

Current Affairs search results for tag: Environment

1. India Unveils World's First Comprehensive Fauna Checklist (July 2, 2024)

India becomes the first country to prepare a comprehensive checklist of its entire fauna, covering 104,561 species.

An Overview of the News

- Launched by Union Minister Bhupender Yadav on the 109th Foundation Day of the Zoological Survey of India (ZSI) in Kolkata.

Government's Commitment to Biodiversity

- PM's Vision for Nature: PM Modi's vision emphasized through programs like 'Ek Ped Maa Ke Naam' and Mission LIFE, promoting sustainable consumption and conservation.
- International Initiatives: The International Big Cat Alliance and the successful relocation of cheetahs to India highlight the government's efforts in biodiversity conservation.

Fauna of India Checklist Portal

- Comprehensive Document: The portal is the first of its kind, including 121 checklists of all known taxa covering 36 phyla. It also includes endemic, threatened, and scheduled species.
- Resource for Stakeholders: An invaluable reference for taxonomists, researchers, academicians, conservation managers, and policymakers.

Animal Taxonomy Summit-2024

- Second Summit by ZSI: The summit focuses on three themes: Taxonomy, Systematics and Evolution; Ecology and Animal Behaviour; and Biodiversity and Conservation.
- Participation and Discussions: 350 delegates from four countries, including the Natural History Museum, London, will participate, with 21 plenary/lead lectures and 142 oral/poster presentations.
- Outcome: Recommendations will be conveyed to the Government of India for biodiversity conservation.

Publications and Initiatives

- New Discoveries: 'Animal Discoveries-2023' and 'Plant Discoveries-2023' featuring new species and records.
- Other Publications: 'Fauna of India-109 barcodes', 'Catalogue of Hoverflies', 'Catalogue of Muscidae', 'Flora of India Series', and the 'Barcode Atlas of Indian Fishes'.
- Celebrating Conservation: 'ROAR - Celebrating 50 years of Project Tiger' book released.
- International Society of Zoology (ISZ): Launched by Jitendra Kumar to enhance global biodiversity understanding and protection.

Collaboration and Cultural Events

- MoUs Signed: ZSI exchanged 10 MoUs with various universities, colleges, and national institutes for better coordination and benefits to the masses.
- Cultural Performance: The event concluded with a cultural performance, attended by officials, scientists, researchers, and vice chancellors from various institutions.

2. India's Largest Leopard Safari Opens at Bannerghatta Biological Park, Bengaluru (June 29, 2024)

India's largest and third leopard safari has been launched at Bannerghatta Biological Park (BBP), located 25 kilometers south of Bengaluru.

An Overview of the News

- The safari, inaugurated recently, currently houses eight leopards with plans to increase the number in the future.
- Spanning 20 hectares, the safari is secured with railway barricades and enclosed with 4.5-meter-tall chain-link mesh and mild steel sheets to ensure the leopards remain within boundaries.

About Bannerghatta Biological Park

- Established in 2004, BBP was carved out of Bannerghatta National Park and is under the administration of the Zoo Authority of Karnataka.
- Encompasses 731.88 hectares, featuring a zoo, butterfly park, and rescue center.
- Focuses on scientific development, conservation, and breeding of endangered species.
- Offers safaris for tigers, lions, bears, and herbivores, alongside facilities for bird, reptile, and mammal enclosures.

List of National Parks in Karnataka:

- Nagarhole National Park
 - Located in Karnataka's Kodagu district.
 - Known for its lush woods, streams, hills, and waterfalls.
 - Home to tigers, Gaur, elephants, Indian leopards, sloth bears, striped hyenas, and deer.
- Bandipur National Park
 - Established in 1974 as a Tiger Reserve.
 - Significant habitat for wild elephants.

- Anshi National Park
 - Created in 1987 from Dandeli Wildlife Sanctuary.
 - Part of Project Tiger since 2007.
 - Located adjacent to Dandeli Wildlife Sanctuary.
- Kudremukh National Park
 - Known for dense forests and scenic waterfalls like Kadambi and Hanumangundi.
 - Diverse fauna includes lion-tailed macaque, tiger, leopard, wild dog, Malabar giant squirrel, common langur, and sloth bear.
- Mudumalai National Park
 - Shares boundaries with Kerala and Tamil Nadu.
 - Noted for its elephant and tiger populations.
- Kabini Wildlife Sanctuary
 - Situated around 245 kilometers from Bangalore.

About Karnataka

- Capital:- **Bengaluru (Executive Branch)**
- Chief minister:- **Siddaramaiah**
- Governor:- **Thawar Chand Gehlot**
- Bird:- **Indian roller**

3. New Plant Species 'Petrocosmea arunachalense' Discovered in Arunachal Pradesh (June 24, 2024)

Researchers from the Arunachal Pradesh Regional Centre (APRC) of the Botanical Survey of India (BSI) have identified a new plant species named 'Petrocosmea arunachalense'.

An Overview of the News

- The species was discovered in the Mandala region of West Kameng district, Arunachal Pradesh.
- 'Petrocosmea arunachalense' is an herbaceous plant belonging to the Gesneriaceae family.
- This find marks only the second known species of the Petrocosmea genus in India.
- The discovery has been documented in the Nordic Journal of Botany.
- The research underscores Arunachal Pradesh's rich biodiversity and emphasizes the importance of conservation efforts.

- Dr. Krishna Chowlu, along with researchers Akshath Shenoy and Ajit Ray from APRC, Itanagar, led the discovery.

About Arunachal Pradesh

- It is a state located in the northeastern region of India. It shares its borders with the countries of Bhutan, China and Myanmar.
- Establishment:- 20 February 1987
- Capital:- Itanagar (Executive Branch)
- Chief Minister:- Pema Khandu
- Official flower:- Rhynchostylis retusa
- Official Animal:- Gayal

4. New Plant Species '**Emblica chakrabartyi**' Found in Kerala Forests (May 25, 2024)

A new plant species, '**Emblica chakrabartyi**,' has been unearthed by a team of scientists in Kerala, specifically from Adichilthotti within the Edamalayar forest range.

An Overview of the News

- This newly discovered species is dedicated to Tapas Chakrabarty, a former scientist at the Botanical Survey of India (BSI), in recognition of his contributions to the study of **Phyllanthaceae**

Characteristics of **Emblica chakrabartyi**:

- Taxonomy: Belongs to the gooseberry (Phyllanthaceae) family and thrives as shrubs in tropical rainforests.
- Global Presence: 55 species of the genus *Emblica* worldwide, with this species being the 11th from India.

Distinctive Features:

- Size: Grows to approximately 2 meters in height.
- Leaves: Large, shiny, elongated oval leaves reaching up to 13 cm in length.
- Flowers: Yellowish green with six petals. Flowering and fruiting occur from December to June. Male flowers are found in inflorescence, while female flowers are solitary, located on the leaf axils.
- Fruits: Brown to black when ripe, with seeds measuring about 8-9 mm in diameter.

Expedition Details:

- Research Project: Conducted as part of a University Grants Commission (UGC) sponsored research project.
- Population: A population of approximately 55 plants was discovered during the expedition.

About Kerala

- Capital - Thiruvananthapuram
- Chief minister - Pinarayi Vijayan
- Districts - 14
- Rajya Sabha - 9 seats
- Lok Sabha - 20 seats
- **Symbols of Kerala:-**
 - Bird - Great hornbill
 - Flower - Golden shower tree
 - Fruit - Jackfruit
 - Mammal - Indian elephant
 - Tree - Coconut Tree

5. Ligdus Garvale: New Spider Species Identified in Karnataka (May 24, 2024)

A team of naturalists discovered a new species of jumping spider, **Ligdus Garvale**, in **Garvale village, Kodagu district, Karnataka**. The discovery has been published in the **journal Zootaxa**.

An Overview of the News

- This is the second recorded instance of the **Ligdus** genus in 129 years, with the **first being Ligdus Chelifer** reported from **Myanmar by Thorell in 1895**.
- **Ligdus Garvale** is a high canopy jumper, often going unnoticed, and constructs a double-layered web for retreat that resembles Pseudoscorpions.
- Over **600 spider species** have been identified in Karnataka, with an increase in jumping spider sightings.

About Jumping Spiders

- Jumping Spiders are the largest family of spiders, with over **6,380 species in the family Salticidae**.

Features include:

- - Brightly coloured
 - Diurnal (active during the day)
 - Four pairs of eyes
 - Size ranges from 2 to 22 mm.

About Karnataka

- Capital:- **Bengaluru (Executive Branch)**
- Chief minister:- **Siddaramaiah**
- Governor:- **Thawar Chand Gehlot**
- Bird:- **Indian roller**

6. United Nations Forum on Forests (UNFF19) Convenes in New York (May 15, 2024)

The 19th session of the United Nations Forum on Forests (UNFF19) took place at the UN headquarters in New York, USA, from May 6 to May 10, 2024.

An Overview of the News

- Organized by the UNFF Secretariat, the session was chaired by Zéphyrin Maniratanga from Burundi.
- The forum conducted a midterm review of the International Arrangement on Forests.
- Key outcomes included a declaration from the High-Level Segment and an omnibus resolution.
- The omnibus resolution encompassed the midterm review results and the new Quadrennial Programme of Work for the Forum spanning 2025-2028.
- Jitendra Kumar, Director General of Forests and Special Secretary of the Ministry of Environment, Forest and Climate Change (MoEF&CC), led the Indian delegation.

United Nations Forum on Forests (UNFF)

- Establishment: Founded in 2000.
- Affiliation: It operates as a functional commission of the UN Economic and Social Council (ECOSOC).
- Membership: Enjoys universal membership, encompassing nations globally.
- Headquarters: Based in New York, United States.

Achievements of UNFF:

- UN Forest Instrument: Noteworthy milestone achieved in 2007, marking the establishment of the first UN Forest Instrument.
- Global Forest Financing Facilitation Network (GFFFN): Introduced in 2015, serving as a significant initiative under the UNFF.
- UN Strategic Plan for Forests 2030: In 2017, the UNFF adopted the first UN Strategic Plan for Forests 2030, outlining six Global Forest Goals.

7. New Green Lynx Spider Species *Peucetia chhaparajnrvin* Found in Rajasthan (May 10, 2024)

Atul Bodkhe, an arachnologist based in Daryapur, has unveiled a new species of green lynx spider known as *Peucetia chhaparajnrvin*.

An Overview of the News

- The species was discovered in the Tal Chhapar Wildlife Sanctuary located in Churu District, Rajasthan.
- Named after its place of discovery, "chhaparajnrvin" pays homage to the Tal Chhapar region where it was found by Nirmala Kumari and Vinod Kumari.
- This new spider species was found inhabiting the green leaves of the Babul Tree, scientifically known as *Vachellia nilotica*.
- It exhibits nocturnal behavior and sustains itself by preying on small insects.
- Specimens of the spider have been preserved in the entomology lab at the University of Rajasthan, Jaipur.
- The identification and description of the species were conducted at the Spider Research Lab (SR-Lab) situated in J.D. Patil Sangludkar Mahavidyalaya, Daryapur, Amravati district, Maharashtra.

About Rajasthan

- Established on - 30 March 1949
- Capital - Jaipur (Executive Branch)
- Chief Minister - Bhajan Lal Sharma
- State Flower - Rohida

8. Kolkata becomes the third Indian city to adopt an Air Quality Early Warning System (AQEWS) (Aug. 28, 2023)

Kolkata became the third Indian city to adopt the **Air Quality Early Warning System (AQEWS)** to combat rising air pollution.

An Overview of the News

- The system, developed by the **Indian Institute of Tropical Meteorology (IITM) in Pune**, aims **to address rising air pollution levels in urban areas**.
- AQEWS in Kolkata uses an advanced sensor network to provide real-time monitoring of the **Air Quality Index (AQI)**.
- AQI is a standardized measure of the level of air pollution, with a value ranging from 0 to 500.
- The system focuses on **PM2.5 (particles with a diameter of 2.5 micrometers or smaller) levels**, which is a major contributor to health problems due to its ability to enter the lungs.

Air pollution status in Kolkata:

- Kolkata is facing severe air pollution, which is mainly driven by **pollutants like PM2.5**.
- Recent AQEWS measurements show that the AQI is 74, which is expected to rise above **170 by 30 August**.
- These forecasts highlight the urgency of tackling air pollution and emphasize the role of early warning systems.

Data Integration and Accuracy:

- AQEWS integrates data from the National Air Quality Network and satellite sources to generate accurate air pollution forecasts.
- The accuracy of the system was proved during the experimental phase that started in **September 2022**.
- The inclusion of data from 420 air quality monitoring stations across India ensures a comprehensive approach to the assessment of air quality.

Union Minister for Environment, Forest and Climate Change - **Bhupendra Yadav**

9. BHEL develops India's first catalyst set to curb NOx emissions in power plants (Aug. 26, 2023)

Bharat Heavy Electricals Limited (BHEL), a government engineering firm successfully produced the first indigenous Selective Catalytic Reactor (SCR) to control NOx emissions from thermal power plants.

An Overview of the News

- SCR Catalysts were earlier imported in line with the 'Make in India' initiative.
- The initial batch of indigenous SCR Catalyst was manufactured for **5x800 MW Yadadri Thermal Power Station in Telangana**.

- The inaugural event took place at BHEL's Bengaluru Solar Business Division unit, which was led by Renuka Gera, Director, of Industrial Systems and Products.
- BHEL set up a manufacturing facility at its Solar Business Division unit to produce SCR catalysts for reducing NOx emissions in thermal power plants.
- **Burning coal converts its nitrogen content into nitrogen oxides (NOx), a major air pollutant that includes substances such as NO, NO2, and N2O.**
- Recognizing the serious environmental impact of NOx, the **Telangana State Power Generation Corporation Limited (TSGENCO) ordered SCR units for the Yadadri Thermal Power Station.**
- Other orders for SCR units came from **Maharashtra State Power Generation Company Limited (MAHAGENCO), West Bengal Power Development Corporation Limited (WBPDC), and NALCO** for various thermal power stations.
- BHEL is dedicated to environmental protection, offering a range of eco-friendly technologies for thermal power plants, including high-efficiency boilers, electrostatic precipitators, flue gas desulphurization units, and selective catalytic reactors.
- BHEL achieved indigenization of technology in collaboration with NANO, a leading company of the Republic of Korea for the development of SCR technology.

Bharat Heavy Electricals Limited (BHEL):

- It is a major **Central Public Sector Enterprise in India.**
- It has the distinction of being the largest manufacturer of power generation equipment under government ownership.
- BHEL works as a part of the Government of India and comes under the purview of the Ministry of Heavy Industry.
- Establishment - **1956**
- Headquarters - **New Delhi**

10. NGT action regarding Kuldiha Wildlife Sanctuary: Unauthorized mining (Aug. 22, 2023)

NGT-action-regarding-Kuldiha-Wildlife-Sanctuary-Unauthorized-mining

The National Green Tribunal (NGT) intervened to address unauthorized mining in Odisha's Kuldiha Wildlife Sanctuary.

An Overview of the News

- A complaint of unauthorized mining was raised in the eco-sensitive area of Kuldiha Wildlife Sanctuary.
- 97 sand mining sites were given on lease near Similipal-Hadgarh-Kuldiha-Conservation Reserve, especially Sukhuapata Reserve Forest Area.

- These mining activities violate the Forest (Conservation) Act, of 1980, and may harm the ecosystem and wildlife.
- Reference was made to the Supreme Court judgment (Binay Kumar Dalai and others v. State of Odisha and others) which indicated that mining should take place only after implementing a comprehensive wildlife management plan and preserving the traditional elephant corridor.

Kuldiha Wildlife Sanctuary:

- Located in northeastern Odisha, adjacent to the Simlipal National Park.
- Spread over 272.75 sq km, part of the moist deciduous forest region of the Eastern Highlands.
- Connected to Simlipal National Park through Sukhupada and Nato hill ranges.
- Sal trees dominate the mixed deciduous forests.
- These include tigers, leopards, elephants, gaurs, sambars, giant squirrels, hill mynas, peacocks, hornbills, migratory birds, and reptiles.

Mayurbhanj Elephant Reserve:

- Part of Mayurbhanj Elephant Reserve along with Simlipal and Hadgarh Wildlife Sanctuaries.
- Local name: Tenda Elephant Reserve, provides protection to elephants.