

EVERYDAY CURRENT AFFAIRS – MAY 5, 2021

NATIONAL

- **Eight Asiatic lions at Hyderabad’s Nehru Zoological Park - have tested positive for the coronavirus infection**

LIONS GET COVID

➤ On April 24, eight Asiatic lions in the Nehru Zoological Park, Hyderabad exhibited signs of respiratory distress

➤ The zoo’s veterinary team collected nasal or oral discharge swabs and the samples were sent to CCMB-LaCONES for diagnosis



➤ On May 4, CCMB-LaCONES confirmed that all the lions tested positive for SARS-CoV-2 virus

➤ Further analysis of the samples revealed that the infection was not caused by a variant of any concern

- ✓ This is perhaps the first known case of humans infecting the lions and making them sick in the country.
- ✓ Currently, Nehru Zoological Park, one of the biggest zoos in Asia, has been closed for visitors as a precautionary measure.
- ✓ The Centre for Cellular and Molecular Biology- Laboratory for Conservation of Endangered Species (CCMB-LaCONES) carried out detailed investigation of the samples for genome sequencing to find out if the strain came from human beings or not.
- ✓ All the eight lions have responded well to the treatment and are recovering
- ✓ Asiatic Lions are one of the five Pantherine cats that are native to India with the others being Indian Snow Leopard, Bengal Tiger, Clouded Leopard and Indian Leopard.
- ✓ Gir National Park is the only known habitat for the Asiatic lions in the world.

INTERNATIONAL

- **The World Health Organisation - recently listed mRNA vaccine of Moderna for Emergency Use.**
 - ✓ This makes it the fifth vaccine to receive emergency use validation from WHO.
 - ✓ The Moderna vaccine was co-developed by the company and investigators from the National Institute of Allergy and Infectious Diseases' (NIAID) Vaccine Research Center, USA
 - ✓ The 'Emergency Use Listing' of vaccines of the WHO assesses the safety, quality and efficacy of vaccines.
 - ✓ It is a prerequisite for COVAX facility vaccine supply, which is a global mechanism to procure and distribute Covid-19 vaccines in participating countries, including lower-income countries.
 - ✓ Moderna's Covid-19 vaccine has already been authorised in the US, Canada, Switzerland, Singapore, Qatar, Taiwan and in the UK.
 - ✓ The USFDA (United States Food and Drug Administration) cleared the vaccine for Emergency Use in December 2020.
 - ✓ The European Medicines Agencies granted marketing authorisation for the vaccine throughout European Union in January 2021.
 - ✓ mRNA-1273 is the technical name for the Moderna vaccine.
- **The World largest airplane 'Roc' - recently completed its second test flight from Mojave Air and Space Port in California**



- ✓ The flight, built by Stratolaunch, reached an altitude of 4,267 metres during its test flight flying at a top speed of 320 kilometre per hour.
- ✓ The plane with a wingspan of 117 metres is designed to carry more than 220 tonnes of payload.
- ✓ Roc is a massive bird mentioned in the mythological stories of the Middle East like "Sinbad, the Sailor".

- ✓ The plane carries a twin-fuselage configuration, which is supported by twelve main landing gear wheels and two nose gear wheels.
- ✓ Stratolaunch was established by Paul Allen, who was a co-founder of Microsoft in 2011

INDIA AND OTHER COUNTRIES

- **India and the UK – adopted ‘Roadmap 2030’ to strengthen bilateral ties and elevate the relations to a “Comprehensive Strategic Partnership” in the next decade**



- ✓ The decision in this regard was taken during the virtual bilateral summit between Prime Minister Narendra Modi and his British counterpart Boris Johnson on May 4
- ✓ The two leaders discussed the coronavirus situation and ongoing cooperation in the fight against the pandemic, including the successful partnership on vaccines
- ✓ They also launched Enhanced Trade Partnership, and announced their desire to negotiate a comprehensive Free Trade Agreement (FTA), including consideration of an interim trade agreement
- ✓ The leaders agreed to cooperation on Maritime Domain Awareness, which includes new agreements on maritime information sharing, an invitation to the UK to join India’s Information Fusion Centre in Gurgaon and an ambitious exercise programme which includes joint trilateral exercises.
- ✓ The leaders met virtually to compensate for Johnson cancelling his trip to India last month owing to the deteriorating Covid-19 situation.
- ✓ Significantly, India and the UK signed a pact on migration and mobility, wherein India will take back illegal migrants from the UK in return for employment visas for 3,000 Indian professionals
- ✓ India and the UK had agreed on an early market access package — the UK will open up the fisheries sector for more Indian players, facilitate more opportunities for nurses, recognise Indian seafarers’ certificates and also enter into a joint dialogue on the Social Security Agreement.

- ✓ In return, India has agreed to the UK's demands on fruits, medical devices, mutual recognition of Masters degrees and also work towards reciprocal opening of legal services.
- ✓ These actions are likely to generate 20-25,000 new direct and indirect jobs in India
- ✓ The 'Roadmap 2030' provides a framework for UK-India relations across health, climate, trade, education, science and technology, and defence.
- ✓ The vaccine partnership through the Oxford-AstraZeneca-SII collaboration was highlighted in the summit.
- ✓ The bilateral summit also set an ambitious target of more than doubling India-UK trade by 2030
- ✓ As part of the 'Roadmap 2030', the leaders agreed to work closely together in support of India's indigenous development of the Light Combat Aircraft Mark 2.
- ✓ The two countries agreed to work together to ensure an ambitious outcome at COP26 and expand the UK-India partnership on tackling climate change
- ✓ The discussion also agreed to implement a joint cultural exchange programme, "India-UK Together" (SAATH-SAATH), launch UK-India Young Entrepreneurship forum, mutually collaborate to accelerate development of GIFT city and to explore Indo-Pacific Oceans Initiative

SCIENCE, TECHNOLOGY & ENVIRONMENT

- **Researchers from IIT Madras and from the UK – have developed a portable device with paper-based sensor to detect and quantify the presence of antibiotics and heavy metals in drinking water**
- ✓ A small strip of paper will show up the antibiotics in a few minutes with the change in colour of the paper

HOW IT WORKS File photo

IIT-M and UK researchers have developed a paper-based sensor to detect presence of & quantify antibiotics in drinking water

- > A laser print with the cartridge ink containing a wax-like material will print a pattern on paper
- > The printed area will not allow water to pass through and the non-printed area will let water pass through it
- > The water to be tested will be allowed to pass through the porous paper without need of pump in a particular direction
- > If there is antibiotic or a heavy metal present in water, a chemical reaction will take place when the paper interacts with the chemical



coated paper

- > The colour of the paper changes accordingly in 5-10 minutes
- > The intensity of the colour determines the quantity of the antibiotic or heavy metal present

- ✓ The researchers have tested it for ciprofloxacin, triclosan and amoxicillin and heavy metals chromium, lead and copper.
 - ✓ The cellulose-based paper coated with a chemical specific to the antibiotic/heavy metal changes colour when it interacts with polluted water.
 - ✓ The colours are the products or a third chemical formed due to the reaction.
 - ✓ The research was funded by the Centre's Department of Science and Technology in collaboration with UK's Natural Environment Research Council and Engineering and Physical Sciences Research Council under the Indo-UK Water Quality Research Programme.
 - ✓ As per the studies, antibiotics are present in surface water possibly due to effluents from wastewater treatment plants, aquaculture and livestock production activities and untreated sewage.
 - ✓ The team is working on developing a portable sensor which can also be taken to places like lakes for onsite testing.
 - ✓ It is also working to detect pesticides and early detection of diseases like cervical cancer using the concept.
- **The climate change causing the melting of glaciers – has led to the shift in the axis along which the Earth rotates, as per a recent study published in Geophysical Research Letters of the American Geophysical Union (AGU)**
- ✓ As per the researchers, Earth's axis of rotation has been moving more than usual since the 1990s.
 - ✓ While this change is not expected to affect daily life, it can change the length of the day by a few milliseconds
 - ✓ The Earth's axis of rotation is the line along which it spins around itself as it revolves around the Sun.
 - ✓ The points on which the axis intersects the planet's surface are the geographical north and south poles.
 - ✓ According to NASA, data from the 20th century shows that the spin axis drifted about 10 centimetres per year
 - ✓ As per the study, the north pole has shifted in a new eastward direction since the 1990s, because of changes in the hydrosphere, i.e. the way in which water is stored on Earth
 - ✓ Also, in the last four decades, the poles moved by about 4 metres in distance.
 - ✓ The calculations were based on satellite data from NASA's Gravity Recovery and Climate Experiment (GRACE) mission as well as estimates of glacier loss and groundwater pumping going back to the 1980s

OBITUARY

- **V Kalyanam (99 years), former personal secretary of Mahatma Gandhi - passed away in Chennai due to age-related ailments on May 4**
- ✓ He is the lone surviving witness to the assassination of the Father of Nation

- ✓ Born in Shimla on August 15, 1922, he was associated with Mahatma Gandhi from 1944 to 1948.



- ✓ Kalyanam was in Sevagram Ashram in Maharashtra and was engaged in compiling the letters sent to Mahatma Gandhi in various languages.
- ✓ He was preserving letters written by Gandhiji, a cheque bearing his sign and other literature associated with him.
- ✓ A cheque for ₹35 issued to him by Gandhiji was one of Kalyanam's valuable possessions.
- ✓ Kalyanam was proficient in Bengali, Gujarati, Hindi, Tamil and English.
- ✓ A staunch follower of Mahatma Gandhi, he was also associated with Rajaji in the 1960s.
- ✓ After the demise of Mahatma Gandhi, he was associated with the Red Cross and regional commissioner of the SC/ST commission covering the southern states
- ✓ During the past two decades, Kalyanam was actively engaged in gardening, numismatics and stamp collection.
- ✓ Kalyanam had donated a few crores of rupees towards philanthropic activities in Chennai including health sector

SPORTS

- **The Board of Control of Cricket (BCCI) - has suspended the Indian Premier League (IPL) indefinitely due to the Covid-19 pandemic situation in the country**
- ✓ The decision has become inevitable after several players and support staff tested positive for Covid-19.
- ✓ The Indian Premier League Governing Council (IPL GC) and Board of Control for Cricket in India (BCCI) in an emergency meeting has unanimously decided to postpone IPL 2021 season, with immediate effect
- ✓ According to IPL Governing Council members, the decision was taken after Varun Chakravarthy, Sandeep Warrier, Amit Mishra, Wriddhiman Saha and CSK bowling coach L. Balaji tested positive.
- ✓ So far twenty-nine games has been conducted in this year's edition of the IPL