

NEWSPAPER HIGHLIGHT

A NASA climate research scientist who has spent much of her career explaining how global food production must adapt to a changing climate was awarded the World Food Prize on Thursday. Cynthia Rosenzweig, an agronomist and climatologist, was awarded the \$2,50,000 prize in recognition of her innovative modelling of the impact of climate change on food production.

The Jammu and Kashmir Delimitation Commission notified the new boundaries, names and number of Assembly constituencies in Jammu and Kashmir, paving the way for the first ever Assembly election in the Union Territory that was carved out of the erstwhile State of J&K in 2019. While not mentioned in its order, the Delimitation Commission said in a statement that it had recommended to the Centre to nominate at least two "Kashmiri migrants" to the Legislature who would have the same powers as nominated members of the Puducherry Assembly and to "consider" giving "some representation" to persons displaced from Pakistan occupied Kashmir.

The Union Coal Ministry has sought to rush through the forest diversion process for proposed opencast coal mining in Angul district of Odisha which would require the felling of more than one lakh standing trees in a reserve forest and cause significant disturbance to the elephant herds. Singareni Collieries Company Limited (SCCL), a joint venture company of the Government of India and Telangana, has proposed to mine coal at the Naini mine in the district.

A 60 year old Constitution Bench judgment validating sedition law led a three judge Bench headed by Chief Justice of India N.V. Ramana on Thursday to pause to examine if petitions challenging the colonial provision should be referred to a larger Bench of five or seven judges of the court. The 1962 judgment in *Kedar Nath v State of Bihar* delivered by a Bench of five judges of the Supreme Court had upheld Section 124A (sedition) of the Indian Penal Code while restricting its applicability to "activities involving incitement to violence or intention or tendency to create public disorder or cause disturbance of public peace".

BIOLUMINESCENCE OF FIREFLIES

1. In a rare phenomenon, fireflies illuminate forests in Anamalai Tiger Reserve. Fireflies produce a chemical reaction inside their bodies that allows them to light up. This type of light production is called bioluminescence. When oxygen combines with calcium, adenosine triphosphate (ATP) and the chemical luciferin in the presence of luciferase, a bioluminescent enzyme, light is produced.

2. Unlike a light bulb, which produces a lot of heat in addition to light, a firefly's light is "cold light" without a lot of energy being lost as heat. This is necessary because if a firefly's light-producing organ got as hot as a light bulb, the firefly would not survive the experience. A firefly controls the beginning and end of the chemical reaction, and thus the start and stop of its light emission, by adding oxygen to the other chemicals needed to produce light.

3. When oxygen is available, the light organ lights up, and when it is not available, the light goes out. Insects do not have lungs, but instead transport oxygen from outside the body to the interior cells within through a complex series of successively smaller tubes known as tracheoles. High flash rate - Some firefly species manage such a high flash rate, as the nitric oxide gas plays a critical role in firefly flash control.

4. In short, when the firefly light is "off" no nitric oxide is being produced. The presence of nitric oxide, which binds to the mitochondria, allows oxygen to flow into the light organ where it combines with the other chemicals needed to produce the bioluminescent reaction.

5. Because nitric oxide breaks down very quickly, as soon as the chemical is no longer being produced, the oxygen molecules are again trapped by the mitochondria and are not available for the production of light.

LION-TAILED MACAQUES

1. The Lion-tailed Macaques or wanderoos (*Macaca silenus*) are shy, fruit-eating primates. It is an Old World monkey endemic to the Western Ghats of South India (Tamil Nadu, Kerala and Karnataka). It is an 'endangered' species found only in the rainforests of India's Western Ghats.

2. The Lion Tailed Macaques are named so not because of their manes but because of their tails which resembles a lion's. Like most macaques, they have unique cheek pouches to store food. They prefer the upper canopies of evergreen rainforests to move around. They live in groups and avoid human interaction as much as possible.

3. Threats - They are reducing in number because of habitat destruction caused by tourism and encroachment, poaching and road kills. The biggest threat is the destruction of their rainforest habitat.

REASONS FOR HEATWAVE

1. The India Meteorological Department (IMD) said that April 2022 was the hottest in northwest India in 122 years due to the unusually long series of heatwaves that began in the end of March. The main reason for the scorching heat in the northern parts of India is lack of rainfall. Usually, periods of high temperature are punctuated by periodic episodes of rain but this was largely absent during March and April.

2. Ironically, April also saw maximum instances of extreme rainfall since 2018 though it was concentrated in the south and north-eastern India. **The rain-bearing western disturbances originate because of temperature gradients between the northernmost parts of the globe and the latitudes passing through West Asia.**

3. Weaker gradients mean weaker rains. This March and April, cooler than normal conditions in the Pacific Ocean failed to aid rainfall in north India. Also, some parts along eastern India registered higher humidity along with high temperatures, leading to a rise in a condition called 'wet bulb' temperature. 'Wet bulb' temperature is a temperature at its mildest can cause extreme discomfort and at its worst cause dehydration and death.

55 lakh tonnes, the additional amount of rice allocated by the Central Government in place of wheat under the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) free ration scheme, on demand from the States, amid efforts to scale up delivery of fortified rice under the public distribution system from next year. Food Secretary Sudhanshu Pandey clarified that the move was not caused by the likely fall in the Government's wheat procurement following an expected drop in output and a rise in exports.

Israeli Prime Minister Naftali Bennett said he accepted an apology from Russian President Vladimir Putin on Thursday for controversial remarks about the Holocaust made by his Foreign Minister.

Australia will respond calmly to the Solomon Islands after it signed a security pact with China, Prime Minister Scott Morrison said, dismissing a furious response by the leader of the Pacific nation to Western criticism of the deal.

Israel's Supreme Court has upheld a longstanding expulsion order against eight Palestinian hamlets in the occupied West Bank, potentially leaving at least 1,000 people homeless, an Israeli rights group representing the villagers said.

The United Nations' World Food Programme (WFP) has said that it is in discussions with India on procurement of wheat as several countries face food security challenges amid the Ukraine war.

The Supreme Court Collegium has recommended Sudhanshu Dhulia and Jamshed Burjor Pardiwala, Chief Justices of the Gauhati and Gujarat High Courts, respectively, for appointment as judges in the top court.

New business and output from India's services sector grew at the fastest pace in five months in April, as per the S&P Global India Services PMI, which increased to 57.9, from 53.6 in March. The survey showed selling prices surged at the sharpest pace since July 2017 amid a near record upturn in input costs.

An unexpectedly rapid surge in 'war-induced inflation' in March and April forced the Reserve Bank of India's (RBI) Monetary Policy Committee (MPC) to hold an emergency off cycle meeting this week and announce the first repo rate increase in more than three and a half years, people familiar with the central bank's

4.Heatwave-A heatwave is declared when the maximum temperature is over 40 degrees Celsius and at least 4.5 notches above normal. A severe heatwave is declared if the departure from normal temperature is more than 6.4 notches.

NATIONAL MISSION FOR GREEN

1.India National Mission for Green India or the commonly called Green India Mission (GIM) was launched in 2014. It is one of the eight Missions under the National Action Plan on Climate Change (NAPCC).

2.Its objective is to Safeguard the biological resources of our nation and associated livelihoods against the peril of adverse climate change and Recognise the vital impact of forestry on ecological sustainability, biodiversity conservation and food-, water- and livelihood-security. GIM aims at protecting, restoring and enhancing India's forest cover by means of plantation activities in forest and non-forest areas.

3.It aims at responding to climate change through adaptation and mitigation measures. It envisages a holistic view of greening that extends beyond tree planting. GIM focuses on multiple ecosystem services such as biodiversity, water, biomass, preserving mangroves, wetlands, critical habitats etc. along with carbon sequestration.

SEALED COVER JURISPRUDENCE

1.The Supreme Court, in the Media One ban case, has reiterated its intention to examine the legality of governments filing incriminating material in sealed covers without sharing the information with the accused/other party. The issue of "sealed cover jurisprudence" came up in the previous hearing on March 15, when the Centre wanted to pass on to the court its internal files regarding the ban in a sealed cover.

2.Sealed Cover Jurisprudence-It is a practice used by the Supreme Court and sometimes lower courts, of asking for or accepting information from government agencies in sealed envelopes that can only be accessed by judges. While a specific law does not define the doctrine of sealed cover, the Supreme Court derives its power to use it from Rule 7 of order XIII of the Supreme Court Rules and Section 123 of the Indian Evidence Act of 1872.

3.Reasons for Sealed Covers: When the matter pertained to the Official Secrets Act. To maintain public confidence in the Government agency. Delicate international negotiations or those that relate to sensitive aspects of security. Details about survivors of sexual assaults or child abuse which may affect their future life and bring unnecessary shame affecting the Right to Live with Dignity. Disclosure sometimes affects the ongoing investigation.

4.Issues with the Sealed Cover Jurisprudence: Against the Principles of Transparency and Accountability. Reduces the Scope of Reasoning. Obstruction to Fair Trial and Adjudication. Arbitrary in Nature.

HARYANA PANCHAYAT BILLS

1.The term of the village panchayats in Haryana had ended in February, 2021. But, next elections are delayed due to multiple petitions filed in the Punjab and Haryana High Court challenging some amendments made by the state government through the Haryana Panchayat Raj (Second Amendment) Act, 2020. The amendments in question are about reservation for backward castes and women in the panchayats.

2.Issue-The petitions call the amendments "arbitrary, unreasonable, and illegal". The petition says that as per the Haryana Panchayati Raj Act, 1994, if the population in the village is half of the scheduled castes, then 50 per cent seats in the panchayat area are required to be filled by the SCs and are specifically reserved for them.

3.Highlights of the Haryana Panchayati Raj (Second Amendment) Act, 2020: Provides the right to recall members of Panchayati Raj institutions to those who elected them. Gives women 50% reservation in these rural bodies. Provides 8% reservation to the "more disadvantaged" among the Backward Classes. Allows the recall of village sarpanches and members of the block-level panchayat samitis and district-level zila parishads if they fail to perform.

4.key mandatory provisions of the 73rd and 74th amendments, are: Regular direct elections to all local bodies. Setting up of state-level election commission and finance commissions. Mandatory reservation of seats for Dalits and Adivasis in every

thinking said.

Ginger farmers in Kerala and Karnataka usually prefer to harvest ginger rhizomes by the first week of April as they get the maximum price for their produce at that time. But more than 60% of the farmers, especially those cultivating ginger rhizomes in Karnataka, are yet to harvest their crop owing to the sharp fall in the price of the produce.

Karnataka's Forest Department, which was supportive of the Jog Development Projects and had recommended 'in principal approval' of environmental clearance for a five star hotel, suffered a setback with the Centre questioning whether any environmental impact study has been carried out.

local body, proportionate to their share in the population. 33% reservation for women. Setting up of District Planning Committees that consolidate plans of rural and urban bodies.