

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. $\slash n$
- 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. $\slash n$
- 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. $\space{1.5mm}\space{1.$
- Hunting and logging are not permitted in the sacred groves. As a result, many sacred groves still exists in urban areas.

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 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. γn
- According to WHO, the fluoride concentration in drinking water should not exceed 1.5mg/l.
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- Thus fluorosis is caused by excessive exposure to fluoride, beyond a concentration of 1.5 mg/l. \n
- It adversely affects the foetal cerebral function and neurotransmitters. Reduced intelligence in children is associated with exposure to high fluoride levels.
- \bullet 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. \n
- 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.

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- It is classified "Critically Endangered" by the IUCN. $\space{\space{1.5}n}$
- 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.

