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AGÊNCIA ESTADO

ENVIRONMENTAL NEWS

FEATURES

Four feature stories on conservation, environmental tourism, tropical fauna/flora, and/or unknown Brazilian ecosystems will be offered each month. Full color slides available. Features may be bought separately or as a package. Subscription of the package for one year includes all features, spot news, and editorial page.



from the Arctic circle and Antarctica with the seasons, but is also the nesting ground of many of these same birds.

Formed by the tips of one of the largest Atlantic mountain chains, the islands have rocks believed to be at least 600 million years old, informed Valdeci Janazzi, a geology professor at the University of Sao Paulo (USP).

Bomb craters up to half a meter wide now replace the natural erosion-formed cracks of the scarps, where once dozens of different species of ferns, bromelias, orchids, begonias and cactuses, flourished.

"The bombing has caused too much deforestation already," said another professor at USP, geographer Roney dos Santos.

Much of the native vegetation was substituted by a grass species which suffocates the less sturdy begonias and orchids.

Although Brazilian scientists only began to study the environmental impact of the bombings in 1988, many believe that the archipelago's food chain may be broken by the absence of the gulls, who help establish the biological equilibrium of the islands.

So far, the navy has avoided environmentalists, claiming they do not have enough scientific proof to determine to what extent the damage artillery practice on a bird sanctuary may be causing.

But by next June the situation may change. An environmental assessment study is being done, and if it confirms the damage indicated by scientists, Alcatrazes will be left in peace, said Navy Minister, Mario Cesar Flores.

ANA CAROLINA FERNANDES/SAE

Alcatrazes: A bridge between Antarctica and the Caribbean for dozens of bird species. After ten years of bombing by the Brazilian Navy, a chance for peace.

BRAZILIAN NAVY TARGET PRACTICE THREATENS BIRD SPECIES REPRODUCTION

By PRISCILLA SIQUEIRA
Agencia Estado Writer

SAO SEBASTIAO, Brazil (AE) - Bomb craters are taking the place of the nesting grounds of many Antarctic bird species in an archipelago off the southern Atlantic coast of Brazil.

Idyllic Alcatrazes, an uninhabited archipelago only 33 kilometers from the southeastern Brazilian seaport of

Sao Sebastiao, 100 kilometers from Sao Paulo, is used as target practice by the Brazilian Navy.

To the navy, that has been using the islands for the past ten years, it is practical to dump artillery on the islands.

"Alcatrazes is relatively close to a major navy base, and there is no danger of hurting

human beings," said Admiral Joao Batista Paulileu, responsible for the choice of the area.

To several scientists and environmentalists, however, the exercises are criminal.

The archipelago is not only a bridge between the South Pole and the Caribbean to dozens of different bird species, who rotate to and

World resources institute recognizes Calculation error in Amazon burnings report:

By LIANA JOHN (Agencia Estado Writer)

The new 1991/92 World Resources Institute (WRI) report will show considerable changes in the figures concerning deforestation and carbon emissions in Brazil, said WRI director, Eric Ródenburg, in a telephone interview.

The new report, based on studies done by the Brazilian Institute of Spacial Research (INPE), shows the deforestation of 26,600 square kilometers of the Amazon annually, against 40,000 to 80,000 square kilometers printed in the 1990/91 report.

Former WRI numbers were based on old evaluations of amazon deforestation, and INPE's 1987 estimatives of the burnings. Both were rough projections.

In 1988/89, INPE made exhaustive calculations of the deforestation based on Landsat satellite images. This study showed a significant reduction on projected annual deforestation rates.

But even with deforestation rates corrected, Brazilian carbon emissions will remain unexact. "Carbon emission calculations based on forest burnings are uncertain because there are no real figures on these emissions," said INPE researcher Gylvan Meira.

According to Meira, the WRI report consisted in the multiplication of the total deforestation by an estimate of the emissions.

"If we admit this magical calculation using our 26,600 square kilometers, we get 250 million tons of carbon emissions, rather than the WRI 560 million," he said.

Meira also explained that in order to accurately calculate carbon emissions, besides using the correct annual rate, abandoned areas should be subtracted from the deforestation totals.



Landsat satellite image: used to calculate actual Amazon deforestation rates. Pink lines show roads and settlements in the state of Rondonia, one of the most devastated in the Brazilian Amazon.

INPE

EDITORIAL PAGE

An editorial by environmentalists, scientists, or politicians, available at the beginning of each month, together with the features. And, a weekly article on the Amazon by Lucio Flavio Pinto, an AE journalist and area specialist. Available on Wednesdays by 1700 GMT.



Rio Tietê — one of the most polluted rivers in the world.

LEONARDO CASTRO/JAE

PHOTO SERVICE

All photos offered in our packages may be bought separately. Exclusive photos can be made by agreement. Please order by fax, phone, or telex. Color 35mm slides will be sent by express mail. Telephoto B&W and color prints also available.

SPOT NEWS

Every Friday, a summary of the main environmental daily news coverage in our national wire will be filed by 1700 GMT. Most stories will be limited to 350 words, but any of them may be detailed by agreement. Photos of the three main stories will be included. Spot news will be available automatically to package clients.

Amazon orchid species becoming extinct

Rare Amazon orchid species are rapidly becoming extinct, as they disappear from their native niches into the sophisticated shop windows of major Brazilian urban centers. Besides predatory ornamental gardening plant collectors, the extinction of more than 240 orchid species such as the "Cattleya eldorado" has been attributed to the substitution of native vegetation for palmito cultures.

A native of brooks and sand deposits on the banks of the Negro and Uamata Rivers in the Brazilian Amazon state of Amazonas, the orchids also suffer the threat of the construction of hydroelectric plants, roads and unplanned urban development...

Chico Mendes — a rubber tapper leader is avenged

Two years after the cold-blooded murder of world-renowned rubber tapper and rain forest defender Chico Mendes, on Dec. 22, 1988, a rancher and his son were sentenced to 19 years in prison for the crime.

Darli Alves da Silva, 54, was convicted for having planned the death of the world-famous rubber tapper leader. His 23-year-old son, Darci Alves Pereira, executed the crime.

It was the first time someone was sentenced for planning a crime of this nature in Brazil.

Since 1978, more than 150 Indians and rubber tappers like Chico Mendes have been assassinated in Acre, the environmentalist's home state alone.

Pollution by mercury far exceeds who standards

The incidence of mercury in the Madeira River, in the southwestern Brazilian Amazon state of Rondonia, reaches over ten times the permitted World Health Organization limits, according to specialists from the University of Essex, in England, who recently analysed samples of water collected along the river. The Madeira is in an area devastated by gold and bauxite mining. The liquid mercury, used to separate gold from raw ore, washes in-

to the river causing serious health hazards to Indian populations in the area, the miners themselves, and local fauna and flora...

Debt conversion and the environment

Brazilian and foreign environmentalists are working together to solve two problems at one time, by converting a small part of the overwhelming US\$ 120 billion Brazilian foreign debt into environment conservation projects. Aiming the conversion of at least US\$300 million by 1994, 15 Brazilian non-governmental agencies with projects for the Amazon, Atlantic rainforest and Pantanal regions, recently made a coalition backed by the Washington-based National Wildlife Federation...

Tin ore mining suffers judicial interdiction

One of the most important cassiterite (tin ore) mines in the Brazilian Amazon state of Rondonia has been temporarily interdicted by local justice officials.

A report from Ibama, the Brazilian federal environmental protection agency, established that the mine's activities are responsible for the pollution of one of the most important rivers in the Amazon basin, the Candeias, as well as two of its affluents.

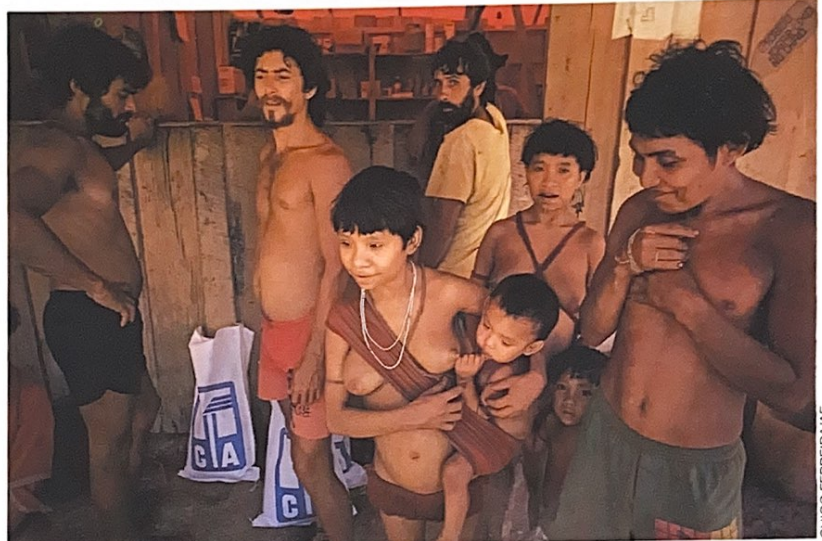
The mine produces monthly close to three thousand tons of cassiterite. 80 military police were needed to bar angry miners from entering the site...

Forced migration poses risks to local fauna

Historically, the introduction of animal species in foreign environments has rarely shown positive results.

To solve a rodent problem, Brazilian authorities transported several members of the Tupinambis teguixim species, a large carnivorous lizard, to the archipelago of Fernando de Noronha, a tropical paradise on the Northern Atlantic coast of Brazil.

The Tupinambis, an active



Yanomamis look for food at a garimpeiro store, unaware of the diseases contact with miners could bring.

hunter, native of savanna and semi-arid regions, acquired a taste for bird and endangered turtle eggs, besides a small endemic lizard known as mabuia.

New gas is responsible for air cleanup

According to Nasa technician Robert McNeal, oxidirle, formed by a chemical reaction between ozone and water vapor under ultraviolet radiation is much more important in cleaning up the atmosphere than was imagined.

McNeal, who has been working with Brazilian scientists in the Amazon region explained that the incidence of oxidirle over tropical rain forests is very high due to humidity. Of short term duration due to its highly reactive nature, oxidirle is responsible for the cleanup of gases in the atmosphere such as methane, carbon monoxide, sulphur oxides and other air pollutants...

Yanomami continue to suffer malaria threat

The Yanomami Indian nation, in the upper Amazon region, continues to be threatened by malaria and other tropical diseases.

Besides malaria, at least 80 percent of the Yanomami indi-

ans have been exposed to oncosis, a serious illness also transmitted by insects, venereal diseases, and scabies, said Onero Pithan, a doctor from Funai, a government entity in charge of Indian affairs.

Pithan is one of four volunteer doctors working in the area, which is populated by more than 35,000 Indians.

Radioactive waste leakage in Goiania

Cesium from barrels containing radioactive waste from a 1987 accident in the western Brazilian state of Goias may be leaking.

After three years under sun and rain, covered only by a plastic cover, the already rusty barrels will only now be protected with a metal roof...

Technicians working in the decontamination of the area said the measure is not enough: the waste disposal barrels should be reopened and treated in a special laboratory — a facility Brazil still does not have.

Newly found lion-tamarin species is threatened

A new species of the lion-tamarin was discovered on a nearly untouched island on the

southern coast of Brazil.

The small primate, called Caissara lion-tamarin, a cousin of the endangered golden lion-tamarin, golden-face lion-tamarin and black lion-tamarin, is already on the endangered species list.

To the dismay of the biologists who classified the new species, Maria Lucia Lorini and Vanessa Person, of the University of Curitiba, there were only an estimated 15 Caissaras left on Superagui, 560 kilometers from Sao Paulo.

Human predation and the absence of biodiversity on the island are largely responsible for the imminent extinction of the Caissara-tamarin.

World Bank Finances Wildlife Reserves in Brazil

Small virtually unknown wildlife reserves in Brazil are benefitting from World Bank investments. In the savanna region, near Brasilia, the capital, a 900 acre (400 hectare) wildlife sanctuary is due to receive US\$ 554 thousand from the bank for fiscalization and conservation projects. Locally known as "Riacho Fundo" reserve, "Deep River," the area has been consistently threatened by agricultural expansion and forest burning. The reserve was created in 1988 to protect the endangered endemic Pira-Brasilia (Cynolebias boitonei), a 3 cm (1.20 inch) fish species...

CHICO FERREIRA

NATURE'S CALENDAR

Available once a month, all year around. It includes small notes and color slides on Brazilian flora species that flourish/frutify and native fauna species that breed and/or have special activity.

Heavy daily rainshowers are a welcome respite from the intense heat of the tropical Brazilian summer. The abundant humidity is also enough incentive for hundreds of native flora and fauna species to flourish.



RODRIGO MESQUITA/VAE

Jabiru Myceteria - Known in the amazon region as *Jaburu*.

- Mammals fill their wombs and feed their young, birds rehearse first flights, and the woods are filled with the sounds of frogs.

- January is the hatching month for most poisonous snake species, such as the jararaca (*Bothrops* spp), rattle snake (*Crotalus terrificus*), and the surucucu (*Lachesis muta*).

Poisonous from birth, these snakes feed on the abundant summer population of rodents and frogs.

- The endangered anaconda or sucuri, Brazil's largest serpent, also hatches this time of the year. Each sucuri hatches between 30 to 40 eggs each year.

The serpent offspring measure up to 90 cm when they are born. An adult serpent averages 8 m, but have been known to reach 14m.

- In the savanna and natural fields of southeastern and central Brazil, there is an abundance of the catuaba (*Aemopaegma arvense*). The catuaba is a popular aphrodisiac and stimulant.

- In the northeastern semi-arid states of this country, the rain rapidly tints the grey with green. In a weeks time, the dry soil is unrecognizable: beautiful flowers literally dress the landscape with their white and purple hues. Amid exuberant flowers, fauna species such as the armadillo also thrive.

BURNINGS

Available once a week, during burning season (June - October). It includes maps with the burnings registered by NOAA satellite that week, and an analysis of the burnings by area specialists. The text will also explain whether the fire is in occupied zones, near dams, mining projects, or forests. A monthly evaluation of the burnings will also be sent.



American satellite NOAA-II readings showed that during the month of August alone, the incidence of forest fires for agricultural purposes in the Amazon and pre-Amazon regions more than halved the total number of forest burnings during a three-month, July to September period in 1988.

The readings were done by the Brazilian Institute of Spacial Research (INPE), located in Sao Jose dos Campos, 90 kilometers from Sao Paulo.

The satellite readings have nine classifications, from camp fires to forest fires. INPE readings consider only the larger categories, 8 and 9.

Although more than 60,000 fire spots were detected during the month of August this year, very few fire spots were seen in the actual Amazon rainforest.

Burnings occurred mainly in central and northeastern Brazil, with predominating savanna vegetation, interspersed by pasturelands and transition forests.

According to the map (left) the major fire spots concentration is located in northeastern Tocantins State, a densely occupied area. There, thousands of settlers use fire to defeat weed growth in their fields.

To cattle ranchers, slash and burn is the cheapest and easiest way to renew pastures.

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