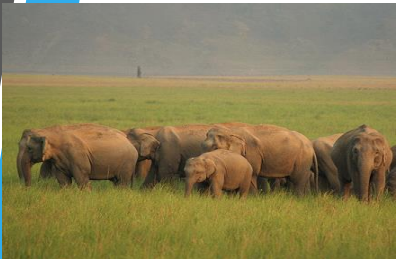


- *Location : Gujarat.*
- *Established in 1965, with a total area of 1412 km<sup>2</sup> .*
- *Also known as Sasan-Gir, or Gir forest, this is a forest and wildlife sanctuary in Gujarat.*
- *It is the sole home of the Asiatic Lions and is considered to be one of the most important protected areas in Asia due to its supported species.*
- *The ecosystem of Gir, with its diverse flora and fauna, is protected as a result of the efforts of the government forest department, wildlife activists and NGOs.*





# Bandipur National Park



- *Location : Karnataka.*
- *A potential UNESCO World Heritage Site.*
- *Along with Nagarhole National Park, Mudumalai National Park and Wayanad Wildlife Sanctuary; it forms a part of the highly renowned Nilgiri Biosphere Reserve.*
- *Apart from tigers, the park features leopards, elephants, sloth bears, wild boars and wild dogs.*
- *It creates the India's biggest biosphere reserve popularly known as the 'Nilgiri Biosphere Reserve'.*

- *Bandipur National Park in Karnataka is regarded as one of the most beautiful and the better-managed national parks of India.*
- *The Bandipur National Park occupies a special place in India's efforts towards Eco-conservation.*
- *Bandipur also has a sizable number of Tigers.*
- *Other natural inhabitants of this lovely forest are gaur (a type of bull), sambhar, chital, mouse deer, four-horned antelope, wild dogs, wild boar, jackal, sloth bear, panther, malabar squirrel and porcupines*



# Bannerghatta National Park



- *Location : Karnataka.*
- *It is situated 22 km south of Bangalore*
- *This place is home to one of the richest natural zoological reserves.*
- *The country's first Butterfly Park was established in the Bannerghatta Biological Park.*
- *It is a popular tourist destination with a zoo, a pet corner, an animal rescue centre, a butterfly enclosure, an aquarium, a snake house and a safari park.*
- *Apart from tigers, the park features leopards, elephants, sloth bears, wild boars and wild dogs.*

# Keoladeo Ghana National park

- *Formerly known as the Bharatpur Bird Sanctuary, the Keoladeo National Park is located in Bharatpur district in Rajasthan.*
- *In 1982, Keoladeo was declared a national park and then later listed as a World Heritage Site by UNESCO in 1985.*
- *The park is home to over 370 species of birds and animals.*
- *Noted Indian ornithologist and naturalist Salim Ali used his influence to garner government support to create Keoladeo National Park.*
- *It is one of the largest homes for the avifauna in the country with more than 230 bird species dwelling in the region.*



# *Sariska National Park*

- *Sariska National Park is a beautiful place, located in the Alwar district of the state of Rajasthan.*
- *The reserve was declared a wildlife sanctuary in 1958 and came under the “Project Tiger” as a Sariska tiger reserve in 1979.*
- *Sariska was a hunting reserve for royal families in past.*

# *BIOSPHERE RESERVE*

- *Biosphere Reserve is an international designation assigned by UNESCO for representative parts of natural and cultural landscapes extending over large areas of terrestrial or coastal/ marine eco-systems or combination thereof.*
- *These are intended to promote conservation of biodiversity and also to promote alternate livelihood for man and preserve cultural values.*

- Biosphere Reserves are large areas of bio diversity where flora and fauna are protected. These regions of environmental protection roughly correspond to IUCN Category V Protected areas. The Indian government has established 18 Biosphere Reserves of India, which protect larger areas of natural habitat (than a National Park or Wildlife Sanctuary).
- Biosphere Reserves of India often include one or more National Parks or sanctuaries, along with buffer zones that are open to some economic uses. Protection is granted not only to the flora and fauna of the protected region, but also to the human communities who inhabit these regions, and their ways of life.



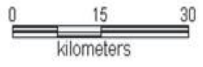


# NILGIRI BIOSPHERE RESERVE

- *The Nilgiri biosphere reserve was established in the year 1896, as the first biosphere reserve in India.*
- *The reserve is situated in the meeting point of the Western Ghats, and Eastern Ghats in the Nilgiri hills range of south India and is considered as an international biosphere reserve which was recognised as the UNESCO world heritage site in 2012.*
- *It includes the Mudumalai, Mukurthi, Wayanad , Nagarhole National Park, Silent Valley National Park, Bandipur National parks and Sathyamangalam Wildlife Sanctuary.*
- *The biosphere encompasses the area of 5,520 sqm km and is spread across the states of Karnataka, Tamil Nadu, And Kerala.*
- *A Major Part Of The Nilgiri Biosphere is reserved under The National Projects Of Project Tiger And Project Elephant. Hence, It Is An Important Habitat For Two Of The Most Important Species Of Fauna In India. The Elephants And Tigers Remain The Unmatched Attraction Of The Place.*

- *Apart From This, The Reserve Is Famous For Other Species Of Animals Such As Indian Leopard (And Black Panther), Gaur, Indian Elephant, Mongoose, Malabar Giant Squirrel, Lion-tailed Macaque, Grey Langur And Nilgiri Tahr. The National Park Is Also Famous For Its Flora Which Includes The Variety Of Plants And Orchids.*
- *The nilgiri biosphere reserve is home to a large number of flora and fauna species including over 100 species of mammals, 350 species of birds, 80 species of reptiles; about 39 species of fish, 31 amphibians, 60 species of reptiles, 316 species of butterflies and innumerable invertebrates.*
- *Some of the rare animals like the tiger, asian elephant, and nilgiri tahr are also found in this reserve.*
- *The flora of the reserve comprise of 3300 species of flowering plants. Among these, about 1232 are endemic.*

# NILGIRI BIOSPHERE RESERVE KEYSTONE CENTRES



- Nilgiri Biosphere Reserve
- Keystone Foundation
- KF - Resource Centres
- Roads
- State Boundary

# ***NANDA DEVI BIOSPHERE RESERVE***

- *The Nanda Devi Biosphere Reserve area is situated in one of the remotest corners of India, in Uttarakhand bordering the Tibetan Plateau.*
- *Declared as a World heritage site in 1988 and as a biosphere reserve in 2004.*
- *Later it was expanded and renamed to Nanda Devi and Valley of Flowers National Parks in 2005.*
- *It has been so named because it is situated very close to the Nanda Devi peak which is the second highest mountain peak in India.*
- *The Flora of the Nanda Devi National Park is varied.*
- *Of the 312 species, there are 17 such species that are very rare and cannot be easily sighted elsewhere.*
- *The most common trees in the Nanda Devi National Park are fir, birch and rhododendron.*
- *Alpine Vegetation comprising of juniper scrubs, mosses and lichens also cover extensive areas of the Nanda Devi National Park.*
- *The Fauna of the Nanda Devi National Park is also quite interesting. It abounds in Brown Bear, Himalayan Black Bear, Himalayan Musk Deer and Snow Leopards.*



# GULF OF MANNAR BIOSPHERE RESERVE

- *The Gulf of Mannar reserve is the first marine Biosphere Reserve established in India.*
- *it is located in the south eastern tip of Tamil Nadu extending from Rameswaram in the North to Kanyakumari in the south.*
- *It was initially declared a Marine National Park in the year of 1980. In 1989, the National Park was given the status of a Biosphere Reserve.*
- *The Gulf of Mannar is the biologically richest coastal region in India with 3,600 species of plants and animals known to live within its boundaries.*
- *In the Gulf of Mannar the globally endangered dugong, several species of dolphins and whales and three species of endangered sea turtles.*
- *Furthermore, the Reserve is home to sea horses, 450 species of fish, hundreds of species of sea cucumbers, sponges, all kinds of corals and species of sea grass found nowhere else. In addition more than 150 species of bird are found on islands in the reserve.*





# NOKREK BIOSPHERE RESERVE

- *Nokrek Biosphere Reserve (Nokrek National Park) in Meghalaya is situated in the district of West Garo Hills in Meghalaya.*
- *The Nokrek Biosphere Reserve is home to a great variety of flora and fauna species and for this reason, it witnesses a large number of visitors visiting its, every year.*
- *The diversity of the animal species in this reserve includes the mammals, reptiles, avifauna and invertebrate groups*
- *Added to UNESCO's Biosphere Reserve list in 2009, the Nokrek National Park in Meghalaya in north east India is among the last remaining homes of the red panda.*
- *Located in the West Garo hills district of the north eastern state, it is about two km away from the Tura Peak.*

# SUNDARBAN BIOSPHERE RESERVE

- *Sundarbans National Park is located in World's largest Delta formed by the confluence of the rivers Ganga, Brahmaputra and Meghana.*
- *The Sundarbans Wildlife Sanctuary is the world's largest estuarine sanctuary.*
- *The Sundarbans is not only a National Park but also a tiger reserve, a World Heritage site and a Biosphere reserve.*
- *The name Sundarban has been derived from the Sundari trees that are found in abundance in the Sundarbans National Park.*
- *The reserve is also a UNESCO World Heritage site, as it is the largest mangrove forest area in the world*
- *Sundarbans is home to the Royal Bengal tigers along with a sizeable population of spotted deer, wild pigs, monkeys, kingfishers, herons and eagles. The Sundarbans is also known for the Ridley Sea Turtles.*



# *SIMILIPAL BIOSPHERE RESERVE*

- *Similipal, which derives its name from 'Simul' (Silk Cotton) tree, is a national park and a Tiger Reserve situated in the northern part of Odisha's Mayurbhanj district.*
- *It was formally designated a tiger reserve under Project Tiger in May 1973.*
- *The Government of Odisha declared Similipal as a wildlife sanctuary in 1979 .*
- *Later in 1980, Government of Orissa proposed 303 sq. km of the sanctuary as National Park.*
- *UNESCO added this National Park to its list of Biosphere Reserves in May 2009.*

## *Flora and Fauna:*

- *1078 species of plants including 94 species of orchids find their home in the park.*
- *The park is known for the tiger, elephant and hill mynah. It holds the highest tiger population in the state of Odisha.*
- *Apart from the tiger, the major mammals are leopard, sambar, barking deer, gaur, jungle cat, wild boar, four-horned antelope, giant squirrel and common langur*



# *PACHMARHI BIOSPHERE RESERVE*

- *Pachmarhi Biosphere Reserve was established for the protection and preservation of wildlife in the year 1999 by the government of India.*
- *Located in Madhya Pradesh, Pachmarhi Biosphere Reserve is a prominent part of the Satpura Range.*
- *The biosphere encompasses three wildlife sanctuaries Bori Sanctuary, Satpura National Park and Pachmarhi Sanctuary.*
- *Pachmarhi Biosphere Reserve also carries archaeological significance with numerous caves found in the area.*
- *Pachmarhi Biosphere Reserve is nourished by several water-bodies that exist in the forest area, fueling the dense greens. Rivers and streams flow throughout the land.*
- *There are several species of birds, mammals and reptiles inhabiting Pachmarhi Biosphere Reserve.*

# ACHANAKMAR-AMARKANTAK BIOSPHERE RESERVE

- *Achanakmar-Amarkantak Biosphere Reserve is the only interstate biosphere reserve in central India, located in an ecologically diverse and least disturbed landscape covering the states of Chhattisgarh and Madhya Pradesh.*
- *Achanakmar Wildlife Sanctuary is located in the Bilaspur district within the Biosphere Reserve.*
- *The sanctuary is home to the Bengal tiger, Indian leopard, gaur, chital, striped hyena, Indian jackal, etc.,*

# *GREAT NICOBAR BIOSPHERE RESERVE*

- *The Great Nicobar Islands is an integral part of the entire bio-diversity of India and is located in the Indian Union Territory of Andaman and Nicobar Islands.*
- *In 2013 it was included in the UNESCO biosphere reserve.*
- *The reserve is home to many species of plants and animals.*
- *The most endangered species in India, the Megapode and the Edible-Nest Swiftlet, also reside in this reserve.*



*Edible nest swiftlet*



*Megapode*



# AGASTHYAMALAI BIOSPHERE RESERVE

- *Agasthyamalai Biosphere Reserve lies between the border of Kollam and Thiruvananthapuram Districts in Kerala and Tirunelveli and Kanyakumari Districts in Tamil Nadu, at the southern end of the Western Ghats.*
- *Three wildlife sanctuaries Shendurney, Peppara, Neyyar and the Kalakad Mundanthurai Tiger reserve are included in the site.*
- *The ABR comprises of tropical forests and is home to 2,254 species of higher plants including about 400 that are endemic.*
- *The fauna here includes the Asian elephant, tiger and Nilgiri Tahr. The reserve has a number of tribal settlements with a total population of 3,000 who rely largely on biological resources for their sustenance.*
- *It is home to the Kanikaran—one of the oldest surviving tribes in the world.*



No.	Year	Name	States	Type
1	2008	Kachchh Biosphere Reserve	Gujarat	Semi-Arid
2	1989	Gulf of Mannar	Tamil Nadu	Coasts
3	1989	Sunderbans	West Bengal	Gigantic Delta
4	1988	Nanda Devi	Uttaranchal	West Himalayas
5	1986	Nilgiri Biosphere Reserve	Tamil Nadu, Kerala and Karnataka	Western Ghats
6	1998	Dehang Debang	Arunachal Pradesh	East Himalayas
7	1999	Pachmarhi	Madhya Pradesh	Semi-Arid

8	1994	Similipal	Orissa	Deccan Peninsula
9	2005	Achanakamar – Amarkantak	Chhatisgarh, Madhya Pradesh	Semi-Arid
10	1989	Manas	Assam	East Himalayas
11	2000	Kanchanjunga	Sikkim	East Himalayas
12	2001	Agasthyamalai	Kerala	Western ghats
13	1989	Great Nicobar	Andaman and Nicobar Islands	Islands
14	1988	Nokrek	Meghalaya	East Himalayas
15	1997	Dibru-Saikhowa	Assam	East Himalayas

16	2009	Cold Desert	Himachal Pradesh	West Himalayas
17	2010	Sheshachalam Hills		Eastern Ghats
18	2011	Panna Biosphere Reserve	Part of Panna and Chhattarpur districts in Madhya Pradesh	

# WETLANDS

- A wetland is a distinct ecosystem that is flooded by water, either permanently or seasonally, where oxygen-free processes prevail. The primary factor that distinguishes wetlands from other land forms or water bodies is the characteristic vegetation of aquatic plants, adapted to the unique hydric soil.

# WHY WETLANDS ARE CALLED 'RAMSAR SITES'?

- Ramsar is a city in Iran. In 1971, an international treaty for the conservation and sustainable use of wetlands was signed at Ramsar.
- The Convention's mission is “**the conservation and wise use of all wetlands** through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world”.



# Ramsar sites in India

