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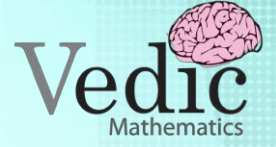
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Biodiversity & Conservation:

1. New Technologies and Data for Conservation:

NISAR Satellite Launch (July 30, 2025): The NASA-ISRO Synthetic Aperture Radar (NISAR) satellite is launching today. This joint mission will provide high-resolution, all-weather, day-and-night imaging of Earth. Its capabilities are explicitly designed to aid "Forest and Biodiversity Conservation" by mapping deforestation, forest health, and habitat encroachment, helping conservationists track illegal logging and protect endangered ecosystems. The open-access satellite data will be a significant resource for global decision-making and emergency response, including for developing nations. (Times of India, July 30, 2025)

BioDiMoBot Project for Ocean Health: A new partnership involving the University of Graz, Carbon Kapture, and the BioDiMoBot project is using nature and technology to address climate change and biodiversity loss. BioDiMoBot is a mobile robotic platform that monitors biodiversity and ecosystem stress in aquatic environments in real-time. This project also incorporates kelp farming, which acts as a natural carbon sink and biodiversity booster, and aims to provide clear data for scientists, policymakers, and the public. (Water Magazine, July 30, 2025)

Kaziranga Grassland Bird Census (July 30, 2025): Kaziranga National Park in Assam conducted its first-ever grassland bird census using acoustic monitoring technology. This initiative assessed the presence, diversity, and habitat preferences of grassland bird species,

many of which are endangered. The survey recorded 43 species, including Critically Endangered, Endangered, and Vulnerable ones, highlighting the ecological significance of these birds as indicators of habitat health. The census also located over 85 nests of the rare Black-breasted Parrotbill, strengthening conservation efforts. (Vajiram, July 30, 2025)

2. Policy and Regulatory Developments:

India's Environment Protection Rules (July 25, 2025): The Ministry of Environment, Forest and Climate Change has notified the Environment Protection (Management of Contaminated Sites) Rules, 2025. This landmark move provides a legal framework to identify, assess and remediate chemically contaminated sites across India, which pose long-term risks to public health and ecosystems. (Vajiram, July 29, 2025)

Pilibhit Tiger Reserve's Eco-Sensitive Zone Nears Final Clearance (July 29, 2025): After an 11-year delay, the Eco-Sensitive Zone (ESZ) around Pilibhit Tiger Reserve (PTR) is close to final notification. This ESZ will act as a regulated buffer to limit ecological damage and allow safe wildlife movement, preventing harmful activities near forest boundaries and protecting fragile ecosystems. (Times of India, July 29, 2025)

3. Species Discoveries and Threats:

New Species Discoveries in West Bengal (July 28, 2025): Scientists from the Zoological Survey of India (ZSI) have announced the discovery of a new species of wolf spider, *Piratula acuminata* (first record of the genus *Piratula* in India), and four new species of spider-egg parasitic wasps from West Bengal. These discoveries reaffirm the





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the significance of systematic taxonomy in uncovering India's biodiversity and underscore the need to document life forms before they are lost to climate change and habitat degradation. (The Hindu, July 28, 2025; Deccan Herald, July 25, 2025)

Shrinking Habitats and Human-Wildlife Conflict (July 26, 2025): Frequent wild animal sightings, particularly leopards, around Hyderabad's fringes are alarming conservationists. Rapid urbanization and fragmentation of natural habitats are forcing animals into human settlements, leading to increased human-animal conflict. Telangana has lost nearly 100 sq km of forest cover between 2022 and 2023, emphasizing the urgent need for habitat restoration and protection outside designated Protected Areas. (Times of India, July 26, 2025)

Global Tree Deaths from Lightning (July 25, 2025): New research reveals that lightning kills around 320 million trees globally each year, a significant and previously underestimated contributor to carbon emissions. Climate change is expected to increase lightning frequency, exacerbating this silent driver of biodiversity loss and carbon release, particularly in regions like the Amazon and Congo Basin. (Times of India, July 25, 2025)

4. Global Initiatives and Awareness:

World Nature Conservation Day 2025 (July 28, 2025): Celebrated annually, this day emphasizes the urgent need for coordinated action to preserve and protect the natural world. The suggested theme for 2025, "Restoration, Resilience, and Responsibility," highlights the need to rehabilitate natural habitats, build sustainable resilience against

environmental degradation, and encourage responsible actions toward ecological well-being. It also emphasizes "Connecting People and Plants, Exploring Digital Innovation in Wildlife Conservation," supporting initiatives like India's LiFE (Lifestyle for Environment). (NGOFeed, July 23, 2025; PWOnlyIAS, July 28, 2025; JagranJosh, July 28, 2025)

2025 Global Conference on Climate and Health (July 29-31, 2025): Hosted by the Government of Brazil, WHO, and PAHO, this conference is a pre-COP30 meeting focusing on the interlinkages between climate change, biodiversity, air quality, and public health. It underscores that climate change is a health crisis threatening to undo decades of global health progress and highlights the need for ambitious climate action to protect vulnerable populations and ecosystems. (WHO, July 29, 2025)

Mangrove Restoration in Mozambique (July 12, 2025): In Mozambique, where a significant portion of mangroves have vanished, local women are leading restoration efforts. These nature-based solutions are crucial for protecting coastlines from intensifying tropical storms, and they are also shaping adaptation and biodiversity policies. (UN.org, July 12, 2025)

5. Invasive Species Management:

Great Lakes Aquatic Invasive Species Landing Blitz (June 30 - July 13, 2025): This ongoing initiative educates boaters and recreators about the risks of spreading aquatic invasive species (AIS). It emphasizes the "Clean, Drain, Dry" protocol for boats to prevent the introduction





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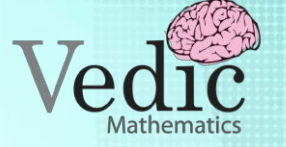
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and spread of AIS. (Invasive Species Centre, July 2025)

Beech Leaf Disease Workshop (July 24, 2025):

The Invasive Species Centre hosted a workshop to raise awareness and reporting of beech leaf disease, which is thought to be caused by an invasive nematode. This highlights ongoing efforts to protect native tree species from emerging invasive threats. (Invasive Species Centre, July 2025)

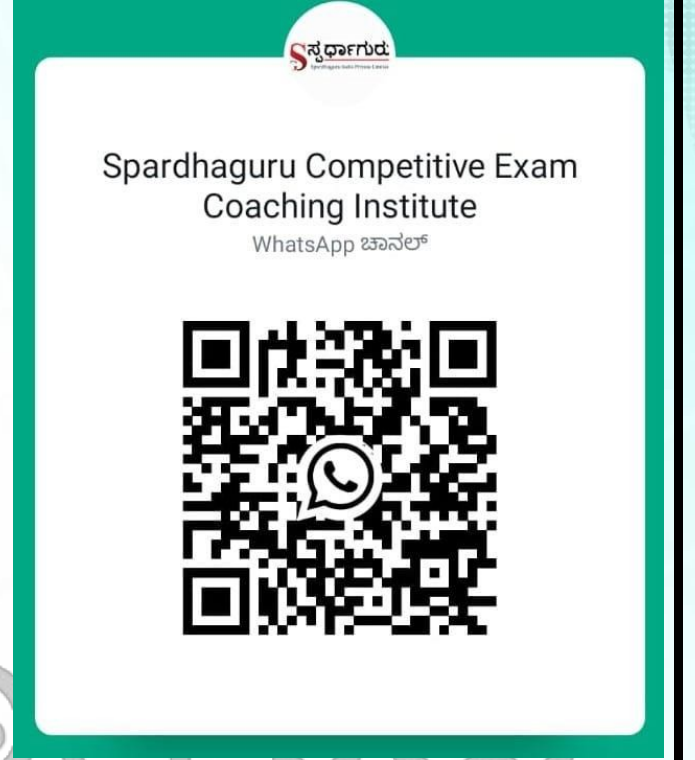
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MCQS

1. What specific aspect of biodiversity conservation will the NISAR satellite primarily aid through its high-resolution imaging capabilities?

- A) Tracking marine life migration patterns
- B) Mapping deforestation, forest health, and habitat encroachment
- C) Monitoring volcanic eruptions
- D) Predicting earthquake occurrences

Answer: B) Mapping deforestation, forest health, and habitat encroachment

The text states, "Its capabilities are explicitly designed to aid 'Forest and Biodiversity Conservation' by mapping deforestation, forest health, and habitat encroachment, helping conservationists track illegal logging and protect endangered ecosystems."





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2. What unique technology is utilized by the BioDiMoBot project for real-time monitoring of aquatic environments?

- A) Satellite imagery alone
- B) Submarine-launched drones
- C) A mobile robotic platform that monitors biodiversity and ecosystem stress
- D) Manual diving surveys

Answer: C) A mobile robotic platform that monitors biodiversity and ecosystem stress
The text describes, "BioDiMoBot is a mobile robotic platform that monitors biodiversity and ecosystem stress in aquatic environments in real-time."

3. What method was used for the first-ever grassland bird census conducted at Kaziranga National Park?

- A) Visual observation only
- B) Netting and banding
- C) Acoustic monitoring technology
- D) Drone-based thermal imaging

Answer: C) Acoustic monitoring technology
The text states, "Kaziranga National Park in Assam conducted its first-ever grassland bird census using acoustic monitoring technology."

4. What is the main purpose of India's newly notified Environment Protection (Management of Contaminated Sites) Rules, 2025?

- A) To regulate industrial emissions.
- B) To provide a legal framework to identify, assess, and remediate chemically contaminated sites.
- C) To promote renewable energy sources.
- D) To manage plastic waste.

Answer: B) To provide a legal framework to identify, assess, and remediate chemically contaminated sites.

The text explicitly mentions, "This landmark move provides a legal framework to identify, assess, and remediate chemically contaminated sites across India..."

5. What is the function of an Eco-Sensitive Zone (ESZ) around a Protected Area like Pilibhit Tiger Reserve?

- A) To allow unrestricted development and tourism.
- B) To act as a regulated buffer to limit ecological damage and allow safe wildlife movement.
- C) To convert forest land into agricultural land.
- D) To encourage hunting activities.

Answer: B) To act as a regulated buffer to limit ecological damage and allow safe wildlife movement.

The text states, "This ESZ will act as a regulated buffer to limit ecological damage and allow safe wildlife movement, preventing harmful activities near forest boundaries and protecting fragile ecosystems."

6. What new species discoveries were recently announced by scientists from the Zoological Survey of India (ZSI) in West Bengal?

- A) A new species of tiger and a new bird.
- B) A new species of wolf spider and four new species of spider-egg parasitic wasps.
- C) A new type of freshwater fish.
- D) A previously unknown plant species.

Answer: B) A new species of wolf spider and four new species of spider-egg parasitic wasps.
The text states, "Scientists from the Zoological Survey of India (ZSI) have announced the discovery of a new species of wolf spider, Piratula acuminata... and four new species of spider-egg parasitic wasps from West Bengal."





7. What is identified as the primary cause of increasing human-wildlife conflict around Hyderabad's fringes, particularly concerning leopard sightings?

- A) Increased prey availability in human settlements.
- B) Rapid urbanization and fragmentation of natural habitats.
- C) Reduced wildlife populations.
- D) Climate change causing animals to seek cooler areas.

Answer: B) Rapid urbanization and fragmentation of natural habitats.

The text directly links "Rapid urbanization and fragmentation of natural habitats" to animals being "forced into human settlements, leading to increased human-animal conflict."

8. According to new research, what significant and previously underestimated factor contributes to global carbon emissions through tree deaths?

- A) Forest fires started by human activity.
- B) Pest infestations and diseases.
- C) Lightning strikes killing millions of trees annually.
- D) Droughts and water scarcity.

Answer: C) Lightning strikes killing millions of trees annually.

The text states, "New research reveals that lightning kills around 320 million trees globally each year, a significant and previously underestimated contributor to carbon emissions."

9. What is the suggested theme for World Nature Conservation Day 2025?

- A) "Protect Our Oceans"
- B) "Restoration, Resilience, and Responsibility"
- C) "Sustainable Development Goals"
- D) "Clean Energy for All"

Answer: B) "Restoration, Resilience, and Responsibility"

The text notes, "The suggested theme for 2025, 'Restoration, Resilience, and Responsibility,' highlights the need to rehabilitate natural habitats, build sustainable resilience against environmental degradation, and encourage responsible actions toward ecological well-being." (Note: The search result also provided "Connecting People and Plants, Exploring Digital Innovation in Wildlife Conservation," which is also correct as a component of the theme, but "Restoration, Resilience, and Responsibility" captures the broader suggested theme as stated in the prompt.)

10. What initiative is highlighted in Mozambique for protecting coastlines from tropical storms and shaping adaptation policies?

- A) Construction of sea walls.
- B) Development of early warning systems.
- C) Local women leading mangrove restoration efforts.
- D) Relocation of coastal communities.

Answer: C) Local women leading mangrove restoration efforts.

The text mentions, "In Mozambique... local women are leading restoration efforts. These nature-based solutions are crucial for protecting coastlines from intensifying tropical storms, and they are also shaping adaptation and biodiversity policies."





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