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**DAILY
CURRENT AFFAIRS**

Important Current News for UPSC & UPPSC

29th April 2026

TOPICS:-

- 1. Cyborg Botany**
- 2. Barbary Macaque**
- 3. Siang Upper Multipurpose Project (SUMP)**
- 4. Lake Issyk-Kul**
- 5. Pradhan Mantri Rashtriya Bal Puraskar (PMRBP)**
- 6. F1 Sim Racing India Open 2026**
- 7. Other Important News of the day**
- 8. Uttar Pradesh in News**

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CYBORG BOTANY

TH The Hindu

Cyborg botany: how scientists are turning plants into circuit boards

Explore how cyborg botany transforms plants into living circuit boards, enabling real-time communication and early stress detection for...



Why in News

- Scientists are developing **cyborg botany**, integrating electronics into plants to create real-time biosensors.



Technological Integration Mechanisms

- **Nanowires and transistors** are embedded in plant tissues to detect biochemical changes in real time.
- **Conductive polymers like PEDOT** act as internal electrical pathways within plant structures.

Scientific and Interdisciplinary Basis

- It integrates **biology, materials science, and engineering** to create hybrid systems.
- The concept derives from **cybernetic organism**, indicating fusion of living and artificial systems.

Agricultural and Strategic Significance

- It enables early detection of **biotic and abiotic stress** in crops.
- It supports **precision farming and Internet of Plants (IoP)** applications.

BARBARY MACAQUE

TE Down To Earth

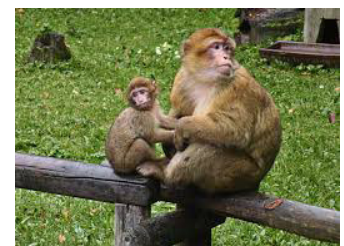
Europe's only wild primates, Gibraltar's Barbary Macaques, eat soil to counter ill effects of tourist-derived junk food: Study

Gibraltar's Barbary macaques, Europe's only wild primates, are eating soil to counter the harmful effects of tourist junk food like crisps,...



Why in News

- Researchers observed **geophagy in Gibraltar's Barbary macaques** to counter digestive issues from tourist junk food.



Biogeographical Distribution

- It is the only macaque species outside Asia, found in **North Africa and Europe**.
- Native to **Atlas Mountains (Algeria, Morocco)** with introduced population in Gibraltar.

Ecological and Behavioral Traits

- It is an **omnivorous, diurnal primate** inhabiting forests and rocky landscapes.
- It exhibits **alloparental care**, ensuring group survival.

Distinctive Biological Features

- It lacks a tail, hence often called **Barbary ape**.
- It shows high adaptability across varied climates and terrains.

Conservation Status

- Classified as **Endangered under IUCN Red List**.

SIANG UPPER MULTIPURPOSE PROJECT (SUMP)

India Today NE

Arunachal school exhibition engages 330 students on Siang project, river conservation

More than 330 students from Boleng in Arunachal Pradesh took part in a three-day school exhibition centred on river conservation and...



Why in News

- A recent awareness programme involving students in **Arunachal Pradesh** highlighted river conservation and sustainable infrastructure concerns linked to the proposed **Siang Upper Multipurpose Project (SUMP)**.



Geostrategic Importance

- It serves as a counter to China's **60,000 MW dam on Yarlung Tsangpo**.
- It strengthens India's **hydrological and territorial security in Northeast India**.

Project Specifications and Location

- It is an **11,000 MW hydropower project on Siang River**.
- Located near **Geku village, Upper Siang district, Arunachal Pradesh**.


Institutional and Developmental Aspects

- Developed by **NHPC and NEEPCO**.
- Integrates **energy generation with flood and erosion control**.

Socio-Environmental Dimensions

- The project area is inhabited by **Adi Tribe**, raising displacement concerns.
- It may impact **fragile Himalayan ecosystems and biodiversity**.

LAKE ISSYK-KUL

 The Times of India

A lost 'Silk Road' city found beneath Lake Issyk-Kul in Kyrgyzstan stuns archaeologists

Rest of World News: Archaeologists have discovered the remains of a large medieval settlement on the lakebed of Lake Issyk-Kul, Kyrgyzstan,...



Why in News

- Underwater archaeologists recently discovered a **submerged ancient settlement dating back around 700 years** in Lake Issyk-Kul, indicating the presence of an advanced historical civilization.



Geographical and Physical Features

- Located in **Kyrgyzstan**, surrounded by **Tian Shan Mountains**.
- It is an **endorheic, brackish water lake** with no outlet.

Hydrological Significance

- It remains unfrozen due to **geothermal activity, depth, and low salinity**.
- It is the **second-largest high-altitude lake globally**.

Quantitative Attributes

- Area: **6,280 sq km**, Depth: **668 m**, Altitude: **1600 m**.
- It is among the **deepest and largest saline lakes globally**.

Environmental Recognition

- Listed as a **Ramsar Wetland of International Importance (1976)**.

PRADHAN MANTRI RASHTRIYA BAL PURASKAR (PMRBP)

DD News

[Centre invites nominations for Pradhan Mantri Rashtriya Bal Puraskar, deadline July 31](#)



The government has invited nominations for the Pradhan Mantri Rashtriya Bal Puraskar (PMRBP), the national award that recognises exceptional...

Why in News

- The Government of India has recently invited nominations for the **Pradhan Mantri Rashtriya Bal Puraskar**, recognising exceptional achievements of children across various domains.

Institutional Framework

- Administered by **Ministry of Women and Child Development**.
- It is a **prestigious national civilian award for children**.

Eligibility and Criteria

- Applicable to **Indian citizens aged 5–18 years**.
- Achievements must be within **last two years of nomination**.

Categories and Recognition

- Awards cover **Bravery, Science, Sports, Environment, Social Service, Arts**.
- Includes **medal, certificate, and citation** with national recognition.

F1 SIM RACING INDIA OPEN 2026

Why in News

India Today

[Formula 1 launches India's first official sim racing championship with Mumbai Falcons](#)



Formula 1 has partnered with Mumbai Falcons Racing Limited to launch India's first official F1® sim racing championship,...

- India has launched its first official **Formula 1 Sim Racing Championship (F1 Sim Racing India Open 2026)** to integrate esports with professional motorsport.

Institutional and Organisational Framework

- The event is organised by **Mumbai Falcons Racing Limited** under official **Formula 1 sanction**.

- It is the 1st **India-exclusive national sim racing programme** approved by Formula 1.

Competition Structure and Format

- The championship is conducted on the **official F1 video game platform**.
- It includes **online qualifiers, city rounds, and a final national event in Mumbai**.
- It creates a structured **multi-tier competitive ecosystem for gamers**.

Regulatory and Policy Linkages

- Esports gained recognition under the **Promotion and Regulation of Online Gaming Act, 2025**.
- It strengthens **India’s digital sports ecosystem and professional gaming careers**.

Strategic and Sporting Significance

- It creates a **talent pipeline from virtual racing to real motorsport**.
- India last hosted F1 at **Buddh International Circuit (2013)**, highlighting revival efforts.

OTHER IMPORTANT NEWS OF THE DAY

Person in News

APPOINTMENT OF DINESH TRIVEDI AS HIGH COMMISSIONER TO BANGLADESH

Why in News

- The Government of India has appointed **Dinesh Trivedi** as the next High Commissioner to Bangladesh amid evolving diplomatic challenges.



Diplomatic Context

- **High Commissioners** are appointed between **Commonwealth countries**.
- The posting is in **Dhaka**, a key Indian diplomatic mission.

Background

- **Dinesh Trivedi** is a former **Union Railway Minister** and **Rajya Sabha** member.

Strategic Importance

- Bangladesh is vital for **Act East Policy** and **Bay of Bengal security**.
- Cooperation includes **border management, trade, connectivity, and river sharing**.

Environment

NILGIRI TAHR

The Hindu

T.N. launches third synchronised Nilgiri Tahr survey across Western Ghats

The Tamil Nadu Forest Department has commenced the third synchronised survey of the Nilgiri Tahr from April 24 to 27, covering the species'...

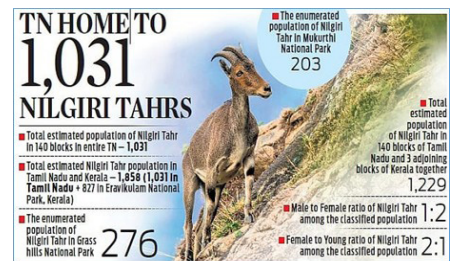


Why in News

- The **Tamil Nadu Forest Department** has initiated the **third synchronised survey of Nilgiri Tahr** to improve population estimation and strengthen conservation strategies in the Western Ghats.

Ecological Distribution

- Endemic to **Western Ghats**, mainly Kerala and Tamil Nadu.
- Occupies **shola-grassland eco-systems between 1200–2600 m altitude**.



Biological Characteristics

- It is a **mountain ungulate**, also known as **Nilgiri Ibex or Varayaadu**.
- Shows **sexual dimorphism with larger, darker males**.

Conservation Status and Protection

- Listed as **Endangered (IUCN)** and under **Schedule I of Wildlife Protection Act, 1972**.

Threats and Environmental Concerns

- Faces threats from **habitat loss, livestock competition, hydropower projects, plantations**.
- Conservation is crucial for maintaining **Western Ghats biodiversity hotspot integrity**.

Science and Technology

DOPAMINE

Neuroscience News

Dopamine Depletion: The Hidden Driver of Alzheimer's Memory Loss

Researchers discovered that an 80% drop in dopamine causes Alzheimer's memory loss. Restoring dopamine with Levodopa rescued memory in a...

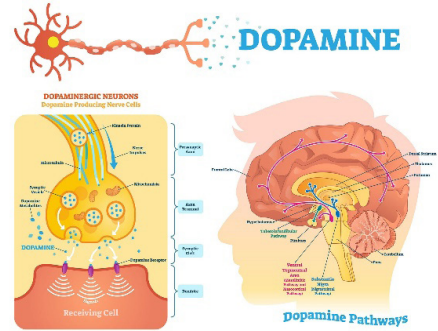


Why in News

- A recent study has shown that **dopamine dysfunction in the entorhinal cortex**, a key brain region for memory, directly contributes to impaired memory formation.

Neurobiological Role

- It is a **neurotransmitter and hormone** enabling communication in nervous system.
- Central to **reward, pleasure, and motivation pathways.**



Physiological Functions

- Regulates **mood, learning, attention, motor control, and sleep.**
- Influences **cardiovascular, renal, and endocrine functions.**

Medical Relevance

- Associated with **Parkinson’s disease, ADHD, restless leg syndrome.**
- Imbalance leads to **neurological and behavioural disorders.**

Health

VITAMIN E

News-Medical

Vitamin E intake linked to a key fertility hormone in women trying to conceive

A cross-sectional study of 97 women with infertility found that higher vitamin E intake was associated with lower prolactin levels and...



Why in News

- A recent clinical study found that a **daily dose of 300 mg Vitamin E** significantly improves liver tissue health in patients suffering from **metabolic dysfunction-associated steatohepatitis**, a severe form of fatty liver disease.

HIGH VITAMIN E FOODS

cod liver oil 7.7 mg/37 g serve	sunflower seeds 6.2 mg/17 g serve	almonds 6.0 mg/23 g serve	salmon 5.5 mg/120 g serve
hazelnuts 4.7 mg/29 g serve	peanuts 3.3 mg/37 g serve	olive oil 2.5 mg/18 g serve	broccoli 2.4 mg/100 g serve
spinach 2.4 mg/100 g serve	shrimp/prawns 2.2 mg/79 g serve	avocado 2.0 mg/88 g serve	butternut squash 1.9 mg/135 g serve

OPTIMISING NUTRITION
serving size = average consumed by Optimisers
optimal nutrient intake = 7 mg/20000 cal
bliss point (minimum) = 20 mg/20000 cal

Biochemical Characteristics

- It is a **fat-soluble vitamin** with **alpha-tocopherol** as biologically active form.
- Stored mainly in **liver and adipose tissues.**

Physiological Functions

- It acts as a **powerful antioxidant**, protecting cells from oxidative damage.
- It supports **immune response, vascular health, and RBC formation**.

Deficiency and Associated Disorders

- Deficiency occurs in **fat-malabsorption disorders** like celiac disease.
- Leads to **neurological and vision-related impairments**.

Nutritional Sources

- Found in **vegetable oils, nuts, seeds, leafy vegetables, fortified cereals**.

UTTAR PRADESH IN NEWS

NOIDA INTERNATIONAL AIRPORT – BCAS APPROVAL

BS Business Standard

Noida International Airport gets BCAS approval for aerodrome safety plan

Noida International Airport, a greenfield project coming up at Jewar in Uttar Pradesh's Gautam Buddh Nagar district, is among the country's...



Why in News

- **Noida International Airport (Jewar)** received approval of its **Aerodrome Security Programme (ASP)** from **Bureau of Civil Aviation Security (BCAS)**, marking a key step towards starting flight operations.

Regulatory Framework

- **BCAS, under Ministry of Civil Aviation**, ensures aviation security compliance.
- ASP approval confirms adherence to **national security protocols**.

Project and Operational Status

- It is a **greenfield airport** in **Gautam Buddh Nagar, Uttar Pradesh**.
- Authorities are coordinating with **airlines** to finalise operational launch.

Aerodrome Safety Plan Significance

- It defines **SOPs for aircraft movement, ground handling, and emergency response**.
- It ensures **risk reduction and safe airport functioning**.

Administrative Update

- **Nitu Samra** appointed interim CEO after **BCAS clearance issue** with **Christoph Schnellman**.

Strategic Importance

- It will decongest **Indira Gandhi International Airport, Delhi**.
- It will boost **regional connectivity and economic growth in NCR**.