



Environment

Current Affairs

SPECIES IN NEWS

Compilation

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UPSC Prelims 2026



IMP Species & Species in News Environment Compilation UPSC Prelims-2026

By PRAYAAS EDUCATION

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Colour marking :→

- → Very imp both static and current Affairs perspective.
- → In news only, but not imp in static and PRQs perspective.
- → Without marking → you can skip it

Critically Endangered – Mammals

White-headed langur

- Limestone Langur or white-headed langur, a **unique primate species endemic to China's Guangxi province**, faces imminent extinction due to habitat destruction and fragmentation.
- White-headed langur is a **primate endemic to the karst mountains** in the southern Guangxi province of China.
- **Physical characteristics**: A shock of white fur covers the head. Its black-and-white coat allows it to blend in with the black-and-white limestone of the karst landform.
- **Diet**: Folivorous (leaves). They also feed on fruits, shoots, flowers, and tree bark.
- **Conservation Status: IUCN: Critically endangered** | CITES: Appendix II
- **Threats**: Poaching, habitat loss and fragmentation, hybridisation.



Andaman White Toothed Shrew

- Andaman white toothed shrew is a **small mouse-like insectivorous nocturnal mammal**. It was recently discovered in **Narcondam Island, a volcanic island**.
- **Distribution**: It is **endemic** to the Andaman Islands.
- **Habitat**: Tropical moist **deciduous and evergreen forests**.
- **Threats**: natural disasters (tsunami, earthquake, flooding, storms, etc.)
- **IUCN: CR**



Kashmir Stag/Hangul

- Kashmir stag (or Hangul) is the **only Asiatic sub-species of the Elk** (the largest subspecies of red deer, found in high mountains of Central Asia).
- It is the **state animal of J&K**.
- **Distribution**: It is **endemic to Kashmir and is now restricted to the Dachigam NP**. Earlier it was widely distributed in the mountains of Kashmir & Chamba district of HP.
- **Habitat**: Mountainous areas, where it spends summers in alpine meadows and winters in valleys.
- **Threats**: over-grazing by domestic livestock and poaching.
- **IUCN: CR** | **CITES: Appx I** | **CMS: Appx I** | **WPA: Sch I**



Large Rock Rat (Elvira rat)

- Large rock rat is a medium-sized, **nocturnal and fossorial (burrowing) rodent**.
- **Distribution**: It is **endemic to type locality** of Kurumbapatti, Salem District (**Eastern Ghats, TN**).
- **Habitat**: rocky areas of tropical dry deciduous scrub forest. 589
- **Threats**: Habitat loss (due to mining and quarrying, logging, agriculture)



- **IUCN: CR**

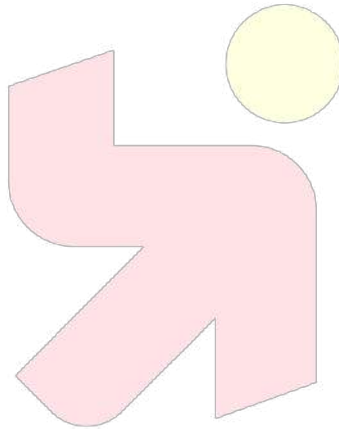
Malabar Large-Spotted Civet

- Malabar Large-Spotted Civet (or Malabar Civet) is a **medium sized cat-like carnivorous mammal**.
- Distribution: **endemic to the southern Western Ghats**.
- Habitat: Lowland forests and swamps of coastal plains.
- Threats: Habitat loss due to agriculture and plantations.
- **IUCN: CR | CITES: Appx III | WPA: Sch I**



Namdapha Flying Squirrel

- Namdapha flying squirrel is **nocturnal like all other flying squirrels**. It is restricted to Namdapha NP in **Arunachal Pradesh** (the largest protected area in the Eastern Himalaya biodiversity hotspot)
- Habitat: Along streams of dry deciduous montane forests.
- Threats: Habitat loss and climate change.
- **IUCN: CR | WPA: Sch II**



PRAYAAS

Endangered- Mammals

Asiatic Wild Dog/Dhole

Context:

- The dhole, or Asiatic wild dog (*Cuon alpinus*), believed to have been locally exterminated, has made a confirmed return to Assam's Kaziranga-Karbi Anglong Landscape (KKAL).
- Link for reference:** [Asiatic wild dog returns to Assam's Kaziranga landscape - The Hindu](#)

About: -

- Asiatic wild dogs are the only endangered wild pack-living canid in the tropical Indian forests and are considered at high risk of extinction.
- Distribution:** Central, South, East and SE Asia (Very common in Tadoba National Park). In India, **it is not very common in Western India.**
- Habitat:** Range of environments, including arid and semi-arid savannas, scrublands, and mountains.
- Diet and behaviour:** Dog-like carnivorous mammals who are highly social animals and **live in large clans without rigid hierarchical dominance.**
- Hunt** mainly in early morning or late evening.
- Primarily their distinct, high-pitched whistling and chattering communication (no howling), highly cooperative family-like social structure (no strict hierarchy).
- Specialized dentition with fewer teeth than other canids for hyper carnivorous hunting, allowing them to take down large prey like tigers.
- Reproduction:** Typically, one dominant monogamous pair within the pack will mate. The gestation period is 60-62 days. **The entire pack cares for the pups.**
- Conservation Status:** IUCN: EN | WPA: Schedule I
- Must watch:** -<https://www.youtube.com/watch?v=x5euwNrRHTk>



South Asian River Dolphin

Context:-

- As per studies conducted on river dolphin, population of Gangetic River dolphin in the mainstream Ganga is known to be stable, although there has been decline in tributaries. (Highest in UP)
- South Asian River Dolphin is divided into 2 sub-species.
 - Ganges river dolphin (*P. g. gangetica*)
 - Indus river dolphin (*P. g. minor*)

Ganges River Dolphin – Susu

About-

- Because of the sound it produces when breathing, the animal is popularly referred to as the 'Susu'.
- Susu can only live in **freshwater and is essentially blind.** Hence, also known as blind dolphin.
- They hunt by emitting ultrasonic sounds.
- The Ganges River dolphin has been recognized by the government of India as its **National Aquatic Animal in 2009.**
- It is also **State Aquatic Animal of Assam.**
- Only Ganges River Dolphin is currently listed on Convention on Migratory Species (not Indus Dolphin).**

- Distribution: Seven states namely, Assam, Uttar Pradesh, Madhya Pradesh, Rajasthan, Bihar, Jharkhand and West Bengal.
- **Blowhole** (They cannot breathe in the water. It surfaces every 30-120 seconds to breathe in fresh air as it is a mammal).
- Females are larger than males.

Distribution:

- Ganges-Brahmaputra-Meghna
- Karnaphuli-Sangu river systems of Bangladesh & India
- Sapta Koshi & Karnali Rivers in Nepal.

Conservation Status:

- IUCN Red List Status: **Endangered**
- WPA: Schedule I
- CITES: Appendix I

Conservation Measures by India:

- **Vikramshila Gangetic Dolphin Sanctuary in Bihar** (Only Sanctuary for Dolphin Conservation).
- **Project Dolphin** on lines of Project Tiger aims to save both river and marine dolphins, implemented by Environment Ministry.
- Conservation Action Plan for Gangetic Dolphin (2010-2020)
- Included among 21 species under Integrated Development of Wildlife Habitat.
- National Ganga Council was set up to save & enhance population of Dolphin.

National Ganga Council or NGRBA

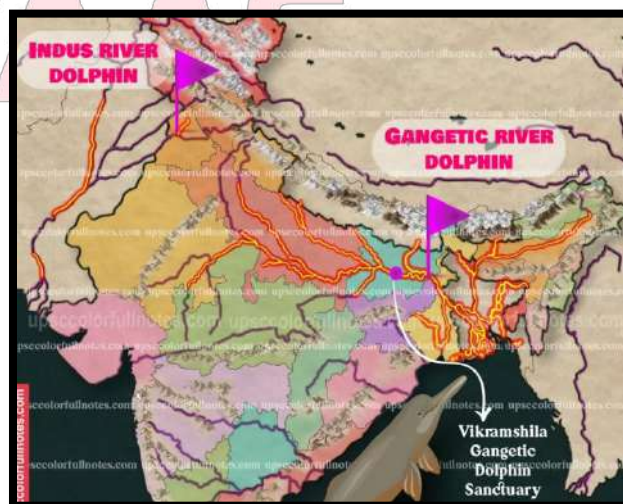
- It was set up in 2016 as National Council for Rejuvenation, Protection & Management of River Ganga (NGRBA).
- It was established under Environment Protection Act, 1986.
- Jurisdiction: Ganga & Its Tributaries
- It dissolved National Ganga River Basin Authority (NGRBA).
- It is **headed by Prime Minister.**

Indus River Dolphin

- State Aquatic Animal of Punjab.
- Habitat: Indus River in Pakistan and its Beas and Sutlej tributaries.
- **River Beas is the only habitat of Indus River Dolphin in India.**
- Population: The population of Indus River dolphins has achieved an impressive recovery over the last 20 years. Their numbers going up from approximately 1,200 in 2001 to almost 2,000 in 2017.

Conservation Status:

- IUCN Red List Status: **Endangered**
- WPA: Schedule I
- CITES: Appendix I



Golden Tiger or Black Tiger

- 'Kazi 106F' India's only Golden Tiger, also known as 'Tabby tigers' or 'Strawberry tigers'.
- Orange-yellow with black stripes and a whitish abdominal region.
- **Yellowish background: Agouti genes and alleles.**
- Black colour stripes: Tabby genes and alleles.
- Colour variation due to suppression of these genes.

Odisha's famous Black Tigers (Melanistic tigers)

- A rare colour variant of the Bengal tiger, **found exclusively in Similipal Tiger Reserve (Odisha).**
- Dark black with faint or almost invisible stripes due to a genetic condition (melanism).
- Single mutation in the **gene Transmembrane Aminopeptidase Q (Taqppe)** causes the black tigers to develop broadened stripes.

Halari Donkeys

- Found in: **Halar (Saurashtra) region of Gujarat**, particularly in the Jamnagar and Dwarka districts.
- **Status: Considered endangered**, with a population of fewer than 500 individuals.
- Social Behaviour: Form close bonds with humans and often work closely with their owners.
- Appearance: Typically white, larger, and more resilient than donkey breeds.
- Its milk is known for its sweetness and is used to make milk powder and **cosmetic products**.

DISTINCT FROM OTHERS

- Halari donkeys are shorter than horse but taller than other normally seen donkey breeds. They look almost like a small horse and have snow white fur. The breed has existed in the Halar region for more than 200 years.
- A litre of donkey milk can cost up to Rs 7,000, the costliest in the world.
- In ancient Egypt, Cleopatra bathed in donkey milk to preserve her legendary beauty and youth
- Donkey milk is rich in vitamins, polyunsaturated fatty acids and contains anti-ageing, antioxidant and regenerating compounds which keep the skin hydrated and prevent wrinkles
- In Ayurveda, it used to treat skin diseases like eczema and psoriasis
- Globally, many firms sell cosmetic products like soaps, skin gels, face wash made from donkey milk as niche products
- Bharwad and Rabari communities used these donkeys to carry luggage during migration

BREED NAMED AFTER A REGION: The donkey breed has derived its name from Jam Sri Halaji Jadeja, said to be the ninth generation grandfather of Jam Sri Rawalji Lakhaji Jadeja, the founder of the Halar region in Saurashtra. Halar was first established with this name by Jam Shri Rawalji Lakhaji, a Jadeja Rajput, in 1540.



Nilgiri Tahr Census

About: -

- After **launching Project Nilgiri Tahr, Tamil Nadu is now working** on a standardised protocol to count the population of Nilgiri Tahr.
- Population Estimation 2025, jointly done in Kerala and Tamil Nadu, has pegged the Nilgiri tahr number at 2,668.
- Link for reference: Survey finds 1,365 Nilgiri tahrs in Kerala – The Hindu

Nilgiri Tahr

- Nilgiri Tahr, **locally known as Varaiaadu**, is the **state animal of Tamil Nadu**.
- It is the **only mountain ungulate in southern India** among the 12 species found in India.
- **Ungulate**: A herbivorous hoofed mammal; e.g., cow, sheep, horse, camels etc.
- **Distribution**: It is **endemic to the Nilgiri Hills**. At present it is **limited to the Western Ghats in Kerala and Tamil Nadu**.
- The **Eravikulam National Park in Anamalai hills (Kerala)** is has its largest population.
- **Habitat**: Tropical montane grasslands, sholas forests and rocky areas at high elevations.
- **Threats**: Habitat loss, hunting, invasive species, and diseases.
- IUCN: **EN** | WPA: Schedule I



Red Panda

About-

- The **Red Panda Conservation Breeding and Augmentation Programme of the Padmaja Naidu Himalayan Zoological Park is shortlisted** for the 2024 Conservation & Environmental Sustainability Awards by the World Association of Zoos and Aquariums (WAZA).
- First Re-wilding Programme of Red Pandas in India is started by the Padmaja Naidu Himalayan Zoological Park. (It is located in Darjeeling)
- Singalila National Park, in West Bengal, will soon get these Pandas.

About Species-

- There are only two different panda species in the world, the Giant Pandas and the Red Pandas.
- Also known as the "**firefox**", "**lesser panda**", and "**red-cat-bear**".
- It is also the **state animal of Sikkim**.
- They are considered an indicator species for ecological change.
- Red Pandas are shy, solitary and arboreal animals
- It is a carnivore animal.
- Their diet consists of mainly Bambos but may also eat small mammals, birds, eggs, flowers and berries.
- It is both nocturnal and crepuscular.
- It is **very heat-sensitive** – the optimal temperature is between 17°C - 25°C.
- Why do they eat Bamboo?
 - ❖ Like the giant panda, they also **cannot digest cellulose** and so must consume large volumes of bamboo as they are easily digestible.
- India is home to both the (sub) species:
 1. Himalayan red panda (*Ailurus fulgens*)
 2. Chinese red panda (*Ailurus styani*)
 - ❖ Siang river in Arunachal Pradesh splits the two phylogenetic species. **Yarlung Zangbo River is the actual geographical barrier** between the distributions of these two species.
- It is **found in the forests of India, Nepal, Bhutan and the northern mountains of Myanmar and southern China**.
- The number of Red Pandas has been declining in the wild, even in the Singalila and Neora Valley National Parks, the two protected areas where the endangered mammal is found in the **wild in West Bengal**.

Protection Status:

Red Pandas:

- IUCN Red List: Endangered
- CITES: Appendix I
- Wildlife Protection Act 1972: Schedule I

Giant Pandas:

- IUCN Red List: Vulnerable
- CITES: Appendix I



Sea Otters

- Sea otters **use rocks, shells, and discarded bottles as hammers or anvils to smash open hard-shelled prey**.
- Their prey includes sea urchins, abalone, crabs, mussels, clams, & snails.
- Tool use allows otters to access otherwise inaccessible prey and maintain their energy requirements.

Use of tools by other animals

- Chimpanzees use tools like stones to crack nuts and sticks to get termites.
- **Dolphins** use sponges to protect their beaks while foraging.
- **Galapagos Islands finches** use cactus spines to dig grubs out of holes.



About species: -

- Water mammals found along the coasts of the Pacific Ocean in North America and Asia.
- **Unlike** other marine mammals, **they have no blubber to protect them from hypothermia.**
- Sea otters are key players in the health of the kelp forests they inhabit.
- **IUCN Status: Endangered.**
- Threats: Oil spills and run-off from the land containing chemicals and disease-causing organisms.

Asian Elephants

Context: -

- A recent study published by the National Centre for Biological Sciences reveals **five genetically distinct populations of Asian elephants** across Northern, Central, and Southern India.
- Out of five, two populations are in the north and three populations in the south.

Asian Elephant: -

- Elephants are the largest terrestrial mammals.
- They are **keystone** species.
- They are matriarchal, meaning they live in female-led groups.
- Females become sexually mature at the age of 15. Males become mature between the ages of 9 and 13, and then they disperse from the matriarchal group and establish their independent home range.
- The gestation period of elephant is 18 to 22 months and the calf is nursed for 2 to 4 years.
- Lifespan of elephants is 60-70 years in the wild.
- **There are three species of elephants:** African Forest Elephant (Critically Endangered), African Savanna Elephant (Endangered) and Asian Elephant (Endangered).
- There are three subspecies of Asian elephant: Indian, Sumatran and Sri Lankan.

Protection Status:

- IUCN Red List: **Endangered**
- CITES: Appendix I
- Wildlife Protection Act 1972: Schedule I

Statistics in India:

- The population of elephants in India has **reached up to about 27,312** (2017 Census).
- **Karnataka had the highest number of elephants (6,049), followed by Assam (5,719) and Kerala (3,054).**
- 4th Tamil Nadu > 5th Odisha > 6th Uttarakhand.

Project Elephant

About:

- It is a centrally sponsored scheme and was launched in February 1992 for the protection of elephants, their habitats and corridors.
- The Ministry of Environment, Forest and Climate Change provides financial and technical support to major elephant range states in the country through the project.

Objectives:

- To protect elephants, their habitat & corridors
- To address issues of man-animal conflict
- **Welfare of captive elephants**

PYQ

Q. With reference to Indian elephants, consider the following statements: (2020)

- 1) The leader of an elephant group is a female.
- 2) The maximum gestation period can be 22 months.
- 3) An elephant can normally go on calving till the age of 40 years only.
- 4) Among the States in India, the highest elephant population is in Kerala.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 and 4 only
- c) 3 only
- d) 1, 3 and 4 only

World Elephant Day

- World Elephant Day is an international annual event on August 12.
- To create awareness of elephant conservation, and to share knowledge and positive solutions for the better protection and management of wild and captive elephants.

Conservation Status

- African Forest Elephant- Critically Endangered
- African Savanna Elephant- Endangered
- **Asian Elephant- Endangered**

Interesting Facts

- African Savannah (Bush) Elephant is the largest living terrestrial animal.
- Poaching & land-use changes remain prominent challenges to African elephant populations.
- As both males & females possess tusks, the impact of ivory poaching is especially severe.
- Elephant was declared as the National Heritage Animal of India in 2010

Latest Elephant Reserves in India

- 33rd elephant reserve -Terai Elephant Reserve (Uttar Pradesh)
- 32nd elephant reserve – Agasthyamalai Elephant Reserve (Tamil Nadu)
- 31st elephant reserve – Lemru Elephant Reserve (Chhattisgarh)
- 30th elephant reserve- Singphan Elephant Reserve in Nagaland
- 29th elephant reserve- Dandeli Elephant Reserve in Karnataka

How Elephant Reserve declared in India?

- First recommended by State Government
- Then send to Centre under MoEFCC
- MoEFCC gives nod and then Declared under Project Elephant.

Centre merged Project Tiger and Project Elephant

- After the merger, a new division named 'Project Tiger and Elephant Division' (PT&E) has been created under the Ministry of Environment, Forest, and Climate Change (MoEF&CC).
- The staff and divisional heads of Project Elephant (PE) will now report to the additional director general of forests (ADGF), Project Tiger (PT), who has now been designated as ADGF (PT&E).

- Reason for the merger is to rationalize funding for both conservation projects.

Bonobo

Context:

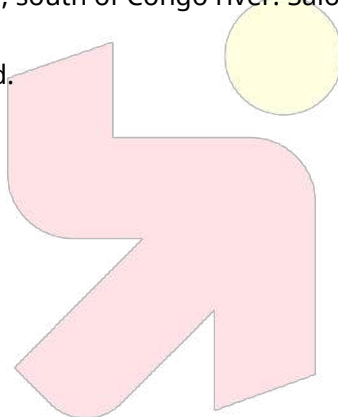
- Several bonobo calls during mating rituals and tense social situations according to a new study published in Science resemble complex human sentence structures. And they use this ability for a call to “find peace”.
- **Link for preference:** [What bonobos can teach us: Make love, not war | The Indian Express](#)

About:

- Bonobos, also known as pygmy chimpanzees.
- They are **endangered** and found only in the forests of the **Democratic Republic of Congo (DRC)**.
- Known for their peaceful, matriarchal societies, they are smaller, leaner, and darker than chimpanzees.
- Females often hold a high status and conflict resolution is often facilitated through sexual behaviour.

Habitat:

- Lowland rainforest of Congo basin, south of Congo river. Salonga National Park, Kokolopori Bonobo reserve.
- **Conservation status:** Endangered.



PRAYAAS

Vulnerable- Mammals

Clouded leopard

Context (DTE):

- 38% of Taiwan's territory is found suitable for reintroducing the clouded leopard.

About: -

- It has a stocky body with short legs, wide paws and the **longest canine teeth among all living cats**.
- It is a solitary animal found across Southeast Asia & Himalayas.
- Clouded leopard is a wild cat inhabiting dense forests.
- It is the **state animal of Meghalaya**.
- Dampa TR (Mizoram)** has the highest population density of clouded leopards.
- Distribution:** Bangladesh, Bhutan, China, India, Nepal, and SE Asia. In India, it **occurs up to Valmiki TR in Bihar**.
- IUCN: **VU**
- CITES: Appx I
- WPA: Sch I



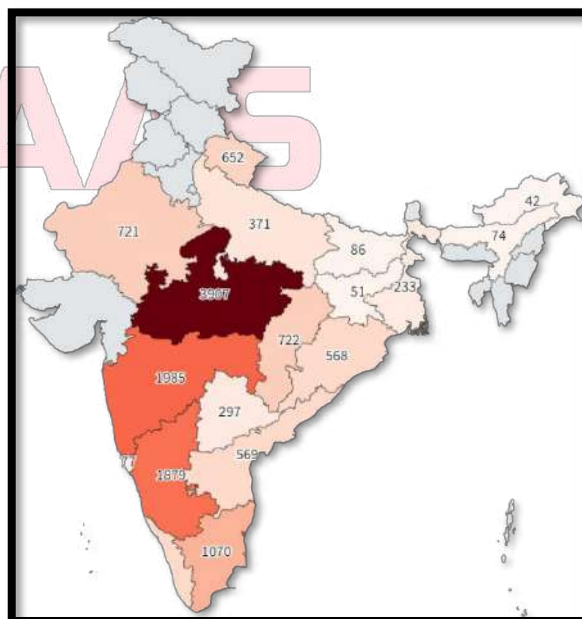
Status of Leopards in India Report 2022

Context: -

- India's leopard numbers **rose by 8% from 12,852 in 2018 to 13,874 in 2022**, according to a report by the Environment Ministry.

About: -

- The estimation (5th cycle) was **carried out by National Tiger Conservation Authority and Wildlife Institute of India, in collaboration with State Forest Departments**, as part of the quadrennial "Monitoring of Tiger, Co-predators, prey and their habitat" exercise in tiger range States.
- The fifth cycle focused on forested habitats within 18 tiger states, covering four major tiger conservation landscapes. Non-forested habitats, arid, and high Himalayas above 2000 mean sea level were not sampled.
- The survey **covered 20 States of India & focussed** on about 70% of animals expected habitat.



Leopard count in India

- There has been a 1.08% annum growth in leopard numbers.
- About a third of the leopards are within protected areas.
- Madhya Pradesh, located in Central India**, houses more leopards than any other Indian state at 3,907 followed by **Maharashtra, Karnataka, and Tamil Nadu**.

- Among the country's physiographic regions, Central India and the Eastern Ghats, the Western Ghats and the hills of the northeast, and the Brahmaputra flood plains recorded growth of 1.5%, 1% and 1.3% per annum respectively.
- Shivalik hills and Gangetic plains showed a -3.4 per cent decline per annum.
- **Tiger Reserves or sites with highest leopard population:** Nagarajunasagar Srisailem (Andhra Pradesh), followed by Panna (Madhya Pradesh), and Satpura (Madhya Pradesh).
- About 65% of the leopard population is present outside protected areas in Shivalik landscape.

Basics: -

- Scientific Name: Panthera pardus
- Leopards are elusive and nocturnal animals whose size and colour depend on the habitat. They are **great climbers and hide in trees, where they hide their prey** to avoid competition.
- **Geographical Extent:** Members of the cat family, leopards live in Asia, sub-Saharan Africa, Southern Russia, and the Indian subcontinent.
- The Indian leopard (Panthera pardus fusca) is a leopard widely distributed on the Indian subcontinent.

Habitat:

- In comparison to other large carnivores, leopards are quite adaptable with respect to their habitat needs and food requirements, being found in: Agro-pastoral landscapes, Plantations and **Near human habitation** (both rural and urban)

Threat:

- Habitat loss
- Poaching
- Human-wildlife conflict

Protection Status:

- IUCN Red List: **Vulnerable**
- CITES: Appendix I.
- Wildlife Protection Act 1972: Schedule I

Snow Leopard

Context: -

- Snow leopard is the world's least genetically diverse big cat. As per the recent Stanford survey.
- **Link for reference:** [Snow leopards are the world's least genetically diverse big cat - The Hindu.](#)

About: -

- A snow leopard (also known as **Ghost of the Mountains**) is both a Keystone & Indicator Species of the health of their high-altitude habitat.
- In India, their range encompasses a large part of the western Himalayas including the states of Jammu & Kashmir, Himachal Pradesh, Uttarakhand & Sikkim & Arunachal Pradesh in the eastern Himalayas.
- **Threats:** Human interference, competition with livestock, poaching, climate change, unregulated tourism, illegal trade, infrastructure development in the mountains, and excessive livestock grazing.
- Government has **identified it as a flagship species** for the high-altitude Himalayan ecosystem.
- Snow leopard is also **included** in Species Recovery Programme



- It is the **State animal of Himachal Pradesh and Ladakh.**
- It is National Heritage Animal of Pakistan and Afghanistan.
- Snow Leopard capital of the world: Hemis, Ladakh
- Snow Leopard is on the list of 21 critically endangered species for the recovery programme of the Ministry of Environment Forest & Climate Change.

Conservation Status

- IUCN Red List – Vulnerable
- CITES – Appendix 1
- Wildlife Protection Act 1972 – Schedule 1

Fun fact about Snow Leopard-

- Unlike other big cats, snow leopards can't roar. Snow leopards have a 'main' call described as a 'piercing yowl' that's so loud it can be heard over the roar of a river.
- They're **more closely related to tigers than they are leopards**

Project Snow Leopard

- It was **introduced in India by the Project Snow Leopard Committee** instituted by the Ministry of Environment and Forests, Government of India, in the year 2009.
- **Aim** - To safeguard and conserve India's unique natural heritage of high-altitude wildlife populations and their habitats by promoting conservation through participatory policies and actions.

Global Snow Leopard and Ecosystem Protection (GSLEP) Programme

- The GSLEP is a high-level **inter-governmental alliance** of all the **12 snow leopard range countries.**
- The snow leopard countries namely, India, Nepal, Bhutan, China, Mongolia, Russia, Pakistan, Afghanistan, Kyrgyzstan, Kazakhstan, Tajikistan, and Uzbekistan.
- It majorly focuses on the need for awareness and understanding of the value of Snow Leopard for the ecosystem.
- Countries adopted **Bishkek Declaration** that aims members to work together to identify & secure at least 20 snow leopard landscapes across the cat's range by 2020 or, in short – **"Secure 20 by 2020."**

More Facts: -

- **Gandhinagar Declaration:** adopted by all parties to CMS. It underscores the importance of migratory species. It calls for migratory species and the concept of 'ecological connectivity'.
- **St. Petersburg Declaration:** Doubling the Tiger Population (T*2 Program). Initiative by Global Tiger Recovery Program (GTRP)

International Big Cat Alliance (IBCA)

Context-

- **India last year proposed** to launch International Big Cat Alliance (IBCA) to protect big cats and assured support over five years with guaranteed **funding of \$100 million.**

About-

- It is a proposed mega-global alliance that will work toward the protection and conservation of the **seven major big cats — tiger, lion, leopard, snow leopard, puma, jaguar, and cheetah.**
- Membership to the alliance will be open to 97 'range' countries, which contain the natural habitat of these big cats, **as well as other interested nations, international organizations, etc.**
- The alliance's purpose is to provide a platform for the dissemination of information on benchmarked practices, capacity building, resources repository, research and development, awareness creation, etc., on the protection and conservation of big cats.

- Its major activities will include advocacy, partnership, knowledge e-portal, capacity building, eco-tourism, partnerships between expert groups and finance tapping.
- After the first five years, which will be supported by India's 'total grant assistance' of \$100 million, the IBCA is expected to sustain itself through membership fees, and contributions from bilateral and multilateral institutions and the private sector.

Governance Structure

- A General Assembly consisting of all member countries.
- A Council of at least seven but not more than 15 member countries elected by the General Assembly for a term of 5 years, and a Secretariat.
- Upon the recommendation of the Council, the General Assembly will appoint the IBCA Secretary General for a specific term.

PYQ

Q. Consider the following: (2012)

Black-necked crane
Cheetah
Flying squirrel
Snow leopard

Which of the above are naturally found in India?

- 1, 2 and 3 only
- 1, 3 and 4 only
- 2 and 4 only
- 1, 2, 3 and 4

Status of Snow Leopards in India

- By Snow Leopard Population Assessment in India (SPAII) over four years (2019-2023).
- Coordinating agency: Wildlife Institute of India.
- Only 34 % of Indian snow leopard in legally protected area.
- **Population: Ladakh > Uttarakhand > Himachal Pradesh** > Arunachal Pradesh > Sikkim > J&K.
- IUCN Status: Vulnerable.

Greater one-Horned Rhino

Context:

- The latest State of the Rhino report reveals a concerning trend: while rhino populations have stabilised at 27,000.
- **Link for reference:** [Rhino Conservation Crisis: Shifting Baselines Threaten Survival](#)

About:

- The largest of the three Asian rhino species.

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.

Feature:



- Good swimmers and can dive and feed underwater.
- single horn, thick armour-plated skin with deep folds, making it look prehistoric.
- **Protected area:** Kaziranga National Park

Conservation status:

- **IUCN Red List:** Vulnerable.
- **CITES:** Appendix I.
- **Wildlife Protection Act, 1972:** Schedule I.

Rhino

Context:

- World Rhino Day is celebrated on September 22 every year.
- It was first **announced by the World Wildlife Fund (WWF)** - South Africa in 2010

About Rhino -

- There are three species of rhino in Asia Greater one-horned (*Rhinoceros unicornis*), Javan and Sumatran.
- The two greatest threats to the survival of Asia's rhinos are poaching for the horns and habitat loss are
- The **five rhino range nations** → India, Bhutan, Nepal, Indonesia and Malaysia
- All have signed '**The New Delhi Declaration**' on Asian Rhinos 2019' for the conservation and protection of the species.
- Greater One-Horned Rhino is the largest of the rhino species (second in size only to the Asian elephant).
- The Indian rhino's single horn is **present in both males & females.**

Five species of rhinoceros are:

- White Rhino (NT)
- Black Rhino (CR)
- Sumatran Rhino
- Javan Rhino
- Greater One-Horned Rhino (Indian Rhino)

IUCN Red list

- Javan and Sumatran Rhino are **critically endangered**
- The Greater one-horned (or Indian) rhino is **vulnerable**

CITES

- All three listed under **Appendix I**

Wildlife Protection Act, 1972

- Greater one-horned rhino is listed under the Schedule I of the act.

Habitat of Greater One-Horned Rhino in India

- The species is restricted to small habitats in Indo-Nepal terai and northern West Bengal and Assam.
- **Kaziranga NP, Pobitora WLS, Orang NP, Manas NP in Assam**
- **Jaldapara NP and Gorumara NP in West Bengal**
- **Dudhwa TR in Uttar Pradesh.**

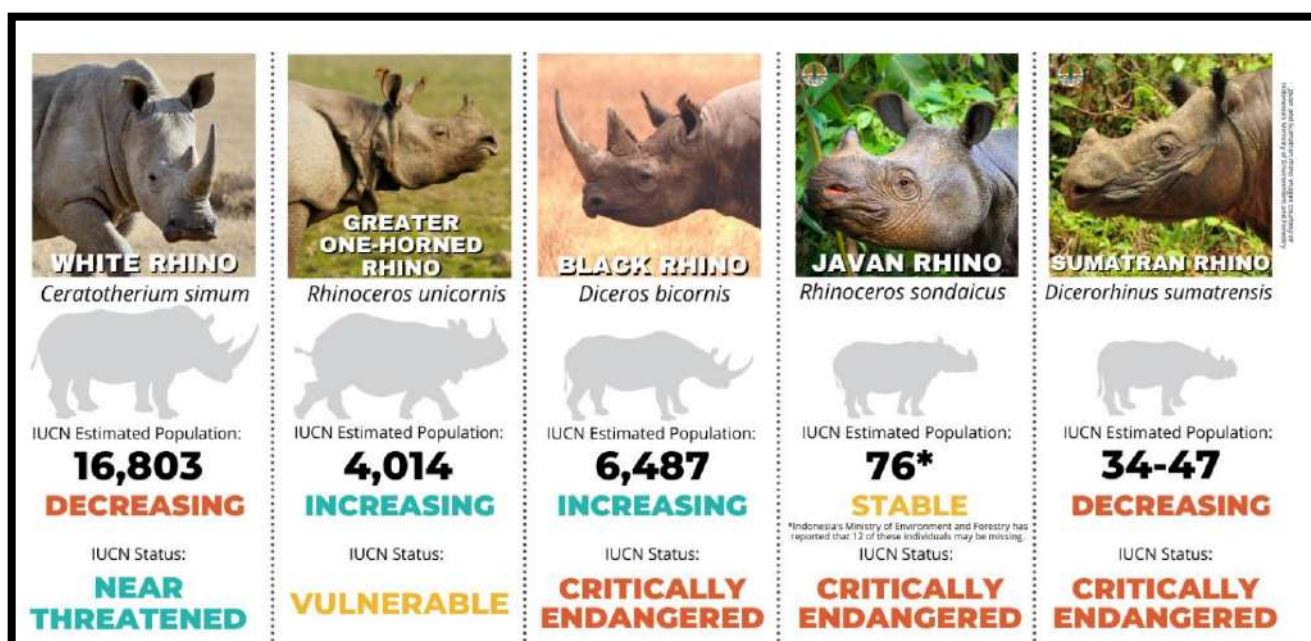
Conservation Efforts by India

- In 2005, the Forest Department, **Government of Assam** adopted the ambitious **Indian Rhino Vision** (IRV) 2020 program in partnership with WWF India & the International Rhino Foundation.
- **New Delhi Declaration** on Asian Rhinos 2019 was announced for the conservation & protection of the species by five rhino range nations (India, Bhutan, Nepal, Indonesia & Malaysia).
- GOI launched a project to create DNA profiles of all rhinos in the country.
- National Rhino Conservation Strategy was launched in 2019 to conserve the Indian Rhino.

State of the Rhino 2024

- Recently, the **International Rhino Foundation (IRF)** published the report, State of the Rhino, 2023 which documents current population estimates and trends for the five surviving rhino species in Africa and Asia.
- International Rhino Foundation (IRF) is a Texas-based charity focused on the conservation of the five species of rhinoceros.

Status: -



Walrus

Context:

- The first case of a walrus dying from bird flu was recorded on an Arctic island.

About: -

- Walruses are the **largest pinnipeds (includes the seals and sea lions) marine mammals found in the Arctic and subarctic seas of the Northern Hemisphere.**
- **Habitat:** Walruses inhabit areas in the Arctic that are largely made up of ice. Walruses prefer areas with shallow water so they can easily access food.
- **Range:** There are two subspecies of Walrus: Atlantic and Pacific Walrus. The Atlantic walrus lives in the seasonally ice-covered northern waters of Canada, Greenland, Norway and Russia. In contrast, the Pacific walrus occupies from the Bering to the Chukchi Seas, as well as the Laptev Sea.
- The walrus has a tusk on each side of its mouth, which it uses to haul itself out of the water and onto the sea ice, fight with other walruses, and defend against predators.
- Walruses have thick skin that ranges from light grey to yellowish brown. A thick layer of fat below the skin, called blubber, keeps the walrus warm.
- Diet: They feed mainly on invertebrates such as clams and snails found on the bottom of the relatively shallow seas.



Conservation Status:

- IUCN: **Vulnerable.**
- Threats: Hunting for oil, ivory and hides, climate change.
- Significance: It is a keystone species in Arctic marine ecosystems.

PRAYAAS

Least Concern- Mammals

Blackbuck

- Also known as Indian Antelope, it is the sole extant member of the genus Antelope.
- Earlier, the Indian subcontinent was now limited to scattered herds in Nepal, India and Pakistan.

Physical Features

- Slender and elegant bodies, pointed and delicate hooves, narrow, sheep-like muzzles and short tails.
- Colouration depends on gender:** the back, the sides, and the outer side of the legs are rich dark brown in males and yellowish in females.
- Both genders have white underparts, including the insides of the legs, & a white ring around the eyes.



Characteristics

- Seen in groups of 7-10 **led by a mature female**. It is diurnal (active mainly during the day).
- One of the fastest-running animals on earth.

Habitat and Range

- In India, they are found predominantly in the states of Gujarat, Punjab, Rajasthan and Haryana.

Conservation Status

- IUCN: Least Concern** | WPA, 1972: Schedule I | CITES: Appendix III
- Threats: Excessive hunting, deforestation and habitat degradation.
- It has been **declared the State Animal of Punjab, Haryana, and Andhra Pradesh**.

Significance in Indian Culture: -

- Probable source of food in the Indus Valley civilisation (bone remains at Dholavira and Mehrgarh).
- Depicted in miniature paintings of the Mughal era depicting royal hunts.
- Tribes such as the Bishnois revere and care for the blackbuck.

Blue Sheep

- Himachal Pradesh has started surveys to estimate the population of blue sheep and Himalayan ibex.
- The survey is done through the double-observer survey technique.
- The double-observer survey technique involves two observers searching for and counting animals simultaneously while ensuring they do not cue each other on the locations of the animals.



Blue Sheep or Bharal

- Native to the high Himalayas. **Neither blue nor sheep**. Closely related to goats (genus Capra).
- Physical description: Short, dense coat that is slate grey in colour, sometimes with a bluish sheen. Horns are found in both sexes and are ridged on the upper surface. Males are slightly larger than females.
- Distribution: India, Bhutan, China, Myanmar, Nepal, and Pakistan.

- **Habitat:** Live on treeless slopes, alpine meadows and shrubs. Prefer gentle hillsides rather than steep, rugged slopes. Many Buddhist monasteries protect the bharal found around them.
- **Conservation Status:** IUCN: Least Concern | WPA, 1972: Schedule I

Honey Badger

- Honey Badger has been captured for the first time on camera in Uttarakhand.
- Also known as **Ratel**, it belongs to the weasel family.
- **Distribution:** Native to areas of Africa and Asia, from southern Morocco to Africa's southern tip, and western Asia's Caspian Sea, Turkmenistan, Afghanistan, Nepal, and **western India**.
- Known for **their solitary nature and ability to twist and turn to escape predators**. It exhibits sexual dimorphism, with the males being larger than the females. They are good swimmers and can climb trees.
- **Diet:** They are omnivorous mammals with a diet consisting of small animals, fruit and honey.
- **Conservation status:** IUCN: LC



Indian Wolf

Context: -

- Seven deaths in UP's Bahraich district have been blamed on attacks by wolves.

About: -

- In India, historically, wolf attacks on people have mainly occurred in northern regions like UP, Bihar, MP, and Bengal, where poverty fuelled the inter-species competition for natural resources.
- The **Indian wolf is a subspecies of grey wolf** found in the Indian subcontinent and parts of SW Asia.
- It is **intermediate in size** between the Himalayan wolf and the Arabian wolf.
- It lacks the thick winter coat, unlike the Himalayan wolf, due to its adaptation to warmer climates.
- **Habitat:** Open grasslands, thorn forests, and scrublands.



Behaviour:

- They travel in smaller packs (6-8 individuals) and are less vocal than other grey wolves.
- They are known for their cunning nature. They typically prefer to hunt at night in open grounds.
- Survived bounty hunting due to their elusive nature and lack of commercial value of their hide.
- **Conservation status:** IUCN: **Least Concern** | WPA: Schedule I.

Operation Bhediya

- Launched by the UP government **to capture the pack of wolves** in the Bahraich district.

Challenges in capturing wolves:

- Wolves consistently change their habitat and visit a new area every time.
- Since they come in packs, their identification is difficult, unlike tigers and leopards.

- Traditional methods of using elephant dung and urine to repel wolves have had some success.

Law Regarding Killing Wild Animals: -

- Under Section 11 (1) (a) of the Wildlife (Protection) Act, 1972, the Chief wildlife warden of a state has the authority to permit the hunting of such animals** becoming dangerous to human life or disabled or diseased beyond recovery.

There are two species of Wolf found in India: Gray Wolf and Himalayan Wolf .	
Gray or Indian Wolf (<i>Canis lupus pallipes</i>) Habitat: Thorn forests, scrub-lands, arid and semi-arid grassland habitats, found in the agro-pastoral regions of semi-arid India. - Majority of them survives outside of protected areas in close proximity with people. Conservation Status Wildlife Protection Act, 1972: Schedule I IUCN: Least Concern	Himalayan or Tibetan wolf (<i>Canis lupus chanco</i>) Habitat: Wastelands of the upper-trans Himalayan range including Himachal Pradesh, Jammu, Kashmir, Uttarakhand, and Sikkim. Conservation Status Wildlife Protection Act, 1972: Schedule I IUCN: Vulnerable
 Gray Wolf	 Himalayan Wolf

PRAYAAS

Near Threatened – Mammals

Asiatic Golden Cat

- Asiatic golden cat has returned to Assam's Manas National Park.
- Known as "rock cat" or "yellow leopard" in China, it is a medium-sized wild cat native to Asia.
- Distribution: Southern China, Southeast Asia, and Northeast India.
- Habitat: Deciduous, tropical, and subtropical evergreen rainforests interspersed with rocky areas
- **Conservation Status: IUCN: Near Threatened** | CITES: Appendix I



Indian Wild Ass

- The Rann of Kutch, especially the Little Rann, is the last habitat of the Indian wild ass.
- The 10th Wild Ass Population Estimation (WAPE) exercise is conducted every five years by the Gujarat forest department begins.

About: -

- Locally known as khur or **Ghudkhur**.
- Subspecies of the Asiatic Wild Ass, the Onager.
- **Conservation Status: IUCN: Near Threatened**.
- CITES: Appendix I.
- WPA (1972): Schedule I.
- Survives on xerophytic vegetation (plants adapted to dry environments with minimal water).
- Known for its speed (up to 70 km per hour). It is almost the size of a zebra and has a lifespan of 21 years.
- Stable groups of khur consist of females and their young. Stallions (Male khurs) tend to be loners, especially in the breeding season. Life can be tough for the females, as gestation periods are long, 11 to 12 months, and concurrent lactation and pregnancy are sometimes seen.
- They faced a near-extinction decline in the 1960s due to diseases, including viral African Horse sickness and **Surra** (caused by the protozoan parasite Trypanosoma evansi and spread by biting insects).
- Threats: Habitat loss from illegal salt panning, invasive plant species, and livestock overgrazing.



Rann of Kutch

- The Rann of Kutch is a vast salt marsh spanning Gujarat and Sindh, Pakistan.
- Formed millions of years ago by geological shifts creating vast salt flats by blocking the Arabian Sea.
- The region is divided into the Great and Little Rann, bordered by the Thar Desert and Kutch hills.
- The Indus River Delta lies to the west in southern Pakistan. The Rann of Kutch is the only major flooded grassland zone within the Indomalayan realm, one of the eight biogeographic realms.
- The climate is arid, with extreme temperatures, limited rainfall, and distinct wet and dry seasons.
- With the desert on one side and the sea on the other, it supports diverse ecosystems, such as mangroves and desert flora. It hosts unique wildlife, including the Indian wild ass, nilgai, feral pigs, and flamingos.
- The Little Rann of Kutch produces 30% of India's salt. During monsoon season, the vast salt pans of Rann turn into a shallow wetland. About 75 elevated pieces of land turn into islands, called bets.

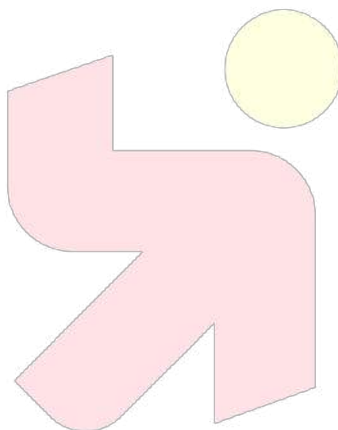
Indian Wild Ass Sanctuary

- Established in 1973. Largest wildlife sanctuary in Gujarat, located in Little Rann of Kutch.

- The sanctuary aims to protect the endangered Indian wild ass and its habitat from threats.
- The sanctuary is home to local tribes, the **Rabari, Maldhari Community, and Bharwad communities.**

Striped Hyaenas

- One of the three hyena species in the world.
- **Distribution:** North and East Africa, the Middle East, the Indian subcontinent, and Central Asia.
- **Habitat:** Range of environments including arid and semi-arid, savannas, scrublands, and mountains.
- **Diet:** Primarily scavengers. Also hunt small animals and consume fruits and vegetables.
- **Behaviour:** Nocturnal and solitary but can sometimes be seen in small family groups. They are known for their strong jaws and ability to crush bones.
- **Reproduction:** They have a gestation period of 90-92 days. Females give birth to 1-6 cubs per litter.
- **Conservation Status:** IUCN: NT | WPA: Schedule I



PRAYAAS

Miscellaneous Mammals

Pulikulam Cattle

- Draught and game breed with poor milk yield originated from Pulikulam, Tamil Nadu.
- Reared for draught & organic agricultural production. Faced risk of slaughter after Jallikattu ban.

Indigenous cattle breeds

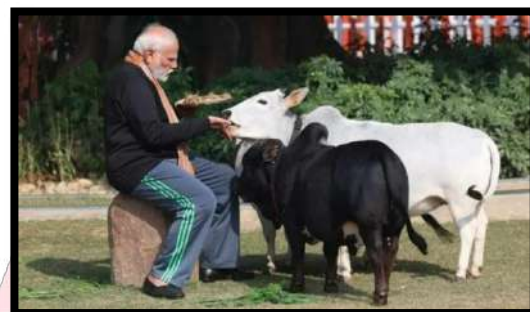
State	Associated breed
Maharashtra	Killari
Karnataka	Amrit Mahal, Hallikar, Deoni.
Tamil Nadu	Bargur, Umbalachery, Alambadi, Pulikulam, Kangayam
Rajasthan	Sahiwal Cow (Native of Sahilwal, Pakistan)
Gujarat	Kankrej
Andhra Pradesh	Ongole, Punganur (Dwarf breed)

National Bureau of Animal Genetic Resources (NBAGR)

- Unit of Indian Council of Agricultural Research, approved during the 4th Five-Year Plan.
- Location: National Dairy Research Institute, Karnal.
- Aims to protect and conserve indigenous farm animal genetic resources.

Punganur Cows

- Dwarf cattle (world's shortest-humped breed) is native to **Chittoor district in Andhra Pradesh**.
- Can be of various colours (white or grey or shades of light or dark brown).
- Small, crescent-shaped horns, longer in females than males.
- Once on the verge of extinction. However, numbers improved from 2,828 (19th Livestock Census) to 13,275 (20th Livestock Census).
- **Distribution:** Andhra Pradesh, Telangana, Karnataka, Kerala, Maharashtra, and Tamil Nadu.



Significance of Punganur Cows Milk

- Nutritionally rich with high-fat content, A2 milk, containing Au (gold), Omega fatty acids, Calcium, Potassium, and Magnesium etc.
- Used for **Ksheeraabhishekam** (milk offering to the deity) in Tirupati Thirumala Temple.

Species – Reptiles (CR)

Asian Giant Softshell Turtle

Context:

- A documentary on saving the critically endangered turtle in Kasaragod wins the Dadasaheb Phalke Award.

About: -

- Also called Cantor's giant softshell turtle / frog-faced softshell turtle, it is a freshwater turtle.
- Native to South and Southeast Asia.
- Physical Appearance: Broad head, small eyes. Smooth olive-coloured carapace.
- Behaviour: **Spends 95% of its life buried and motionless.**
- Range: Bangladesh, Brunei, Cambodia, China, **India**, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore (extirpated), Thailand, Vietnam.
- Diet: Primarily carnivores (piscivores) feeding on fish, crustaceans, and molluscs.
- Conservation Status: IUCN: CR | WPA: Schedule I | CITES: Appendix II**



Elongated tortoise

- An elongated tortoise was spotted in Haryana. It is generally found in Southeast Asia, **particularly Northeast India. A disjunct population exists in the Chota Nagpur plateau.**
- Habitat: Sal deciduous and hilly evergreen forests
- Physical description: Medium-sized with a yellowish brown or olive shell and distinct black blotches at the centre of each scute. The tortoise has on its nostril a pink ring, which appears in the breeding season.
- Sexually dimorphic & omnivores feeding on plants, fallen fruits, flowers, fungi, snails, slugs, and carrion.
- Conservation Status: IUCN: Critically endangered.**
- Threats: Exploited for food and traditional medicine, habitat destruction, fragmentation, and loss.



Leith's Softshell Turtle

- Large freshwater soft-shelled turtle, **endemic to peninsular India.**
- Location: All major rivers of Maharashtra, Karnataka, Kerala, Andhra Pradesh, Tamil Nadu, Odisha.
- Features: Olive green or greyish colour, white off cream on the plastron.
- IUCN: Critically Endangered | WPA: Schedule IV | CITES: Appendix I**



Gharial

- Sometimes called gavials, a type of Asian crocodilian distinguished by their long, thin snouts.
- Gharials were widely distributed in the Brahmaputra, Ganga, Indus, and the Mahanadi-Brahmani-Baitarani River systems of India, Bhutan, Bangladesh, Nepal, and Pakistan.
- Today, their **major populations occur in three tributaries of the Ganga — the Chambal and Girwa in India and the Rapti-Narayani River in Nepal.**

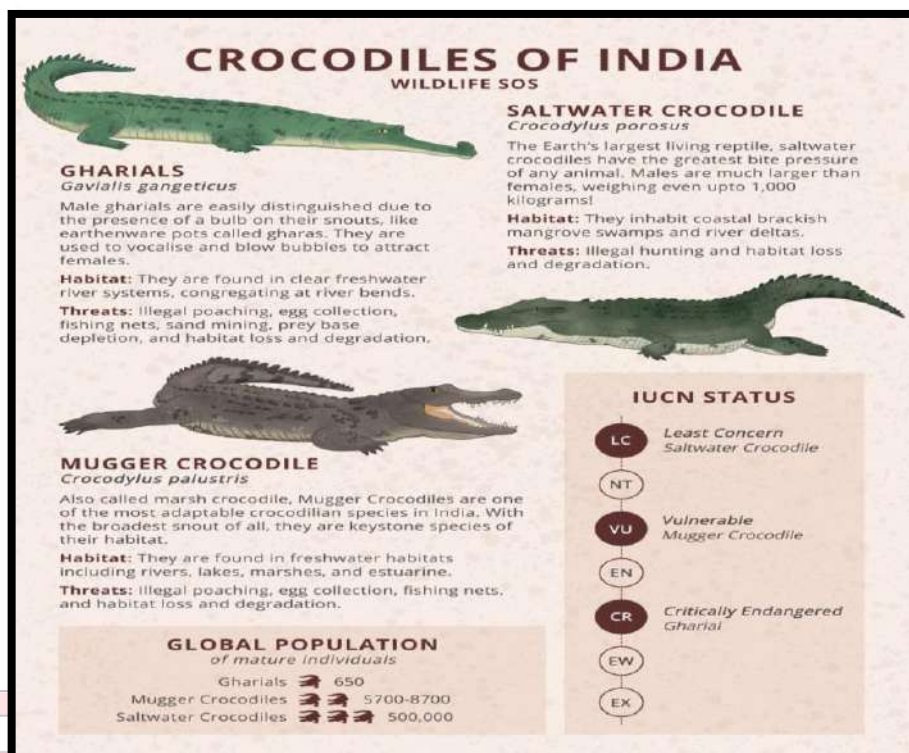
- Only viable population in India in the **National Chambal Sanctuary of UP, Rajasthan, and MP**. Small non-breeding populations exist in the Son, Gandak, Hoogly and Ghagra rivers.
- **Female gharials lack the ghara** (pot-like structure) on the tip of the males' snouts.
- Habitat: Clean rivers with sand banks (Fresh Water).
- **Conservation Status: IUCN: Critically Endangered | WPA, 1972: Schedule-I**
- **Threats:** Effects of dams, barrages, artificial embankments, changes in river course, pollution, sand-mining, riparian agriculture and ingress of domestic and feral livestock.

Gharial in Brahmaputra

- Brahmaputra's lone female gharial's long wait for a mate could end soon if the proposal for reintroducing gharials in the Brahmaputra landscape is approved.
- The reptiles will likely be brought **from the Kukrail gharial breeding centre** in Uttar Pradesh.
- Gharial is believed to have been wiped out from the Brahmaputra river system in the 1950s.

Mugger Crocodile - VU

- Medium-sized broad-snouted crocodile.
- **Distribution:** 15 states, with the largest populations in the middle Ganges (Bihar-Jharkhand) and Cham-bal (Madhya Pradesh, Gujarat and Rajasthan) basins.
- **Habitat:** Native to freshwater and inhabits marshes, lakes, rivers and artificial ponds.
- **Conservation Status:** **IUCN: Vulnerable** | WPA, 1972: Schedule-I | CITES: Appendix I



Saltwater Crocodile - LC

- **Distribution:** Sundarbans, Bhitarkanika National Park, **A&N Islands, East Coast of India**.
- **Habitat:** Saltwater habitats such as mangrove swamps, estuaries, and coastal areas.
- **Size:** **Largest of all crocodilians, largest reptile in the world.**
- **IUCN:** Least Concern | WPA, 1972: Schedule I
- **CITES:** Appendix I | Australia, Indonesia, and Papua New Guinea: Appendix II.

Bhitarkanika National Park

- **Second Ramsar Site of Odisha** after Chilika Lake. **Second-largest mangrove ecosystem in India.**
- **Gahirmatha Marine Sanctuary** separates the National Park from the Bay of Bengal.
- Inundated by the rivers Brahmani, Baitarani & Dhamra.

Critically Endangered- Birds

Nicobar Megapode

- Nicobar megapode or Nicobar scrubfowl is a megapode endemic to the Nicobar Islands.
- Megapode: Birds that build a large mound nest with soil and vegetation, with the eggs hatched by the heat produced by decomposition.
- Habitat: coastal forests.



Baer's pochard

- Baer's pochard is a freshwater diving duck of eastern Asia.
- Distribution: South Asia and mainland SE Asia.
- In India, **it is found in NE India, WB and Odisha and terai areas.**
- Habitat: it breeds around freshwater habitats.
- IUCN: CR | CMS: Appx II**



Bengal Florican

- Bengal Florican is a rare bustard species that is **well known for its mating dance.**
- Habitat: grasslands interspersed with scrublands.
- Distribution: native to the Indian subcontinent, Cambodia, and Vietnam. **Mainly found in UP, Assam and Arunachal Pradesh and the terai regions of Nepal.**
- IUCN: CR | CITES: Appx I | WPA: Sch I**



Bugun Liocichla

- Bugun liocichla was **discovered in 2006**. It is named in honour of the Bugun community in West Kameng district.
- Distribution: **endemic to Arunachal Pradesh**.
- Eaglenest WLS (Arunachal Pradesh) is famous for it.
- Habitat: hillsides covered with shrubs and small trees.
- Threats: habitat loss and degradation**
- IUCN: CR**



Great Indian Bustard

- Great Indian Bustard (GIB) is an omnivorous bird that is native to the Indian subcontinent.
- It is one of the heaviest flying birds in the world.
- Distribution**: It is found only in a few pockets in India and Pakistan. In India, it is **confined only to 6 states** — Andhra Pradesh, Gujarat, Karnataka, Maharashtra, Madhya Pradesh, and Rajasthan.
- It is the state bird of Rajasthan (locally called Godawan).
- Its largest populations (95%) are found in Jaisalmer, Rajasthan.
- Habitat**: Dry grassland & steppe region.
- Threats: Habitat loss (esp. due to agricultural expansion), hunting, mortality due to collision with power lines and windmills (they have poor frontal vision).
- GIB was the mascot for the 13th COP of the UN Convention on the Conservation of Migratory Species (CMS) held in India, 2020.

Conservation Status:

- IUCN Red List: Critically Endangered
- CITES: Appendix I
- Indian Wildlife Protection Act, 1972: Schedule I
- Convention on Migratory Species (CMS): Appendix I
- GIB is considered a flagship grassland species.

Protected Areas dedicated to Great Indian Bustards**Rajasthan**

- Desert National park .
- GIB breeding centre in Sorsan in Baran district.
- Project Great Indian Bustard was launched in 2014 jointly by the Rajasthan government, Wildlife Institute of India, and CAMPA.

Gujarat

- Coastal grasslands of the Abdasa and Mandvi
- Naliya Sanctuary in Kutch

Madhya Pradesh

- Karera Wildlife Sanctuary

Maharashtra

- Nannaj Grasslands, Solapur

**Himalayan Quail**

- Himalayan quail (Mountain quail) is a bird belonging to the pheasant family. It was last sighted before 1877 and so, is feared to be extinct.
- Hunting during the colonial period contributed significantly to the decline in its population.
- Distribution: **found only in the Uttarakhand.**
- Habitat: Long grass and scrubs on steep hillsides.
- **IUCN: CR | WPA: Sch I**

**Jerdon's Courser**

- Jerdon's courser is a nocturnal bird considered to be extinct until its rediscovery in 1986.
- **Distribution:** It is **endemic to Eastern Ghats** (found only in Andhra Pradesh and Telangana).
- Habitat: Scrub jungles of the **Sri Lankamaleswara WLS**
- **IUCN: CR | WPA: Sch I**



Pink Headed Duck

- Pink headed duck is a rare species of waterfowl that is last sighted in 1949 (it is feared to be extinct).
- Distribution: It is recorded in India & Myanmar.
- Habitats: Wetlands surrounded by bushes and high grass.
- IUCN: CR | CITES: Appx I | WPA: Sch I



Siberian crane

- Siberian crane (also called Siberian white crane or Snow crane) is the world's third rarest crane species.
- Distribution: It is resident of East and Central Asian Russia. **It migrates to India during winter. Keoladeo NP, Rajasthan (formerly Bharatpur Bird Sanctuary) is famous for this migratory bird.**
- Habitat: It is the most aquatic among crane species; wetlands (prefers shallow fresh water with good visibility).
- Threats: Pesticide pollution, habitat loss (esp. conversion into agricultural fields) and hunting.
- **IUCN: CR | CITES: Appx I | CMS: Appx I | WPA: Sch I**



Sociable Lapwing

- Sociable lapwing is the rarest and most threatened of all birds that live on the Eurasian steppes.
- Distribution: It is found in Central Asian countries. **It migrates to Sudan, Pakistan and North India during winter.**
- Habitat: dry grasslands, steppes and temperate deserts.



Spoon Billed Sandpiper

- It is known for its spatula-shaped bill.
- Distribution: It breeds in Russia and in winter migrates to South Asia and mainland Southeast Asia.
- Habitats: Lagoon spits and sandy coastal mudflats.
- **IUCN: CR | CMS: Appx I**



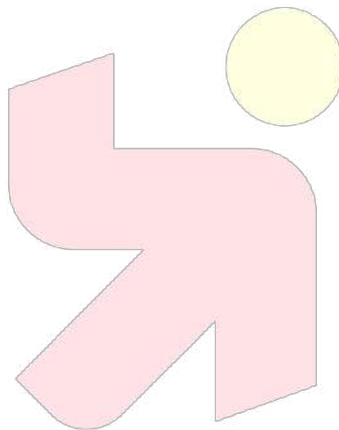
White-Bellied Heron

- White-bellied heron (or Imperial heron), a brownish grey heron, is the second largest heron species.
- Distribution: It is **found in India** (Arunachal Pradesh, Assam), NE Bangladesh and Bhutan.
- Habitat: Inland swamp forests, forested rivers and submontane grasslands.
- IUCN: CR | WPA: Sch I



Yellow-Breasted Bunting

- Yellow-breasted bunting is a species of passerine bird.
- Distribution: It breeds in Finland to Bering Sea.
- It migrates to South Asia and SE Asia during winter.
- In South Asia, **it is found in the NE India, Nepal and Bangladesh**.
- Habitat: Wet meadows with tall vegetation and scattered scrub, cultivated fields and grasslands.
- Threats: Hunting & trapping during migration
- **IUCN: CR**



PRAYAAS

Miscellaneous- Birds

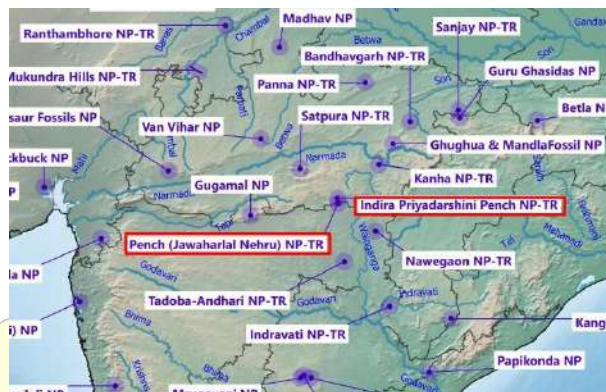
Forest eagle owl

Context: -

- **Maharashtra Pench Tiger Reserve** reports the first photographic record of the forest eagle owl, also known as the spot-bellied eagle owl.

About: -

- Earlier, one pair was sighted in the **Mansinghdeo Wildlife Sanctuary** Pench Maharashtra.
- These nocturnal birds have also been **reported from Madhya Pradesh Pench and Kanha Tiger Reserve**.
- This species is considered part of a superspecies with the barred eagle owl, which looks quite similar but is allopatric in distribution.
- **Distribution:** Himalayan foothills and the Western Ghats.
- **Habitat:** Dense evergreen and moist deciduous forests, usually near water, in wet temperate and riparian forests. Also hunts in scrub, bamboo jungle, thin deciduous forest, and near edges of clearings.
- **Unique calls:** Low-frequency calls for various purposes, including communication, territorial defence, and attracting mates. Low-frequency calls enable them to communicate further across long distances through dense vegetation. They also utter a mournful, mewing scream.
- **Conservation status:** **IUCN: LC** | CITES: Appx. II. WPA 1972: Schedule I.



Black Necked Crane

- Black Necked Crane assessment by the Wildlife Institute of India and the Zoological Survey of India.
- **Endemic to Tibetan Plateau.**
- Only exclusively alpine species of cranes.
- **Distribution:** India, China and Bhutan. Breeding in high-altitude wetlands in the Tibetan plateau.
- Also found in **Sangti and Zimithang valleys of Arunachal Pradesh**.
- Diet: Omnivorous.
- Lack of webbed feet yet excellent swimmers.
- **Conservation Status:** **IUCN: Near Threatened** | WPA, 1972: Schedule I | CITES: Appendix I
- Revered by the Monpa Community (Buddhist ethnic group of Arunachal Pradesh) as an embodiment of the sixth Dalai Lama (Tsangyang Gyatso).



Great Indian Hornbill

- Great Indian Hornbill (or Great Pied Hornbill) is a **largest hornbill in India**.
- Southern ground hornbill of Africa** is the largest species of hornbill in the world.
- It is the **state bird of Arunachal Pradesh and Kerala**.
- Distribution:** It is native to Indian Subcontinent, SE Asia and China.
- In India, it is **found in North-east India and Western Ghats**.
- Habitat: Tropical evergreen forests.
- IUCN: VU** | CITES: Appx I | WPA: Sch I
- Hornbill Festival is celebrated every year from 1st to 10th December in Kimasa (Heritage Village of **Nagaland**) to celebrate nature and traditions of Naga tribes.



Malabar Grey Hornbill

- It is a hornbill species that is frugivore (eats mainly fruits) and act as an important seed disperser.
- Distribution: This monogamous species is **endemic to the Western Ghats**.
- Habitat: It is found mainly in dense forest and around rubber, arecanut, or coffee plantations.
- Conservation Status: **IUCN: VU** | WPA: Schedule I



Greater Flamingo

Context:

- Experts say the continued presence of flamingos, even outside the usual season, signals that the site holds ecological value.

About:

- Greater flamingos, usually seen in Tamil Nadu's coastal wetlands only from the start of the 'winter' months, have already been observed at the abandoned salt pans in Nemmeli, off East Coast Road (ECR).



Feature:

- Philopatric (Return to or remain near a particular site).
- Details the arrival of large flocks, turning shallow wetlands into "seas of pink," attracting birdwatchers.
- Role as indicators of healthy wetland.

Habitat:

- "Flamingo City" refers primarily to a famous breeding ground for Greater Flamingos in the Great Rann of Kutch, Gujarat, India
- Protected area: Dhanush Kodi Greater Flamingo Sanctuary in Tamil Nadu, India.
- Conservation status: Least concern

Species – Amphibians

Purple Frog

Protected area: Dhanushkodi Greater Flamingo Sanctuary in Tamil Nadu, India

- **Location: Western Ghats (TN).**
- Believed to be a 'living fossil' having co-existed with dinosaurs.
- Similarities to the Sooglossidae family of frogs in Seychelles.
- Lives underground mostly and surfaces only during the monsoon for mating.
- Bloated body with short stout limbs, very short hind legs and is dark purple to greyish in colour.
- **Range: Endemic to Western Ghats in Kerala and Tamil Nadu.**
- **Status: IUCN: NT | WPA: Schedule I | 4th on 'EDGE (Evolutionarily Distinct and Globally Endangered) of Existence' priority amphibians list collated by the Zoological Society of London.**



PRAYAAS

Species – Plants

Agarwood

- India has successfully prevented the inclusion of agarwood in the **Review of Significant Trade (RST) of CITES**.
- It is a **fast-growing evergreen tree species native to Northeast India**, often referred to as the "**Wood of the Gods**" for its aromatic properties.
- It is cultivated in various parts of India, especially in Assam, Manipur, Nagaland, and Tripura.
- It has anti-inflammatory, anti-rheumatic, analgesic, and antioxidant properties.
- It is used in the aroma industry, water-based perfumes, medicine preparations, and in the preparation of air fresheners and purifiers.
- Forms when some fungi infect a tree, often following damage caused by stem borer larvae.
- Major Export destinations: UAE, Kuwait, and Saudi Arabia.
- **IUCN: Critically Endangered | CITES: Appendix II.**

Implications: -

- Benefits farmers as harvesting is allowed only from cultivated sources, not wild populations.
- Allows the legal trade of agarwood and its derivatives, thereby curbing illegal trade and reducing the cost of agarwood chips in the global market.

Review of Significant Trade Management System

- It tracks the progress of country/species combinations selected for review, through the four stages of the Significant Trade Review.
- Species/country combinations currently subject to review are included, as well as those that have been eliminated from review, following satisfactory reports from the range State.

Neelakurinji plants

- The Chokramudi Hills, near Munnar, are facing significant destruction of Neelakurinji plants due to illegal constructions and land encroachments.
- **Common Names**: Kurinji, Neelakurinji in Tamil and Malayalam, and Gurige in Kannada.
- **Unique Blooming Cycle**: The plant blooms once every 12 years (most recent in 2018).
- **Habitat**: Thrives in the Shola forests of the Western Ghats, particularly Munnar in Kerala, where it grows at elevations between 1,300 to 2,400 meters
- **Physical Characteristics**: The plant grows 30 to 60 cm tall and produces purple-blue flowers, with peak blooming from August to October.
- **Ecological Role**: Key indicator of ecosystem health and biodiversity in the Western Ghats and attracts wildlife, including the endangered Nilgiri Tahr.
- **Conservation Status: VU.**
- **Threats**: Due to agricultural expansion, particularly tea and coffee plantations, tourism.



Baobabs

- Bhil tribe of Central India is opposing the forest department's decision to give permission for uprooting baobab trees for commercial use.
- Baobabs belong to the genus *Adansonia* are **native to mainland Africa, Madagascar, and Australia.**
- They have unusual barrel-like trunks and are known for their extraordinary longevity (live up to 2,000 years) and ethnobotanical importance.
- The tree's unique pendulous flowers are pollinated by bats and bush babies.
- **IUCN Status: endangered**
- Madhya Pradesh government has applied for a Geographical Indication (GI) tag.
- Baobabs are long-lived deciduous, small to large trees from 20 to 100 ft tall with broad trunks and compact tops.
- The Baobab Tree is also known as the upside-down tree.
- **Mandu**, in the Dhar district of Madhya Pradesh, is perhaps the only place in India where baobab trees are found in abundance, with an estimated 1,000 trees in the periphery of Mandu town.



Why are they called the 'Tree of Life'?

- They can store large amounts of fresh water in their extraordinary trunks.
- It also allows the baobab tree to produce nutritious fruits even during the driest years.
- This makes them true life savers during times when water is scarce.

Eucalyptus

- Eucalyptus is a **fast-growing evergreen tree native to Australia.**
- It has medicinal properties like antimicrobial and antibacterial (used for colds and respiratory problems, pain relief, dental care, fungal infections and wound).
- It also acts as insect repellent.
- It is **invasive species outside its native range.**
- It reproduces rapidly due to with other native species cannot grow.
- This also leads to fodder scarcity for native fauna.



Semal Trees

- Semal, also **called kapuk or silk cotton tree**, flowers spectacularly in **spring and is native to India.**
- Known for its distinctive, spiky red flowers and its fluffy seed pods, which contain a cotton-like sub-stance that was once used for stuffing pillows and mattresses.



Significance

- The tree's bark, leaves, and seeds are utilised in traditional medicine to cure various ailments.
- Construction, furniture-making. Debarked stem or branch is used as the bonfire's main pillar.
- Generates a rich biomass every season and has been used to reclaim wastelands.

Karvi Flower

- Bombay Natural History Society (BNHS) and the Botanical Survey of India (BSI) are **working towards the conservation of the Karvi flower.**
- It blooms once every eight years, a phenomenon known as monocarpic flowering, which means that the plant flowers once after several years of growth and then dies.
- Habitat: Western Ghats, particularly in Maharashtra, Karnataka, Andhra Pradesh and Madhya Pradesh.**
- BSI is the apex taxonomic research organisation of the country **under the Ministry of Environment, Forest & Climate Change was established in 1890** under the direction of Sir George King in Kolkata.
- Founded and recorded by the Director of the Botanical Survey of India Mr. Santapau in 1944.



Seaweeds-

- Seagrasses are vascular plants and have roots, stems and leaves. In comparison, seaweed is the common name for species of primitive non-flowering marine plants (without roots, vascular system, stem & leaves), microalgae & macroalgae.**
- They grow in shallow waters in the tidal zone (intertidal region) & also in estuaries & backwaters.
- Range in colours from red, green, brown and black and also vary in size, from microscopic to large underwater forests.
- Some seaweeds are microscopic, such as the phytoplankton that lives suspended in the water column.
- About 844 seaweed species are reported from India, which has a **coastline of 7,500 km.**

Use of Seaweed

- Seaweed is full of vitamins, minerals, & fibre.
- Storehouse of nutrients like iron, zinc, magnesium, riboflavin, thiamine, vitamin A, B, C & K etc.
- Act as a bio-indicator and balance out the ecosystem.
- Mitigating climate change.
- Used as fertilizers and to increase fish production.
- Can be buried in beach dunes to combat beach erosion.
- Many seaweeds contain **anti-inflammatory & anti-microbial agents**.
- They are known to process significant medicinal effects.
- Certain seaweeds possess powerful cancer-fighting agents.
- They are **effective binding agents** (emulsifiers) & are used commercial goods as toothpaste & fruit jelly, & popular softeners (emollients) in **organic cosmetics & skin-care products**.

Ecological Importance of Seaweed Cultivation

- Seaweeds absorb the excess nutrients & reduce algal blooms.
- Seaweeds use iron for photosynthesis. Seaweeds hence trap excess levels of iron in the water.
- Similarly, most heavy metals found in marine ecosystems are removed by seaweeds
- Seaweeds supply oxygen & organic nutrients to other marine life forms.
- It is a major tool to treat coastal pollution in the sea & reduce CO2 in global warming.**
- Large seaweeds** form dense underwater **forests known as kelp forests** which act as underwater nurseries for fish & other marine life forms.
- Seaweeds exhibit the highest photosynthesis efficiency due to moist conditions.
- They contribute to about 50% of all photosynthesis in the world
- seaweed farming is the ideal prospect for Ocean Macroalgal Afforestation (OMA).
- Seaweed can then be harvested to produce biomethane via anaerobic digestion.
- They can be used as fertilizers in aquaculture.
- Methane emission from cattle** may be reduced substantially if seaweed is used as feed.

Seaweeds Mission

- **By Technology Information, Forecasting and Assessment Council (TIFAC)**
- TIFAC is **autonomous body** under Dept of Science and Technology (Ministry of Science and Technology)
- **Objective:** Commercial farming of seaweeds and its processing for value addition towards boosting national economy.

Mission Includes-

- Establishing model demonstration farms over one hectare for cultivation of economically important seaweeds in nearshore and onshore along the Indian coasts.
- Establishment of seaweed nurseries for supplying seed material for large scale farming
- Onshore cultivation for (i) Seedling supply facility (ii) Seaweed cultivation for processing
- Setting up of processing plant for production of plant growth stimulants (sap) and industrially important cell wall polysaccharides such as agar, agarose, carrageenan and alginates from fresh seaweeds

NOTE- China produces ~57 %, Indonesia ~28%, whereas **India is having a mere share of ~0.01-0.02% in world seaweed production.**

Seagrass

About-

- Seagrass (they are not grass, as the name suggests) are aquatic flowering plants (angiosperms).
- Depth at which seagrass are found is limited by turbidity
- Seagrasses are found in shallow salty and brackish waters in many parts of the world, from the tropics to the Arctic Circle.
- Seagrasses are considered ecosystem engineers (alter the ecosystem around them and adapt rapidly to changing environmental conditions) and also called 'the lungs of the sea' as they release oxygen into the water through photosynthesis.
- Seagrasses occur all along with the coast of India.
- They are **abundant** in the **Palk Strait & Gulf of Mannar in Tamil Nadu.**

Importance of Seagrass

- They can store CO₂ using their own biomass as well as by filtering out fine organic material in water.
- An acre of seagrass can store about three times as much carbon as an acre of rainforest.
- Globally, seagrass meadows are responsible for more than 10 per cent of carbon buried in the ocean, even though they occupy just 0.2 per cent of the area.
- Seagrass produces oxygen and are highly productive, and support a high diversity of organisms.
- The habitats act as nursery grounds for commercially and recreationally (tourism) valued fishery species.
- They dissipate wave energy, thereby protecting vulnerable shorelines from erosion.
- Large meadows of seagrass can help protect seawalls by adequate damping of waves.
- They enhance water quality by stabilizing heavy metals, pollutants, and excess nutrients,
- Historically, seagrasses were collected as fertilizer for sandy soil.
- They can trap fine sediment on the seabed and prevent harmful algal blooms (eutrophication).
- Coastal lines facing threats from rising sea levels can be protected by seagrass.
- Dugong or Sea Cow (VU) is a herbivorous marine mammal that relies on seagrass for food.

Dugong (Sea Cow)

- Herbivorous marine mammals.
- Dugong belongs to Manatees species (large, fully aquatic, primarily herbivorous marine mammals).
- Habitat: A few hundred **surviving in the Gulf of Mannar, Andaman and Nicobar Islands & Gulf of Kutch**.
- Dugongs **once inhabited waters** off the Odisha, WB and AP, but they are extinct in these areas now.
- Included in Convention on Migratory Species (CMS) list.
- Threats: Loss of seagrass beds due to ocean floor trawling, pollution, unsustainable hunting or poaching.



Conservation Status:

- IUCN Red List Status: **Vulnerable**
- WPA: Schedule I
- CITES: Appendix I

Dugong Conservation Reserve in Palk Bay

- Recently, the Tamil Nadu government has decided to go ahead with the establishment of India's first conservation reserve for the Dugong in Gulf of Mannar, Palk Bay.

Sea cucumber

Context (DTE):

- Sea cucumbers can be functional in slowing coral reef decline.

About: -

- Coral reefs are suffering from diseases, some of which are associated with sediment on the seafloor.
- In several field experiments involving corals in Moorea, French Polynesia, and around Palmyra Atoll, researchers found that sea cucumbers grazed and consumed bacteria in the sediment.
- Sea cucumber presence prevented pathogens from sickening co-occurring corals.
- Sea cucumbers, **scavengers of the seafloor that resemble cylindrical vegetables**, have been consumed as a delicacy in Asia for centuries.
- But in recent decades, they've been severely overharvested to the point that they are now quite rare.

Sea Cucumber

Where are they found?

- **Lakshadweep islands and Andaman Nicobar islands, the Gulf of Mannar** at the confluence of the Indian Ocean and Bay of Bengal in Tamil Nadu.

About

- These are **marine invertebrates** that live on the **seafloor** found generally in tropical regions.
- They're named for their unusual oblong shape that resembles a fat cucumber.
- They are crucial to maintain the balance of ocean habitats.
- Sea cucumbers are **part of a larger animal group called echinoderms, like starfish and sea urchins**.
- Appears similar to cucumber, with small tentacle-like tube feet for locomotion and feeding.



- Sea cucumbers can confuse or harm predators by propelling their own toxic internal organs from their bodies in the direction of an attacker.
- **Behaviour:** Both Sexual and asexual reproduction. Eggs undergo external fertilisation. Females release eggs into the water that are fertilised by coming into contact with sperm that males have released

Protection - IUCN Red List:

- Brown Sea Cucumber-Endangered
- Blackspotted Sea Cucumber- Least Concern
- Blue Sea Cucumber- Data Deficient
- Wildlife Protection Act, 1972: Schedule I.

Significance

- Integral part of the coral ecosystem as one of the main by- products of the sea cucumbers digestion of sand is calcium carbonate and this is essential for the survival of the coral reefs.
- They **act like garbage collectors of the ocean world**, and they recycle nutrients, thus playing an important role in keeping coral reefs in good condition.

Threats:

- Illegal Trading and smuggling since the species are high in demand across south-east Asia, mainly China, for food and traditional medicine.

World's first conservation area for sea cucumbers in India

- **Lakshadweep** has created the world's first conservation area for sea cucumbers.

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Species Miscellaneous – Newly Discovered

New Horned Frog Species

- Zoological Survey of India (ZSI) have discovered a new species of forest-dwelling horned frog in Talle Wildlife Sanctuary, Arunachal Pradesh.
- The frog, named *Xenophrys apatani*, represents a significant addition to India's herpetofaunal (reptiles and amphibians) diversity. The new species has been named after the Apatani community.
- *Xenophrys* is a genus of frogs commonly known as horned frogs or megophryid frogs.

Talle Valley Wildlife Sanctuary

- Location: Lower Subansiri, Arunachal Pradesh, areas inhabited by the Apatani and Nyishi tribes.
- Part of the Eastern Himalayas biodiversity hotspot. The river Subansiri flows through this sanctuary.
- It is rich in diverse flora, including bamboo, orchids, and rhododendrons.
- Clouded leopards (Vu), Red Panda (En), and barking deer are important faunal species.
- The Apatani are a tribal group in the Ziro Valley (Lower Subansiri district of Arunachal Pradesh).
- Nyishi tribes spread across parts of Arunachal Pradesh and Assam.

Batillipes chandrayaani

Context:

- A New tardigrade species was discovered on the southeast coast of Tamil Nadu.

About: -

- It is the third marine tardigrade species described from Indian waters and second from the East Coast.
- It is named Batillipes Chandrayaani after the Chandrayaan-3 mission.
- Similar in size to other tardigrades, it grows to a length of 0.15 millimetres and 0.04 millimetres in width.
- It has a trapezoid-shaped head and four pairs of legs with sharp-tipped sensory spines.



Tardigrade

- Tardigrades are microscopic multicellular organisms commonly known as 'water bears,' although they are not related to actual bears.
- Marine tardigrades account for 17% of all known tardigrade species and are found in all the oceans.
- These are among the hardest animals, enduring mass extinctions with great survival skills.
- They can survive in extreme physiochemical conditions with the process of cryptobiosis.
- Cryptobiosis is a state of extreme inactivity in response to adverse environmental conditions. In the cryptobiotic state, all metabolic procedures stop, preventing reproduction, development, and re-pair.
- For example, they turn the cytoplasmic fluid of cells into a glass-like structure to survive dehydration.

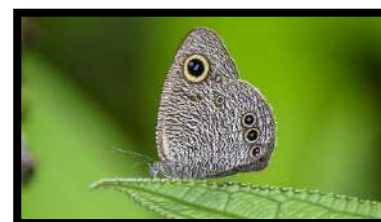
Great Four-Ringed Butterfly

Context:

- The Great four-ring butterfly (*Ypthima cantliei*) was rediscovered in Namdapha National Park, Arunachal Pradesh, after 61 years.

About: -

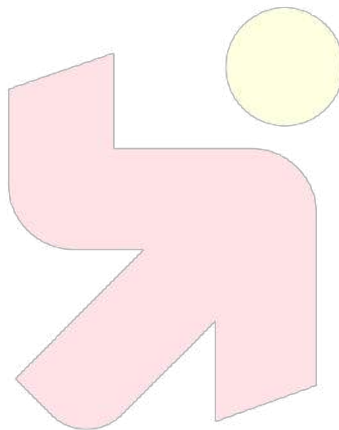
- It belongs to the Satyrinae subfamily within the Nymphalidae family.



- It has dull brown-grey wings with three yellow-ringed eye spots (ocelli) on the hind wings and a large bi-pupilled eyespot on the forewings.
- It is most diverse in China and also found in Nepal, Bhutan, Myanmar, and **northeastern India**.
- In India, there are 35 species, 23 of which are found in the northeast.

Major Butterfly species found in India:

- Kaiser-i-Hind, Malabar Tree-Nymph, Blue Pansy, Malabar Banded Peacock, Blue Mormon, Blue Duke, Tamil Yeoman, Common Birdwing, Common Peacock, Common Crow, Pioneer White, Dark Blue Tigers, Double-branded Crows, and Lime Swallowtail.



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Remaining Species

Sea Anemones

Context: -

- Scientists at the ICAR-National Bureau of Fish Genetic Resources (NBFGR) observed mass anemone bleaching off Agatti island in Lakshadweep.

About: -

- While coral bleaching is common in the Lakshadweep, sea anemone bleaching is seen for the 1st time.
- NBFGR scientists have been studying sea anemones to propagate them under captive conditions.
- This research is part of a project funded by the Centre for Marine Living Resources and Ecology under the Ministry of Earth Sciences to promote livelihoods for island women.
- Concern:** Loss of symbiotic algae deprives sea anemones of their main energy source, making them more vulnerable to diseases and increasing mortality rates.



About Sea anemones

- They are invertebrate aquatic animals known for their soft bodies and stinging ability.
- They are often found living closely with corals and live rocks.
- They are **known to form symbiotic relationships with green algae, clownfish and Hermit crabs**.
- Many rarely move; a few might slowly creep at times.
- Nematocysts** (microscopic stinging structures in the tentacles) are used to capture and paralyse prey.
- They are in high demand in the aquarium trade.

Tiger translocation

Context:

- Maharashtra is gearing up for the translocation of a **few tigers from the Tadoba-Andhari Tiger Reserve (TATR) in Chandrapur to Sahyadri**, the lone tiger reserve in the state's western region.

About: -

- It is part of a long-term plan to revive the big cat population in the northern Western Ghats forests.
- It serves as a tiger corridor connecting tiger populations in Sahyadri Reserve, Radhanagari Wildlife Sanctuary, Amboli Reserve forest in Maharashtra, Mhadei Wildlife Sanctuary in Goa and Bhimgad Wildlife Sanctuary and Kali Tiger Reserve in Karnataka, according to the government's All India Tiger Estimation report, 2023.
- The **National Tiger Conservation Authority (NTCA) cleared the translocation plan in 2023**, and final approval from the Union Environment Ministry is awaited.
- Tranquilisation of tiger for translocation is permitted under Section 12 of the **Wildlife Protection Act**.
- Prior permission for **translocation is required from the Central Government for Schedule I** animals and from the State Government for any other wild animal.

Sahyadri Tiger Reserve (STR)

- **Location:** Sahyadri Ranges of Western Ghats in **Maharashtra**.
- These ranges form a common boundary between Maharashtra, Karnataka and Goa and comprise rich evergreen, semi-evergreen and moist deciduous forests.
- Sahyadri's habitat consists of woodlands, grasslands, and a plateau, the latter of which is locally re-ferred to as "Sadaa" and is lateritic in nature.
- **STR is one of only five tiger reserves in the country with no tiger population.**
- The other four tiger reserves with **no tiger population** are **Kaval (Telangana), Kamlang (Arunachal Pradesh), Dampa (Mizoram) and Satkosia (Odisha)**.
- It was notified in 2010 by amalgamating the Chandoli National Park and Koyna Wildlife Sanctuary.



Ban Aceclofenac and Ketoprofen

Context (DTE):

- The **Union Ministry of Health and Family Welfare banned** the manufacture, sale, and distribution of ketoprofen and aceclofenac and their formulations for animal use under the Drugs and Cosmetics Act, 1940.

About: -

- These two non-steroidal anti-inflammatory drugs (NSAIDS) are **toxic** to vultures.

Vultures

- It is one of the 22 species of large carrion-eating birds that live predominantly in the tropics and subtropics.
- They act an important function as nature's garbage collectors and help to keep the environment clean of waste.
- Vultures also play a valuable role in keeping wildlife diseases in check.
- A **vulture's metabolism is a true "dead-end" for pathogens**, but dogs and rats become carriers of the pathogens. They carry diseases from rotting carcasses such as rabies, anthrax, plague etc
- India is the most favourable region for vultures. Hindus do not eat cows, and when a cow dies, it is left to be fed on by vultures. India also has high species diversity, and hence vultures get a lot of food.
- **India is home to 9 species of Vulture.**
- **Six species are resident:** white-rumped vulture, Indian vulture, slender-billed vulture, red-headed vulture, bearded vulture, and Egyptian vulture.
- **Three species are migratory:** cinereous vulture, griffon vulture, and Himalayan vulture.
- Most of these 9 species face dangers of extinction.
- Bearded, Long-billed, Slender-billed, Oriental white-backed are protected in the Schedule-1 of the Wildlife Protection Act 1972. Rest is protected under 'Schedule IV'.

Gyps species were the most affected by diclofenac:

- The population of the White-Rumped Vulture fell 99.7% between 1993 and 2002.
- The populations of the Indian Vulture and the Slender-Billed Vulture fell 97.4%.
- 2 other species of Gyps, Himalayan Vulture and Eurasian Griffon, were less affected because they come **to India only in winters**. They are exclusively mountain-dwelling and hence less vulnerable to diclofenac contamination.

Drug name	Threat / safety	Known effect
Meloxicam	Confirmed Safe	Tested and shown to be safe for vultures (Swarup D. et al. 2007)
Tolfenamic acid	Confirmed Safe	Recently tested and results show it is also safe. (Chandramohan et al. 2022)
Carprofen	Toxic at high doses	Shown to be toxic to vultures in cattle tissues around the injection site (Fourie et al. 2015)
Flunixin	Toxic	Shown to be toxic to Gyps vultures in Spain and Italy with dead wild birds showing gout & flunixin in tissues. But not fully safety-tested on vultures. (Zorrilla et al. 2014, Eleni et al. 2019)
Nimesulide	Confirmed Toxic	Banned in many countries due to safety issues in humans and banned in India for under 12s. Fast becoming popular in India & Nepal. Confirmed cases of dead wild vultures with gout and nimesulide but no diclofenac (Nambirajan et al. 2021) and safety-trials demonstrate toxicity. (Galligan et al. 2022).
Aceclofenac	Confirmed Toxic	Metabolises into diclofenac in cattle so equivalent effect to diclofenac (Galligan et al. 2016, Sharma 2012)
Ketoprofen	Confirmed Toxic	Trials carried out on Gyps vultures showed toxicity at concentrations found in treated cattle in India (Naidoo et al. 2009). National ban in Bangladesh 2021.
Diclofenac	Confirmed Toxic	Confirmed highly toxic in 2003 (Oaks et al. 2004), and banned as veterinary drug in Bangladesh, Cambodia, India, Iran, Nepal, Oman, Pakistan and Socotra.

Resident Vulture Species of India

White-Rumped Vulture (*Gyps bengalensis*)

- White-rumped vultures are native to South and Southeast Asia.
- It was once very common in the Gangetic plains of India.
- **IUCN: CR** | CITES: Appendix II | CMS: Appendix I | WPA: Schedule I
- Its population severely declined due to **kidney failure** caused by diclofenac poisoning.



Indian Vulture (*Gyps indicus*)

- Indian vulture (or long billed vulture) is native to India, Pakistan and Nepal.
- Its population declined severely due to kidney failure caused by diclofenac poisoning.
- **IUCN: CR** | CITES: Appendix II | CMS: Appendix I | WPA: Schedule I



Slender-Billed Vulture (*Gyps tenuirostris*)

- Slender-billed vulture is native to sub-Himalayan regions and Southeast Asia.
- Its population declined severely due to kidney failure caused by diclofenac poisoning.
- **IUCN: CR** | CITES: Appendix II | CMS: Appendix I | WPA: Schedule I



Red-Headed Vulture (*Sarcogyps calvus*)

- Red-headed vulture (also known as Asian King Vulture, Indian Black Vulture or Pondicherry Vulture) is mainly found in the Indian subcontinent.
- **IUCN: CR** | CITES: Appendix II | CMS: Appendix I | WPA: Schedule IV



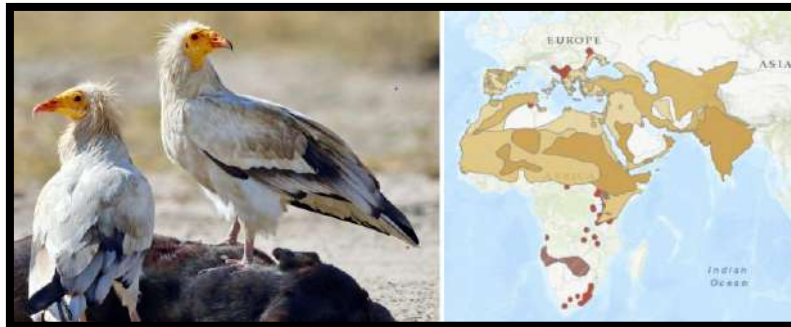
Bearded Vulture

- Bearded vulture is found in high mountains of southern Europe, East Africa, the Indian subcontinent, Tibet, and the Caucasus.
- **IUCN: NT** | CITES: Appendix II | CMS: Appendix II | WPA: Schedule IV



Egyptian Vulture (*Neophron percnopterus*)

- Egyptian vulture (also called the white scavenger vulture or pharaoh's chicken) is widely distributed from the Iberian Peninsula and North Africa to India.
- **IUCN: EN** | CITES: Appendix II | CMS: Appendix I | WPA: Schedule IV



Migratory Vulture Species of India

Cinereous Vulture (*Aegypius monachus*)

- Cinereous vulture (also known as black vulture or monk vulture) is distributed throughout temperate Eurasia.
- **IUCN: NT** | CITES: Appendix II | CMS: Appendix II | WPA: Schedule IV



Eurasian Griffon Vulture (*Gyps fulvus*)

- **IUCN: LC** | CITES: Appendix II | CMS: Appendix II | WPA: Schedule IV



Himalayan Griffon Vulture (*Gyps himalayensis*)

- Himalayan Griffon vulture is native to the Himalayas and Tibetan Plateau.

- **IUCN: NT** | CITES: Appendix II | CMS: Appendix II | WPA: Schedule IV



Diclofenac Alternative

- Diclofenac was banned for veterinary use in India in 2006.
- A **replacement drug Meloxicam was quickly developed** and tested.
- It affects cattle the same way as diclofenac but is harmless for vultures.
- **Diclofenac for human use is still being diverted** for veterinary uses through black markets.

Madras Hedgehog

Context: -

- The Madras Hedgehog population is declining.

About: -

- Also known as the bare-bellied hedgehog, it is a species of hedgehog endemic to southeastern India.
- Their spines roll back into a tight ball in self-defence with spines pointing outwards.
- Hedgehogs are nocturnal and hibernate depending on temperature, species and abundance of food.
- **Distribution:** It occurs only in the southern and central parts of Tamil Nadu.
- **Habitat:** Thorny areas, semi-dryland, bushy deserts, grasslands, and dried ponds.
- **Diet:** Primarily insects but also small vertebrates, eggs of ground-nesting birds, and scorpions.
- **Conservation Status: IUCN: Least Concern**
- **Threats:** Use in traditional medicine, habitat alteration, road accidents, and anthropogenic activities.



Blackbuck Case

Context (DTE):

- Salman Khan's 1998 blackbuck poaching case still haunts him, with gangster Lawrence Bishnoi threatening his life.

About the Bishnoi Community

- Founder: **Guru Jambheshwar**, also known as Jambhoji, founded it in Rajasthan in 1485.
- **Meaning of Bishnoi:** The name "Bishnoi" is derived from the words "Bis" (meaning twenty) and "Noi" (meaning nine). These represent the 29 principles laid down by Jambhoji, which focus on devotion to God, preservation of nature, and ethical living.

Black Buck

- Black Buck, also **known as Indian Antelope**, is an antelope found only on Indian subcontinent in Nepal, Pakistan and India.
- In India it is **found in Punjab Haryana in North to TN in south, and Rajasthan-Gujarat in the west to Odisha in the east.** But it is not found in very vast herds anywhere.
- Only living specie of genus antelope. It shows **sexual dimorphism.**
- Protection
 - **IUCN: LC**
 - WPA: Schedule -1 (i.e. highest protection)
- **Threat:** Poaching, habitat destruction, habitat fragmentation, urbanization, and neglect are the major causes for disappearance of Blackbuck.
- **Habitat:** Grassland
- **Distribution:** Today, Black buck population is confined to area of MHA, Orissa, Punjab, Rajasthan, Haryana, Gujarat, Andhra Pradesh, Karnataka, and Tamil Nadu.
- **Blackbuck National** park: - In Bhal region of Saurashtra (Gujrat) – also known as **Velavadar NP.**
- **State Animal:** - **Punjab, Haryana and Andra Pradesh.**



Chinkara

About: -

- Chinkara (Indian gazelle) is native to Iran, Afghanistan, Pakistan, and India.
- It is the smallest Asiatic antelope species.
- It is the **state animal of Rajasthan.**
- There are six subspecies. Of these, Deccan chinkara and Gujarat chinkara are found in India.
- **Distribution:** Deccan chinkara ranges from the Ganges Valley to Deccan Plateau. Gujarat chinkara is found in the Thar Desert, Rann of Kutch, Kathiawar, and Saurashtra region.
- **Habitat:** Arid forests and deserts. It is a shy species and avoids human habitation.
- **Threats:** Hunting and habitat loss.

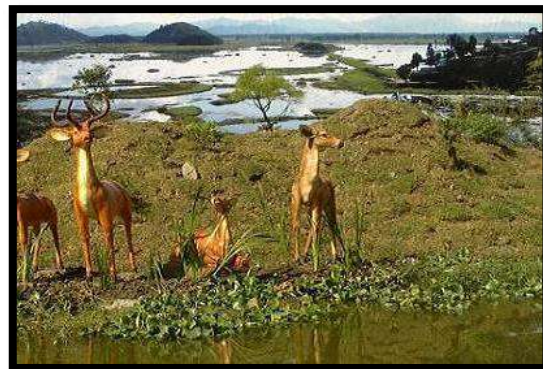
Conservation Status:

- IUCN Red List: **Least Concern**
- CITES: Appendix III (Pakistan)
- Indian Wildlife Protection Act, 1972: Schedule I



Eld's Deer/ Thamin or Brown Antlered Deer/ Sangai Deer

- Indigenous to South East Asia
- **In India:** Found in the Keibul Lamjao National Park (KLNP), Manipur.
- **Sangai Deer (EN) is an endemic and endangered** subspecies of brow-antlered deer found only in Manipur, India.
- **Key threats** - Hunted for their bow-shaped antlers.
- Its original habitat is the floating marshy grasslands of the Keibul Lamjao National Park, located in the southern **part of the Loktak lake**, which is the largest freshwater lake in eastern India.
- **State animal of Manipur.**
- They are also known as dancing deer. This is because while walking on the floating island it often balances itself and appear to be dancing



Four Horned Antelope (Chousingha)

- **Details:** Species of small antelope found in open forests of India and Nepal. It is the only species currently classified in genus Tetracerus.
- It is the **smallest of Asian bovids**. Males are unique among extant animals as they possess **four permanent horns**.
- It **should drink water regularly to survive**.
- They also **occur in the Gir Forest National Park of western India**.
- Living in a densely populated part of the world, the four-horned antelope is threatened by loss of its natural habitat to agricultural land.
- In addition, the unusual four-horned skull has been a popular target for trophy hunters.
- The species is **listed as Vulnerable by the IUCN** due to habitat loss.



Mouse Deer (Indian Chevrotain)

- **Habitat:** The Indian Chevrotain inhabits most of the India, from TN and Kerala in the far south, north to at least 24-degree N.
- All species in the family lack horns, but both genders have **elongated canine teeth**.
- It is basically a forest species, being found commonly in all forest types within the dry zone, and also in coconut plantations and home garden.
- Conservation Status
 - IUCN: **LC**
 - WPA: Scheduled 1 (Par-1)
- Recently (Sep 2017), they were reintroduced in the **forest of Nallamalla in Amrabad Tiger Reserve in Telangana**.



Himalayan White Bellied Musk Deer

Context:

- A Central Zoo Authority report reveals a mix-up in identifying the Alpine musk deer for conservation breeding, mistakenly initiating programs for the Himalayan musk deer instead.
- **Link for reference:** [Species Confusion: Alpine Musk Deer Misidentified in Indian Zoos](#)

About: -

- Habitat/Distribution: Kashmir, Kumaon, Sikkim in India. Himalayas of Nepal and China.
- **State Animal: Uttarakhand**
- Threats-Poaching and illegal trade for its musk
- It is listed as endangered on the IUCN Red List because of overexploitation resulting in a probable serious population decline.
- **Musk:** is a substance with a persistent Odor obtained from a gland of the male musk deer (only male produces the musk). The substance has been used as perfume fixative, incense material and medicine.



Alpine musk deer

About:

- Zoos in India, particularly in Uttarakhand and West Bengal, confused the Alpine musk deer (*Moschus chrysogaster*) with the Himalayan musk deer (*Moschus leucogaster*), meaning dedicated breeding programs never really started for the Alpine species.

Habitat:

- High-altitude Himalayan forests (3,000–5,000m) across India, Nepal, Bhutan, China, and Pakistan, preferring coniferous/deciduous areas with dense scrub.
- Protected area: Kedarnath Wildlife Sanctuary, Askot Musk Deer Sanctuary, and parts of Gangotri National Park.
- Conservation status: IUCN: Endangered. CITES: Appendix I. Wildlife Protection Act, 1972: Schedule I

Sambar

Context: -

- **Odisha is set to launch its first captive breeding program for sambar at Satkosia Tiger Reserve** to increase prey availability for predators like Royal Bengal Tigers and leopards.
- This initiative aims to bolster prey density, a critical component for resuming the tiger translocation pro-program that was halted in 2018 due to insufficient prey.

Sambar Deer: -

- **Native Range:** Sambar is native to the Indian subcontinent, South China, and Southeast Asia.
- Geographical Distribution: Found in South Asia, Southeast Asia, and parts of China, including Nepal, Bhutan, Myanmar, Thailand, and Indonesia.
- Habitat: Inhabits tropical & subtropical forests, montane grasslands, rainforests, often near water. Prefers dense vegetation such as deciduous shrubs and grasses
- **Behaviour:** **Nocturnal** or crepuscular, with males living solitarily and females in small herds.
- Conservation Status: **IUCN: Vulnerable**



- Significance: Sambar is a preferred prey for the Royal Bengal Tiger and leopards, both apex predators.

Satkosia Tiger Reserve

- Satkosia Tiger Reserve = **Satkosia Gorge Wildlife Sanctuary + Baisipalli Wildlife Sanctuary.**
- The Tiger Reserve is located where Mahanadi River passes through a long gorge in the Eastern Ghats.
- The area is also a part of the Mahanadi ER.
- Vegetation: Moist deciduous forests and riverine forest.
- Major Fauna:** Leopard, indian wild dog (dhole), sloth bear, Asian elephant, Bengal tiger.

Conjoined Silverline butterfly

- The butterfly species -- Conjoined Silverline (Cigaritis conjuncta) **found from the Western Ghats biodiversity hotspot, India.**

Features

- The new butterfly is the size of a one-rupee coin but is invaluable to conservationists.
- It is endemic to mid-elevation evergreen forests of the Western Ghats.
- It has fused spots and bands on the underside of wings, and shiny silver lines in the centre of those bands.
- The two sites where they have been located are at an elevation of 900 meters (Iruppu Falls) and 1,300 meters (Honey Valley).
- India houses more than 1,400 species of butterflies, but very few new ones have been discovered in the last few decades.

Indian Wolf

Context:

- The Indian wolf (Canis lupus pallipes), currently found across India and Pakistan, is set to be recognised as a new and distinct species by the International Union for Conservation of Nature (IUCN).
- Link for reference:** [The most ancient Indian wolf is set to be a new species - The Hindu](#)



About:

- Earlier grouped under the umbrella genus of the grey wolf (Canis lupus), the Indian wolf's lineage diverged, making it the most ancient extant lineage
- Ecological Niche:** Indian wolves are adapted to arid and semi-arid open habitats such as grasslands and scrublands, often misclassified as "wastelands" in land use policy.
- Habitat:** Semi-arid grasslands, scrublands, and pastoral areas.
- Protected area:** Mahuadanr Wolf Sanctuary in Jharkhand.
- Conservation status:** Conservation Status of Indian Wolf: IUCN Red List: Vulnerable (likely to be). Schedule I of the Wildlife (Protection) Act, 1972

Olive Ridley Turtles

Context-

- The Olive Ridley Sea turtle's anticipated mass nestings in Rushikulya River mouth, Odisha, due to conducive climate and beach conditions

About-

- Olive Ridley sea turtle (or Pacific Ridley sea turtle) is the **second smallest** and most abundant of all marine turtle species in the world.
- Distribution: They **are found in warm and tropical waters of the Pacific, Atlantic and Indian Oceans**
- They are known for the practice of **unique mass nesting called Arribada**. Mass nesting picks up in December and continues till January.
- **Gahirmatha Marine Sanctuary & Rushikulya Rookery Coast are the main Olive Ridley nesting sites in India.**
- Odisha Coast (mouths of three rivers – Dhamra, Rushikulya and Devi Rivers) is the largest mass nesting site.
- Diet: They are **carnivorous**, especially in the immature stages of their lifecycle.
- **Threats**: Unsustainable egg collection, slaughtering nesting females on the beach, and direct harvesting adults at sea for commercial sale, coastal development, natural disasters, climate change, and other sources of beach erosion

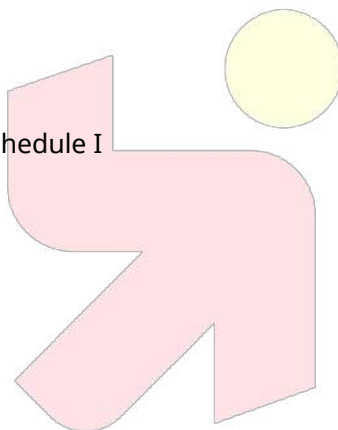


Conservation Status:

IUCN Red List: **Vulnerable**

CITES: Appendix I

Indian Wildlife Protection Act, 1972: Schedule I



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Red Sanders

Context:

- National Biodiversity Authority (NBA) releases funds to red sanders growers under Access and Benefit sharing Mechanism (ABS) mechanism.
- **Link for reference:** [NBA releases ₹3 crore to red sanders growers in A.P. under ABS mechanism - The Hindu](#)

Feature:

- Presence of red dye called as **Santalin** depicts red colour.
- Native to the Southern Eastern Ghats.
- It usually grows in rocky, degraded and fallow lands with Red Soil and a hot and dry climate.

Conservation Status:

- **IUCN:** Endangered
- **CITES:** Appendix II
- **The Wildlife (Protection) Act 1972:** Schedule IV.



Banana *musa indandamanensis*

Context:

- World's longest banana infructescence found in the forests of Andamans.
- **Link for reference:** <https://www.thehindu.com/sci-tech/energy-and-environment/worlds-longest-banana-infructescence-discovered-in-andamans/article69564675.ece>

About:

- An infructescence is the complete fruiting part of a plant.
- Endemic to Andaman and Nicobar Islands.
- Serves as a genetic reservoir for developing disease-resistant and high-yield banana varieties.
- Serves as a genetic reservoir for developing disease-resistant and high-yield banana varieties.

Conservation status: Critically Endangered



White Himalayan Lilly

Context:

- The Uttarakhand Forest Department has identified the White Himalayan Lily as a rare, critically endangered species.

Habitat:

- It grows at high altitudes ranging from 1,800 to 3,700 meters, typically in sub-alpine zones.
- It is a 2-4 ft tall plant with white or pale pink, fragrant, bell-shaped
- The bulb of the plant is used for treating conditions like bronchitis, rheumatism, and as a tonic.
-



Murikooti Pacha

Context:

- Researchers at the Jawaharlal Nehru Tropical Botanic Garden & Research Institute (JNTBGRI), Palode, have tapped into the wound-healing properties of the red ivy plant, known locally as "murikooti pacha."
- **Link for reference:** [Pachathuruth adds over 4 acres of green cover to Kochi - The Hindu](#)

About:

- Red Ivy plant (*Strobilanthes alternata*), belongs to the Acanthaceae family.
- leaf paste applied to fresh wounds, cuts, ulcers, and inflamed areas to **promote healing and reduce inflammation.**
- **Key ingredient acteoside molecule**

Habitat:

- It is native to tropical Asia, particularly Java.



Arogyapacha

Context:

- Kuttimathan Kani, the forest elder who revealed Arogyapacha, **died in poverty at 72 on August 23, 2025** near Kerala's Agasthyamalai forests.
- **Link for reference:** [Forest dept. to grow Arogyapacha, a rare medicinal plant more 'potent' than Korean ginseng, in Kollam - The Hindu](#)

About:

- Small **rhizomatous perennial herb**.
- It is revered as a "**miracle plant**." Used by the **Kani tribe to combat fatigue**.

Community:

- The **Kani (Kanikarars)** live in the **Agasthyamalai hills** of the Western Ghats, Thiruvananthapuram, Kerala.
- They are traditionally **nomadic**; but now **settled**. (**not** notified as a **PVTG**)
- Vast expertise in medicinal plants – famous for using Arogyapacha.

Habitat:

- **Sri Lanka, southern India, Malaysia**; near streams in lowland forests; around **1,000 m** in India.
- **In India:** It is endemic to the Western Ghats (Agasthya hills).



Conocarpus tree

Context:

- Environmentalists urge halt and removal of Conocarpus trees from Coimbatore Lake bunds.
- **Link for reference:** [Environmentalists urge halt and removal of Conocarpus trees from Coimbatore lake bunds - The Hindu](#)

About:

- Flowering plant belonging to the family of Combretaceae.
- **Invasive mangrove species.**

Habitat:

- Native to the coastal areas of tropical America, ranging from Bermuda and the Bahamas to Brazil.
- Arid coastal zones of Somalia and Yemen.
- It is very adaptive and could grow even in areas with extreme salinity.



Sea buckthorn

Context:

- Riding on the successful procurement of Ladakh apples and apricots, the National Dairy Development Board (NDDB) is now moving to bring another Himalayan treasure — sea buckthorn.
- **Link for reference:** [After apricots & apples, NDDB looks to pluck sea buckthorn from Ladakh - The HinduBusinessLine](#)

About:

- 'Wonder Plant', 'Ladakh Gold', 'Golden Bush', or 'Gold Mine' of cold deserts.

Habitat:

- Sea buckthorn (*Hippophae rhamnoides*) is a plant found throughout Europe and Asia.
- it is found above the tree line in the Himalayan region, generally in dry areas such as the cold deserts of Ladakh and Spiti.
- Produces small orange or yellow-coloured berries.
- Shrub can withstand extreme temperatures.



Senna spectabilis

Context:

- *Senna spectabilis* removed from 1,963 hectares of land in Mudumalai Tiger Reserve.
- **Link for reference:** [Senna spectabilis removed from 1,963 hectares of land in Mudumalai Tiger Reserve - The Hindu](#)

About:

- **Golden Shower Tree.**
- **Invasive species native to tropical America.**
- It forms dense, sterile thickets, choking out native plants, altering soil chemistry and depriving herbivores of food.
- It is often planted for fuelwood, as an ornamental, and as a shade tree in agroforestry situations.
- It resembles Kerala's state flower *Cassia fistula*, known locally as kanikkonna.

Conservation status: Least concern



Vulture

Context:

- On January 3, 2025, the Union government banned the manufacture, sale and distribution of all formulations of Nimesulide, due to its toxicity to vultures.

About:

- Scavenger.**
- Large carrion-eating birds, mainly found in tropics and subtropics; 9 species in India.
- Large carrion-eating birds, mainly found in tropics and subtropics; 9 species in India.

Habitat:

- The preferred habitats of the Vulture are deserts, savannas and grassland near a water source.
- It also inhabits open mountain ranges up to 3,000 metres above sea level.

Behaviour:

- They soar in circles high above the Earth's surface. They use the rising air currents to maintain their elevation.



Ashwagandha

Context:

- Ashwagandha (*Withania somnifera*), one of the most widely used herbs in traditional medicine systems across various countries, including Indian Traditional Medicine systems, has captured the global scientific community's interest.
- Link for reference:** [Press Release: Press Information Bureau](#)

About:

- Ashwagandha (*Withania somnifera*) is a medicinal herb. It is reputed as an immunity enhancer.
- It is classified as an adaptogen, which means that it can help the body to manage stress.
- Boosts brain function and lower blood sugar** and helps fight symptoms of anxiety and depression.
- Hardy and drought tolerant species with its biocompounds.
- Ashwagandha also boosts brain function and lowers blood sugar and helps fight symptoms of anxiety and depression.



Rock Pigeons

Context:

- Pigeons in Indian cities, especially the [Blue Rock Pigeon](#) (*Columba livia*), are being wrongly blamed for rising cases of Aspergillosis, a fungal respiratory infection.

About:

- Pigeons are found everywhere except for the driest places like Antarctica and the high Arctic. Also, they are largely distributed in the Europe, Asia and Northern Africa regions.
- They can nest in any place like rock cliffs, buildings, open shrubs, etc.
- The external nostrils are obliquely present in the cere.
- The eyes of pigeons are round and large with movable eyelids. An external auditory aperture is present posterior to each eye.
- They have a long, flexible, S-shaped neck. The ventral portion of the neck is termed as throat.



Hooded seal

Context:

- Arctic seals and birds are coming under increasing threat, mainly due to climate change and human activity, according to an updated list of endangered species released Friday by the world's top conservation body.
- Link for reference:** [Seals, birds under threat in new 'red list' of endangered species - The Hindu](#)

About:

- inflatable, balloon-like nasal sac (the "hood") on the head of adult males.
- Wrinkled sac hangs over the nose and forehead
- Used for communication, signaling fitness to females, and asserting dominance over other males, often preventing physical fights.

Habitat:

- cold waters of the [North Atlantic and Arctic Oceans](#), living primarily on [drifting pack ice](#) but also spending significant time in deep, open waters.
- They are found from Greenland and Iceland to the Gulf of St. Lawrence, breeding on ice floes in areas like the Davis Strait and Newfoundland.

Conservation status: Vulnerable to Endangered.



White Bellied Heron

Context:

- Recently, the Union Environment Ministry expert panel has recommended environmental clearance (EC) for the Kalai-II hydroelectric project on Lohit River which is a white-bellied heron habitat.

Feature:

- Indicator species.

Habitat:

- Wetland of tropical and subtropical forest.
- It is mainly living in the foothills of the eastern Himalayas in northeast India and Bhutan to northern Myanmar.

Conservation status:

- IUCN Red List:** Critically Endangered
- Wildlife Protection Act 1972:** Schedule-I



Double Humped Bactrian Camel

Context:

- Ladakh's double-humped Bactrian camels are set to debut at the 77th Republic Day parade.

Feature:

- Camelus bactrianus.

Habitat:

- Central Asia from Afghanistan to China upto Mongolian steppes and the Gobi desert.
- Very small populations of these camels are found in high altitude cold deserts of Ladakh's Nubra Valley.

Feature:

- Two humps serve as a reservoir of fat that can be converted into water and energy during long treks where food is scarce.
- Can survive by eating snow.
- omnivores but primarily herbivores and eat various types of plants.

Conservation status:

- Critically endangered



Galaxy frog

Context:

- According to the study, a group of seven galaxy frogs vanished, all likely to be dead, after multiple photographers descended on their habitat.
- Link fore reference:** [7 of world's rarest frogs presumed dead, study blames rise in photo tourism | India News - The Indian Express](#)

Feature:



- One of the rarest and most dazzling amphibians in the world.
- Its dorsal region is resembled with stars in night sky.
- Flagship species of Mathikettan Shola National Park in Idukki, Kerala.

Habitat:

- Wet evergreen forest

Conservation status: Vulnerable**Anagyrus Lopezi****Context:**

- Two years after scientists from the National Bureau of Agricultural Insect Resources (NBAIR), released a tiny parasitic wasp *Anagyrus lopezi* into South India's tapioca fields, the crop that once faced near devastation from an invasive pest is now thriving again.
- **Link for reference:** [From ruin to recovery: How a parasitic wasp saved South India's tapioca crops - The Hindu](#)

Feature:

- Parasitic wasp which specifically targets the cassava mealybug.
- The wasp lays its eggs inside the pest, and the developing larvae consume it from within, naturally reducing mealybug numbers without harming other crops.
- It was imported from the International Institute of Tropical Agriculture (IITA), Benin, West Africa.

**Hawfinch****Context:**

- A Hawfinch bird, a species native to Europe, North Africa, and East Asia, was recently recorded at Jim Corbett National Park in Uttarakhand.
- **Link for reference:** [Hawfinch bird native to Europe sighted in Uttarakhand's Jim Corbett National Park | India News](#)

Feature:

- Large passerine bird native to Europe, North Africa, and East Asia.

Habitat:

- Hawfinches are found across Europe, Eastern Asia (the Palearctic including North Japan), and North Africa (Morocco, Tunisia, and Algeria).
- The hawfinch frequents deciduous and mixed forests, orchards, parks, and also the vegetation along the streams.

Conservation status:

- Least concern



Loggerhead Turtle

Context:

- Loggerhead turtles use geomagnetic field to navigate large distances.
- **Link for reference:** [Loggerhead turtles use geomagnetic field to navigate large distances - The Hindu](#)

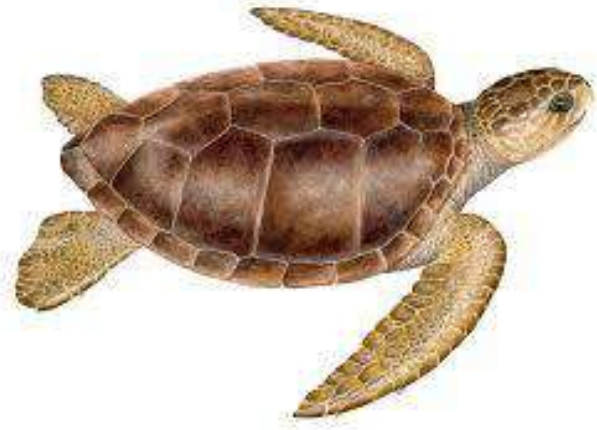
About:

- It is a species of oceanic turtle belonging to the family Cheloniidae.
- It is named Loggerhead for their large heads that support powerful jaw muscles.
- It is the world's largest hard-shelled turtle, slightly larger at average and maximum mature weights than the green sea turtle and the Galapagos tortoise.
- It is also the world's second largest extant turtle after the leatherback sea turtle.
- It uses the geomagnetic field as a map when navigating large distances.

Habitat:

- It has a cosmopolitan distribution, nesting over the broadest geographical range of any sea turtle. It inhabits the Atlantic, Indian, and Pacific Oceans and the Mediterranean Sea.
- It is omnivorous, feeding mainly on bottom-dwelling invertebrates.

Conservation status: IUCN, is vulnerable



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