Prelim Bits 11-09-2019

Cryodrakon Boreas (Cold dragon of the North Winds)

- Paleontologists have identified a new species, named it 'Cryodrakon boreas' - a giant flying reptile.



- With a wingspan of over 10 metres, it is believed to have flown over the heads of dinosaurs.
- It could be one of the largest flying animals lived over 77 million years ago in today's western Canada.
- Its remains were, discovered 30 years ago from the Dinosaur Park Formation located in Alberta.
- A new study has concluded that the remains belong to a new species, which is the first pterosaur to be discovered in Canada.
- In terms of habitat and lifestyle, it would have lived in a tropical environment, feasting on small dinosaurs and lizards.

UN Human Rights Body (UNHRC)

- The United Nations High Comissioner for Human Rights has expressed concern over Assam NRC and communications blackout, detention of political leaders in Jammu and Kashmir.
- In the 42nd session of the United Nations Human Rights Council in Geneva.
- **UNHRC** is an inter-governmental body within the United Nations system responsible for,
    1. Strengthening the promotion and protection of human rights around the globe and
    2. For addressing situations of human rights violations and make recommendations on them.
- It has the ability to discuss all thematic human rights issues and situations that require its attention throughout the year.
- The Human Rights Council replaced the former United Nations Commission on Human Rights (UNCHR).
- The Council was created by United Nations General Assembly (**UNGA**) **'Resolution 60/251'**.

- The Council holds no fewer than 3 regular sessions a year, for a total of at least 10 weeks.
- The meetings take place for,

    1. **4** weeks in in March,
    2. **3** weeks in June, and
    3. **3** weeks in September.
    4. The sessions are held at the UN Office in Geneva, Switzerland.

- The Council is made up of **47** UN Member States, which are elected by the **UNGA** through a direct and secret ballot.
- Seats on the Council are distributed as follows,

    1. African States: 13 seats
    2. Asia-Pacific States: 13 seats
    3. Latin American and Caribbean States: 8 seats
    4. Western European and other States: 7 seats
    5. Eastern European States: 6 seats

- Members of the Council serve for a period of 3 years.
- They are not eligible for immediate re-election after serving 2 consecutive terms.
- The HRC has a Bureau of 1 President and 4 Vice-Presidents, representing the 5 regional groups.
- They serve for a year, in accordance with the Council's annual cycle.

Bombay Blood Group

- Recently, the 'Bombay blood group', a rare blood type, has been at the centre of attention in Mumbai's healthcare scene.
- Demand for the blood type has coincidentally spiked at hospitals, but supply has been scarce.
- The 4 most common blood groups are **A, B, AB** and **O**.
- The rare, 'Bombay blood group' was first discovered in Mumbai in 1952 by Dr Y M Bhende.
- Each red blood cell has antigen over its surface, which helps determine which group it belongs to.
- The Bombay blood group, also called "**hh"**, is deficient in expressing antigen H, meaning the RBC has no antigen H.
- For instance, in the **AB** blood group, both antigens A and B are found.

    1. **A** will have A antigens, **B** will have B antigens.
    2. In **hh**, there are no A or B antigens.

- Globally, the **hh** blood type has an incidence of 1 in 4 million.

- It has a higher incidence in South Asia, in India, 1 in 7,600 to 10,000 are born with this type.
- This blood type is more common in South Asia than anywhere else because of inbreeding and close community marriages.
- It is genetically passed and shared common ancestry among Indians, Sri Lankans, Pakistanis and Bangladeshis.
- This led to more cases of **hh** blood phenotype in this region.
- Often the **hh** blood group is confused with the **O** group.
- The difference is that the **O** group has **Antigen H**, while the **hh** group does not.
- The individuals with 'Bombay blood group' (**hh**) can only get blood from individuals of Bombay hh phenotype.
- In contrast, **hh** blood group can donate their blood to **A,B,O** blood types.

Zero-budget Farming

- Addressing the **COP14** to the **UNCCD**, PM mentioned that India is focusing on Zero Budget Natural Farming (**ZBNF**).
- **ZBNF** is a farming technique that seeks to bring down input costs for farmers,
    1. by encouraging them to rely upon "Natural products"
    2. rather than spending money on pesticides and fertilisers.
- The concept behind ZBNF is that over **98%** of the nutrients required by crops for photosynthesis,
    1. Carbon dioxide, Nitrogen, Water and solar energy are already available free from the air, rain, and Sun.
    2. Only the remaining 1.5% to 2% nutrients need to be taken from the soil, and
    3. Convert from "non-available" to "available" form through the action of 'Microorganisms'.
- To help the microorganisms act, farmers must apply,
    1. 'Jiwamrita' (microbial culture)
    2. 'Bijamrita' (seed treatment solution),
    3. 'Mulching' (covering plants with a layer of dried straw or fallen leaves) and
    4. 'Waaphasa' (giving water outside the plant's canopy)
    5. to maintain the right balance of soil temperature, moisture, and air.
- To manage insects and pests, **ZBNF** recommends the use of 'Agniastra', 'Brahmastra' and 'Neemastra'.

1. These are based mainly on urine and dung of cow breeds.
2. These too, need not be purchased, so farming remains practically “Zero-budget”.

- However, Scientists claims that there is no authenticated results from any experiment for it to be considered a feasible technological option.
- **ICAR**, India’s national network of agricultural research and education institutes, has appointed a committee under ‘Praveen Rao Velchala’, to study the viability of **ZBNF**.

Source: PIB, The Indian Express

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