

2023

ANNUAL  
REPORT





*The year 2023 was highlighted by the results of a new census of golden lion tamarins (GLTs) in the wild. As an organization that carries out actions around the central objective of ensuring the survival of the species and, with it, the Atlantic Forest it inhabits, seeing the number of tamarins grow in the forest is an indication of our success.*

*This great result, however, does not allow us to relax in the face of the mission that still lies ahead. The estimate of 4,800 tamarins, the largest ever recorded, is undoubtedly an important achievement and one that should be celebrated. Especially considering that in the 1970s the species was on the brink of extinction, with only a few hundred individuals in the wild. Despite this good news, we still do not have enough connected forests in the region to ensure the long-term survival of GLTs. Connectivity and restoration, therefore, are keywords guiding our work.*

*In this sense, in 2023 we went beyond planting trees and carried out an innovative project to enrich the young native forests with epiphytes, air plants such as bromeliads and orchids, which use trees as support. These plants provide food, water and shelter for native fauna, including the GLTs, and they help develop and accelerate the ecological recovery of these young forests. This pioneering action further consolidates AMLD's role at the forefront of the restoration agenda in Brazil, especially in the Atlantic Forest.*

*The past year was also one of consolidation of the Golden Lion Tamarin Ecological Park, which increased its number of visitors and the participation of the local community in our conservation actions.*

*Not all horizons, however, brought good news and solutions to problems. In the same year that we celebrated the largest number of GLTs ever recorded, we also noted the resumption of an historic threat to the species: wildlife trafficking. With two cases of GLTs seized in the neighboring country of Suriname, and many live-traps found by our staff in the region where we work, criminal trafficking, which was considered under control in recent decades, is once again proving to be a serious threat to GLT conservation. Social engagement and raising public awareness, on the part of AMLD, and investigation and prosecution, on the part of Brazilian government authorities, will have to be priority actions in the coming years.*

*Just as the species demonstrated by recovering from the yellow fever crisis of 2018, working with conservation requires resilience. The numbers show that we are on the right track, but there is still a lot to do!*

*We thank everyone who supported us in 2023 and who continues by our side, resilient and determined, so that we can guarantee the future of GLTs in the wild!*



*Luís Paulo Ferraz  
Executive Secretary of AMLD*



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## In Memory of Jennifer Mickelberg



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In 2023, the fight to conserve GLTs lost a great ally with the death of Jennifer Mickelberg, from Zoo Atlanta, in the United States. Jennifer worked with GLTs for over 20 years, was a member of AMLD and a board member of the U.S. organization Save The Golden Lion Tamarin, as well as a great friend and partner. A scientist, she was responsible for the genetic management of the tamarin population in zoos around the world, essential work to safeguard the future of the species. After all, captive-born GLTs were reintroduced into the wild in the past and this can be done again if necessary. Jennifer actively participated in AMLD's strategic planning every year for decades. Her work setting conservation goals for GLTs continues to be a guiding star for our team. Here we honor and thank her once again for all her dedication to nature conservation. Soon, the Association will plant a new forest corridor in her name.

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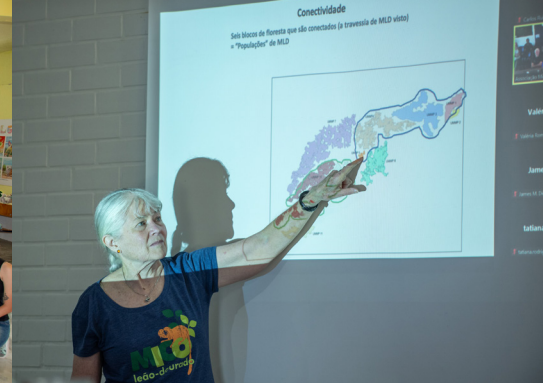
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# New census of the species

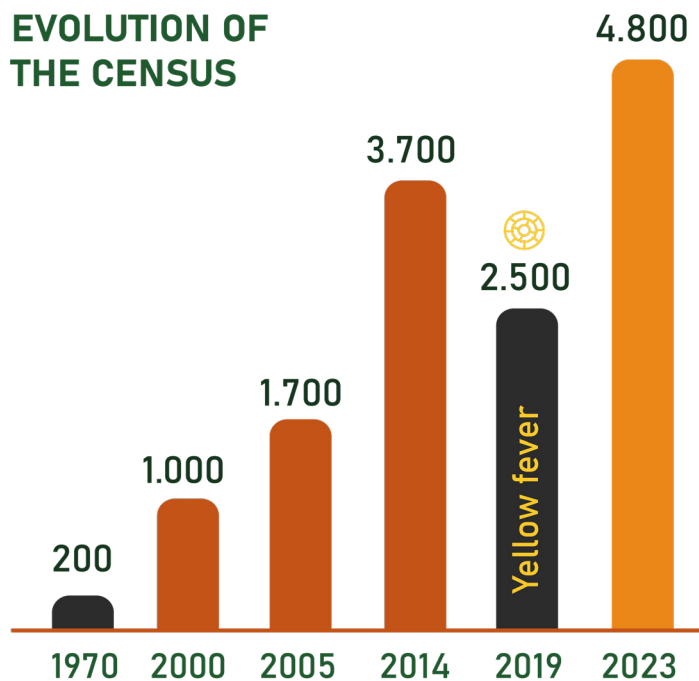
In 2023, one of the main highlights of AMLD's work was publication of the results of the new population census of GLTs, which estimated 4,800 individuals in the São João River Basin region. This number, the largest ever recorded, shows the resilience of GLTs as their populations rapidly recover from steep losses to yellow fever in 2017-2018.

The announcement of the census results was made on August 2, International Golden Lion Tamarin Day, in an online event on the AMLD YouTube channel. The live event was presented by the executive secretary of AMLD, together with

researcher James Dietz, vice president of Save The Golden Lion Tamarin (SGLT), responsible for analyzing the population census data and professor Carlos Ruiz, president of the AMLD board of directors. The event also included Rita Mesquita, National Secretary for Biodiversity, Forests and Animal Rights, Ministry of the Environment and Climate Change. The census results were reported in national and international news media.

AMLD systematically monitors the status of GLTs in nature. Over the past four decades, numbers have tended to increase, reaching 3,700 individuals in 2014.

## EVOLUTION OF THE CENSUS



In 2018, however, an emergency survey carried out by AMLD following an unprecedented outbreak of yellow fever recorded the first population drop since the start of the species' conservation program, with an estimated 2,500 tamarins. The reduction of a third of the population in only a few months motivated the development, testing and implementation of a pioneering vaccination campaign.



**396 / 500**  
Total of tamarins vaccinated

## VACINAÇÃO

Beginning in 2020, AMLD's Meta-population team has been coordinating efforts to immunize GLTs against yellow fever. At the end 2023, the total number of vaccinated tamarins reached 396. The objective is to immunize 500 individuals or more to guarantee a viable wild population in the event of a new and more severe outbreak of the disease. The vaccination campaign will continue next year to reach (or exceed) the target. The vaccination work is the result of a joint effort involving AMLD, Fiocruz, the ICMBio Primate Research and Conservation Center, the Rio de Janeiro Primatology Center / INEA and the Norte Fluminense State University.

The GLT census aimed to assess how the tamarin population was doing following losses to yellow fever. The record number of 4,800 individuals was an excellent demonstration of the primate's resilience. In Poço das Antas Biological Reserve, for example, the number of GLTs fell from 380 to just 32. The new census shows recovery in the reserve, with 338 tamarins estimated within the protected area, which is close to the level before the disease outbreak. This recovery was not due to reproduction alone. Tamarins from adjacent forests must have migrated into the Reserve, which indicates that the GLT metapopulation is functioning as we had hoped.

Furthermore, the census revealed the expansion of tamarin populations in AMLD's geographic scope. Four large areas of forest that previously had no or few individuals were colonized and now have large GLT populations.

AMLD's objective to free GLTs from the risk of extinction requires a population of at least 2,000 tamarins in protected and connected forest--an area of at least 25,000 hectares. Although the total number of tamarins is greater than the target, there is still no single forest area large enough to house at least two thousand GLTs. Tamarin populations are isolated in forest fragments that are still too small to guarantee their long-term survival. Therefore, despite the good news from the census, there is still a lot of work ahead

to overcome the threat caused by forest fragmentation. That is why it is so important to restore lowland Atlantic Forest and connect fragmented forest remnants.

The priority geographic scope of AMLD's conservation program – and the GLT census – is concentrated in the São João River Basin, in the interior of the state of Rio de Janeiro, mainly in the municipalities of Rio Bonito, Silva Jardim and Casimiro de Abreu. A small area of the Macaé River Basin was also included in the survey. There are a few small populations in isolated fragments outside AMLD's scope, but with low long-term viability.



## How was the census carried out?

The census work began in 2022 and was completed early in 2023. It took around 9 months of fieldwork by AMLD's Metapopulation team. This team, made up of experienced professionals, some with almost 40 years of experience monitoring GLTs, received reinforcements for this daunting task.

To estimate the number of GLTs in an area, the AMLD team used a playback technique in which recorded GLT vocalizations were played using a special loud speaker. The team noted the number of GLTs that vocalized and/or approached in response to the playback.

The number of GLT detections obtained and the available forest in each of the sampling areas were used to estimate the number of GLTs in the area. In total, 52 quadrats were mapped and censused. Small quadrats were 48 hectares (119 acres), large quadrats were 120 hectares (297 acres) – some of them in remote areas that are rarely accessed in the Association's day-to-day activities.

In light of our new understanding of GLT population sizes and locations, it was necessary to review our strategies, priority actions and goals to guarantee effective conservation of the species. To this end, in August 2023, AMLD conducted an extensive workshop that included the participation of representatives from local municipi-

ties, ICMBio, zoos in Brazil and abroad, our partner organization Save The Golden Lion Tamarin, as well as the entire AMLD team. Participants reviewed the results of work carried out and discussed revisions to AMLD's conservation goals and strategic plan to keep GLTs from extinction.





## THE RETURN OF TRAFFICKING

An historical threat to GLTs, wild animal trafficking, has once again complicated our work to remove the species from the risk of extinction. In 2023, AMLD field teams and local partners discovered and destroyed a total of 31 live-traps set to capture GLTs in our geographic scope. This criminal activity was reported to ICMBio and the Federal Police, agencies responsible for monitoring and combating this kind of environmental crime. Confirming our suspicion that trafficking had resumed, a total of nine GLTs were confiscated by authorities in Suriname, a neighboring country, revealing a well-funded international trafficking route. Of these, seven GLTs were successfully repatriated by the Brazilian government and two others died in Suriname.

In the past four decades, trafficking was greatly reduced due to long-term education and social awareness efforts. However, the more recent cases document that well-financed criminal trafficking in GLTs is on the rise – a scenario of great concern. AMLD has maintained constant contact with the Brazilian authorities to support their investigation and help in the fight against trafficking.



## Zoos around the world and integrated management of ex situ populations

Ex situ populations, that is, those maintained outside the species' natural environment, mainly in zoos or research institutions, play an important role in the conservation of threatened species. It's no different with GLTs. If necessary, these populations maintained under human care can serve as a guarantee or "backup" for the wild population, through reintroductions of captive-born GLTs, such as those carried out between 1984 and 2001, when the species was on the brink of extinction in nature. Heavy losses to yellow fever demonstrated the vulnerability of the species, and the need to have an adequate ex situ population in case of new tragedies.

Furthermore, animals kept in zoos play an educational and "ambassadorial" role, giving people all over the world the opportunity to see GLTs up close, and learn about them in one of the zoos that keep the species.

Currently, GLTs are found in 167 zoos in North America, Europe, Brazil and Australasia (Australia and New Zealand). To keep these animals demographically and genetically healthy, this population is managed globally with a size limit capped at around 500 individuals. At present, the ex situ population is comprised of 514 individuals, 105 of which

are in 15 institutions in Brazil. All GLTs, regardless of location, are owned by the Brazilian government, under the coordination of ICMBio, the federal agency responsible for wildlife management.

The GLT population maintained under human care is part of the National Action Plan (PAN) for Endangered Primates of the Atlantic Forest, in addition to being one of the strategies in AMLD's strategic plan to guarantee the survival of the species.

The strategic planning workshop held in August 2023 was attended by the national studbook keeper for GLTs, Mara Marques, from the São Paulo Zoo, and international studbook keeper, Jennifer Mickelberg, from Zoo Atlanta in the United States. With great sadness, AMLD received news of Jennifer's death less than three months later. The process for selecting a new international studbook keeper will be completed in early 2024. Many counselors from Save the Golden Lion Tamarin (SGLT) also participated in the planning workshop. One of the topics discussed during the workshop was the development of a proposal for the Golden Lion Tamarin Integrated In-situ/Ex-situ Management Plan, for analysis and approval by ICMBio.

## Connectivity and Ecological Restoration of the Atlantic

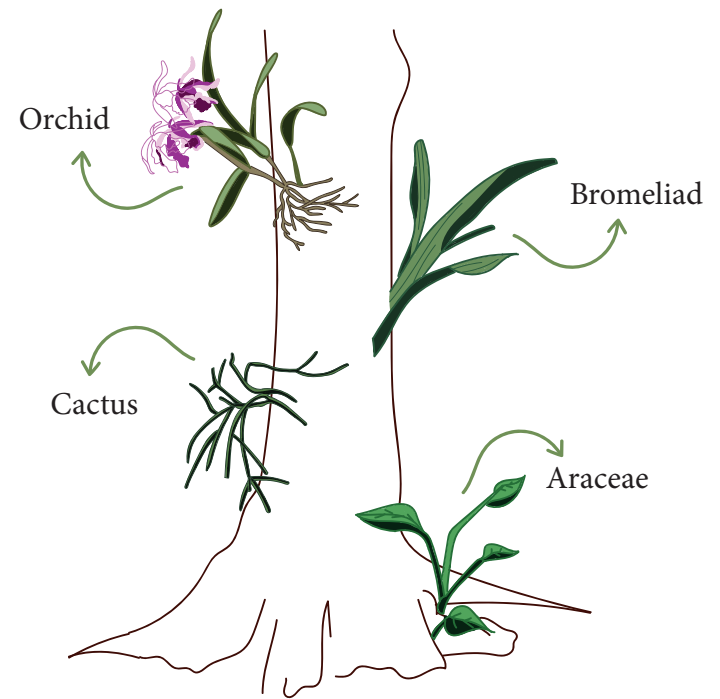
Restoration of the Atlantic Forest, one of the most threatened and biodiverse biomes in the world, is one of the priority actions in AMLD's strategic plan for conservation of GLTs. Over the years, the Association has initiated restoration of over 440 hectares of Atlantic Forest in the São João River Basin, in the state of Rio de Janeiro. In 2023, AMLD carried out an innovative project: the reintroduction of 62 thousand epiphyte seedlings to enrich areas undergoing ecological restoration in the São João River Basin.

Epiphytes are a hyperdiverse and abundant group of plants that develop on trees and shrubs in neotropical forests, using them as support only, without removing nutrients or causing damage. Examples include species of bromeliads, orchids and cacti. Even in successful restoration plantations, it takes many years for these non-tree species typical of the Atlantic

Forest to return. Enrichment with epiphytes aims to accelerate this process.

The project "Reintroduction of vascular epiphytes as a forest restoration strategy in the Atlantic Forest" was born with this objective and is being developed within the scope of the Biodiversity and Climate Change in the Atlantic Forest Project. This initiative of the Brazilian government is coordinated by the Ministry of the Environment (MMA), in the context of the Brazil-Germany Cooperation for Sustainable Development, within the scope of the International Climate Protection Initiative (IKI) of the Ministry of the Environment, Protection of Nature and Nuclear Safety of Germany (BMU), with financial support from KfW Entwicklungsbank (German Development Bank), through the Brazilian Biodiversity Fund – FUNBIO.

Reintroduction of epiphytes was the re-



sult of cooperation among researchers from Embrapa Agrobiologia, UFRRJ and UENF, and AMLD nursery partners in the surrounding communities, who collaborated to develop innovative protocols for reintroduction of each species in restored Atlantic Forest.

The enrichment aims to increase species abundance and biodiversity by introducing seedlings of key species from four families: Araceae, Cactaceae, Bromeliaceae and Orchidaceae. These plants play an important role in ecosystem functions in areas of great biological relevance. The species were chosen based on

surveys in herbarium databases, identifying those with the highest occurrence in the São João River Basin region.

Due to the innovative nature of the project, an experimental planting of epiphytes was done in two restored areas with different characteristics, and monitored monthly for a year. In July, a workshop was held to analyze monitoring data and to develop protocols for producing epiphyte seedlings in nurseries and for planting. With this information, the expectation is that the initiative can be replicated in other places in the Atlantic Forest.





Between the months of August and November, 62 thousand seedlings of epiphytes native to the Atlantic Forest were planted across 150 hectares of areas in different stages of restoration within the Rio São João/Mico-Leão-Dourado Environmental Protection Area (APA). The target areas that received the epiphytes were: the GLT Ecological Park; the Poço das Antas and União biological reserves; and the Quero-Quero Private Natural Heritage Reserve (RPPN). In addition, planting was also done in the forest corridor that connects the GLT Ecological Park with Poço das Antas Reserve.

In April, AMLD inaugurated the Epiphyte Trail in the GLT Ecological Park, with interpretive signage to inform visitors of the importance of these plants. A booklet was produced to inform park visitors about the species of planted epiphytes. The document is available on the AMLD website.

In December, a report on the initiative was presented at the Reconectando Florestas symposium, in Porto Seguro, Bahia. The event brought together the ten projects supported by the Biodiversity and Climate Change in the Atlantic Forest Program to promote exchange among initiatives, all aimed at restoring the Atlantic Forest.

The year 2023 also marked the opening of a new reforestation initiative by AMLD: the purchase of Fazenda Perdida ranch in

October. The property is adjacent to the GLT Ecological Park and, after purchase, nearly doubled the park's size. In total, the ranch is 180 hectares, with around 150 hectares of pasture that will be restored to forest by AMLD in the coming years. The purchase was made possible with assistance from Lookfar Conservation and a donation from a Swiss organization, the Irene M. Staehelin Foundation. In addition to restoring Atlantic Forest on the property, the expectation is to create a reference center for forest restoration there.

In November, the Association began planting a forest corridor on the property, with support from the Darwin200 initiative. The actions were carried out over the course of a week and included voluntary support from students from schools in the region, ICMBio Brigade members and the Darwin200 project team. Around 2,500 locally-sourced native-tree seedlings were planted, representing just the beginning of the restoration work necessary to bring the Atlantic Forest back to the Fazenda Perdida landscape.

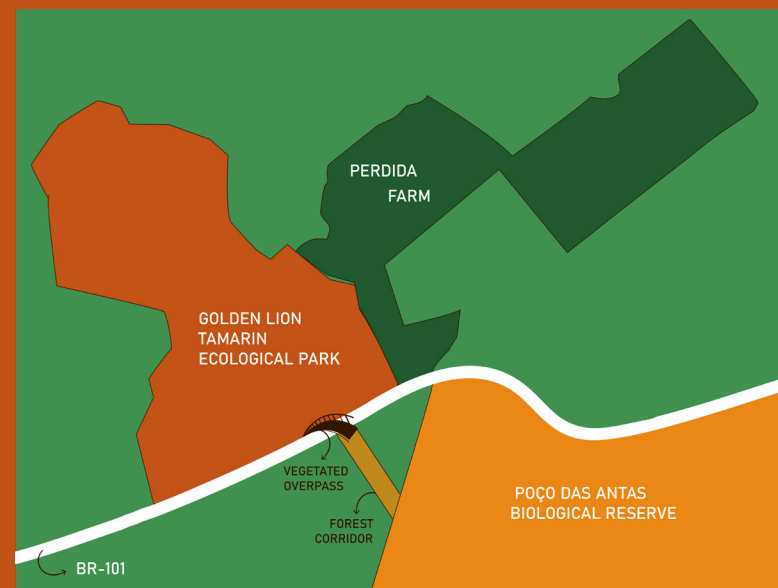
Also in 2023, AMLD planted one hectare of cattle pasture in native-tree seedlings in partnership with Earth Day. Two other symbolic plantings were carried out with voluntary support from the community, especially schools in the region: one on Atlantic Forest Day, May 27th, and another on Arbor Day,

September 21st. In total, around 200 seedlings were planted at these events. WOn another front, AMLD reinforced the actions of the Pact for the Restoration of the Atlantic Forest. The Association is one of the Regional Units of the Pact and, in October, participated in a meeting in

Santa Catarina along with eleven other units, from eight Brazilian states. The event consolidated the exchange of experiences, collaboration and learning among the different initiatives that seek to bring back the biome's forests in the country.

## New horizon of restoration!

In October 2023, the Mico-Leão-Dourado Association completed the purchase of Fazenda Perdida, neighboring the Golden Lion Tamarin Ecological Park, in Silva Jardim. There are 180 hectares, 150 of which are pasture. Forest restoration on the property will expand the tamarin habitat and practically double the size of the park. The acquisition was made with donation funds from the Swiss organization Irene M. Staehelin Foundation, raised with support from Lookfar Conservation. A great victory and a huge challenge that will allow us to bring the Atlantic Forest back into this landscape.





Headquarters  
Perdida Farm

**Corridor planting begins forest restoration at Perdida Farm**



Forest  
corridor

# Biodiversity in focus

Records made through camera traps of the Mammals fauna Monitoring project at the Golden Lion Tamarin Ecological Park, conducted by the VertEco research group, from the Environmental Sciences Laboratory of the Universidade Estadual do Norte Fluminense (UENF). Monitoring is carried out through the Biodiversity and Climate Change Project in the Atlantic Forest, with support from FUNBIO.

Furthermore, AMLD itself monitors the fauna in the park's forest canopy, with a focus on golden lion tamarins, and the flow of animals on the vegetated overpass, where the following have already been recorded: crab eating fox, paca, southern tamandua, crab-eating raccoon, lesser grison, common tapeti and nine-banded armadillo.



South American Coati (*Nasua nasua*)



Crab eating fox (*Cerdocyon thous*)



Southern Tamandua (*Tamandua tetradactyla*)



Paca (*Agouti paca*)



Margay (*Leopardus wiedii*)



Rusty-margined Guan (*Penelope superciliaris*)



Puma (*Puma concolor*)



Jaguarundi (*Puma yagouaroundi*)



Brazilian common opossum (*Didelphis aurita*)



Ocelot (*Leopardus pardalis*)

## Family farming and social engagement

One of the initiatives of AMLD's Family Farming and Social Engagement Program is support for a network of partner nurseries that produce tree seedlings and now epiphytes, for use in forest restoration. In total, five local nurseries participated in the forest restoration business chain since 2010. Throughout 2023, the nurseries supplied 62,000 epiphyte seedlings used in the pioneering reintroduction project, in addition to 2,500 tree seedlings for planting the forest corridor at Fazenda Perdida.

In September, a booklet was published on the AMLD website to disseminate information about the five partner nurseries and to advertise the availability of native Atlantic Forest seedlings for sale by the nurseries.

In 2023, the 3rd edition of the Agroflorestar extension course was offered, including seven workshops. The course was taught by AMLD staff with support from EDF. The initiative trained local farmers to implement agroecological systems on their properties. Thirty local farmers took the 6-month course, which had been temporarily interrupted by the pandemic.

This year we also continued the agroforestry collective work days, which bring together several farmers, in a collaborative way, to help with the implementation and maintenance of agroecological systems on each of their properties. In 2023, AMLD supported five such events in the municipalities of Silva Jardim and Casimiro de Abreu.



On the social front, AMLD supported the Litro de Luz project, by EDF Brasil and EDF Renewables Brasil, articulating with rural owners to bring sunlight to rural communities and partner properties in Casimiro de Abreu. Participants installed solar-powered lights made from simple materials such as PVC pipe and PET bottles. One of the lights was installed at AMLD headquarters, in the Ecological Park, where the participants planted around 120 tree seedlings native to the Atlantic Forest.

AMLD's Family Agriculture and Social Engagement team shared their results at two professional congresses: The Annual Meeting of the Serramar Agroecology Articulation, held at the GLT Ecological Park, and the 12th Brazilian Agroecology Congress, held in Rio de Janeiro. At the latter congress, AMLD staff described their work supporting the network of nurseries producing Atlantic Forest tree seedlings and the promotion of agroecological systems in GLT habitat.

# Environmental education



The year 2023 was the first full school year with the GLT EcoPark open for visits by school groups. In total, we hosted over 1,800 students from 38 educational institutions, 30 of which were public schools and not charged entrance fees. The number of student visitors this year is four times greater than in the previous year.

The park presents a unique opportunity to raise awareness and learn, with attractions that not only provoke the contemplation of nature, but also impart a greater understanding of the challenges in conserving GLTs. In recognition of this, the mayor of Silva Jardim signed a Technical Cooperation Agreement with AMLD so that all students in the

municipal network can visit the park. In addition, students from schools throughout the region had the opportunity to plant native Atlantic Forest trees during special events such as Atlantic Forest Day, Arbor Day, and the Darwin200 initiative. In total, over 300 local students participated in planting tree seedlings at special events.

In October, AMLD inaugurated the Casa do Mico (Tamarin's House), where adults and children can follow the adventures of a family of tamarins in the forest, while learning interactively about them, their group life, food, ecology and much more.

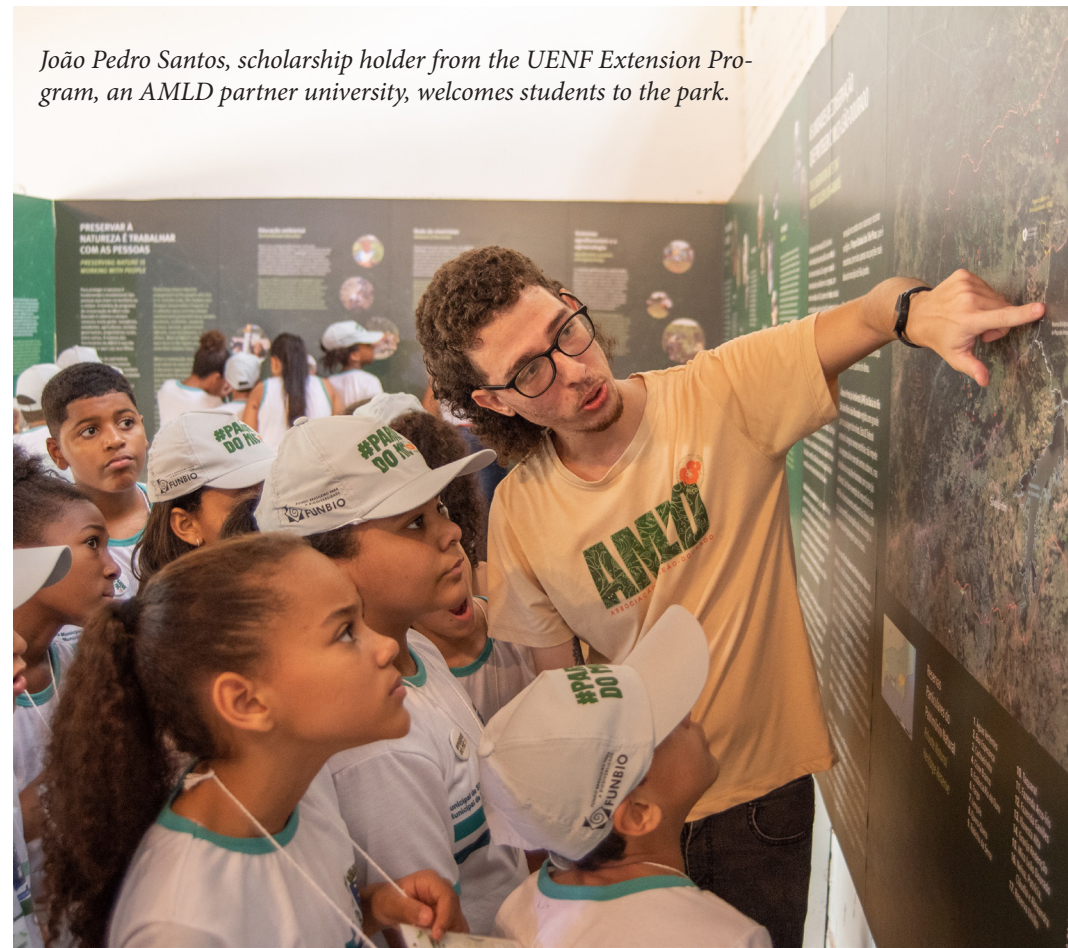
The park has become recognized as a fruit-

ful venue for field studies and research in a variety of social and environmental sciences. Nationally, UENF, UFRJ, UFRRJ and USP (Brazilian universities) teach annual field courses at the GLT EcoPark. In 2023, we received visits from four universities, with a total of 193 visitors. For example, the University of São Paulo's course in Biogeography sent 95 people, including students and professors. On the international scene, we welcomed another class from Project Dragonfly, University of Miami in the United States. This was the fifth Dragonfly group to visit AMLD. For two weeks, 20 students participated in GLT moni-

ring, agroecology and social engagement activities, environmental education, in addition to visiting the Ecological Park.

Another highlight was the 11th edition of Rediscovering the Atlantic Forest, a continuing training course in environmental education offered by AMLD to educators in the region. The course aims to encourage teachers throughout the GLT geographic scope to bring the Atlantic Forest into their classrooms. In this offering, 25 educators participated in the course, all multipliers who work with nearly 4 thousand local students.

*João Pedro Santos, scholarship holder from the UENF Extension Program, an AMLD partner university, welcomes students to the park.*







The mayor of Silva Jardim, Maira Figueiredo, signed a Technical Cooperation Agreement between AMLD and Silva Jardim City Hall so that all students in public schools in the municipality can visit the Golden Lion Tamarin Ecological Park.

## Public policy

AMLD played an important role in several forums of non-governmental organizations, such as the Atlantic Forest NGO Network, the Pact for the Restoration of the Atlantic Forest and the Climate Observatory Coalition, in addition to being an Outpost of the UNESCO Atlantic Forest Biosphere Reserve. These networks directly influence national public policies related to conservation of the biome.

In 2023, one challenge was to defeat attempts by some members of Congress to dismantle the Atlantic Forest Law. Those lawmakers proposed to amend Brazil's Forest Code to permit deforestation of the Atlantic Forest in areas of primary or secondary vegetation in an advanced stage of regeneration, in opposition to what the Atlantic Forest Law states. Several environmental organizations, including AMLD, came out in defense of the Atlantic Forest Law and mounted campaigns against the proposed amendment. In the end, the proposed legislation was defeated and the Atlantic Forest Law was maintained.

AMLD participated in activities of the National Action Plan for the Conservation of Atlantic Forest Primates and the Maned Sloth (PAN PPMA). AMLD also participated in the formation of the Integrated Council for the São João River Basin Protection Area and the União and Poço das Antas Biological Reserves. The three federal protected areas make up the Integrated Management Center (NGI) Mico-Leão-Dourado, established

in 2021 by ICMBio. Due to its strategic role, AMLD has a seat on the new board. The three protected areas constitute the priority region for GLT conservation and protect the largest populations of the species in situ. AMLD participates in the NGI initiatives to develop an integrated forest restoration strategy in the São João River Basin, habitat of the golden lion tamarin.



# Ecotourism and the Golden Lion Tamarin Ecological Park



In 2023, the first full year of operation of the GLT Ecological Park, the park received over 3,700 people, including tourists, students involved in environmental education activities and event participants. More than 1,900 of these visitors were paying tourists.

Main reasons to visit the park are to see and appreciate Atlantic Forest biodiversity and the conservation actions implemented by AMLD and its partners. Park infrastructure is designed to facilitate these objectives, for example the Ecological Restoration Tower offers spectacular views of former pastures that have been resto-

red to forest, and the Forested Viaduct Viewpoint helps visitors to understand the importance of connecting the landscape by seeing the forest corridor that connects the Poço das Antas Biological Reserve to the viaduct itself and the park.

In 2023, two trails were opened, one that leads to the tower via an alternative path, and the Epiphyte Trail, for environmental interpretation purposes. In addition, a new viewpoint was constructed, allowing visitors to admire the lake and the headquarters from above, with the coastal mountains in the background.

The biggest highlight was the inauguration of Casa do Mico. The interactive exhibit was constructed in a renovated horse stall and invites visitors to follow the day of a family of golden lion tamarins in the forest and learn about the species, its habits and ecology. The new attraction, which facilitates learning using artistic creativity, is a hit with children and adults alike. Casa do Mico was created in partnership with the award-winning company Art Unlimited, which develops expositions for national and international museums. Resources to renovate Casa do Mico came from ExxonMobil and FUNBIO.

In 2022, 35 local residents participated in ecotourism training offered by AMLD. In 2023, three of them were selected as monitors to support the Ecotourism team.

The guided tour to see golden lion tamarins in nature, called “Na Trilha do Mico” (on the monkey’s trail), is another highlight of AMLD Ecotourism. The unique opportunity to see these beautiful monkeys in the forest attracts visitors from around the world. In 2023, 211 people took this tour with us, more than half of them foreigners, from 14 different countries. “Na Trilha do Mico” is carried out on a partner property and accompanied by the AMLD Metapopulation team, responsible for monitoring and managing the species. Tourists are always accompanied by one or two team members, who, in addition to being specialists in GLT biology and conservation, are trained to track the animals using radio transmitter collars.

To carry out this activity, a strict safety protocol was maintained, which in-





## The construction and inauguration of Casa do Mico



cludes mandatory distancing from the animals, a limited number of people per visit and alternating days of observation. In addition, visitors must present proof of vaccination against yellow fever and at least two doses of Covid vaccine. Visitors must use a mask during the tour.

The park is open for visits from Thursday to Saturday, from 8:30 am to 4:00 pm, by appointment, which is done online through the AMLD website via the Ecobooking platform. The “Na Trilha do Mico” tour only takes place on Thursdays and Saturday mornings.

As AMLD is a non-profit organization, all ecotourism resources contribute to the maintenance of the park itself, payment of salaries and other fixed costs.

The year 2023 was also marked by 12 events held at the Mico-Leão-Dourado Ecological Park. In addition, four expeditions were carried out with tourism agencies to introduce them to the Park and its attractions, with a view to including the destination in their services and packages.

The 2nd GLT Mountain Bike Circuit was held at the park, around 60 cyclists participating. The EcoPark once again hosted Um Dia no Parque (A Day in the Park), a national campaign for visiting natural areas, which received more than 100 people.

In addition, there were new features, such as the park's 1st Bird Watching Festival, a three-day event held in partnership with the União Biological Reserve. The festival promoted a lot of bird watching in the park

and reserve, as well as lectures by experts on birdlife. The park also hosted Mico Com Arte (Tamarins with Art), events that combined hiking on the park's trails, music, films and lots of contact with nature.

Another event that promoted AMLD's agenda was Darwin Day, organized in partnership with Darwin200, an initiative that is retracing the British naturalist's travels around the world. Rio de Janeiro was one of the expedition's ports and, in November, the project team, together with young conservationists and Sarah Darwin, a direct descendant of the scientist, disembarked in the land of the golden lion tamarin. Sarah Darwin visited forest restoration areas, participated in an agroecology effort, and helped to plant a forest corridor.

The park hosted an event with talks from around the world, including primatologist Jane Goodall and marine conservationist Sylvia Earle, who participated virtually; and biologist and activist Sarah Darwin who participated in person. Darwin Day was broadcast online and was followed live by thousands of people and is available on the AMLD YouTube page.



During her visit, Sarah Darwin planted a tree and saw the golden lion tamarin from the first time



# A week of Darwin in the land of the golden lion tamarin

For an entire week, which culminated with Darwin Day, Darwin200 participants followed the activities of AMLD – with two young Darwin Leaders tasked with documenting the Association's work to keep GLTs from extinction and our work to restore lowland Atlantic Forest. Additionally, during this week, Darwin200 supported the planting of a forest corridor at Fazenda Perdida and launched a virtual campaign to raise donations to plant even more.

Together with Sarah Darwin, the project team participated in an agroforestry communal planting, where they learned about the collective strength of farmers in managing agroecological systems. They also visited the Cultural Fridge project, where they watched a special presentation prepared by children that included a parade with kids wearing clothes made from recycled materials.

Following the Darwin event João de Andrade, a UENF scholarship holder who works with AMLD, traveled on board the Darwin200 ship to its next port, in Punta del Este, Uruguay.



Darwin200/Divulgação



## Research

All actions in the conservation program implemented by the AMLD are based on modern science. The GLT Ecological Park has become a focal area for conducting research of various types. Throughout 2023, a total of 23 research projects were carried out with support from AMLD, including master's degrees, doctorates, and thematic projects, belonging to 12 lines of research. Topics of these studies included the transmission of epidemic diseases to the GLT and other primates; yellow fever; enrichment with epiphytes; and monitoring wildlife in forest restoration areas; in addition to science communications projects carried out by Darwin200 Leaders.



## Communications

Communication is a strategy that permeates all actions developed by AMLD, ranging from organizing or participating in events, publications, contact with the national and international press, and management of social networks and the Association's website. The objective of this strategy is to expand the reach of key messages about conservation of the golden lion tamarin and the Atlantic Forest, and to inform and engage the public about these actions.

AMLD's work was covered by a variety of news media throughout the year, with emphasis on the results of the new census of GLTs, which was featured in major national news outlets including Jornal Nacional, of TV Globo. In total, around 300 pieces of content related to AMLD's work were broadcast in countries including the United States, Germany, Egypt and the United Kingdom, as well as Brazil.

In 2023, AMLD's website had more than 14 thousand clicks and 1.38 million impressions (number of times users viewed the website link in their search results). The GLT Ecological Park was one of the 10 most common queries that lead users to the AMLD website and the park page is the third most visited on the entire website, trailing

only the homepage and the videos page.

Social media is an important tool in the communications strategy. AMLD has active accounts on Facebook, Instagram, X/Twitter, Youtube and LinkedIn. The most significant growth was on Instagram, where AMLD had almost 15 thousand followers by the end of 2023--an increase of more than 2 thousand followers in less than a year, obtained organically, without ads.

On Facebook, a platform that has been losing space and relevance especially among younger audiences, the AMLD page maintained practically the same level of followers as the previous year, with 25,447. On X/Twitter, there was some growth compared to last year, with a total of 3,391 followers. AMLD's YouTube channel, where we published eleven videos and six shorts (one-minute videos) during the period, surpassed the thousand subscribers mark and recorded a 44% increase in the number of views, which reached 16,695 in the year.

The majority of our audience on social media are women, aged between 25 and 44. On Instagram and Facebook, where the metrics show the location of access, the audience comes mainly from residents of





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## Race to vaccinate rare wild monkeys gives hope for survival



Report in the international news agency Associated Press about the vaccination of tamarins, in February 2023, republished by vehicles around the world.

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## Replanteio de espécies em Silva Jardim ajuda a preservar mico-leão-dourado

Associação planeja plantar 62 mil mudas de epífitas, como bromélias e orquídeas, para restaurar Mata Atlântica no município do interior do Estado do Rio

Por Camilla Araujo — Rio de Janeiro  
19/06/2023 06h00 · Atualizado



Report on a pioneering epiphyte reintroduction project carried out by AMLD in the Brazilian newspaper O Globo.



the city of Rio de Janeiro, followed by the municipalities of São Paulo, Silva Jardim, Casimiro de Abreu, Niterói, Rio Bonito and Rio das Ostras. These data indicate that the Association has been successful in communicating through social networks with local actors, who are engaged in the GLT conservation landscape and, therefore, strategic publics within AMLD's work.

In celebration of International Golden Lion Tamarin Day, August 2nd, AMLD held a live broadcast on YouTube with the

announcement of the new census results. The Association collaborated with Save the Golden Lion Tamarin (SGLT) in holding the GLT photo contest. Nine photos were awarded prizes in three categories. Each of the winners had a native Atlantic Forest seedling planted in their name by AMLD. Save The Golden Lion Tamarin is an American partner organization of AMLD that plays an important role in disseminating AMLD's work and the golden lion tamarin in English to an international audience.



Reporter André Trigueiro accompanies the AMLD team during a report on the results of the new census of the species, which aired on Jornal Nacional, on Rede Globo.





# Thanks to partners and donors

The AMLD team – made up of partners, advisors and employees and the more than 4,800 golden lion tamarins that live in the wild – would like to express enormous gratitude to our partners who believe in the work we do and help make this conservation effort a reality. We also thank our local, public and private partners, local communities, far-

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