

IN BRIEF


Vatican launches weekly news bulletin in Latin

Vatican Radio is to start broadcasting a weekly news bulletin and podcast in Latin, the Holy See's official language. The five-minute "Hebdomada Papae" (Pope's Week) will be first broadcast on Saturday, with transcripts in different languages to accompany the podcast version to help budding Latin lovers. "It will be a proper radio news programme, with reportages and briefs," said Vatican News' editorial director Andrea Tornielli. AFP


Why dragonfishes have transparent teeth

The dragonfish has virtually transparent teeth that help it thrive in the deep, dark ocean. Scientists have found that the teeth are made of the same materials as human teeth, but their microscopic structure is so different that light doesn't reflect off them. Hence, its mouth seems almost invisible. Some other predatory deep-sea fish also have transparent teeth, so this might be a common strategy. REUTERS

Artists unite to make music for the planet

Multi-cultural production for climate action launched

SPECIAL CORRESPONDENT
CHENNAI

As part of Environment Day celebrations, an 8-minute long, 12-part Climatrix Symphony – an anthem for the planet, and a multinational, multi-cultural production for climate action, was released by the Planet Symphony Orchestra (PSO) on Wednesday.

International artists, including many Grammy winners, as well as students of different genres of music including classical, jazz, Carnatic, Hindustani, African, South American, film and folk have performed in the symphony using an array of over 50 instruments.

Chitravina N. Ravikiran, initiator of the PSO Movement, said the PSO was a symphony of people for the planet more than merely a symphony of artists for music. "This recording is our unified voice in artistic solidarity with billions all over the world, including millions of students who have been deeply anguished by the climate change crisis," he said.

The PSO aims to promote science using art. It is planning a series of events on the theme of environment protection in various parts of the world in collaboration with cultural and corporate houses and NGOs to bring



N. Ravikiran

scientists, artists, business and social leaders to the same platform.

The orchestra called for stepping up green initiatives, bringing down greenhouse gas emissions, investing in research and implementation of climate solutions, reduction in use of plastics and other non-sustainable products by the consumer and airline industries and the support of populations most vulnerable to climate change.

U.K.-based percussionist Pete Lockett said it was an honour to be involved with the PSO. "... All these great musicians have spent time to come together in reaction to the realisation that slowly but surely, life and the planet's environment is under threat; greed and selfishness is forcing existence into a corner and all possible solutions are seemingly ignored

because they are deemed as either not cost-effective or not in keeping with the bonafide of ever expanding profits. What can we humble musicians of the world do apart from crying out with music, hoping to enforce some sort of rational change," he said.

Violinist A. Kanyakumari, who is part of the initiative, said, "I think more artists should join the effort. In Carnatic music the ragas have their own power and they could be used for the cause," she said.

Diverse traditions

Saxophonist Phil Scraff from Boston, who has lent his notes to the 72 *Mela Kartha* based symphony, said it was wonderful how so many musicians from different cultures and diverse musical traditions from all over the globe have united.

"We have all participated in recording Ravikiran's landmark work, Climatrix Symphony. Musicians have come together in solidarity and resolve to bring attention to the urgent issues around climate change. The world is already experiencing so many negative effects of climate change - it's imperative that we ramp up climate action quickly," he said.

Ecologists have 596 reasons to cheer

224 new species of plants and 372 animal species discovered in India last year

SHIV SAHAY SINGH
KOLKATA

Scientists and taxonomists have documented 596 new species of flora and fauna from India in the year 2018. The details of the discoveries were made public on Thursday by the Botanical Survey of India (BSI) and the Zoological Survey of India (ZSI) in the publications *Plant Discoveries 2018* and *Animal Discoveries 2018*.

Of the 596 species, 372 come under fauna (311 invertebrates and 61 vertebrates). The newly identified 224 plant species include seed plants, pteridophytes, bryophytes, fungi and lichen.

About 31% of the plant species were discovered in the Himalayas. In the case of animals, the Western Ghats remained a biological hotspot from where about 50% of the species were found.

"The plants discovered this year includes close wild



Teeming biodiversity: (Clockwise from left) *Sitana gokakensis*, *Brachystelma ananthapuramense* and *Uropeltis bhupathyi*.

• SPECIAL ARRANGEMENT

relatives of many potential horticulture, agriculture, medicinal and ornamental plants. The discoveries include plants belonging to groups Amomum (wild cardamom), Cycads, Rubus (raspberry), Syzygium (wild jamun), Terminalia, Balsams, Zingibers and also seven trees and 10 orchids,"



(Clockwise from left) *Sitana gokakensis*, *Brachystelma ananthapuramense* and *Uropeltis bhupathyi*.

said A.A. Mao, director of BSI. He added that the BSI has placed emphasis on molecular DNA technology and phylogeny to confirm the discoveries.

Kailash Chandra, director of ZSI, said that modern taxonomic tools, like DNA analysis, helped in the discovery of frogs and reptiles

"Of the 61 species of vertebrates discovered this year, reptiles dominate (30 species)," Mr. Chandra said. 21 species of fishes, nine species of amphibians, and one mammalian sub-species were also found.

Kerala recorded the highest number of discoveries with 59 species. West Bengal, a state with both Himalayan and coastal ecosystems, recorded 38 and Tamil Nadu recorded 26.

With these new discoveries, the updated list of animal species in India has risen to 1,01,681 which is about 6.49% of all the species in the world, Mr. Chandra said.

S.S. Dash, head of the publication of BSI, said that the number of plant species in the country has been updated to 49,441 which is 11.5% of all flora in the world. "Over the past ten years, BSI has recorded discovery of 3,225 plant species," he said.

Clues awaited to identify bodies found on Everest

DNA tests to be done if families provide samples

REUTERS
KATHMANDU

Nepal on Thursday urged friends and families of missing climbers to come forward to identify four bodies brought down from Mount

Everest. The corpses, retrieved during a cleaning drive on the world's tallest mountain, lie unclaimed in a hospital morgue in Nepal's capital, Kathmandu.

It was not known who the four climbers are or when they died.

About 300 people have died over the years on Everest's treacherous slopes and

many remain there, some for decades.

The government said on Wednesday that a team of sherpa climbers picked up the bodies between the base camp and the South Col, the point from where climbers launch their summit attempts.

"We're waiting for families to come and claim the

bodies," said Dandu Raj Ghimire, director general of the Department of Tourism.

A doctor at the state-run Tribhuvan University Teaching Hospital, where the bodies have been kept, said DNA tests would be carried out if possible relatives provided matching samples but that no one had come forward yet.

When it rains



All in a day's work: A farmer using his boat to collect wet grass from his field to feed cows on the outskirts of Guwahati on Thursday. The monsoon has left fields inundated in the last two weeks. • RITU RAJ KONWAR

Ai-Da, the robot, charms viewers with her sketches

The humanoid uses artificial intelligence to make images

AGENCE FRANCE-PRESSE
OXFORD

Billed as "one of the most exciting artists of our time", Ai-Da differs from generations of past masters in one inescapable way: she is a robot.

Ai-Da is the brainchild of Aidan Meller, who claims she is the world's first ultra-realistic humanoid artist, able to draw creatively thanks to in-built artificial intelligence (AI) technology.

The 46-year-old art dealer recently unveiled Ai-Da – dressed in a brown wig and period-style painter's blouse – in Oxford, ahead of an exhibition of her first works opening next week in the English university city. "She is fully algorithmic... fully creative," Mr. Meller said.

As he spoke, an occasionally blinking Ai-Da, built with cameras for eyes and a robotic arm to draw with, worked on a sketch of him from behind a desk.

Forty-five minutes later, a delicate expressionist drawing of Mr. Meller, comprising deft pencil strokes, emerged.

Several dozen of Ai-Da's other works adorned the nearby walls. They include similarly styled pencil sketches of historical figures from Leonardo da Vinci to Alan Turing.



Machine learning: Ai-Da drawing with a robotic arm. • REUTERS

There are also colourful paintings and sculptures based on her initial sketches, completed by human assistants.

Ai-Da can currently only hold certain hard tools like pencils, not brushes.

AI has already been deployed by art pioneers elsewhere to create new work, but Mr. Meller said that his project represented "genuine innovation".

Tribute to Lovelace

Mr. Meller, also an art gallery director, first dreamed up Ai-Da – named after Ada Lovelace, the English mathematician and writer often called the world's first computer coder – eight years ago. With the help of British robotics company Engineered Arts, and researchers at both Leeds and Oxford

universities, Ai-Da was finally completed in April.

Mr. Meller was eager for her to adopt a female persona because he argued the art and coding worlds need more women represented.

"She's got a persona, she's an avatar, she's fiction, she's real," he said. The avatar uses her camera "eyes" to capture what is in front of her, which an internal computer – and its machine-learning technology – translates into the coordinates of a corresponding image to be plotted on a page.

Can even move

She can move, allowing what Mr. Meller calls "performance art" which features in several videos at the upcoming exhibition.

Despite technology's paramount role in the work produced by Ai-Da, Mr. Meller is adamant it is also the fruit of a "highly creative" process.

"She has the incredible technologies and abilities to produce remarkable, innovative, creative artwork," he said, noting no two works are ever the same.

Mr. Meller said that art work created by Ai-Da for her first exhibition had already sold, for over £1 million.

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