

Prelim Bits 23-07-2017

Phobos

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- Phobos is one of the smallest moons in the solar system orbiting around the Mars.
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- It is the only natural satellite in the solar system that circles its planet in a time shorter than the parent planet's day. \n
- Red planet Mars has another natural satellite Deimos. \n
- Phobos is the innermost and larger of the two.
- Recently, NASA's Hubble Space Telescope has beamed back images of the moon Phobos in its orbital trek around the red planet. \n

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Urbanization and sacred groves

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- Sacred groves are fragments of forests protected by local communities. \n
- They are also known as "Devaru kadu" in Kannada and "Kavu" in Malayalam.
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- Sacred groves are usually dedicated to local folk deities and protected by communities because of their religious beliefs. \n
 - It helps in biodiversity conservation, recharge of aquifers and soil conservation.

- Hunting and logging are not permitted in the sacred groves. As a result, many sacred groves still exists in urban areas. \n
- With increasing urbanization, urban sacred groves are becoming home to large number of invasive ants. It is a clear indicator of human disturbances in the habitat.

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Fluorosis

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- Fluorosis is a slow, progressive, crippling disease which affects every organ, tissue and cell in the body. \nlambda{n}
- According to WHO, the fluoride concentration in drinking water should not exceed 1.5mg/l.
- Thus fluorosis is caused by excessive exposure to fluoride, beyond a concentration of 1.5 mg/l.
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- It adversely affects the foetal cerebral function and neurotransmitters. Reduced intelligence in children is associated with exposure to high fluoride levels.
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- Dental fluorosis is a defect in the tooth enamel caused by excessive fluoride consumption, is not treatable and the strains are permanent. \n
- Skeletal fluorosis is developed by the disturbance of calcium metabolism in the formation of bones in the body. It results in the softening and weakening of bones, resulting in deformities.
- The main source of fluoride in groundwater is the rocks such as charnockite, quartzite, pegamatite, laterite etc. \n

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Northern River Terrapin

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• A terrapin is one of several small species of turtle living in fresh or

brackish water.

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- The northern river terrapin (Batagur baska) is a species of riverine turtle native to Southeast Asia.
- It is classified "Critically Endangered" by the IUCN. \n
- The species is currently found in Bangladesh (in the Sundarbans), India (parts- West Bengal & Odisha), Indonesia, Cambodia and Malaysia. \n
- The northern river terrapin is omnivorous and prefers freshwater habitats. $\space{\space{1.5}\s$
- It moves to brackish river mouths or estuaries in the breeding season (December-March), returning after laying their eggs. \n
- A captive conservation breeding programme has been implemented in Sunderbans Tiger Reserve to protect the species against natural risks and also facilitate genetic management.

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