

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 Strategy has the following seven pillars

- ▶ State assessment, ranking and strategy
- ▶ Skills, capacity building and certification
- ▶ Marketing and promotion
- ▶ Strengthening adventure tourism safety management framework
- ▶ National and state level rescue and communication grid
- ▶ Destination and product Development
- ▶ Governance and Institutional Framework

- **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 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.

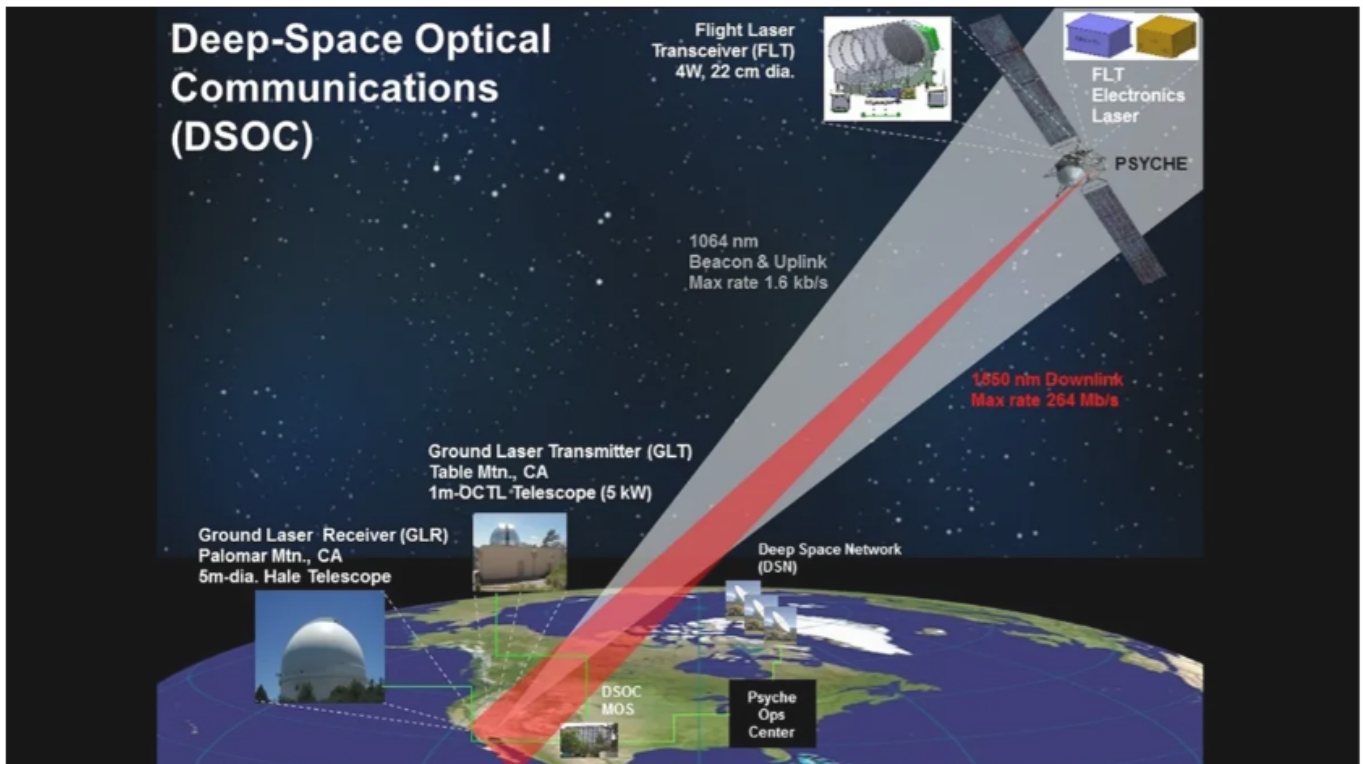
- **Scientific instruments** - Multispectral Imager, Gamma-Ray and Neutron Spectrometer, Magnetometer, Deep Space Optical Communications (DSOC).
- It uses solar electric propulsion and communicates with Earth through the *Deep Space Network (DSN)* of NASA.
- **Significance** - It will help to unlock 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 AUSTRALIND-23

- The 2nd edition of AUSTRALIND-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.