



Weekly Current Affairs

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Subdoluseps Nilgiriensis

In news

Researchers have discovered an Asian gracile skink species from Western Ghats.



Slinky find: Named *Subdoluseps nilgiriensis*, the reptile has a slender body of just about 7 cm and is sandy brown in colour. ▪

Key takeaways

- It is closely related to *Subdoluseps pruthi* found in parts of the Eastern Ghats.
- It was found in a dry deciduous area->showing unrealised skink diversity even in the dry zones.
- This species is only the third skink species discovered from mainland India in the last millennium.

About Skinks

- Skinks are **non-venomous**. They **resemble snakes** because of the often-inconspicuous limbs-> often results in humans killing.
- Skinks are known to **feed on insects such as termites, crickets and small spiders**.
- It is considered a vulnerable species.
- **Threats:** Seasonal forest fires, housing constructions, brick kiln industries in the area and Rapid Urbanization-> threatened its small geographical range..

Elephant Seals

In news

Scientists have conducted the most thorough study of the unique feeding behaviour of northern elephant seals, especially focusing on the female elephant seals.

Key takeaways

- **Elephant Seals** were found to spend more than 20 hours every day in continuous deep-diving to feeding-> feed on multitudes of small fish instead of larger prey.
- This is being done to gain the body fat essential for successful reproduction and insulation in the frozen depths.
- **Female elephant** seals are only about one-third of the size compared to male elephant seals. Male elephant seals feed only in coastal waters.

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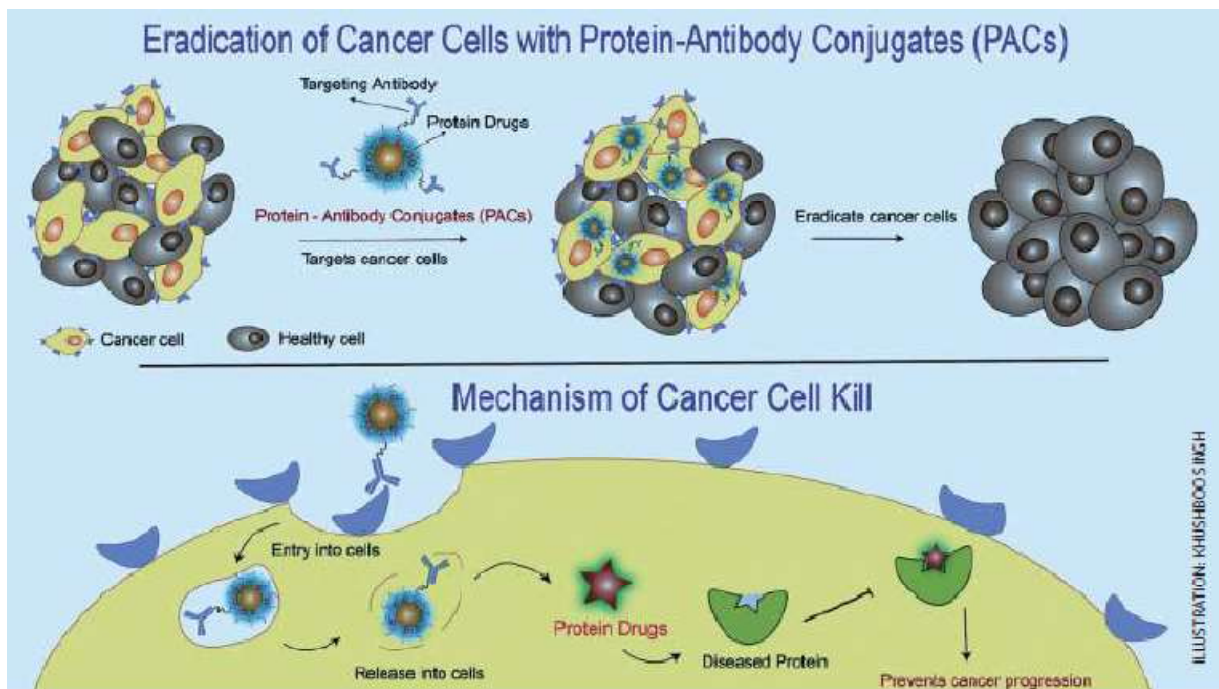
About Elephant Seals

- Largest seals on earth-> get their name from the prominent noses of the males that resemble an elephant's trunk.
- They eat rays, skates, fish, squid, and sharks that live near the bottom of the ocean.
- **Two species** of elephant seals:
 - **Northern elephant seals:** found->Pacific coast of the US, Canada and Mexico.
 - **Southern elephant Seals:** largest of all seals and live in sub-Antarctic and Antarctic waters.

Protein–Antibody Conjugates or PACs

In news

Researchers at the University of Massachusetts Amherst's Institute for Applied Life Sciences has developed a nanoparticle-> potential to revolutionize disease treatment including for cancer. It is based on a method known as PACs.



Key takeaways:

- This combines concepts of biologics and antibody–drug conjugates to produce protein–antibody conjugates that can be used for targeted drug delivery.
- **Biologics**->targeting a defective protein in the system by delivering proteins to it.
- Antibody-drug conjugates (ADCs): designed as a targeted therapy for treating diseases like cancer. Unlike chemotherapy it kill tumour cells while sparing healthy cells.
- PACs are used for antibody-directed delivery of protein to specific cells.

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- This method ensures the precise and effective delivery of drugs to specific cells.

Note:

- **Conventional Drugs** are made from chemical processes and have well-defined chemical structures.
- **Biologics drug:** derived from living cells. They can be composed of sugars, proteins, or nucleic acids or complex combinations of these substances.

Mars Landing by China

In news

China landed a spacecraft on Mars carrying its first Mars rover is a big boost to its space ambitions.

Key takeaways

- China had in July 2020, launched its first Mars mission, called Tianwen-1, carrying a lander and rover.
- Tianwen-1 had been in orbit since February.
- Recently, a lander descended successfully on the surface of Mars carrying a rover named Zhurong.
- **Only Russia and the U.S.A had previously carried out a successful landing on Mars.**
- The rover will provide “first-hand materials for research on the Mars’ space environment, surface topography, and soil structure.

Colombo Port City

In news

The Sri Lankan Supreme Court has cleared the “**Colombo Port City Project**” with minor modifications.

Key takeaways

- It is a large-scale integrated city being developed by China near Colombo, Sri Lanka.
- It is being developed as a SEZ and will attract billions of dollars for trade, banking and offshore services similar to what is available in Dubai and Singapore.
- The Port City will be administered by a commission with various powers to fast track investment approvals.

Strides in space | China successfully landed a spacecraft on Mars for the first time on Saturday. Here is a timeline of key moments to this feat

October 2003: Shenzhou-5 carries first Chinese astronaut, Yang Liwei, into space, third country after Soviet Union and U.S. to do so

October 2007: Launch of first lunar mission Chang'e-1, fifth country to launch moon probe

September 2011: Launch of Tiangong-1, first space lab and precursor to plan for space station

November 2011: First Mars orbiter, Yinghuo-1, launched with Russia but fails to enter Mars orbit

June 2012: Shenzhou-9 docks with Tiangong-1, first manned docking for China's space programme

December 2013: Chang'e-3, third moon probe with rover, makes first soft landing on moon, third country to do so after U.S. and Soviet Union

September 2016: Launch of second space lab, Tiangong-2, accelerating space station plans

January 2019: Chang'e-4



Great leap: An artistic depiction of the Chinese Mars rover and lander. ■ XINHUA/AP

Lunar probe makes world's first landing on “far side” of the moon

July 2020: Launch of first Mars mission, Tianwen-1, carrying orbiter, lander and rover

April 29, 2021: Long March-5B rocket carries Tianhe module into space, first of three parts of space station set to be completed in 2022; debris falls in Indian Ocean

May 15, 2021: Zhurong lander touches down on Mars, third country to achieve Mars landing after Soviet Union and the U.S.

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- All transactions within the Port City will be denominated in foreign currency and all salaries earned by any worker will be tax-exempt.

Concerns:

- It is believed to have adverse environmental impact.
- Giving outright ownership of land to China-> may impact Sri Lanka's sovereignty.

'Infrastructure' Status for exhibition and convention centres

In news

The Finance Ministry has granted 'Infrastructure' status for exhibition and convention centres. The move is expected to ease bank financing for such projects.

Key takeaways

- Exhibition-cum-Convention Centre is included in the Harmonised Master List of Infrastructure. This is done by creating new category of Social and Commercial Infrastructure.
- Benefits would only be available for projects with a minimum built-up floor area of 1,00,000 sq. m. of exclusive exhibition space or convention space or both combined.
- It includes primary facilities such as exhibition centres, convention halls, auditoriums, plenary halls, business centres, meeting halls among others.
- The infrastructure tag does not involve significant tax breaks.
- The tag would help such projects get easier financing from banks.

Note: Infrastructure Status is granted by the Department of Economic Affairs(DAE), Ministry of Finance.

A-76 Iceberg

In news

A giant slab of ice bigger than the Spanish island of Majorca has sheared off from the frozen edge of Antarctica into the **Weddell Sea**. It has now become the largest iceberg currently afloat in the world.

Key takeaways

- The iceberg is designated A-76 by scientists.
- A-76 broke away from **Antarctica's Ronne Ice Shelf**.
- It was spotted in recent satellite images captured by the Copernicus Sentinel-1 mission.
- It surpassed the now second-place A-23A iceberg which is also floating in the Weddell Sea.
- Once this iceberg melts, it will not lead to a sea-level rise because it was part of a floating ice shelf.

Note:

- **Majorca**->Spain's popular tourist island lies in the Mediterranean.
- **The Weddell Sea**->is part of the Southern Ocean and contains the Weddell Gyre. Its land boundaries are defined by the bay formed from the coasts of Coats Land and the Antarctic Peninsula

SWAMIH Fund

In news

Union Minister for Finance & Corporate Affairs handed over possession to homebuyers as Special Window for Affordable & Mid-Income Housing (SWAMIH) Fund completes its first residential project.

About SWAMIH Fund

- It is a government-backed investment fund **set up as a Category-II AIF in the year 2019.**
- **Aim:** to provide relief to developers that require funding to complete a set of unfinished projects-> ensure the delivery of homes to the home-buyers.
- **The Sponsor of the Fund** is the Secretary, Department of Economic Affairs, Ministry of Finance, on behalf of the Government of India.
- The funding shall be provided to the projects that meet the following criteria:
 - Stalled for lack of adequate funds
 - Affordable and Middle-Income Category
 - Net worth positive projects (including NPAs and projects undergoing NCLT proceedings)
 - RERA registered
 - Priority for projects very close to completion.
- Rivali Park Wintergreens is the first investment by the Fund and is also the first project to get completed.

Nord Stream 2

- It is a 1,200km long pipeline project connecting Russia's Ust-Luga with Germany's Greifswald.
- The pipeline will increase in the gas exports to the EU.

Why is the pipeline controversial?

- Criticism from US: they believe that the project would increase Europe's dependence on Russia for natural gas.
- Apprehensions by Ukraine: It could bypass the existing land pipeline -> deprive the country of lucrative transit fees.

Taiwan Strait

In news

China protested the latest passage by US Navy ship through Taiwan Strait, calling it threat to the peace and stability of the region.

About Taiwan Strait

- 180 km wide, Separate Taiwan and mainland China.



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- This strait connects both the **South China Sea and the East China Sea**.
- Taiwan Strait is also known as **Formosa Strait**.

Notifiable disease

In news

The Rajasthan government has declared Mucormycosis or black fungus as an epidemic and a notifiable disease.

About Notifiable disease

- Any disease that is required by law to be reported to government authorities.
- Allow the authorities to monitor the disease, and provides early warning of possible outbreaks.
- WHO International Health Regulations, 1969 require disease reporting to the WHO in order to help with its global surveillance and advisory role.
- The process helps the government keep track and formulate a plan for elimination and control.
- The **onus of notifying any disease and the implementation lies with the state government**.
- Any **failure to report a notifiable disease is a criminal offence** and the state government can take necessary actions against defaulters.

Note:

- **Epidemic** -> affects a large number of people within a community, population, or region.
- **Pandemic** is an epidemic that's spread over multiple countries or continents.
- **Endemic** is something that belongs to a particular people or country.

Procedure to create new District

In news

Punjab Chief Minister has declared Malerkotla as the 23rd district of the Punjab State.

Process to create a new district in India

- The power to create new districts or alter or abolish existing districts rests with the **State governments**.
- This can either be done **through an executive order or by passing a law** in the State Assembly
- **The Centre has no role to play** in the alteration of districts or creation of new ones.
- Home Ministry comes into the picture when a State wants to change the name of a district or a railway station.

Power to create new District is generally held temporarily in abeyance

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- only during active census operations
- During the delimitation exercise of Lok Sabha/Vidhan Sabha constituencies.

CMIE report on unemployment

Key takeaways:

- The Unemployment rate in India has increased to **8% in April 2021** from 6.5% in March 2021.
- **LPR** was 40% in April 2021. It is the worst since the national lockdown was imposed.
- The size of the salaried class has also decreased in India-> 85.9 million (2019-20) to 73.3 million April 2021.
- **Migration from urban areas to rural areas** due to loss of jobs in cities->increased the burden on the agriculture sector.
- **Lack of demand**->hampering further growth due to the impact on income. 90% of families have seen income shrinkage.

About CMIE

- Established in 1976 primarily as an independent think tank.
- Aim:It produces economic and business databases and develops specialized analytical tools to deliver these to its customers for decision-making and for research.
- Headquartered in Mumbai

Important definitions:

- **Unemployment Rate (UER)** is the percentage of the labor force who are willing to work and are actively looking for a job but are unemployed.
- **Labour participation rate (LPR)** is the ratio of the working age population greater than 15 years of age to labor force either working or looking for work. In other words, it measures the number of persons engaging in the labour force as a percentage of the working-age population.

Lord Basaveshwara

- known as Basavanna was born in Karnataka in 1131 CE.
- **Founder of Lingayatism.** He was also a social reformer during the reign of the Kalyani Chalukya/Kalachuri dynasty.
- His philosophy was based on the principles of Arivu (true knowledge), ethos (right conduct), and Anubhava (divine experience). This brought a social, religious, and economic revolution in the 12th century.

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- He developed and inspired a **new devotional movement named Virashaivas**, or “ardent, **heroic worshippers of Shiva**”. This movement shared its roots in the ongoing Tamil Bhakti movement.
- Founded **Anubhava Mantapa (hall of spiritual experience)**-> public institution to discuss spiritual and mundane questions with men and women from all socio-economic backgrounds.
- Spread social awareness through poetry (Vachanas)-> Shat-sthala-vachana (discourses of the six stages of salvation), Kala-jnana-vachana (forecasts of the future) and Mantra-gopya.
- Gave two more very important **socio-economic principles**-> **Kayaka**- means Divine work **Dasoha**-means equal distribution.
- Introduced **Ishtalinga** (a necklace with a pendant that contains a small Shiva Linga).
- **Literary Works:**
 - The **Basavaraj Devara Ragale** written by the **Kannada poet Harihara** is the earliest available account of the life of Basaveshwara.
 - A full account of Basava’s life and ideas are also narrated in a 13th-century sacred Telugu text, the Basava Purana by Palkuriki Somanatha.

DD International

In news

National public broadcaster Prasar Bharati has floated a tender to establish a new channel named **DD International** on the lines of BBC World.

Key takeaways:

- It will be the second channel of Doordarshan after DD India
- **Aim:** to be a truly global channel like BBC World and to provide India’s point of view globally on contemporary issues.
- **Prasar Bharati will set up bureaus** across the globe for the channel.
- The channel will differ from DD India as it serves a mix of domestic and global news. Further, DD India is targeted mainly at the Indian diaspora settled outside the country.

Deep learning algorithm

- **Developed by IIT Madras and Rice University** researchers.
- Researchers used deep learning to develop a reconstruction **algorithm called FlatNet** for lensless cameras.
- It Produce photorealistic images from the blurred lensless capture.
- Existing algorithms to deblur images based on traditional optimization schemes yield low resolution, ‘noisy’ images.
- The lensless cameras have numerous vision applications in sectors -> augmented reality, virtual reality, security, smart wearables and robotics where cost, form factor and weight become major constraints

Arctic council

In news

On the eve of an Arctic Council meeting of Foreign Ministers, the US has expressed concerns about increased military activities in the Arctic. This comes after Russia defended its military activities in the strategic region.

About Arctic Council

- Established in 1996 by the **Ottawa declaration** as a high-level intergovernmental forum to addresses issues faced by the Arctic governments and people living in the Arctic region.
- 8 Member states and 13 Observer states
- 8 Member states: **Canada, the Kingdom of Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States**
- Arctic Council Secretariat formally became operational in 2013 in Norway.
- It operates on the basis of consensus. The decisions, recommendations or guidelines of the Arctic Council are non-enforceable. Its mandate explicitly excludes military security.

Microclimatic zones

In news

Council on Energy, Environment and Water (CEEW) has mentioned that reason behind rise in cyclone frequency and intensity is microclimatic changes.

About Microclimatic Zones

- Areas where the **weather is different from surrounding areas**.
- A shift in microclimate zones may lead to severe disruptions across sectors->every 2 degrees Celsius rise in annual mean temperature will reduce agricultural productivity by 15-20%.
- **Reasons behind the shift in microclimatic zones**
 - Change in land-use patterns,
 - Disappearing wetlands and natural ecosystems by encroachment,
 - Urban heat islands that traps heat locally.

Al-Aqsa Mosque

- Located on a plaza at **Temple Mount** known in Islam as **Haram-e Sharif**.
- The Mount is also **Judaism's holiest site**. The most imposing structure on the compound is the Dome of the Rock, with its **golden dome**.
- The Western Wall, also known as the **Wailing Wall sacred to Jews**, is one side of the retaining wall of the Al-Aqsa compound.

- Al-Aqsa is central to the rival claims over Jerusalem. Both **Israel and Palestine** have declared it their capital.
- Soon after the 1967 **Six-Day War** ended, Israel gave back to Jordan the administration and management of the Al-Aqsa compound.

Foreign Contribution (Regulation) Act

In news

The FCRA (Foreign Contribution Regulation Amendment) Act, 2020 has affected the work of many NGOs. They are facing difficulties in receiving foreign funds.

About FCRA

- It is an act of Parliament enacted in 1976 and amended in 2010 to regulate foreign donations. It aimed to ensure that such contributions do not adversely affect internal security.
- It is applicable to all associations, groups, and NGOs which intend to receive foreign donations.
- FCRA registration is mandatory for NGOs to receive foreign funds.
- Registered NGOs can receive foreign contributions for five purposes — social, educational, religious, economic and cultural.

Who are debarred from receiving foreign contribution?

- Candidate contesting an election
- Cartoonist, editor, publishers of registered newspaper
- Judge
- Government servants or employee of any corporation
- Member of any legislature

Funding Blues

NEW FCRA PROVISIONS

- From Apr 1, an NGO can receive foreign funds only in an SBI a/c
- New accounts can't be activated without home ministry nod
- Smaller NGOs unable to tie up with big ones that have better access to funds
- 'Sub-granting' barred under amended rules

CONCERNS

- MHA approval taking time, hampering Covid relief ops
- Some NGOs also fear delays in licence renewals

Non-profits reach out to Niti Aayog, seek relaxation for 3-4 months

The infographic features a stylized illustration of a man in a suit and glasses looking through a magnifying glass at a document. In the background, there are symbols of the Indian Rupee (₹) and a globe.