Prelim Bits 23-11-2023 | UPSC Daily Current Affairs

Oriental Armyworm

Continuous warm temperatures for prolonged periods have led to the serious armyworm infestation in Assam damaging around 28,000 hectares of paddy crop.

- **Scientific name** – *Mythimna separata*
- Also known as the northern armyworm, ear head cutting caterpillar and rice ear-cutting caterpillar.
- **1st report** – Reported as a sporadic pest from Tamil Nadu during 1937 and Kerala and Odisha in 1957.
- **Key features** – It is a ***cyclical pest*** that comes intermittently and was known to strike once every 10-12 years.
- They are ***polyphagous*** (feed on a range of host crop plants like paddy and wheat mainly and also on maize, millets, sunflower, sugarcane and groundnut)
- **Growing conditions** – Pest population increases rapidly during *high temperatures and a humid atmosphere.*
- During an outbreak, they multiply largely and move in ***swarms*** from field to field, like an army, to attack the crops.

Fall armyworm

- **Scientific name** – *Spodoptera frugiperda*
- **Native to**- Tropical and subtropical regions of the Americas.
- **Key features** – It is a ***polyphagous insect*** that feeds mainly on maize and more than 80 other crops.
- It is a ***transboundary pest*** (fly over 100 km in a single night).

References

1. Down To Earth| Armyworm attack in Assam
2. Vikaspedia | Fall Armyworm

AGNI Initiative

Ministry of Ayush has launched AGNI Initiative for physicians practicing in the field of Ayurveda.

- **AGNI** – Ayurveda Gyan Naipunya Initiative
- **Objectives**
  - To provide a platform to Ayurveda practitioners for *reporting their innovative*

practices in various disease conditions.
    - To *create of a database* by identifying and collaborating with interested practitioners.
    - To *mainstream pragmatic practices* through scientific validation and evidence-based appraisal.
- **Nodal agency** – Central Council for Research in Ayurveda Sciences (CCRAS).
- It will *document and publish* the reported practices in consultation with National Commission for Indian System of Medicine (NCISM)

Central Council for Research in Ayurveda Sciences (CCRAS)

- An ***autonomous body under Ministry of AYUSH***.
- **Aim** – To undertake, coordinate, formulate, develop and promote *research on scientific lines in Ayurveda*.
- **Research activities** – Medicinal Plant Research, Drug Standardization, Pharmacological Research, Clinical Research, Literary Research & Documentation and Tribal Health Care Research Programme.
- **Located at** – New Delhi
- **Initiatives**
    - **SPARK** – Studentship Program for Ayurveda Research Ken for Undergraduate Scholars
    - **PG-STAR** – Scheme for Training in Ayurveda Research for PG Scholars for PG Scholars
    - **SMART** - Scope for Mainstreaming Ayurveda Research in Teaching Professionals program for teachers

References

1. PIB| AGNI Initiative
2. CCRAS| Central Council for Research in Ayurvedic Sciences

Model Law on Adventure Tourism

Recently, the Union Tourism Ministry has circulated the model law on adventure tourism to all States and Union Territories for feedback.

- **Adventure tourism** – A niche tourism where exploration or travel *involves some degree of risk.*
- It includes at least 2 among the 3 elements (physical activity, natural environment, and cultural immersion)
- **Types** – *Hard adventure and soft adventure* covering land, air and water based activities.
- **Model law –** It is a ***part of the National Strategy for Adventure Tourism*** covering aspects of obligations, institutional framework, registration, penalties and insurance coverage.

*Adventure tourism is considered a **sunshine sector for India**.*

National Strategy for Adventure Tourism (2022)

- **Aim** – To develop adventure destinations, promote safety in adventure tourism, skill development, capacity building and marketing.
- **Vision** - To position India as a preferred destination for adventure tourism globally.

- **National Board for Adventure Tourism** – It is to guide the operationalization and implementation of the strategy.
- **Indian Mountaineering Foundation** - IMF has a critical role in promoting adventure tourism particularly mountaineering and trekking in the Himalayas.

India's Geographical Advantage in Adventure Tourism
• 70% of the Himalayas • 7,000 km of coastline • One of the 3 countries in the world with both hot and cold deserts • Ranks 10th in total area under forest cover • Ranks 6th in terms of number of recognized UNESCO Natural Heritage sites

References

1. PIB| Circulation of Model Law on Adventure Tourism
2. Ministry of Tourism| National Strategy for Adventure Tourism

Psyche Mission

Psyche mission fires lasers at Earth from 16 million kilometres away, successfully demonstrating the future of communication in space.

- **Launched by -** NASA in 2023.
- **Aim** – To study the ***metallic asteroid called '16 Psyche'***, located in the main asteroid belt between Mars and Jupiter.
- **Type**- Orbiter
- **Mission** – *By 2029,* the spacecraft will begin exploring the asteroid and will spend about *2 years* orbiting the asteroid.
- It will *take pictures, map the surface, and collect data* to determine Psyche's composition.

Psyche was discovered in 1852 by Italian astronomer Annibale de Gasparis. It is sometimes referred to as 16 Psyche.

- **Scientific instruments** – Multispectral Imager, Gamma-Ray and Neutron Spectrometer, Magnetometer, Deep Space Optical Communications (DSOC).

- It uses solar electric propulsion and communicates with Earth through the *Deep Space Network (DSN)* of NASA.
- **Significance** – It will help to unlock the secrets of planets formation and evolution.

Deep Space Optical Communications (DSOC) – Psyche Mission

- It is a new laser communication technology that encodes data in photons at ***near-infrared wavelengths*** (rather than radio waves) to communicate between a probe in deep space and Earth.
- Using light instead of radio allows the spacecraft to communicate more data in a given amount of time.
- It is planned for the 1st 2 years of the spacecraft's cruise and so it does *not relay Psyche mission data* to earth.

Optical communications have been demonstrated previously in Low-Earth Orbit and even to the Moon but DSOC of Psyche mission is NASA's 1st test between Earth and distances far exceeding the Moon (deep space).

- **Significance** – If proven successful, it will may pave the way for *broadband communications* that will help support humans when sent to Mars.

References

1. Indian Express| Psyche Mission
2. NASA| DSOC

Ghol fish

Ghol fish was declared as State fish of Gujarat owing to its economic value and its uniqueness.

- **Scientific name** – *Protonibea diacanthus.*
- It is also called as ***black-spotted croake***.
- **Habitat** – Usually found in the Indo-Pacific region that stretches from the Persian Gulf to the Pacific Ocean.
- In India, this fish is found mostly in Gujarat and Maharashtra.
- **Threat** – Pollution and relentless fishing have pushed its population to deep sea which makes it hard to catch it.
- **Usage** – It has nutritional and medicinal properties.
    - It is used in *pharmaceutical and cosmetic industry.*
    - To make threads used for making *dissolvable surgery stitches*
    - Its air bladder is used in the *production of wine and beer*.
- **Fisherman's lottery** – It is also known as ***'Sea Gold'*** for its high market value.
    - Locally, it costs Rs. 5,000 to 15,000 per kg and in export market, dried air

bladder can fetch as high as Rs. 25,000 per kg.

Gujarat has a coastal belt of over 1600 km and contributes the largest share in fish production in the country.

Reference

Indian Express| State Fish of Gujarat

Other Important News
New Education for New India Campaign • President of India recently launched an education campaign 'New Education for New India' of Brahma kumaris of Sambalpur, Odisha recently. • This campaign is envisaged to inculcate values and uplift the consciousness of the students for better society.
ASEAN-India Millet Festival 2023 • ASEAN-India Millet Festival 2023 was recently held at *South Jakarta, Indonesia*. • **Organized by -** *Indian Mission to ASEAN* in collaboration with *Ministry of Agriculture and Farmers' Welfare*. • **Aim -** To raise awareness and create a market for millets and millets-based products among the ASEAN Member states in line with International year of Millets - 2023. • **ASEAN Member states -** Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.
EXERCISE AUSTRAHIND-23 • The 2nd edition of AUSTRAHIND-23 will be held at *Perth, Australia*. • It is a Joint Military Exercise between ***Australia and India***.
Digital Twins • In a first-of-its-kind initiative, the Survey of India (SoI), has signed an agreement with a Mumbai-based private company, Genesys International, to prepare 'Digital Twins'. • **Digital Twins -** It aims to prepare 3D maps of several cities and towns which can be used in a variety of planning applications. • **Survey of India (SoI)** – It is a historical repository of maps and the arbiter of national and State boundaries. • It is the National Mapping Agency (NMA) of the country that works under the ***Department of Science & Technology.***
UN Panel of External Auditors • Comptroller and Auditor General of India, Girish Chandra Murmu, has been elected as vice-chair of the UN Panel of External Auditors recently. • The United Nations Panel of External Auditors was established in 1959 by the UN General Assembly Resolution. • The panel's purpose is to coordinate audits and share information about audit methods and findings. • The Panel of External Auditors, composed of heads of 12 Supreme Audit Institutions (SAIs) globally. • It oversees the external audit of the UN Secretariat, funds and programmes, and specialised agencies.

Nugu Wildlife Sanctuary

• The National Tiger Conservation Authority (NTCA) has recommended the Nugu Wildlife Sanctuary bordering the Bandipur Tiger Reserve be declared as a core critical tiger habitat.
• Nugu Wildlife Sanctuary is located in the Mysore District of ***Karnataka***.
• It's situated north of ***Bandipur National Park*** which includes the Lakshmanapura State Forest and adjacent revenue lands.
• The Nugu Reservoir occupies the northern part of the sanctuary. It is built across the Nugu River, a tributary of the Cauvery.

Same sex marriages in Thailand

• Thailand recently approves a marriage equality bill to grant same-sex couples *equal rights.*
• If it becomes law after Parliament's approval, Thailand will be the 3rd country in Asia to allow same-sex marriage.
• Other Asian countries that legalized same-sex marriages were ***Taiwan and Nepal***.

Euclid Space Telescope

• The Euclid space telescope was launched in 2023.
• It was developed by the ***European Space Agency (ESA) and the Euclid Consortium*** (***includes NASA).***
• The telescope's mission is to study the composition and evolution of the dark universe.

Adi-vyakhyan

• The *National Tribal Research Institute (NTRI)* has recently organized Adi-Vyakhyan, a conference on Tribal Development at New Delhi as part of Jan Jatiya Gaurav Diwas.

Indira Gandhi Peace Prize

• The Indira Gandhi Prize for Peace for the year 2022 was jointly awarded to the *Indian Medical Association (IMA) and Trained Nurses Association* of India recently.
• The Indira Gandhi Peace Prize, also known as the Indira Gandhi Prize for Peace, Disarmament and Development, is an *annual award* established in 1986.
• **Aim -** To honour women, men and institutions that have done exemplary work in the service of humanity and the planet.

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