# SHORTNEWS

## 1.HOMINIDS WALLACEAN

Context - Archaeologists have discovered stone tools on Sulawesi island, Indonesia, that may indicate human presence in Wallacea 1.5 million years ago, potentially the earliest known humans in the region.

### About the Discovery

1. Items Found - Series of small, chipped stone tools used for cutting small animals and carving rocks.
2. Methodology used - Radioactive tracing of tools and animal teeth found at the site dated them up to 1.48 million years old.
3. Findings published in the journal *Nature* .

### Significance for Human Migration Theories

Suggests *Homo erectus* inhabited Wallacea much earlier than the previously accepted timeline of 1.02 million years ago (Flores island, Indonesia, and Luzon island, Philippines). Implies early humans were capable of significant sea travel, challenging long-held assumptions.

### About Homo erectus

1. **Evolution** - Appeared about 2 million years ago, considered the first human species to walk fully upright.
2. **Significance** - Among the earliest humans to use tools, control fire, and possibly develop basic social structures.
3. **Geographic Range** - Originated in Africa and spread to parts of Asia and Europe.
4. **Longevity** - Survived until just over 100,000 years ago on Java, Indonesia, long after disappearing from other regions.

### About Wallacea

Eastern Indonesian region between Borneo & Java and Australia & New Guinea, includes Sulawesi, Lombok, Flores, Timor, Sumbawa. The Region is named after naturalist Alfred Russel Wallace, who studied its fauna and flora.

### What are Hominids ?

A hominid is a term used to describe a member of the hominidae family. The hominidae family consists of the great apes (gorillas, chimpanzees, bonobos and orangutans) and human beings.

## 2.GLACIAL EROSION

Context - A new global study published in *Nature Geoscience* reveals that nearly all of the world's glaciers erode between 0.02 mm and 2.68 mm annually.

### Key Findings

1. **Erosion Rates** - 99% of glaciers display predicted erosion rates between 0.02 mm/year and 2.68 mm/year.
2. **Sediment Removal** - Glaciers collectively erode ~23 gigatonnes of bedrock annually.
3. **High-Erosion Regions** - Alaska, Central and South Asia, Caucasus & Middle East, New Zealand.
4. **Main drivers** - Precipitation, glacier elevation, length, latitude, and geology outweigh glacial velocity .
5. **Environment** - specific Models: Developed separate equations for surge-type, marine-terminating, and land-terminating glaciers.
6. **India's Inclusion** - Gangotri Glacier, Dokriani Glacier, and Siachen Glacier are part of the study.

### Notable Insights

1. **Precipitation** - Mean annual precipitation significantly influences erosion across all glacier types.

2. **Temperature** - Mean annual air temperature also plays a role, though less strongly.
3. **Geological Factors** - Factors such as lithology, seismicity, and geothermal heat flux are critical to erosion processes.
4. **Velocity** – Glacial velocity is not the most significant predictor without other environmental variables.

## 3.SLEEPING SICKNESS

Context - The World Health Organization (WHO) recently confirmed that Kenya has eliminated human African trypanosomiasis (sleeping sickness) as a public health problem.
WHO's target to eradicate sleeping sickness by 2030. In 2018, Kenya eliminated guinea worm disease, another neglected tropical disease.

### About Human African Trypanosomiasis (HAT)

**Cause & Transmission** - Parasitic disease caused by *Trypanosoma* brucei species, transmitted by bites of infected tsetse flies in sub-Saharan Africa.

**Forms**

1. *T. b. gambiense* – Chronic form , West & Central Africa, symptoms appear months or years after infection.
2. *T. b. rhodesiense* – Acute form , East & Southern Africa, symptoms emerge within weeks or months and progress rapidly.

**Transmission** - Primarily through tsetse fly bites.

Also possible via mother-to-child transmission, contaminated needles, rare sexual contact, or other biting insects.

Kenyan Strain: Only the *rhodesiense* form occurs in Kenya, found mainly in eastern and southern Africa.

## 4.JATAN SOFTWARE

Context - The Central government aims to complete the 3D digitisation of all museums under its administration using the JATAN virtual museum builder software.

### About JATAN software

**Purpose** - A digital system for Indian museums aimed at creating digital imprints of preserved objects to aid researchers, curators, and enthusiasts.

**Features** - It is a client server application with features such as image cropping, watermarking, unique numbering, management of digital objects with multimedia representations.

**Deployment** - Implemented in multiple national museums across India. Antiquities of Archaeological Site Museum Goa and Nagarjunkonda under the ASI have been fully digitized,

**Development** - Created by the Human-Centred Design & Computing Group, C-DAC Pune.

**Integration** - Digital records of objects and monuments made via JATAN are linked to the National Digital Repository & Portal, making them publicly accessible.

**National Portal** - Also developed by C-DAC Pune, it provides integrated access to theme-based collections—sculptures, paintings, manuscripts, weapons, coins, and more—across museums, regardless of their location.

### What is 3D scanning ?

3D scanning is the process of analyzing a real-world object or environment to capture three-dimensional data about its shape and, in some cases, its appearance (such as color and texture). This data is then processed to create accurate digital 3D models for visualization, preservation, or reproduction.

## 5.BARDA WILDLIFE SANCTUARY

Context - Recently, The Ministry of Environment, Forest and Climate Change in collaboration with the Forest and Environment Department, Government of Gujarat celebrated today World Lion Day – 2025 at Barda Wildlife Sanctuary, Gujarat.

### About Barda Wildlife Sanctuary (BWS)

**Location**- Gujarat, India.

**Rivers** - the Bileshvary River and the Joghri River.

**Ethnic Communities** - Inhabited by ethnic groups such as Maldharis, Bharvads, Rabaris, and Gadhvis.

**Development Project** - The 'Gir-Barda Project' was initiated by the State Government in 1979 to establish Barda as a secondary habitat for the Asiatic lion.

**Flora** - Rich hotspot with ~650 plant species, including medicinal varieties like Rayan, Babul, Ber, Jamun, Amli, Gorad, Bamboo, Dhav, and Dhudhlo

**Fauna** - Mammals such as leopard, hyena, wild boar, wolf, jackal, and blue bull; birds including the rare spotted eagle and crested hawk eagle

## 6.AUSTRALIA 'WILL RECOGNISE' PALESTINIAN STATE AT UNGA

Context - Recently, the Australian PM announced that Australia will recognise a Palestinian state at the UN General Assembly in September 2025, following similar moves by the United Kingdom, France and Canada.

### About Palestine

Palestine is a historic region in the Middle East, located between the Mediterranean Sea and the Jordan River. It holds deep religious significance for Judaism, Christianity, and Islam. After World War I, Britain took control under a League of Nations mandate (1923), which included provisions for a Jewish homeland. In 1947, the United Nations proposed partitioning the land into separate Jewish and Arab states, with Jerusalem as an international city.

### Recognition and Status

**Current Status** - Status of a "permanent observer state" in the UN, allowing participation in discussions but without voting rights.

**Global Recognition** - Recognized as a state by 147 out of 193 UN members, though it lacks full UN membership.

**About State**

A state is a political entity characterized by four essential elements: Population; Territory; Government; and Sovereignty.The last country to be recognized by the UN General Assembly as a state is South Sudan, admitted in 2011 - Kosovo (2008) and Montenegro (2006)