

July - 30

TNPSC BITS

- ❖ The Indian Army and Singapore Armed Forces commenced joint exercise 'Bold Kurukshetra 2025' in Rajasthan's desert.
- ❖ The G P Birla Archaeological, Astronomical and Scientific Institute presented the G P Birla Memorial Award to V. Narayanan, Chairman of ISRO in recognition of his outstanding contributions to space science.
- ❖ International Booker Prize-winning Hindi author Geetanjali Shree's novel 'Once Elephants Lived Here' has won the prestigious PEN translates award 2025.
- ❖ Uma Kanjilal has been appointed Vice Chancellor of Indira Gandhi National Open University (IGNOU), making her the first woman to hold the position since the university was established in 1985.
- ❖ Every year, July 28 is observed as World Nature Conservation Day, a global reminder of the need to protect and preserve the environment.

TAMIL NADU NEWS

Expansion of PDS



Tamil Nadu's PDS *Crafting a Sustainable Food Security System*

Truly Universal
Public Distribution System

Wide Coverage !
Fair-price shops are located within **1.5 km** in *plain areas* and within a **1 km** range in *hilly regions*.

Biometric Authentication

Total 36,954
Fair Price Shops

- ❖ Tamil Nadu government established 2,394 ration shops in four years, including 789 permanent and 1,605 temporary outlets.
- ❖ UPI transactions were introduced for easier ration distribution.
- ❖ Pongal gift hampers were distributed to over 2.19 crore rice ration card holders in 2024 and 1.94 crore in 2025.
- ❖ After Cyclone Fengal in November 2024, dry rations were provided to the affected families in Cuddalore, Kallakurichi, and Villupuram districts.
- ❖ Financial assistance and relief materials were given to the families affected by the torrential rains in Chennai, Thoothukudi, and Tirunelveli districts.

Statues for Chola Kings

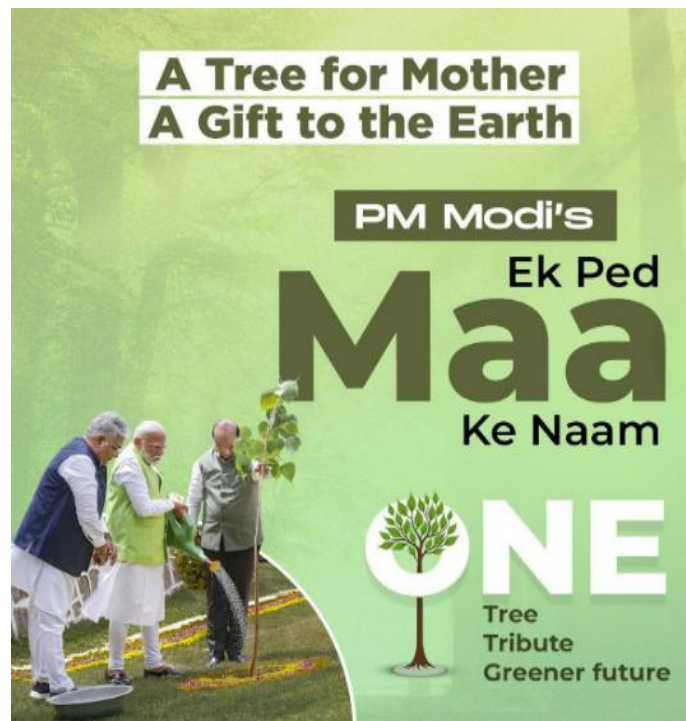
- ❖ The Prime Minister has addressed the Aadi Thiruvathirai Festival at Gangaikonda Cholapuram temple, Tamil Nadu.
- ❖ He has released a commemorative coin honouring Rajendra Chola I, who ruled from 1014 to 1044 CE.
- ❖ The PM also announced the installation of grand statues for Rajaraja Chola and Rajendra Chola I in Tamil Nadu.
- ❖ Rajendra Chola, I established Gangaikonda Cholapuram as the imperial capital and built the famous temple.
- ❖ The Aadi Thiruvathirai Festival also honors the Tamil Shaiva Bhakti tradition, supported historically by the Cholas and the 63 Nayanmars saint-poets.



NATIONAL NEWS

‘Ek Ped Maa Ke Naam’ initiative

- ❖ Prime Minister gifted a tree sapling to King Charles III at the Sandringham Estate, Norfolk during his UK visit.
- ❖ The gesture was part of India’s green initiative ‘Ek Ped Maa Ke Naam’, promoting tree planting in tribute to mothers and environmental responsibility.
- ❖ The gifted sapling, a *Davidia involucrata* ‘Sonoma’ (Sonoma dove tree), is known for early blooming and symbolic white bracts.



SC guidelines on student mental health

- ❖ The Supreme Court issued 15 binding interim guidelines under Article 32 and Article 141 to tackle rising student suicides and mental health crises.
- ❖ This was held during the Sukdeb Saha vs. State of Andhra Pradesh case.
- ❖ The Court called the crisis a sign of “structural malaise” in India’s education system.
- ❖ Over 13,000 student suicides occurred in 2022, with 2,200 linked to exam failure (National Crime Records Bureau).
- ❖ All educational institutions must implement a Mental Health Policy aligned with national programs like UMMEED (Understand, Motivate, Manage, Empathize,

Empower, Develop), MANODARPAN (Mental Health Initiative by Ministry of Education), and the National Suicide Prevention Strategy.

- ❖ A Mandatory appointment will be at least one trained mental health counsellor in institutions with 100+ students.
- ❖ Practices like batch segregation, public shaming, and unrealistic academic targets are strictly prohibited.
- ❖ Helplines including Tele-MANAS (Tele Mental Health Assistance and Networking Across States) must be visibly displayed in campuses and hostels.
- ❖ Biannual mental health training for all staff on crisis response and early warning signs is compulsory.
- ❖ Institutions must ensure inclusive, non-discriminatory support for SC, ST, OBC, EWS, LGBTQ+ and disabled students.
- ❖ A confidential system must exist for reporting the sexual assault, ragging, and identity-based discrimination with immediate psychosocial help.
- ❖ The Mental health is part of the constitutional right to life under Article 21, which includes dignity and autonomy, as upheld in Shatrughan Chauhan v. Union of India.



INTERNATIONAL NEWS

South Africa's genocide case

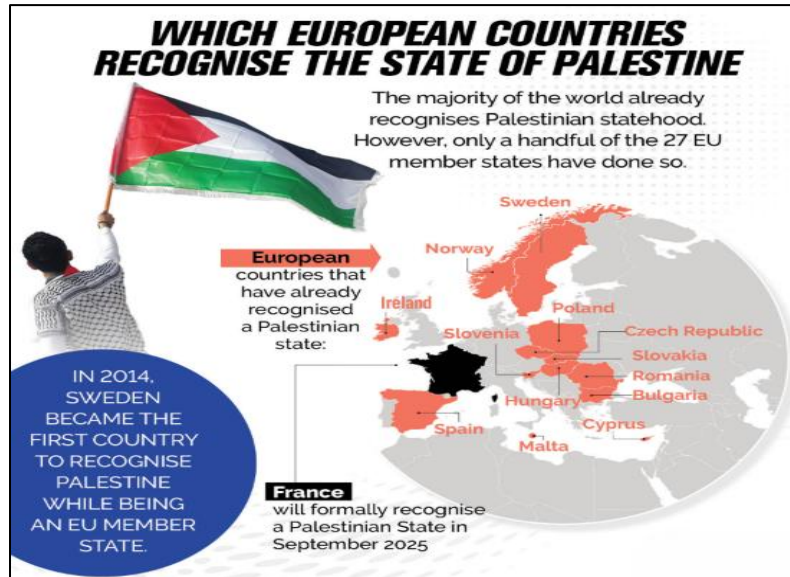
- ❖ Brazil is to intervene in South Africa's case at the International Court of Justice (ICJ), accusing Israel of genocide in Gaza under the 1948 Genocide Convention.
- ❖ Brazil condemns ongoing atrocities, urging the international community to act against moral ambiguity and political omission.
- ❖ Brazil criticizes repeated violence and the use of starvation as a weapon in Gaza and the West Bank, calling for the protection of Palestinian rights.
- ❖ Several countries, including Spain, Turkey, and Ireland, also seek to intervene, highlighting Israel's alleged violations of international law.
- ❖ ICJ previously ordered Israel to prevent genocide and allow humanitarian aid access.



Recognition of the Palestinian State – France

- ❖ French President Emmanuel Macron confirmed France will recognise Palestinian statehood in a letter to Mahmoud Abbas.
- ❖ France becomes the first G7 (Group of Seven) nation and major Western power to take this diplomatic step.
- ❖ Macron will make the formal announcement at the United Nations General Assembly next month.
- ❖ The move follows recognitions by Spain, Ireland, and Norway in 2024.

- ❖ France seeks to reinforce the two-state solution and encourage other undecided nations to act similarly.



UNSC's peaceful dispute resolution



- ❖ The United Nations Security Council (UNSC) unanimously adopted Resolution 2788 to strengthen peaceful settlement mechanisms for international disputes.
- ❖ The resolution urges all UN member states to effectively use methods listed under Article 33 of the UN Charter, including negotiation, mediation, arbitration, and judicial settlement.

- ❖ It reaffirms the UNSC's authority to recommend the appropriate procedures or methods of adjustment for resolving disputes peacefully.

SCIENCE AND TECHNOLOGY NEWS

Bamboo-based eco-composite for automobiles

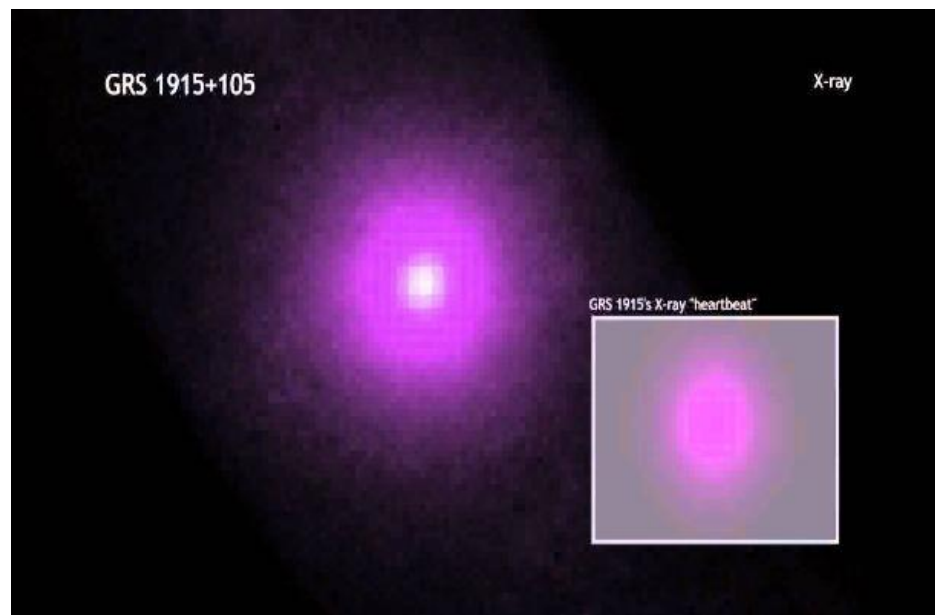
- ❖ IIT - Guwahati developed a bamboo-polymer composite using Bambusa tulda and biodegradable polymers as a plastic alternative.
- ❖ The composite is designed for automotive interiors like dashboards, door panels, and seat backs, offering high strength, thermal stability, and low moisture absorption.
- ❖ Four formulations which are using bamboo fibres and bio-based or petroleum-based epoxies were tested across 17 parameters including durability, water resistance, and cost.
- ❖ The eco-friendly material has potential applications in electronics, furniture, packaging, and sustainable construction.



Black hole GRS 1915+105

- ❖ GRS 1915+105 is located 28,000 light-years away and exhibits dynamic and unusual behavior.

- ❖ It is black hole X-ray binary system with a 12-solar-mass black hole and a companion star.
- ❖ India's AstroSat, launched in 2015, has been continuously monitoring this black hole.
- ❖ The X-ray brightness from GRS 1915+105 fluctuates between low ('dip') and high ('non-dip') phases lasting a few hundred seconds.
- ❖ During high-brightness phases, rapid X-ray flickers called Quasi-periodic Oscillations (QPOs) occur at about 70 times per second.
- ❖ It is linked to a compact, superheated plasma corona around the black hole.
- ❖ When the brightness dips, the corona expands and cools, causing the flickers to disappear.
- ❖ This suggesting the oscillating corona is the source of these fast QPO signals.



Tayfun Block-4

- ❖ Turkey's Tayfun Block-4 is its first hypersonic ballistic missile, developed by defence firm Roketsan.
- ❖ The missile has an operational range of 800 km, with plans to extend to 1,000 km and exceeds Mach 5 speed.
- ❖ It uses GPS + GLONASS aided inertial navigation system (INS) for accuracy within 5 meters.

Türkiye marks **major**
defence **milestone** with
first hypersonic missile



ENVIRONMENT NEWS

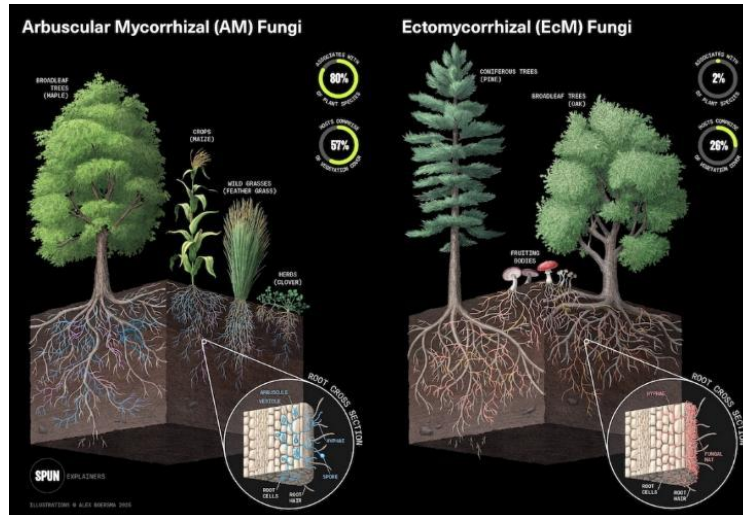
Clavelina ossipandae



- ❖ A new sea squirt species named *Clavelina ossipandae* was discovered near Kumejima Island, Japan.
- ❖ It looks like a tiny underwater panda, measuring just 20 millimetres in length.
- ❖ The species belongs to the *Clavelina* genus and lives among coral reefs.

- ❖ The species name *ossipandae* means “panda bones” matching its look.

Global Hotspots of Mycorrhizal Fungi



- ❖ The Underground Atlas by the Society for the Protection of Underground Networks (SPUN) reveals that over 90% of global mycorrhizal fungi hotspots lie outside officially protected areas.
- ❖ These fungi are essential for nutrient cycling, soil health, plant growth, and long-term carbon storage.
- ❖ Mycorrhizal fungi form symbiotic relationships with over 80% of plant species and account for up to 30% of microbial biomass in soil.
- ❖ They assist plants in absorbing key nutrients like phosphorus, supporting overall plant health and soil fertility.
- ❖ They also contribute significantly to carbon sequestration by processing up to 13 billion tonnes of carbon dioxide (CO₂) annually - around one-third of global fossil fuel emissions.
- ❖ The SPUN used over 25,000 geolocated soil samples and 2.8 billion fungal DNA sequences from 130 countries to train machine learning models that map global mycorrhizal diversity.
- ❖ The digital atlas focuses on two types of mycorrhizal fungi: arbuscular mycorrhizal (AM) fungi and ectomycorrhizal (EcM) fungi.
- ❖ The third type, ericoid mycorrhizal (ErM) fungi, was excluded due to the limited sample availability.
- ❖ AM fungal diversity hotspots were predicted in the Brazilian Cerrado savannas, tropical forests of Southeast Asia, and Guinean forests in West Africa.

- ❖ EcM fungal richness hotspots were identified across northern boreal forests in Siberia and Canada, coniferous forests in the western United States and Canada, and temperate mixed forests in Central Europe and the North American Great Lakes region.

Wolf spider species in Sundarbans

- ❖ Researchers have discovered a new species of wolf spider on Sagar Island in the Sundarbans delta.
- ❖ The newly identified species, *Piratula acuminata*, belongs to the family Lycosidae.
- ❖ It marks the first recorded presence of the genus *Piratula* in India.



STATES' NEWS

First AI Use Policy in Judiciary

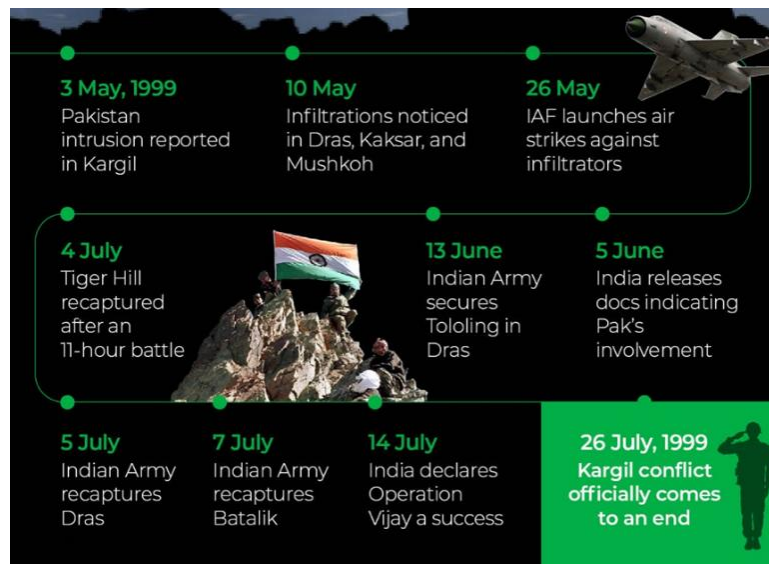
- ❖ The Kerala High Court released India's first judicial policy on Artificial Intelligence (AI) use, focusing on responsible and limited application.
- ❖ The policy permits AI tools only for the administrative tasks like case scheduling, under human supervision and proper record-keeping.

- ❖ It prohibits AI-generated drafting of legal documents and mandates verification for translations and research outputs.
- ❖ Only AI tools approved by the Kerala High Court or the Supreme Court may be used in court-related work.



IMPORTANT DAYS

Kargil Vijay Diwas 2025 - July 26



- ❖ It is observed to remember the victory of the Indian Armed Forces in the 1999 Kargil War.
- ❖ It marks the 26th anniversary of Operation Vijay.
- ❖ During this operation, India reclaimed territory after Pakistani soldiers occupied key areas in Kargil.
- ❖ Kargil Vijay Diwas is observed nationwide to pay the tributes to the courage and the sacrifice of the soldiers who fought under extreme weather and treacherous terrain in the Himalayas.

CRPF Foundation Day 2025 - July 27



- ❖ The Force, originally raised as the Crown Representative's Police on 27th July 1939.
- ❖ The force was reorganized and renamed the Central Reserve Police Force on December 28, 1949, through an Act of Parliament.
- ❖ Currently it evolved into the largest paramilitary force in the world.

World Hepatitis Day 2025 - July 28

- ❖ Hepatitis is a medical condition which causes inflammation of the liver and can lead to severe liver disease and liver cancer.
- ❖ Dr. Baruch Samuel Blumberg, discovered the hepatitis B virus in 1967 and subsequently produced the first vaccine.
- ❖ His birth date of 28 July was designated as World Hepatitis Day in recognition of his achievements and contributions.
- ❖ The theme for 2025 is Let's Break It Down.



International Tiger Day 2025 - July 29



- ❖ It aims to unite all tiger range countries in an effort to enhance their conservation and management worldwide.
- ❖ It was first established in 2010 at the Saint Petersburg Tiger Summit.
- ❖ India is home to 3,682 large cats.
- ❖ The theme for 2025 is "Securing the future of Tigers with Indigenous Peoples and Local Communities at the heart."

