

NEWSPAPER HIGHLIGHT

A new genus of a parasitic flowering plant has recently been discovered from the Nicobar group of islands. The genus *Septemeranthus* grows on the plant species *Horsfieldia glabra* (Blume) Warb. The parasitic flowering plants have a modified root structure spread on the stem of the tree and are anchored inside the bark of the host tree. The plant was found on the periphery of the tropical forest in one of the biodiversity hotspots referred to as the Nicobar group of islands separated from the Andaman group of Islands by a wide gap of 160 km with heavy tidal flows.

Noted human rights activist and former professor of physics at Vadodara's M.S. University J.S. Bandukwala died at his residence in Vadodara. A vocal critic of communalism, Professor Bandukwala strived for peace and harmony in the city.

After a gap of three years, India and Oman are set to hold a meeting of the Joint Military Cooperation Committee (JMMC) during the visit of Mohammed Nasser Al Zaabi, Secretary General, Ministry of Defence of Oman, here from Sunday to Tuesday.

Analysing ice cores from Greenland and Antarctica, researchers present evidence of a massive solar storm that took place 9,200 years ago, during the Sun's "quiet" phase, when fewer sunspot activity takes place. The study, published in *Nature Communications*, is puzzling, as solar storms are usually associated with "high activity."

A new study finds that male song sparrows, a common bird in North America, deliberately shuffle their repertoire of songs when wooing females. This could be a ploy to keep them interested. The study, published in *Proceedings of the Royal Society B*, shows that singing males keep track of the order of the songs and how long they're sung, for about 30 minutes.

Scientists have detected what appears to be an incredibly dense star behaving unlike anything else ever seen and suspect it might be a type of exotic astrophysical object whose existence has been only hypothesised until now. The object, spotted using the Murchison Widefield Array telescope in outback Western Australia,

DISRUPTIONS IN PARLIAMENT

1. Disruption is replacing discussion as the foundation of our legislative functioning. A PRS (PRS Legislative Research) report says during the 15th Lok Sabha (2009-14), frequent disruptions of Parliamentary proceedings have resulted in the Lok Sabha working for 61% and Rajya Sabha for 66% of its scheduled time. Another PRS report said, the 16th Lok Sabha (2014-19) lost 16% of its scheduled time to disruptions, better than the 15th Lok Sabha (37%), but worse than the 14th Lok Sabha (13%). The Rajya Sabha lost 36% of its scheduled time. In the 15th and 14th Lok Sabhas, it had lost 32% and 14% of its scheduled time respectively.

2. Reasons for Disruption: **Discussion on Matters of Controversy and Public Importance. Disruptions May Help Ruling Party Evade Responsibility. Lack of Dedicated Time for Unlisted Discussion. Scarce Resort to Disciplinary Powers. Party Politics.**

3. What needs to be done-To curb disorder in Parliament there is a need for strict enforcement of code of conduct for MPs and MLAs. The Chairperson should suspend MPs not following such codes and obstructing the Houses' business. The government of the day needs to be more democratic and allow the opposition to put their ideas in free manner. A "Productivity Meter" could be created which would take into consideration the number of hours that were wasted on disruptions and adjournments and monitor the productivity of the day-to-day working of both Houses of Parliament.

SC QUASHES INDEFINITE SUSPENSION OF 12 MLAs

1. The Supreme Court has set aside the Maharashtra Assembly's decision to suspend 12 legislators of the Bharatiya Janata Party (BJP) for a one-year period beginning July 5, 2021. Observations made by the Supreme Court: Suspension beyond the remainder period of the session of the Assembly was 'non-est' in law, substantially unconstitutional and irrational. The resolution, therefore, is illegal and was "beyond the powers of the assembly".

2. Concerns expressed by the court: **Suspension beyond the remainder of that session "would not only be a grossly irrational measure", but also lead to these leaders' constituencies remaining unrepresented in the assembly.** It would also impact the democratic setup as a whole by permitting the thin majority government (coalition government) of the day to manipulate the numbers of the opposition party in the house in an undemocratic manner. Such a move would "not be healthy for democracy as a whole" as "the opposition will not be able to effectively participate in the discussion/debate in the house owing to the constant fear of its members being suspended for a longer period".

3. Procedure to be followed for suspension of MLAs: **Under Rule 53 of the Maharashtra Legislative Assembly Rules, the power to suspend can only be exercised by the Speaker, and it cannot be put to vote in a resolution.** Rule 53 states that the "Speaker may direct any member who refuses to obey his decision, or whose conduct is, in his opinion, grossly disorderly, to withdraw immediately from the Assembly".

4. The member must "absent himself during the remainder of the day's meeting". Should any member be ordered to withdraw for a second time in the same session, the Speaker may direct the member to absent himself "for any period not longer than the remainder of the Session".

REGISTRATION OF MSMEs IN INDIA

1. The Udyam system of registration, which came into force on July 1, 2020, is a pre-requisite for any MSME (regardless of the social category of ownership) to avail itself of concessions or benefits from the Central and State governments. The Registration can be filed online based on self-declaration. Uploading of documents, papers or certificate as proof would not be necessary henceforth.

2. The basic criteria for MSME classification would be on investment in plant, machinery and equipment and turnover.

unleashed huge bursts of energy roughly three times per hour when viewed from Earth during two months in 2018, the researchers said.

Asafoetida is a thick gum, or a resin, which comes from the perennial taproots of the Ferula family. The article in Indian Mirror titled Asafoetida has a wide range of applications in the field of medicine. It has been suggested to fight viruses such as influenza. It may thus be worthwhile for current day drug chemists and molecular biologists to study its mode of action. (Indeed, this has been done by Professor M. S. Valiathan of The Manipal Academy of Higher Education, and his collaborators).

The textile and clothing industry, which is facing high raw material costs, has sought duty free import of cotton with quantitative restrictions. Textile machinery manufacturers are delivering almost two lakh spindles a month, said T. Rajkumar, chairman of Confederation of Indian Textile Industry. This means that substantial addition of production capacity has been taking place. Thus, cotton consumption by textile mills during the current cotton season, which ends on September 30, is likely to be higher at close to 340 lakh bales while cotton production is estimated to be almost 350 lakh bales, compared with 360 lakh bales in the previous season. Every year, 4045 lakh bales turn out to be of poor quality, which is unusable.

The recent surge in pandemic - induced remote working and social distancing has accelerated the adoption of electronic signatures across a diverse set of industries, use cases and geographies, said Srinidhi Dokka, VP - Global Business Development at MSB Docs, a provider of e-signature technologies and smart document solutions.

India has the potential, talent and the will to become the next software products hotspot in the world, provided the government is ready to offer required regulatory support, said Tejas Goenka, Managing Director, Tally Solutions, a business management software provider. The primary requirement is to recognise 'software products' as a separate category both under the HSN code (Harmonized System of Nomenclature, a 6digit uniform code used for the classification of goods globally) and the SAC code (Service Accounting Code, a unique code provided for recognition, measurement and taxation of services), he said.

Export of goods or services or both would be excluded while calculating the turnover of any enterprise and investment calculation linked to the IT return of the previous year. Champions Control Room across the country have been made legally responsible for facilitating entrepreneurs in registration and thereafter.

3. Significance and implications of these measures: The measures would completely change the way MSMEs work, ensure they compete globally besides resulting in newer enterprises entering the fray. With the stimulus, these enterprises will be in a position to lead to a fast V-shaped recovery the moment the pandemic is brought under control.

4. Significance of MSMEs: **With around 63.4 million units throughout the geographical expanse of the country, micro, small and medium enterprises (MSME) contribute around 6.11% of the manufacturing GDP and 24.63% of the GDP** from service activities as well as 33.4% of India's manufacturing output. They have been able to provide employment to around 120 million persons and contribute around 45% of the overall exports from India. About 20% of the MSMEs are based out of rural areas, which indicates the deployment of significant rural workforce in the MSME sector.

GAIN OF FUNCTION

1. The term 'gain of function research' has recently cropped up in the debate about the origins of the Covid-19 pandemic. What is Gain-of-function Research? 'Gain of function' is a field of research focused on growing generations of microorganisms, under conditions that cause mutations in a virus. These experiments are termed 'gain of function' because they involve manipulating pathogens in a way that they gain an advantage in or through a function, such as increased transmissibility. Such experiments allow scientists to better predict emerging infectious diseases, and to develop vaccines and therapeutics.

2. How is it carried out? Gain of function research may use genetic engineering or serial passaging. Genetic engineering involves 'editing' the genetic code to modify the virus in a way predetermined by the scientists. Serial passaging involves allowing the pathogen to grow under different circumstances and then observing the changes.

3. Issues related to the research: Gain-of-function research involves manipulations that make certain pathogenic microbes more deadly or more transmissible. There is also 'loss-of-function' research, which involves inactivating mutations, resulting in a significant loss of original function, or no function to the pathogen. Gain-of-function research reportedly carries inherent biosafety and biosecurity risks and is thus referred to as 'dual-use research of concern' (DURC). Serial passaging involves allowing the pathogen to grow under different circumstances and then observing the changes.

4. How is it regulated in India? **All activities related to genetically engineered organisms or cells and hazardous microorganisms and products are regulated as per the "Manufacture, Use, Import, Export and Storage of Hazardous Microorganisms/Genetically Engineered Organisms or Cells Rules, 1989"**. In 2020, the Department of Biotechnology issued guidelines for the establishment of containment facilities, called 'Biosafety labs'.

USHA MEHTA

1. Usha Mehta was a freedom fighter is remembered for organizing an underground radio station (Secret Congress Radio) during the Quit India Movement of 1942 to spread Gandhiji's message of 'Do or Die'. Mehta was born in in Saras, near Surat. During her childhood she met Mahatma Gandhi and became an ardent follower.

2. During Quit India Movement Mehta unfurled the Indian national movement's tricolour flag at Gowalia tank ground when the entire Congress leadership including Mahatma Gandhi was placed under arrest. Mehta wrote a number of books, mainly on Gandhiji and his thoughts. Her book on great Indian women 'Bharat Ki Mahan Nariyan' is well known. She was awarded the prestigious Padma Vibhushan by the government of India.

PARBATI GIRI

1. Parbati Giri, one of Odisha's most prominent women freedom fighters, was called the Mother Teresa of Western Odisha for her work in the upliftment of her people. At the age of 16 she actively involved in the Quit India Movement. She adopted Gandhism as

U.S. President Joe Biden is maintaining pressure on Russian leader Vladimir Putin over Ukraine after announcing a small troop deployment to eastern Europe even as top Pentagon officials backed a renewed push for diplomacy.

Hong Kong's oldest university covered up one of the last public tributes to the deadly 1989 Tiananmen Square crackdown on Saturday, as Beijing continues to muzzle dissent in the financial hub.

a way of life and her work manifested this virtue.

2. During 1940 she started organizing meetings and mobilised people to participate in Gandhiji's Khadi Andolan movement. At Bargarh she ordered the lawyers to vacate the Court and stop cooperating with the British officials in legal matters.

3. She sat on the chair of the SDO posing as a judge and ordered other boys to bring the SDO tied with a rope for which she was jailed for 2 years. She was called "Banhi Kanya" for her resilience and her aggressive nationalistic sentiments and free expression.