

An aerial photograph of a winding asphalt road that curves through a dense, lush green forest. Several cars are visible on the road, including a white car, a blue car, and a white van. The road has white dashed lines for lane markings. The text is overlaid on the left side of the image.

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DAILY NEWS DECODE

17.09.21

Inventor of pocket calculator Sir Clive Sinclair dies aged 81



- **British inventor and entrepreneur Sir Clive Sinclair died at the age of 81 after battling cancer for more than a decade.**
- **Sinclair invented the pocket calculator in 1973 and popularised the home computer.**
- **He launched his first affordable consumer computer in 1980, which cost less than 100 pounds.**
- **Sinclair was still working on his inventions last week, his daughter said.**

India's first solar mission Aditya L1 likely to launch in 2022: ISRO



- **India's first solar mission, Aditya L1, is likely to be launched in the third quarter of 2022 which was earlier pushed from early 2020 due to COVID-19, Indian Space Research Organisation officials said.**
- **India's second space observatory Xposat will also be launched then, they added.**
- **The spacecraft in the mission will be sent 1.5 million kilometres away to L1 Lagrangian.**

Black Tigers



- Recently, scientists solved the mystery of black tigers in Similipal tiger reserve, Odisha.
- The researchers have identified a single mutation in a gene that causes their distinctive stripes to broaden and spread into their tawny pelt, occasionally appearing entirely dark.
- A team led by ecologist from the National Centre for Biological Sciences (NCBS), Bangalore, have discovered that the coat colouration and patterning that make the wild cats appear dark is due to a single mutation in the Transmembrane Aminopeptidase Q (Taqppep) gene.

- Different mutations in this gene are known to cause similar changes in coat colour in several other species of cats, including cheetahs.



- The abnormally dark or black coat in such tigers is termed pseudo melanistic or false coloured.
- Photos captured from Similipal in 2018 showed eight unique individuals, three of which were 'pseudo melanistic' tigers, characterised by wide, merged stripes.
- Pseudo-melanistic tigers have thick stripes so close together that the tawny background is barely visible between stripes.
- The black tigers are mutants and are Bengal tigers with a single base mutation.
- This is the first and only study to investigate the genetic basis for this phenotype (look).
- The researchers combined genetic analyses of other tiger populations from India to show that the Similipal black tigers may have arisen from a very small founding population of tigers and are inbred, providing an answer to the question that had perplexed so many.
- It noted that tigers in the Similipal Tiger Reserve are an isolated population in eastern India, and gene flow between them and other tiger populations is very restricted.

- **This has important implications for tiger conservation as such isolated and inbred populations are prone to extinction over even short periods of time.**
- **The only other black tigers outside of Similipal in India exist at the Nandankanan Zoological Park in Bhubaneswar, Ranchi Zoo and Chennai's Arignar Anna Zoological Park, where they were born in captivity.**
- **Genetic tracing proved that these captive-born tigers shared a common ancestry with Similipal tigers.**

New Species of Hybodont Shark discovered



- The teeth of new species of Hybodont shark of Jurassic age have been reported for the first time from Jaisalmer by a team of officers from the Geological Survey of India (GSI), Western Region, Jaipur.
- Hybodont sharks have been reported for the first time from the Jurassic rocks (between 160 and 168 million-years-old) of the Jaisalmer region of Rajasthan.
- Hybodonts, an extinct group of sharks, was a dominant group of fishes in both marine and fluvial environments during the Triassic and early Jurassic time.

- They became extinct at the end of the Cretaceous time 65 million years ago.
- The newly discovered crushing teeth from Jaisalmer represent a new species named by the research team as *Strophodusjaisalmerensis*.
- The genus *Strophodus* has been identified for the first time from the Indian subcontinent and is only the third such record from Asia, the other two being from Japan and Thailand.
- The new species has recently been included in Shark references.com, an international platform operating in association with International Union for Conservation of Nature (IUCN), Species Survival Commission (SSC), and Germany.

India observes the 27th Global Ozone Day.



- **World Ozone Day is celebrated on 16th September each year to commemorate the signing of the Montreal Protocol, an international environmental treaty for phasing out of production and consumption of Ozone Depleting Substances, that came into force on this day in 1987.**
- **The Day is celebrated every year to spread awareness among people about the depletion of Ozone Layer and the measures taken/ to be taken to preserve it.**
- **The theme World Ozone Day 2021 is “Montreal Protocol - Keeping us, our food and vaccines cool”.**

BAIJAYANT PANDA COMMITTEE



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- Ministry of Defence has constituted a High Level Expert Committee, under the chairmanship of former Member of Parliament Shri Baijayant Panda, for a comprehensive review of National Cadet Corps (NCC) in order to make it more relevant in changed times.
- The Terms of Reference of the Committee, inter-alia, broadly provide for
- suggesting measures which can empower NCC cadets to contribute more effectively towards nation building and national developmental efforts in various sectors;
- propose measures for gainful engagement of its Alumni for betterment of the organisation as a whole and to study/recommend best practices of similar international youth organisations for inclusion in the NCC curriculum.

- **The NCC is the largest uniformed organisation which aims at developing character, discipline, a secular outlook and ideals of selfless service amongst young citizens.**
- **It also aims to create a pool of organised, trained and motivated youth with leadership qualities in all walks of life.**

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PLANT-BASED mRNA VACCINES



- University of California, Riverside scientists are studying whether they can turn edible plants like lettuce into mRNA vaccine factories.

- Messenger RNA or mRNA technology, used in Covid-19 vaccines, works by teaching our cells to recognize and protect us against infectious diseases.
- One of the challenges with this new technology is that it must be kept cold to maintain stability during transport and storage.
- If this new project is successful, plant-based mRNA vaccines — which can be eaten — could overcome this challenge with the ability to be stored at room temperature, the University said in a press release.
- The project, backed by a US \$500,000 grant from the US National Science Foundation, has three goals:
- showing that DNA containing the mRNA vaccines can be successfully delivered into the part of plant cells where it will replicate,

- **demonstrating the plants can produce enough mRNA to rival a traditional shot, and**
- **finally, determining the right dosage.**

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Ayaan Shankta named as “2021 International Young Eco-Hero”



- A 12-year-old environmental activist from Mumbai, Maharashtra, Ayaan Shankta has been named as “2021 International Young Eco-Hero”.
- He won the 3rd prize under the Age Group: 8-14 for his project “Conservation and Rehabilitation of Powai Lake” and became one of the 25 global winners of the Young Eco-Hero Award 2021.
- The award presented by “The Action for Nature”, San Francisco based NGO, recognize young people (8 to 16 years old) for their environmental achievements.

Power Finance Corporation issues India's first-ever Euro Green Bond



- The leading power sector NBFC, Power Finance Corporation Ltd (PFC), successfully issued its maiden Euro Green Bond. The 7-year Euro 300 million Bond has been priced at 1.841 per cent.
- This Euro Green Bond is the first-ever Euro denominated Green bond issuance from India. It is also the first-ever Euro issuance by an Indian NBFC. With the issuance, PFC has also forayed into the European market for its international fundraising.
- PFC is witnessing a marked shift in its lending portfolio owing to stress in thermal power generation, with no new private investment in the sector. It is expected that renewable energy and transmission & distribution (T&D) would attract the bulk of the lending by PFC going forward, along with newer sectors such as lift irrigation, electric mobility and energy efficiency.