

Prelim Bits 12-05-2018

Tiny fossil shells- clue to ancient climate

\n\n

\n

- Scientists have discovered tiny fossil shells that unveil details about the Earth's climate over half a billion years ago.

\n

- The hard-bodied fossils that the scientists used in their study belong to animal groups which were the first organisms to produce shells.

\n

- The research suggests that early animals diversified within a climate similar to that in which the dinosaurs lived.

\n

- The time interval to which this fossil belongs is known for the 'Cambrian explosion'.

\n

- It is the time during which representatives of most of the major animal groups first appear in the fossil record.

\n

- Analyses of the oxygen isotopes of these fossils suggested very warm temperatures for high latitude seas.

\n

\n\n

Carbon Monitoring System and Orbiting Carbon Monitoring 3 (OCO-3)

\n\n

\n

- A NASA program that cost \$10 million per year to track carbon and methane, key greenhouse gases that contribute to global warming, has been cancelled.

\n

- The Carbon Monitoring System (CMS) tracked sources and sinks for carbon and made high-resolution models of the planet's flows of carbon.

\n

- The Orbiting Carbon Observatory 3, or OCO-3, is a space instrument designed to investigate important questions about the distribution of carbon dioxide on Earth.

\n

- OCO -3 is climate mission by NASA.

\n

\n\n

Rare Butterflies

\n\n

\n

- The black windmill butterfly (*Byasa crassipes*) was spotted in Arunachal Pradesh's Dibang Valley in the Lower Dibang Valley district.
- A scarce siren butterfly (*Hestia nicevillei*) was spotted in the Daranghati Wildlife Sanctuary in Himachal Pradesh in 2012.
- Both butterfly species are listed under Schedule I of India's Wildlife Protection Act (1972).
- This ensures the insects the same protection as that given to tigers.
- Collecting of butterflies for sale as dead specimens is a big threat in the Himalayas and north-east India,
- So the precise location of the black windmill is being withheld until the local police and forest departments have some safety measures in place to protect the insect from butterfly collectors.

\n

\n\n

Daranghati Wildlife Sanctuary

\n\n

\n

- The Sanctuary is located near Rampur Bushahr, in Shimla District, Himachal Pradesh.
- It was an erstwhile hunting reserve of the Rampur Bushahr royal family.
- The Sanctuary receives good amount of Snowfall in winters.
- Himalayan Black Bear, Brown Bear, Himalayan Palm Civet, Barking Deer, Musk Deer, Flying Fox, Goral, Indian Hare, Serow, Blue Sheep and Himalayan Weasel are the fauna.

\n

\n\n

Research and Information System for Developing Countries (RIS)

\n\n

- \n
- (RIS) is a New Delhi-based autonomous policy research institute that specializes in issues relating to international economic development
- \n
- Its special focus is on trade, investment and technology.
- \n
- RIS is envisioned as a forum for fostering effective policy dialogue and capacity-building among developing countries on global and regional economic issues.
- \n
- The focus of the work program of RIS is to promote South-South Cooperation (SSC) and collaborate with developing countries in multilateral negotiations in various fora.
- \n
- RIS seeks to enhance policy coherence on international economic issues and the development partnership canvas.
- \n

\n\n

Nanofertilizers to boost zinc uptake

\n\n

- \n
- Researchers showed that by using nanofertilizers in right doses nutritional quality of wheat can be enhanced by increasing its zinc content.
- \n
- Micronutrient deficiency is a major challenge in India.
- \n
- Majority of Indian soils are zinc deficient and soil zinc application is highly recommended along with application of NPK fertilizer.
- \n
- The increased zinc content in the grain improved its protein content and other micronutrients like iron and manganese.
- \n
- Agronomic fortification of food grains could be used to compensate micronutrient levels in grains.
- \n
- However it leads to nutrient wastage as well as environmental pollution resulting from excessive use of minerals and fertilizers.

\n

\n\n

Source: PIB, The Hindu

\n\n

\n\n

\n

