

## IN BRIEF


**Pope calls for world prayer to stop COVID-19**

VATICAN CITY  
Pope Francis said on Sunday he will this week deliver an extraordinary "Urbi et Orbi" (to the city and the world) blessing — normally given only at Christmas and Easter — and called for worldwide prayer to respond to the COVID-19 crisis. The Pope made the surprise announcement in his weekly Angelus message. REUTERS


**Netflix' \$100 mn fund to help film, TV workers**

LOS ANGELES  
Netflix has created a \$100 million fund to assist workers on film and television productions that have been shut down due to the COVID-19 outbreak, the company has said. Hundreds of thousands of cast and crew around the world have lost work amid the crisis. That includes electricians, carpenters, drivers and other hourly workers. REUTERS


**Russian billionaire hands out free masks**

MOSCOW  
When Moscow-based billionaire Igor Rybakov saw medical masks becoming scarcer and more expensive in Russia, he bought up a batch to hand out free to people. The entrepreneur is handing out up to nine medical masks to anyone who has registered online. "I would want the speculators who profit from these difficult times to go bankrupt." REUTERS

## Air quality is picking up in quarantined countries

Striking reduction in concentration of NO<sub>2</sub> reported in China, Italy and Spain

AGENCE FRANCE-PRESSE  
PARIS

Air quality is improving in countries under COVID-19 quarantines, experts say, but it is far too early to speak of long-term change.

Images by the U.S. space agency NASA are clear, in February the concentration of nitrogen dioxide (NO<sub>2</sub>) fell dramatically in Wuhan, China, the epicentre of the COVID-19 pandemic, passing from an indicator that was red/orange to blue.

NO<sub>2</sub> is mainly produced by vehicles, industrial sites and thermal power stations.

As China moves past the peak of its crisis, however, recent images by the European Space Agency (ESA) show a resurgence in NO<sub>2</sub> emissions.

A striking reduction has also been observed by the ESA in northern Italy, which has been locked down to fight a spread of the novel coronavirus.

The European Environ-



**Breathing easy:** The road connecting Rome to Ostia is seen completely empty due to the lockdown. • GETTY IMAGES

ment Agency (EEA) reports a similar change in Barcelona and Madrid, where Spanish authorities issued confinement orders in mid March.

**'Dramatic drop-off'**

"NO<sub>2</sub> is a short-lived pollutant, with a lifetime in the atmosphere of about one day," said Vincent-Henri Peuch, from the EU earth surveillance programme Copernicus.

"As a result, this pollutant

stays near the emissions sources and can be used as a proxy of the intensity of activity in different sectors," he told AFP.

**COVID-19**

Fei Liu, an air quality researcher at NASA's Goddard Space Flight Center, noted the change in China, saying: "This is the first time I have seen such a dramatic drop-off over such a wide area for

a specific event."

Even during the economic crisis more than a decade ago, the decrease in NO<sub>2</sub> levels "was more continuous in time," according to EEA air quality specialist Alberto Gonzalez Ortiz.

In northern Italy, "average NO<sub>2</sub> concentration levels have been almost halved on average," Mr. Peuch remarked.

The pollutant can provoke serious inflammation of the respiratory system.

Confinement measures thus protect in two ways, by reducing the risk of COVID-19 infection and by easing pollution from road traffic, according to a group of French doctors.

It is nonetheless hard to know how much benefit the world's population will actually experience because, according to the health experts, "what will have more impact is the long term exposure," Mr. Gonzalez Ortiz said.

## Rihanna donates \$5 million in aid

Earlier, Hollywood couple Ryan Reynolds and Blake Lively had donated \$1 million

PRESS TRUST OF INDIA  
LOS ANGELES

Singer Rihanna's non-profit organisation, the Clara Lionel Foundation, has donated \$5 million to COVID-19 response efforts.

The charity will be supporting Direct Relief, Partners In Health, Feeding America, the International Rescue Committee and World Health Organization's COVID-19 Solidarity Response Fund as they continue to fight the pandemic in the U.S., the Caribbean and Africa.

"Never has it been more

important or urgent to protect and prepare marginalised and underserved communities — those who will be hit hardest by this pandemic," said Justine Lucas, Executive Director of the Clara Lionel Foundation, in a statement to Billboard.

The funds will help to provide communities with critical protective gear, medical supplies, equipment and access to food.

Ms. Rihanna is the latest celebrity to donate for coronavirus relief efforts. Earlier this week, Hollywood couple Ryan Reynolds and Blake

Lively had donated USD 1 million to food banks.

Last week, celebrated fashion designer Donatella Versace and her daughter Allegra Versace Beck, had donated €2,00,000 to a hospital in Milan, Italy, to help battle the novel coronavirus.

Fashion industry giant Giorgio Armani has also donated \$1.9 million to the Luigi Sacco and San Raffaele hospitals and the Istituto dei Tumori in Milan, as well as the Istituto Lazzaro Spallanzani in Rome.

The COVID-19 has claimed over 13,000 lives.



Rihanna

## Sunderbans' honey hunters find a sweet way to fend off tiger attacks

They are turning to community apiculture for safety, livelihood

SHIV SAHAY SINGH  
KOLKATA

From time immemorial, people from the villages of Sunderbans have been venturing into the dense mangrove forest inhabited by the royal Bengal tiger to collect the sweetest produce of the forest, honey.

Maulis (honey collectors), as they are called in Bengali, often risk their lives in the peak season to collect honey, armed with nothing but a prayer to Bon Bibi (the Forest Goddess). Going by the official estimates, at least five to six of these honey hunters (official figures) are killed by tigers every year.

In an attempt to ensure that the honey collected from the Sunderbans does not involve such risks to life, Directorate of Forest 24 Parganas (South), along with WWF India, has come up with a novel mechanism of community apiculture for collecting the forest produce.

The villagers of the fringe areas of Sunderbans have set up three cooperatives societies, the members of which have been provided with training and equipment, such as honey collection boxes. These boxes are placed inside forest camps and adjoining nylon-netted areas of the Sunderbans. Though located deep inside the mangrove forest, the camps and the adjoining areas are relatively safe and the maulis can go about their activity without any fear of tiger attacks.

"The project was inaugurated by State's Forest Minister Rajib Banerjee earlier this week. As of now, there are 70 members in the three cooperatives, who are involved in the community apiculture initiative. We are very hopeful that the number will increase in times to come," Santosha G.R. Divi-



**Fully natural:** A honey collector with a bottle of Bonphool wild honey. • FOREST DIVISION 24 PARGANAS SOUTH

sional Forest Officer (DFO), 24 Parganas (South) told *The Hindu*.

**Ecological balance**

The cooperative societies located at Jharkhali, Kultali and Nalgora have been provided with financial support in the form of loans. The State's Panchayat and Rural Development department has facilitated the process of securing these loans by these cooperatives. The initiative is not only aimed at protecting the lives of honey collectors but also aimed at ensuring the ecological balance of the Sunderbans.

Ratul Saha, landscape coordinator, WWF India, said that pilot studies were conducted over the past few years to determine the number of boxes to be kept in specific areas. On the basis of the results, the project is being implemented.

**Bonphool brand**

The peak season of honey collection begins in March and ends by the first week of June.

Unlike the traditional practice of collecting honey, where those who put their lives at risk by venturing into the forest do not get much in return, the members of the

cooperatives are hoping to make ₹20,000 a month.

The Forest Department has created a separate brand — Bonphool Wild Honey — to sell the honey harvested by traditional honey collectors from mangrove forest of Sunderbans.

After June, the boxes will be sent to south Bengal forest, where the cooperatives will collect honey from Eucalyptus plantations. There are plans to sell the Bonphool through the Biswa Bangla, the State government's outlets.

**WWF report**

Human tiger conflict is a major issue in the Sunderbans. In the State of Art Report on the Biodiversity of Sunderbans, released by WWF India in 2017, Chandan Surabhi Das points out that between 1985 to 2009, tigers attacked 789 persons, of which 666 succumbed to their injuries. Nearly 14% of the victims were honey hunters, the document added.

While the number of human-tiger conflict have come down over the last few years because of better forest management and use of nylon fencing, instances of such tiger attacks are still reported.

## Cherries bring cheer



Visitors looking at the blooming cherry blossoms at Ueno park in Tokyo on Sunday. • REUTERS

## Wild berry gets a new cousin in Assam, but the 'Great Hedge of India' faces threat

*Carissa kopilii* is threatened by a hydroelectric project and acidic water

RAHUL KARMAKAR  
GUWAHATI

A multi-utility wild berry, whose thorny plant the British had used to build a barrier through India in the 1870s, has a hitherto unknown wilder cousin in Assam, a new study has revealed.

But unlike the abundant *Carissa carandas*, better known as *karonda* in Hindi, *kalakkai* in Tamil, *koromcha* in Bengali and *karja tenga* in Assamese, the *Carissa kopilii* is threatened by the very river it is named after — Kopili in central Assam. Reasons: a hydroelectric project on the river and water turned acidic because of coal mining in Meghalaya upstream.

It took Jatindra Sarma, Northern Assam Circle's



*Carissa carandas*

Conservator of Forests, four years to study the thorny plant whose berries are greenish and sour when raw and blackish and sweet when ripe.

The "sun-loving" plant was distributed sparsely, rooted in rocky crevices along the Kopili riverbed at altitudes ranging from 85-600 metres above sea level.

"The fruits were difficult to find amid a profusion of thorns. The pricks were worth it, as we established it as a new species, a wilder variety of the more familiar *karja tenga*," Mr. Sarma, one of the authors of the study, told *The Hindu* on Saturday.

The study, co-authored by Hussain A. Barbhuiya of Mumbai's Bhabha Atomic Research Centre and Santanu Dey of Nagaland University's Department of Botany was published in the latest issue of the *Journal of Asia-Pacific Biodiversity*.

*Karja tenga* has been used as a traditional herbal medicine for a number of ailments such as diarrhoea, anaemia, constipation, indigestion, skin infections and urinary disorders. The

leaves have been used as fodder for silkworms while a paste of its pounded roots serves as a fly repellent.

The *Carissa carandas* was also among several thorny plants the British had grown 140 years ago for a 1,100-mile barrier apparently to enforce taxes and stop the smuggling of salt. In his book *The Great Hedge of India*, Roy Moxham had likened this short-lived barrier to the Great Wall of China.

"*Carissa kopilii*, yielding white flowers from August-October and fruits from November-January, should have all the medicinal and utilitarian properties of its better-known cousin, but we have to ensure it survives the river that sustains it," Mr. Sarma said.

## Fish fossil show how fins evolved into human hands

Their evolution into four-legged vertebrates was one of the most significant events, says study

PRESS TRUST OF INDIA  
MELBOURNE

Researchers have revealed new insights into how the human hand evolved from fish fins based on their analysis of an ancient fossil found in Miguasha, Canada.

Palaeontologists, including those from Flinders University in Australia, said the fish specimen has yielded the missing evolutionary link in the transition from fish to four-legged animals.

They said this happened during the Late Devonian period, millions of years ago, as fish began to foray in habitats such as shallow water and land.

The study, published in the journal *Nature*, noted that the 1.57 m long fossil



**New revelation:** A reconstruction of the *Elpistostege watsoni*, which lived about 380 million years ago. • REUTERS

shows the complete arm — pectoral fin — skeleton for the first time in any elpistostegalian fish.

Using high energy X-Ray CT-scans, the scientists as-

sessed the skeleton of the pectoral fin, revealing the presence of a humerus (arm), radius and ulna (forearm), rows of carpus (wrist) and phalanges organ-

ized in digits (fingers).

"This is the first time that we have unequivocally discovered fingers locked in a fin with fin-rays in any known fish," said John Long, study co-author from Flinders University professor. "The articulating digits in the fin are like the finger bones found in the hands of most animals," Mr. Long said.

The finding, according to the researchers, pushes back the origin of fingers in vertebrates to the fish level. They said it also reveals that the patterning for the vertebrate hand was first developed deep in evolution, just before fishes left the water.

The evolution of fishes into four-legged vertebrates was one of the most signifi-

cant events in the history of life, the study noted.

With this adaptation, the scientists said, vertebrates, or back-boned animals, were then able to leave the water and conquer land.

To complete this transition, they said, one of the most significant changes was the evolution of hands and feet. "The origin of digits relates to developing the capability for the fish to support its weight in shallow water or for short trips out on land. The increased number of small bones in the fin allows more planes of flexibility to spread out its weight through the fin," said study co-author Richard Cloutier from the Université du Québec in Canada.

## After 7 years, olive ridleys go for daytime nesting in Ganjam

Over one lakh turtles have laid eggs along Rushikulya coast

SIB KUMAR DAS  
BERHAMPUR

In a rare sight after a gap of seven years, mass nesting of olive ridley turtles was witnessed during the daytime along the Rushikulya rookery coast in Odisha's Ganjam district

According to Berhampur Divisional Forest Officer (DFO), Amlan Nayak, at around 2 a.m., 2,000 mother olive ridleys started coming out of the sea to the beach early on Saturday. The nesting went on till the sunrise. By Sunday evening, around one lakh mother olive ridleys had nested.

Usually, olive ridleys pref-



**Mothers' space:** Olive ridley sea turtles on Rushikulya Rookery in Ganjam. • SPECIAL ARRANGEMENT

er to nest in darkness. "Sometimes due to pressure of delivery time, they may be opting to nest at daytime," said Divash Pandav, scientist of Wild Life Institute of India (WII), who has been study-

ing olive ridleys for over two decades now.

Each nest dug up by the turtles, on an average, contains around 100 eggs. The incubation period is around 45 days.