Prelim Bits 29-03-2018

Interstitium layer

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- Scientists have stumbled upon a new “organ” just beneath the skin.
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- It contains collagen and elastin, proteins that give the skin its durability and elasticity.
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- It is found in spaces filled with interstitial fluid, and lines tissues that suffer physical strain.
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- The layer is found in tissues lining the gut, lungs, blood vessels, and muscles.
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- The organ was found using the technique called probe-based confocal laser endomicroscopy on a living tissue.
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- The interstitium layer could help understand how cancer spreads in the body, and prove to be a potential diagnostic tool.
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- It is the cells in this layer that age and contributes to skin wrinkles, the progression of certain diseases, and stiffening of limbs.
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- Research is being carried out to confirm whether the layer is organ or not.
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Bone tools

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- An analysis of 115,000-year-old bone tools discovered reveals that the tool

making techniques mastered by prehistoric humans in China were more sophisticated than previously thought.
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- It is the first instance of the use of bone as raw material to modify stone tools found at an **East Asian early Late Pleistocene site**.
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- The researchers identified three types of bone retouchers, known as soft hammers that were used to modify stone tools.
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- Until now, the oldest bone tools discovered in China dated back 35,000 years.
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- The bone fragments were dated using **optically stimulated luminescence (OSL).**
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- OSL is a method widely **used by geologists** for dating the sediment layers in which the tools were found.
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Co-operation on the response to Oil and Chemical Pollution

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- Union Cabinet has approved signing of a Memorandum of Understanding (MoU) between India and (SACEP) for cooperation on the response to Oil and Chemical Pollution in the South Asian Seas Region.
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- The MoU intends to promote closer cooperation between India and other **maritime nations** comprising namely Bangladesh, Maldives, Pakistan and Sri Lanka in South Asia for protection and preservation of marine environment in the region.
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- **Indian Coast Guard** (ICG) will be the Competent National Authority and national operational contact point for implementation of "Regional Oil Spill Contingency Plan" under the MoU.
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- ICG **Maritime Rescue Coordination Centers (MRCCs)** will be the national emergency response centre for marine incidents.
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- The SACEP jointly with the International Maritime Organization (IMO)

developed a **"Regional Oil Spill Contingency Plan**".
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- The plan will facilitate international co-operation and mutual assistance in preparing and responding to a major oil pollution incident in the seas around the Maritime States of Bangladesh, India, Maldives, Pakistan and Sri Lanka.
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- The Governments of Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka established the SACEP in 1982 in Sri Lanka to promote and support protection, management and enhancement of the environment in the South Asian region.
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Bandhavgarh National Park

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- Bandhavgarh National Park is spread at vindhya hills in Madhya Pradesh.
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- The name Bandhavgarh has been derived from the most prominent hillock of the area of Umaria.
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- Bandhavgarh was the hunting grounds of the erstwhile Maharaja of Rewa, Madhya Pradesh.
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- The region is marked by vegetation that includes tall grasslands and sal forests.
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- It was included in Project Tiger Network as very soon it gained publicity as a Tiger Reserve with highest density of Tigers in India.
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- The park has been divided into three major zones named as Tala, Magdi and Bamera.
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- Wild gaur in the region was extinct around 1990s.
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- The Madhya Pradesh Forest Department, the Wildlife Institute of India and a safari group from South Africa relocated gaurs from Kanha Tiger Reserve to

Bandhavgarh
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- The relocation was done according to the guidelines provided by the International Union for Conservation of Nature / Species Survival Commission for re-introduction.
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Wastes Generated at Nuclear Plants

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- The wastes generated at the nuclear power stations during the operation of Nuclear Power Plants (NPPs) are of low and intermediate radioactivity level.
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- The quantity of low and intermediate level waste to be stored at site is about 0.15 cubic meters/year/MW.
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- These wastes are appropriately treated, concentrated and subjected to volume reduction.
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- The concentrates are immobilized in inert materials like cement, bitumen, polymers etc. and stored in specially constructed structures located at the site under monitoring.
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- The overall philosophy for safe management of radioactive wastes in India, is based on the concept of
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1. Delay
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2. Dilute and Disperse
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3. Concentrate and Contain
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- The radioactivity level of the stored wastes reduces with time and by the end

of the plant life, falls to very low levels
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- Nuclear Power Corporation of India Limited (NPCIL) has to establish at each NPP site, a facility for storage and disposal of radioactive solid, liquid and gaseous wastes, which is approved by Atomic Energy Regulatory Board (AERB).
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Coast Guard ship 'Bhikhaji Cama'

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- Bhikhaji Cama, the coast guard ship was decommissioned by the coast guard after 21 years of service in trying circumstances.
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- The Coast Guard ship was named after the famous women freedom fighter.
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- The ship saved 85 lives during eight search and rescue operations, and also evacuated 137 personnel during a tsunami relief mission.
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- It was part of the project responsible for curbing poaching in the Indian Exclusive Economic Zone.
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- It also touched international ports, including Singapore, Myanmar and Manila.
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Map of the day

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World

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\n **Latitudes/Continents** \n	\n **Americas** \n	\n **Africa** \n	\n **Asia** \n	\n **Australia** \n
\n Tropic Of Cancer \n	\n Mexico \n	\n Western Sahara, Mauritania, Mali, Algeria, Libya, Egypt, **Niger** \n	\n Saudi Arabia, U.A.E, Oman, India, Bangladesh, Myanmar, China, Taiwan \n	\n **-** \n
\n Equator \n	\n Ecuador, Colombia, Brazil \n	\n Gabon, Congo, Democratic republic of Congo, Uganda, Kenya, Somalia \n	\n Indonesia \n	\n **-** \n
\n Tropic of Capricorn \n	\n Chile, Argentina, Paraguay, Brazil \n	\n Namibia, Botswana, South Africa, Mozambique, Madagascar \n	\n **-** \n	\n Australia \n

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- Brazil is the only country through which both equator and tropic of Capricorn passes.
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- Equator also passes through Maldives and Kiribati Islands.
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- Tropic of Cancer also passes through Bahamas.
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- Africa is the only continent through which Equator, Tropic of Cancer and Tropic of Capricorn passes through.
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Source: PIB, The Hindu

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IAS PARLIAMENT
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