

Species+ Protected Areas in News

Species in news

Flora

Chinar Tree

- It is also known as the majestic chinar and oriental plane tree. Chinar is a **maple-like tree with a huge canopy**.
- It is **found in the cool climate regions with sufficient water**, taking 30-50 years to mature and 150 years to reach its full size.
- It is believed that **Mughal emperor Jahangir** coined the term Chinar.
- Kashmir is home to chinar groves with **Ganderbal district having the highest number of chinar trees**.
- Chinar also grows in **Jammu's Chenab Valley**, and in the **Pir Panjal Valley**.

Rhododendron Wattii Tree

- It is a shrub or tree & **grows primarily in the temperate biome**.
- It is endemic to **MANIPUR & NAGALAND**→ Especially found growing in its natural habitat at Dzukou Valley (Nagaland).
- **Characteristics:**
 - It is an evergreen plant.
 - Flowering occurs from end of February to April.

Anthurium Flowers

- It is a **tropical flowering plant** valued for its ornamental appeal and air-purifying properties.
- Grown mostly indoors, it **helps remove toxins** like formaldehyde, ammonia, toluene, xylene, and allergens from the air.
- It is **included in NASA's list of air-purifying plants** due to its ability to improve indoor air quality.
- **Geographical distribution:**
 - **Native Region:** Americas – From northern Mexico to northern Argentina and parts of the Caribbean.
 - **In India:** Widely cultivated in Mizoram and other North-Eastern states.

Milkweed Fiber

- It is a unique natural fiber extracted from the seed pods of milkweed plants (*Asclepias syriaca* L).

- The plant is native to North America. In India, it is found as a wild plant in Rajasthan, Karnataka & Tamil Nadu.
- **Properties:**
 - It contains oily material and lignin, a woody plant substance, which makes them too brittle for spinning.
 - It is extremely lightweight and soft.
 - It is **biodegradable and a renewable resource**.
 - It is an amphiphilic material, capable of displaying both **hydrophilic** (water-absorbing) and **hydrophobic** (water-repelling or resisting) properties.
- **Applications:** It is used in such water-safety equipment as life jackets and belts etc.

Casuarina Tree

- It is an **evergreen tree** with a straight trunk and a conical crown made up of permanent, horizontal branches that bear deciduous, needle-like branchlets.
- It is particularly known for its ability to thrive in coastal environments and its resistance to saline soils.
- **Geographic distribution:** Found in tropical, subtropical, and Mediterranean regions. In India, it is mainly found in coastal areas of Andhra Pradesh, Orissa, Puducherry, and Tamil Nadu.
- **Climate requirements:** Thrives in temperatures between 10°C to 33°C, at elevations from sea level to 1500m, and requires annual rainfall between 700mm and 2000mm.

Agarwood

- *Aquilaria malaccensis* (Agarwood) is a species of plant in the family Thymelaeaceae.
- It is native to Northeast India, Bangladesh, Bhutan, and parts of Southeast Asia.
- It is known for its fragrant wood, valued for its unique aroma.
- **Economic value** - The main commercial products from agarwood are chips and oil, which are highly valued in the market.
- **Protection Status**
 - IUCN: Critically Endangered
 - CITES: Appendix II

Rosewood

- It is a fast-growing, hardy, deciduous tree native to the foothills of the Himalayas.

- Its distribution in India ranges from Afghanistan to Bihar.
- It is used for making furniture, musical instruments, and decorative items.
- **Protection Status**
 - IUCN: Appendix II

Baobab Tree

- These are long-lived deciduous trees, ranging from 5 to 30 meters (20 to 100 feet) tall, with broad trunks and compact tops.
- Also known as the "upside-down tree" for their unusual appearance.
- There are nine types of baobab trees, mostly in Africa, Madagascar, and a few in Australia.
- In India, they are **mainly found in Mandu, Madhya Pradesh**, where the Bhil tribe has historically preserved them.

Alfalfa Hay (*Medicago sativa*)

- It is a perennial, leguminous plant of the pea family (Fabaceae).
It is widely grown primarily for hay, pasturage, and silage.
- **Climatic conditions required:**
 - **Soil:** It prefers well-drained, fertile soils with a neutral pH (around 6.8 to 7.5).
 - **Sunlight:** It thrives in regions with abundant sunlight which is essential for photosynthesis and biomass production.
- It is known for its tolerance of drought, heat, and cold and for the remarkable productivity and quality of its herbage.
The plant is grown as a cover crop and as a green manure.
It houses symbiotic soil bacteria (rhizobia) in their root nodules to "fix" nitrogen from the air into the soil.
- Green leafy alfalfa hay is very nutritious and is also rich in vitamins A, E, D, and K.

Fauna

Rusty- Spotted Cat

- It is the **world's smallest and lightest known cat**.
- The species has been recorded in dry deciduous and semi-deciduous forests in northern and central India, Western Ghats, Kachchh and Rajasthan, and peninsular India, besides Nepal and Sri Lanka.
- **Physical feature-** The eyes are fairly large with irises of greyish brown to amber. Its large eyes may be an adaptation to its nocturnal behaviour.

- **India has 80% of the cat's total population.**
- **IUCN status** = Near threatened

Saffron reedtail damselfly

- It is a rare species **endemic to the Western Ghats of India.**
- They are seen in streams surrounded by thick vegetation and usually found near slow-moving forest streams where they rely on pristine water quality for their lifecycle.
- The presence of them is an **indicator of a healthy ecosystem**, as they are highly sensitive to environmental changes and pollution.
- **Habitat of Damselflies:** Damselflies are found mainly near shallow, freshwater habitats and are graceful fliers with slender bodies and long, filmy, net-veined wings.

White-winged duck

- It is a **large, rare, and endangered species of duck** found in freshwater wetlands and dense tropical forests of South and Southeast Asia.
- In Assamese, it is known as 'Deo Hans' or spirit duck because of its ghostly call.
- It is considered one of the most threatened waterfowl species in the world.
- **Distribution:**
 - Prefers dense tropical and subtropical forests with slow-moving rivers, swamps, and wetlands.
 - Found in India (Assam, Arunachal Pradesh, Manipur), Bangladesh, Myanmar, Thailand, Laos, Cambodia, Vietnam, Indonesia (Sumatra), and Malaysia.
 - In India, it is mostly found in the Dibru-Saikhowa National Park, Kaziranga National Park, and the wetlands of Arunachal Pradesh and Assam
- IUCN Status: **Critically Endangered**

Indian Wild Ass

- One of the five subspecies of the Asiatic wild ass.
- **Habitat:**
 - Found in the arid zones of the northwestern Indian subcontinent.
 - Currently, the species is restricted to the Little Rann of Kutch (LRK) in Gujarat, India.
- **Behavioral Characteristics:**
 - Solitary and shy in nature, with low population densities across its range.
 - Horns are found only in adult males.
 - Prefers nutrient-rich forage for browsing.
- **Conservation Status:**
 - **IUCN Red List:** Near Threatened

- **Wildlife Protection Act, 1972:** Schedule I
- **CITES:** Appendix I

Red Panda

- **Habitat:** The Red Panda lives in the mountainous forests of Bhutan, China, India, Myanmar, and Nepal, with nearly 50% of its habitat in the Eastern Himalayas.
- **Diet:** It is primarily herbivorous, consuming bamboo, berries, acorns, and occasionally small mammals.
- **Conservation status:**
 - **IUCN Status:** Endangered
 - **CITES:** Appendix I (species threatened with extinction)
 - **Wildlife Protection Act (India):** Schedule I

Honey badger

- The honey badger, also known as the ratel, is a resilient and fearless mammal belonging to the weasel family.
- **Physical Characteristics:** Tough, thick skin and strong claws for digging and defense.
- **Diet:** Omnivorous, eating honey, small mammals, insects, birds, and plants; known for raiding beehives.
- **Behavior:** Nocturnal, solitary, fearless, and aggressive, often confronting larger predators.
- **Habitat:** Found in savannas, forests, and grasslands in Africa and Asia.
- **Conservation Status:**
 - **IUCN status:** Least Concern.
 - **Wildlife (Protection) Act of 1972:** Schedule I

Ganges River dolphin (Common name: Susu)

- It was declared **India's National Aquatic Animal** in 2009.
- **Habitat:** Found in freshwater rivers of India, Nepal, and Bangladesh, including the Ganga-Brahmaputra-Meghna and Karnaphuli-Sangu systems.
- **Blindness & Echolocation:** Nearly blind, they use echolocation for navigation and hunting.
- **Diet:** Carnivorous, feeding mainly on fish and invertebrates.
- **Conservation status:**
 - **IUCN Status:** Endangered
 - **CITES:** Appendix I
 - **Wildlife Protection Act, 1972:** Schedule I

Halari Donkey

- These are important domesticated animals in the semi-arid landscape of Jamnagar and Dwarka districts in Gujarat's Saurashtra region.
- These donkeys are endangered, with a surviving population of less than 500.
- Halari donkey milk is known for its sweetness, and milk powder derived from it fetches high value in the international market to the tune of Rs. 7000 a Kg.

Jerdon's Courser

- **Nocturnal bird** found only in the Eastern Ghats.
- Endemic to Andhra Pradesh's Sri Lankamalleswara Wildlife Sanctuary in Kadapa.
- **Habitat:** It inhabits open patches within scrub-forests.
- **Protection Status**
 - IUCN: Critically Endangered

Caracal

- It is a medium-sized wild cat, with a robust build, long legs, short face, long tufted ears, relatively short tail, and long canine teeth.
- It is also known as Siyahgosh, a Persian word meaning black ears.
- Caracal is native to Africa, the Middle East, Central Asia, and arid areas of Pakistan and northwestern India.
- **Protection Status**
 - IUCN Status: Least Concern
 - Wildlife Protection Act

Golden Langur

- **Protection status:**
 - IUCN: Endangered
 - CITES: Appendix I
 - Wildlife Protection Act, 1972: Schedule I
- **Habitat** - It is endemic to western Assam, India, and southern Bhutan.
- **Characteristics:**
 - They are most easily recognized by the colour of their fur, after which they are named.
 - Known as leaf monkeys, they depend on trees and live in the upper canopy of forests.

Black Softshell Turtle (*Nilssonina nigricans*)

- It is a species of freshwater turtle.
- **Protection Status:**
 - IUCN STATUS: Critically Endangered
 - CITES: Appendix I
 - Wildlife (Protection) Act, 1972: No legal protection
- **Habitat** - It is found in India and Bangladesh.

Butterfly Cicada

- A new species of cicada discovered in Meghalaya.
- It belongs to the genus *Becquartina* and marks the first-ever record of this genus in the country.
- The cicada's colorful wings gave it the nickname “butterfly cicada,” and its species name “bicolour” shows its two color forms.

About Cicada

- Cicadas (family Cicadidae) are insects known for their ability to produce sound.

Malabar Grey Hornbill (*Ocyeros griseus*)

- **Geographical range**– It is endemic to the Western Ghats and associated hills of southern India.
- **Habitat**– They are found mainly in dense forest and around rubber, arecanut or coffee plantations.
- **Characteristics:**
 - They are the smallest among the Asian hornbills.
 - They have a large beak but lack the casque that is prominent in some other hornbill species.
 - Males have a reddish bill, females have a yellowish bill with black markings.
 - They move around in pairs or small groups, feeding on figs and other forest fruits.
 - They are notable for their **loud cackling, screeching, and laughing calls**.
- **IUCN Status**– Vulnerable

Sea Otters

- They are aquatic members of the weasel family.
- **Habitat:**
 - They found along the coasts of the Pacific Ocean, particularly in North America (from Alaska to California) and parts of Asia (Russia and Japan).

- They spend most of their time in the water but occasionally come ashore to sleep or rest.
- **Physical Characteristics:**
 - They have webbed feet and water-repellent fur to stay dry and warm, with nostrils and ears that close in the water.
 - Unlike other marine mammals, they lack blubber (a thick layer of fat) to shield them from hypothermia. As a result, they must consume a large amount of food daily to maintain their body heat.
- **Diet**– They are carnivorous and consume a variety of marine life, including sea urchins, crabs, mollusks, clams, and fish.
- **Ecological Role:**
 - They are a keystone species in kelp forest ecosystems, helping control populations of sea urchins and other species that can damage kelp forests.
 - Their presence promotes biodiversity and maintains ecological balance.
- **IUCN Status:** Endangered.

Woolly Flying Squirrel

- It is one of the rarest and least known mammals in Asia.
- It belongs to the genus *Eupetaurus* in the family *Sciuridae*.
- It is the largest and heaviest of all gliding mammals and is known for its unique appearance and elusive nature.
- **Native:** They are native to parts of Asia, particularly in the mountainous regions of northern Pakistan, including the Diamer and Gilgit districts.
- It is **endemic to the northwestern Himalayas**. They are also possibly found in northern India, especially in Sikkim, and other nearby countries.
- **Physical features:**
 - It possesses elastic membranes on each side of its body that connect the forelimbs to the hind limbs.
 - Its body is covered with a dense layer of straight, silky fur.
 - The upper side (dorsal pelage) displays a blue-gray hue, while the underside is a pale gray.
- This species is **nocturnal**, meaning it is active during the night and rests during the day.
- **IUCN Red List:** Endangered

One-Horned Rhinos

They are also known as the Indian Rhinoceros and are the largest of the three Asian rhino species.

Distribution and habitat:

Rhinos thrive in floodplain grasslands, swamps, and riverine forests, particularly in the Terai region of India and Nepal.

Indian rhinos are primarily found in protected areas in Assam, West Bengal, Uttar Pradesh, and Nepal.

Distribution within India:

They are mainly found in the seven Protected Areas –

Assam – Kaziranga NP (70% of the world's one-horned rhinos, 2613 rhinos as per 2022 Census), Pobitora WLS, Orang NP, Manas NP.

West Bengal – Jaldapara NP and Gorumara NP.

Uttar Pradesh – Dudhwa NP.

In addition, a transient population is also observed in Katarniaghat WLS in Uttar Pradesh and Valmiki TR in Bihar, which experience visits of rhinos from adjoining Nepal.

Fun fact: Greater one-horned rhinos are good swimmers and can dive and feed underwater.

Protection Status:

- **IUCN Red List:** Vulnerable.
- **CITES:** Appendix I (Threatened with extinction, and CITES prohibits international trade in specimens of these species except when the purpose of the import is not commercial, for instance, for scientific research).
- **Wildlife Protection Act, 1972:** Schedule I.

Rhinos around the Globe:

There are five species of rhino – white and black rhinos in Africa, and the greater one-horned, Javan, and Sumatran rhino species in Asia.

IUCN Red List Status:

- **Black Rhino:** Critically endangered. Smaller of the two African species.
- **White Rhino:** Near Threatened.
- **One-Horned Rhino:** Vulnerable.
- **Javan:** Critically Endangered.
- **Sumatran Rhino:** Critically Endangered. It has gone extinct in Malaysia.

Laysan Albatross

Laysan Albatross (*Phoebastria immutabilis*) is a pelagic bird found predominantly in the North Pacific Ocean.

Approximately 99.7% of the population nests in the Northwestern Hawaiian Islands, with Midway Atoll National Wildlife Refuge serving as a critical breeding ground.

Key Characteristics:

- It is a medium-sized seabird with a gull-like appearance and long, slender wings for long flights.
- It has blackish-brown backs and upper wings, with white primary feathers.
- It primarily feeds on squid, fish, and crustaceans.
- Laysan albatrosses are monogamous and usually mate for life, laying one egg each year.
- Their typical lifespan is around 68 years, with some individuals like Wisdom reaching 74 years.

IUCN Red List: Near Threatened.

Asiatic Lion

1. The Asiatic Lion, also called the Persian Lion or Indian Lion, is a subspecies of *Panthera leo leo* found only in India.
2. **Habitat** – They are confined to the Gir National Park and wildlife sanctuary and its surrounding environments in Gujarat's Saurashtra district.
3. **Characteristics:**
 - Asiatic lions are slightly smaller than African lions.
 - In contrast to the African Lion, the Asiatic Lion has a longitudinal fold of skin running along its belly.
 - The fur color ranges from ruddy tawny with black speckles to sandy or buff-grey, sometimes with a silvery sheen in certain lights.
 - Males have only moderate mane growth at the top of the head, so that their ears are always visible.
4. **Conservation Status**
 - **IUCN Red List:** Vulnerable
 - **CITES:** Appendix I
 - **Wildlife (Protection) Act 1972:** Schedule I

Swamp Deer (Barasingha)

- **IUCN Status:** Vulnerable

- **Indian Wildlife (Protection) Act, 1972:** Listed in **Schedule I**
- **Distribution:**
 1. Currently found in **India** and **Nepal**
 2. **Extinct** in **Pakistan** and **Bangladesh**
- **State Animal:**
 1. **Uttar Pradesh**
 2. **Madhya Pradesh**
- **Major Protected Areas:**
 1. **Kanha National Park** (Madhya Pradesh) – known for the **hard ground** subspecies
 2. **Dudhwa National Park** (Uttar Pradesh) – hosts a significant population
 3. Also found in **Kaziranga** and **Manas National Parks** (Assam)
- **Types of Barasingha** (based on habitat and region):
 1. **Hard Ground Barasingha** – Found in **Kanha (MP)**
 2. **Eastern Barasingha** – Found in **Assam** (Kaziranga, Manas)
 3. **Wetland Barasingha** – Historically found in **Sundarbans**

Great Indian Bustard (GIB)

Habitat:

- Inhabits dry grasslands and semi-arid regions
- Found in India (Gujarat, Rajasthan, Maharashtra, Karnataka, Andhra Pradesh) and Pakistan
- **Conservation Status:**
 - IUCN Red List: Critically Endangered
 - CITES: Appendix I
 - CMS (Convention on Migratory Species): Appendix I
 - Wildlife Protection Act, 1972: Schedule I
- **State Symbol:**
 - State bird of Rajasthan
- **Major Protected Areas:**
 - Desert National Park (DNP) – Rajasthan
 - Rollapadu Wildlife Sanctuary – Andhra Pradesh
 - Karera Wildlife Sanctuary – Madhya Pradesh

Protected Areas in news

Tipeshwar Wildlife Sanctuary

- **Location:**
 - Situated in **Yavatmal district, Maharashtra.**
 - Known as the “**Green Oasis**” of Southern Maharashtra due to abundant water resources from rivers like Purna, Krishna, Bhima, and Tapi.
- **Geography:**
 - The sanctuary is located in a **basalt region** created by ancient volcanic lava eruptions.
 - The terrain is hilly and undulating, offering a diverse ecosystem.
- **Flora:** Rich in vegetation, including herbs, grasses, and bamboo forests.
- **Fauna:** Home to a wide array of wildlife, such as: Hyenas, chital (spotted deer), black buck, sambar, jackal, wild boar, wild cat, bear, and blue bull, Peacock, Monkeys etc.

Desert National Park (DNP)

- **Location-** It is situated in the Thar Desert, near Jaisalmer, Rajasthan.
- **Major lakes:** Rajbaugh Lake, Malik Talao, and Padam Talao.
- One of the most interesting features of the DNP is the **presence of fossils from the Jurassic Period.**
- **Vegetation-** It falls under the thorn forest type. It has sparse vegetation with open grasslands, thorny bushes, plantations, and sand dunes.
- **Flora-** Dominant tree species: Dhok, Ronj, Salai, and Palm. **Khejri (Prosopis cineraria)** is widely found and is protected by the Bishnoi community.
- **Fauna:**
 - **Key species:** Chinkara, Desert Fox, Bengal Fox, Indian Wolf, Desert Cat, Hare.
 - It is home to the endangered **Great Indian Bustard**, found in relatively fair numbers

Bhitarkanika National Park

- **Location:** It is located in the Kendrapara district of Odisha.
- The National Park is essentially a network of creeks and canals which are inundated with waters from the **Brahmani, Baitarani, Dhamra, and Patasala rivers** forming a unique ecosystem.
- It is **India's second largest mangrove ecosystem** after the Sunderbans..
- It is also designated as the **second Ramsar site in Odisha after the Chilika Lake.**
- **Flora:** Mangrove species, casuarinas, and grasses like the indigo bush.
- **Fauna:**
 - It is home to the largest congregation of the endangered **Salt Water Crocodile** in the country.

- The **Gahirmatha Beach**, which forms the boundary of the park in the east, is the largest colony of the **Olive Ridley Sea Turtles**.

Bhimgad Wildlife Sanctuary (BWS)

- **Location-** It spans over **Western Ghats** in Belgaum district of Karnataka.
- It has been named after Bhimgad Fort, constructed & commanded by Shivaji in 17th century as a defence from Portuguese troops.
- **It shares its boundary with the:**
 - Dandeli Wildlife Sanctuary
 - Bhagwan Mahaveer Sanctuary
 - Mollem National Park
 - Netravali Wildlife Sanctuary
 - Mhadei Wildlife Sanctuary
- BWS forms the headwaters of a number of rivers like **Tillari, Malaprabha & Mhadei**.
- The forest is also famed for its **BARAPEDE CAVES** which serve as the only known breeding area of a threatened species on the verge of extinction called **Wroughton's free-tailed bat**.
- **Flora:** It mainly comprises a combination of tropical and subtropical moist broadleaf forests and grasslands. It also hosts a number of medicinal plants.
- **Fauna:** Elephants, King Cobras, Wild Dogs, Foxes, Chitals, Spotted Deer, Sambar, Sloth Bear, Gaur, Leopards and Tigers.

Ramadevara Betta Vulture Sanctuary

- **Location:** Ramadevara Betta Hill Range, Ramanagara, Karnataka.
- **Significance:**
 - India's first and only vulture sanctuary, established in 2012.
 - Declared an Eco-Sensitive Zone (ESZ) in 2017 to protect endangered vultures.
- **Vulture Species Found:**
 - Indian Long-Billed Vulture (*Gyps indicus*)
 - Egyptian Vulture (*Neophron percnopterus*)
 - White-Backed Vulture (*Gyps bengalensis*)

Kaimur Wildlife Sanctuary

- **Location:** It Situated on the **Kaimur Hills plateau in kaimur district of bihar**.
- It is flanked by the **Son River to the south** and the **Karmanasa River to the west**.
- It spans across the Central Highlands (Satpura-Maikal Hills, Vindhya-Bagelkhand Hills) and the Chota Nagpur Plateau.

- It is part of the **Bandhavgarh-Sanjay-Guru Ghasidas- Palamau tiger landscape**.
- **Vegetation Type:** Predominantly Northern Tropical Mixed Dry Deciduous Forests.
- **Flora:** Features plant species like Salai (*Boswellia serrata*), Siddha, Indian Rosewood (*Sheesham*), Jamun, Teak, Koraiya, Saal, and Jheengar
- **Fauna:** Key species include leopards, wild boars, sloth bears, and others.

Coringa Wildlife Sanctuary

- **Location:** It is part of the Godavari estuary, where the Coringa River merges with the Bay of Bengal in Andhra Pradesh's Kakinada district.
 - Between this area and the sea "Hope Island" blocks the direct confluence of the sea and Godavari.
 - As a result, about 40% of the sanctuary is only sea-backwaters and the rest of the area is intermingled with creeks and gets inundated with tidal waters.
- **Vegetation:** It has extensive **mangrove and dry deciduous tropical forest**. It is the second largest stretch of mangrove forests in India.
- **Flora:** Mangrove plants like *Rhizophora* spp, *Avicennia* spp, *Sonneratia* spp, etc.
- **Fauna:** It is home to rare and endangered mammals like Smooth Indian otter, Fishing cat, Jackal, etc. Mangroves offer excellent habitat for birds like Black capped kingfisher, Brahminy kite, Sea gulls, Reef heron, Sand piper, etc.

Ratapani Tiger Reserve

- **Location:** It is situated in the Vindhyaachal Mountain Ranges across Raisen and Sehore districts of Madhya Pradesh.
- **Origin:** It was first declared a wildlife sanctuary in 1976, extended in 1983, and received approval from the NTCA to become a tiger reserve in 2008.
- **Rivers:** It runs parallel on the northern side of the Narmada River. The Kolar River forms the western boundary of the Sanctuary.
- **Vegetation:** Dry deciduous and moist deciduous type
- **Flora:** Teak (55 percent of area is covered by teak), Bamboo etc.
- **Fauna:** Tiger, leopard, Chinkara, sloth bear, hyena, spotted deer, sambar deer, paradise flycatcher (the state bird of Madhya Pradesh) among others.
- **Significance:** The Sanctuary has Bhimbetka, a group of rock shelters and rock paintings, which is one of the "World Heritage Site" declared by UNESCO.

Guru Ghasidas- Tamor Pingla Tiger Reserve

- **Location:** Situated in the northern part of Chhattisgarh, bordering Madhya Pradesh and Jharkhand.

- **Size and Ranking:** The third-largest tiger reserve in India, after Nagarjunasagar-Srisailem (Andhra Pradesh) and Manas (Assam).
- **Connectivity:**
 - Linked to Bandhavgarh Tiger Reserve (Madhya Pradesh) to the west.
 - Connected to Palamau Tiger Reserve (Jharkhand) to the east.
 - Contiguous with the Sanjay Dubri Tiger Reserve in Madhya Pradesh.
- **Rivers:** It serves as the origin of significant rivers like Hasdeo Gopad and Baranga, and a catchment for other rivers such as Neur, Bijadhur, and Rehand.
- **Vegetation:** The reserve has a mix of sub-tropical and deciduous forests.
- **Flora:** sal, saja, dhavda, and kusum
- **Fauna:** The reserve is home to 753 documented species, including 365 invertebrates and 388 vertebrates. It shelters 230 bird species and 55 mammal species including several threatened species.

Hollongapar Gibbon Sanctuary

- It is an isolated protected area of evergreen forest.
- **Location** - Jorhat district of Assam, India.
- **Vegetation** - Evergreen trees, shrubs, and herbs
- **Flora** -
 - The upper canopy is dominated by the Hollong tree (Dipterocarpus macrocarpus)
 - The middle canopy is dominated by the Nahar tree.
 - The lower canopy consists of evergreen shrubs and herbs.
- **Fauna**
 - This Sanctuary contains India's only gibbons – the hoolock gibbons, and Northeastern India's only nocturnal primate – the Bengal slow loris.
 - Other primates: stump-tailed macaque, northern pig-tailed macaque, eastern Assamese macaque, rhesus macaque, capped langur etc.

Gandhi Sagar Wildlife Sanctuary

- It is located along the northern boundary of Mandsaur and Nimach districts in Madhya Pradesh.
- It is part of Khathiar-Gir dry deciduous forests ecoregion.
- Chambal river passes through the sanctuary dividing it into two parts.
- **Flora** - Khair, Salai, Dhawda, Kardhai, Tendu, Palash etc.
- **Fauna** - Deer, Nilgai, Sambar etc.

Yellowstone National Park

- **Location:** It is an American national park located in the western United States.
- **Key features:**
 - It was the first national park in the U.S. and is also considered the world's first national park.
 - It is known for its wildlife and its many geothermal features, especially Old Faithful geyser.
 - The park hosts the **Grand Canyon of the Yellowstone River**.
 - It became a **UNESCO World Heritage Site** in 1978.

Kalesar Wildlife Sanctuary

- **Location:** It is situated within the Yamunanagar District of Haryana.
- **Status:** It was declared a national park in 2003.
- **Topography:** The landscape is characterized by narrow valleys known as 'kholes' and seasonal rivulets called 'soats,' which remain dry for most of the year.
- **Flora:** Sal trees, Semul, Bahera, Amaltas, Shisham, Khair, Sain, Chhal, and Jhingan.
- **Fauna:** Leopards, Ghoral, Barking deer, Sambar, Chital, Python, King Cobra, Monitor lizard, etc.

Pench Tiger Reserve

- **Location:** Spread across Maharashtra and Madhya Pradesh in the southern Satpura hills.
- **Status:** Awarded the status of National Park in 1975, and Tiger Reserve in 1992.
- **Vegetation:** The forests in Pench Tiger Reserve are classified into three types:
 - South Indian Tropical Moist Deciduous (slightly moist)
 - Southern Tropical Dry Deciduous Teak Forests
 - Southern Dry Mixed Deciduous Forest
- **River:** The Pench River flows through the middle of the park.
- **Flora:** Mahua, Palash, Teak, Neem, Bijiyasal, Dhaora, Amaltas
- **Fauna:** Tiger, leopard, Gaur (Indian Bison), Sambar, Barking deer, Chousingha, Chinkara, and Wild boar.
- **Other key details:**
 - The Pench Tiger Reserve and its neighborhood is the original setting of Rudyard Kipling's most famous work, *The Jungle Book*.
 - A description of its natural wealth and richness is also mentioned in *Ain-i-akbari*.

Debrigarh Wildlife Sanctuary

- **Location**-It is located in the Bargarh district of Odisha, near the Hirakud Dam on the Mahanadi River.
- **Historical Significance**- This sanctuary holds historical significance due to its association with the renowned freedom fighter Veer Surendra Sai. During his uprising against British rule, he used Barapathara, a site within the sanctuary, as his base of operations.
- **Vegetation**- The sanctuary primarily features dry deciduous mixed forests.
- **Flora**- The major tree species found here include Sal, Asana, Bija, Aanla, and Dhaura.
- **Fauna**: Tigers, sloth bears, leopards, hyenas, spotted deer, antelopes, sambar, gaur, nilgai, bison, and langur monkeys.

Mahuadanr Wolf Sanctuary

- **Location**- It is located in the Latehar district of Jharkhand.
- It was declared a sanctuary in 1976.
- **Significance**- It is India's first and only wolf sanctuary, dedicated to the conservation of the Indian grey wolf (*Canis lupus pallipes*).
- **Association**- The Sanctuary is an integral part of Palamau Tiger Reserve.
- **Wildlife**- The sanctuary is home to many species of wild animals including spotted deer, wild boar, hyena, bear and wolf.

Kuldiha Wildlife Sanctuary

- **Location**: It is located in the Balasore district of Odisha, within the Eastern Ghats.
- **Area**: It spans an area of 272 sq.km. and falls under the **Chota Nagpur Plateau region**.
- **Conservation significance**: It forms a part of the Simlipal-Kuldiha-Hadgarh Elephant Reserve, serving as an important corridor for elephant movement and conservation.
- **Ecological connectivity**: The sanctuary is ecologically linked to the **Simlipal Tiger Reserve** through the Nato and Sukhupada hill ranges.
- **Water systems**: The sanctuary is drained by the Kuldiha stream and its tributaries, which play a crucial role in maintaining the region's hydrological and ecological balance.
- **Vegetation**: The forest type is a mix of Peninsular Sal forests and moist mixed deciduous forests. It is bordered by the Nilgiri forest to the north and the Mayurbhanj forest to the west, forming a contiguous forest ecosystem.
- **Flora**: Prominent tree species include Sal (*Shorea robusta*), Jamun (*Syzygium cumini*), Piyasal (*Pterocarpus marsupium*), Bahera (*Terminalia bellirica*), Mango (*Mangifera indica*), and Simul (*Bombax ceiba*).

- **Fauna:** The sanctuary is home to a variety of wildlife, including elephants, wild cats, leopards, gaurs, long-tailed monkeys, and giant squirrels. Notable bird species found here include peafowl, hill mynas, and hornbills.

Ranthambore National Park

- **Location**
 - It is located in Sawai Madhopur district of Rajasthan.
 - It is located at the junction of the Aravali and Vindhya hill ranges.
- **River-** The park is bounded to the north by the Banas River and to the south by the Chambal River.
- **Connected wildlife sanctuary-** Kailadevi Wildlife Sanctuary and Sawai Mansingh Wildlife Sanctuary are connected to the core of Ranthambore NP by narrow corridors, forming part of the Tiger Reserve.
- **Vegetation-** Mixed Deciduous type
- **Flora**
 - The most prevalent plant species in Ranthambore National Park is the “Dhok,” scientifically known as *Anogeissus pendula*.
 - Other plant species include Banyan (*Ficus bengalensis*), Pipal (*Ficus religiosa*), Neem (*Azadirachta indica*), Babul (*Acacia nilotica*), Gum (*Sterculia urens*), etc.
- **Fauna**
 - Tigers, leopards, striped hyenas, common or hanuman langurs, rhesus macaques, jackals, jungle cats, caracals, blackbuck, etc.
 - It is also home to more than 270 bird species, such as the crested serpent eagle, painted francolin, and Indian paradise flycatcher.

Bandipur National Park

- **Location:** It is located in Chamaraajanagar and Mysuru district (Karnataka) at the tri-junction area of the States of Karnataka, Tamil Nadu, and Kerala.
- **Rivers:** It is flanked by the Kabini River in the north and the Moyar in the south. The Nugu River runs through the park.
- **Climate and Vegetation-** It has a typical tropical climate with distinct wet and dry seasons. The park has a variety of biomes including dry deciduous forests, moist deciduous forests, and shrub-lands.
- **Part of Nilgiri Biosphere Reserve:**
The park is part of the Nilgiri Biosphere Reserve, making it the largest protected area in Southern India and the largest habitat of Wild Elephants in South Asia. It shares its boundary with 3 other National Parks, namely Nagarhole National Park (Karnataka), Wayanad National Park (Kerala), and Mudumalai National Park (Tamil Nadu).

- **Flora:**A wide range of timber trees including teak, rosewood, sandalwood, Indian-laurel, Indian Kino tree, and giant clumping bamboo.
- **Fauna:** Tigers (hosts the second highest Tiger population in India), Leopard, Dhole, Sambar, Sloth bear, Chital, and Blue Peafowl.

Nagarahole National Park

- It is located in Karnataka.
- It **connects to the Western Ghats through Brahmagiri Wildlife Sanctuary**. It extends towards the Eastern Ghats through Bandipur Tiger Reserve.
- It **shares its borders with Wayanad Wildlife Sanctuary in Kerala to the south and Bandipur Tiger Reserve to the southeast**.
- The Kabini Reservoir, located in the western part of the park, and the Taraka Reservoir, situated in the southeastern region, are the two major water bodies within the park.
- The park is known for its high-density tiger population, ranking third in the country after Corbett and Kaziranga Tiger Reserves (As per All India Tiger Estimation -2022).
- **Flora:** It consists mainly of moist deciduous forests with predominating trees of teak and rosewood.
- **Fauna:** The park is home to a wide range of wildlife, including tigers, leopards, Asiatic wild dogs, and sloth bears, Asiatic elephants, gaur, sambar, chital, muntjac, four-horned antelope, wild pig, and mouse deer, as well as the South-western langur.

Agasthyamalai Biosphere Reserve

- **Location:** It is located in the southernmost end of the Western Ghats spanning the states of Tamil Nadu and Kerala.
- It was established in 2001 as a Biosphere Reserve and became part of the UNESCO World Network of Biosphere Reserves in 2016.
- It derives its name from the great Hindu Sage Agasthya muni, with its highest peak known as Agasthya Malai (1,868 metres).
- **Protected areas:** It encompasses the protected areas of-
 - Shendurney Wildlife Sanctuary
 - Peppara Wildlife Sanctuary
 - Neyyar Wildlife Sanctuary
 - Kalakkad Mundanthurai Tiger Reserve.
- **Climate and vegetation:**It has a tropical monsoon climate with high rainfall (especially on the western slopes). Its ecosystem diversity includes tropical wet evergreen forests, moist deciduous forests, montane rain forests, and Shola.

- **Flora:** It is the habitat for over 2,250 plant species, including 405 endemic species and rare medicinal herbs (ex – Arogyapacha).
- **Fauna:** Animals include the Bengal tiger, Asian elephant, Nilgiri tahr, grizzled giant squirrel, and birds like the Great Indian hornbill.
- **Tribes:** Agastyamalai is also home to the Kanikaran tribes, one of the oldest surviving ancient tribes in the world.

Madhav National Park

- It is located in the Shivpuri district of Madhya Pradesh, in the northern part of the state.
- It lies on the northern fringe of the Central Highlands, forming part of the Upper Vindhyan Hills with a mix of plateaus, valleys, and gentle slopes.
- It was declared a National Park in 1958.
- **Historical Significance:** George Castle, built by the Scindias for King George V, is a key historical site in the park..
- **Vegetation:** The forests of the park fall within the category of Northern tropical dry deciduous mixed forests as well as Dry Thorn Forests typical of North – Western Madhya Pradesh.
- **Flora:** The park features key species like Kardhai, Salai, Dhaora, and Khair.
- **Fauna:** It is home to antelopes like Nilgai, Chinkara and Chowsinga and Deer including Chital, Sambar and Barking Deer. Animals like the Leopard, Wolf, Jackal, Fox, Wild Dog, Wild Pig, Porcupine, Python etc are also sighted in the park.
- **Water bodies:** The park has lakes, meadows, and forests. Sakhya Sagar and Madhav Sagar, two lakes in the south, support aquatic life and sustain land animals.
- Madhav National Park is part of Project Tiger, which aims to protect and increase the tiger population in India.

Kuno National Park:

- **Location:** Sheopur, Madhya Pradesh, near the Chambal region
- **Established:** It was declared a wildlife sanctuary in 1981, upgraded to a national park in 2018
It is named after the Kuno River, a significant tributary of the Chambal River that flows through its landscape.
- **Landscape:** Dry deciduous forest, grasslands, and hilly terrain
- **Flora:** It is primarily dominated by Kardhai, Salai, and Khair trees within its mixed forests.

- **Fauna:** It is home to Cheetah (Reintroduced from Africa), Leopard, Indian wolf, striped hyena, Chital, sambar deer, nilgai, wild boar, Spotted Deer, Gaur, Chinkara, Rhesus Monkey, etc.
- **Birds:** Over 120 species, including vultures, owls, and kingfishers

Kaziranga National Park

- **Location:** Assam; covers approx. 1,032 sq km.
- **Unique Feature:** Largest undisturbed area in the Brahmaputra Valley floodplain.
- **UNESCO World Heritage Site:** Designated in 1985 for its rich wildlife, especially the one-horned rhinoceros.
- **Important Bird Area:** Recognized by BirdLife International for avifaunal conservation.
- **Vegetation Types:** Alluvial inundated grasslands, alluvial savanna woodlands, tropical moist mixed deciduous forests, and tropical semi-evergreen forests.
- **Flora:** Includes Indian gooseberry, cotton tree, elephant apple, and diverse aquatic plants.
- **Fauna:** Known for rhinoceroses, tigers, elephants, wild buffaloes, swamp deer, and 480+ bird species.
- **Conservation Status:** Hosts **two-thirds of the world's great one-horned rhinoceroses** (IUCN: Vulnerable).