Species in News 2025

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1. Mammals

1.1 Western Hoolock Gibbon (Hoolock hoolock)

Why in News

- **October 2024:** A documentary showcased the unique bond between the villagers of Barekuri, Assam, and the endangered hoolock gibbons.
- **January 2025:** India's only ape species, the Western hoolock gibbon (Hoolock hoolock), faced threats from proposed oil exploration near Assam's Hollongapar Gibbon Sanctuary. The Union Ministry of Environment granted initial approval to divert forest land for this purpose, raising concerns about the potential impact on the sanctuary's gibbon population. Subsequently, the National Board for Wildlife deferred the decision, recommending a comprehensive site inspection.
- **Conservation Spotlight:** Gibbon preservation took center stage at the Global Gibbon Network's inaugural meeting in 2023, drawing attention to the precarious status of India's gibbons.
- **Genetic Clarification:** A 2023 genetic study found India's **"eastern"** and **"western"** hoolock are essentially one species, simplifying and unifying conservation strategies.
- **Dedicated Sanctuary:** The Hollongapar Gibbon Sanctuary in Assam remains India's only protected area focused specifically on gibbons.

About this Species

- **What It Is:** The Western Hoolock Gibbon (Hoolock hoolock) is a small, tree-dwelling primate found in the forests of Northeast India, Bangladesh, and Myanmar. It belongs to the gibbon family, known for its agility and loud calls.
- **Appearance :** Males are usually black with white eyebrows, while females are light brown or tan. They have long arms and no tails, helping them swing effortlessly through trees.
- **Behavior:** These gibbons are highly

acrobatic and use a unique movement called brachiation—swinging from branch to branch using only their arms. They rarely come down to the ground.

- **Social Life:** They live in small family groups consisting of a monogamous pair and their young. These family units are highly territorial and mark their areas with loud, melodious calls.
- **Diet :** Their diet mainly consists of fruits, leaves, flowers, and occasionally insects. They play an essential role in their ecosystem by spreading seeds, helping maintain forest growth.

IUCN Status

- **Endangered:** Their population has dropped by over 50% in the past four decades.
- **Legal Protection:** Listed under WPA Schedule I and CITES Appendix I for the highest level of safeguard.

Distribution

- **Regions:** The only apes in India, living in the tropical forests of Northeast India (Assam, Arunachal, Meghalaya, Tripura) as well as Bangladesh and Myanmar.
- **Habitat:** Require unbroken canopy in evergreen and semievergreen forests; Hollongapar Gibbon WLS is a key stronghold.

Unique Characteristics

- **Smallest & Fastest Apes:** Famous for brachiation (armswinging) through the treetops.
- **Loud Territorial Calls:** Pairs produce duets; monogamous family groups.
- **Tail-Less Apes:** Like other true apes, they lack external tails.

Other Significance

- **Primate Evolution:** Offer insights into ape behavior and dispersal in Asia.
- ***Forest Guardians:*** Regarded by some local communities as protectors of the forest; also crucial in seed dispersal.

Challenges/Threats

- Severe habitat fragmentation due to plantations, jhum cultivation, and infrastructure.
- Small, isolated populations marooned in tiny forest patches.
- Hunting occurs in some locales.
- Conservation includes reconnecting fragmented forests (corridors, canopy bridges) and local community involvement.

1.2 Slender Loris (Loris lydekkerianus)

Why in News

- **February 2025:** Reports emerged highlighting the detrimental effects of illegal red soil mining and brick-making activities near Tamil Nadu's Kadavur Slender Loris Sanctuary. These activities are degrading the primate's habitat, leading to reduced canopy cover.
- **First Sanctuary in India:** The Kadavur Slender Loris Sanctuary (2022) in Tamil Nadu—spread over 11,800 ha across Dindigul and Karur—provides dedicated protection for slender lorises.

About this Species

- **What It Is:** The Slender Loris (Loris spp.) is a small, nocturnal primate found in the forests of India and Sri Lanka. It is known for its slow movements and large, round eyes adapted for night vision.
- **Appearance:** It has a thin, elongated body with long limbs and a short tail. Its big, forward-facing eyes help it see in the dark, and its soft fur varies in color from grayish-brown to reddish-brown.
- **Behavior:** Unlike monkeys, it moves slowly and carefully through trees, using a strong grip to avoid predators. It is mostly solitary but may interact with others occasionally
- **Diet:** It primarily eats insects, small reptiles, fruits, and tree sap. Its slow movement helps it sneak up on prey without being noticed.
- **Defense Mechanism:** When threatened, it can freeze completely or curl into a ball. Some species also produce a toxin in their saliva, which they spread on their fur to deter predators.

IUCN Conservation Status

- **Endangered:** The Gray Slender Loris populations are on a steady decline.
- **Highest Protection:** Listed under Schedule I of India's Wildlife (Protection) Act.

Distribution

- **Geographical Range:** Found in Southern India & Sri Lanka, especially in tropical dry thorn forests, scrub jungles, and deciduous forest edges.
- **Kadavur Region:** Encompasses seven forest patches in the Eastern Ghats of Tamil Nadu.

Unique Characteristics

- **Nocturnal Primates:** Known for thin limbs and large eyes adapted to night vision.
- **Slow, Stealthy Climbers:** Primarily insectivorous but also eat small vertebrates, fruits, and flowers.
- **Superstitions:** Sometimes labeled **"blood-sucking,"** leading to illegal capture or killing.

Ecological/Cultural Significance

- **Natural Pest Control:** Consume agricultural pests, aiding farmers.
- **Loris-Focused Ecotourism:** The sanctuary's awareness campaigns aim to dispel harmful superstitions and preserve the scrub forest ecosystem.

Challenges/Threats

- Habitat fragmentation from plantations, roads, or urban expansion.
- Poaching for folk medicine or as charms.
- Power line and road mortalities.
- Climate change altering insect dynamics.

1.3 Sela Macaque (Macaca selai)

Why in News

- **March 2024:** On March 9, 2024, Prime Minister Narendra Modi inaugurated the Sela Tunnel project in Arunachal Pradesh.
- **January 2025:** In January 2025, four tourists encountered a hazardous situation when they fell into the frozen Sela Pass Lake while attempting to walk on its icy surface. Prompt action by bystanders,

who used bamboo sticks to pull them to safety, prevented a potential tragedy. This incident, captured in a widely circulated video, underscored the dangers associated with winter tourism in high-altitude regions.

- **Recent Discovery:** Found in 2022 by ZSI scientists in Arunachal Pradesh, named after Sela Pass, clarifying macaque diversity in Northeast India.
- **Human–Wildlife Conflict:** Recognized as genetically distinct, this knowledge helps develop localized strategies to manage frequent crop-raiding by macaques in high-altitude villages.

About this Species

- **What It Is:** The Sela Macaque (Macaca selai) is a recently identified species of monkey found in the Arunachal Pradesh region of India. It was named after the Sela Pass, a high-altitude mountain pass in the Eastern Himalayas.
- **Appearance:** It has a thick brownish-gray coat, which helps it survive in the cold mountain environment. Its face is pinkish with a slightly darker forehead, and it has a sturdy build like other macaques.
- **Behavior:** Sela Macaques are social animals that live in groups. They are active during the day and spend most of their time on the ground or in trees, searching for food.
- **Diet:** They are omnivores, eating a mix of fruits, leaves, seeds, and small animals. Their diet changes with the seasons, depending on what is available in their habitat.
- **Habitat:** They are found in high-altitude forests, often in rugged mountainous areas. Their range overlaps with that of other macaque species, but they have adapted to colder environments.

IUCN Status

- **Not Yet Evaluated:** Its close relative, the Arunachal macaque, is Endangered, suggesting the Sela Macaque may face similar threats.

Distribution

- **High-Altitude Habitat:** Found around Sela Pass (~2000–3500 m) in Tawang and West Kameng districts of Arunachal Pradesh.
- **Natural Barrier:** Rugged mountains isolate it from other macaque species.

Unique Characteristics

- **Paler Face & Brown Coat:** Helps distinguish it from the darker Arunachal macaque.
- **Cold Adaptations:** Thick fur and robust build suitable for hilly terrain.

Other Significance

- **Eastern Himalayan Diversity:** Underscores ongoing primate differentiation in this hotspot.
- **Seed Dispersal:** Aids forest regeneration at high altitudes.

Challenges/Threats

- Habitat degradation from road construction, border infrastructure, and deforestation.
- Crop-raiding and retaliatory harm.
- Climate change shifting vegetation zones.

1.4 Asiatic Lion (Panthera leo persica)

Why in News

- **February 2024:** Government Reports on Lion Mortality**.** The government reported that 555 Asiatic lions had died over the past five years. Despite this number, officials indicated that there was no significant increase in the mortality rate, attributing the deaths to natural causes and emphasizing ongoing conservation efforts.
- **September 2024:** The central government issued a draft notification declaring approximately 1.84 lakh hectares around the Gir Protected Area as an Eco-Sensitive Zone (ESZ).
- **February 2025:** Data revealed a significant rise in incidents of lions preying on domestic animals in Gujarat's Gir forest, with cases peaking at 4,385 in the 2023-24 period. Despite an increasing prey base within the forest, these incidents have nearly doubled since 2019, highlighting the challenges of human-lion interactions in shared landscapes.
- **Population Gains:** Numbers in Gujarat's Gir forests rose to 674 (2020 census), prompting IUCN to reclassify them from Endangered to Vulnerable.
- **Single Sub-Population Concern:** No second free-ranging population yet, though Kuno in Madhya Pradesh has been proposed.

About this Species

- **What It Is:** The Asiatic Lion (Panthera leo persica) is a subspecies of lion found only in India, primarily in the Gir Forest of Gujarat. It is smaller than its African cousin but just as powerful and majestic.
- **Appearance:** It has a slightly smaller and less developed mane compared to African lions, allowing its ears to be more visible. Its body is muscular, with a sandy or tawny coat that helps it blend into dry forests and grasslands.
- **Behavior:** Asiatic lions live in smaller pride groups compared to African lions, often consisting of a few females and their cubs, while males are more solitary. They are territorial and mark their areas with scent markings and roars.
- **Diet:** They are carnivorous hunters that prey on deer, wild boar, and smaller animals. Sometimes, they scavenge from other predators or hunt livestock near villages.
- **Habitat:** They once roamed across Asia, but now they are restricted to the Gir Forest and surrounding areas. Conservation efforts have helped stabilize their population, but their range remains limited.

IUCN Status

- **Vulnerable Globally:** (as part of Panthera leo leo).
- **Strict Protection:** Under WPA Schedule I and CITES Appendix I.

Distribution

- **Gir National Park:** Located in Saurashtra, Gujarat—only wild Asiatic lions in the world.
- **Historic Range:** From northwest India to the Middle East, now extirpated outside India.

Unique Characteristics

- **Size & Appearance:** Slightly smaller than African lions; males often have a distinct belly fold.

- **Prides & Coexistence:** Known for tolerance of humans/livestock in the Gir region.

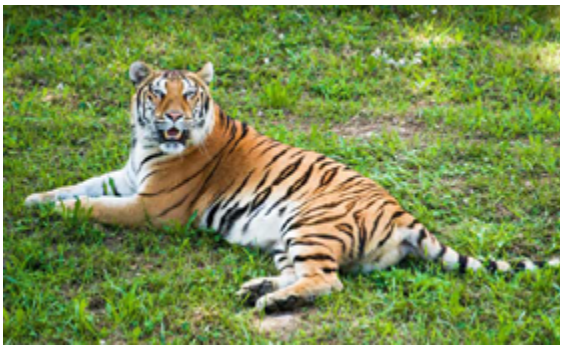
Other Significance

- **State Animal of Gujarat:** Successful case of community-driven conservation with Maldhari pastoralists.

Challenges/Threats

- Single population vulnerable to disease outbreaks (e.g. canine distemper).
- Open wells, rail/road accidents, sporadic poaching outside protected areas.
- Habitat expansion and second population site needed for longterm stability.

1.5 Bengal Tiger (Panthera tigris)



Why in News

- **January 2025:** A study published in Science highlighted India's achievement in doubling its tiger population from approximately 1,706 in 2010 to around 3,682 in 2022.
- **Project Tiger @50:** India celebrated half a century of Project Tiger in 2023 and released the All-India Tiger Estimation (2022), showing a camera-trapped count of 3,167 and an average estimate of 3,682.
- **Global Stronghold:** India hosts about 75% of the world's wild tigers, a ~6% annual growth since 2006.

About this Species

- **What It Is:** The Bengal Tiger (Panthera tigris tigris) is the most common tiger subspecies and is found in India, Bangladesh, Nepal, and Bhutan. It is India's national animal and one of the most iconic big cats in the world.
- **Appearance:** It has a striking orange coat with black stripes, a white belly, and powerful limbs. Each tiger has a unique pattern of stripes, like a fingerprint, which helps in identification.
- **Behavior:** Bengal tigers are solitary and territorial. They prefer to hunt alone and patrol large areas, marking their territory with scent markings and roars to warn other tigers.
- **Diet:** They are carnivores and primarily hunt large herbivores like deer, wild boar, and even young elephants. They are ambush predators, using stealth and power to take down prey in a single attack.
- **Habitat:** They live in a variety of environments, including dense forests, mangroves (like the Sundarbans), grasslands, and even foothills of the Himalayas. They are highly adaptable but require large areas to survive.

IUCN Status

- **Endangered:** Global tiger population < 4,000.
- **Legal Protection:** Listed in CITES Appendix I, WPA Schedule I.

Distribution

- **53 Tiger Reserves in India:** Key populations in Madhya Pradesh, Karnataka, and Uttarakhand.
- **Examples:** Corbett, Kanha, Sunderbans are among the flagship reserves.

Unique Characteristics

- **Apex Predator:** Tigers require large territories and sufficient prey, making

them vital indicators of ecosystem health.

- **Camouflage Stripes:** Their striped coat allows stealthy hunting in forests/ grasslands.

Other Significance

- **National Animal of India:** Project Tiger (1973) helped boost numbers from ~1,411 (2006).

Challenges/Threats

- Habitat loss, poaching for body parts, and human-wildlife conflict.
- Prey depletion, genetic isolation in smaller reserves.

1.6 African Cheetah (Acinonyx jubatus)(Reintroduced in India)

Why in News

- **September 2024:** Reports indicated that India's cheetah reintroduction project was facing significant challenges after the death of its only wild-roaming cheetah.
- **February 2025:** On February 5, 2025, five more cheetahs were released into the wild at Kuno National Park, signaling ongoing efforts to bolster the cheetah population in India.
- **Project Cheetah Launch:** After over 70 years of local extinction (declared 1952), cheetahs were reintroduced in Kuno National Park, Madhya Pradesh, beginning with 8 from Namibia (Sept 2022) and 12 from South Africa (2023).
- **Breeding Success & Setbacks:** Cubs were born in 2023, though a few adult fatalities occurred, prompting close monitoring of adaptability.

About this Species

- **What It Is:** The African Cheetah (Acinonyx jubatus) is the fastest land animal, capable of reaching speeds up to 100 km/h in short bursts. It is a large, slender cat found across Africa's grasslands and savannas.
- **Appearance:** It has a slim, lightweight body with long legs, a deep chest, and a small head. Its golden-yellow coat is covered in black spots, and it has distinctive black "tear marks" running from its eyes to its mouth, helping reduce glare from the sun.
- **Behavior:** Unlike other big cats, cheetahs rely on speed rather than strength to catch their prey. They are mostly solitary, except for mothers with cubs or small groups of male siblings that stay together for life.
- **Diet:** They are carnivorous and mainly hunt medium-sized animals like gazelles, impalas, and hares. They use stealth to get close to their prey before launching a high-speed chase, usually ending within seconds.
- **Habitat:** They prefer open grasslands and savannas, where they have space to run and chase prey. Unlike lions or leopards, they are not adapted to dense forests or mountains.

IUCN Status

- **Vulnerable Globally:** ~7,100 African cheetahs remain in the wild.
- **Asiatic Cheetah:** Critically Endangered; only about 12 survive in Iran.
- **Trade Ban:** All cheetahs under CITES Appendix I.

Distribution

- **Historic Range in India:** Once roamed Indian grasslands, now extinct in the wild here since 1952.
- **Kuno NP, MP:** Current reintroduction site with African cheetahs from Namibia and S. Africa.

Unique Characteristics

- **Fastest Land Animal:** Can accelerate up to ~100 km/h.
- **No Roar:** Cheetahs chirp rather than roar; diurnal hunters relying on speed.

Other Significance

- **Intercontinental Translocation:** A pioneering move to restore India's lost cheetah guild and support grassland biodiversity.
- **Etymology: "Cheetah"** stems from Sanskrit chitraka (spotted one).

Challenges/Threats

- Adaptation to Kuno's environment, collisions with leopards, potential human conflict.
- Radio-collar issues, heat stress caused some mortalities.
- Long-term viability depends on genetic diversity and additional sites.
- Globally threatened by habitat loss and illegal pet trade.

1.7 Snow Leopard (Panthera uncia)

Why in News

- **October 2024:** On October 23, International Snow Leopard Day was observed to raise awareness about the endangered status of snow leopards and the threats they face, including habitat loss and poaching.
- **Population Assessment:** India's first Snow Leopard Population Assessment (SPAI 2023) estimates ~718 individuals (report published 2024), giving a baseline for this elusive highaltitude cat.

About this Species

- **What It Is:** The Snow Leopard (Panthera uncia) is a rare and elusive big cat found in the high mountains of Central and South Asia. It is also called the "Ghost of the Mountains" due to its ability to blend into rocky terrain and avoid human detection.
- **Appearance:** It has a thick, pale grayish-white fur coat with black rosettes and spots, providing excellent camouflage in snowy and rocky landscapes. Its long, bushy tail helps with balance and also serves as a warm wrap in freezing temperatures.
- **Behavior:** Snow leopards are solitary and highly territorial, covering vast mountainous areas. Unlike other big cats, they do not roar but communicate through meows, growls, and hisses.
- **Diet:** They are carnivores that hunt blue sheep, ibex, marmots, and other mountain animals. Their powerful legs allow them to leap great distances to catch prey, even on steep cliffs.

- **Habitat:** They live in high-altitude regions, usually between 3,000 and 5,500 meters, across countries like India, Nepal, China, and Mongolia. They prefer rocky slopes and snowy landscapes where they can blend in.

IUCN Conservation Status

- **Vulnerable:** About 4,000–6,000 remain globally, with a declining trend.
- **CITES Appendix I:** Strict protection in trade.

Distribution

- **High-Altitude Range:** Central & South Asia (3,000–5,000+ m). In India: Ladakh, J&K, Himachal, Uttarakhand, Sikkim, Arunachal.

Unique Characteristics

- **"Ghost of the Mountains":** Thick grey coat with rosettes/spots, long tail for balance.
- **Mountain Predator:** Preys on bharal, ibex, and other ungulates; adapted to thin air.

Other Significance

- **Flagship of Alpine Ecosystems:** Part of the Global Snow Leopard Forum uniting multiple range nations.

Challenges/Threats

- Infrastructure (roads, mining) fragment remote habitats.
- Retaliatory killings for livestock predation.
- Poaching for fur/bones; climate change reducing glaciers and shifting vegetation.
- Community guardians, cross-border collaboration are key for survival.

1.8 Indian Pangolin (Manis crassicaudata)

Why in News

- **December 2024:** In Nuapada District, Odisha, forest department officials seized 765 pangolin scales weighing 3.13 kg, leading to the arrest of four individuals.
- **January 2025:** Indian scientists from the Zoological Survey of India proposed the recognition of a new pangolin species, Manis indoburmanica, based on genetic analyses. This proposed Indo-Burmese pangolin is believed to have diverged from the Chinese pangolin approximately 3.4 million years ago.
- **High Poaching Levels:** A 2023 analysis revealed over 1,200 pangolins poached in India (2018–2022), confirming it as one of the most trafficked mammals worldwide.
- **Awareness & Enforcement:** World Pangolin Day (2023) spurred stricter enforcement discussions; occasional rescues highlight rising consciousness.

About this Species

- **What It Is:** The Indian Pangolin (Manis crassicaudata) is a nocturnal, scaly mammal found in forests and grasslands across India, Sri Lanka, Nepal, and parts of Pakistan. It is known for its unique armor-like scales and ability to curl into a ball when threatened.
- **Appearance:** It has a long, tapering body covered in large, overlapping keratin scales, which act as natural armor. Its small head, pointed snout, and long, sticky tongue help it extract insects from nests.
- **Behavior:** It is a solitary and shy animal,

mostly active at night. When threatened, it rolls into a tight ball, making it nearly impossible for predators to attack.

- **Diet:** It is an insectivore, feeding mainly on ants and termites. It uses its strong claws to break open termite mounds and its sticky tongue to catch prey.
- **Habitat:** It is found in dry forests, grasslands, and agricultural areas. It spends most of its time in underground burrows, which it digs using its powerful front claws.

IUCN Status

- **Endangered (Indian Pangolin):** Meanwhile, the Chinese pangolin in NE India is Critically Endangered.
- **Absolute Protection:** Both species in CITES Appendix I & WPA Schedule I.

Distribution

- **Across Indian Subcontinent:** India, Pakistan, Sri Lanka, Bangladesh. Chinese pangolin in NE India (Assam, Arunachal).

Unique Characteristics

- **Scaly Anteater:** Covered in keratin scales, rolls into a ball when threatened.
- **Insectivorous:** Feeds on ants/termites with a long sticky tongue; low reproductive rate (one offspring/year).

Other Significance

- **Pest Control & Soil Aeration:** Natural predator of insects, helps aerate soil through burrowing.
- **Symbol Against Trafficking:** Draws focus to combating the illegal wildlife trade.

Challenges/Threats

- Severe poaching for scales (traditional medicine) and meat.
- Habitat loss; secretive habits hinder population monitoring.
- Stricter enforcement and community vigilance essential.

1.9 Indo-Burmese Pangolin (Manis indoburmanica)

Why in News

- **January 2025:** Indian scientists from the Zoological Survey of India proposed the recognition of a new pangolin species, Manis indoburmanica, based on genetic analyses. This proposed Indo-Burmese pangolin is believed to have diverged from the Chinese pangolin approximately 3.4 million years ago.
- **New Species Description (2024):** ZSI's genetic study confirmed divergence from Chinese pangolin ~3.4 million years ago, revealing hidden pangolin diversity in the Indo-Burma hotspot.

About this Species

- **What It Is:** The Indo-Burmese Pangolin (Manis pentadactyla) is a rare, nocturnal mammal found in parts of Northeast India, Myanmar, and neighboring regions. It is known for its protective scales and secretive nature.
- **Appearance:** It has a long, slender body covered in large, overlapping brownish scales made of keratin. It has small eyes, a pointed snout, and a long, sticky tongue used for feeding on insects.
- **Behavior:** It is a solitary and elusive animal, mostly active at night. When threatened, it curls into a tight ball, making it almost impossible for predators to harm it.

- **Diet:** It primarily feeds on ants and termites, using its strong claws to dig into nests and its sticky tongue to catch prey. It has no teeth and swallows food whole.
- **Habitat:** It is found in tropical forests, grasslands, and hilly areas. It digs deep burrows for shelter and spends most of its life hidden underground.

IUCN Conservation Status

- **Not Yet Assessed:** Close relatives face high poaching threats; Chinese pangolin is Critically Endangered.

Distribution

- **Northeast India:** Arunachal Pradesh, Assam; possibly extending into Bhutan, Nepal, and northern Myanmar.
- **Hill Forests:** Found ~180–1800 m in Indo-Burma region.

Unique Characteristics

- **Scales & Nocturnal Lifestyle:** Olive- to dark-brown scales, adept at rolling into a ball when threatened.
- **Slow Breeding:** Similar to other pangolins, typically one offspring a year.

Other Significance

- **Reveals Cryptic Biodiversity:** Highlights underexplored pangolin evolution in Asia's trafficking hotspots.

Challenges/Threats

- Rampant illegal trade for scales/meat.
- Deforestation and jhum cultivation degrade habitats.
- Urgent conservation action needed to prevent decline.

1.10 Indian Elephant (Elephas maximus indicus)

Why in News

- **August 2024:** Assam introduced the "Haati App," an early warning system designed to alert villagers and farmers about nearby wild elephants.
- **November 2024:** A report titled "The Status of Elephants in India 2022-23" revealed a nearly 20% decline in the country's elephant population between 2017 and 2022. The final report, pending data from northeastern regions, is anticipated by June 2025.
- **2023 Elephant Corridors Report:** Over 150 identified corridors are fragmented or encroached, fueling human-elephant conflicts.
- **Alliance for Conservation:** The Asian Elephant Alliance (IUCN/WTI) launched a Center for Species Survival in India to coordinate efforts.

About this Species

- **What It Is:** The Indian Elephant (Elephas maximus indicus) is a subspecies of the Asian elephant found mainly in India, Nepal, Bangladesh, Bhutan, and parts of Southeast Asia. It is an important cultural and religious symbol in India.
- **Appearance:** It is smaller than the African elephant, with a domed head, smaller ears, and a more curved spine. Males have tusks, but many females either have very small tusks or none at all.
- **Behavior:** Indian elephants are highly

intelligent and social, living in matriarchal herds led by an older female. They communicate using trumpets, rumbles, and body language.

- **Diet:** They are herbivores and eat grass, leaves, fruits, bark, and cultivated crops. They require a large amount of food and water daily, often migrating in search of resources.
- **Habitat:** They live in forests, grasslands, and river valleys, with populations spread across India, from the Western Ghats to the Himalayan foothills.

IUCN Status

- **Endangered:** Asian elephants declined >50% in the last three generations.
- **Legal Safeguard:** Protected under Schedule I of India's Wildlife (Protection) Act.

Distribution

- **13 Range Countries:** South/Southeast Asia. India holds ~60% (~27,000).
- **Key Regions:** Western Ghats, Eastern Himalayas/Northeast, parts of central/north India.

Unique Characteristics

- **Largest Land Mammal in Asia:** Keystone herbivore shaping forest ecology via seed dispersal, pathway creation.
- **Matriarchal Societies:** Strong family bonds; gestation ~22 months.

Other Significance

- **National Heritage Animal of India:** Revered in tradition and religion. Project Elephant (1992) steers conservation.

Challenges/Threats

- Habitat loss, corridor fragmentation, leading to conflict.
- Poaching for ivory (mainly males), skewing sex ratios.
- Train collisions, electrocution. Corridor safeguarding is pivotal.

1.11 One-Horned Indian Rhinoceros (Rhinoceros unicornis)

Why in News

- **September 2024:** On World Rhino Day, conservationists reflected on the mixed status of the world's five rhino species. While the greater one-horned rhino population remained stable at around 4,018 individuals by the end of 2023, other species, such as the Javan and Sumatran rhinos, faced critical challenges.
- **Population Recovery:** Numbers in India/Nepal have reached ~4,000, up from ~200 in early 1900s. Assam reported near-zero poaching in 2022.
- **Anti-Poaching Drive:** Assam burned a stockpile of rhino horns (2021) to dispel myths and discourage illegal trade.

About this Species

- **What It Is:** The One-Horned Indian Rhinoceros (Rhinoceros unicornis), also known as the Greater One-Horned Rhinoceros, is a large herbivorous mammal found in the Indian subcontinent. It is known for its thick, armor-like skin and a single black horn.

- **Appearance:** It has a massive body covered in thick, grayish-brown skin with deep folds that give it an armor-plated look. Unlike African rhinos, it has a single horn, which can grow up to 60 cm long.
- **Behavior:** It is mostly solitary but can be seen in small groups around water sources. Despite its heavy build, it is agile and can run at speeds of up to 40 km/h. It is also an excellent swimmer.
- **Diet:** It is a herbivore, feeding mainly on grasses, leaves, fruits, and aquatic plants. It spends a lot of time grazing near water bodies and often wallows in mud to cool down.
- **Habitat:** It is found in the grasslands and swampy areas of northern India and Nepal, particularly in protected reserves like Kaziranga National Park and Manas National Park.

IUCN Status

- **Vulnerable:** Improved from Endangered after decades of protection.
- **Protected:** CITES Appendix I, WPA Schedule I.

Distribution

- **Terai Grasslands:** India (Assam, W. Bengal, UP) & Nepal. ~90% in Assam. Kaziranga alone holds ~2/3 of the world's population.

Unique Characteristics

- **Single Black Horn:** 8–25 inches; folded **"armor"** skin.
- **Powerful Swimmer:** Despite weight (up to ~2,000 kg), adept in flooded habitats.

Other Significance

- **Conservation Success:** Rebounded from ~200 to ~4,000. State animal of Assam.

Challenges/Threats

- Poaching for horn (high black-market value).
- Habitat loss, seasonal floods. Translocations to reduce overcrowding.

1.12 Mithun (Gayal) (Bos frontalis)

Why in News

- **August 2024:** Traditionally found in Arunachal Pradesh, Nagaland, Manipur, and Mizoram, the Mithun was documented for the first time in Assam's Dima Hasao district. Experts identified over 200 individuals in areas such as Laisong, Langting, and Thaijuwari.
- **September 2024:** In Arunachal Pradesh, the Adi Bane Kebang, a traditional council, banned the practice of offering Mithuns as dowry. This decision aimed to alleviate economic pressures on less affluent families and address social inequalities exacerbated by the custom.
- **Food Animal Status:** In 2023, India's Food Safety Authority recognized Mithun as a regulated **"food animal,"** opening markets and income for tribal communities in NE India.

About this Species

- **What It Is:** The Mithun (Bos frontalis), also known as the Gayal, is a large, semi-domesticated bovine found in the hilly forests of Northeast India, Myanmar, Bhutan, and Bangladesh. It is considered a symbol of wealth and social status among many tribal communities.

- **Appearance:** It has a strong, muscular build with a dark brown or black coat and white stockings on its legs. It has a broad forehead, short curved horns, and a large dewlap hanging from its neck.
- **Behavior:** Unlike fully domesticated cattle, Mithuns are mostly free-ranging and graze in forests. They are calm and docile but prefer to stay in hilly, forested areas rather than open plains.
- **Diet:** They are herbivores, feeding mainly on grass, leaves, and shrubs. They do not require human feeding, as they find their food naturally in the forests.
- **Habitat:** They are mainly found in the hilly regions of Arunachal Pradesh, Nagaland, Manipur, and Mizoram, where they are reared by tribal communities for meat, cultural rituals, and trade.
- **Cultural and Economic Importance:** Mithuns are highly valued in tribal traditions, often used as gifts, dowries, and sacrificial animals in rituals. Their meat is considered a delicacy, and their ownership is a sign of prestige.

IUCN Status

- **Vulnerable:** Domesticated form of wild Gaur; wild populations in CITES Appendix I and WPA Schedule I.

Distribution

- **Indigenous to NE India:** Arunachal, Nagaland, Mizoram, Manipur, also Myanmar, Bangladesh.
- **Semi-Domesticated:** Free-ranged in forested hills among tribal communities.

Unique Characteristics

- **Large Hill-Cattle:** Both sexes have horns; white **"stockings"** on legs.
- Traditionally Not Milked: Valued for meat and as a status symbol, not for dairy or draft use.

Other Significance

- **State Animal:** Of Arunachal Pradesh & Nagaland; integral to tribal ceremonies.

Challenges/Threats

- Disease transmission, inbreeding, habitat degradation.
- Wild gaur face hunting/forest loss.
- Balancing cultural usage with emerging commercial interest is key.

1.13 Nilgiri Tahr (Nilgiritragus hylocrius)

Why in News

- **April 2024:** The Tamil Nadu Forest Department, in collaboration with the Kerala Forest Department, the Wildlife Institute of India, WWF-India, and the International Union for Conservation of Nature (IUCN), conducted the first synchronised estimation of the Nilgiri Tahr population. This comprehensive survey aimed to gather baseline data to inform future conservation strategies.
- **November 2024:** The Tamil Nadu Forest Department announced plans to reintroduce the Nilgiri Tahr into the Sathyamangalam Tiger Reserve (STR), where the species had not been observed for over five decades.
- **Project Nilgiri Tahr:** Tamil Nadu initiated India's first state-led tahr conservation plan in 2023, including surveys and habitat restoration across the Western Ghats.

About this Species

- **What It Is:** The Nilgiri Tahr (Nilgiritragus hylocrius) is a rare mountain goat species found only in the Western Ghats of India, particularly in Tamil Nadu and Kerala. It is the state animal of Tamil Nadu.
- **Appearance:** It has a stocky, muscular body covered in thick, coarse fur. Males are larger, with a dark brown coat and backward-curving horns, while females are smaller and lighter in color.
- **Behavior:** Nilgiri Tahrs are social animals that live in herds, usually consisting of females and young ones, while males form separate groups. They are excellent climbers, navigating steep rocky slopes with ease.
- **Diet:** They are herbivores, feeding mainly on grass, shrubs, and leaves found in high-altitude grasslands. They graze in the early morning and late evening.
- **Habitat:** They are found in the grassy slopes and rocky cliffs of the Nilgiri Hills and Anamalai Hills at elevations above 1,200 meters. Eravikulam National Park in Kerala has the largest population.

IUCN Status

- **Endangered:** About 3,100 individuals remain, all in Southern Western Ghats.
- **Highest Protection:** WPA Schedule I.

Distribution

- **Western Ghats Endemic:** High-altitude grassy cliffs in Tamil Nadu and Kerala.
- **Strongholds:** Eravikulam NP (Kerala), Nilgiris, Anamalai, Palani Hills.

Unique Characteristics

- **Mountain Goat-Antelope:** Adapted to montane grasslands & rocky terrain.
- **"Saddlebacks":** Adult males have a silver saddle patch and curved horns.

Other Significance

- **State Animal of Tamil Nadu:** A flagship for shola-grassland conservation.

Challenges/Threats

- Habitat loss to plantations, development.
- Poaching historically reduced populations; fragmentation persists.
- Invasive species degrade grasslands; climate change adds stress.

1.14 Kashmir Stag (Hangul) (Cervus hanglu hanglu)

Why in News

- **February 2024:** A 19-year study focusing on the Hangul population within Dachigam National Park revealed that, despite protective measures, the species' numbers have not increased. The research indicated a skewed sex ratio favoring females and projected a potential decline towards extinction without immediate intervention.
- **Population Uptick:** Dachigam NP census (2023) indicates a slight increase (~275–289) after decades under <200.
- **Conservation Measures:** Proposed breeding programs and habitat management for this critically reduced deer population.

About this Species

- **What It Is:** The Kashmir Stag (Cervus hanglu hanglu), also known as the Hangul, is a rare and endangered subspecies of red deer found in the Kashmir Valley of India. It is known for its majestic antlers and is the state animal of Jammu and Kashmir.
- **Appearance:** It has a reddish-brown coat with a lighter underside and a white patch on its rump. Males have large, branching antlers with 11 to 16 points, which make them one of the most striking deer species.
- **Behavior:** It is mostly active during the early morning and late evening. Males are territorial and use their antlers for dominance fights during the breeding season. They live in small herds, with females and young ones staying together while males often remain alone.
- **Diet:** It is a herbivore, feeding on grasses, leaves, shoots, and bark. It prefers river valleys and forested areas where food and water are abundant.
- **Habitat:** It is found in the dense forests and alpine meadows of Kashmir, mainly in Dachigam National Park and surrounding areas. It migrates to lower altitudes in winter to escape heavy snowfall.

IUCN Status

- **Critically Endangered:** Protected under WPA Schedule I.

Distribution

- **Primarily Dachigam NP (J&K):** Some in Overa-Aru WLS. Historically across NW Himalayas, now extremely localized.

Unique Characteristics

- **Asia's Only Red Deer:** Males have impressive antlers (11–16 points); adapt to dense forests and alpine meadows.

Other Significance

- **State Animal of J&K: "Project Hangul"** launched in 1970s when numbers dropped drastically.

Challenges/Threats

- Habitat loss, overgrazing, and historical poaching.
- Conflict and inbreeding risk in tiny populations.
- Strict protection, corridor creation, and captive breeding plans.

1.15 Sangai (Manipur Brow-Antlered Deer) (Rucervus eldii eldii)

Why in News

- **September 2024:** A study presented at the Wildlife Institute of India revealed a concerning decrease in the Sangai population within Keibul Lamjao National Park. Numbers declined from 90 individuals in 2006 to 64 in 2023, with an accelerated annual decline rate of 1.9% noted in recent years. Factors contributing to this decline include habitat degradation, competition from rising hog deer populations, and the impacts of the Ithai barrage on the Loktak Lake ecosystem.
- **Loktak Hydropower Impact:** Keibul Lamjao NP's floating phumdi habitat is threatened by water-level changes, endangering the ~260 Sangai.
- **Second Habitat Proposal:** Plans (2023–

24) to establish a backup population to reduce extinction risk. **"Sangai Day"** (2024) boosted statewide awareness.

About this Species

- **What It Is:** The Sangai (Rucervus eldii eldii), also known as the Manipur Brow-antlered Deer, is a rare and endangered deer species found only in India. It is the state animal of Manipur and is known for its unique, curved antlers and graceful movements.
- **Appearance:** It has a reddish-brown coat with a white underbelly and large, distinctive antlers that curve inward, giving it the nickname "Dancing Deer." Males have longer antlers, while females are smaller and lack them.
- **Behavior:** Sangais are social animals that live in small herds. They are shy and prefer to stay hidden in their wetland habitat. They move with an elegant, bouncing gait, which makes them appear as if they are dancing.
- **Diet:** They are herbivores, feeding mainly on grasses, aquatic plants, and shoots. Their diet depends on the availability of food in their wetland ecosystem.
- **Habitat:** They are found only in Keibul Lamjao National Park in Manipur, which is the world's only floating national park, located on the Loktak Lake. They live on phumdis—floating vegetation mats in the lake.

IUCN Status

- **Endangered:** A subspecies of Eld's Deer. WPA Schedule I.

Distribution

- **Endemic to Manipur:** Confined to Keibul Lamjao NP on Loktak Lake's floating wetlands (phumdis).

Unique Characteristics

- **"Dancing Deer":** Moves delicately on floating phumdi. Antlers curve in a bow shape over the forehead.

Other Significance

- **State Animal of Manipur:** Represents the delicate balance of specialized wetland ecosystems.

Challenges/Threats

- Single-site vulnerability to floods, disease, or habitat shifts.
- Dam-induced hydrological changes threaten phumdi survival.
- Inbreeding risk; small population size (~260).

1.16 Dugong (Dugong dugon)

Why in News

- **November 2024:** In Thanjavur, Tamil Nadu, fishermen rescued and released a dugong caught in their nets. This act highlighted growing local awareness and community involvement in marine conservation, reflecting the success of awareness programs in the region.
- **Dugong Conservation Reserve (2022):** India's first such reserve in Palk Bay, Tamil Nadu, safeguards the country's last significant population (~150–200).
- **Satellite Tracking (2023):** New data on movements in Gulf of Mannar. Reports of functional extinction in China highlight urgency for other regions.

About this Species

- **What It Is:** The Dugong (Dugong dugon) is a large, herbivorous marine mammal closely related to manatees. It is often called the "Sea Cow" because it grazes on underwater seagrass.
- **Appearance:** It has a streamlined, torpedo-shaped body with smooth, grayish skin. Unlike manatees, it has a whale-like tail and lacks back limbs. It has a broad, downward-facing snout that helps it graze on the seafloor.
- **Behavior:** Dugongs are slow-moving and peaceful creatures that spend most of their time grazing in shallow coastal waters. They are social but often seen alone or in small groups.
- **Diet:** They are strict herbivores, feeding mainly on seagrass. They uproot entire plants with their snouts, leaving behind trails on the seabed.
- **Habitat:** They are found in warm coastal waters of the Indian Ocean and Pacific Ocean, including areas around India, Australia, and Southeast Asia. In India, they are mainly seen in the Gulf of Mannar, Palk Bay, and the Andaman and Nicobar Islands.

IUCN Status

- **Vulnerable:** Extremely rare in Indian waters, ~200 remain.
- **Schedule I & CITES Appendix I:** Maximum protection.

Distribution

- **Tropical Coastal Waters:** East Africa/Red Sea to Indo-Pacific. In India, found in Palk Bay, Gulf of Mannar, Andaman & Nicobar.

Unique Characteristics

- **Marine Herbivore:** Also called **"sea cow,"** feeds exclusively on seagrass.
- **Slow Reproduction:** A calf every 3–7 years; lifespan ~70 years.

Other Significance

- **Flagship for Seagrass Conservation:** Vital for **"blue carbon"** and fish nursery habitats.
- ***Project Dugong:*** Tamil Nadu Government initiative focusing on habitat protection and awareness.

Challenges/Threats

- Seagrass degradation (coastal development, pollution).
- Bycatch in fishing nets, boat collisions.
- Hunted historically for meat/oil; slow population growth.
- Protected areas and restricted gill-net usage crucial.

1.17 Ganges River Dolphin (Platanista gangetica)

Why in News

- **Project Dolphin Efforts:** Surveys (2022–24) showed local increases (e.g., Vikramshila Sanctuary from 188 to 208). Multisector platform launched for improved conservation.
- **Public Engagement:** Uttar Pradesh started **"dolphin safaris"**; World River Dolphin Day highlighted its status as National Aquatic Animal.
- **Dolphin Ambulance (2024):** A rescue service under National Mission for Clean

Ganga to aid stranded/injured dolphins.

- **Recolonization Hopes:** Rare sightings in previously lost stretches, including a Nepal record after ~185 years.

About this Species

- **What It Is:** The Ganges River Dolphin (Platanista gangetica gangetica) is a freshwater dolphin species found in the rivers of India, Nepal, and Bangladesh. It is also called the Susu due to the sound it makes while breathing.
- **Appearance:** It has a long, slender body with a grayish-brown color and a flexible neck that allows it to move its head side to side. Its snout is long and pointed, with sharp, interlocking teeth. Unlike marine dolphins, it has very small eyes and is nearly blind.
- **Behavior:** It relies on echolocation to navigate and hunt, as its eyesight is poorly developed. It is a solitary animal, often seen swimming alone or in small groups. It surfaces every few minutes to breathe, producing a characteristic "susu" sound.
- **Diet:** It is a carnivore, feeding on fish, crustaceans, and small aquatic animals. It hunts by using echolocation to detect prey in the muddy river waters.
- **Habitat:** It is found in the Ganges, Brahmaputra, and their tributaries. It prefers slow-moving, deep waters and is often seen in river bends and confluences where fish are abundant.

IUCN Status

- **Endangered:** CITES Appendix I, WPA Schedule I.
- **Indus Subspecies:** Also Endangered; small numbers in India (Beas River).

Distribution

- **Ganga-Brahmaputra-Meghna Basin:** India, Bangladesh, Nepal.
- **In India:** Ganga & tributaries (Ghaghra, Gandak, Son, Yamuna), Brahmaputra, Sundarbans channels.

Unique Characteristics

- **Nearly Blind:** Relies on echolocation in turbid rivers, nicknamed **"Susu."**
- **Solitary or Small Groups:** Recognizable rolling-surface breathing.

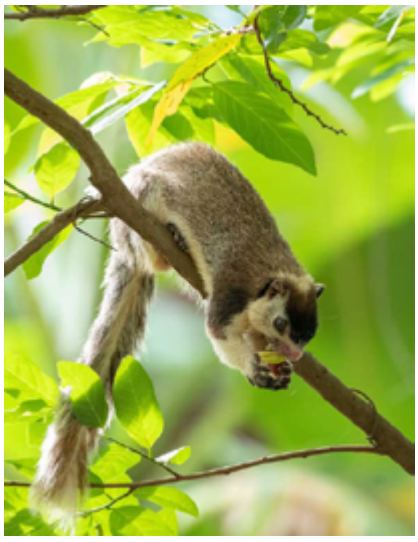
Other Significance

- **Indicator of River Health:** Top predator reflecting aquatic ecosystem quality.
- **National Aquatic Animal:** Declared in 2010 to spearhead freshwater conservation awareness.

Challenges/Threats

- Dam/barrage fragmentation, pollution, and fishing-net entanglement.
- Sand mining, reduced flow, prey depletion hamper survival.

1.18 Namdapha Flying Squirrel (Biswamoyopterus biswasi)



Why in News

- **Rediscovered (2023):** Sighted in Arunachal's Namdapha NP after 42 years missing; it was among **"Top 25 most wanted lost species."**

- **Renewed Surveys:** Discovery triggered fresh interest in safeguarding this extremely rare mammal.

About this Species

- **What It Is:** The Namdapha Flying Squirrel (Biswamoyopterus biswasi) is a rare and highly elusive flying squirrel found only in the Namdapha National Park in Arunachal Pradesh, India. It is one of the least studied mammals in the world.
- **Appearance:** It has a reddish-brown coat, a long bushy tail, and a distinctive white belly. Like other flying squirrels, it has a special skin membrane (patagium) stretching between its limbs, allowing it to glide between trees.
- **Behavior:** It is nocturnal and arboreal, meaning it is active at night and lives in trees. It uses its patagium to glide long distances between branches, avoiding predators and searching for food.
- **Diet:** Though little is known about its exact diet, it is believed to be an herbivore or omnivore, feeding on fruits, leaves, nuts, and possibly small insects.
- **Habitat:** It is known only from a small area in Namdapha National Park, a dense tropical rainforest with tall trees and abundant vegetation. Its extremely limited range makes it highly vulnerable to habitat destruction.

IUCN Status

- **Critically Endangered:** Possibly one of the rarest mammals worldwide.
- **WPA Schedule II:** Despite severe threats, historically not in Schedule I.

Distribution

- **Namdapha Tiger Reserve (Arunachal Pradesh):** Known only from a few sightings near the Dihing River.

Unique Characteristics

- **Large Gliding Squirrel:** Bright reddish-orange fur, can glide ~100 m using patagial membranes.
- **Nocturnal & Elusive:** Very few individuals ever recorded.

Other Significance

- **Distinct Genus:** Biswamoyopterus underscores hidden Himalayan biodiversity.

Challenges/Threats

- Habitat loss (logging, shifting cultivation) and local hunting.
- Nocturnal/remote habitat complicates research and protection.

1.19 Attenborough's Long-beaked Echidna (Zaglossus attenboroughi)

Why in News

- **Rediscovered (2023):** Found again in Papua's Cyclops Mountains after 62 years; previously feared extinct.
- **Rare Monotreme:** The discovery made international headlines for monotreme conservation.

About this Species

- **What It Is:** Attenborough's Long-Beaked Echidna (Zaglossus attenboroughi) is a rare and elusive egg-laying mammal (monotreme) found only in the Cyclops Mountains of Papua, Indonesia. It is named

after the famous naturalist Sir David Attenborough.

- **Appearance:** It has a spiny, hedgehog-like body covered in coarse fur and sharp quills. Its long, narrow snout is used for detecting and extracting food, and it has strong claws for digging. Unlike other mammals, it lays eggs instead of giving birth to live young.
- **Behavior:** It is a solitary, nocturnal animal that spends most of its time burrowing in the forest floor or searching for food. It is extremely shy and rarely seen in the wild.
- **Diet:** It is an insectivore, primarily feeding on earthworms, termites, and ants. It uses its long, sticky tongue to extract prey from the soil.
- **Habitat:** It is believed to inhabit dense tropical rainforests at high altitudes in the Cyclops Mountains. Due to its rarity, very little is known about its exact range and population.

IUCN Conservation Status

- **Critically Endangered:** EDGE species with extremely limited range.

Distribution

- **Cyclops Mountains, Papua (Indonesia):** High-elevation rainforest habitat; extremely range-restricted.

Unique Characteristics

- **Egg-Laying Mammal:** Has coarse spines, elongated snout feeding on earthworms.
- **Smallest Long-Beaked Echidna:** Among the rarest extant monotremes.

Other Significance

- **Named for Sir David Attenborough:** Showcases hidden biodiversity in remote mountain ecosystems.

Challenges/Threats

- Hunting for bushmeat, habitat loss from encroachment.
- Slow reproduction, extremely low population density.
- Local community engagement crucial for protection.

2. Birds

2.1 Great Indian Bustard (Ardeotis nigriceps)

Why in News

- **May 2024:** A waterhole survey conducted in Jaisalmer district, Rajasthan, recorded 64 Great Indian Bustards, a notable rise from the 42 individuals observed in 2022.
- **October 2024:** A major breakthrough occurred when a Great Indian Bustard chick was hatched through artificial insemination at the Sudasari Breeding Center in Jaisalmer, Rajasthan. This achievement marked India's first successful use of this technique for the species, offering new hope for its conservation.
- **Power Line Collisions:** A 2021 Supreme Court order mandated burying or modifying lines in bustard habitats, leading to new 2023 guidelines for bird diverters, spurring debate between renewable

expansion and species protection.

- **Captive Breeding Progress:** Rajasthan breeding centers produced hatchlings, including the first IVF success in **October 2024.**

About this Species

- **What It Is:** The Great Indian Bustard (Ardeotis nigriceps) is one of the heaviest flying birds in the world and is found in dry grasslands and semi-arid regions of India and Pakistan. It is considered a symbol of conservation efforts in India.
- **Appearance:** It has a tall, sturdy build with long legs and a long neck. Males have a black crown on their head, a white neck, and a brownish body, while females are smaller and duller in color.
- **Behavior:** It is mostly ground-dwelling and prefers walking rather than flying. It is solitary or found in small groups, except during the breeding season when males perform elaborate courtship displays.
- **Diet:** It is an omnivore, feeding on insects, small reptiles, seeds, and grass. It plays an important role in controlling insect populations in its habitat.
- **Habitat:** It is mainly found in the dry grasslands of Rajasthan, Gujarat, Maharashtra, Karnataka, and Madhya Pradesh. The Desert National Park in Rajasthan is one of its last strongholds.

IUCN Status

- **Critically Endangered:** Possibly ~150–200 birds remain globally.
- **Strict Protection:** WPA Schedule I, CITES Appendix I, CMS MoU.

Distribution

- **Historic Range:** Indian subcontinent grasslands; ~90% of original range lost.
- **Rajasthan Stronghold:** Thar Desert NP, with scattered pockets in Gujarat, Maharashtra, Karnataka, Andhra.

Unique Characteristics

- **Heaviest Flying Bird in India:** Males can weigh 15–18 kg.
- **Ground-Nesting:** Lays a single egg on open grassland.
- **Breeding Booms:** Males use an inflatable gular pouch to produce booming calls.

Other Significance

- **Grassland Flagship:** Proposed as national bird historically; **"Project GIB"** addresses rapid decline.

Challenges/Threats

- Power line collisions, top mortality cause.
- Habitat loss from agricultural expansion, mining.
- Low reproductive rate, single-egg clutches.

2.2 Lesser Florican (Sypheotides indicus)

Why in News

- **August 2024:** For the first time, the Forest Department initiated a systematic population estimation of the Lesser Florican in the Kutch region of Gujarat. This effort seeks to gather accurate data on the species' numbers and distribution, which is crucial for developing effective conservation strategies.
- **September 2024:** The Conservation Breeding Centre at Velavadar National Park faced difficulties as Lesser Floricans did not engage in mating behaviors despite the efforts of forest officials. This highlights the complexities involved in captive breeding initiatives for the species.
- **October 2024:** Organizations like BirdLife International promoted awareness of the Lesser Florican's unique mating displays, where males leap up to six feet into the air. These campaigns aim to garner public

support for the conservation of this distinctive species.

- **January 2025:** The Wildlife Institute of India (WII) received over ₹5 crore from the National Fund under the Compensatory Afforestation Fund Act, 2016, to support conservation projects for both the Great Indian Bustard and the Lesser Florican.
- **Power Line Mitigation Case:** Featured alongside GIB in Supreme Court proceedings on burying lines in western grasslands.
- **Severe Decline:** Under 150 known lek sites remain; Rajasthan began a conservation breeding program in 2022.

About this Species

- **What It Is:** The Lesser Florican (Sypheotides indicus) is a small and rare bird found in the grasslands of India. It is known for its spectacular courtship display, where males leap high into the air to attract females.
- **Appearance:** It has a slender body with long legs and a thin neck. Males have striking black-and-white plumage during the breeding season, along with long, wispy head plumes. Females are brownish with streaked patterns, helping them blend into dry grasslands.
- **Behavior:** It is shy and secretive, spending most of its time hidden in tall grass. During the breeding season, males perform dramatic vertical leaps, flapping their wings mid-air to impress females.
- **Diet:** It is an omnivore, feeding on insects, seeds, and small reptiles. Its diet changes with the season, depending on food availability in grasslands.
- **Habitat:** It is found in dry grasslands and agricultural fields, mainly in Rajasthan, Gujarat, Madhya Pradesh, and Maharashtra. It prefers areas with tall grasses for nesting and hiding.

IUCN Status

- **Critically Endangered:** Over 80% decline in recent decades.
- **Highest Protection:** WPA Schedule I.

Distribution

- **Indian Subcontinent:** Breeds in western-central India (Gujarat, Rajasthan, MP, Maharashtra) during monsoon; some dispersal to other areas.

Unique Characteristics

- **Male Leaping Display:** Known for dramatic courtship jumps, sporting erect plumes.
- **Smallest Bustard:** Only ~0.5 m tall in breeding plumage.

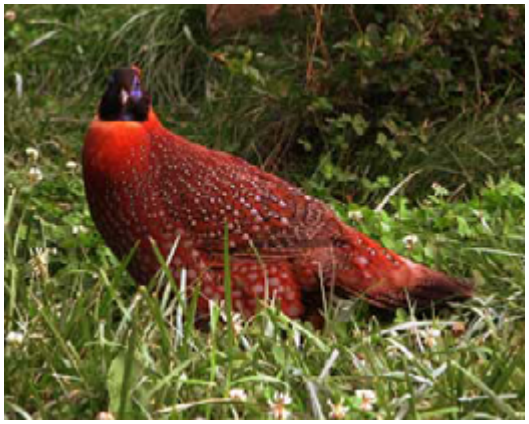
Other Significance

- **Grassland Indicator:** Locally called **"Kharmor,"** reliant on healthy monsoon grassland patches.

Challenges/Threats

- Intensive agriculture, pesticide use reducing insects/prey.
- Collisions with power lines, historically hunted.

2.3 Western Tragopan (Tragopan melanocephalus)



Why in News

- **May 2023:** An acclaimed bird photographer from Bangalore captured images of the Western Tragopan in the Kashmir Himalayas. This sighting was notable due to the bird's elusive nature and its status as a globally threatened species.
- **Pheasantry Success:** Sarahan breeding center (Himachal Pradesh) achieved reintroduction milestones; camera traps in Great Himalayan NP confirm stable presence.
- **State Bird Promotion:** Nicknamed **"Jujurana" ("King of Birds")**, a flagship for Himachal's biodiversity.

About this Species

- **What It Is:** The Western Tragopan (Tragopan melanocephalus) is a rare and colorful pheasant species found in the Himalayan forests of India and Pakistan. It is often called the "King of Pheasants" due to its striking appearance.
- **Appearance:** Males have a bright red chest, black head, and white-spotted blue-gray plumage. They also have a unique blue throat pouch that inflates during courtship displays. Females are dull brown with speckled patterns, helping them stay camouflaged in dense forests.
- **Behavior:** It is shy and prefers to stay hidden in thick vegetation. Males perform elaborate courtship displays, inflating their throat pouch and making deep, resonant calls to attract females.
- **Diet:** It is an omnivore, feeding on leaves, berries, seeds, and insects. It forages on the forest floor but roosts in trees at night to stay safe from predators.
- **Habitat:** It lives in dense, temperate forests of the western Himalayas, mainly in Himachal Pradesh, Jammu and Kashmir, and Uttarakhand. It prefers steep, forested slopes at elevations between 2,400 and 3,600 meters.

IUCN Status

- **Vulnerable:** Fewer than 5,000 mature individuals survive.
- **WPA Schedule I:** Maximum domestic protection.

Distribution

- **NW Himalayas:** India (J&K, Himachal) and Pakistan, at 2,400– 3,600 m altitude.

Unique Characteristics

- **Striking Plumage:** Males have vivid crimson neck, spotted plumage, and fleshy blue horns.
- **Ground Forager:** Eats berries, insects; resonates spring calls in forest undergrowth.

Other Significance

- **State Bird of Himachal:** Conservation symbol, with GHNP as a core habitat.

Challenges/Threats

- Habitat degradation from livestock grazing, firewood collection.
- Past hunting for meat/plumage; climate change shifting treelines.

2.4 Indian Skimmer (Rynchops albicollis)

Why in News

- **October 2024:** Approximately 150 to 200 Indian Skimmers were observed at the Lower Manair Dam in Telangana, marking the first documented occurrence of this species in the state. Typically, these birds migrate to regions like Kakinada port in Andhra Pradesh during the winter months. This sighting underscores the ecological significance of the reservoir and highlights the expanding range of the Indian Skimmer.
- **November 2024:** Over 150 pairs of Indian Skimmers, along with other migratory birds, arrived at the Sangam in Prayagraj, Uttar Pradesh, in anticipation of the Maha Kumbh 2025. The Forest Department announced plans to organize a Bird Festival to celebrate this natural spectacle and promote eco-tourism in the region.
- **January 2025:** The Bombay Natural History Society (BNHS), in collaboration with Bird Count India, conducted the fifth coordinated global Indian Skimmer Count on January 4th and 5th, 2025. This initiative aimed to fill knowledge gaps about the Indian Skimmer population by encouraging participants to observe and record sightings across various locations.
- **January 2025:** In Karimnagar, Telangana, three tagged Indian Skimmers were observed among a flock of approximately 120 individuals. These birds had been tagged in previous years as part of a study by the BNHS in Odisha's Mahanadi River region. The sighting provided valuable insights into the species' migration patterns and highlighted the importance of regional habitats in their conservation.
- **Breeding Revival:** First nesting colony in decades at Vikramshila Sanctuary (Bihar) in 2023. Large flock (~250) spotted in Coringa WLS (AP).
- **Red List Uplisting:** Moved from Vulnerable to Endangered due to rapid declines.

About this Species

- **What It Is:** The Indian Skimmer (Rynchops albicollis) is a unique water bird known for its distinctive beak and specialized hunting technique. It is found along rivers, lakes, and coastal wetlands in India and neighboring countries.
- **Appearance:** It has a striking black-and-white body, a bright orange beak with a longer lower mandible, and long, pointed wings. This beak shape helps it skim the water surface while flying to catch fish.
- **Behavior:** It is often seen flying low over the water, dipping its lower beak into the surface to scoop up fish. It is a social bird that nests in colonies on sandy riverbanks.
- **Diet:** It primarily feeds on small fish and aquatic insects, using its unique skimming technique to catch prey while in flight.
- **Habitat:** It inhabits large rivers, estuaries, and freshwater lakes, mainly in northern and central India, as well as Bangladesh and Pakistan. The Chambal River and Ganga River are important breeding sites.

IUCN Status

- **Endangered:** Estimated ~2,500 adults remain.
- **WPA Schedule IV:** Not a hunted species but still threatened.

Distribution

- **South Asia:** Breeds on sandy riverbanks (Chambal, Ganga, Mahanadi), flocks on east coast in non-breeding season.

Unique Characteristics

- **"Skimming" Bill:** Longer lower mandible slices water to scoop fish.
- **Striking Color:** Black-and-white plumage with bright orange bill.

Other Significance

- **Riverine Bio-Indicator:** Dependent on undisturbed sandbars.

Challenges/Threats

- Sandbar flooding, mining, human/ livestock disturbance.
- Predation by dogs, crows; fish depletion from pollution.

2.5 Mangrove Pitta (Pitta megarhyncha)

Why in News

- **April 2024:** Subhadarshani Pradhan, a zoology teacher from Kendrapada district, Odisha, initiated a conservation project for the Mangrove Pitta in Bhitarkanika National Park. Collaborating with the forest department, she organized training programs in nearby villages to raise awareness about the bird's ecological importance and the threats it faces from habitat degradation and shrimp farming.
- **February 2025:** Researchers in Malaysia employed bioacoustic methods to monitor bird communities in restored mangrove forests. By analyzing bird calls, including those of the Mangrove Pitta, they assessed the success of mangrove restoration efforts, highlighting the species as an indicator of ecosystem health.
- **First Census (2022):** Odisha's Bhitarkanika NP counted ~179 individuals, underscoring viability in Indian Sundarbans too.
- **Bio-Indicator Potential:** Proposed as a measure of mangrove ecosystem health.

About this Species

- **What It Is:** The Mangrove Pitta (Pitta megarhyncha) is a brightly colored bird found in coastal mangrove forests and wetlands of South and Southeast Asia, including India. It is known for its striking plumage and loud calls.
- **Appearance:** It has a vibrant mix of colors—an olive-green back, bright blue wings, a buff-colored belly, and a black stripe running across its eyes. Its stout beak is slightly curved, helping it catch prey.
- **Behavior:** It is a shy and secretive bird that prefers staying close to the ground in dense mangrove forests. It is more often heard than seen, producing loud, repetitive whistles during the breeding season.
- **Diet:** It is a carnivore, feeding on insects, crabs, mollusks, and small reptiles. It uses its strong beak to break open shells and dig into the mud for food.
- **Habitat:** It is found in mangrove forests, tidal mudflats, and coastal wetlands in eastern India, the Sundarbans, and parts of Southeast Asia. It relies on these habitats for nesting and feeding.

IUCN Status

- **Near Threatened:** Populations in decline, but not severely yet.

Distribution

- **Mangrove Specialist:** Found in South/ Southeast Asia. In India, mostly eastern

coast (Bhitarkanika, Sundarbans).

Unique Characteristics

- Colorful Plumage: Green back, blue wing patch, yellow belly, black head/crown.
- Mudflat Forager: Feeds on crustaceans/ insects in tidal zones.

Other Significance

- Mangrove Health Indicator: Presence correlates with intact tidal creeks.

Challenges/Threats

- Habitat destruction (shrimp farming, wood extraction).
- Cyclones, sea-level rise affecting mangroves.

2.6 Hanuman Plover (Charadrius seebohmi)

Why in News

- **Separate Species Recognition (2024):** Formerly lumped with Kentish Plover for ~86 years. Now named **"Hanuman Plover"** referencing the mythic land bridge between India & Sri Lanka.
- **January 2024:** After extensive genetic and phenotypic analyses, researchers concluded that the Hanuman Plover, previously considered a subspecies of the Kentish Plover (Charadrius alexandrinus), is a distinct species. This finding was based on differences in body size, plumage coloration, and genetic markers. The species is named after Hanuman, the ape-god from the ancient Sanskrit epic Ramayana, reflecting its native range near the mythological bridge between India and Sri Lanka.

About this Species

- **What It Is:** The Hanuman Plover (Charadrius seebohmi) is a small shorebird found in coastal regions of southern India and Sri Lanka. It was recently reinstated as a distinct species after being considered a subspecies of the Kentish Plover for over 80 years.
- **Appearance:** This bird has sandy-colored upperparts and white underparts. Males feature a black stripe across the forehead and dark grey legs, distinguishing them from the Kentish Plover, which typically has black legs.
- **Behavior:** The Hanuman Plover is often observed along sandy beaches and coastal wetlands. It exhibits typical plover behaviors, such as quick runs followed by sudden stops to forage for food.
- **Diet:** It primarily feeds on small invertebrates, including insects, crustaceans, and worms, which it picks from the sand and mudflats.
- **Habitat:** Preferring coastal environments, the Hanuman Plover is commonly found on sandy shores, tidal mudflats, and salt pans in its range across southern India and Sri Lanka.

IUCN Conservation Status

- **Not Yet Assessed:** Kentish Plover was Least Concern, but Hanuman Plover's narrower range may raise vulnerability.

Distribution

- **Gulf of Mannar Region:** Mannar (Sri

Lanka) and Tamil Nadu's adjacent coastline.

- **Non-Migratory:** Confined to tropical coastal flats, lagoon shores.

Unique Characteristics

- **Subtle Plumage Differences:** Smaller size, distinct frontal bar vs. Kentish Plover.
- **Genetic Divergence:** Split ~1.2 million years ago, clarifying separate lineage.

Other Significance

- **Coastal Endemism:** Name may boost interest in preserving local mudflats/ shorelines.

Challenges/Threats

- Coastal development, saltpan expansion, disturbing nesting beaches.
- Climate-driven sea-level rise threatening shallow shores.

3. Reptiles

3.1 Olive Ridley Sea Turtle (Lepidochelys olivacea)

Why in News

- **January 2025:** Over 1,000 Olive Ridley turtles were found dead along the Chennai coastline, particularly between Neelankarai and Marina Beach. Conservationists attributed these deaths primarily to drowning caused by entanglement in trawler fishing nets operating illegally close to the shore. Despite regulations mandating the use of Turtle Excluder Devices (TEDs) and restricting trawling activities near nesting sites, compliance remained low. In response, authorities intensified efforts to enforce fishing regulations and raise awareness among fishing communities.
- **February 2025:** The death toll of Olive Ridley turtles along Tamil Nadu's coast surpassed 1,300, prompting the National Green Tribunal to consider imposing a complete ban on trawling during the nesting season if fishing regulations were not strictly followed. The state government established a task force to monitor turtle movements and nesting activities, emphasizing the mandatory use of TEDs and adherence to fishing zones. However, challenges persisted due to resistance from some fishing communities and inadequate enforcement.
- **Mass Nesting Arribada:** Odisha's Gahirmatha/Rushikulya beaches in 2023 recorded ~500,000 nests in one season.
- **Habitat Safeguards:** Odisha proposes stronger measures following coastal erosion and net mortalities; Operation Oliva intensifies marine patrols.
- **Mass Mortality (2024):** ~600–900 carcasses washed ashore near Chennai, attributed to bycatch-related drownings, spotlighting lax enforcement of turtle-safe fishing.

About this Species

- **What It Is:** The Olive Ridley Sea Turtle (Lepidochelys olivacea) is a small to medium-sized marine turtle known for its mass nesting behavior called arribada, where thousands of females come ashore simultaneously to lay eggs.
- **Appearance:** It has an olive-green, heart-shaped shell and a relatively small head compared to other sea turtles. Its flippers

are strong and help it swim long distances in the ocean.

- **Behavior:** Olive Ridleys are highly migratory and travel vast distances between feeding and nesting sites. They are mostly solitary, except during the nesting season, when they gather in large numbers.
- **Diet:** They are omnivores, feeding on jellyfish, shrimp, crabs, fish, and algae. Their powerful jaws allow them to crush hard-shelled prey like mollusks.
- **Habitat:** They are found in warm tropical waters of the Pacific, Indian, and Atlantic Oceans. In India, they nest in large numbers along the coasts of Odisha, especially at Gahirmatha, Rushikulya, and Devi River beaches.

IUCN Status

- **Vulnerable:** Most abundant sea turtle but declining in some regions.
- **Top Domestic Protection:** WPA Schedule I, CITES Appendix I.

Distribution

- **Pantropical Oceans:** Major Indian rookeries in Odisha; smaller nesting along east/south coasts.

Unique Characteristics

- **Smallest Sea Turtle (~50–70 kg):** Renowned for synchronized mass nesting (arribada).
- **Natal Homing:** Females return to natal beaches for egg-laying.

Other Significance

- **Jellyfish Control:** Feed on jellyfish, balancing marine ecosystems; mass nesting events also enrich beach ecology.

Challenges/Threats

- Bycatch in trawl/gillnets; enforcement of Turtle Excluder Devices is patchy.
- Coastal development, light pollution, egg predation by animals.
- Plastic ingestion, beach erosion from climate change.

3.2 Leatherback Sea Turtle (Dermochelys coriacea)

Why in News

- **January 2024:**Environmentalists raised alarms about the Indian government's plans to construct an international container port in Galathea Bay, a prime nesting site for Leatherback Sea Turtles. The proposed development threatens to disrupt nesting activities due to habitat alteration, increased human activity, and potential pollution. Conservationists emphasized the need to protect this critical habitat to ensure the species' survival.
- **March 2024:** The National Board for Wildlife removed Galathea Bay's designation as a Wildlife Sanctuary, a move that conservationists fear will expedite developmental activities detrimental to the Leatherback Turtle's nesting grounds. This decision has been met with widespread concern from environmental groups advocating for the preservation of the bay's ecological integrity.
- **Great Nicobar Concern:** Proposed mega infrastructure near Galathea Bay threatens India's largest Leatherback nesting site; experts demand thorough impact studies.

About this Species

- **What It Is:** The Leatherback Sea Turtle

(Dermochelys coriacea) is the largest of all sea turtles and is unique because it lacks a hard shell, having instead a leathery, flexible carapace. It is known for its deep-diving ability and long oceanic migrations.

- **Appearance:** It has a dark, rubbery, ridged shell without scales, unlike other sea turtles. Its streamlined body and long, powerful front flippers make it an excellent swimmer, capable of crossing entire ocean basins.
- **Behavior:** Leatherbacks are highly migratory and travel thousands of kilometers between feeding and nesting sites. They are excellent divers, capable of reaching depths of over 1,000 meters in search of food.
- **Diet:** They are primarily jellyfish eaters, helping control jellyfish populations in marine ecosystems. Their specialized throat structures prevent jellyfish tentacles from sticking inside.
- **Habitat:** They are found in both tropical and temperate oceans worldwide, from the Pacific and Indian Oceans to the Atlantic. In India, they nest in the Andaman and Nicobar Islands.

IUCN Status

- **Vulnerable:** Some populations (Pacific) Critically Endangered.
- Strict Protection: CITES Appendix I, WPA Schedule I.

Distribution

- **Global:** The widest range among reptiles—found from tropics to subpolar seas.
- **India:** Key nesting in Andaman & Nicobar Islands (Galathea Bay, Little Andaman).

Unique Characteristics

- **Largest Turtle (~600+ kg):** Soft, leathery carapace, specialized for deep diving.
- **Jellyfish Diet:** Consumes large amounts of jellyfish, can survive cooler waters.

Ecological Significance

- **Migratory Links:** Connect ocean basins, regulating jellyfish populations globally.

Challenges/Threats

- Beach development, artificial lights disorienting hatchlings.
- Bycatch in fishing gear, plastic ingestion.
- Climate change altering nesting beaches.

3.3 Gharial (Gavialis gangeticus)

Why in News

- **January 2025:** A study focusing on the Girwa River in Katerniaghat Wildlife Sanctuary, Uttar Pradesh, confirmed it as the second-largest wild breeding population of gharials. Despite this, the population remains vulnerable due to habitat loss from damming and reduced water flow, prompting calls for targeted conservation measures in this critical habitat.
- **March 2024:** Forest Department officials confirmed the presence of gharials in the Greater Kaziranga region, Assam, marking the first sighting in 75 years. This rediscovery was seen as a positive indicator of potential habitat suitability and the success of ongoing conservation efforts in the area.
- **May 2024:** A collaborative initiative between local farmers, fishers, and the government along India's Gandak River

led to a gradual recovery of the gharial population.

- **Population Rebound:** Chambal Sanctuary (2022) found >500 adults, up from <200 two decades ago.
- **Reintroductions:** Efforts in Punjab's Beas River and sightings in Ghagra (UP).

About this Species

- **What It Is:** The Gharial (Gavialis gangeticus) is a unique fish-eating crocodilian with a long, narrow snout and is found in the rivers of the Indian subcontinent. It is one of the largest crocodilian species but is not dangerous to humans.
- **Appearance:** It has a long, thin snout filled with sharp teeth, specially adapted for catching fish. Males have a bulbous growth on the tip of their snout, called a ghara, which helps them produce buzzing sounds during mating displays.
- **Behavior:** Unlike other crocodiles, gharials are not aggressive and rarely leave the water. They are excellent swimmers and use their powerful tails to move swiftly in rivers, while their weak legs make them less mobile on land.
- **Diet:** They are strict fish-eaters, using their long, needle-like teeth to catch slippery prey. Juveniles may also eat insects and small amphibians.
- **Habitat:** They are found in deep, slow-moving rivers with sandy banks, mainly in northern India and Nepal. Major habitats include the Chambal, Ganges, and Brahmaputra river systems.

IUCN Status

- **Critically Endangered:** Possibly ~650 adults in the wild.
- **WPA Schedule I & CITES I:** Highest protections.

Distribution

- **Once Widespread:** Indus, Ganga, Brahmaputra systems. Now mainly Chambal, Girwa, Gandak, Rapti, some in Nepal.

Unique Characteristics

- **Fish-Eating Crocodilian:** Long, narrow snout; males develop a "ghara" on the snout tip.
- **Highly Aquatic:** Poor movement on land, primarily remains in deeper river stretches.

Other Significance

- **Key Freshwater Predator:** Evolutionarily distinct among crocodilians.

Challenges/Threats

- Dams/barrages, sand mining destroy nesting sites.
- Fishing-net entanglement, overfishing reduce prey.
- Restocking programs aiding recovery in select rivers.

3.4 Black Softshell Turtle (Nilssonia nigricans)

Why in News

- **April 2024:** Conservationists, in collaboration with the Assam Forest Department and local temple authorities, protected 26 vulnerable nests of Black Softshell Turtles at Nagshankar Temple in Biswanath district. The eggs were collected to safeguard them from natural predators

and were artificially incubated, resulting in the successful hatching of 260 eggs in July.

- **December 2024:** Building on previous successes, 160 Black Softshell Turtle hatchlings, reared through artificial incubation, were released into Roumari Beel within the Biswanath Wildlife Division of Kaziranga National Park. This initiative was part of a broader conservation program by the Turtle Survival Alliance Foundation India and the Assam Forest Department, aiming to bolster wild populations of this species.
- **Rewilding Efforts in Assam:** Once **"Extinct in the Wild,"** temple-pond hatchlings have been released into protected wetlands (e.g., Pobitora). In 2023, 160 juveniles reintroduced.

About this Species

- **What It Is:** The Black Softshell Turtle (Nilssonia nigricans) is a rare freshwater turtle species found in ponds, rivers, and wetlands of India and Bangladesh. It was once thought to be extinct in the wild but has been rediscovered in small populations.
- **Appearance:** It has a soft, leathery shell that is dark brown to black in color, unlike hard-shelled turtles. Its flat body and long snout help it stay hidden underwater, making it an efficient ambush predator.
- **Behavior:** It is mostly aquatic and prefers to stay buried in mud or sand at the bottom of water bodies. It is shy and avoids human presence, surfacing only to breathe.
- **Diet:** It is omnivorous, feeding on fish, amphibians, insects, aquatic plants, and carrion. Its long, tube-like snout helps it breathe while staying submerged.
- **Habitat:** It is found in freshwater lakes, slow-moving rivers, and temple ponds, mainly in Assam, India, and parts of Bangladesh. The famous Hayagriva Madhava Temple Pond in Assam is home to one of its last known populations.

IUCN Status

- **Formerly Extinct in the Wild:** Now considered Critically Endangered with reintroduction attempts.
- **WPA Schedule I (Recent):** Upgraded due to dire status.

Distribution

- **Brahmaputra/Ganga Drainage:** Survived mainly in Assam's temple ponds.

Unique Characteristics

- **Large Freshwater Softshell:** Dark oval carapace, tubular snout, carnivorous diet.
- **"Devotional Turtles":** Historically protected in temple ponds, inadvertently preventing total extinction.

Other Significance

- **Cultural Protection:** Temple traditions aided survival; now leveraged for captive breeding.

Challenges/Threats

- Habitat loss, overharvest. Genetic diversity concerns from pond isolation.
- Reintroduction success hinges on robust wild habitats and antipoaching.

3.5 Mizoram Flying Gecko (Gekko mizoramensis)

Why in News

- **New Gliding Gecko (2023):** Discovered in Mizoram, highlighting NE India's herpetological richness.
- **May 2023:** Researchers from Mizoram University and the Max Planck Institute for Biology in Tübingen, Germany, identified a new species of flying gecko in Mizoram. Named Gekko mizoramensis, or the Mizoram parachute gecko, this species is distinguished by its unique morphological features and genetic makeup. Flying geckos are known for their ability to glide between trees, facilitated by webbed limbs and skin flaps. This discovery underscores the rich and underexplored biodiversity of Northeast India.
- **Second Indian "Flying Gecko":** Confirms canopy specialization in the region.

About this Species

- **What It Is:** The Mizoram Parachute Gecko (Gekko mizoramensis) is a newly identified species of gliding gecko discovered in the northeastern state of Mizoram, India. Named after its place of discovery, this gecko adds to the rich biodiversity of the region.
- **Appearance:** This gecko possesses flaps of skin along its body and webbed feet, adaptations that enable it to glide between trees in its forest habitat. Its coloration and patterns provide effective camouflage against tree bark, aiding in predator avoidance.
- **Behavior:** Arboreal and nocturnal, the Mizoram Parachute Gecko becomes active at dusk. It utilizes its gliding ability to move between trees, primarily hunting insects attracted to light sources.
- **Diet:** Primarily insectivorous, this gecko feeds on various insects found in its forest environment. Its nocturnal hunting is facilitated by its agility and gliding capabilities.
- **Habitat:** Endemic to Mizoram, India, it inhabits tropical forests, often in proximity to human settlements. Specimens have been observed in town areas, indicating some adaptability to altered habitats.

IUCN Status

- **Not Assessed:** Likely rare/endemic.

Distribution

- **Mizoram's Evergreen Forests:** Possibly extends into adjoining Myanmar hills.

Unique Characteristics

- **Dermal Flaps:** Enabling gliding (**"parachuting"**) between trees.
- **Nocturnal & Arboreal:** Feeds on insects at night.

Other Significance

- **Endemic Pride:** Showcases pristine canopies in Mizoram's mountainous forests.

Challenges/Threats

- Deforestation, shifting cultivation, potential illegal pet trade.
- Restricted range; habitat protection critical.

3.6 King Cobra (Ophiophagus spp.)

Why in News

- **Taxonomic Breakthrough (2023–24):**

"King Cobra" revealed as a complex of four distinct species, including one endemic to Western Ghats (*Ophiophagus kaalinga*).

- **October 2024:** A comprehensive study led by wildlife biologist P. Gowri Shankar revealed that the King Cobra is not a single species but comprises four genetically distinct species. This research, involving genetic and morphological analyses, identified the following species:
  - **Northern King Cobra *(Ophiophagus hannah):*** Found across eastern Pakistan, northern and eastern India, the Andaman Islands, Indo-Burma, Indo-China, and Thailand.
  - **Sunda King Cobra *(Ophiophagus bungarus)*:** Native to the Sunda Shelf region.
  - **Western Ghats King Cobra *(Ophiophagus kaalinga)*:** Endemic to the Western Ghats in southwestern India, including Goa and bordering Maharashtra.
  - **Luzon King Cobra *(Ophiophagus salvatana)*:** Located in Luzon, northern Philippines.This discovery has significant implications for conservation efforts and antivenom production, as two of the newly identified species are highly endangered. The study emphasizes the need for habitat protection and targeted conservation strategies for each species.
- **Antivenom Implications:** Different venom profiles demand region-specific antivenom.

About this Species

- **What It Is:** The King Cobra (Ophiophagus hannah) is the world's longest venomous snake, known for its intelligence, powerful venom, and ability to stand up by raising a significant part of its body off the ground. It is revered and feared in many cultures across South and Southeast Asia.
- **Appearance:** It has a long, slender body with smooth olive-green, brown, or black scales and pale yellow bands. Its distinctive hood is narrower than that of other cobras, and it has large, sharp fangs that deliver potent neurotoxic venom.
- **Behavior:** Unlike most snakes, the King Cobra actively avoids human contact but can become highly aggressive if threatened. It is known for its defensive posture, where it raises a third of its body, spreads its hood, and hisses loudly as a warning.
- **Diet:** It primarily preys on other snakes, including venomous ones like kraits and other cobras. It also eats lizards, small mammals, and occasionally bird eggs.
- **Habitat:** It is found in dense forests, bamboo groves, and wetlands across India, Nepal, Bangladesh, Myanmar, and Southeast Asia. It prefers areas near water bodies where prey is abundant.

IUCN Conservation Status

- **Previously Vulnerable:** Each lineage may need separate assessment; some could be Endangered.

Distribution

- **Split Ranges:** Western Ghats (India), Northeast India–N. SE Asia, Peninsular Malaysia, Indonesia/Philippines.

Unique Characteristics

- World's Longest Venomous Snake (~4–5 m): Primarily eats other snakes.
- **Nest-Builders:** Females construct nests and guard eggs—rare among snakes.

Other Significance

- **Apex Predator:** Helps regulate snake populations in forest habitats.
- **Cultural Reverence:** Featured in myths/ folklore across Asia.

Challenges/Threats

- Deforestation in Western Ghats, NE India reduces habitat.
- Human-snake conflict; fear-based killings.
- Split species need targeted conservation, refined antivenom research.

3.7 Barkudia Limbless Skink (Barkudia melanosticta)

Why in News

- **Rediscovered (2023):** Seen again after 100+ years in Andhra Pradesh's Kambalakonda WLS; previously known from a single specimen (1917) near Chilika Lake (Odisha).

About this Species

- **What It Is:** The Barkudia limbless skink refers to two rare, limbless lizard species endemic to India: the Madras Spotted Skink (Barkudia insularis) and the Visakhapatnam Limbless Skink (Barkudia melanosticta). Both species are known for their elongated, snake-like bodies and fossorial (burrowing) lifestyles.
- **Appearance:** These skinks have elongated, cylindrical bodies with smooth, shiny scales and lack external limbs, resembling earthworms or small snakes. Their coloration ranges from light brown to muddy brown, providing camouflage in their subterranean habitats.
- **Behavior:** Being fossorial, Barkudia skinks spend most of their lives underground, burrowing in loose soil near tree roots or within mangrove forests. They are elusive and rarely observed, making their behavior and ecology poorly understood.
- **Diet:** While specific dietary habits are not well-documented, it is believed that these skinks feed on small invertebrates such as insects and other arthropods found within the soil.
- **Habitat:** Barkudia insularis was initially discovered on Barkuda Island in Chilika Lake, Odisha, inhabiting mangrove ecosystems. Barkudia melanosticta is known from the Visakhapatnam region in Andhra Pradesh. Both species prefer loose, moist soils that facilitate burrowing.

IUCN Status

- **Data Deficient/Not Evaluated:** Extremely rare, poorly studied; possibly highly endangered.

Distribution

- **Coastal Scrub & Grassland:** Eastern India (Odisha, now AP). Fossorial lifestyle underground.

Unique Characteristics

- **Legless Lizard:** ~15 cm, smooth scales, snake-like body but a skink lineage.
- **Secretive & Fossorial:** Likely feeds on termites/insects underground.

Ecological Significance

- **Pest Control:** Consumes soil-dwelling insects, shaping microhabitats.

Challenges/Threats

- Coastal development, agriculture, plantations degrade habitat.
- Fossorial nature means populations can vanish from smallscale land changes.

4. Amphibians

4.1 Kottigehar Dancing Frog (Micrixalus kottigeharensis)

Why in News

- **Threatened Western Ghats Species:** 2023 studies highlight growing climate-change risks and invasive fish issues.
- **April 2023:** Researchers reported instances of physical deformities in the Kottigehar Dancing Frog, including missing eyes and malformed limbs. These abnormalities are believed to result from anthropogenic stressors such as habitat degradation, pollution, and climate change. The species, known for its unique foot-flagging behavior during mating rituals, is already threatened by habitat loss and environmental changes. These findings underscore the urgent need for conservation efforts to address the environmental factors contributing to these malformations.
- **Unique "Foot-Flagging":** Noted for distinctive leg-waving mating displays in swift hill streams.

About this Species

- **What It Is:** The Kottigehar Dancing Frog (Micrixalus kottigeharensis) is a small amphibian endemic to the Western Ghats of Karnataka, India. It is renowned for its unique "dancing" behavior, which involves foot movements used in communication.
- **Appearance:** This frog is diminutive, with males measuring approximately 22 mm and females up to 28 mm in snout-vent length. It exhibits a slender body with long limbs and possesses large adhesive discs on its fingers and toes, adaptations that aid in gripping wet surfaces around streams.
- **Behavior:** The species is famous for its "foot-flagging" behavior, where males extend and wave their hind legs to communicate, especially during the breeding season. This display serves both to attract females and to ward off rival males. The behavior is particularly useful in the noisy environment of rushing streams, where vocal calls might be drowned out.
- **Diet:** While specific dietary studies are limited, it is believed that the Kottigehar Dancing Frog feeds on small invertebrates found in its stream habitat, such as insects and other arthropods.
- **Habitat:** This species inhabits fast-flowing streams within primary and secondary forests of the Western Ghats. It is adapted to life in these aquatic environments, utilizing its physical adaptations to navigate and thrive in such settings.

IUCN Status

- **Critically Endangered:** Endemic to small patches in Karnataka's Western Ghats.

Distribution

- **Narrow Range:** Stream habitats near Kottigehara and adjacent hills.

Unique Characteristics

- **"Dancing" Courtship:** Males wave hind legs to attract mates over noisy streams.
- **Small, Camouflaged:** Breeds during monsoon, lays eggs under rocks.

Other Significance

- **EDGE Amphibian:** Symbolizes Western Ghats amphibian endemism.

Challenges/Threats

- Climate change altering rainfall patterns, stream flow.

- Habitat disturbance, invasive fish predation on eggs/tadpoles.
- Extremely localized; any local habitat damage is critical.

4.2 Patkai Mountain Frog (Gracixalus patkaiensis)

Why in News

- **May 2023:** Researchers from the Wildlife Institute of India, in collaboration with international partners, identified a new species named the Patkai Green Tree Frog (Gracixalus patkaiensis). This small, translucent green frog, measuring approximately 2.3 to 2.6 centimeters, was discovered in the evergreen forests of the Namdapha Tiger Reserve, specifically in areas dense with cane, bamboo, and ferns. Notably, its call resembles that of an insect, making it a unique addition to the region's biodiversity. The species was named after the Patkai hills, reflecting its native habitat.
- **New Species (2024):** Found in Namdapha–Kamlang region (Arunachal Pradesh), named after Patkai hills, underlining Eastern Himalaya biodiversity.

About this Species

- **What It Is:** The Patkai Green Tree Frog (Gracixalus patkaiensis) is a small, newly discovered tree frog species native to the evergreen forests of Arunachal Pradesh, India. It is the first species of the genus Gracixalus identified in India.
- **Appearance:** Measuring approximately 23 to 26 millimeters in length, this frog exhibits a green dorsum with irregular brown spots, a dark streak along its back, and white markings on its sides. It has a slender physique with a relatively long head.
- **Behavior:** The Patkai Green Tree Frog is known for its insect-like mating call, which can easily be mistaken for that of a cricket. This unique call plays a crucial role in its breeding activities during the monsoon season.
- **Diet:** While specific dietary habits have not been extensively documented, it is likely that this frog feeds on small insects and other invertebrates found in its forest habitat.
- **Habitat:** This species inhabits the thick understory of evergreen forests within the Namdapha Tiger Reserve in Arunachal Pradesh. The area is characterized by swampy regions abundant with cane, bamboo, rattan palms, ferns, and wild ginger.

IUCN Status

- **Not Evaluated:** Likely Vulnerable due to narrow distribution.

Distribution

- **Subtropical Forests:** Patkai hills near Namdapha NP, possibly extending into Myanmar.

Unique Characteristics

- **Tiny (~2.2 cm), Green Tree Frog:** Translucent skin, insect-like call.
- **Arboreal & Nocturnal:** Possibly lays eggs on foliage.

Other Significance

- **New Amphibian Discoveries:** NE India remains a global hotspot for frog research.

Challenges/Threats

- Forest clearance, jhum cultivation, roads degrade habitats.
- Climate shifts and fungal pathogens could imperil populations.

5. Fishes

5.1 Ghol Fish (Black-spotted Croaker) (Protonibea diacanthus)

Why in News

- **State Fish of Gujarat (2023):** Declared at the Global Fisheries Conference to underscore ecological and economic importance.
- **Valuable Swim Bladder: "Fish maw"** fetches high prices globally, attracting sensational catches.

About this Species

- **What It Is:** The Ghol fish, scientifically known as the blackspotted croaker (Protonibea diacanthus), is a marine species found in the Indo-Pacific region. It is highly valued for its meat and medicinal properties, leading to its nickname "Sea Gold."
- **Appearance:** The Ghol fish can grow up to 1.8 meters in length. It has a distinctive appearance with black spots on its body, which become less prominent as the fish matures.
- **Behavior:** Typically inhabiting coastal waters up to 60 meters deep, the Ghol fish prefers muddy substrates and occasionally ventures into estuaries and tidal river areas.
- **Diet:** As a carnivorous species, the Ghol fish primarily feeds on smaller fish and various invertebrates found in its habitat.
- **Habitat:** Its distribution spans from the Persian Gulf to the Pacific Ocean, including the coastal regions of India, particularly in Gujarat and Maharashtra.

IUCN Status

- **Near Threatened:** Overfishing accelerating its decline.

Distribution

- **Indo-Pacific:** Persian Gulf to Indonesia; in India, mainly west coast (Gujarat, Maharashtra).

Unique Characteristics

- **Large Croaker:** Also called **"Sea Gold"**; can exceed 1 m in length.
- **Swim Bladder Trade:** High collagen content used in medicine/cosmetics.

Other Significance

- **Mid-Level Predator:** Important for local fisheries; significant export potential.

Challenges/Threats

- Overfishing, juvenile catch before reproduction.
- Habitat degradation (mangrove loss, pollution in nurseries).
- Need for transboundary stock management.

5.2 Whale Shark (Rhincodon typus)

Why in News

- **March 2024:** In a remarkable series of events, fishermen in Kerala's Thiruvananthapuram district rescued and released five whale sharks that had become entangled in fishing nets over a four-day period. These rescues highlight the growing awareness and proactive efforts of local communities in protecting this endangered species.
- **August 2024:** The ICAR-Central Marine Fisheries Research Institute (ICAR-CMFRI) celebrated International Whale Shark Day on August 30th by organizing awareness programs across various maritime states. These initiatives aimed to educate the public, especially students and fishermen, about the importance of conserving whale sharks and the threats they face, such as accidental entanglement and marine pollution.
- **New Compensation Schemes:** Tamil Nadu (2023) followed Gujarat's model, paying fishers who release entangled whale sharks.
- **Strandings & Tagging:** Ongoing incidents highlight threats; tagging in Gujarat tracks migrations.

About this Species

- **What It Is:** The Whale Shark (Rhincodon typus) is the largest fish in the world, reaching lengths of up to 18 meters. Despite its size, it is a gentle giant and poses no threat to humans.
- **Appearance:** It has a massive, streamlined body with a broad, flat head and a wide mouth. Its skin is grayish-blue with distinctive white spots and stripes, which are unique to each individual.
- **Behavior:** Whale sharks are slow-moving and peaceful, often seen swimming near the surface. They are filter feeders, swimming with their mouths open to collect plankton, small fish, and other microscopic organisms.
- **Diet:** They primarily feed on plankton, krill, small fish, and squid. Unlike other sharks, they do not use their teeth to bite but instead filter food from the water.
- **Habitat:** They are found in warm tropical oceans worldwide, often near coastal areas, coral reefs, and upwelling zones rich in plankton. In India, they are commonly sighted along the Gujarat and Karnataka coasts.

IUCN Status

- **Endangered:** Largest fish globally, threatened by fishing/boat strikes.
- **Schedule I (WPA) Since 2001:** CITES Appendix II.

Distribution

- **Tropical Oceans:** Common off Gujarat, Lakshadweep, Andaman seas; migratory, following plankton blooms.

Unique Characteristics

- **Gentle Filter-Feeder (~18–20 m):** Spots/stripes for camouflage.
- **Late-Maturing:** Low reproductive rate; threatened by unregulated fishing.

Other Significance

- **Community Conservation Model:** Gujarat's fisher compensation scheme turned hunters into protectors.

Challenges/Threats

- Bycatch mortality, illegal fin/meat trade.
- Ship strikes, climate shifts affecting plankton distribution.

5.3 Sawfishes (Family Pristidae)

Examples

- Large-tooth Sawfish (*Pristis pristis*)
- Narrow-tooth Sawfish (*Anoxypristis cuspidata*)

Why in News

- **October 2024:** On October 17, 2024, the ICAR-Central Marine Fisheries Research Institute (CMFRI) in Kochi organized a Student-Scientist Interface to commemorate International Sawfish Day. The event emphasized the critical endangerment of sawfishes, highlighting threats such as habitat loss, plastic pollution, climate change, and entanglement in fishing gear.
- **WPA Schedule I (2022 Amendment):** All sawfish species receive highest protection in India.
- **Rare Landings & Seizures:** Occasional releases reported off Gujarat & Andhra; a 2023 rostrum seizure indicates illegal trade persists.

About this Species

- **What It Is:** Sawfishes are a group of large, ray-like fish belonging to the family Pristidae. They are named for their long, flattened snouts lined with sharp teeth, resembling a saw. These unique fish are found in both freshwater and marine environments.
- **Appearance:** They have a flattened body with a long, saw-like snout called a rostrum, which they use to detect and capture prey. Their bodies resemble sharks, but they are more closely related to rays.
- **Behavior:** Sawfishes use their rostrum to slash through schools of fish, stunning or injuring them before eating. They are generally slow-moving and spend much of their time near the seabed.
- **Diet:** They are carnivores, feeding on fish, crustaceans, and small marine animals. Their electro-sensitive rostrum helps them detect prey hidden in the sand.
- **Habitat:** They live in shallow coastal waters, estuaries, and even freshwater rivers. In India, they have been recorded in the Ganges, Godavari, and Mahanadi river systems, as well as along the coasts.

IUCN Status

- **Critically Endangered:** All five global sawfish species face imminent risk.

Distribution

- **Tropical/Subtropical Coasts & Estuaries:** Formerly common in India's Gulf of Kutch, Odisha, Sundarbans; now extremely rare.

Unique Characteristics

- **"Saw" Rostrum:** Modified snout with tooth-like denticles, used to stun fish.
- **Large Rays:** Can reach 5–6 m, viviparous. Morphologically shark-like.

Other Significance

- **Cultural Artifacts:** Rostra used as ceremonial weapons or charms historically.

Challenges/Threats

- Easily entangled in nets; rostrum gets snagged.
- Mangrove loss (nurseries) and heavy

overfishing.

- Banned under CITES Appendix I; fisher awareness campaigns encourage live release.

5.4 Great Seahorse (Hippocampus kelloggi)

Why in News

- **Northward Shift (2023):** Overfishing off Tamil Nadu drove Great Seahorse ~1,300 km north to Odisha, raising concerns about habitat suitability.
- **March 2023:** A study suggested that intensive fishing along the Coromandel coast, spanning Tamil Nadu and Andhra Pradesh, has likely forced the great seahorse to shift its habitat northward toward the Odisha coast. This migration spans roughly 1,300 kilometers from its traditional range in the Palk Bay and Gulf of Mannar. The primary factors driving this movement are habitat degradation and rising fishing pressures in its native waters. However, the Odisha coast poses challenges for the species due to its shallow waters and the absence of essential habitats like coral reefs and seagrass meadows, which are crucial for the seahorses' survival.
- **Habitat Depletion:** Trawling and seagrass loss spurred unusual "rafting" relocations.

About this Species

- **What It Is:** The Great Seahorse (Hippocampus kelloggi) is a large species of seahorse found in coastal waters of the Indo-Pacific region, including India. It is known for its unique upright swimming posture and its ability to camouflage within seagrass and coral reefs.
- **Appearance:** It has an elongated body with a bony, armor-like structure instead of scales. Its head resembles that of a horse, and it has a curled prehensile tail that helps it anchor to seagrass, corals, or floating debris.
- **Behavior:** Great Seahorses are slow swimmers, relying on their dorsal fin for movement. They are monogamous and form strong pair bonds, performing daily courtship dances.
- **Diet:** They are carnivorous, feeding on tiny crustaceans, plankton, and small fish. They use their tubular snout to suck in prey with a quick snap.
- **Habitat:** They are found in shallow coastal waters, coral reefs, seagrass beds, and mangrove areas. In India, they are commonly seen along the east and west coasts, including the Gulf of Mannar and Palk Bay.

IUCN Status

- **Vulnerable:** All seahorses in CITES Appendix II; illegal to capture in India (Schedule I).

Distribution

- **Indo-Pacific Coasts:** Historically abundant in Gulf of Mannar/Palk Bay. Nine seahorse species in Indian waters.

Unique Characteristics

- **Male Pregnancy:** Females deposit eggs into the male's brood pouch.
- **Poor Swimmers:** Upright posture, use prehensile tail to cling to seagrass/coral.

Ecological Significance

- **Indicator of Healthy Seagrass/Coral:**

Ambush predator of small crustaceans.

Challenges/Threats

- Bycatch in trawl nets; illegal harvest for traditional medicine.
- Seagrass/coral reef destruction from coastal development, pollution.
- Climate change forcing range shifts.

5.5 Indian Spurdog Shark (Squalus hima)

Why in News

- **New Deep-Sea Shark (2024):** Discovered off Kerala's coast by ZSI, revealing rich Indian Ocean biodiversity.

About this Species

- **What It Is:** The Indian Spurdog (Squalus hima) is a recently identified species of dogfish shark discovered off the southwest coast of India in the Arabian Sea. Named after the lead researcher's daughter, Hima, this species adds to the rich marine biodiversity of the region.
- **Appearance:** The Indian Spurdog is a small shark, reaching lengths of up to 50 centimeters. It has a slender body, a short and pointed snout, and bright turquoise eyes. Its teeth are arranged in approximately 24 rows in both the upper and lower jaws.
- **Behavior:** As a deep-sea species, the Indian Spurdog inhabits depths between 300 to 600 meters along the upper continental slope. Specific behavioral patterns are not well-documented due to its recent discovery.
- **Diet:** While detailed dietary studies are lacking, it is likely that the Indian Spurdog preys on small fish and invertebrates found in its deep-sea habitat, similar to other spurdog species.
- **Habitat:** This species was discovered off the southwest coast of India, particularly along the upper continental slope off Kerala. It resides in deep-sea environments at depths ranging from 300 to 600 meters.

IUCN Status

- **Not Evaluated:** Many spurdogs are Near Threatened or Vulnerable.

Distribution

- **Deep Continental Shelf/Slope (~200–600 m):** Arabian Sea off Kerala; exact range unknown.

Unique Characteristics

- **Dorsal Fin Spines:** Typical of dogfish sharks (*Squalus*), pointed snout.
- **"Hima" (Snow) Reference:** Possibly for its pale-gray coloration.

Other Significance

- **Valued for Liver Oil: "Squalene"** used in pharmaceuticals/cosmetics.

Challenges/Threats

- Bycatch in bottom trawls, slow reproduction rate.
- Little population data; habitat damage from deep-sea fishing/mining.

5.6 Horaglanis populi (New Subterranean Catfish)

Why in News

- **Discovered in Kerala (2023):** Found in aquifers/wells after a 6 year search, **"populi"** honoring local community assistance.

About this Species

- **What It Is:** Horaglanis populi is a newly discovered species of air-breathing catfish endemic to the lateritic aquifer systems of Kerala, India. This subterranean fish is adapted to life in complete darkness.
- **Appearance:** Measuring less than 3.2 cm in length, Horaglanis populi has a blood-red, elongated body lacking pigmentation and eyes. It possesses four pairs of well-developed barbels around its mouth, aiding in navigation and foraging in its dark habitat.
- **Behavior:** As a troglobitic (cave-dwelling) species, this catfish spends its entire life in underground water channels and aquifers. It is rarely seen, typically surfacing only during the digging or cleaning of wells. Its adaptations to darkness include blindness and lack of pigmentation.
- **Habitat:** Horaglanis populi inhabits the lateritic aquifers in the Alappuzha and Pathanamthitta districts of Kerala, southern India. It has been collected from dug-out wells in towns such as Malapally, Edanadu, and Chengannur, as well as the nearby village of Thiruvanvandoor.

IUCN Status

- **Not Evaluated:** Extremely localized in groundwater systems.

Distribution

- **Wells & Aquifers:** Pathanamthitta and Alappuzha (Kerala).

Unique Characteristics

- **Blind, Pigment-Less Catfish (~3–4 cm):** Blood-red due to visible vessels.
- **Troglobitic Adaptation:** Entirely subterranean, feeding presumably on small invertebrates.

Significance

- **Groundwater Biodiversity:** Indicates unique subterranean ecosystems in Western Ghats.
- **Citizen Science Success:** Local residents played key role in discovery.

Challenges/Threats

- Groundwater depletion, contamination, infrastructural changes.
- Highly localized; cannot disperse if aquifers degrade.

6. Insects & Pollinators

6.1 Neptis philyra (Striped Sailer Butterfly)

Why in News

- **First Indian Record (2023):** Spotted in Tale Valley WLS, Arunachal Pradesh, extending

its known East Asian range.

- **June 2023:** A team of butterfly enthusiasts documented the presence of Neptis philyra, commonly known as the long-streak sailor, in Tale Valley Wildlife Sanctuary, Arunachal Pradesh. This marked the first-ever recorded sighting of the species in India, as it was previously known only from East Asia, including eastern Siberia, Korea, Japan, and parts of China.
  - » The butterfly is distinguished by its serrated wings, brownish-black coloration on the upper side, yellow-brown underside, and a unique white cell streak on the forewing, forming a "hockey stick" pattern. This discovery adds to the rich butterfly diversity of Northeast India.
- **April 2024:** The discovery of Neptis philyra in India was formally published in the scientific journal Tropical Lepidoptera Research on April 5, 2024. The study highlighted the significance of community-driven biodiversity documentation efforts and the role of citizen science in expanding knowledge about India's butterfly fauna.
- **Northeast Richness:** Highlights underexplored insect diversity in NE India.

About this Species

- **What It Is:** Neptis philyra, commonly known as the long-streak sailor, is a rare butterfly species belonging to the Nymphalidae family. It was recently discovered for the first time in India, specifically in the Tale Valley Wildlife Sanctuary in Arunachal Pradesh.
- **Appearance:** This butterfly features serrated wings with a rich brownish-black coloration on the upper side and yellow-brown on the underside. A distinctive white cell streak on the forewing forms a "hockey stick" pattern, aiding in its identification.
- **Behavior:** Neptis philyra is known to inhabit evergreen forests, riverine vegetation, and areas near rocky streams. It often perches on the ground with its wings open and exhibits gliding flight patterns.
- **Habitat:** Prior to its discovery in India, this species was known to inhabit regions of East Asia, including eastern Siberia, Korea, Japan, and parts of China. Its presence in the Tale Valley Wildlife Sanctuary highlights the rich biodiversity of Arunachal Pradesh.

Taxonomy

- Family: Nymphalidae (Brush-footed butterflies).
- Also Called: **"Long-banded Silverline"** / **"Philyra Sailer."**

IUCN Status

- **Not Evaluated:** Possibly Least Concern globally, local status uncertain.

Distribution

- **East/Southeast Asia:** China, Korea, Japan, Myanmar; new in NE India.
- **Subtropical Forest Edges:** Prefers semi-open habitats.

Unique Characteristics

- **White Streaks on Black Wings:** One forewing streak shaped like a hockey stick.
- **Sailing Flight:** Glides between wingbeats.

Challenges/Threats

- Local deforestation, pesticides, climate change altering habitats.

6.2 Indian Black Honeybee (Apis karinjodian)

Why in News

- **New Honeybee Species (2022):** First Indian Apis identified in ~200 years, discovered in Western Ghats.
- **May 2024:** On World Bee Day, May 20, 2024, efforts were highlighted in Goa to encourage beekeeping due to a declining bee population. Local individuals and the state government have been promoting awareness about the importance of bees, including species like the Indian black honeybee, in the ecosystem.
- **November 2022:** A new species of honeybee, named Apis karinjodian and commonly referred to as the Indian black honeybee, was discovered in the Western Ghats after more than two centuries since the last honeybee species description in India.
- **Apiculture Potential:** Could impact pollination and forest ecology; a major find for beekeepers.

About this Species

- **What It Is:** The Indian Black Honeybee (Apis karinjodian) is a recently identified species of honeybee endemic to the Western Ghats of India. Discovered in 2022, it is the first new honeybee species described from India in over two centuries.
- **Appearance:** This species is characterized by its visibly darker coloration, which distinguishes it from other honeybee species in the region.
- **Behavior:** Apis karinjodian is known for producing honey with a thicker consistency compared to other species. This trait is beneficial for beekeepers, as it allows for increased honey production without the need for processing to reduce moisture content.
- **Habitat:** The distribution of the Indian Black Honeybee spans the central to southern Western Ghats, covering regions in Kerala, Tamil Nadu, Karnataka, and Goa. It has adapted to the hot and humid environment of these areas.

Taxonomy

- **Genus:** Apis (true honeybees).
- **Common Name:** Indian Black Honeybee.

IUCN Status

- **Near Threatened:** As per IUCN criteria.

Distribution

- **Western Ghats (Nilgiris, parts of Karnataka, Kerala):** Cavitynesting in tree hollows/rocks.

Unique Characteristics

- **Darker Morphology:** Differs from Apis cerana; verified by DNA barcoding.
- **Multi-Comb Builder:** Possibly well-adapted to humid montane forests.

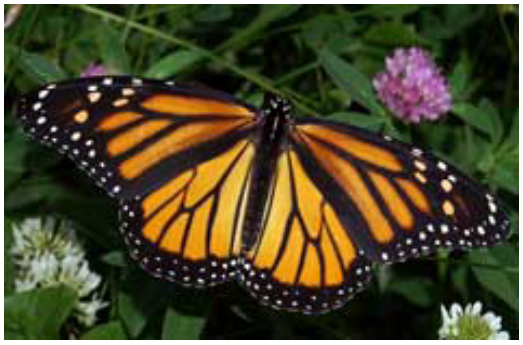
Other Significance

- **Crucial Pollinator:** Potential for disease-resistant apiculture strains.

Challenges/Threats

- Western Ghats deforestation, pesticides, competition with introduced bees.
- Climate change altering flowering/ foraging cycles.

6.3 Monarch Butterfly (Danaus plexippus)



Why in News

- **January 2025:** In January 2025, surveys revealed a dramatic decline in the western U.S. monarch population, with only 9,119 individuals recorded—a 96% decrease from the previous year and approaching the lowest numbers observed in three decades.
- **Listed as Endangered (2022):** IUCN recognized severe migratory population declines in North America.
- **Flagship Pollinator:** Sparked global calls for habitat restoration along migration routes.

About this Species

- **What It Is:** The Monarch Butterfly (Danaus plexippus) is one of the most well-known and recognizable butterflies in the world. It is famous for its long-distance migration and striking orange-and-black coloration.
- **Appearance:** It has bright orange wings with black veins and white spots along the edges. The vibrant colors serve as a warning to predators that it is toxic due to the milkweed plants it feeds on as a caterpillar.
- **Behavior:** Monarchs are strong fliers and are best known for their incredible migration, where they travel thousands of kilometers between North America and Mexico. They use the sun's position and Earth's magnetic field for navigation.
- **Diet:** As caterpillars, they feed exclusively on milkweed plants, which make them poisonous to predators. As adults, they sip nectar from various flowers, playing an important role in pollination.
- **Habitat:** Monarchs are found across North and Central America, but some populations are also found in South America, Australia, and parts of Asia. They prefer open fields, meadows, and gardens with flowering plants.

IUCN Conservation Status

- **Endangered (Migratory NA Population):** Not legally protected in many countries, but multiple NGO efforts exist.

Geographical Distribution

- **Native to North America:** Breeds in USA/Canada, overwinters in Mexico/California. Non-migratory groups in S. America, Australia, Pacific.

Unique Characteristics

- **Multi-Generational Migration (~4,000 km):** The **"super generation"** can live 8 months.
- **Milkweed Diet:** Caterpillars feed on toxic milkweed, making them distasteful to predators.

Other Significance

- **Iconic Insect Conservation Symbol:** Cultural importance in Mexico's Day of the Dead traditions.

Challenges/Threats

- Habitat destruction (milkweed eradication), pesticide use, deforestation in overwintering sites.
- Extreme weather events from climate change kill colonies.

6.4 Bicolour Butterfly Cicada (Becquartina bicolor)

Why in News

- **Newly Described (2024):** Found in Meghalaya's Balpakram NP during acoustic surveys; dubbed "butterfly cicada" for its bright, wing-like coloration.
- **March 2024:** Researchers described a new cicada species, Becquartina bicolor, commonly known as the bicolor butterfly cicada, from Meghalaya's South Garo Hills and Ri Bhoi districts. This marks the first record of the genus Becquartina in India. The species is notable for its vibrant wings, which have earned it the nickname "butterfly cicada." The specific name "bicolor" reflects its two distinct color forms. The discovery was published in the journal Zootaxa.

About this Species

- **What It Is:** The Bicolor Butterfly Cicada (Becquartina bicolor) is a newly discovered cicada species found in Meghalaya, India. It is the first record of the Becquartina genus in the country.
- **Appearance:** This cicada is notable for its colorful wings, which have earned it the nickname "butterfly cicada." The species name "bicolor" reflects its two distinct color forms.
- **Behavior:** Active from April to June, the Bicolor Butterfly Cicada exhibits varying calling patterns depending on its location. In the Garo Hills, males call rigorously in the morning and evening, while in Ri-Bhoi, calls are heard during daylight hours.
- **Habitat:** This species prefers thick forests and native vegetation. It has been found in the Balpakram National Park of South Garo Hills District and the Nongkhrah community forest in Ri-Bhoi district of Meghalaya.

IUCN Status

- Not Evaluated: Likely rare and endemic.

Distribution

- **Meghalaya (South Garo Hills):** Possibly patchy in other dense forest canopies.

Unique Characteristics

- **Vivid "Butterfly" Wings:** Striking colors; loud cicada **"song"** for mating calls.
- **Discovered via Acoustics:** Identified when a bat attacked it mid-call.

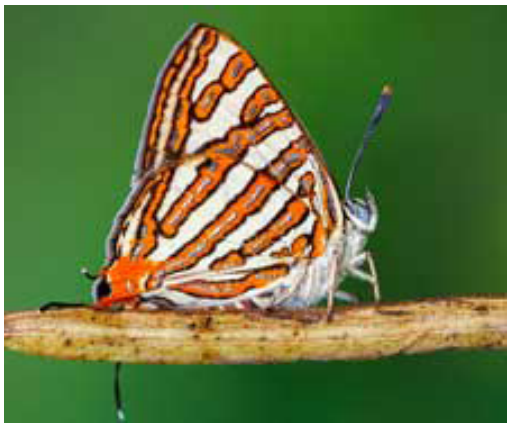
Other Significance

- **Forest Canopy Indicator:** Cicadas are vital for nutrient cycling after mass emergences.

Challenges/Threats

- Forest fragmentation from logging, shifting agriculture.
- Climate uncertainty impacting emergence cycles.

6.5 Cloud Forest Silverline Butterfly (Cigaritis meghamalaiensis)



Why in News

- **New Butterfly (2023–24):** Described from Meghamalai hills (Tamil Nadu), first Western Ghats butterfly discovery in 33 years.
- **January 2024:** Researchers from the NGO Vanam, based in Theni, Tamil Nadu, announced the discovery of a new butterfly species named Cigaritis meghamalaiensis, commonly known as the Cloud Forest Silverline. This significant find marks the first discovery of a new butterfly species in the Western Ghats in 33 years. The species was identified in the Meghamalai hills within the Srivilliputhur Megamalai Tiger Reserve. The name "Meghamalaiensis" is derived from the region's name, Meghamalai, which translates to "cloud mountain," reflecting the butterfly's montane habitat. The discovery has been documented in the peer-reviewed journal Entomon.

About this Species

- **What It Is:** The Cloud Forest Silverline (Cigaritis meghamalaiensis) is a newly discovered butterfly species belonging to the Lycaenidae family. It was identified in the Meghamalai hills within the Periyar landscape of the southern Western Ghats in India. This discovery marks the first new butterfly species found in the Western Ghats in 33 years.
- **Appearance:** This butterfly exhibits a metallic copper coloration with distinctive silver lines on its wings. Males display extensive blue markings on the dorsal side of their wings, adding to their striking appearance.
- **Behavior:** The Cloud Forest Silverline is typically found in high-elevation montane habitats, particularly in sub-tropical evergreen 'sholas' or cloud forests. Its behavior and life cycle are still under study, but like other silverline butterflies, it is expected to have specific host plant associations and exhibit territorial behavior.
- **Habitat:** This species is endemic to the Meghamalai hills in Tamil Nadu and the nearby Periyar Tiger Reserve in Kerala, both part of the southern Western Ghats. It thrives in montane cloud forests, which are characterized by high humidity and dense vegetation.

IUCN Status

- **Not Evaluated:** Likely rare and endemic to high-elevation Western Ghats.

Distribution

- **Meghamalai WLS & Periyar region:** Above ~1200 m in sholagrassland mosaics.

Unique Characteristics

- **Lycaenid "Silverline":** Silvery streaks on underside, possible ant–larva mutualism.
- **Cloud Forest Specialist:** Narrow habitat preference.

Other Significance

- **Shola-Grassland Emblem:** Raises awareness of threatened high-altitude habitats.

Challenges/Threats

- **Habitat specificity:** plantations (tea, cardamom) replace native grassland.
- Climate change altering mist patterns; butterfly ranges shift uphill.

7. Plants

7.1 Dicliptera polymorpha (New Fire-Resilient Plant)

Why in News

- **Discovered (2023–24):** On lateritic plateaus near Talegaon (N. Western Ghats, Maharashtra), showing vigorous post-fire flowering.
- **November 2024:** Researchers from the Agharkar Research Institute (ARI) in Pune announced the discovery of a new plant species named Dicliptera polymorpha in the Northern Western Ghats of India. This species is notable for its fire-resilient nature and unique dual-blooming pattern. Typically, it flowers post-monsoon; however, grassland fires, often set by locals, trigger a second, vigorous burst of flowering. This adaptation allows the plant to thrive in fire-prone grassland ecosystems. Additionally, Dicliptera polymorpha exhibits a spicate inflorescence structure, a feature rare among Indian species but found in some African relatives. The discovery underscores the rich biodiversity of the Western Ghats and highlights the importance of conservation efforts in these unique habitats.
- **Redefining "Wastelands":** Demonstrates specialized flora adapted to seasonal fires on open lateritic grasslands.

About this Species

- **What It Is:** Dicliptera polymorpha is a newly discovered plant species in the genus Dicliptera, identified in the northern Western Ghats of India. The species name "polymorpha" reflects its diverse morphological traits.
- **Appearance:** This species is taxonomically unique among Indian Dicliptera species due to its spicate inflorescence structure, where the inflorescence units (cymules) develop into spike-like formations. Its closest relatives with similar structures are found in Africa.
- **Behavior:** Dicliptera polymorpha exhibits a dual-blooming pattern, flowering twice a year. The first phase occurs post-monsoon, from early November to March or April. The second, more vigorous flowering is triggered by grassland fires in May and June, during which the plant produces dwarf flowering shoots from its woody rootstocks.
- **Habitat:** This species thrives on slopes in open grasslands of the northern Western Ghats, an area exposed to extreme climatic conditions such as summer droughts and frequent human-induced fires. Despite these harsh conditions, Dicliptera polymorpha has adapted to survive and bloom twice a year.

IUCN Status

- **Not Evaluated:** Likely narrow endemic with small population.

Distribution

- **Lateritic Hill Slopes (800–1000 m):** Pune district, subject to frequent dry-season fires.

Unique Characteristics

- **Pyrophytic Herb:** Resprouts post-fire, blooming a second time.
- **Dual Flowering Phases:** Post-monsoon and immediately postfire.

Ecological Significance

- **Fire-Climax Species:** Demonstrates that controlled fires maintain certain endemic grassland plants.

Challenges/Threats

- Afforestation with non-natives or development can destroy fireadapted habitats.
- Local endemism means high extinction risk if plateau habitat is lost.

7.2 Neelakurinji (Strobilanthes kunthiana)

Why in News

- **New IUCN Listing (Aug 2024):** Marked as Vulnerable due to large-scale Western Ghats habitat loss.
- **12-Year Bloom Cycle:** 2018 mass bloom attracted global attention; sporadic 2022–24 flowering suggests ecological stress.

About this Species

- **What It Is:** The Neelakurinji (Strobilanthes kunthiana) is a rare flowering plant famous for its spectacular mass blooming once every 12 years. It is native to the shola forests of the Western Ghats in India, especially in Kerala and Tamil Nadu.
- **Appearance:** It is a bushy shrub that grows up to 30–60 cm in high-altitude grasslands. When it blooms, it covers entire hillsides with vibrant bluish-purple flowers, giving the Nilgiri Hills (meaning "Blue Mountains") their name.
- **Behavior:** Neelakurinji follows a unique gregarious flowering cycle, meaning all plants in a region bloom simultaneously once in 12 years, after which they die, leaving behind seeds for the next cycle.
- **Habitat:** It grows in montane grasslands (shola grasslands) at altitudes between 1,300 and 2,400 meters, mainly in the Western Ghats, including Munnar, Kodaikanal, and the Nilgiri Hills.

IUCN Conservation Status

- **Vulnerable (VU):** ~30% habitat/ population decline in a 12-year span.

Distribution

- **Endemic to Southern Western Ghats:** Nilgiris, Anamalai, Palani, Eravikulam NP.

Unique Characteristics

- **Gregarious 12-Year Flowering:** Entire hillsides turn blue, then plants die post-seeding.
- **Inspires Name "Nilgiri" (Blue Mountains):** Iconic phenomenon attracting tourists.

Other Significance

- **Tribal Time-Keeping:** The Paliyan community historically used Kurinji blooms to mark years.

Challenges/Threats

- Montane grasslands labeled **"wastelands,"** converted to plantations or tourism infrastructure.
- Invasive species, over-tourism hamper regeneration; climate shifts alter bloom cycles.

7.3 Crepidium assamicum (Assam Orchid)

Why in News

- **New Orchid Species (Oct 2024):** Discovered by local botanists in Dibru-Saikhowa NP, Assam, growing in open riverine grasslands.

About this Species

- **What It Is:** Crepidium assamicum is a newly discovered orchid species belonging to the genus Crepidium. It was recently identified in Assam's Dibru Saikhowa National Park by Dr. Jintu Sarma and Khyanjeet Gogoi, known as the "Orchid Man of Assam.
- **Appearance:** This orchid is characterized by its large flower cover and blooms from July to August. The flowers have minimal or no fragrance.
- **Habitat:** Crepidium assamicum thrives in open grasslands near riverbanks within Dibru Saikhowa National Park. It prefers open areas over dense forests.

IUCN Status

- **Provisionally Near Threatened.**

Distribution

- **Dibru-Saikhowa National Park (Assam):** Floodplain grasslands near the Dibru River.

Unique Characteristics

- **Terrestrial Orchid:** Prefers full sun in riverine grasslands, a rarity among typically shade-loving orchids.
- **Mid-Monsoon Bloom (July–Aug):** Larger pinkish flowers than usual for Crepidium.

Other Significance

- **Boost to NE India's Orchid Diversity (~850 species):** Highlights conservation value of non-forested wetland habitats.

Challenges/Threats

- Floodplain dynamics (shifting channels), grazing, and invasive species may threaten small populations.
- Potential for ex-situ cultivation to safeguard this rare orchid.