UPSC Daily Current Affairs | Prelim Bits 29-06-2020

Coccolithophores

- Coccolithophores are single-celled algae living in the upper layers of the world's oceans.
- It calcifies marine phytoplankton that produces up to 40 % of open ocean calcium carbonate and responsible for 20 % of the global net marine primary productivity.
- At equilibrium, it absorbs more carbon dioxide than they produce, which is beneficial for the ocean ecosystem.
- A study led by the National Centre for Polar and Ocean Research (NCPOR) has found that there is a decrease in the concentration of oceanic calcium carbonate ($CaCO_3$) in the southern Indian ocean.
- This decrease in $CaCO_3$ is attributed to the increase in the concentration of another single-celled algae known as diatoms.
- This, in turn, will affect the growth and skeleton structure of coccolithophores, with potential significance for the world ocean ecosystem.

Seabed 2030 Project

- This global initiative is a collaboration between Japan's non-profit Nippon Foundation and the General Bathymetric Chart of the Oceans (GEBCO).
- The mandate of GEBCO Seabed 2030 Project is to map the entire ocean floor.
- It helps in gaining the knowledge of bathymetry, the measurement of the shape and depth of the ocean floor.
- It helps in understanding natural phenomena, including ocean circulation, tides and biological hotspots.
- It also provides key *inputs for navigation, forecasting tsunamis, exploration for oil and gas projects, building offshore wind turbines, fishing resources, and for laying cables and pipelines.*
- It would also help further achieve the UN SDG to conserve and sustainably use oceans, seas and marine resources.
- It has announced that it had finished mapping nearly one-fifth of the world's ocean floor, by this it had added 1.45 crore square kilometres of

new bathymetric data to its latest grid.

GEBCO

- GEBCO is the only intergovernmental organisation with a mandate to map the entire ocean floor.
- Its origins is traced back to the GEBCO chart series initiated in 1903 by Prince Albert I of Monaco.
- It launched Seabed 2030 project in 2017, it coordinates and oversees the sourcing and compilation of bathymetric data from different parts of the world's ocean through its five centres into the freely-available GEBCO Grid.

Navigating the New Normal

- It is a behavioural change campaign developed under the guidance of Empowered Group 6, chaired by NITI Aayog CEO.
- The campaign focuses on Covid-safe behaviour, especially wearing masks, during the 'Unlock' phase of the Covid-19 pandemic.
- The campaign has two parts.

1. *Web portal* containing resources informed by behavioural science and the use of nudge and social norms theory.
2. *Media campaign* focused on the wearing of masks.

- The campaign and website were launched in partnership with *Bill and Melinda Gates Foundation (BMGF), Centre for Social and Behavioural Change (CSBC) and the Ministries of Health and WCD.*

Dhruva Chip

- It is a home-grown receiver chip developed by IIT-Bombay.
- It can be used in smartphones and navigation devices to find locations and routes *within the country*.
- It will receive signals from India's NAVIC group of navigation satellites as well as the US GPS-based satellites to determine these accurately under all weather conditions.
- *It can receive in multiple frequency bands and handle weak signals*.
- Such signals can be converted into digital bits and processed by any standard digital signal processor (DSP) to determine one's location precisely.
- It will help receive and clean up the signals received from NAVIC, which are 36,000 km above from the earth's surface.

- This Project was funded by the Ministry of Electronics and Information Technology (MeitY).
- SAMEER (Society for Applied Microwave Electronics Engineering and Research) is the nodal agency.
- **NAVIC -** Navigation with Indian Constellation is India's geo-positioning system with 9 satellites designed by ISRO to provide accurate positioning within the country.

Crocothemis servilia

- Scarlet Skimmer (Crocothemis servilia) is a peculiar dragonfly found in the Puzhakkal area of the *Kole wetlands.*
- It had a unique appearance as male dragonflies typically have prominent blood red colouration in almost all their body parts and the female is a pale yellow in colour with a dark brown thorax and legs.
- The individual spotted in Kole wetland had a mix of male and female external characters, ranging from almost entirely female to about equally divided.
- This is due to a rare biological phenomenon known as *gyanandromorphism.*
- Gynandromorphs are chimeric individuals having both male and female tissues, and are viewed by the scientific community as a genetic aberration.
- It is very rare and only 30 individuals from seven families have been reported with the condition worldwide.



Kole Wetlands

- It is spread over Thrissur and Malappuram districts of Kerala.
- It is a Ramsar site and IBA (Important Bird and Biodiversity Area)
- It accounts for more than 40% of the rice production in the State.
- It is situated in the Central Asian Flyway of migratory birds.
- It contains subterranean habitats that are important habitats for some fresh water fish species which are endemic to southern Western Ghats.
- The Society for Odonate Studies has been conducting Odonate surveys at the Kole wetlands since 2018.
- 37 species of dragonflies and damselflies have been reported from the wetlands so far.

Guidelines on Exotic Animals

- The *Environment Ministry's wildlife division* has introduced new rules to regulate the import and export of 'exotic wildlife species'.
- Currently, it is the Directorate-General of Foreign Trade, Ministry of Commerce that oversees such trade.
- Under the new rules, owners and possessors of such animals and birds must also register their stock with the *Chief Wildlife Warden of their States.*
- Officials of the Wildlife Department will also prepare an inventory of such species and have the *right to inspect the facilities of such traders to check if these plants and animals are being housed in salubrious conditions.*
- 'Exotic live species' will mean animals named under Appendices I, II and III of the Convention on International Trade in Endangered Species (CITES) of Wild Fauna and Flora.
- *It will not include species from the Schedules of the Wild Life (Protection) Act, 1972.*

Click here to know more about Advisory on Import of Exotic Animals

Source: Indian Express, the Hindu, Business Standard

