

## IN BRIEF



## Smoking can trigger severe leg pain: study

**NEW YORK**  
Researchers have found a strong link between smoking and peripheral artery disease — a circulatory condition in which narrowed blood vessels reduce blood flow to the limbs — and this elevated risk can persist up to 30 years after quitting smoking. The study was published in the *Journal of the American College of Cardiology*. IANS



## An apple carries about 100 mn bacteria: study

**LONDON**  
Besides containing fibre and vitamins, an apple also carries about 100 million bacteria, and whether these microbes are good or bad for health may depend on how the fruit was grown, says a study. It shows that organic apples harbour a balanced bacterial community — which could make them healthier and tastier than conventional apples. PTI



## Polish magazine issues anti-LGBT stickers

**WARSAW**  
*Gazeta Polska*, a magazine close to Poland's right-wing government, distributed anti-LGBT stickers with its latest issue on Wednesday. The stickers had a large black cross over an LGBT+ rainbow motif, captioned "This is an LGBT-free zone". AFP

## 'Large-scale burning of grasslands detrimental to invertebrates'

Study from Eravikulam National Park says 'prescribed' strategy to conserve threatened ungulates adversely impacts other species

E.M. MANOJ  
KALPETTA

A recent study on "prescribed burning" of large tracts of grassland for the conservation of threatened ungulates in the Eravikulam National Park (ENP), a biodiversity hotspot in the Western Ghats, reveals that such burning is detrimental to endemic invertebrates, including grasshoppers.

Grasshoppers are sensitive to grasslands management and an indicator of grasslands quality, health and restoration success.

"As grasshoppers represent a major faunal component of grasslands, effects of fire on them can be easily



**Unintended effects:** A researcher, left, collecting grasshoppers from the burned areas of Eravikulam National Park; at right, two species of grasshoppers. ■SPECIAL ARRANGEMENT



studied in grassland habitats," Dhaneesh Bhaskar, researcher, Kerala Forest Research Institute (KFRI), said.

"The endemic and wingless creatures are sensitive to environmental change and exhibit a high extinction risk.

Hence, their response to fire management is of high interest," Mr. Dhaneesh, who is also a member of the IUCN

Grasshopper Specialist Group, said.

Traditionally, the grasslands of the park are managed by prescribed "cold" burning (cold season burning) with the help of the local tribal community, P. S. Easa, former director, KFRI said.

Burning is practised on 90 sq. km. of the park by dividing it into 50 hectare grids to ensure palatable fodder for the Nilgiri tahr and has been practised since the British colonial time, Dr. Easa, a member of the team said. However, the impact of burning of Nilgiri tahr habitats on other biota has never been documented, he added.

The recovery plan for the

animal stresses the need for systematic monitoring of the impact of fire on its habitats in the ENP.

Since the target of the management is to improve the status of mammal species, the impact on other groups, especially invertebrates, has been neglected, Mr. Dhaneesh said.

Though prescribed burning was experimentally introduced in the Parambikulam Tiger Reserve (PKMTR) recently, another habitat of the Nilgiri tahr, it was practised on a smaller scale (10 m. x 10 m.).

There are 130 species of grasshoppers reported in Kerala, of which 54 species

were found in PKMTR and 18 species were found in the ENP, he said. It is suspected that prescribed burning in the park for the past many decades is a major cause for the decline of grasshoppers, he said.

The study suggested that the interval of burning should be extended to more than five years, and the area of burning should be made only in small plots of 25 m. X 25 m. or 50 m. X 50 m., with unburned adjacent areas between plots.

The findings have been published in a recent edition of *Biodiversity and Conservation* (Springer Nature), an international journal.

## Milky Way's violent birth decoded

It was shaped as a result of collision with another smaller galaxy 10 bn years ago

REUTERS  
PARIS

The Milky Way, home to our sun and billions of other stars, merged with another smaller galaxy in a colossal cosmic collision roughly 10 billion years ago, scientists said on Monday based on data from the Gaia space observatory.

The union of the Milky Way and the so-called dwarf galaxy Gaia-Enceladus increased our galaxy's mass by about a quarter and triggered a period of accelerated star formation lasting about 2 to 4 billion years, the scientists said. "Yes, indeed it was a pivotal moment," said astronomer Carme Gallart of Instituto de Astrofísica de Canarias in Spain, lead author of the research published in *Nature Astronomy*.

Galaxies of all types, including the Milky Way, began to form relatively soon after the Big Bang explosion



The merger of the Milky Way progenitor galaxy and the dwarf galaxy Gaia-Enceladus roughly 10 billion years ago, left, and the current appearance of the Milky Way galaxy, right. ■REUTERS

that marked the beginning of the universe some 13.8 billion years ago, but were generally smaller than those seen today and were forming stars at a rapid rate. Subsequent galactic mergers were instrumental in configuring galaxies existing now.

High-precision measurements of the position, brightness and distance of around a million stars within 6,500 light years of the sun, obtained by the Gaia space

telescope, helped pinpoint stars present before the merger and those that formed afterward.

Certain stars with higher content of elements other than hydrogen or helium arose in the Milky Way, they found, and others with lower such content originated in Gaia-Enceladus, owing to its smaller mass. While the merger was dramatic and helped shape the Milky Way, it was not a star-destroying

calamity. "This crash was big in cosmic terms, but if it was happening now, we could probably not even notice at a human or solar system level," she said.

"The distances between stars in a galaxy are so huge — a galaxy is basically empty space — that the two galaxies intermix, change their global shape, more star formation may happen in one, and maybe the small one stops forming stars.

## Netflix unveils mobile-only plan for India at ₹199 per month

Users get access to ad-free and downloadable content

SPECIAL CORRESPONDENT  
NEW DELHI

Video-streaming firm Netflix on Wednesday announced its most affordable plan of ₹199 per month in India as the U.S.-headquartered firm seeks to "get Netflix on as many devices as we can" amid rising competition from services such as Hotstar and Amazon Prime Video. The plan, however, can be used for viewing content only on a smartphone or tablet.

"India loves its mobile phone. Our members in India watch more on their mobiles than members anywhere else in the world... We are investing heavily in mobile. We want to broaden the audience of Netflix," Ajay Arora, director, Product Innovation at Netflix said.

The mobile-only plan has



70% of Netflix users in India watch at least one film a week. ■AFP

been especially tailored for India. With this plan, users will have access to the standard definition (SD), ad-free content and an option to download it on to their smartphones. "Netflix members in India are among the highest downloader of content globally... Almost half out members in India downloaded at least one film or episode-in-series in June 2019," Mr. Arora said.

Talking to *The Hindu*, Nigel Baptiste, director, Partn-

er Engagement, Netflix said, In India, more people sign up for Netflix service on mobile phones than anywhere else in the world. "They then move on to discover Netflix on other devices as well."

"Every bit of friction between our members and content, we want to eliminate. So, whether it is adding more payment methods, different price plans, working with different partners, we will get there. Where we are is a far cry from where we want to be, and we continue to be on that journey," Mr. Baptiste said.

He added that 70% of Netflix users in India watch at least one film a week. "As a percentage of overall time spent of Netflix, film viewing in India is the highest for any country worldwide."

## India's first dragon blood-oozing tree

Researchers discover *Dracaena cambodiana* in West Karbi Anglong district

RAHUL KARMAKAR  
GUWAHATI

Assam has added to India's botanical wealth a plant that yields dragon's blood — a bright red resin used since ancient times as medicine, body oil, varnish, incense and dye.

A trio of researchers led by Assam forest officer Jatindra Sarma has discovered *Dracaena cambodiana*, a dragon tree species in the Dongka Sarpo area of West Karbi Anglong. The team's report has been published in the latest issue of the *Journal of the Botanical Research Institute of Texas*.

This is for the first time that a dragon tree species has been reported from India.

"We found the dragon tree species on hilly rock crevices within a 0.05 sq km area. It took us four years of fieldwork and study to classify the plant as a dragon tree species whose sap turns bright red after coming in



*Dracaena cambodiana* is an important medicinal plant as well as an ornamental tree. ■SPECIAL CORRESPONDENT

contact with air," Mr. Sarma, Northern Assam Circle's Chief Conservator of Forests told *The Hindu* on Tuesday.

The report has been co-authored by Hussain Ahmed Barbhuiya of Bhabha Atomic Research Centre and Santanu Dey of Nagaland University's Department of Botany.

In India, the *Dracaena* genus belonging to the family Asparagaceae is represented by nine species and two varieties in the Himalayan region, the northeast and Andaman and Nicobar Islands.

But *Dracaena cambodiana* is the only true dragon tree species, the study said.

## Quarry threat

*Dracaena cambodiana* is an important medicinal plant as well as an ornamental tree. It is a major source of dragon's blood, a precious traditional medicine in China. Several antifungal and antibacterial compounds, antioxidants, flavonoids, etc., have been extracted from various parts of the plant.

"Recent overexploitation

to meet the increasing demand for dragon's blood has resulted in rapid depletion of the plant. For this reason, the species is already listed in the inventory of Rare and Endangered Plants of China," Mr. Sarma said.

The population size of the dragon tree species in Assam was estimated to be fewer than 50 mature individuals. "The habitat of the plant is severely fragmented due to open excavation of a stone quarry and there is continuing decrease in its area of occupancy and number of mature individuals," he said.

The *Dracaena* seeds are usually dispersed by birds. But due to the large fruit size, only a few species of birds are able to swallow the fruits, thus limiting the scope of its natural conservation. The study advocates conservation programme for *Dracaena cambodiana* in view of its medicinal, ornamental and ecological values.

## Undersea museum



**Fish tank:** Sunken Jordanian Armed Forces' battle tanks on the bed of the Red Sea off the coast of the southern port city of Aqaba. Jordan on Wednesday opened its first underwater military museum. ■REUTERS

Shonali Bose's *The Sky is Pink* makes it to the TIFF first list

Of the Gala films, half of the titles are directed or co-directed by women — a record number for the programme

SPECIAL CORRESPONDENT  
MUMBAI

Shonali Bose's *The Sky is Pink*, starring Priyanka Chopra Jonas, Farhan Akhtar and Zaira Wasim, will have its world premiere in the Gala Presentation section at the 44th Toronto International Film Festival that runs from September 5-15 this year.

Produced by Ronnie Screwvala's RSVP and Siddharth Roy Kapur's Roy Kapur Films, in association with Ivanhoe Pictures and Ms. Chopra Jonas' Purple Pebble Pictures, the film is the love story of a couple, spanning 25 years, told through the lens of their teenage daughter, diagnosed with terminal illness.



**A tale of love:** A still from *The Sky is Pink*. ■SPECIAL ARRANGEMENT

After *Amu* and *Margarita with a Straw*, this is Ms. Bose's third film to premiere at TIFF. "*The Sky is Pink* is a deeply personal and an incredibly special film for me.

At its core, this is an extraordinary story of what it means to be a family," she said.

"*The Sky is Pink* is a story that I connected with from the minute I heard it and in

Shonali's hands, it's been crafted into a moving, beautiful film that will renew our faith in love and life... I'm looking forward to being back at TIFF to showcase our small package of love to the world," said Ms. Chopra Jonas.

## A story that resonates

Mr. Screwvala, whose film *Mard Ko Dard Nahin Hota*, directed by Vasun Bala, won the People's Choice award in Midnight Madness section at TIFF last year, said that "*The Sky is Pink* is a story for audiences across the globe."

"From the moment that Shonali shared this incredible story with us, we knew that it had the potential to

resonate with audiences around the world," said Mr. Roy Kapur of his first production at Roy Kapur Films.

The film is slated to release worldwide on October 11, 2019.

Meanwhile, *Radioactive*, the Marie and Pierre Curie biopic directed by Marjane Satrapi of *Persepolis* fame, will be the Closing Night Gala Presentation at TIFF with its world premiere on September 14. The film is based on the graphic novel by Lauren Redniss, *Radioactive: Marie & Pierre Curie, A Tale of Love and Fallout*.

"I love that we are closing off the festival with a story helmed by a woman about a strong woman at the fore-

front," said Joana Vicente, TIFF co-head and executive director, adding, "Rosamund Pike gives an unforgettable performance as the legendary scientist. Her nuanced performance illustrates the struggle Curie endured that ultimately led to her defying all the odds."

## Contemporary treatment

"Marie Curie was a revolutionary, both as a scientist and as a woman in Science," said Cameron Bailey, TIFF Co-Head and Artistic Director. "Her story deserves the vital, contemporary treatment *Radioactive* delivers. Marjane Satrapi's singular voice as a filmmaker always surprises; here, she guides

the always outstanding Rosamund Pike to one of her strongest performances, capturing the brilliance and fire of a remarkable mind," said Mr. Bailey.

"This film is a celebration of Madame Curie — an extraordinary woman — and its message could not be more timely," said Ms Satrapi. The festival opens with the Canadian film, *Once Were Brothers: Robbie Robertson and The Band* by Daniel Roher.

The first round of titles — 18 Galas and 38 Special Presentations — were announced today. Of the Gala films, 50% of titles are directed or co-directed by women — a record number for the programme.

## Rushdie in 2019 Booker longlist

PRESS TRUST OF INDIA  
LONDON

British Indian novelist Salman Rushdie's yet-to-be-published novel *Quichotte* has made it to the longlist of this year's Booker Prize. Mr. Rushdie, 72, had won the Booker in 1981 for *Midnight's Children*.

Canadian writer Margaret Atwood, who had earlier bagged the award in 2000 for *Blind Assassins*, is another former winner on the list. Her 2019 nominated work, *The Testaments*, is a sequel to her acclaimed book *The Handmaid's Tale*. This year's list was chosen from 151 novels published in the U.K. or Ireland.