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# Technology and disruption

Technological transformations have occurred with dizzying speed over the last decades. Identifying those that best suit institutional purposes and incorporating them into routines results in greater agility and gains in productivity. In 2019, a year of unprecedented challenges for environmental conservation in Brazil, FUNBIO made important investments in technology, aligned with its mission of mobilizing strategic resources for conservation biodiversity. In the coming years, the combination of knowledge and technical capacity with technology will yield considerable gains for the projects under FUNBIO management.

Our migration to cloud computing continued at full steam in 2019, when the main systems were transferred to the online service. For the users and FUNBIO as a whole, this afforded greater security and stability, while the reduction in costs freed up funds for institutional investments elsewhere.

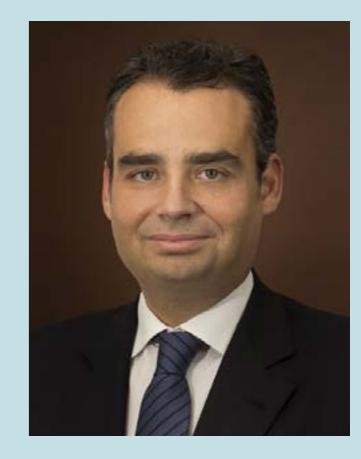
Also in 2019, the socio-environmental project management system, the nerve center of our operations, was rendered faster and more transparent by Business Intelligence. For FUNBIO's teams, BI makes management more agile and intelligent, while permitting ongoing assessments and adjustments that optimize results.

In the goods and services procurement area, another pillar of our work, we installed a new platform that will enable us to process requests from the supported projects more swiftly.

In a world riddled with disruptions, technology has assumed a pivotal role. However, it is vital that it be incorporated seamlessly into the routines of those working for the environment. Our hope is that analytical strategies based on AI and machine learning will be gradually and continually added to the environmental conservation repertoire. These are tools that help forecast scenarios and supply solutions to guarantee the future.

#### José Berenguer

President of Deliberative Board



# Consortium for the Future

In an unprecedented move, in 2019, governors from all nine Brazilian states in the Amazon Region joined forces to come up with conservation and sustainable development strategies and actions and make them viable in the world's largest tropical forest. The formal institution of the Interstate Consortium for the Sustainable Development of the Amazon Region took place in March 2019 and lays a further milestone in addressing the urgent needs of the Amazon. The partnership with FUNBIO, begun in June, was signed and announced in December, at the COP25 Climate Conference in Madrid.

For FUNBIO, supporting the Consortium is not only a privilege, but an opportunity to apply our two decades of knowledge and experience on yet another initiative with transformative potential. The invitation to develop a financial mechanism lends continuity to our mission, marked by the pursuit of innovation and partnership-building.

State governors have always been strategic partners of ours, as on ARPA – Amazon Region Protected Areas program, a globally-renowned Federal Government conservation initiative conducted with vital support from civil society and Brazilian and foreign donors. It was also on invitation, this time from Rio de Janeiro, that FUNBIO created the mechanism that now ensures the quick and efficient application of funds from environmental offset measures at the state's Protected Areas.

Aware of the potential of the Amazon's bioeconomy, and adopting a strategic, positive and integrated approach, the Consortium is focused on win-win actions. The integration of conservation and development policies and intense dialogue among the members of the Consortium have helped strengthen and value the Amazon, a forest that saw decade-high levels of deforestation between August 2018 and July 2019, according to the National Institute for Space Research (INPE). During that period, the Amazon lost over nine thousand square kilometers of rainforest, a 29.5% hike in comparison with the same period of the previous year.

Conservation allied with the bioeconomy, income generation and value added to forest produce is a major relief to the Amazon, a superlative biome erroneously perceived as inexhaustible, but which is actually vulnerable to actions that can devastate in a brief period of time a forest it took millions of years to create. The serious COVID-19 crisis has made this alliance with state governments even more important. The social isolation of the agents that ensure compliance with environmental law and the need to prioritize their health open a window of risk for opportunistic deforestation. In this context especially, backing the Consortium reaffirms our mission and our commitment to conservation in Brazil.

#### Rosa Lemos de Sá

Secretary-general of FUNBIO





## Mission

To provide strategic resources for biodiversity conservation



## Vision

To be the benchmark in enabling strategic resources and solutions for the conservation of biodiversity



## **Values**

FUNBIO is guided by the following values:



Transparency



**Ethics** 



**Effectiveness** 



Receptiveness



**Independence Intellectuality** 



Innovation

## **Goals and Contributions**

The conservation initiatives FUNBIO supports help further the Sustainable Development Goals (SDGs), the Nationally Determined Contributions (NDCs) and the National Strategic and Action Plans for Biodiversity (EPANBs, in Portuguese). Projects with a bearing on these target-based strategies are marked with the acronyms SDG, NDC and/or EPANB, as applicable.

## **Sustainable Development Goals** (SDGs)

In 2015, the United Nations (UN) announced that its member states were adopting 17 Sustainable Development Goals in order to protect the planet, eradicate poverty and ensure prosperity for all. The SDGs carry on from where the Millennium Development Goals left off in 2000, giving those who fell short of those targets a second chance to hit the mark. The set of measures will guide Brazil and the 192 other signatories in drafting national policies and negotiating international cooperation agreements between now and 2030.



That same year, Brazil submitted its Nationally Determined Contribution (NDC), a countryspecific addendum to the Paris Agreement. Taking greenhouse-gas emissions levels from 2005 as a marker, Brazil committed to a stepped target of obtaining a 37% cut by 2025, and 43% by 2030. Among the other goals set are the restoration of 12 million hectares of cleared forest and zero illegal deforestation in the Amazon.

## The National Biodiversity Strategy and Action **Plans** (NBSAP)

The National Biodiversity Strategy and Action Plans – NBSAP is intended to promote the conservation and sustainable use of biodiversity, with an equitable sharing of the benefits of genetic use. It was created by the Federal Government in collaboration with state governments, business, academia and civil society. It contributes to the country's biodiversity goals. All FUNBIO projects contribute to the NBSAP.







































## **Goals and Contributions**

BERTIOGA STATE PARK

SDG NDC NBSAP SDG NDC NBSAP



A MILLION TREES FOR THE XINGU

## January





**REM-MT** receives its first disbursement

REM-MT goes into action upon receipt of its first disbursement. The initiative awards cuts in CO<sup>2</sup> gas emissions through forest conservation. In Mato Grosso, four subprograms support sustainable production and indigenous territories, among other action fronts.

Mato Grosso hits its deforestation target and secures the disbursement that will kick start the execution of REM.

^

Sorriso, Mato Grosso. Photo: REM-MT

## February



#### In the field

Twenty projects are announced for the first edition of the FUNBIO Grants – Conserving the Future, selected out of a total field of s500 submissions.

### Beyond a million

Three years after its launch, the "One million trees for the Xingu" project, a partnership between Rock in Rio and the Instituto Socioambiental (ISA), exceeded its target: all told, 1.5 million tree saplings should now grow to adulthood.

### The sea in three projects

Deals are signed on three new support projects: franciscana conservation; a fish stocks study; and lacustrine systems in Rio de Janeiro.



Seed collectors on the A Million Trees for the Xingu project at Xavante Village (Etenhiritipá) in Mato Grosso. Photo: Alexandre Ferrazoli/FUNBIO

## March



Photo: Fabrício Teixeira/FUNBIO

## FUNBIO hosts a cycle of debates on International Women's Day.





Erika Guimarães, Andréia Mello, Fernando Barreto, Angela Kuczach and Rosa Lemos de Sá at the 19th ABRAMPA Congress. Photo: FUNBIO

### Gender equity and equality

FUNBIO creates an internal work group on gender, reinforcing the importance of equality and equity to the institution.

### Brazil's most endangered dolphin

Researchers begin experiments to ascertain the real number of franciscana dolphins killed, as beached carcases constitute only a fraction of the actual number.

## Knowledge-exchange

The first seminar on the project Marine and Fisheries Research is held in Rio de Janeiro, providing a forum for knowledge-sharing among the 80 or so participants.



### Partnership with the Public Prosecutors' Office

In another partnership with the Brazilian Association of Members of the Environmental Public Prosectors' Office (ABRAMPA), FUNBIO supports the institution's 19th Congress and joins other NGOs in presenting the current conservation panorama and the opportunities it offers.





1st Seminar of the Marine and Fisheries Research Project in Rio de Janeiro. Photo: FUNBIO

## May



Fish with sensors

In a Brazilian-first study, chips are implanted to monitor remaining blue parrotfish populations. The data will help researchers identify conservation hotspots in the Arraial do Cabo Marine Extractive Reserve, home to 16 initiatives designed to generate and disseminate scientific knowledge on marine fisheries in the state of Rio de Janeiro.

See the researchers in the field

Greenback parrotfish (*Scarus trispinosus*), the largest parrotfish species found in Brazil. Photo: Ronaldo Francini

## June



## Book recounts the history of FMA/RJ

The success of the innovative "Atlantic Forest Fund" mechanism is revisited in the book "FMA/RJ — Fundo da Mata Atlântica: um mecanismo inovador de financiamento da conservação no Rio de Janeiro", launched by the Rio chapter of the Brazilian Bar Association.



### More research, more flavor

Launch of the second edition of the FUNBIO Grants – Conserving the Future, renewing the partnership with the Instituto Humanize. 32 projects make the final cut in December.



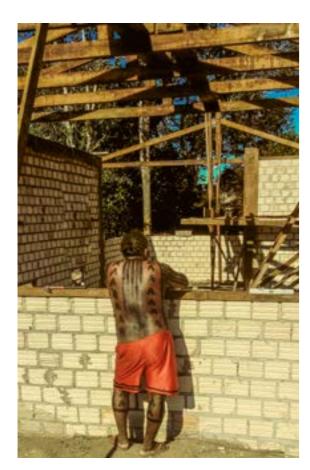
FUNBIO collaborators with Carlos Minc (right) at the FMA book launch, held at the Rio chapter of the Bar Association. Photo: Fabrício Teixeira/FUNBIO





Felipe Nóbrega, one of the researchers benefitted by the FUNBIO Grants – Conserving the Future program, in the Paraíba do Sul River Basin, Rio de Janeiro. Photo: Personal archive





A Kayapó indian watches the construction of a flour silo at the Baú Indigenous Territory in Novo Progresso, Pará. Photo: Dante Coppi/FUNBIO



## Kayapó: food security and income

The construction of a flour silo with resources from the Kayapó Fund helps ensure the tribe's food security whilst boosting income.

#### Franciscana on the Net

Produced by FUNBIO, a 5-part series of mini-documentaries on Brazil's most endangered dolphin species is viewed by 300 thousand social-media users.





### 20 thousand saplings for the golden lion tamarin

A FUNBIO project in partnership with the Golden Lion Tamarin Association and funded by ExxonMobil restores 14 hectares in Silva Jardim with 20 thousand saplings of native tree species.





Marta Cremer, from the Instituto Baleia Jubarte, on the first episode of the series "Franciscana: Brazil's most endangered dolphin". Photo: Personal archive





Seedlings of species native to the Atlantic Forest a the base of the Associação Mico-Leão-Dourado (Golden Lion Tamarin Association) in Silva Jardim. Photo: Alexandre Ferrazoli/FUNBIO



## September



### Invisible fisherwomen

A book backed by the Marine and Fisheries Research project looks into the invisibility of fisherwomen who exercise the profession, but receive neither recognition nor benefits for their work.

Luceni Hellenbradt, from the Marine and Fisheries Research project, interviews a fisherwoman. Photo: Personal archive

## October





#### Transnational connections

At the 21st RedLAC Congress, in Mexico, FUNBIO presents the Project K digital platform and an innovative new experiment in collective contentcreation with Amana Garrido, sponsored by the FUNBIO Grants.



Launch of the Project K online platform at the RedLAC Assembly in Mérida, Mexico. Photo: FUNBIO

## November





Caatinga. Photo: Marizilda Cruppe/FUNBIO

### Among the Top100

For the second year running, FUNBIO ranks amongst the Top 100 NGOs in Brazil, according to the listing compiled by Instituto Doar.

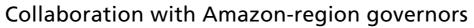
#### Science for all

Scientific publication is key to broadening the information pool: a new communications course gathered researchers studying the franciscana and trained them in the use of special techniques for communicating with the lay population.

### Thanks, TFCA

Underway since 2010, the Tropical Forest Conservation Act (TFCA) project comes full circle, having ensured 90 projects across 23 Brazilian states.

## December



At COP25, held in Madrid, the Interstate Consortium for the Sustainable Development of the Amazon Region, the first of its kind in the biome, announces a partnership with FUNBIO on the development of a financial mechanism.

### First project of the FUNBIO GCF Agency

FUNBIO's first project as a GCF Agency gets underway, better equipping Brazilian entities and executors to conduct Green Climate Fund-supported projects.



^

2019 Best NGOs Trophy, received at the award ceremony in São Paulo.
Photo: FUNBIO





Announcement of the partnership between the Consortium of Amazonian Governors and FUNBIO at the Climate Conference in Madrid, Spain. Photo: FUNBIO

## **FUNBIO**

The Brazilian Biodiversity Fund (FUNBIO) is a private, non-profit national institution that works in partnership with government, business and civil society to mobilize and effectively deploy strategic and financial resources for biodiversity conservation.

Since operations began in 1996, FUNBIO has provided support to 291 projects benefitting 248 institutions nationwide. Among FUNBIO's main activities are the financial management of projects, design

of financial mechanisms, and studies on new sources of conservation funding, as well as the procurement of goods and services for its project portfolio.

FUNBIO has contracted an independent external audit every year since its foundation, and its statements of account have all been passed with unqualified opinion. Since 2013, this effort has been reinforced with an internal audit as well. All of FUNBIO's external audit reports are available for consultation online at:





## **How We Work**

## FUNBIO is structured into three areas:

lacksquare



## **Donations**Unit

Projects financed through private donations and bi-and multi-lateral agreements brokered with the Brazilian government.

## **Legal Obligations**Unit

Projects financed through private-sector legal obligations: environmental compensation, Consent Decrees/Terms of Conduct Adjustment, and other mechanisms.

## **Special Projects**Unit

Diagnoses financial environments and designs mechanisms and tools that unblock access to new financial sources.

## **In Numbers**

334

**SUPPORTED** PROTECTED ÁREAS 291

**SUPPORTED PROJECTS** 

248

**SUPPORTED INSTITUTIONS** 







SUPPORT FOR NEARLY

1,000 **ENDANGERED SPECIES** 

37 **CALLS FOR** 

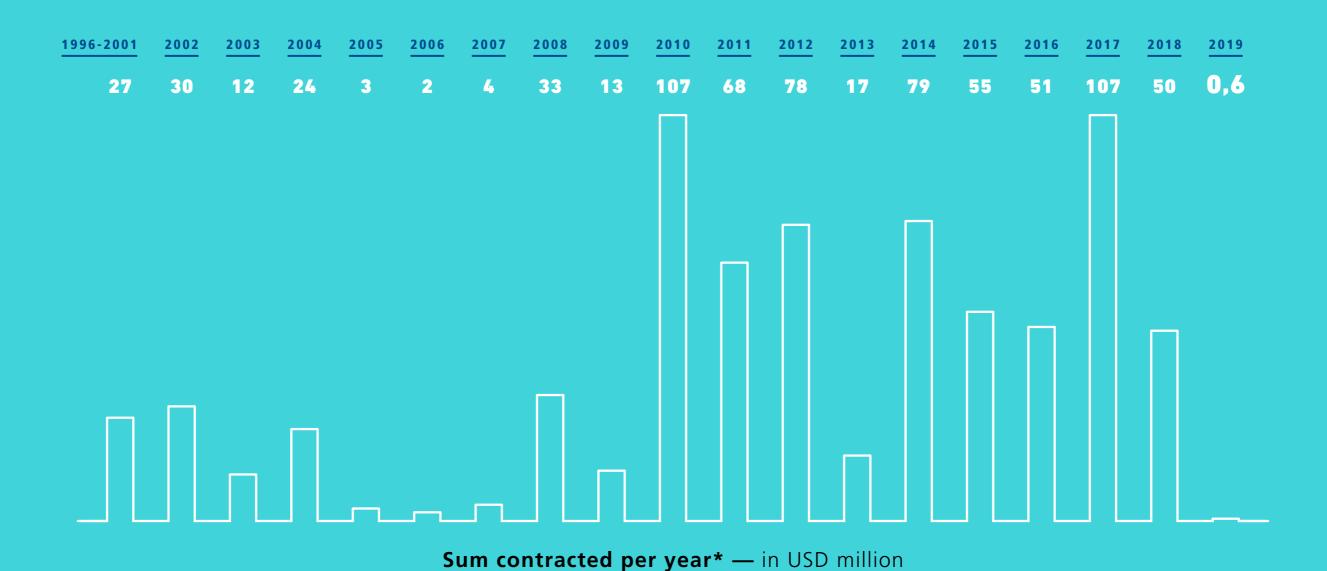
**PROJECTS** 

86

**FINANCERS** 

## **In Numbers**





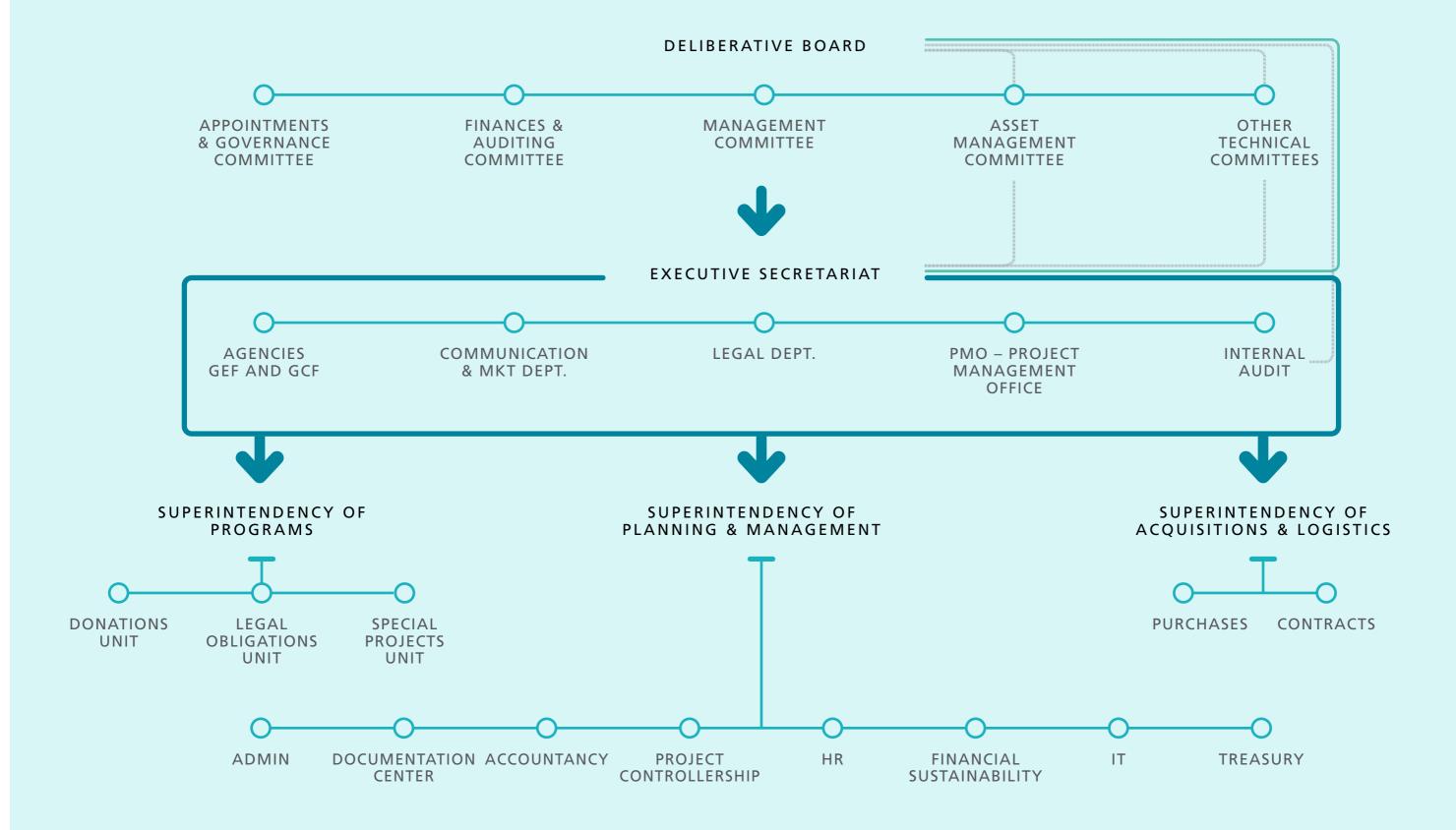
<sup>\*</sup> Project sums converted into US dollars (exchange rate as of the last day of the month of the contract's signing)

## **List of Funding Sources 2019**

- Anglo American Minério de Ferro Brasil S.A.
- Banco Interamericano de Desenvolvimento BID
- Banco Nacional de Desenvolvimento Econômico e Social BNDES Linden Trust for Conservation
- BP Brasil Ltda.
- Bundesministerium für Umwelt BMU
- Centro Empresarial Aeroespacial Incorporadora Ltda. C.E.A.
- Companhia Siderúrgica Nacional CSN
- Conservação Internacional CI-Brasil
- Conservation International Foundation
- ExxonMobil Química Ltda.
- Fonds Français pour l'Environnement Mondial (FFEM)
- GITEC Consult GmbH
- Global Environment Facility GEF
- Gordon & Betty Moore Foundation
- Instituto Humanize

- KfW Bankengruppe
- L. Figueiredo Empreendimentos Imobiliários
- Mava Fondation pour la Nature
- Natura Cosméticos S.A.
- Norwegian Ministry of Foreign Affairs
- O Boticário Franchising Ltda.
- Patrimonio Natural Fondo para la Biodiversidad y Áreas Protegidas
- Petróleo Brasileiro S.A. Petrobras
- Petro Rio Jaguar Petróleo Ltda.
- Rock World S.A.
- Secretaria de Negócios, Energia e Estratégia Industrial do Reino Unido BEIS
- US Agency for International Development USAID
- World Bank Banco Mundial
- WWF Brasil
- WWF US

## **Organizational Flow Chart**



## **Governance**

The Deliberative Board (DB) sits 16 members from the academic, environmental, business and governmental sectors. It is FUNBIO's chief governing body.

#### CHAIRMAN

José de Menezes Berenguer Neto

VICE-CHAIRWOMAN

Danielle de Andrade Moreira



#### **ACADEMIC SECTOR**

Danielle de Andrade Moreira Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio)

Fabio Scarano Fundação Brasileira para o Desenvolvimento Sustentável (FBDS)

Ricardo Machado Universidade de Brasília (UnB)

Sergio Besserman Vianna Jardim Botânico do Rio de Janeiro



#### **ENVIRONMENTAL SECTOR**

Adriana Ramos Instituto Socioambiental (ISA)

Maria José Gontijo Instituto Internacional de Educação do Brasil (IIEB)

Miguel Serediuk Milano Instituto Life

Paulo Moutinho Instituto de Pesquisa Ambiental da Amazônia (IPAM)



#### **BUSINESS SECTOR**

Álvaro de Souza Ads Gestão, Consultoria e Investimentos Ltda.

Flavio Ribeiro de Castro FSB Comunicação

José de Menezes Berenguer Neto JP Morgan

Marianne von Lachmann Lachmann Investimentos Ltda.



#### **GOVERNMENTAL SECTOR**

Andrea Ferreira Portela Nunes Ministério da Ciência, Tecnologia, Inovações e Comunicações (until June 2019) Homero de Giorge Cerqueira Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio)

(since April 2019)

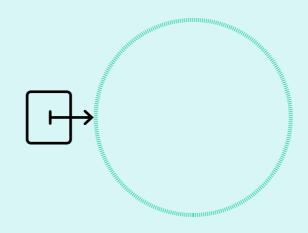
Luis Gustavo Biagioni Ministério do Meio Ambiente (since August 2019)

Marcelo M. de Paula Ministério do Planejamento, Desenvolvimento e Gestão

## **Transparency**

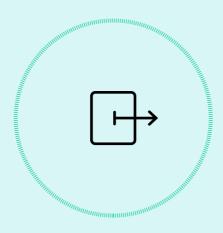
Our demonstration of accountability dated December 31, 2019, along with the independent auditor's report and explanatory notes are available for consultation at:





### **External** Audit

FUNBIO has contracted an independent external audit every year since its foundation. Its statements of account, all passed with unqualified opinion, the independent auditor's reports and explanatory notes are all available for consultation on the FUNBIO website.



## **Internal** Audit

Since 2013, FUNBIO has also conducted an internal audit to buttress aspects of control and the integrity of its accounting and financial data. The internal audit is an instrument that probes every level of the organization, ensures an adequate working relationship between the different areas, and supports and promotes ongoing process improvements. It is a reference for the implantation and engagement of best practices in organizational governance. The statements of account, independent auditor's reports and explanatory notes are all available for consultation on the FUNBIO website.

## **Ethics Committee**

FUNBIO's Ethics Committee was created in 2013, and its four members serve a once-renewable two-year term. The Committee draws up the Code of Ethical Conduct, which must be approved by the Deliberative Board. The Committee is also responsible for the annual ethics training of all FUNBIO staff.

Queries and complaints can be made through the FUNBIO website.



In 2019, the queries and complaints tracking system was fine-tuned and inspired the creation of two new internal control systems tailored to specific denunciations involving the infringement of environmental and social safeguards and possible financial irregularities.



All of the queries and complaints received in 2019 were resolved or are in the process of being addressed.

#### **ETHICS COMMITTEE MEMBERS IN 2019**

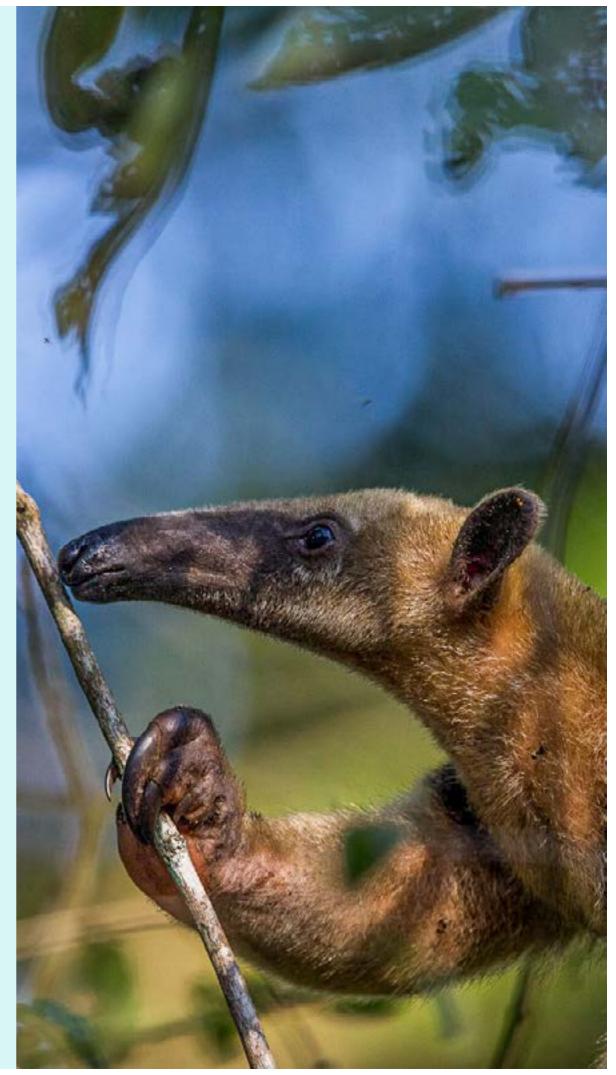
Fábio Leite Coordinator Heloísa Helena Henriques Flavia Neviani João Ferraz

In 2019, FUNBIO's Ethics Committee met at regular intervals to carry out the following duties:

Annual ethics training for new hires was administered in September, as was top-up training on internal concepts and practices for established staff.

Both new systems will be on-line in 2020.

Collared anteater (Tamandua tetradactyla) at the Amanã Sustainable Development Reserve/SEMA-AM, Amazonas. Photo: Victor Moriyama/FUNBIO

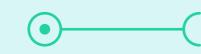


## **Policies and Safeguards**

In 2018, FUNBIO adopted the safeguards applied by the International Finance Corporation (IFC), part of the World Bank Group.



## **Environmental** and Social Policy



POLICIES AND SAFEGUARDS



Gender Integration Policy

### PERFORMANCE STANDARDS (PS):

- PS1 ASSESSMENT AND MANAGEMENT OF ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS
- PS2 LABOR AND WORKING CONDITIONS
- PS3 RESOURCE EFFICIENCY AND POLLUTION PREVENTION
- PS4 COMMUNITY HEALTH, SAFETY, AND SECURITY
- PS5 LAND ACQUISITION AND INVOLUNTARY RESETTLEMENT
- PS6 BIODIVERSITY CONSERVATION AND SUSTAINABLE MANAGEMENT OF LIVING NATURAL RESOURCES
- PS7 INDIGENOUS PEOPLE
- PS8 CULTURAL HERITAGE

## **National Agencies FUNBIO**

FUNBIO is the only civil society organization accredited as an agency for both GEF and GCF in the Southern Hemisphere.



Since 2015, FUNBIO has been an accredited implementing agency of the Global Environment Facility – GEF, created in 1992 to support projects to alleviate the main environmental pressures on the planet. In 2018, GEF Agency FUNBIO rolled out its first project, entitled "National Strategy for the Conservation of Endangered Species – Pro-Species".



In 2018, FUNBIO became an accredited Green Climate Fund -GCF national entity. The GCF supports projects to curb climate change, channeling investment into low-emission and climateresilient developments. FUNBIO and Brazilian bank Caixa Econômica Federal became the country's first accredited entities.



## **Best NGOs**



In 2019, for the second year running, FUNBIO was selected as one of the 100 Best NGOs in Brazil. The Best NGOs award, created by Instituto Doar, reaches its final cut through in-depth analysis of the hundreds of institutions it maps nationwide each year. Today, according to Instituto Doar data, there are roughly 800 thousand NGOs in activity in Brazil. Management and transparency, measurability of results and data, and administrative, financial, accounting and communication processes are all among the main criteria considered.

Here at FUNBIO, we put our selection among the top 100 down to the dedication with which our collaborators have carried out and consolidated our biodiversity conservation work over the last 23 years.





For the second year running, FUNBIO is elected one of the Top 100 NGOs in Brazil. Photo: FUNBIO



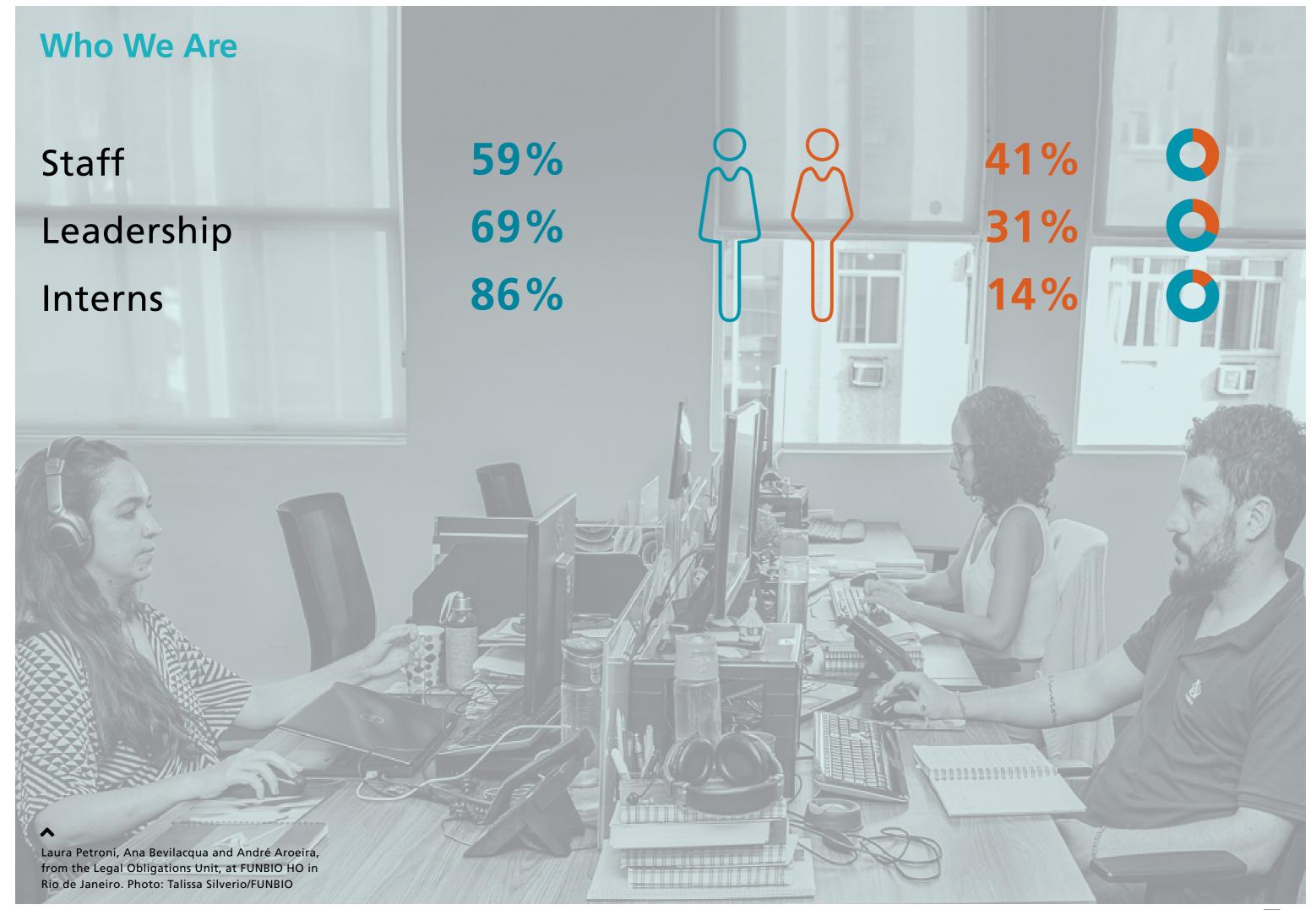
FUNBIO collaborators at the 2019 TOP 100 NGOs award ceremony. Photo: Thiago Câmara/ FUNBIO











## Who We Are\*

#### SECRETARY-GENERAL'S OFFICE

Rosa Maria Lemos de Sá Secretary-general Zeni Pinheiro Assistent

#### **GEF & GCF AGENCY**

Fábio Heuseler Ferreira Leite Manager

#### **COMUNICATION & MARKETING**

Helio Yutaka Hara Manager

Team

Fabrício Teixeira

**Flavio Rodrigues** 

Samira Chain

**Thiago Camara** 

#### LEGAL DEPARTAMENT

Flavia de Souza Neviani Manager

Team

**Paulo Miranda Gomes** 

Rafaela Luiza Pontalti Giongo

#### INTERNAL AUDIT

Alexandra Viana Leitão Internal Auditor

#### PROJETC MANAGEMENT OFFICE (PMO)

Mônica Aparecida Mesquita Ferreira Manager

Team

Thiago da Fonseca Martins

#### PROGRAMS SUPERINTENDENCY

Manoel Serrão Borges de Sampaio Superintendent

#### **DONATIONS UNIT**

Fernanda Figueiredo Constant Marques Portfolio Manager Ilana Parga Nina Boetger de Oliveira Portfolio Manager

Team

Alexandre Ferrazoli Camargo **Andre Luiz Ferreira Lemos** Clarissa Scofield Pimenta **Daniela Torres Ferreira Leite** 

**Dante Coppi Novaes Edegar Bernardes Silva** Fabio Ribeiro Silva Heliz Menezes da Costa

João Ferraz Fernandes de Mello

Julia Lima Costa

Mariana Fernandes Gomes Galvão

Mariana Melo Gogola

**Nathalia Dreyer Breitenbach Pinto** 

**Paula Vergne Fernandes** Pedro Alberto Dantas da Silva Rodolfo Cabral Costa Gomes Marçal

Thales Fernandes do Carmo

#### LEGAL OBLIGATIONS UNIT

Erika Polverari Farias Portfolio Manager

Team

Ana Helena Varella Bevilacqua

André Aroeira Pacheco

Laura Pires de Souza Petroni

Mary Elizabeth Lazzarini Teixeira

**Natalia Prado Lopes Paz Travassos** 

#### SPECIAL PROJECTS UNIT

Leonardo Geluda Coordinator

Team

Andreia de Mello Martins Leonardo Barcellos de Bakker

#### SUPERINTENDENCY OF PLANNING & MANAGEMENT

Aylton Coelho Costa Neto Superintendent

#### **ADMINISTRATION**

Flávia Mól Machado Coordinator

Team

Cláudio Augusto Silvino **Evellyn de Freitas Lisboa** Marcio de Vasconcelos Maciel

**Matheus Duarte Ramos** Vanessa Ravaglia Cohen

Fernanda Luiza Silva de Medeiros

<sup>\*</sup>Staff and interns, 2019

## Who We Are

#### DOCUMENTATION CENTER (CEDOC)

Team

**Ana Maria Rodrigues Martins** 

**Natália Corrêa Santos** 

Priscila Ribeiro Marques Corrêa

#### **ACCOUNTING**

**Daniele Soares dos Santos Seixas** Coordinator

Team

Elizangela da Conceição Santos

Flavia Fontes de Souza

Guilherme Brito da Silva

**Julia Lopes Clacino** 

Nara Anne Brito do Nascimento

Patricia de Souza Teixeira

Suellen Pereira de Freitas

Thais dos Santos Lima

#### PROJECT CONTROLLERSHIP

Marilene Viero Coordinator

Team

Ana Paula França Lopes

Dalissa Granja Villa Nova

Felipe Augusto de Araujo Camello

Felipe Dias Mendes Serra

Leandro de Mattos Pontes

Mayara do Valle Bernardes de Lima

Priscila Ribeiro Larangeira Freitas

Ronny Paulo Guimarães Pessanha

Thais Mariano da Silveira de Brito

Vanessa Guimarães Ribeiro de Barros

**Victor Hugo Gatto** 

Vitor da Silva Vieira

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**Heloisa Helena Henriques** 

Zilá Vieira Simões

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Caroline Cavalcanti de Oliveira Jacobina

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**TREASURY** 

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**Roberta Alves Martins** 

Thais de Oliveira Medeiros

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**Suzana Amora Ramos** 

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Flavia Avelar Teixeira

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José Mauro de Oliveira Lima Filho

Luisa Brandt Pinheiro da Silva

Luiza de Andrade Lima

Marcos Pereira da Rocha

Maria Bernadette da Silva Lameira

Thais Mariano da Silveira de Brito

Vinicius Chavão da Cunha de Souza

Viviane dos Santos da Silva

Viviane Ferreira da Costa

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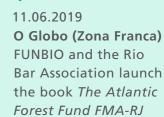
05.02.2019 Correio do Povo Report on research into marine wildlife drift

27 DE MAIO DE 2019 - 17:21 Politica Ouvir: mento do REM 0:00 outimo

Representantes da Alemanha e Reino Unido estão em Mato Grosso para a missão anual de monitoramento do Programa REED+ For Early Movers (REM). Em uma agenda política, o grupo se reuniu na manhà desta segunda-feira (27) com o governador Mauro Mendes, para além de outras ações, demonstrar o interesse dos organismos internacionais na preservação ambiental do

29.05.2019 **Mato Grosso Mais** Mato Grosso receives an International Surveillance Mission

from the REM











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mellionia da coadidade de vida no brasil.

17.06.2019 **Dourados Agora** Ministry for the **Environment invests** R\$ 2.1 million in beach-cleaning campaign



26.06.2019 **PROPESQ UFRGS** Registration opens for masters and doctoral applications for the **FUNBIO Grants 2019** 



26.06.2019 Folha Vitória lema joins project to protect endangered species



28.06.2019 Portal do Holanda In Manaus, the World Bank announces phase two of its three-nation **Amazon Project** 



28.06.2019 Rebob - Rede Brasil de Organismos de Bacias Hidrográficas FUNBIO Grants -Conserving the Future



03.07.2019 **Portal SigRH FUNBIO** launches its second edition of Conserving the Future



01.07.2019 **Meio Ambiente UERJ FUNBIO Grants 2019** opens to applications for masters and doctoral research projects



09.07.2019 Portal UFLA -**Universidade Federal** de Lavras **FUNBIO** Grants opens for applications from masters and doctorallevel students



02.08.2019 **Projeto Colabora** More Atlantic Forest for the golden lion tamarin



14.08.2019 Estadão Mato Grosso swaps **INPE-conducted** deforestation inspections for a private surveillance system



15.08.2019 O Nortão European surveillance system for identifying and combating deforestation goes online in Mato Grosso



15.08.2019 Olhar Agro & Negócios European surveillance system for identifying and combating deforestation goes online in Mato Grosso



15.08.2019 Primeira Hora New surveillance system can immediately detect illegal deforestation



29.08.2019 Galileu Project will plant trees in RJ to improve quality of life for the golden lion tamarin



29.08.2019 Governo de **Mato Grosso** New surveillance system allows for the immediate detection of illegal deforestation



01.09.2019 G1 — Rio de Janeiro Biologists and researchers monitor endangered fish species



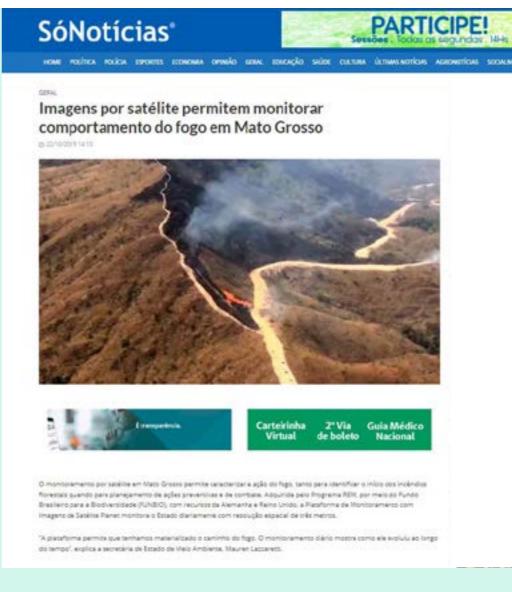
14.10.2019

Projeto Colabora

In vitro reproduction to avoid coral extinction



04.11.2019
ISTOÉ Dinheiro
The Salvation of the golden lion tamarin







22.12.2019

Direto da Ciência

Amazonian States
and NGOS create an
environmental and
agrarian management
platform

## **Women in Conservation**

Fostering gender equality and equity, internally and externally, is part of the future we hope to build. In accordance with national and international standards, FUNBIO passed this aspiration into policy in 2014 and adopted a host of related procedures.

The pages that follow tell the stories of three women who have stood out in environmental conservation: Berna

Barbosa, monitor and warden at Abrolhos National Marine Park; Ana Cláudia Piovezen, a scientist who is studying the effects of climate change on Aedes aegypti, the mosquito that serves as a vector for various tropical diseases, including yellow fever, dengue, zika and chikungunya; and Teresa Santiago, a smallholder working for the inclusion of women in the cacau cabruca production chain.

Campos Amazônicos National Park/ICMBio in Rondônia.



an internal Work Group (WG) on

Starting in 2017, began highlighting gender-related stories projects we back

We have been since 2017

In 2014, we adopted

We are members of the GEF Gender group of Global that discusses and proposes actions and policies that ensure institution supports

We are part of that developed the environment Access the course

Gender issues are a criteria we consider in selecting and tracking the projects we support

## **Women in Conservation**

## From sunlight to moonlight, on the Abrolhos sea

Every day, when sailboats moor at Ilha de Santa Bárbara, Berna Barbosa, 57, motors out to welcome them to the island and inform them of the best practices for using the Abrolhos National Marine Park, a Protected Area supported by GEF Mar. With her deep tan and broad smile, the park's longest-standing environmental monitor repeats the same instructions as many times a day as is necessary, as she has done every day for the last 31 years.

According to Berna, originally from Pará, all her love and dedication are repaid daily by the dazzling beauty of Abrolhos—Brazil's first national marine park.

"It's like I'm living in a movie and nature is the star. Some months of the year I'm surrounded by humpback whales, every day I've got boobies,

frigates and white terns for company, and my best friend here is a hawksbill turtle named Bebete, who I've been hanging with for the last 10 years. I love animals. They look me in the eye, never grumble, and just live. Here, sunset and moonrise are absolutely breathtaking. Everything is incredible. Abrolhos is like a home to me", says Berna, who spends a fortnight on the island followed by a fortnight in Alcobaça, where she has a fixed residence.

In 2019, Berna was the only woman among the winners of the first edition of the Park Wardens Award at the 3<sup>rd</sup> Congress of Latin-American and Caribbean Protected Areas (Caplac), in Lima, Peru. The prize celebrates professionals who dedicate their lives to biodiversity conservation throughout the region.

"Everything I know I learned from my experience in Abrolhos. I started reading about the archipelago's species, observing people and picking things up from my researcher friends. To learn, all it takes is will, dedication and gumption", says Berna.

Today, the Abrolhos Marine Park has five women on its staff of 24. It's still low, but better than it was. "When I arrived in Abrolhos, I was the only woman. It was hugely challenging, but nothing I couldn't handle. Every day here is a new lesson learned. I've started looking at nature with care, helping the researchers, developing my own voice and earning my own space. For me, it's great to be able to welcome people here and share my knowledge with them, so that they can pass it on", says Berna.

>

Berna Barbosa at the Abrolhos National Marine Park. Photo: Personal archive



When I arrived in Abrolhos, I was the only woman. It was hugely challenging, but nothing I couldn't handle. Every day here is a new lesson learned. I've started looking at nature with care, helping the researchers, developing my own voice and earning my own space. For me, it's great to be able to welcome people here and share my knowledge with them, so that they can pass it on"

#### Berna Barbosa



#### **Women in Conservation**

# Scientist of a warmer world

Under a centimeter long, Aedes aegypti is a mosquito that can cause a whole lot of damage. In Brazil alone, in 2019, there were 1.5 million suspected cases of dengue, one of the tropical diseases of which the mosquito is a vector. This originally Egyptian mosquito, which also carries zika and chikungunya, arrived in Brazil aboard European ships and adapted perfectly to the tropical climate. But what sort of future does Aedes face in a world altered by climate change caused by human activities?

This is the question being posed by Ana Cláudia Piovezan Borges, a Ph.D researcher on the Ecology and Conservation program at the Federal University of Mato Grosso do Sul and a recipient of a FUNBIO grant in 2018. At the age of 29, she's part of an active group that has to contend with certain challenges related to gender.

"One of the difficulties of being a woman in science is the redoubled effort it takes to earn credibility. Another situation we frequently face is mansplaining, as if we somehow weren't capable of understanding things for ourselves", says Ana Cláudia, who has experienced this a few times during her ten years in academia.

And mansplaining is only the tip of the iceberg. A study conducted by the research institute Fiocruz found that the typical image of the scientist conveyed on Brazilian TV is that of a middle-aged white man, despite the fact that women make up half of the nation's scientific corps. It's invisibility through stereotyping.

"There's been a significant increase in the female presence in the academic world in recent years. For a long time, projects conducted by women scientists met with less acceptance in academia and it was harder to garner credibility. The situation is rather different today—we're still far from gender equality, but things have improved", says Ana Cláudia, whose preliminary results suggest a rather worrying conclusion.

Even under an extreme temperature hike (4.5 degrees), little *Aedes aegypti* would come out of the change unscathed. Simulations in the lab indicate a 78% survival rate. And, on a gender note again, it's only the females that sting, in order to mature their eggs.

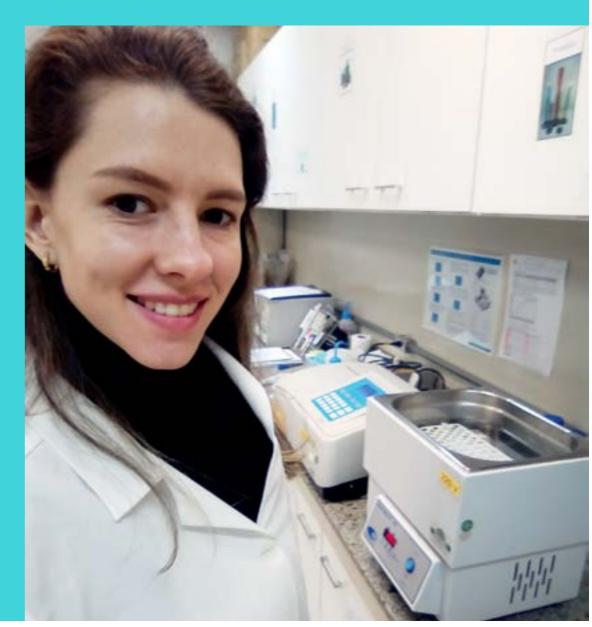
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Ana Claudia Piovezan, a recipient on the first round of FUNBIO Grants – Conserving the Future Photo: Personal archive



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#### Ana Cláudia Piovezan Borges



#### **Women in Conservation**

# Women's voices in the cabruca

As a child, Teresa Santiago, 35, would help her parents work their patch of land in western Bahia state.

When she grew up, she swapped the Caatinga for the Atlantic Forest, and transferred her experience to something new: working with the cacau cabruca method in Ibirapitanga Bahia. Cacau cabruca is a traditional technique for growing cocoa in the shade of native woodland trees, whose cover enables the plants to produce higher-quality fruits. The process adds value to the product, and is supported by Probio II through the project Strengthening Agroecology — Commercialization Circuits (see page 57).

Like most of the region's women,

Teresa started out in the fields, but

dreamed of going further. Over the years, with a professional growth plan in hand and an eye on the future of local cocoa production, she specialized in agroecology, which encompasses traditional agricultural systems and envisages harmony between production and sociobiodiversity. She also took a technical course in livestock farming and, in 2019, completed a technical diploma in agroecology.

"For me, cacau cabruca symbolizes the history and diversity of the people from around here. In addition to cocoa itself, the product, there's the woodland, the trees, the fauna and the flora. All of this needs to be preserved, so I decided to learn how to do it. I studied so that I could put

my knowledge into practice the right way, technically", she says.

Teresa co-coordinates the Settled, Encamped and Quilombola Workers Movement of Bahia – CETA, and is one of those responsible for giving women a voice and fostering education along the *cacau cabruca* production chain.

"A few years back, things looked very different, and men controlled all the decision-making spaces.

Today, these old standards are being deconstructed and we, women, are eking out our space and voice. I feel that my role is to send women out there so they can take the lead, use their voice and take part in decision-making within agroecological production", says Teresa.

>

Teresa Santiago among the cacau cabruc stands in Ibirapitanga, Bahia.
Photo: Personal archive



A few years back, things looked very different, and men controlled all the decision-making spaces. Today, these old standards are being deconstructed and we, women, are eking out our space and voice. I feel that my role is to send women out there so they can take the lead, use their voice and take part in decision-making within agroecological production"

#### Teresa Santiago







The second edition of the FUNBIO Grants - Conserving the Future was launched in 2019 and selected 32 field research projects by master's degree and doctoral students nationwide.

These now join the 28 studies supported by the 2018 edition of the program, also run in conjunction with the Instituto Humanize. By nurturing research, we hope to contribute to the formation of future leaders in Brazilian science.

Rufous-chested plover (Charadrius modestus), found at the Lagoa do Peixe National Park in Rio Grande do Sul by researcher Fernando Faria, supported by the 2019 FUNBIO Grants – Conserving the Future Program. His project aims to understand more about the migratory coastal birds of the Pampa. Photo: Fernando Faria/Personal archive

**GRANT** 

60 55% 45% 49

11 31

**HOLDERS** 

WOMEN

DOCTORAL **STUDENTS** 

MASTER'S DEGREE

**STUDENTS** 

**INSTITUTIONS** 

STATES + **FEDERAL** DISTRICT





In this second edition, the selected projects include an entirely new study on the impact of human activity on sharks—as apex predators, any pressures they suffer are likely to echo along the food chain—, as well as research on alien invasive species and the effect of yellow fever on howler monkeys, one of the largest primates in the Americas.

Meet the grants holders from 2018 and 2019.





2019 also saw some of the earliest results coming out of FUNBIO grant-sponsored research. The first survey of fire coral (*Millepora alcicornis*) colonies along the Rio de Janeiro coast identified bleaching and 15% die-off. This disturbing phenomenon, related to rising ocean temperatures, had already been registered in the south of Bahia. To hear Amana Garrido, from the Federal University of Rio de Janeiro, and see some of the images she collated during her research, click on the link beside the box.

Marine research also attests to the richness of Brazilian biodiversity: in all, 12 new species of fish have been identified, as well as 50 new sightings made. On land, over 500 hundred hours of birdsong were recorded in Santa Catarina, featuring the calls of roughly one hundred species of bird.

Photo: Bernard Dariva



### Parrots flying!

In May 2019, based on tips from locals and birdwatchers, the researcher Viviane Zulian arrived at a location in western Santa Catarina state where the endangered vinaceous-breasted amazon was rumored to exist. She dug in on some high ground and waited for days on end, looking skyward at every sound for a glimpse of *Amazona vinacea*, a species she has dedicated the last eight years of her life to studying. She'd clocked up dozens of hours of silent observation before she finally heard the parrot's unmistakable cry. It was a thrill she'll never forget:

— I started jumping up and down and hollering into the walkie-talkie to my colleague, who was at another observation point! It was such an immense satisfaction. After years of watching this species dwindle, to see a new group in the wild fills you with joy and hope. It's the sign that there's still a chance—says Viviane, beaming.

Studying for a doctorate in Ecology at the Federal University of Rio Grande do Sul, she is the first to map this previously unknown population of 20 vinaceous-breasted amazons—welcome additions to the ten already observed elsewhere in the region.

Viviane has been mapping parrot populations since graduation and was awarded a grant under the 2018 edition of the program. Santa Catarina, located in Brazil's southern tail, is thought to be home to at least half of the species' remaining population. Today, no more than ten thousand of these birds exist worldwide, with roughly five thousand of those found in Brazil.



SDG



Photo: Thiago Mendes



#### Amana Guedes Garrido

Doctoral researcher in Biodiversity and Evolutionary Biology at the Universidade Federal do Rio de Janeiro (UFRJ) **FUNBIO Grants 2018** 

Photo: Personal archive



#### Bianca de Sousa Rangel

Ph.D student in General Physiology, Universidade de São Paulo (USP) **FUNBIO Grants 2019** 



#### Warming and danger at sea

In the life of researcher Amana Garrido, from the Federal University of Rio de Janeiro, corals are in the sea, and in her lab, but also in her dreams. Dreams in which she sees them escape death by ocean warming. In real life, however, the challenges remain daunting. An as yet unpublished study Amana conducted along the Rio coast estimates coral die-off during the most recent bleaching event at 15%. The good news is that the surviving corals recovered quickly. Though lower than in other places, such as Australia's Great Barrier Reef, where die-off hit 50% in 2016, the percentage is disguieting all the same. Repeated bleaching caused by warmed oceans could wipe out Rio's corals, a loss that would have a massive impact not only on the marine ecosystem, but on the economies of places like Arraial do Cabo and Búzios, which depend on tourism.



#### At the top of the food chain

A lifelong ocean-lover, Bianca Rangel, a researcher from the University of São Paulo, studies shark nutrition and human impact on the group. Her findings contribute towards shark management in Fernando de Noronha, an archipelago 350 km off Brazil's northeastern coast. Shark infancy, adulthood and reproductive periods involve different energy demands that are still little understood. Sharks are at the top of the food chain, and anthropogenic climate change directly affects their nutrition. Alterations at crucial stages can have a knock-on effect throughout the ocean food chain. Fernando de Noronha is a known nursery for five species of shark, two of which are endangered. Bianca uses a minimally-invasive method to collect tissue and blood samples that would traditionally have required stomach analyses post-mortem.

Photo: Personal archive







### The call of Alagoas

Only 9 centimeters long and weighing a mere 8 grammes, the Alagoas Antwren (Myrmotherula snowi) is one of Brazil's most endangered bird species, with its remaining population limited to the Murici Ecological Station in Alagoas. A study by Hermínio Vilela, from the Federal University of Paraíba, researches the species' habitat selection, a theme that could be key to its conservation. Today, total population numbers are thought to be 17 individuals, or perhaps slightly more.

With the program's support, Vilela found some new areas inside the Ecological Station where the species was present. Food availability in this case, insects inside dead leaves—is one of the key elements behind the bird's choice of territory.

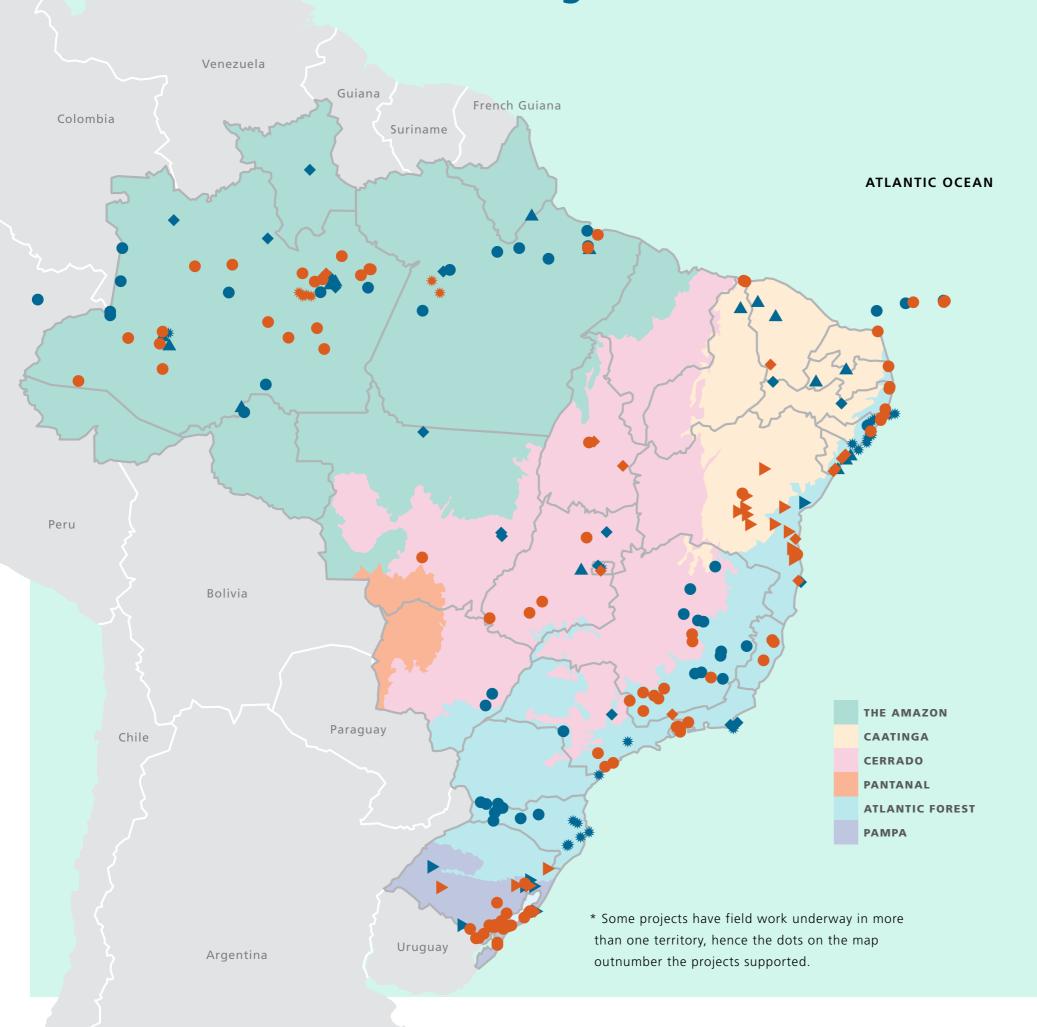
"But it's not enough for the leaves to be dead, they must be still attached to, or at least snagged on, the tree branches, and not on the ground. The birds then shake the leaves and capture the insects as they flee", says the researcher.

Deforestation is the main threat facing the Alagoas antwren, which also used to be found in neighboring Pernambuco.

"Various sectors of society need to work together. I believe we can save the Alagoas antwren from extinction if the theme is treated with the seriousness it deserves. We have more precise data on the bird's reproduction, habitat and population oscillations now, all of which is fundamental to species management and possible release, if, that is, keeping a population in captivity proves a viable option", he says.



To hear the Alagoas antwren, click here



### Projects supported

2018 2019\*\*





CONSERVATION, SUSTAINABLE MANAGEMENT AND USE OF FAUNA AND FLORA



CONSERVATION
AND SUSTAINABLE USE
OF BIODIVERSITY





TERRITORIAL
MANAGEMENT FOR
BIODIVERSITY PROTECTION





CLIMATE CHANGE AND BIODIVERSITY CONSERVATION





LANDSCAPE AND DEGRADED-AREA RECOVERY

<sup>\*\*</sup> In 2019, the thematic group Conservation and Sustainable
Use of Biodiversity was subsumed under Conservation and
Sustainable Management and Use of Fauna and Flora.

This research has only been possible thanks to the FUNBIO Grants – Conserving the Future and the Instituto Humanize, which have ensured each phase of the project, especially the field work."

With support from FUNBIO and the Instituto Humanize we'll be able to fit tracking devices on these birds, which will show us where they go. It will also help us conserve the locations of key importance to these species."

Support from the FUNBIO Grants and the Instituto Humanize has allowed us to contribute to the conservation of these important pollinators."

Support from the FUNBIO Grants - Conserving the Future and the Instituto Humanize has been fundamental in conducting these expeditions. This process is key when we think of an ecologically and economically sustainable future."

**FUNBIO** Grants and Instituto Humanize are key to my ability to conduct the field research and activities my project requires."

#### Taise Almeida Conceição

Ph.D student in Genetics and Molecular Biology, Universidade Estadual de Santa Cruz (UESC)

Studies the Plathymenia, a group of trees native to the Atlantic Forest, looking to understand the difference between the species in order to transition their seeds for the purposes of reforestation.



#### Fernando Azevedo Faria

Ph.D student in Biological Oceanography, Universidade Federal do Rio Grande Grande (FURG)

Studies how coastal birds use and share the environment. Also plans to expand his research into the migratory birds of southern South America during the winter.

#### Karla Palmieri Tavares

Ph.D student in Applied Ecology, Universidade Federal de Lavras Lavras (UFLA)

bee communities and how cities can serve as refuges for these species.

### Brancher

Studies the effects of urbanization on native





#### Paulo Roberto Santos dos Santos

Ph.D student in Aquatic Biology, Universidade Estadual Paulista (UNESP)

His aim is to refine the data on rays and sharks gathered from fishermen in São Paulo. His work also involves giving all captured species a common name.

#### **Pedro Augusto Thomas**

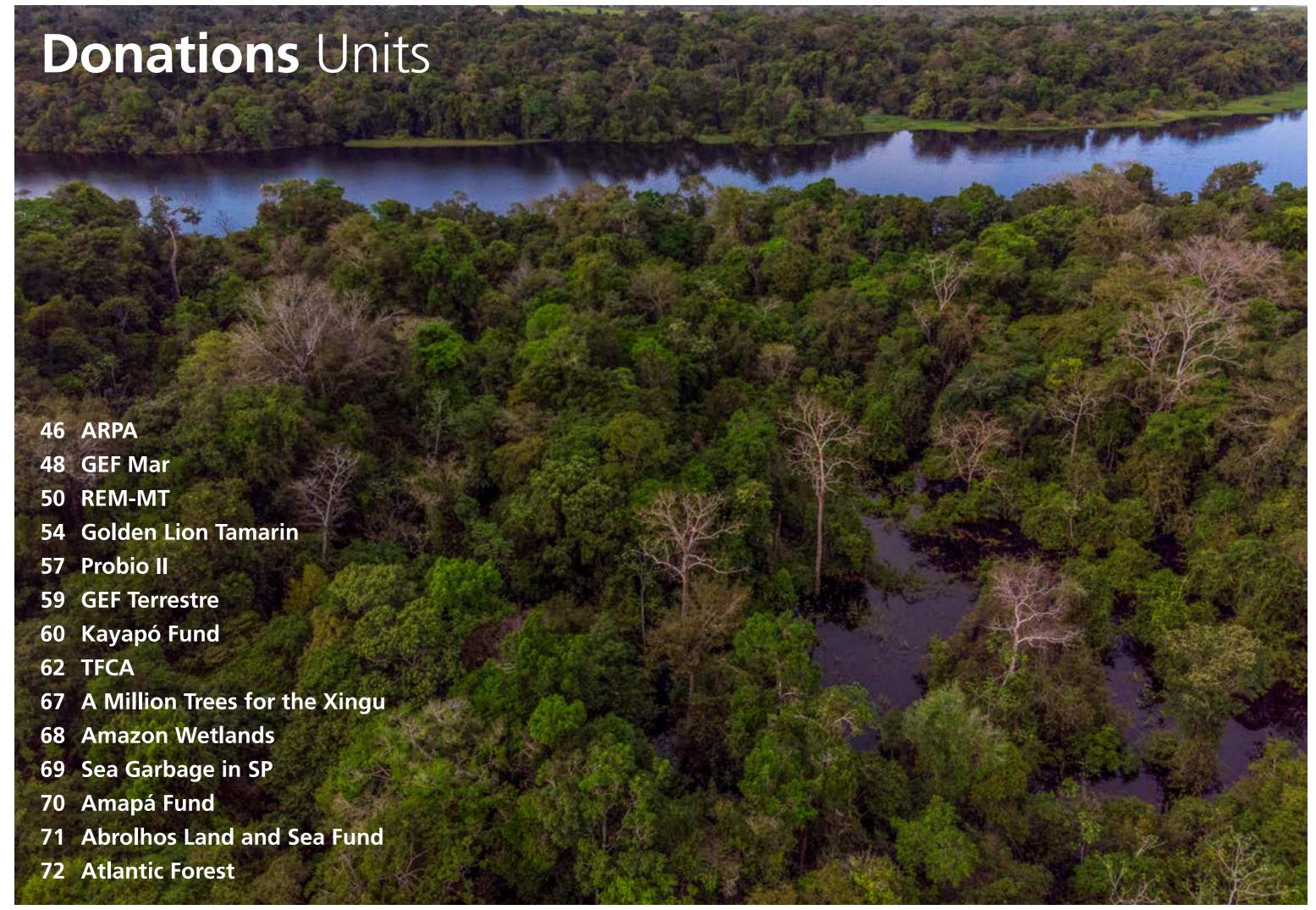
Doctoral researcher in Ecology at the Federal University of Rio Grande do Sul (FURGS)

Assesses techniques, species and functional attributes to conserve the meadowland diversity of the Southern Brazilian Pampas.









ANNUAL REPORT FUNBIO 2019 46 **Donations Units** 

### **ARPA**

Amazon Region Protected Areas Program



Supporting the conservation and sustainable use of 60 million hectares of the Brazilian Amazon (15% of the total) by 2039 is the main goal of ARPA – The Amazon Region Protected Areas Program, the largest tropical forestprotection initiative in the world.

Launched by the Brazilian Federal Government and coordinated by the Ministry for the Environment (MMA), ARPA is a program financed by domestic and foreign donors, including the German government (through the national development bank – KfW), the Global Environment Facility – GEF (through the World Bank), and the Gordon & Betty Moore Foundation, Anglo-American and the WWF. FUNBIO has been the program's manager and financial executor since day-one.

In addition to being the only environmental program to have received the American Treasury's Development Impact Honors award, ARPA is a model and benchmark for similar initiatives in Peru and Colombia.

ARPA rolled out a long-term strategy for the sustainable conservation of biodiversity and continues to innovate and hone its processes. In 2019, new technologies, instruments and procedures helped make the program's operations even more agile. For example, fuel-allowance card coverage was



Aerial view of the Cabo Orange National Park/ICMBio in Amapá. Photo: Victor Moriyama/FUNBIO





































ANNUAL REPORT FUNBIO 2019 47 **Donations Units** 

### **ARPA**

### **Ongoing improvement**

donors and beneficiaries enable ARPA to fine-tune its procedures on an ongoing basis.

will provide the bases for action plans to address

mission to the Campos Amazônicos National Park and Rio Preto Jacundá Extractive Reserve, both verify progress in loco, generate opportunities for creating a constant network of shared learning and A further two missions were conducted by the Amazon Sustainable Landscapes (ASL) project, with the participation of the World Bank, during their money is being spent in pursuit of the

60,8 **MILLION** HECTARES OF PROTECTED LANDSCAPES

PROTECTED AREAS SUPPORTED

**NEW MANAGERS** TRAINED

expanded to all Protected Areas (PAs), and a new IT system, scheduled for program-wide implementation in 2020, was developed to facilitate the use of business-expense and food-allowance cards. These are instruments that provide the PAs with an immediate, hassle-free way to service their essential needs.

Financial modeling for the project was also completed, enabling ARPA to calculate the budget to be disbursed to the PAs for the biannual period 2020/21. Financial modeling of this kind is conducted biennially.

The ARPA Program's financial sustainability work group, formed by FUNBIO, the Ministry for the Environment, ICMBio and the environmental organs from each of Brazil's nine Amazonian states, strives

to align key strategies for securing co-founding commitments to match donations. The work group resumed its activities in 2019 and two meetings were held to identify strategies to ensure incremental financial support ahead of the Transition Fund's extinction in 2039, by which stage PA-funding responsibilities will have passed integrally to these states.

Also in 2019, the ARPA team helped structure policies and procedures for the hiring of grants holders. This is expected to result, as of 2020, in the implantation of the ICMBio's Biodiversity Monitoring Program (Monitora), which will generate technical and scientific information to expand our knowledge of the biodiversity protected by the Program's PAs.







NDC



















# **GEF Mar**

Marine and Coastal Protected Areas Project



Strengthening the bases of the nation's marine and coastal protected areas is the main aim of GEF Mar, an initiative coordinated by the Ministry of the Environment and financed through the Global Environment Facility (GEF). FUNBIO financially manages the program. One of the major achievements of 2019 was extending GEF Mar support to 23 federal PAs, 7 state-run PAs, 7 research centers and 4 community projects, together totaling 95.1 million hectares of protected areas—nearly five and a half times the original target of 17.5 million ha.

In October 2019, GEF Mar offered strategic emergency support to help contain the brute-oil spill then hitting beaches and mangroves along Brazil's Northeastern coast. This support consisted of the purchase of Personal Protection Equipment (PPEs) and the provision of funds for on-board monitoring sorties. The areas receiving this assistance were the Canavieiras, Cassurubá and Corumbau Extractive Reserves, the National Marine Park of Abrolhos and the Coral Coast Environmental Protection Area in Alagoas.



Humpback whale (Megaptera novaeangliae) at the Abrolhos Archipelago. Photo: Átila Ximenes/ FUNBIO



















# **GEF Mar**

Also in 2019, 75 scholarship holders conducting research in Protected Areas (PAs) received GEF Mar funding. Of those, 40 were women. The themes these scholars address span aspects of biodiversity monitoring and fisheries-related subjects.

In November, the APACC Young Leaders Project was launched in Alagoas to further the education and formation of emerging leaders in artisanal fishing communities along the Coral Coast. The activities involved building a participative pedagogical proposal to train approximately 90 youths, thus setting the groundwork for a network of future leaders across the three municipalities involved—Barra de Santo Antônio, Paripueira and Maceió. The meetings worked strategic themes set by the youths themselves, in dialogue with community leaders and managers, and covered such issues as local history and culture, conservation, biodiversity, community organization and fisheries.

#### **New PAs**

Supporting the consolidation of Marine and Coastal Protected Areas (MCPAs) is one of GEF Mar's main objectives.

In 2019, the program added 9 more
Conservation Units to its portfolio, 8 of which were federal (Acaú-Goiana ER,
Lagoa do Jequiá Marine ER, Delta do
Parnaíba EPA, Delta do Parnaíba Marine
ER, Batoque ER, Prainha do Canto Verde
ER, Cananéia-Iguape-Peruíbe EPA and
Mandira ER) and 1, state-run (North
Shore Coastal Platform EPA).

### Abrolhos in Virtual Reality

In September, the Marine National Park of Abrolhos launched ABROLHOS360, a series of three episodes in virtual reality featuring images of the park, the Cassurubá Extractive Reserve and the Ponta da Baleia State Environmental Protection Area, together spanning mangroves, coastal reefs and the Abrolhos archipelago. The immersive experience includes areal and underwater perspectives guided by a narrative that looks to heighten the user's awareness of the importance of man's relationship with the ocean. At the Park Visitors' Center, tourists and members of the local community can use the VR tool free of charge.

### A new management plan in Ceará

Up until 2019, the Pedra da Risca do Meio State Marine Park, created in 1997, was Ceará's only Marine Coastal Protected Area. Located 10 nautical miles (approx. 18.5 km) from the Port of Mucuripe, in Fortaleza, the PA covers some 33.2 km², and presents a rich biodiversity and complex environment, replete with marine life, particularly at depths of between 17 and 30 meters.

In 2019, in partnership with the
Federal University of Ceará's Ocean
Sciences Institute (Labomar), GEF Mar
started work on a Management Plan
for the park. The MP will guide the
implementation, roll-out and monitoring
of the park's management through
actions designed to concretize the
unit's conservation goals.

30
PROTECTED
AREAS SUPPORTED

95
MILLION
HECTARES
PROTECTED

75
SCHOLARSHIP
HOLDERS FUNDED

**53%**WOMEN

47%

MEN

RESEARCH CENTERS ASSISTED

SDG













ANNUAL REPORT FUNBIO 2019 50 **Donations Units** 

### **REM-MT**

REDD Early Movers (REM) Global Program – Mato Grosso



The REDD Early Movers (REM) program, a German government initiative that awards nations or states that help mitigate the effects of the climate crisis by reducing deforestation, included Mato Grosso state among its beneficiaries in 2017, with the program getting underway in 2019. Mato Grosso is the largest state in the Midwestern Region and boasts a privileged composition of Amazon Rainforest, Cerrado scrubland and Pantanal wetland. From 2004 to 2014, Mato Grosso reduced deforestation by 90%.

The REM-MT funds come from donations from Germany (via the German Development Bank – KfW) and Great Britain (through the Department for Business, Energy and Industrial Strategy – BEIS). FUNBIO is the financial manager and the Mato Grosso Environment Department (SEMA) is the technical manager and executor.

Organizing and structuring changes based on a new scenario built collaboratively and driven by a desire for transformation is the premiss behind REM-MT, which envisages new biodiversity conservation initiatives geared towards populations living within and working to protect the forest.

Sorriso, Mato Grosso. Photo: REM-MT















### **REM-MT**

66

In 2015, the state of Mato Grosso launched a wide-reaching strategy entitled Produce, Conserve and Include, designed to promote sustainable development through the efficient use of territory. In addition to recognizing the state's results in forest preservation, the REM program is one of the most robust and extensive actions yet rolled out in support of this strategy. In order to implement it, Mato Grosso approached FUNBIO in search of a partner capable of ensuring the transparency and security required by all the stakeholders involved. It's an endeavor already bearing fruit and which will certainly open doors for further opportunities."

Fernando Sampaio — Executive Director of the State PCI Strategy Committee, Government of Mato Grosso.



^

General Assembly of the Indigenous Peoples of the Xingu in Mato Grosso. Photo: REM-MT

# **REM-MT**

PRIORITY MUNICIPALITIES

FEDERAL PROTECTED AREAS

STATE PROTECTED AREAS

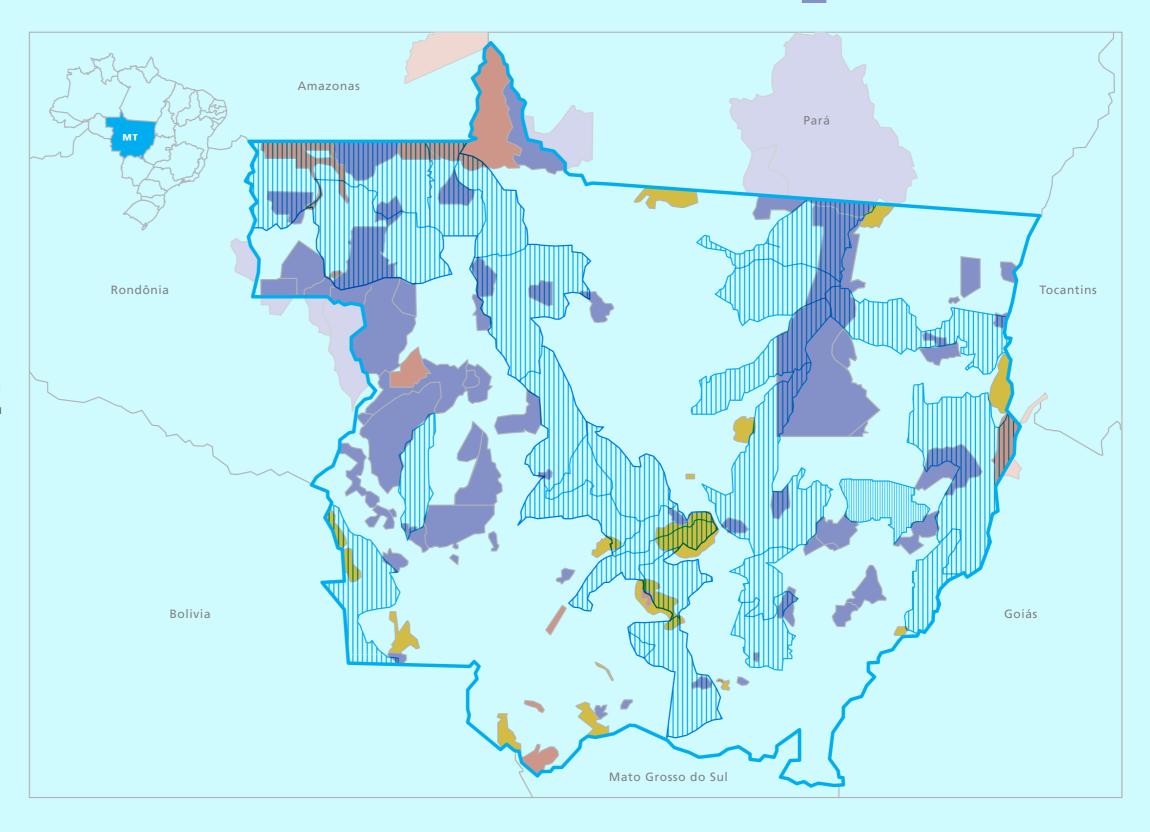
INDIGENOUS LANDS

#### **Priority areas**

REM-MT identified priority areas, represented by municipalities with high carbon stocks and rising or ebbing flows. As shown on the map (right), some of these hotspots overlap with Protected Areas and Indigenous Territories. However, the program's actions will not be limited to these areas alone.

Understanding carbon stocks and flows means understanding forest dynamics. Put simply, the stock is the standing forest, functioning as a healthy part of the ecosystem. Flow, on the other hand, is oncestocked carbon released into the environment and filtering into production chains. For example, when a swath of forest is cleared to make pasture, its carbon stock becomes carbon flow.

Today, the state of Mato Grosso has 104 Protected Areas, 71 Indigenous Territories and two Quilombola colonies, together totaling 18.1% of the state's land mass. In addition to these conservation areas, roughly 60% of the state's native vegetation remains intact.



### **REM-MT**

### **Subprograms**

### **Institutional Strengthening and Structuring Public Policies**

The year 2019 saw work begin on executing REM-MT activities. Institutional support bases were structured, such as state secretariats, Public Prosecutors' Office, Fire Brigade and public companies. As part of the strategy, a company was hired to monitor deforestation through high-resolution satellite imagery and a speciallydeveloped platform for analyzing the spatial data. The system uses a real-time deforestation detection technology, with a battery of satellites revisiting the area on a daily basis to check for change. As soon as any alteration to the forest cover is found, the system fires off a warning to SEMA, which takes the necessary control measures. Also in 2019, a foreign consultancy was hired to devise an optimized action plan for the project's execution.

### Sustainable Production, Innovation and Markets

Livestock farming, soya cultivation and forest extraction are the production chains that impact most heavily upon Mato Grosso's natural bounty. The subprogram Sustainable Production, Innovation and Markets aims to conserve the current reserves by implementing sustainable production models and improving the management of licensed timber extraction. In 2019, concerted efforts were made to alter the execution of the Investment Plan (PDI) and to accentuate the focus on projects at the forefront.

#### **Indigenous Territories**

Recognizing that Indigenous Territories occupy 16.57% of Mato Grosso state and play an important role in the conservation of its sociobiodiversity, the Indigenous Territories subprogram helps the state's indigenous peoples the guardians of roughly 14 million hectares of land—to structure-up. In 2019, three meetings were held to define governance models in such a manner as respects the self-determination of these peoples whilst devising strategies for the use of the subprograms' resources. Another important milestone was the kick-off of a project to strengthen the Federation of the Indigenous People of Mato Grosso, run by the Instituto Centro Vida (ICV), which is helping to structure the institution in charge of social control and indigenous representation.

### **Smallholder Agriculture and Traditional Communities**

Supporting smallholder farmers and extractivists who provide such environmental services as the reduction of CO<sup>2</sup> gas emissions, sustainable use of natural resources and reforestation, is the remit of the Smallholder Agriculture and Traditional Communities Subprogram. The initiative also works towards the transformation of high-impact production chains into low-carbon, environmentally sustainable endeavors. In 2019, a highlight was the interchange between the subprogram's beneficiaries and representatives from the Alternative Agriculture Center of Northern Minas Gerais (financed by the World Bank), during which flows were defined for project calls and tender edicts.

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ANNUAL REPORT FUNBIO 2019 54 **Donations Units** 

# **Golden Lion Tamarin**

Forest Restoration for the Conservation of the Golden Lion Tamarin







In 2019, the project Partnership: Forest Restoration for the Conservation of the Golden Lion Tamarin kicked off with funding from ExxonMobil. The project is executed by the Golden Lion Tamarin Association (AMLD, in the Portuguese abbreviation), with FUNBIO as financial manager.

The initiative planted 21,381 saplings of 66 native Atlantic Forest tree species at Igarapé Ranch, the AMLD's base in Silva Jardim, Rio de Janeiro. The aim is to create corridors to connect forest fragments and so encourage gene flow and genetic variation in the forest's golden lion tamarin troupes. The species is endemic to Brazil

PARTNERS



**E**‰onMobil



Golden lion tamarin (Leontopithecus rosalia). Photo: Alexande Ferrazoli/ **FUNBIO** 

ANNUAL REPORT FUNBIO 2019 55 **Donations Units** 

# **Golden Lion Tamarin**



Learn about the project through this animated video

THOUSAND SAPLINGS OF TREES NATIVE TO THE ATLANTIC FOREST

NATIVE ATLANTIC FOREST TREE SPECIES

RESTORED AREA **EQUIVALENT TO** 

FOOTBALL PITCHES

2,500 **GOLDEN LION TAMARINS** IN THE WILD

and inhabits the remaining forest pockets in Rio de Janeiro. It has been on the IUCN Red List since the 1960s and is currently classified as Endangered. The trees planted are mainly fruit-bearing species that supply the tamarin's natural diet. In total, the restored swathes correspond to an area the size of 14 football pitches combined.

Golden lion tamarin populations in the wild are thought to number no more than 2,500 individuals,

having declined by 32% in recent years due to yellow fever. The need to produce, supply and plant these saplings will directly benefit the local economy, while the ongoing reforestation drive promoted by the AMLD will be a boon to the regional population by resulting in improved provision of environmental services, cleaner air and purer water.

At present, the golden lion tamarin is largely found in the Poço das Antas Biological Reserve, the first

strict-use biological reserve in Brazil, straddling the municipalities of Silva Jardim and Casimiro de Abreu and the União Biological Reserve, which takes in parts of Casimiro de Abreu, Rio das Ostras and Macaé.

Crossing the BR-101 highway at km 218, an ecological overpass (the first of its kind in Brazil) now connects forest fragments on either side of the road, fostering gene flow between previously severed populations of countless Atlantic Forest species, especially the golden lion tamarin. Some of the 20 thousand trees planted by the project are located at one end of this overpass.

The project also generated income for those living in the surroundings: all of the saplings were purchased from tree nurseries owned by farming families, while seed harvesting is done by the locals, in foraging parties of six to eight people.

# **Golden Lion Tamarin**



# **An Atlantic Forest Treasure**

Not long after their arrival in Brazil, Portuguese navigators started capturing golden lion tamarins and sending them back to Europe along with cargo-loads of timber. In the 18<sup>th</sup> Century, Madame Pompadour was one of those gifted a specimen, described as "the little lion monkey".

Name: Golden lion tamarin (Leontopithecus rosalia)

Adult length: **220 to 302 (mm)** 

Adult weight: 353 to 620 (grammes)

Life expectancy: **16 years** 

Group size: 7 to 8

Sexual maturity: 4 years of age, for both sexes

Mating system: polygamy

Gestation time: **125 to 132 days** 

Interbirth interval: **194 days** 

Litter size: 1 to 3 infants/parturition, with twins

born 65% of the time

Source: ICMBio

#### **Connected islands**



#### **New forests**

Over 20 thousand saplings of native species, including pink cedro, cattley guava and heart of palm, were planted in three areas equivalent to a combined area of 14 football pitches



A/B/C

Areas restored by the project

Base of the Golden Lion Tamarin
Association (AMLD)

REBIO, one of the nation's oldest protected areas, houses a population of golden lion tamarins

. . . ..

NDC

Animal corridor













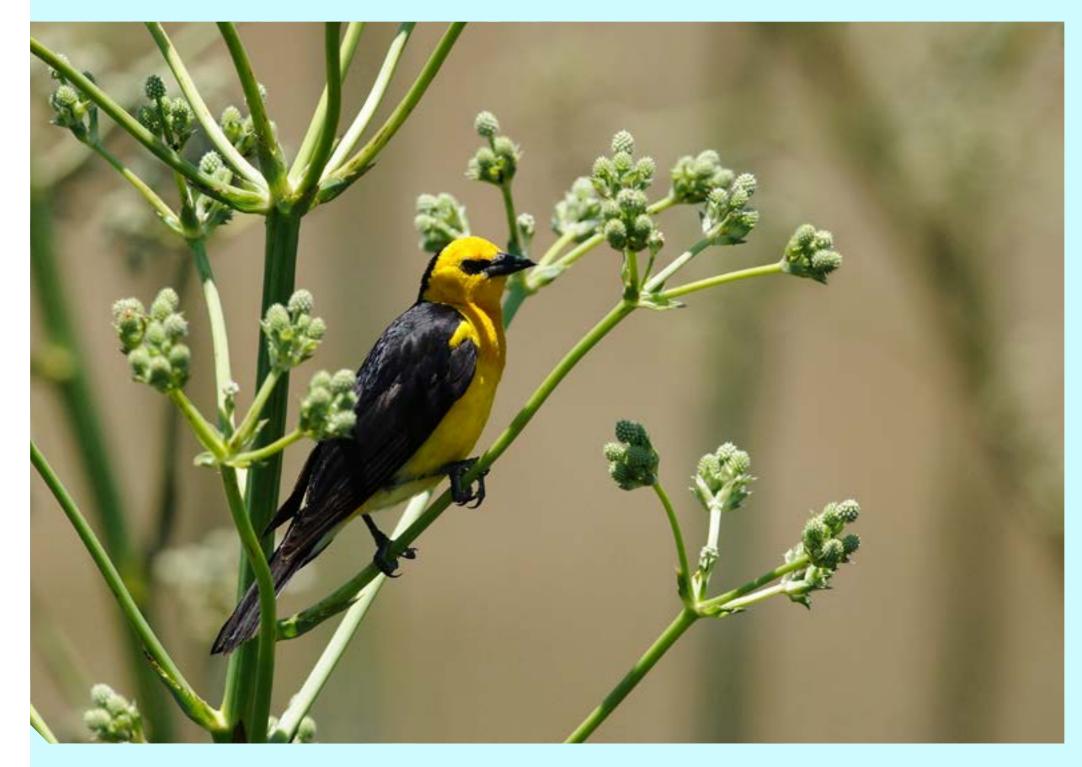
**Gateway** 

An ecological overpass allows animals to move between islands of Atlantic Forest cut off from each other by the highway. The overpass will lead directly into one of the areas restored by the project.



# **Probio II**

Opportunities Fund of the National Public/Private Integrated Actions for Biodiversity Project



The Opportunities Fund of the National Public/Private Integrated Actions for Biodiversity Project – Probio II aims to drive the transformation of production, consumption and commercialization throughout production chains in Brazilian biomes, incentivizing principles and practices that envisage the conservation and sustainable use of biodiversity. The fund is a financial mechanism created by FUNBIO using a donation made by the Global Environment Facility (GEF) through the World Bank.

Among the initiatives supported is "Conservation of biodiversity allied with farming and livestock production in the Pampa biome", which aims to set up a blended finance model to extend lines of credit to livestock management projects on native pasturelands, and to train and support rural producers who want to work sustainably.

Executed by the Birds of Brazil Wildlife Conservation Society – SAVE Brazil, in partnership with the Regional Development Bank for the Far South (BRDE), Rural Unions, the Rio Grande do Sul Department of the Environment (SEMA) and Department for Agriculture, Livestock and Irrigation (SEAPI), the project supplies vital credit to rural producers certified by the Alianza del Pastizal, a group of organizations and individuals from different sectors of society that works with the development of sustainable production chains.

Alianza del Pastizal runs a certification program for rural smallholders that focuses on livestock farming on native pastures allied with biodiversity conservation. Free-range meat with the Alianza seal is available on the Brazilian market, identifying



PARTNERS





Saffron cowled blackbird (Xanthopsar flavus), endangered species, in the Pampa. Photo: Save Brasil

ANNUAL REPORT FUNBIO 2019 58 **Donations Units** 

### Probio II

produce that is superior and healthier than meats from stall-fed cattle.

There are currently 206 certified rural properties and a further 33 in the final stages of certification. Of those already operating under the Alianza seal, 20 have a significant female contingent at management level.

In 2019, 11 properties applied for BRDE credit. resources were set aside for technical assistance, training and the monitoring of local avifaunaIn order to conduct this monitoring, the Indice de Conservación del Pastizal – ICP (Pastureland Conservation Index) was updated to include variables related to the avifauna of the Southern Pastures and tested in the wild on 40 certified properties. 245 species of bird were identified, including 77 field birds, 13 of which are endangered worldwide and 15, regionally.

As these birds are exclusive to natural fields and depend entirely on this ecosystem, they are one of the key indicators of the ecosystem's health. Monitoring indicated a significant presence of 77% of the species found in Rio Grande do Sul state.

Another project supported is "Strengthening Agroecology – Commercialization Circuits", designed to increase the productivity and commercialization of cacau cabruca produce and craft honey, introduce Agroforestry Systems, and maintain the forest cover in cabrucas—traditional cacao plantations shaded by native woodland, where the trees can develop higher-quality fruits. The initiative is executed by Tabôa Fortalecimento Comunitário, with the financial backing of Porticus and the Ibirapitanga, Humanize and Arapyaú institutes.

Among the planned activities related to the cacau cabruca production chain are a survey of the local

avifauna and monitoring of the presence of the golden-headed lion tamarin (Leonpithecus crysomellas), both important indicators of ecosystem health. In 2019, 20 farmers engaged in the rational breeding of stingless bees were trained in beehive management and honey production and processing.

The project is another experiment in blended finance, in which the Fund backs up credit extended to sustainable production chains by helping strengthen agroecological production and maintain the existing Atlantic Forest through the provision of specialist rural technical assistance.

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As a counterpart to the loans, Opportunities Fund the birdlife of a given region.

> **INITIATIVES** SUPPORTED

**STATES** 

Ranch on the Biodiversity Conservation Allied with Agriculture and Livestock Farming in the Pampa Biome project in Rio Grande do Sul. Photo: Alexandre Ferrazoli/ **FUNBIO** 



### **GEF Terrestre**

Strategies for the Conservation, Restoration and Management of Biodiversity in the Caatinga, Pampa and Pantanal



Caatinga.
Photo: Marizilda Cruppe/FUNBIO



The GEF Terrestre Project was designed to promote the conservation of biodiversity in the Caatinga scrublands, Pantanal wetlands and the grassy lowlands of the Pampas. To achieve its aim, the project integrates three key strategies: expansion and consolidation of the National Protected Areas System (SNUC) by creating new Protected Areas and improving the management of existing PAs; recovery of degraded areas; and National Action Plans for endangered species.

The initiative is financed by the Global Environment Facility, with the Inter-American Development Bank as implementing agency, and FUNBIO as financial executor. Other partners include the ICMBio, the Botanical Gardens of Rio de Janeiro, and state organs under the technical coordination of the Ministry for Environment.

In 2019, GEF Terrestre launched calls for projects for the recovery of degraded areas in the Caatinga and Pampa. The selected proposals will support the Protected Areas (PAs), as well as the Ibirapuitã Environmental Protection Area (Rio Grande

do Sul), the São Francisco River Natural Monument (straddling Alagoas, Sergipe and Bahia), Furna Feia National Park (Rio Grande do Norte), Araripe-Apodi National Forest (Ceará), and the Caminho dos Gerais State Park (Minas Gerais). The projects that make the cut will be responsible for the recuperation of over 4,000 hectares of degraded areas.

Also in 2019, GEF Terrestre sponsored the International Wildfire Conference in Campo Grande, Mato Grosso do Sul, which discussed the theme "Face-to-face with fire in a changing world: using Integrated Fire Management to reduce the vulnerability of populations and ecosystems". One of the main aims of the conference was for professionals of various nationalities to share their knowledge about fire management and forest-fire containment and control.

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Find out more about Integrated Fire Management



















# Kayapó Fund



Metiktire Village — Indigenous Territory in Jarina, Mato Grosso. Photo: Filipe Mosqueira/FUNBIO



The Kayapó Fund (FK) was set up in 2011 with a donation made by Conservation International Brazil (CI-Brazil) through its Global Conservation Fund (GCF), and matched by The Amazon Fund, managed by the Brazilian Development Bank (BNDES). FUNBIO, which designed the FK structure, is its financial manager.

The FK supports initiatives to protect and conserve biodiversity, promote Kayapó ethnodevelopment and strengthen its organizations and institutions.

Today, the Kayapó Indigenous Territories (abbreviated to TIs, in Portuguese) benefited by the fund are Menkragnoti, Bau, Capoto/Jarina, Badjonkôre and Las Casas, all located in the south of Pará and north of Mato Grosso states.

Organizations representing the Kayapó can apply for funding by submitting proposals to open calls for projects, and those that meet the eligibility criteria and the Fund's general purview are considered for FK support. Submissions undergo detailed analysis prior to approval by the Technical and Donors Commissions, the Fund's two decision-making bodies.

Since it got underway, the FK has held three project cycles, and preparations began for a 4<sup>th</sup> in 2019.

2019 also saw the completion of the study "Diagnosing the Efficacy of the Kayapó Fund in Improving Quality of Life, Management and Territorial Integrity in Kayapó Indigenous Territories", conducted by the Instituto Socioambiental (ISA). The report collates data on the Fund's direct and indirect impact on Kayapó homelands. Based on this data, new strategies were developed to fine-tune the Fund's actions over the next five years, such as fortifying sustainable production with a focus on incomegeneration.

During the year, FUNBIO made monitoring visits to the Raoini Institute, Kabu Institute and Protected Forest Association. The visits afforded direct contact with the work dynamics these institutions have created and allowed us to see first-hand the positive impacts of FK-funded activities there.

During these visits, FUNBIO was able to assess the results of actions geared towards the institutional strengthening of Kayapó organizations, support for sustainable production drives, capacitation and workshops, and the territorial and environmental management of Kayapó Indigenous Territories.







# Kayapó Fund

### Reinforcing the Kayapó's sociobiodiverse production chains



2019 saw the Kayapó's sociobiodiverse production chains really consolidate and mature. The Tonka seed (*Dipteryx odorata*) and Brazil Nut (*Bertholletia excelsa*) production chains turned over R\$ 1.5 million in combined revenues, almost a 100% increase over the previous period.

^

Tree nursery at the Instituto Kabu in Novo Progresso, Pará. Photo: Dante Coppi/FUNBIO

TOTAL OUTPUT FROM THE MAIN SUSTAINABLE PRODUCTION CHAINS SUPPORTED BY THE KAYAPÓ I	FUND

PRODUCTION CHAIN SUPPORTED	OUTPUT IN 2018	OUTPUT IN 2019	INCREASE
Tonka seed ( <i>Dipteryx odorata</i> )	9 tons	16 tons	+ 78%
Brazil nut (Bertholletia excelsa)	80 tons	178 tons	+ 123%

REVENUES EARNED THROUGH SUPPORT FOR ACTIVITIES FOCUSING ON SUSTAINABLE PRODUCTION CHAINS				
PRODUCTION CHAIN SUPPORTED	CONSOLIDATED GROSS REVENUE 2018	CONSOLIDATED GROSS REVENUE 2019	INCREASE	
Tonka seed ( <i>Dipteryx odorata</i> )	R\$ 45,494.20	R\$ 683,059.36	+ 1.401%	
Brazil nut (Bertholletia excelsa)	R\$ 579,249.75	R\$ 817,405.00	+ 41%	
TOTAL	R\$ 624,743.95	R\$ 1,500,464.36	+ 140%	

3 KAYAPÓ ASSOCIATIONS STRENGTHENED

ALMOST

400
INDIGENOUS PEOPLE
WERE TRAINED

**S**URVEILLANCE EXPEDITIONS CONDUCTED

16
TONS OF TONKA SEED

178
TONS OF BRAZIL NUT

SDG











# **TFCA**

Tropical Forest Conservation Act



The Tropical Forest Conservation Act (TFCA), a law that enables eligible countries to relieve debt owed to the United States by commuting it into funding for forest conservation projects, began facilitating environmental activities in Brazil in 2010, financing conservation projects in the Caatinga (xeric shrubland), Cerrado (savanna) and Atlantic Forest biomes. FUNBIO was responsible for the technico-financial accompaniment of these projects and served as financial manager of the country's TFCA account. The project wound up in 2019 when the Integrated Fire-management Initiative for the Chapada dos Veadeiros National Park, Goiás, reached completion. In all, 90 initiatives were supported.

Declared a Natural Heritage Site by UNESCO in 2001, the Chapada dos Veadeiros National Park protects 2,400 km2 of Cerrado, a biome unique to Brazil and home to hundreds of headwaters, species of fauna and land-cover structures consisting of endemic flora. Thanks

90
PROJECTS
SUPPORTED

73
INSTITUTIONS
SUPPORTED

PROTECTED AREAS BENEFITED DIRECTLY

3
BIOMES
BENEFITED

Pouso Alto Environmental Protection Area in Goiás. Photo: Julio Itacaramby











Donations Units

ANNUAL REPORT FUNBIO 2019 63

### **TFCA**



My parents and grandparents always stored and sowed a whole selection of seeds. If agriculture has been around for 12 thousand years, it's because of that practice. So, the defense of heirloom seeds has become a real banner for me in my work".

Maurício Queiroz — Son and grandson of family smallholders



We took babassu to schools, public spaces and cultural centers. It was a way of encouraging the population to value the work the breakers do and to get municipal administrations to buy their products through the 30% subsidy law".

Ariana da Silva — Coordinator of the Project
"Strengthening the Babassu Breakers and Productive
Practices for Access to Institutional Markets".



Fire is part of life in the Cerrado. Sooner or later, everyone here is going to have a brush with fire"

Fernando Tatagiba — Manager of the Chapado dos Veadeiros National Park



The calculation we made was as follows: if energy companies helped landowners restore their Private Protected Areas, thus decreasing the amount of sediments leached into the waterways, how much would they save in dredging costs? And what would that mean in terms of increased efficiency in energy generation?"

Fabio Scarano — Executive Director of the Brazilian Sustainable Development Foundation (FBDS)

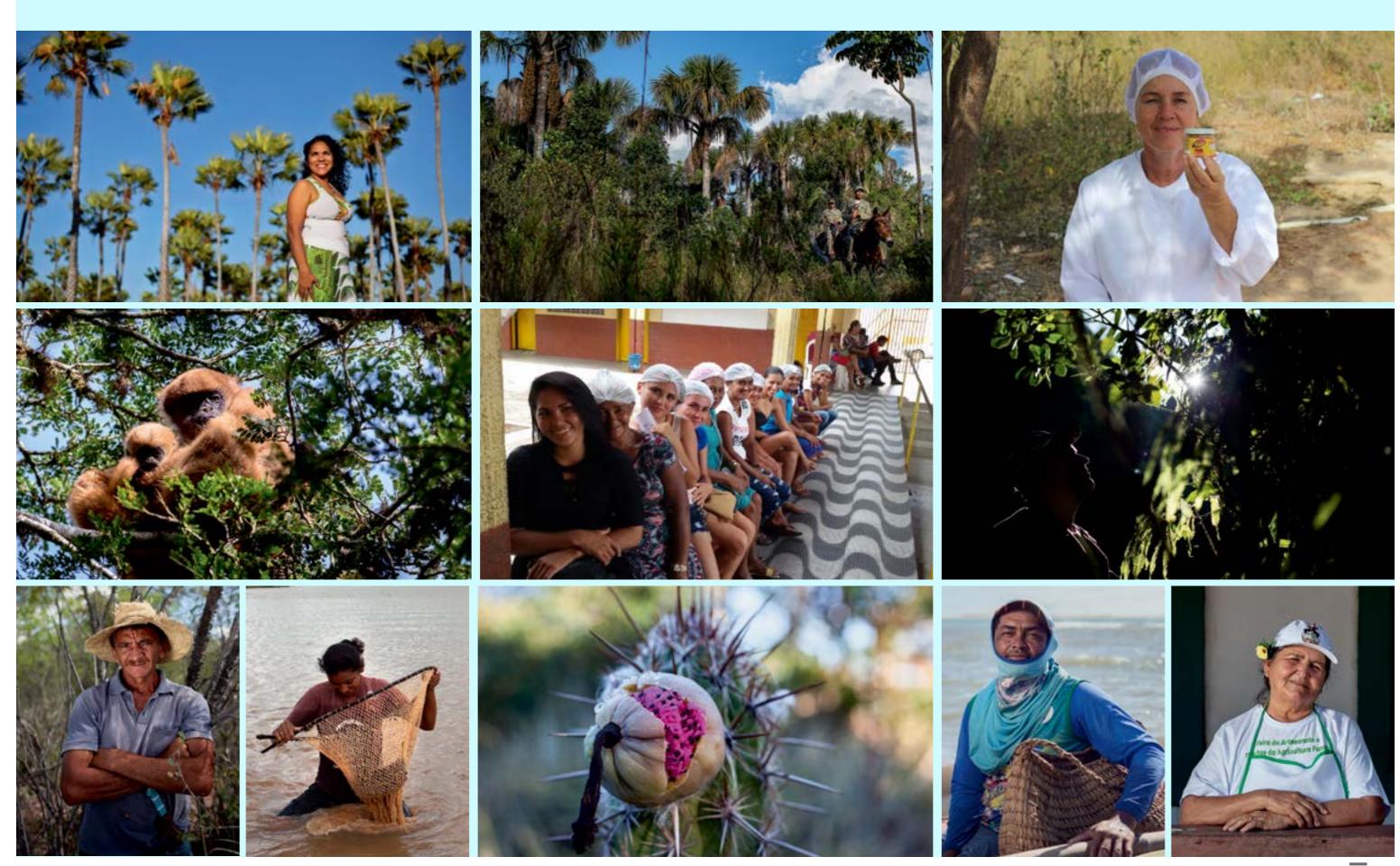


Today, CAR is considered the largest territorial database in the world. Not even China has an individualized property management tool like the one we've now got in Brazil."

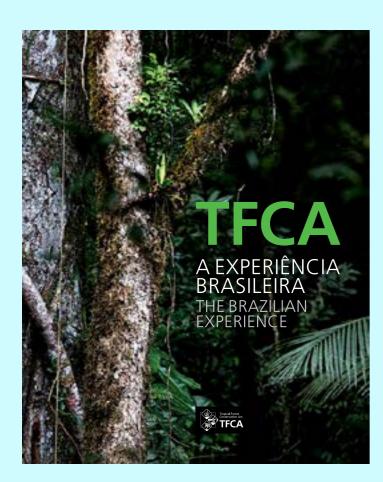
Julio Itacaramby — Environmental Consultant, former Environmental Secretary for Alto Paraíso de Goiás

ANNUAL REPORT FUNBIO 2019 64

# TFCA 2010-2019



### **TFCA**

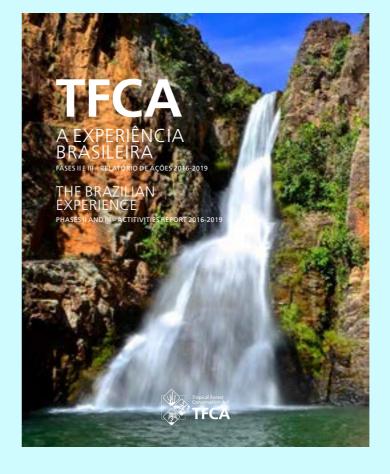




#### New lives, new paradigms

Over 250 pages, dozens of photos and stories featuring those who, with TFCA-Brazil support, transformed ideas into actions, dreams into reality, and strengthened the conservation drive in the Cerrado, Caatinga, and Atlantic Forest in 22 states Brazil-wide. Here, the country's continental dimensions and the involvement of representatives from the government and civil society right from the start have been the hallmarks of this massive and massively successful challenge. The book TFCA, the Brazilian Experience lends voice to the beneficiaries of the 82 projects that instigated vital change between 2010 and 2015:

"One of the results was the generation of microsocial enterprises, such as honey and fruit pulp producers, which have since struck up partnerships with companies in São Paulo. The project managed to implement the production chain and set the whole process in motion, generating income at the source. The project has taken on a life of its own and the actions will continue, even after TFCA support comes full circle. And that's marvelous. I've been working with this for a long time. For me, it was a paradigm shift. I've never been so involved in a project", says Zelita Rocha, from the Association for the Development of Sociobiodiversity Products – Fitovida.



### Fire, knowledge and tradition

Fire that fights fire, traditional knowledge that generates income for women, heirloom seeds that guard the memory of generations: in its final stage, the TFCA supported transformative projects, all of which are recounted in the report "TFCA, the Brazilian Experience, Phases II and III". From 2006 to 2009, eight TFCA-funded initiatives financed training, propagated techniques and knowledge, and helped garner recognition:

"I am extremely grateful for having become a certified producer. We never grew anything with pesticides, and now we have a seal to prove it. That's a very important step for us, because it adds value to our product and vindicates our fight for our territory", says Rogério da Conceição, from the Caraíbas quilombola community in Minas Gerais. He belongs to one of the 24 families who received sustainable extractivism certification for the work they do on their land, supplying Brazil plum (umbu) and stinkingtoe (jatobá) for the production of foods, cosmetics and medicines.

ANNUAL REPORT FUNBIO 2019 66 **Donations Units** 

# **TFCA**

The Burghardt Family.



to its singular beauty, the park has become one of the country's leading ecotourism destinations.

In 2017, after the worst bushfire in the park's history, which devastated 25% of its land cover, the administration adopted an Integrated Firemanagement Plan, a method used worldwide to prevent extreme forest/bushfires from wreaking devastating effects on natural resources, biodiversity and local communities. The IFM plan works on two

main fronts. The first involves prescribed burning, which gets rid of deadwood and dry undergrowth that can easily catch fire and fuel its spread. The other front is integration, specifically with the surrounding community and the organs in charge of the prevention and control of fire. With the TFCA's support, the initiative bought fire-fighting equipment and organized a community mobilization endeavor to implement the plan.

Find out about the 90 projects supported by the TFCA

Fire management in Chapada dos Veadeiros, Goiás. Photo: Fernando Tatagiba/ICMBio

### **Integrated Fire** Management

Integrated Fire Management (IFM) is a wide-reaching approach and proposes the analysis of ecosystem-appropriate fire regimes, wildfires, restoration, and, where necessary, the controlled and other outbreaks of wildfire. Some Brazilian PAs, such as experience in the use of IFM.





















# A Million Trees for the Xingu

1.3

**MILLION NATIVE TREES** 

276

**HFCTARE** 

**25** 

TONS OF SEEDS

86

**NATIVE SPECIES** 

**557** 

SEED COLLECTORS

66%

WOMEN

34%

MEI

Fruit of a partnership between FUNBIO, Rock World (Rock in Rio) and the Instituto Socioambiental (ISA), the project was born from an endeavor to plant a million trees native to the Amazonian Biome at the sources and headwaters of the Xingu River in Mato Grosso, a target surpassed in September 2019, when the number of seedlings reached 1.3 million across 276 hectares of land.

The project's impact was extremely significant in strengthening the Xingu Seed Network Association, contributing to its financial sustainability by covering administrative costs, supporting meetings, participating in events to divulge and promote direct seed-bombing techniques and generating income for the associates (collectors) by purchasing the seeds they gathered.

The funding for One Million Trees for the Xingu is donated by Rock World, though an additional 1,51 million Brazilian reais was raised through donations from festival-goers at the Brazilian and Portuguese editions of Rock in Rio.



^

Xavante Village (Etenhiritipá) in Mato Grosso. Photo: Alexandre Ferrazoli/FUNBIO

#### Muvuca (Seed-Bombing)

which is ideal for structuring forests. Seed bombs containing seeds for pioneer and secondary tree species are planted in green composting in order to regenerate and restore degraded areas. As the species have different growth times, the faster growers prepare the land for the more slow-growing primary species. The project generated income for the Xingu Seed Network collectors, numbering 557 in all, among members of indigenous tribes, urban communities and smallholder farmers.





SD











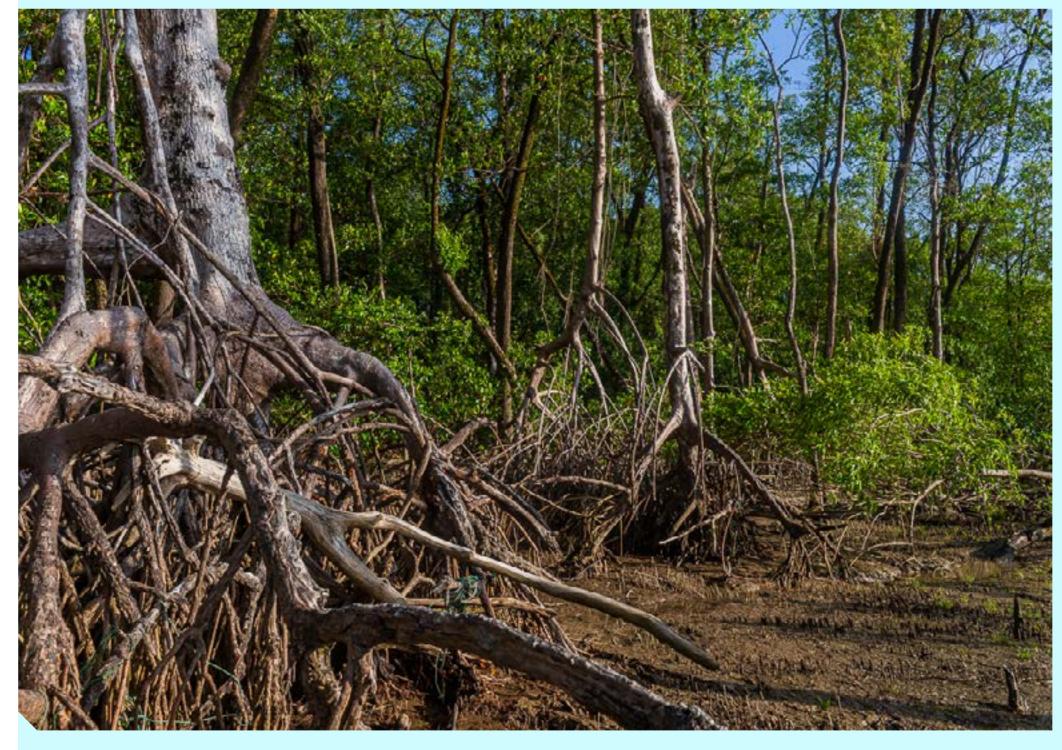








### **Amazon Wetlands**



The Amazon Wetlands project, an initiative supported by the Norwegian Embassy in Brazil and run in partnership with the ICMBio, was set up to structure a governance system through the training of key figures working and living in or around the Ramsar Sites—wetlands considered of international ecological importance—in Pará, Maranhão, Amapá and Piauí, in order to identify representatives, and strengthen and broaden communication on the theme.

Brazil has the largest protected strip of mangroves in the world, extending for some 13,400 km², and covering the nation's entire coastline. In its first year, the project held 3 brainstorming sessions and 2 workshops with the participation of 260 people, among community leaders, protected-area managers, governmental agencies and NGOs.

~

Cabo Orange National Park/ICMBio, Amapá. Photo: Victor Moriyama/ FUNBIO



















# Sea Garbage in SP

Sea Garbage Monitoring and Assessment Plan, São Paulo



In the year 2019, the theme of sea garbage joined the roll of the most pressing environmental issues. To help combat the problem in the state of São Paulo, FUNBIO joined forces with the Norwegian Embassy, the University of São Paulo's Advanced Studies and Oceanographic Institutes and the State Environmental Department to kickstart a project entitled "Building knowledge to tackle sea garbage: seagarbage monitoring and assessment plan for the state of São Paulo".

The project aims to create a structured, integrated strategy for the development of a seagarbage monitoring and assessment plan for São Paulo's coastal waters, establishing an effective communication channel between science and management. The aim is to generate initiatives and create opportunities for collective learning, considering all the institutional stakeholders (government, NGOs, private sector and academia).

In its inaugural semester, the project hosted the first of two workshops scheduled to lay the groundwork for a deeper understanding of the problem and structure the knowledge base for the monitoring plan.

Eighty professionals participated in the workshop. The program included the presentation of the findings on the theme and their contextualization at international, national and state level, as well as thematic group discussions to elaborate on specific aspects, such as impact on tourism, fisheries and food security.



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Barra do Una Beach, Juréia-Itatins Ecological Station, Peruíbe, São Paulo. Photo: Lucas Barbosa

ANNUAL REPORT FUNBIO 2019 70 **Donations Units** 

# **Amapá Fund**



The Amapá Fund supports the consolidation and maintenance of federal, state and municipal Protected Areas (PAs) and Indigenous Territories (ITs) in Amapá, a state known for its açaí, fish and Brazil nut production chains.

Designed by FUNBIO and backed by the Gordon & Betty Moore Foundation and Conservation International Brazil (CI-Brasil), the Fund is financially supported by Conservation International's Global Conservation Fund (GCF).

The mechanism allows the Fund to raise money from a range of sources, including Consent Decrees (TACs, in Brazil), donations and payments for the provision of environmental services. The aim is to agilize execution and flexibilize resource allocation in such a way as meets the real needs of the PAs in Brazil's best-preserved state.

In 2019, meetings were held with CI-Brazil and with the Amapá Environmental Department to align the Fund's goals and strategies, with emphasis on the state's production chains.

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# **Abrolhos Land and Sea Fund**

**\** 

The masked booby (*Sula dactylatra dactylatra*) on the Abrolhos Archipelago. Photos: Átila Ximenes/FUNBIO



The core goal of the Abrolhos Land and Sea Fund is to support the creation, consolidation, maintenance and institutional reinforcement of Federal Protected Areas (PAs) in the south of Bahia state and far north of Espírito Santo. Taken collectively as the Abrolhos Land and Sea territory, these PAs cover Atlantic Forest and 89 million hectares of marine and coastal ecosystems housing the richest biodiversity in the entire Southern Atlantic.

In addition to encompassing Brazil's largest and most diverse coral reefs, the region is a nursery for humpback whales and home to the largest remaining swathes of Atlantic Forest in the Northeast. The territory boasts 19 federal PAs, together protecting some 48 million hectares.

FUNBIO, the program's financial and executive director, designed a financial mechanism that draws on technical support from CI-Brazil and financial backing from Conservation International's Global Conservation Fund (GCF). It's a private fund, with public-private governance.

In 2019, the Fund launched its Operations Manual, which structures its governance and defines the activities to be pursued, the public involved and the geographical range of the operations. Also approved was the Sub-projects Execution Manual, which sets the rules and procedures for Project Calls. In addition, a Work Plan was drafted for the first biannual period 2020/21.

In 2019, the project changed its name from the Bahia & Espírito Santo Fund to the Abrolhos Land and Sea Fund. The change reflected the project's redesigned spatial scope, determined geographically by the Abrolhos Land and Sea territory\*.

The Fund is open to donations from individuals, NGOs, bi and multilateral agencies, and national and multinational companies and institutions, and can also receive funds from Consent Decrees and environmental offset agreements as preconditions for permits and licenses.

\* Name given by CI-Brasil, a partner on the initiative with over two decades of experience working in the region SDG























ANNUAL REPORT FUNBIO 2019 72 **Donations Units** 

### **Atlantic Forest**

Biodiversity and Climate Change in the Atlantic Forest

40 60 SUPPORTED

TRAINED

CONSULTANCIES HIRED

Photo: José Caldas/FUNBIO



Helping to reduce the impact of climate change and supporting biodiversity conservation are the main aims of the Biodiversity and Climate Change in the Atlantic Forest project. The initiative plans for the restoration of swaths of Atlantic Forest across the Protected Area Mosaics in Southernmost Bahia, Central Rio de Janeiro State and the Lagamar Region (São Paulo/Paraná). The Atlantic Forest is one of the most biodiversity-rich biomes in the world.

The project is part of the International Initiative for Climate Protection (IKI), under the Brazil/ Germany Cooperation for Sustainable Development partnership. FUNBIO is the financial manager and is responsible for contracting the personnel, goods and services requisitioned by the project's executor, the Ministry of the Environment.

In 2019, progress was made towards bringing ongoing consultancy work to a close, such as the production-chain analysis for the restoration of native vegetation. The resulting models will broaden the potential of recovery projects

in these deforested areas, envisioning the development of strategies to increase funding for the three mosaics.

Support consultancy on the creation of a Municipal Atlantic Forest Plan for the Rio and Lagamar mosaics is already underway. The results will inform the planning that collates and standardizes all the elements required for the protection, conservation, restoration and sustainable use of the forest. The municipal plans (PMMAs, in Portuguese) will be used as management tools for municipalities inside the biome.

Also in 2019, some 60 PA managers attended workshops in Rio de Janeiro and São Paulo where they were trained to use the Management Analysis and Monitoring System – SAMGe. The tool analyzes and monitors management at PAs in order to assess compliance with public policies on biodiversity conservation. The diagnostics make it possible to establish efficiency indicators that are vital in steering management towards the established goals.

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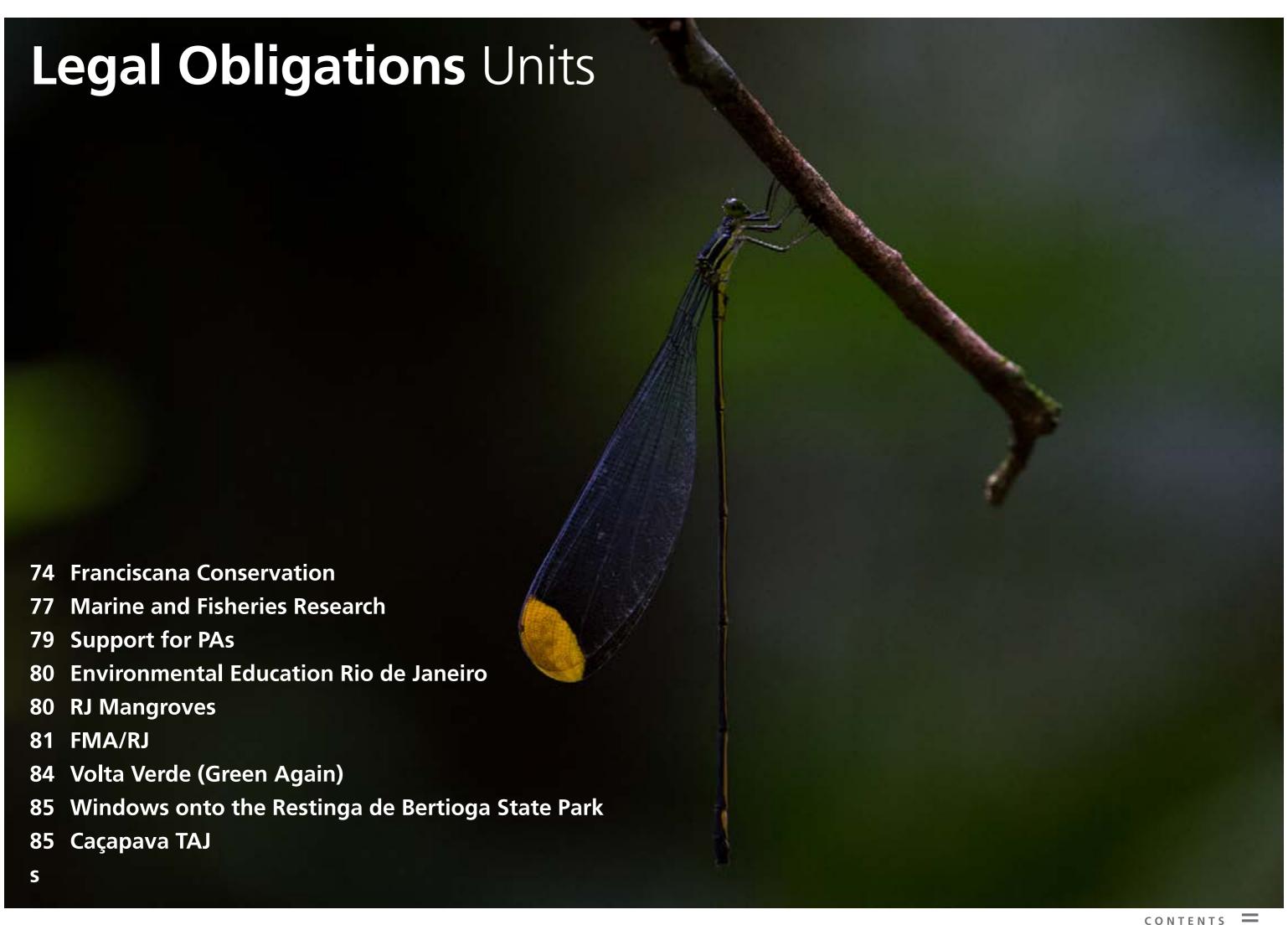












### **Franciscana Conservation**

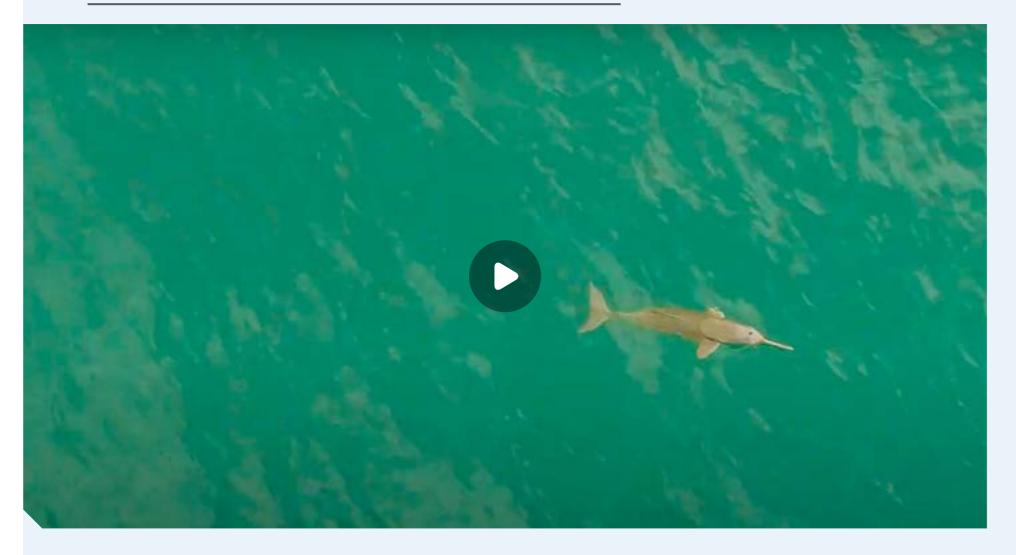
Conservation in Franciscana Management Area I

66

If we lose the franciscana, we'll lose a whole evolutionary line."

Eduardo Secchi — Universidade Federal do Rio Grande (FURG)

See some images captured by drone in Ubatuba. Video: Daniel Danilewicz/GEMARS





PARTNERS









Generating knowledge about Brazil's most endangered dolphin is the aim of the Franciscana Conservation Project, the largest suite of simultaneous studies on the species in Brazil. The project supports six initiatives designed to broaden our knowledge on the dolphin's biology, ecology and populational dynamics and to disseminate the results obtained. The research and activities include the actions set forth in the National Action Plan for the Franciscana, a dolphin found along the Brazilian coast from Espírito Santo to Rio Grande do Sul and further south into Uruguay and Argentina.

In 2019, the year in which the franciscana was given its own day on the environmental calendar—October 1—, the project celebrated a milestone: for the very first time, scientists managed to capture drone footage of a pod of franciscana off the coast of Ubatuba. The images, produced by the researcher Daniel Danilewicz, from the Rio Grande do Sul Aquatic Mammals Study Group – GEMARS, will afford a deeper understanding of the species' behavior and hunting habits, among other important aspects. Unlike the usually dark-water areas inhabited by the franciscana, the seas off Ubatuba are clear, which meant Danilewicz could obtain images of excellent quality.

To strengthen the bond between research and communication, researchers involved with the project took part in FUNBIO's "Creative Communication for Scientists" training course, administered by Lab 37. The training focused

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It was a surprise for me. I didn't know that learning communication techniques would be so fluid and involving. And the way it was all presented, it was really easy to understand how to apply the techniques to what we do."

Liana Rosa — Universidade Federal do Paraná (UFPR)

Legal Obligations Unit
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## **Franciscana Conservation**

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We're not simply talking about the survival of a species here, but the survival of all species, humanity included."

Camila Domit — Universidade Federal do Paraná (UFPR)

on techniques for divulging results obtained in the field and on methods for devising communication plans and making efficient use of a range of tools to present scientific data in accessible, non-scientific language. The immense benefit of this is that science can become an even closer ally in this species' conservation.

When activities began in January 2019,
MarBrasil, an association that works towards the
conservation of marine biodiversity, especially
endangered species in coastal ecosystems,
monitored returning fishing boats and
interviewed fishing communities living along
the São Paulo, Santa Catarina and Paraná coasts
in order to learn more about their interactions
with the franciscana. Other key activities,
carried out in partnership with GEMARS,
included franciscana aerial survey flights and the
launch of drifters, devices used to monitor sea
currents, and prototypes, used to obtain more
precise estimates of dolphin death-rates.

The drifters and prototypes are launched at sea to simulate the drift of dead franciscana, and the researchers count the number of them that actually reach the beach. This enables them to estimate carcass loss, that is, the number of deceased whales that don't wash ashore.

Also in 2019, FUNBIO posted a series of mini-documentaries on the franciscana to social media, highlighting the importance of the species' conservation from the perspective of those working in the field.

Click here to view the content

The Franciscana Conservation Project is made possible by a Consent Decree with the company Chevron. The agreement was sealed by the Public Prosecutors' Office and is implemented by FUNBIO.



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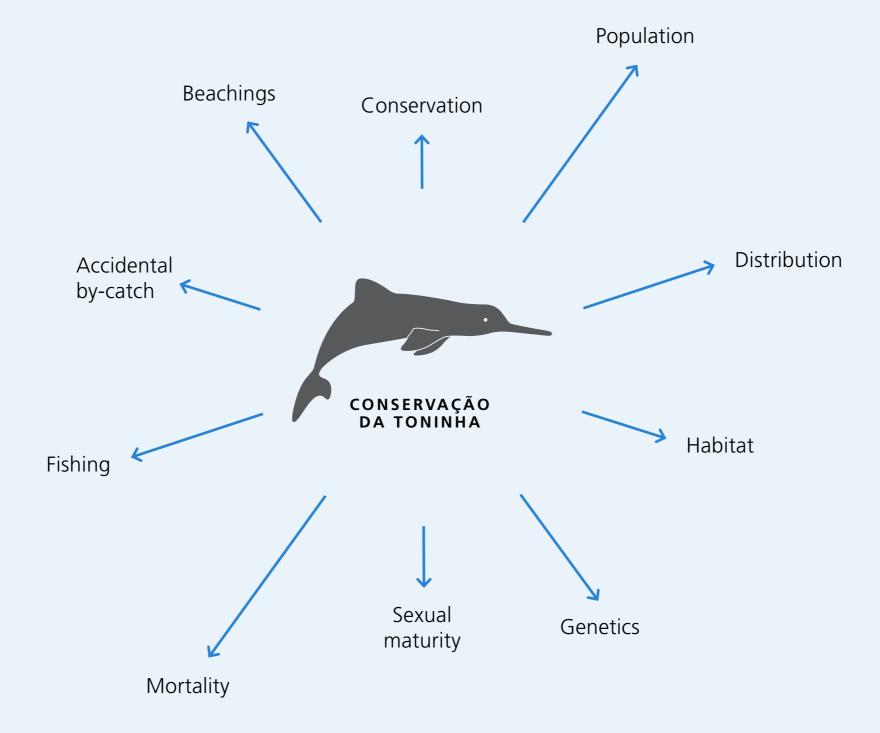
Training in Scientific Communication at FUNBIO HO in Rio de Janeiro. Photo: Thiago Câmara/FUNBIO

## **Franciscana Conservation**

### The largest-ever coordinated project on the franciscana in Brazil

Seldom seen and little known, the franciscana is at the center of the largest coordinated study on the species ever conducted in Brazil. The simultaneous research projects, covering everything from the dolphin's genetics to accidental by-catch, makes the Franciscana Conservation project a once-off opportunity to collect, exchange and cross-reference data and knowledge. The initiative covers the whole geographic range of these cetaceans in Brazil, from Rio Grande do Sul to Espírito Santo, and involves many of the country's leading specialists.

Flyovers at different times of year allow for a more precise population estimate, while a study of teeth from washed up carcasses offers a clearer panorama of the age of dead whales. Researchers are also eager to determine the difference between populations along the coast. These, and other data sets, such as the distribution of males and females, age, and real number of deaths (not just those that are washed ashore), allied with the perception fishermen have of this endangered species, will supply the information needed to draft public policies with a good chance of staving off the franciscana's extinction.











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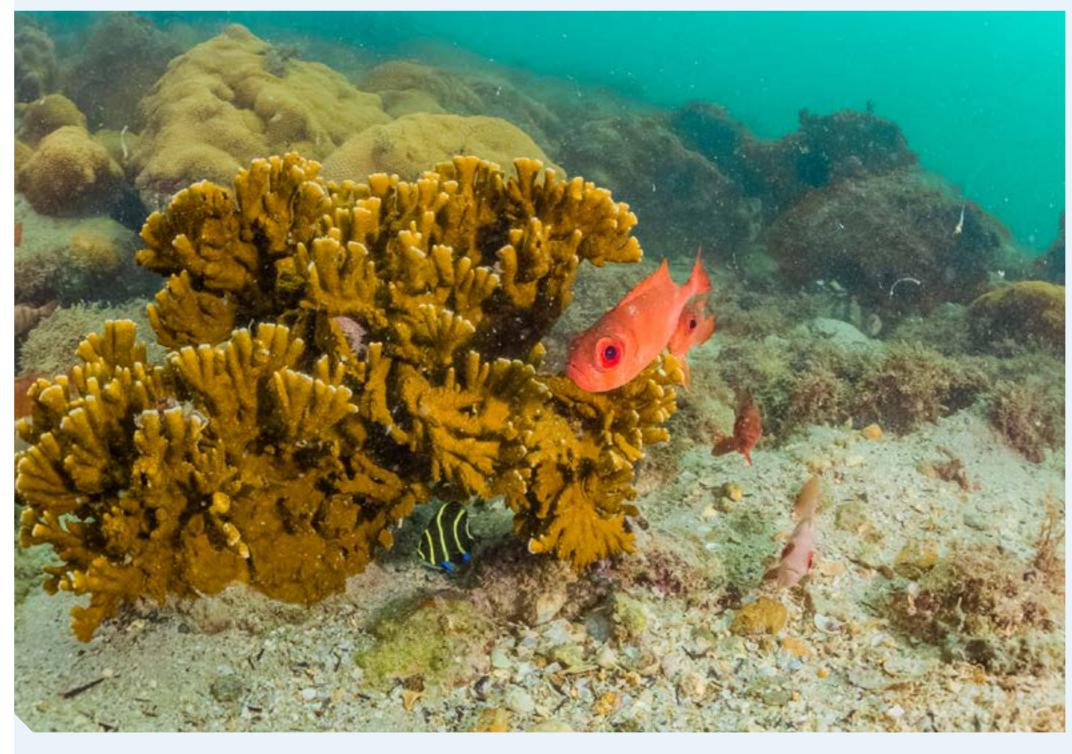




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## **Marine and Fisheries Research**

Support for Marine and Fisheries Research in the State of Rio de Janeiro Project



The Support for Marine and Fisheries Research in the State of Rio de Janeiro Project spans 16 initiatives designed to generate and share scientific knowledge about the biology, ecology and population of species that are important to the state's fishing industry, especially the Brazilian sardine and skipjack tuna, as well as other themes of relevance to the state's marine environment.

In 2019, Rio held the 1<sup>st</sup> Seminar for the Integration of Subprojects, at which representatives from each of the initiatives came together, for the first time, to exchange experiences and present the partial results of their research thus far. It was also an opportunity to identify points of overlap and establish a collaboration network based on mutual support.

Also in 2019, the project extended support to two further initiatives devising mathematical models to simulate the impact of fishing activities on the oceanic and lacustrine environments along the northern Rio shoreline. Once designed, the models will be put to work honing and creating new fisheries policies and management plans.

Still in 2019, the project launched the bimonthly newsletter "Linhas do Mar" (Sea Lines), which is sent out to each of the

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Monitoring on the Marine and Fisheries Research Project, Arraial do Cabo, Rio de Janeiro.

Photo: Moyses Barbosa











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## Marine and Fisheries Research

supported initiatives. The newsletter covers project actions and results and inspiring stories from those on the front line.

The Sea Coral and Eco-Corals projects, both coordinated by the Brazilian Biodiversity Institute (BrBio), reached completion at the end of 2019. The focus was on uniting research and scientific knowledge-sharing through direct interaction with the public organs and schools of the Búzios peninsula and Arraial do Cabo region. The projects' most important contribution was a coral environment biodiversity assessment that proposed methodologies for the removal of the sun coral, an alien invasive species from the Pacific Ocean first observed in Brazil on oil platform undercarriages in the 1980s and now present in the waters off five coastal states. The sun coral is considered a key threat to marine biodiversity, according to a Convention on Biological Diversity (CBD) report.

The realization of the project is an offset measure stipulated under a Consent Decree signed by Chevron with the Public Prosecutor's Office (MPF/RJ) and implemented by FUNBIO.

> Monitoring on the Marine and Fisheries Research Project, Arraial do Cabo, Rio de Janeiro. Photo: Moyses Barbosa

INITIATIVES SUPPORTED

**GRANT-HOLDERS** 

AIDED

16 203 56% 44% 80

**EVENT FOR** 

**PARTICIPANTS** 















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# Support for PAs

Conservation and Sustainable Use of Biodiversity in Federal Coastal and Estuarine Protected Areas in the States of Rio de Janeiro and São Paulo

Supporting the physical structuring of PAs and strengthening the conservation and sustainable use of biodiversity in marine and coastal zones are the key objectives of the project Conservation and Sustainable Use of Biodiversity in Federal Coastal and Estuarine Protected Areas in the States of Rio de Janeiro and São Paulo – PA Support.

In 2019, essential goods and services were acquired for the biannual period 2019/20. Among these important contracts was one for the development of an executive plan for the creation of a trail at the Guapimirim Environmental Protection Area and the construction of a footbridge through a swath of mangrove at the Guanabara Ecological Station, both in Rio de Janeiro. Also commissioned was a project for the installation of a square at the Serra da Bocaina National Park,

To buttress the research activities and the monitoring of ships and boats entering and leaving the Tamoios Ecological Station, a new patrol vessel is being built as a donation to the project.

And, closing the year on a high, new solar-powered electricity generators were installed at the Guanabara Ecological Station and at

located on the Rio/São Paulo border.

the Guapimirim EPA, making both more sustainable.

The initiative is an offset measure established under a Consent Decree with the company Chevron. The deal, which was struck by the Public Prosecutors' Office, is implemented by FUNBIO.



Solar panels at the **Guanabara Ecological** Station. Photo: Maurício Muniz/ **Guanabara Ecological** Station



Ilhas Cagarras Archipelago Natural Monument. Photo: Maurício Muniz/ Guanabara Ecological Station



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BACKING FOR

FFDFRAI PAS

SUPPORT FOR OVER

260

PROTECTED AREAS

**THOUSAND HECTARES OF** 









ANNUAL REPORT FUNBIO 2019 80 Legal Obligations Unit

# **Environmental** Education Rio de Janeiro

Implementing Environmental Education and Income-generation Projects for Improved Environmental Quality at Fishing Communities in the State of Rio de Janeiro

Promoting biodiversity conservation in Rio de Janeiro state's coastal and marine zone, fostering the sustainable use of fisheries resources, and bolstering artisanal fishing practices are the goals that underpin the initiative Implementing Environmental Education and Income-generation Projects for Improved Environmental Quality at Fishing Communities in the State of Rio de Janeiro, a vital contribution to the activity's environmental, social and economic sustainability.

In 2019, specialists hosted a workshop to identify the local demands and define the main lines of

action for the initiative, which will launch three Calls for Projects throughout 2020. The Calls will prioritize ways of strengthening, consolidating and expanding the activities of community organizations representing craft fishermen and women already working inside the territory, and will focus on income generation and improved environmental quality for these communities.

The project is an offset measure established under a Consent Agreement between Chevron and the Federal Public Prosecutor's Office, and financially managed by FUNBIO.

# **RJ Mangroves**

Conservation and Sustainable Use of the Mangroves of Rio de Janeiro State

Set up to protect Rio de Janeiro's terrestrial, marine and coastal wildlife, the project Creation and Maintenance of a Wildlife Rehabilitation Center in Rio de Janeiro State (CRAS) was recently restructured, as there were already similar centers up-and-running. In partnership with PetroRio, a new proposal was designed to support the conservation and sustainable use of the mangrove and wetland ecosystem.

The project's new scope has been submitted to the organs involved in the Frade Oil Field Consent Decree, the Federal Public Prosecutor's Office and IBAMA, Brazil's Environmental Institute. Once approved, a call will be launched for research and community-strengthening project proposals addressing priority needs identified by the National Action Plan for the Conservation of Endangered Species and the Socioeconomic Importance of the Mangrove Ecosystem.

The project is an offset measure established under the FUNBIO-implemented Consent Decree sealed between the oil company Chevron and the Federal Public Prosecutor's Office.

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Ambiental



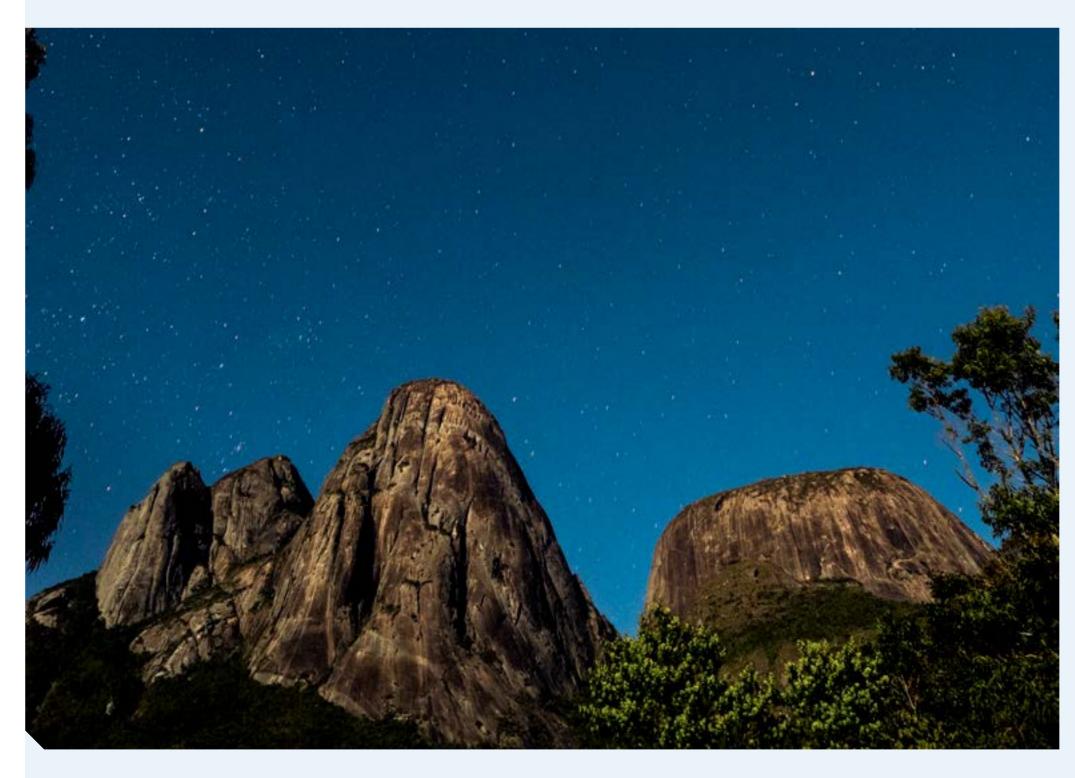






## FMA/RJ

Biodiversity Conservation Mechanism in the State of Rio de Janeiro



The Biodiversity Conservation Mechanism in the State of Rio de Janeiro, known as the Atlantic Forest Fund (FMA/RJ), supports the consolidation of the Rio State Protected Areas system, applying resources deriving from Environmental Offsets, Consent Decrees, Donations, Commitments to Restore Forest and other sources.

The Rio de Janeiro Department for the Environment, present-day Department for the Environment and Sustainability, commissioned FUNBIO to design the mechanism in 2009, on the strength of its prior experience with the Amazon Region Protected Areas Program (ARPA). The mechanism is a unique model for executing Environmental Offset funds and enables the effective, transparent and well-managed application of resources at the state's PAs.

During the nine years FUNBIO was in charge of FMA/RJ's operational and financial management, stewardship plans were devised and revised for each PA, headquarters were renovated

Três Picos State Park, Inea, Rio de Janeiro. Photo: José Caldas/FUNBIO







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## FMA/RJ

**PROJECTS** 

PAS COVERED

**VEHICLES ACOUIRED** 

**220** 

PARK WARDENS TRAINED

SUPPORT FOR

HECTARES

ON-BOARD

ROUGHLY R\$

**MILLION** IN PAYMENTS MADE

Rio de Janeiro and other states had problems getting environmental offsets applied where they were needed. The oil companies and steelworks that make the payments don't have the expertise to build park centers or gatehouses. In fact, they don't have any know-how of interest to Protected-Area managers at all, so the process [of executing environmental offsets] was cripplingly slow".

Carlos Minc — State Secretary for the Environment 2007-2008 and 2011-2014

or constructed, equipment was purchased, such as GPS systems and computers, satellite-imagery was bought and land was regularized, among other benefits. In all, 90 projects were supported at 50 PAs. When FUNBIO departed in 2019, it left behind a fully operational mechanism considered a benchmark in innovation and efficiency.

Also in 2019, final monitoring was conducted on the mangrove recovery projects in Guanabara Bay, designed to restore wetland swaths in Tubiacanga, Ilha do Governador and The Barão de Mauá Municipal Natural Park (MNP), in Magé. In total, 32.5 hectares of mangroves affected by garbage from tidal wash-back and constant oil spills were restored. Among the activities conducted were the construction of fences, planting of saplings, and clean-up of residual waste. The monitoring sorties identified the success of these operations. The FMA/ RJ also supported the creation of a Management Plan for the Barão de Mauá MNP, thus strengthening the PA's administration.

2019 also saw the continuation of the Land Regularization Project, which has rectified the legal status of 6 thousand hectares in state and municipal PAs since the mechanism's creation. Another project underway since the very beginning is the provision of support services to Private Natural Heritage Reserves, a privately-owned Protected Area modality that helps contribute to the conservation of biodiversity throughout the state.

To celebrate the mechanism's success, FUNBIO published the book "FMA/RJ — Fundo da Mata Atlântica: um mecanismo inovador de financiamento da conservação no Rio de Janeiro" (FMA/RJ — The Atlantic Forest Fund: an innovative conservation funding mechanism in Rio de Janeiro). (See box on next page).

The model, the only one of its kind in Brazil, enables funds deriving from environmental offsets to be channeled into Rio de Janeiro's Protected Areas with unprecedented agility. It's a design with the potential to be replicated in other states.

Cunhambebe State Park/Inea, Rio de Janeiro. Photo: José Caldas



From 2009 to 2016, the period covered by the FMA Pact

### FMA/RJ





Management was tough before the Atlantic Forest Fund. A PA has two major expenditure fronts: structuring costs, such as construction of the headquarters, management plan, and acquisition of equipment; and the day-to-day running costs, which are lower, but no less essential to keeping things ticking over. Such expenses can be anything as banal as buying a light bulb, but it's these details that make a PA function. With the Fund, management became more agile and flexible, and we have the autonomy to make decisions, which is fundamental. A park without a HO, or management plan, or manager is a paper park and nothing more, and turning compensation payments into a viable source of funding made it possible to really set these PAs up and equip them to work."

Carlos Dário — Manager of the Desengano State Park since 2015



The definition of the legal instrument allowing private resources to be used for public ends created the framework upon which the FMA/RJ was built. [...] This interpretation was vital in terms of preventing these funds from getting sunk into the public coffers, where they'd probably be earmarked for other purposes, and so never get allocated as originally intended."

André Ilha — Biodiversity and Protected Areas Director at the State Environment Institute between 2009 and 2014



### A one-of-a-kind mechanism, ready for replication

Launched on June 5, World Environment Day, the anniversary of FUNBIO, the book FMA/RJ – Atlantic Forest Fund: an innovative conservation finance mechanism in Rio de Janeiro offers 200 pages packed with results, photos, and testimonials about this creative funding mechanism. Created by FUNBIO in partnership with the State of Rio de Janeiro, it channeled approximately R\$ 300 million in environmental offset payments into state, federal and municipal Protected Areas (PAs), even during times of budget drought

The publication, which is available in digital format, focuses on the period the FMA/RJ pact was in vigor (2009-2016) and how it was designed and implemented. The resources, provided by 99 enterprises, were applied on 90 projects in 50 PAs throughout Rio state. FMA/RJ is a private, publicly-managed financial mechanism that contributed significantly to the maintenance and consolidation of PAs in the State of Rio de Janeiro, strengthening conservation and affording a better experience to thousands of visitors. Designed by FUNBIO, the mechanism is ready for replication in other states.

"FMA/RJ was the first and most successful conservation finance initiative using offset payments in Brazil. Various courts the world over had been looking for just this sort of mechanism, and FMA/RJ provided it by raising over R\$300 million for conservation in offset measures. The model proved enormously efficient in terms of management, with a highly positive impact on protected areas and biodiversity as a whole, and all conducted with transparency and accountability", says Manoel Serrão, FUNBIO's Superintendent of Programs Management.

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# Volta Verde (Green Again)

V

Sapling plantation in Volta Redonda, Rio de Janeiro. Photo: Joaquim Valim



The program Volta Verde (Green Again) – Conserving the Nature of Volta Redonda aims to create a municipal Botanical Garden and expand the greenery around this industrial town 131 km south of Rio de Janeiro. The idea is to improve quality of life and leisure by introducing urban arborization and reforesting the Permanent Preservation Area on the fluvial island of São João.

The initiative is executed in partnership with the Volta Redonda Department for the Environment and is financed through a Consent Decree sealed between the Federal

and Rio State Public Prosecutors' Offices, Volta Redonda City Hall and FUNBIO.

In 2019, a Cooperation Agreement was signed between Volta Redonda City Hall and FUNBIO, establishing the roles of both parties. That same year, once the Operations Manual was approved and the governance structure and purview established, the necessary equipment was purchased and delivered, including diggers, trucks and vehicles, computers, uniforms and a GPS system. Also delivered were two thousand of the 15 thousand saplings to be acquired by the end of the project.

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# Windows onto the Restinga de **Bertioga State Park**

# Caçapava TAJ

Environmental Offset in Cash for the Aerovale Undertaking in Caçapava/SP

Supporting sustainable alternatives that improve quality of life and boost incomegeneration for the communities living in the environs of the Restinga de Bertioga State Park in São Paulo is the core objective of the project "Windows onto the Restinga de Bertioga State Park".

The project is executed in partnership with the Foundation for Forest Conservation and Forestry Production in São Paulo State (Florestal), and is financed through a Consent Decree signed between the company L. Figueiredo Empreendimentos Imobiliários Ltda., and the Federal Public Prosecutors'

Office (MPF). FUNBIO is the financial and operational manager.

In 2019, the Florestal Foundation and FUNBIO celebrated a Cooperation Agreement that establishes the duties and commitments of each party. An Operations Manual was drafted, setting forth the rules to be followed, activities pursued and publics benefitted. Among the targets set is the training of members of the community interested in working with community-based tourism, beekeeping/honey production and the processing of non-timber forest products, the market potentials of which will also be gauged by the project.

Begun in 2016 and completed in 2019, the project Environmental Offset in Specie for the Aerovale Undertaking in Caçapava/SP executed resources provided under a Consent Decree for offset measures in Caçapava, a municipality 120 km north of São Paulo city.

The initiative financed the creation of management plans for two Protected Areas (PAs) in the vicinity: the Serra do Palmital Environmental Protection Area and the Mata da Represa Wildlife Reserve. While drafting the plans, a survey was conducted on the main socio-environmental characteristics of the region and a participative planning

workshop was held with the community in order to discuss and establish norms, territorial ordinance and the management programs for the PAs.

The management plans were approved on February 7, 2019 through Caçapava Municipal Decree nº 4.359.

The payment of the funds was agreed as part of a Consent Decree between the State of São Paulo, C.E.A. - Centro Empresarial Aeroespacial Incorporadora Ltda., and Penido Construtora e Pavimentadora Ltda., with FUNBIO as financial and operational manager.

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SDG







# Spix's Macaw in the Wild

Spix's macaw (Cyanopsitta spixii) at the Environmental Protection Area in Juazeiro, Bahia. Photo: Renato Falzoni/Save Brasil

Native to the Juazeiro and Curaçá region of northern Bahia, the Spix's macaw (*Cyanopsitta spixii*), endemic to the Brazilian Caatinga, was all but driven into extinction by man. The last known specimen flying free in Brazil disappeared in October 2000, the very year it was classified as critically endangered (CR) and possibly extinct in the wild (EW) by the International Union for the Conservation of Nature's Red List of Threatened Species, leaving only a handful remaining in captivity, mostly abroad. Most of the birds have already been repatriated, as part of the effort to reintroduce the species into the wild.

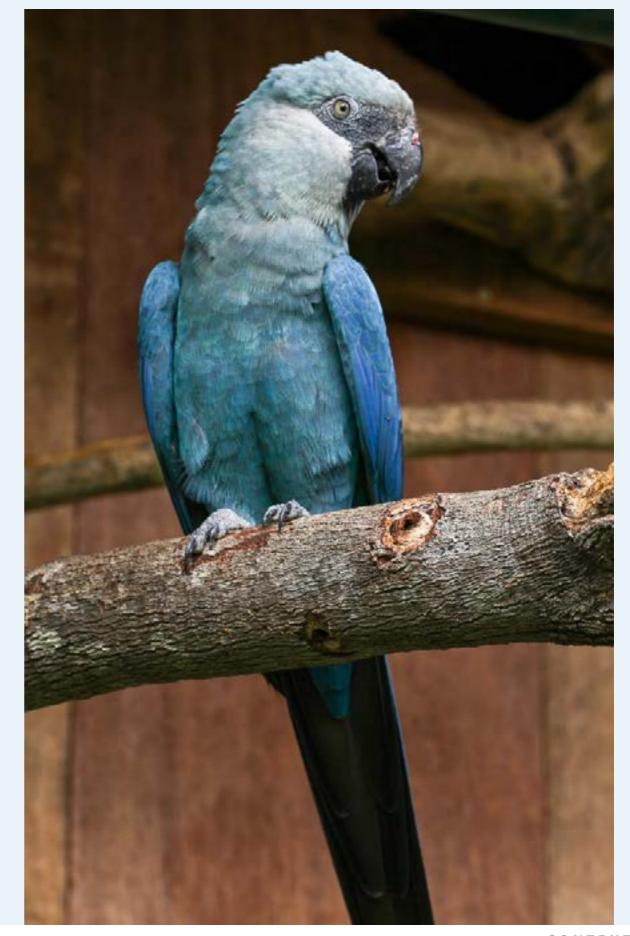
The Spix's Macaw in the Wild project, part of the Brazilian Fauna and Fisheries Conservation Portfolio, a financial mechanism created by FUNBIO, was able to count on the ICMBio, Ibama, Federal Public Prosecutors' Office, SAVE Brasil, the Fazenda Cachoeira Rookery and Instituto Arara Azul as partners—a fruitful blend of governmental, non-governmental, business, and communitarian efforts. The company Vale partnered the initiative with a donation.

With the Spix's macaw as a banner, 24 meetings where hosted in 2019 with students, volunteers from the ICMBio, and representatives from the Curaça administration.

In January, training was administered to boost job creation through activities related to community-based tourism. One of the modules delivered was an introductory bird-watching course. A guide to the birds of the Wildlife Reserve and Environmental Protection Area was launched in May to encourage birdwatching tourism in the area.

Also in 2019, a house was renovated and equipped to accommodate volunteers and serve as a HQ for engagement and environmental education activities in the Curaça region.

The Spix's Macaw in the Wild project wrapped up its activities in 2019, though its actions will continue to contribute to the bird's return to its homeland, with its reintroduction planned for 2021. Then, if all goes to plan, we shall it see fly once again above the backlands of Bahia.

























ANNUAL REPORT FUNBIO 2019 88 Special Projects Unit

# **Project K**

Knowledge for Action

**FUNDS** SUPPORTED 28

BENEFITTED

MENTORSHIPS STUDIES ON INNOVATIVE FINANCIAL **MECHANISMS** 



Project K (Knowledge for Action/Conhecimento para Ação), begun in 2015, came full circle during a RedLAC (the Latin American and Caribbean Network of Environmental Funds) Assembly at the end of 2019. The project's aim was to strengthen the 42 funds from 28 countries that make up RedLAC (24 funds) and its sister organization the Consortium of African Environmental Funds – CAFE (18).

The initiative was financed by the French Global Environment Fund (FFEM), the MAVA Foundation and the Global Environment Facility (GEF), through the UN Environment Programme. FUNBIO was the project's technical and financial manager.

Project K was divided into four components:

- 1 innovation in financial mechanisms;
- 2 training, supervision and interchange;
- 3 communication and databases; and
- 4 institutional strengthening.

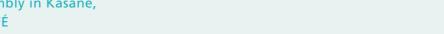
In addition to support for innovation and fundraising, the project offered mentorship, set up workshops and work groups, provided consultancy for the development of monitoring plans, including indicators, and designed approaches for financial sustainability.

In 2019, with a view toward synthesizing and sharing knowledge amongst the member funds, Project K launched the Environmental Funds Network Knowledge Platform, proyectok.org (proyectok.org). The content, available in English, Spanish and French, provides a rich database of solutions which the supported Funds have tried and tested. Highlights are the six case studies on pilot financial mechanisms, 7 case studies on mentorship pairings among 18 funds, and 3 primers deriving from 4 workshops.

In addition to the materials available on the website, the private intranet hosts internal studies exclusive to the Network's member funds. The standout here is the financial sustainability and monitoring plan. The Intranet also enables members to create profiles and join forums and document-exchange groups.

Also in 2019, RedLAC worked to strengthen itself institutionally, hosting a workshop to draft its RedLAC 2020-2024 strategic plan, and publishing a book to celebrate the Network's 20<sup>th</sup> anniversary.

Field visit, CAFÉ Assembly in Kasane, Botswana. Photo: CAFÉ





SDG













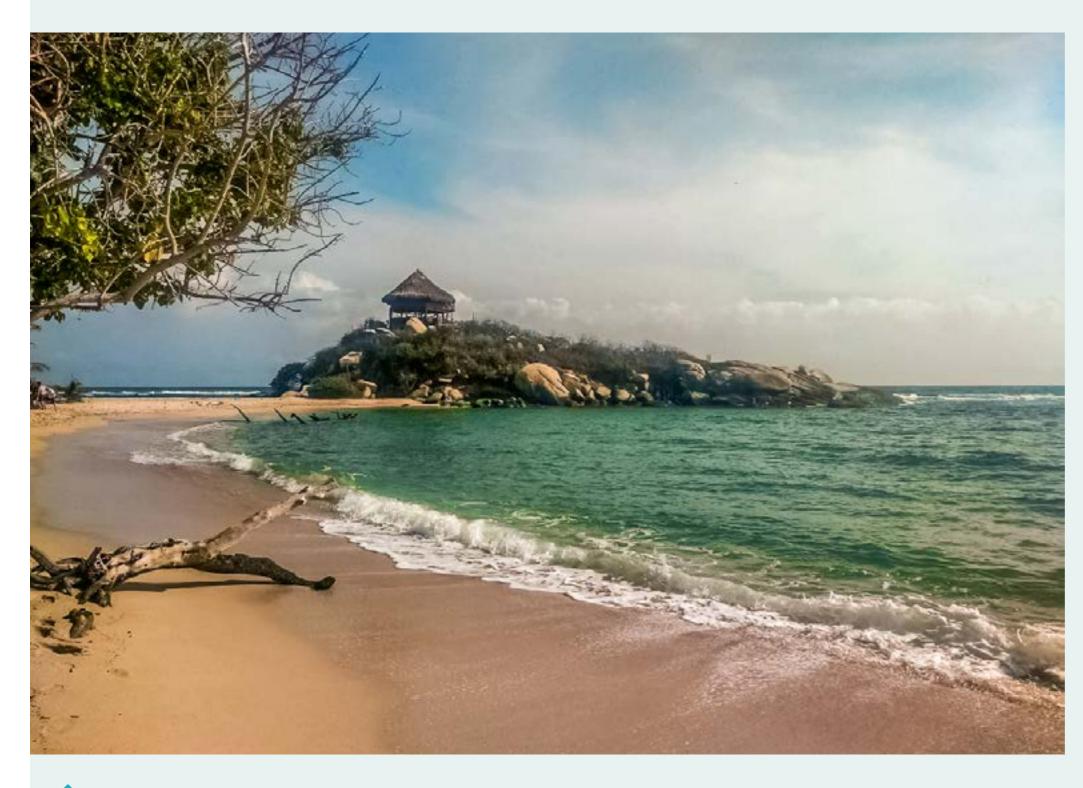




Special Projects Unit

# **Colombia Project**

Financial Strategy for Protected Areas in Colombia



FUNBIO's experience in projects and strategies for funding biodiversity conservation reached Colombia: between 2017 and 2019, we took part in the creation and design of a costs funding strategy for a considerable suite of protected areas in the world's second most biodiverse nation, pipped for the crown only by Brazil.

The Herencia Colombia (HECO) program helped the country reach its international targets for conservation and the expansion of its protected area system. The initiative integrated landscapes by designing and implementing a long-term funding strategy that included all the Federal PAs, some regional PAs and a number of productive landscapes. In the long run, HECO aims to create strategies to take over 100% of the maintenance costs of these PAs and productive landscapes through multiple strategies, including a fund of its own along the lines of Brazil's Amazon Region Protected Areas Program (ARPA). The costs model devised by FUNBIO gives the Colombian government the wherewithal to estimate how much it will cost to create, consolidate and maintain the suite of PAs.

In 2019, the project, conducted in partnership with the consultancy GITEC, reached completion, with the consolidation of the results and the training of local partners, governmental organs and civil society organizations in the use of the model, based on a detailed application manual developed to internalize the tools created by local agents.

Tav

Tayrona National Natural Park, located in Santa Marta, Colombia. Photo: Leonardo Bakker







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## **Pro-Species**

National Strategic Project for the Conservation of Endangered Species



Brazil's bountiful flora and fauna make it the most biodiverse country in the world. But there are warning signs: over three thousand species are currently known to be at risk of extinction, with at least 290 of those listed as critically endangered (CR). Worse, most of these are not covered by National Endangered Species Plans (PANs) and do not live inside Protected Areas. These plants and animals are the focus of the National Strategic Project for the Conservation of Endangered Species – Pro-Species, an initiative that has the development of National Endangered Species Plans as its core strategy. The knock-on effect of recovering and protecting these species has the potential to benefit more than 2,500 others.

The project works in tandem with 13 Brazilian states (Maranhão, Bahia, Pará, Amazonas, Tocantins, Goiás, Santa Catarina, Paraná, Rio Grande do Sul, Minas Gerais, São Paulo, Rio de Janeiro and Espírito Santo) to devise conservation strategies across 24 territories, totaling nine million hectares in all.

The initiative was initially implemented by the FUNBIO GEF Agency in partnership with the

Killfish, Austrolebias univentripinnis, endangered freshwater fish. Photo: Matheus Volcan/WWF Brasil



PARTNERS

















290 SPECIES DIRECTLY BENEFITED FROM THE PLAN

STATES

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# **Pro-Species**

### Da poluição à coleta ilegal, uma trilha de riscos

### Pian at risk

Brazilian Institute for the Environment and Renewable Natural Resources (IBAMA), the Botanical Gardens of Rio de Janeiro, the Chico Mendes Biodiversity Conservation Institute (ICMBio) and the Ministry for the Environment. The Global Environment Facility (GEF) is the project's donor and WWF-Brazil, its executor.

In 2019, as part of the species conservation strategy, two new National Action Plans were drafted, and a further six are under development. These plans will cover 48 of the 290 critically-endangered target species. The result saw the project exceed its goal of protecting 40 species by the end of 2020.

The same year, the initiative implemented conservation instruments across 3.78 million hectares under the Southern Tableland and Endemic Endangered Flora of Rio de Janeiro National Action Plans. Also in 2019, to broaden access to the project's information, two new channels were opened: a monthly digital news bulletin and a website (proespecies.eco. br), which hosts project-related documents and news.



Pian (*Leporinus pitingai*), species endemic to Amazonas. Photo: José Luís Olivan Birindelli/WWF Brasil Leporinus pitingai, endemic to Brazil, is an Amazonian species found in an isolated stretch of the Pitinga rapids, located between two hydroelectric stations, the Balbina and Pitinga, in the Uatumã River Basin, Amazonas State. Known locally as the aracu, this fish is listed as Critically Endangered because of the frequent alterations to its limited habitat.

Scientific name: *Leporinus pitingai* 

Common names: aracu, pian

Family: **Anostomidae** 

Risk classification:

Critically Endangered (CR) – MMA Dispatch n° 445/2014

Range: Pitinga River, Uatumã River Basin, Amazonas State

Endemic to Brazil: yes

Threats: continual alterations to habitat quality

Source: Livro Vermelho da Fauna Brasileira Ameaçada de Extinção (The Brazil Red Book of Threatened Species of Fauna), ICMBio Vol. VI Peixes, 2018, p. 45-47

### A victim of its own beauty



Bromélia (Aechmea winkleri), species endemic to Rio Grande do Sul. Photo: Luiz Filipe Klein Varella/WWF Brasil Endemic to Rio Grande do Sul, in southern Brazil, Aechmea winkleri is listed as Critically Endangered (CR). The species is frequently extracted for its ornamental value.

Scientific name: Aechmea winkleri Reitz

Common name: **none**Family: **Bromeliaceae**Risk classification:

Critically Endangered (CR) – MMA Dispatch n° 444/2014

Range: Rio Grande do Sul (RS)

Threats: **extraction (non-timber)** 

Source: Livro Vermelho da flora do Brasil (Brazilian Red Book of Endangered Flora). Text and organization: Gustavo Martinelli;

Miguel Avila

SDG









### **Credits & Acknowledgements**

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Visit the FUNBIO website

### **CREDITS**

#### Cover

Ringed kingfisher (*Megaceryle torquata*) at the Viruá National Park/ICMBio in Roraima. Photo: Victor Moriyama/ FUNBIO

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Craftswoman at the Amanã Sustainable Development Reserve/SEMA-AM, Amazonas. Photo: Victor Moriyama/ FUNBIO

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### Line 1, from left to right

Francinalda Maria Rodrigues da Rocha, coordinator of the Active Island Commission. Photo: Marizilda Cruppe/FUNBIO

Pedro Barbosa das Neves (right) and Odilon Pereira, park warden. Photo: Marizilda Cruppe/FUNBIO

Elizabete Nobre, one of the founders of the Women Producers of Pajeú Network. Photo: Vilzoneide Batista/ Backland Women Project.

### Line 2, from left to right

Southern muriqui (*Brachyteles arachnoides*). Photo: Marizilda Cruppe/FUNBIO

Women babassu breakers. Photo: Association of the Interstate Movement of Babassu Breakers.

Pedro Soares, camp monitor/research assistant with the Pro-Muriqui Association. Photo: Marizilda Cruppe/FUNBIO

### Line 3, from left to right

Anizio Antonio da Silva, farmer. Photo: Marizilda Cruppe/ FUNBIO Roseane de Sousa Santos, shellfisher, Parnaíba Delta, Piauí. Photo: Marizilda Cruppe/FUNBIO

Sítio do Meio Ranch, Ingazeira, Pernambuco. Photo: Marizilda Cruppe/FUNBIO.

Rogério Cunha de Oliveira, fisherman, Parnaíba Delta, Piauí. Photo: Marizilda Cruppe/FUNBIO

Maria do Socorro Nogueira Lima, farmer, Parnaíba Delta, Piauí. Photo: Marizilda Cruppe/FUNBIO

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Dragonfly at the Amanã Sustainable Development Reserve/ SEMA-AM, Amazonas. Photo: Victor Moriyama/FUNBIO

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Experiment to determine the real number of dead franciscana that reach the coast. Photo: GEMARS

Surveillance flight over Espírito Santo. Photo: GEMARS

Monitoring in Rio Grande do Sul, Franciscana Conservation Project. Photo: FUNBIO

Researchers collect franciscana samples in Rio Grande do Sul. Photo: EcoMega image bank

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Sierra de la Macarena Protected Area, Meta, Colombia. Photo: Andres Hurtado/National Natural Parks of Colombia

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Marsh deer (*Blastocerus dichotomus*), an endangered species. Photo: FUNBIO

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