

SANSKRITI IAS DAILY CURRENT AFFAIRS

06-10-2026

Rachakonda Fort

Deccan Chronicle

Govts Failed To Develop Rachakonda Fort As Tourist Spot

The hillock on which Rachakonda Fort was located near Rachakonda Thanda in Sansathan Narayanapur mandal in Yadadri-Bhongir district— DC File.



Why in News: Rachakonda Fort in Telangana has attracted attention over concerns regarding the neglect and underutilisation of its heritage potential.

Historical and Geographical Context

- **Rachakonda Fort** is a medieval hill fort located in **Rachakonda village, Yadadri Bhuvanagiri district, Telangana**.
- The fort is closely associated with the **Recherla Nayaks**, who rose to prominence after the decline of **Kakatiya power**.
- **Recherla Singama Nayak** is traditionally credited with establishing the Rachakonda stronghold in the **14th century**.
- The fort was captured by the **Bahmani Sultanate** in **1433 CE** during its expansion in the Deccan.

Heritage Concerns

- The fort is largely in ruins, with vegetation covering portions of the remains.
- Its condition highlights the importance of **heritage conservation, tourism infrastructure and responsible management** of medieval monuments.

Architectural Features

- The fort covers approximately **6 sq km** and is built across a rocky hill.
- It is an example of **medieval Hindu fort architecture** and contains gateways, temples, stone structures and water-retaining structures.
- Its **cyclopean masonry** uses massive irregular stones fitted together without conventional mortar.
- The fort has **two concentric walls with four gates on each side**.
- Historic **Sri Rama temples** and several **Shaiva shrines** are found within the complex.

Fleet Support Ship-1 (FSS-1)

Why in News: The Defence Minister is scheduled to launch **Fleet Support Ship-1 (FSS-1)** at **Hindustan Shipyard Limited, Visakhapatnam**, marking a milestone in indigenous naval shipbuilding.

The Times of India

Rajnath launches India's first fleet support ship 'Surya' at Visakhapatnam; witnesses delivery of 2,000th

... defence minister Rajnath Singh on Tuesday launched 'Surya', the country's first indigenously-built fleet support ship (FSS-1), laid the...



Strategic Role

- **FSS-1** is the first of **five Fleet Support Ships** being built for the **Indian Navy**.
- Fleet Support Ships function as **underway replenishment vessels**, enabling warships to remain deployed at sea for longer periods.
- They can supply **fuel, water, ammunition, stores, victuals and personnel** to naval vessels at sea.
- The ships can also support **multirole helicopters** and undertake **humanitarian assistance and disaster relief (HADR)** missions.

Technical Features

- The ship uses **diesel propulsion**, a **single-shaft configuration** and a **controllable-pitch propeller**.
- It measures approximately **200 m in length, 25 m in breadth and 10 m in draft**.
- It has a displacement of about **44,000 tonnes** and a speed of **20 knots**.
- Its complement is approximately **190 personnel**.
- **Double-bottom and double-hull arrangements** in cargo-hold areas enhance survivability and operational endurance.

Indigenisation Significance

- The five Fleet Support Ships are being developed by **Hindustan Shipyard Limited (HSL)**, **Visakhapatnam**, a state-owned shipbuilding company.
- The programme represents the **first indigenous construction of this class of vessels in India** and strengthens naval logistical self-reliance.

Uranium Corporation of India Limited (UCIL)

THE HINDU

UCIL bets on greenfield mines, copper residue to double uranium output by 2036

The Uranium Corporation of India Limited (UCIL) plans to double its domestic uranium production by 2036, backed by four greenfield mining...



Why in News: **Uranium Corporation of India Limited (UCIL)** recently observed its **Diamond Jubilee**, highlighting its role in India's domestic uranium-mining and nuclear fuel cycle.

Institutional Profile

- **UCIL** is a **Central Public Sector Enterprise (CPSE)** under the **Department of Atomic Energy (DAE)**.
- It was established on **4 October 1967** and is the principal organisation responsible for mining and processing uranium ore for India's nuclear programme.

- UCIL supplies uranium primarily for **Pressurised Heavy Water Reactors (PHWRs)**.

Mining and Processing Network

- UCIL operates **six underground mines** in Jharkhand at **Bagjata, Jaduguda, Bhatin, Narwapahar, Turamdih and Mohuldih**.
- It also operates the **Banduhurang open-pit mine** in Jharkhand.
- Uranium ore from Jharkhand is processed at plants located **Jaduguda and Turamdih**.
- UCIL also operates an **underground mine and processing plant at Tummalapalli, Andhra Pradesh**.



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Nuclear-Fuel-Cycle Significance

- UCIL contributes to India's **domestic uranium supply security** and thereby supports the country's nuclear power programme.
- Its operational expertise covers **underground and open-cast mining, ore processing, radiation protection, occupational safety and environmental management**.

Plague

 The Economist

The plague may have escaped from a lab in Siberia

A researcher's death at a Siberian plague research institute sparks global concern about potential lab leaks and Russia's biological weapons...



Why in News: A suspected case of **pneumonic plague in Siberia** led to heightened public-health precautions following the death of a laboratory worker from severe pneumonia.

Causative Agent and Transmission

- **Plague** is an infectious disease caused by the bacterium **Yersinia pestis**, which naturally occurs in small mammals and their fleas.
- Transmission between animals commonly occurs through **infected fleas**.
- Humans can contract plague through **infected flea bites, contact with infected animal tissues or fluids, or inhalation of respiratory particles** in pneumonic plague.

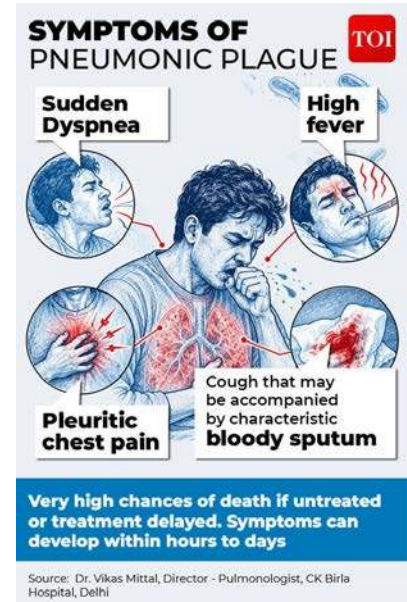
Major Forms

- **Bubonic plague** is the most common form and causes painful, swollen lymph nodes called **buboes** following infection through a flea bite.

- **Pneumonic plague** is the **most virulent form** and can spread through respiratory droplets or particles during close and sustained contact.
- **Septicaemic plague** occurs when ***Y. pestis* multiplies rapidly in the bloodstream** and may develop from another form of plague.

Clinical and Public-Health Significance

- Bubonic plague commonly produces **fever, chills, body aches, weakness and painful lymph-node swelling**.
- Pneumonic plague can cause **high fever, cough, breathing difficulty and blood-stained sputum**, with symptoms potentially developing very rapidly.
- Septicaemic plague may cause **skin bleeding, cyanosis and tissue necrosis**.
- There is **no routinely recommended plague vaccine for the general public**, while timely **antibiotic treatment and supportive therapy** can be effective.



Southern Right Whale

B The Business Standard

Scientists investigate unusual deaths of baby whales in Argentina

Dozens of dead calves have washed ashore around Peninsula Valdes, a major breeding ground for southern right whales in Chubut province.



Why in News: Scientists are investigating the deaths of several **Southern Right Whale calves** along Argentina's Patagonian coast following an unusually severe mortality season.

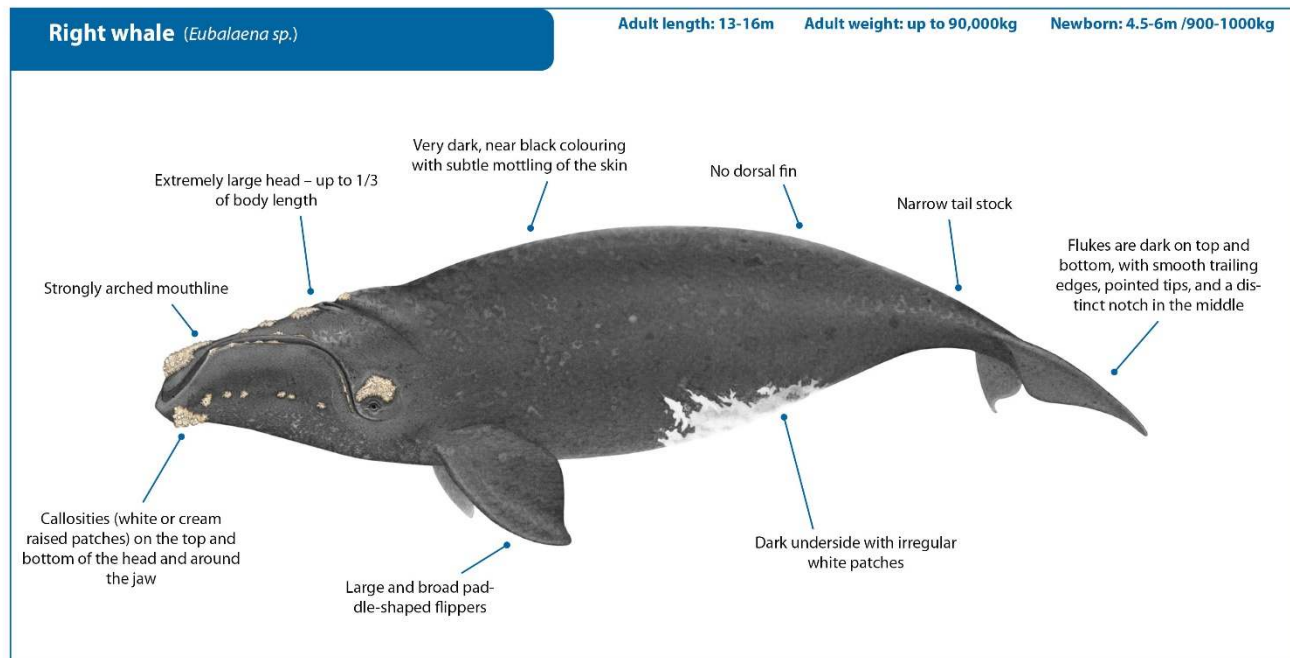
Species Profile

- The Southern Right Whale, ***Eubalaena australis***, is a **baleen whale** and one of the three recognised right-whale species.
- It is characterised by **head callosities, a broad back without a dorsal fin and a long arching mouth**.
- Its body is generally **dark grey or black**, sometimes with white patches on the belly.

Geographical Distribution

- The species occurs across the **Southern Hemisphere**, generally between **20°S and 60°S latitudes**.
- It commonly inhabits **sheltered bays** and moves into colder Antarctic waters during summer.

- Southern right whales visit the **South African coast from May to November**.



Feeding Ecology and Conservation

- The whale is a **filter feeder** that skims water near the surface and uses its **baleen plates** to retain prey.
- Its diet includes **copepods and pelagic larval crustaceans** and is therefore broadly **plankton-based**.
- The **IUCN Red List** classifies the Southern Right Whale as **Least Concern**.

Other Important News of the day

Places in News

Debrigarh Wildlife Sanctuary

TMIE The New Indian Express

New homestays, visitor facilities inaugurated at Debrigarh wildlife sanctuary

A total of two new log houses, with eight-bed dormitory facilities, have also been developed at Debrigarh Nature Camp to cater to larger...



Why in News: Odisha has expanded accommodation and visitor facilities under its **community-managed ecotourism infrastructure** at Debrigarh Wildlife Sanctuary.

Geographical and Ecological Setting

- **Debrigarh Wildlife Sanctuary** is located in **Bargarh district, Odisha**, near the **Hirakud Dam** on the **Mahanadi River**.

	➤ The sanctuary covers approximately 347 sq km and is dominated by mixed and dry deciduous forests. ➤ Important tree species include Sal, Asana, Bija, Aanla and Dhaura. <table border="1" data-bbox="402 373 1479 989"> <tr> <th data-bbox="407 380 889 422"><u>Biodiversity Profile</u></th><th data-bbox="906 380 1474 464"><u>Historical and Conservation Linkages</u></th></tr> <tr> <td data-bbox="407 422 889 982"> ➤ Important mammals include Indian leopard, sloth bear, chousingha, sambar, gaur, wild boar and dhole. ➤ The sanctuary also supports several migratory birds during winter, including the crested serpent eagle, red-vented bulbul, drongo and oriental white-eye. </td><td data-bbox="906 464 1474 982"> ➤ Debrigarh is associated with freedom fighter Veer Surendra Sai, whose base at Barapathara was located within the sanctuary during his rebellion against British rule. ➤ Its proximity to Hirakud Dam, a major multipurpose project on the Mahanadi River, adds to its geographical significance. </td></tr> </table>	<u>Biodiversity Profile</u>	<u>Historical and Conservation Linkages</u>	➤ Important mammals include Indian leopard, sloth bear, chousingha, sambar, gaur, wild boar and dhole. ➤ The sanctuary also supports several migratory birds during winter, including the crested serpent eagle, red-vented bulbul, drongo and oriental white-eye.	➤ Debrigarh is associated with freedom fighter Veer Surendra Sai, whose base at Barapathara was located within the sanctuary during his rebellion against British rule. ➤ Its proximity to Hirakud Dam, a major multipurpose project on the Mahanadi River, adds to its geographical significance.
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Environment	<table border="1" data-bbox="402 1010 1479 1325"> <tr> <th colspan="2" data-bbox="407 1016 1474 1052">Great Indian Bustard</th></tr> <tr> <td data-bbox="407 1052 1317 1318">  Hindustan Times <u>From the edge of extinction, two captive-bred Great Indian Bustards released into wild in Rajasthan India News</u> Not very long ago, the Great Indian Bustard (GIB) ranged across a vast swathe of India, from Punjab in the north to Tamil Nadu in the south. </td><td data-bbox="1317 1052 1474 1318">  </td></tr> </table> Why in News: Two captive-bred male Great Indian Bustards (GIBs) were released into the wild at Sam in Desert National Park, Jaisalmer, Rajasthan, as part of conservation efforts. Habitat and Distribution ➤ The Great Indian Bustard, locally known as Godawan, is a large terrestrial bird endemic to the Indian subcontinent. ➤ Its core surviving population is concentrated in the Thar Desert, particularly in Jaisalmer and Barmer districts of Rajasthan. ➤ Other important habitats occur in Gujarat, Maharashtra, Karnataka and Andhra Pradesh. ➤ It primarily inhabits dry grasslands and scrublands, which are threatened by agricultural expansion and development.	Great Indian Bustard		 Hindustan Times <u>From the edge of extinction, two captive-bred Great Indian Bustards released into wild in Rajasthan India News</u> Not very long ago, the Great Indian Bustard (GIB) ranged across a vast swathe of India, from Punjab in the north to Tamil Nadu in the south.	
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	Physical and Ecological Features ➤ The GIB is among the heaviest flying birds in the world, with the heaviest individuals weighing up to 15 kg. ➤ It has a horizontal body posture, long bare legs and a black crown, with males additionally displaying a black breast band. ➤ Its lifespan is approximately 12–15 years, and it feeds opportunistically on grass seeds, insects, small rodents and reptiles. Conservation Status ➤ The species is classified as Critically Endangered on the IUCN Red List. ➤ Conservation efforts increasingly emphasise captive breeding and subsequent release into suitable natural habitats. ➤ The species' dependence on open grassland ecosystems makes habitat protection and mitigation of development pressures central to its recovery.
Defence	Exercise Mountain Guardian 2026  DD News <u>India, UAE Begin Joint Military Exercise Mountain Guardian 2026</u> The India-UAE Joint Military Exercise Mountain Guardian 2026 commenced today at the Foreign Training Node in Chaubatia, Uttarakhand.  Why in News: Exercise Mountain Guardian 2026, a joint India-UAE military exercise, commenced at the Foreign Training Node, Chaubatia, Uttarakhand. Military Cooperation ➤ The exercise is conducted between the Indian Army and UAE Armed Forces with emphasis on mountain warfare. ➤ Its objectives include improving interoperability, mutual understanding and operational cooperation between the two forces. ➤ The Indian contingent includes troops from a Bhairav Battalion, along with women officers and combatants. Training Components ➤ The exercise involves joint planning, tactical drills, firing practices and surveillance-grid establishment.

	➤ Troops also conduct drone operations, rock climbing, obstacle training and physical endurance training. ➤ Training includes technology-enabled operations and exchange of tactics, techniques and procedures for difficult mountainous terrain. Strategic Significance ➤ The exercise strengthens India-UAE military-to-military cooperation and enhances preparedness for operations in challenging mountainous environments. ➤ It also reinforces defence cooperation and strategic trust between the two countries.
Science and Technology	Jumping Genes  Earth.com <u>Jumping genes may explain how ants became so diverse after dinosaurs died</u> Ants branched into thousands of new species after the dinosaurs died, and a new study links that burst to jumping genes in their DNA.  Why in News: A study has linked the diversification of ants into thousands of species following the dinosaur extinction to the evolutionary role of jumping genes. Scientific Concept ➤ Jumping genes, scientifically called transposable elements (TEs) or transposons, are DNA sequences capable of moving from one genomic location to another. ➤ They occur widely in both prokaryotes and eukaryotes and can constitute a substantial proportion of genomes. ➤ Transposons account for approximately 50% of the human genome and up to 90% of the corn genome. Scientific Applications ➤ Transposons can be used in laboratories for mutagenesis, transgenesis and gene therapy. ➤ Environmental stress may increase transposon activity in some organisms and potentially contribute to adaptive mutations.

Classification and Biological Effects

- Based on their movement mechanism, transposons are broadly classified as **retrotransposons** and **DNA transposons**.
- Based on dependence for mobility, they may be **autonomous** or **non-autonomous**.
- Transposons can disrupt genes or gene regulation and have been associated with conditions including **haemophilia, hypercholesterolemia and cancers**.
- At the same time, they can generate **genetic variation and evolutionary diversity**.

Genome Regulation

- Organisms regulate transposon activity through **epigenetic mechanisms** such as **DNA methylation and histone modifications**.
- Transposon-rich regions are often condensed into **heterochromatin**, restricting access of transcription machinery.
- **RNA interference mechanisms**, including **piRNAs, miRNAs and siRNAs**, can also silence transposons.

Uttar Pradesh in News

Sant Ramesh Baba

 Organiser Weekly

[Padma Shri Sant Ramesh Baba passes away: A life of devotion, Gau Seva and the preservation of Braj's spiritual legacy](#)

Padma Shri awardee and Braj Sant Ramesh Baba passed away in Barsana, leaving behind a legacy of Gau Seva and Braj conservation.



Why in News: Padma Shri awardee Sant Ramesh Baba, founder of Maan Mandir, Barsana, passed away at the age of 90 at his ashram in the Gahvar Van area.

Braj and Social Service

- He came to Braj in 1953 at the age of 14 and devoted over seven decades to its religious and ecological heritage.

- He worked for **cow welfare, conservation of Braj hills, forests and sacred ponds,** and restoration of the **Yamuna and other water bodies.**

Religious and Cultural Contributions

- He promoted **Harinam Sankirtan** and organised the **Radharani Braj Yatra.**
- His works include '**Braj Bhaav Malika**' and '**Swar Vanshi Ke Shabda Noopur Ke**', besides a Hindi translation of **Radha Sudha Nidhi.**

Recognition and Legacy

- He received the **Padma Shri** for **spiritual and social service.**
- **Brajsharan Das Baba** was appointed his successor as **Mahant of Maan Mandir in March 2024.**