

Ecology

Improve biodiversity

Endangered monkeys get their own 'bridge'

RIO DE JANEIRO, Aug 8, (AP): The overpass juts from a forest over a four-lane highway in a rural area outside Rio de Janeiro. It's meant for a very special sort of pedestrian: golden lion tamarins, small orange primates that for decades have been at risk of extinction.

The little primate, whose name derives from the shock of orange fur that frames its face like a mane, has watched its habitat shrink over decades – even centuries – of rampant deforestation. Animal traffickers have also targeted the brightly colored monkeys.

Bowing to pressure from an environmental association – and following a court order – the highway's administrator in late July finished construction of the overpass that's aimed at helping conserve the species.

About 20 meters (65 feet) wide and twice as long, the bridge connects the Poco de Dantas biological reserve in Rio state's Silva Jardim municipality with a farm that the Golden Lion Tamarin Association acquired to transform into an ecological park.

Recently planted trees on the overpass – only inches tall at present – are expected within two years to reach heights allowing the monkeys to cross from one swath of Atlantic forest to another.

Some of the monkeys, which weigh about a half kilogram (a pound), can be seen clinging to the trees beyond in the forest beyond.

"Our objective is to consolidate a landscape of conservation for the monkey. The biggest problem is the fragmentation of the forests, which were already very deforested by the expansion of urban centers," said **Luiz Paulo Ferraz**, a geographer and executive secretary of the association, known by its Portuguese initial as AMLD. Connecting the forests means more space for the primates to roam and reproduce, and so to sustain genetic diversity, he said.

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Restoration

Before colonization, the Atlantic forest biome covered 330 million acres (more than 500,000 square miles) near and along Brazil's coast, of which more than 85% has been cleared, threatening plant and animal species, according to The Nature Conservancy.

More than 70% of Brazil's population lives in areas that are or once were Atlantic forest, according to Rafael Bitante, chief of forest restoration at SOS Atlantic Forest, another environmental organization.

And while few Brazilians have seen a golden lion tamarin in person, virtually all have held one in their hands: It features on Brazil's 20 reais bill (less than \$4). The animal has become a symbol for wildlife preservation in Brazil and beyond.

In the 1970s, when scientists began conservation efforts, there were just 200 individuals of the species remaining, according to the AMLD. Creation of the government's Poco de Dantas reserve in 1974 was the jumping-off point for rebuilding the animal's population and habitat in Rio state's interior. In 2003, its international conservation status was upgraded to "endangered" from "critically endangered".

The number of golden lion tamarins reached 3,400 in 2014, the year of the most recent census by AMLD. A yellow fever outbreak in 2016 and 2017 caused the death of an estimated 900 animals – the biggest blow to the species since the start of conservation efforts.

They require more habitat to boost their numbers, according to Carlos Alvarenga Pereira, the coordinator of AMLD's forest restoration program.

"It's a local challenge, and requires the participation of rural communities, convincing farmers to replace unproductive farmland into recovered forest," Pereira said.

Public prosecutors had to go to court to get a judge's order requiring the highway operator to erect the bridge, which was a condition in the public tender for the highway's concession.

The association's Ferraz said it is a rare example in recent years of an infrastructure project aimed at encouraging conservation in Brazil's Atlantic forest.



Wild horses, bison and other big-hoofed animals once roamed freely in much of Europe. Now they are transforming a former military base outside the Czech capital in an ambitious project to improve biodiversity.

Where occupying Soviet troops once held exercises, massive bovines called tauros and other heavy beasts now munch on the invasive plants that took over the base years ago.

The animals are turning the former Milovice base 35 kilometers (22 miles) northeast of Prague into a miniature version of the steppe that once rolled across the continent.

Wiped out in the wild, the animals now have the chance to live together again in relative freedom. Conservationists deployed them at Milovice five years ago. Now they hope to enlarge the sanctuary by one third to some 360 hectares (890 acres) this year.

The animals' task is to improve biodiversity among local plants by eating invasive ones while saving endangered species, said **Dalibor Dostal**, the director of European Wildlife, an organization behind the project.

"It's a miraculous change," Dostal said. "Nobody expected that the whole process would go ahead so fast and the area would change so much in just a few years."

He said the large animals are as key in preserving the ecosystem "as trees are for forests".

David Storch, an environment professor at Prague's Charles University who was not involved in the project, agreed.

He said the project is "absolutely unique" because it shows that nature can be preserved not only by protecting it from human activities but also by actively shaping it with the big-hoofed animals.

The selection of the animals was based on the experiences of conservationists in various countries.

Domestic animals such as sheep were ruled out because they would feed on endangered plants as well. Mechanical cutting of the invasive plants is too costly.

Partnership

While invasive grasses are a delicacy for wild horses, European bison and tauros prefer bushes, creating an ideal partnership.

The invasive plants began to grow after the Soviet troops who stayed on after the 1968 Soviet-led invasion of then-Czechoslovakia finally withdrew from the base in 1991.

Former military bases are considered places with great biodiversity, the conservationists said, because soldiers' activities simulated the impacts of hoofed animals.

The Czech project includes tauros that were transferred from The Netherlands, where a cross-breeding program aimed at coming close to the original species, the aurochs, started in 2008. That wild ancestor of today's cattle became extinct in the 17th century.

Wild horses were transported from Britain's Exmoor National Park, while European bison came from several reserves in Poland.

The project now has herds of 27 European bison, 25 aurochs and some 70 wild horses.

The animals move freely on the pastures on the former military base year-round. With water sources available, they are able to care for themselves, even in winter.

The landscape quickly saw signs of transformation. Flowers started to dot the area as early as the second year of the project as the large herbivores reduced the tall, dense invasive grasses.

Today, the whole area changes its colors over the course of the year, depending on what flowers are in bloom.

The most precious is the star gentian, also known as cross gentian. The blue flower is now flourishing at Milovice, more than anywhere else in the country.

The former base also has become abundant in other animals and insects. The Adonis blue, a butterfly, has been spotted there for the first time since 1967.



Mendy McNulty swabs the nose of her son, Andrew, 7, on July 28, 2020, in their home in Mount Juliet, Tenn. Six thousand US parents and kids are swabbing their noses twice a week to answer some of the most vexing mysteries about the coronavirus. (AP)

Health

Families seek answers to vexing questions on coronavirus

US kids, parents perform DIY tests

By Lindsey Tanner

In a comfy suburb just outside Nashville, a young family swabs their noses twice a month in a DIY study seeking answers to some of the most vexing questions about the coronavirus.

How many US children and teens are infected? How many kids who are infected show no symptoms? How likely are they to spread it to other kids and adults?

"The bottom line is we just don't know yet the degree to which children can transmit the virus," said Dr. Tina Hartert of Vanderbilt University, who is leading the government-funded study.

Evidence from the US, China and Europe shows children are less likely to become infected with the virus than adults and also less likely to become seriously ill when they do get sick. There is also data suggesting that young children don't spread the virus very often but that kids aged 10 and up may spread it just as easily as adults. The new study aims to find more solid proof.

"If we don't see significant transmission within households, that would be very reassuring," Hartert said.

Some 2,000 families in 11 US cities are enrolled in the DIY experiment, pulled from participants in previous government research. In all, that's 6,000 people. They have no in-person contact with researchers. Testing supplies are mailed to their homes.

Specimens

They collect their own nasal swabs for COVID-19 tests, and less often blood and stool samples. The specimens are mailed to the study organizers. Participants get text messages asking about symptoms and reminding them to test and they fill out questionnaires.

The study could help determine the safety of in-class education during the pandemic. But results aren't expected before year's end.

For Mendy and Joe McNulty and their two youngest sons in Mt Juliet, Tennessee, nasal swabbing at home is a family affair. Testing supplies are spread out on a carefully wiped down kitchen counter, where the four gather to perform what has become a ritual. Mendy McNulty helps the boys with their swabbing.

"We were excited to be able to feel like we could contribute somehow," she said, explaining why the family

In-person education would be too risky

Is it safe to reopen schools in pandemic?

Is it safe for schools to reopen during the pandemic?

It depends on how widespread COVID-19 infections are in the community and the safety measures the school takes. In areas where the virus is poorly controlled, public health experts say in-person education would be too risky.

In areas where the virus appears to be under control, experts say schools still need to make adjustments to minimize risk when reopening. A sustained decline in cases and a positive case rate of less than 2% are among the signs the virus is under control, some experts say.

But given the many lingering unknowns about the virus, school districts are approaching the school year in a variety of ways.

Evidence suggests young children don't spread the disease very easily, while kids aged 10 and up may transmit as easily as adults. But experts say more conclusive proof is needed.

And even though children appear less likely to get infected than adults, and less likely to become seriously ill when they do, severe cases and deaths have occurred.

Children and teens often have only mild illness or no symptoms when infected. That means they

could unknowingly pose a risk to other students – who may pass the virus on to their parents and grandparents – or to teachers and other adults who might be vulnerable to severe illness if infected.

To reduce risk, experts say schools should make adjustments when resuming in-person classes.

Recommended safety measures include wearing face coverings in schools and limiting movement so kids stay in the same classroom all day. Placing desks several feet apart is also advised. Canceling assemblies, cafeteria meals and other gatherings also helps, says the US Centers for Disease Control and Prevention.

Some Scandinavian countries with far fewer cases than in the United States reopened schools with adjustments, and have had no outbreaks tied to schools. But in Israel, schools that reopened when virus activity was low ended up shutting down a few weeks later when cases spiked in the community, including among students and teachers.

In the US, some school districts are planning a mix of in-person classes and online learning to help maintain social distancing. Other districts, such as those in Atlanta, Houston and Los Angeles, are starting classes online only. (AP)



A SpaceX Falcon 9 lifts off from Pad 39A at Kennedy Space Center early Aug 7, in Cape Canaveral, Fla. The rocket is carrying 57 Starlink satellites and two Earth observation spacecraft for BlackSky. This is the 10th Starlink launch. (AP)



Jugnauth



Ramano

Discovery

Stranded ship spills fuel: The Indian Ocean island of Mauritius has declared a "state of environmental emergency" after a Japanese-owned ship that ran aground off-shore days ago began spilling tons of fuel.

Prime Minister **Pravid Jugnauth** announced the development late Friday as satellite images showed a dark slick spreading in the turquoise waters near environmental areas that the government called "very sensitive".

Mauritius has said the ship was carrying nearly 4,000 tons of fuel and cracks have appeared in its hull.

Jugnauth said his government had appealed to France for help, saying the spill "represents a danger" for the country of some 1.3 million people that relies heavily on tourism and has been hit hard by the effects of the coronavirus pandemic.

"Our country doesn't have the skills and expertise to re-float stranded ships," he said. Bad weather has made it impossible to act, and "I worry what could happen Sunday when the weather deteriorates."

Jugnauth shared a photo of the vessel, the MV Wakashio, tilted precariously. "Sea rough beyond the reefs with swells. Ventures in the open seas are not advised," according to the Mauritius Meteorological Services.

Videos posted online showed oily waters lapping at the shore, and a man running a stick across the water's surface and lifting it, dripping black goo.

The French island of Reunion is the closest neighbor to Mauritius, and France's Foreign Ministry says France is Mauritius' "leading foreign investor" and one of its largest trading partners.

"When biodiversity is in peril, there is urgency to act," French President Emmanuel Macron tweeted Saturday. "France is there. Alongside the people of Mauritius. You can count on our support dear Jugnauth."

A separate French statement from Reunion said a military transport aircraft would carry pollution control equipment to Mauritius and a navy vessel with additional material would set sail for the island nation.

"We are in a situation of environmental crisis," the Environment Minister of Mauritius, **Kavy Ramano**, has said.

After the cracks in the hull were detected, a salvage team that had been working on the ship was evacuated. Ramano told reporters Thursday. Some 400 sea booms were deployed in an effort to contain the spill. (AP)



2 rescued turtles released: Two

rehabilitated sea turtles, rescued at different times and locations by the US Coast Guard, have been released off the Florida Keys. "Emma", a 150-pound (68-kilogram) female loggerhead sea turtle, was recovered

in June after she was found floating in the Atlantic Ocean off Islamorada. "Emma" was transported to the Turtle Hospital where treatment included emptying excess air out of her body cavity and a regimen of



This photo taken and provided by Georges de La Tremoille of Mu Press shows oil leaking from the MV Wakashio, a bulk carrier ship that recently ran aground off the southeast coast of Mauritius, on Aug 7. (AP)

fluids and vitamins.

"Bubbles", a 225-pound (100-kilogram) adult female green sea turtle, was found entangled in an abandoned fishing trap line by recreational boaters in mid-June off Long Key. Officers from the Coast Guard station in Marathon assisted Turtle Hospital staff with the rescue.

The entanglement caused irreparable damage to Bubbles' rear flipper, resulting in amputation surgery. Bubbles was also treated for pneumonia and other issues.

Coast Guard Petty Officer Michael Lees described the rescue and Thursday's release of the sea turtles as a rare treat. (AP)



Over 50K flamingos mass: Behold a treat for the eyes! Tens of thousands of pink flamingos have amassed in the wetlands of southern France along with their offspring still lacking flamboyant plumage.

The long-legged birds resembling ballerinas in tutus have long drawn tourists to the marshes in the Camargue region that has served as France's salt mine since Roman times. But the numbers of pink flamingos this year may be the highest since experts began keeping records 45 years ago, said Thierry Marmol, the guardian of the vast ecosystem.

France's two months of strict confinement to contain the coronavirus may well be the reason. (AP)