

ANNUAL ACTIVITY REPORT



2021-2022

The **HYACINTH MACAW INSTITUTE** is a non-governmental organization with no economic purposes, and its main goal is to promote environmental conservation. The Institute develops environmental protection projects, such as the Hyacinth Macaw Project, developed for 32 years in the Pantanal, maintaining viable populations of hyacinth macaws (*Anodorhynchus hyacinthinus*), in the medium and long term in free life in their natural environment, among others of utmost importance.

Its **MISSION** is to promote the conservation of biodiversity, seeking the rational use of natural resources and the improvement of the quality of life.

Currently, the Hyacinth Macaw Institute develops several **PROJECTS**, among them: Hyacinth Macaw Project, Urban Birds - Macaws in the City, Dynamics of cavity occupation, Health aspects of macaws, Ecological relations, Environmental Awareness and Education, Arte de Fazer Project, among others. This report refers to the activities of the reproductive season of the Hyacinth Macaws and corresponds to the period from April 2021 to April 2022.

A MESSAGE FROM THE PRESIDENT



Photo: Hyacinth Macaw Archive

Through the Urban Birds - Macaws in the City Project, more than 700 monitorings were performed in 229 nests, from which more than 250 young fledged. Crowning this work in the Capital of the Macaws, Mayor Marquinhos Trad, was at the Institute's Sustainability Center to sign the Decree that recognizes this title.



I would like to share with you the achievements obtained by the Hyacinth Macaw Institute during the breeding season 2021-2022. After some years of much sadness and struggle, mainly due to the fires that occurred in the previous years, we are overjoyed! We had the best success in hyacinth macaw reproduction in the Pantanal and Cerrado biome. We performed almost 3 thousand monitorings in 310 nests, in 32 properties in the Mato Grosso do Sul and Mato Grosso State, from which 83 young fledged. This is thanks to the great commitment of the field team, which recovered and managed the natural nests, as well as installing 81 artificial nests. This contribution made all the difference for the survival of the nestlings. In the field, we assisted 679 people who were able to follow the work closely and receive the latest information. Therefore, we are very grateful to all our partners and sponsors for being with us in this endeavor, seeking the involvement of the general population in biodiversity conservation and in improving the quality of life of all beings. THANK YOU VERY MUCH!!!

Dra Neiva M. R. Guedes
President of the Hyacinth Macaw Institute



Photo: Bruno Henrique Grolli Carvalho

THE HYACINTH MACAW PROJECT

The Hyacinth Macaw Project studies the biology and ecological relations of the Hyacinth Macaw (*Anodorhynchus hyacinthinus*). To this end, it carries out nest management and promotes the conservation of the bird in its natural habitat.

Its main objectives are:

1. Maintain viable populations of Hyacinth Macaws medium and long term in the wild in their natural environment;
2. To promote the conservation of biodiversity and the Pantanal as a whole.

Each year there are specific goals to be developed in the field, but all of them are related to basic biology, reproduction, behavior, habitat requirements, management, and environmental education for the conservation of the species in the wild, among others.

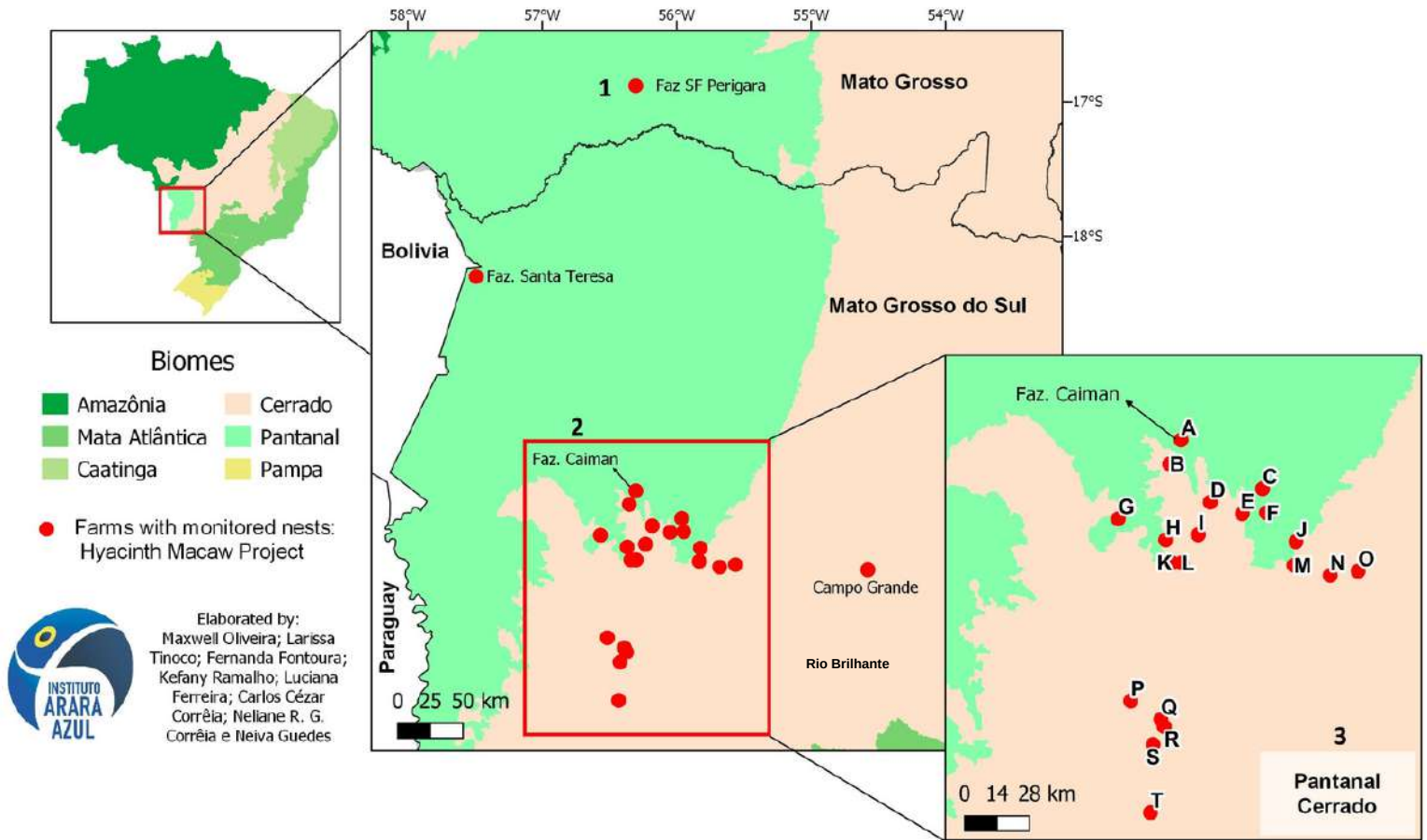
ACTIONS OF THE HYACINTH MACAW PROJECT

- **MONITORING**
- **NEST MANAGEMENT**
- **INSTALLATION OF BOXES**
- **LECTURES/
ENVIRONMENTAL
EDUCATION**
- **CAMERA TRAPS**
- **OBSERVATION TOURISM**
- **MARKING OF JUVENILES**
- **SUPPORT FOR FURTHER
RESEARCH**
- **MACAW SIGHTINGS**



AREAS OF ACTIVITY

- 10 regions visited
- 33 rural properties monitored



On the map above, the Pantanal and Cerrado Biomes, in the states of Mato Grosso do Sul and Mato Grosso, with the properties monitored by the Hyacinth Macaw Project. Note the distance from the last red dot (below, in MS), which is the property on the banks of the Brilhante River, in the municipality of the same name, about 250km from the Southern Pantanal. The monitoring in Mato Grosso also means a long trip for the team, from Campo Grande to Cuiabá, another hour by car to Poconé and finally half an hour by small plane to the São Francisco do Perigara farm. On the way back, it takes another two hours, leaving from Poconé to monitor the nests installed at Baía das Pedras, at SESC Pantanal.

EQUALLY DISTANT AND WITH LONGER LOGISTICS, IS THE MONITORING OF THE NESTS ON THE SANTA TERESA FARM, WHOSE STARTING POINT IS THE CITY OF CORUMBÁ, 400 KM FROM CAMPO GRANDE, FROM WHERE THE BOAT, PROVIDED BY THE FARM, DEPARTS TO TRANSPORT THE TEAM FOR ABOUT 4 HOURS ALONG THE PARAGUAY RIVER.

Therefore, these more distant points are monitored less frequently throughout the breeding season and not monthly, as the others. And a very important issue in these more distant monitoring is that we need to count on the support of personnel and transportation "in loco" for transportation within these properties. Therefore, the partnership with them and the owners is fundamental to obtain the results.

THE WORK IN NUMBERS

General breeding season results, April 2021 to April 2022, Pantanal (MS-MT) and Cerrado (MS)

2931 Monitoring
(nest visits)

310 Monitored nests

127 Managed nests

81 Installed boxes

146 Nests occupied
by hyacinth macaws

115 Nests occupied by
other species

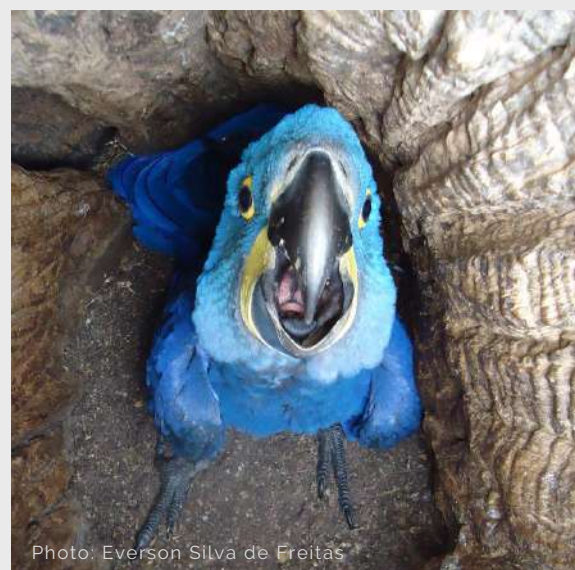




Photo: Wesley Leite



Photo: Hyacinth Macaw Institute Archive



Photo: Ana Cecília. P. L. Rocha



Photo: Cezar Correa



Photo: Marcos Ferramosca



Photo: Maria Eduarda Monteiro



Photo: Aline Calderao



Photo: Kefany Ramalho



Photo: Ana Cecília. P. L. Rocha



Photo: Cezar Correa

THE CHALLENGES IN THE FIELD

During the field activities, the team faces many CHALLENGES. Sometimes it is necessary to open trails to reach the nests and travel long distances.

In the winter (June, July), temperatures can reach below 7° C, and in the summer (December), they go over 40° C. Many cavities are occupied by other species, including sting bees, which can be very dangerous.

Monitoring and management needs to be done with a lot of attention, patience, and skill.



Photo: Lucas Rocha Novaes



Photo: M^{rs} Eduarda Monteiro

CAIMAN:

THE WORK IN NUMBERS

The Caiman Farm is an important HYACINTH MACAW REPRODUCTION CENTER in the wild.

114
MONITORED NESTS

57
ACTIVE NESTS BY
HYACINTH MACAWS

56%
OF THE CHICKS FLEW
OUT OF THE BOXES

44%
OF THE CHICKS FLEW
OUT OF THEIR
NATURAL NESTS

In 2021-22, two years after the fires at Caiman, the hyacinth macaws had the greatest reproductive success in recent years, thanks to monitoring, installation of new boxes, and constant management of the natural and artificial nests.

Most of the nestlings this season flew from the artificial nests, confirming that the boxes are an important resource for the reproductive success of the macaws in the Pantanal.

THE "ADOPT A NEST" CAMPAIGN

At Caiman Farm, among the main actions that have complemented the resources necessary for the execution of the work is the campaign "Adopt a Nest". Through donations, the godfathers and godmothers (individuals and companies) receive different bonuses.

114

TOTAL NUMBER OF NESTS
AVAILABLE
FOR ADOPTION

24

ADOPTED NESTS

**52% OF THE CHICKS,
FLEW OUT OF
ADOPTED NESTS!**

This resource becomes a significant part of the field work, management, and the making of new boxes. These actions increase the reproductive success of the macaws and other species, benefiting the entire biodiversity!



Photo: Bruno Henrique Grolli Carvalho



Photo: Ana Cecília de Paula Lourenço Rocha



Photo: Bruno Henrique Grolli Carvalho



Photo: Flávia Bouch

MEET THE GODCHILDREN OF THE EIGHTH EDITION OF THE "ADOPT A NEST" CAMPAIGN (1/2)

ABRADIT (GAZZO & LUKE)



N 2274

ANILHAS CAPRI (UNIGEN)



N 220

ARA BLEU PEGORARO PART. S/A (ANITA & BENTO)



N 2088

ARBOIS



N 2060

BIOPARC CONSERVATION (HORTENSE)



N 2254

BIOPARC CONSERVATION (BRODI)



N 2356

CARLOS SALDANHA



N 2106

CARLOS SALDANHA



N 2058

CARLOS SALDANHA



N 232

TATIANA & DR. MARCELO FERREIRA (TELO)



N 2271

CCB MAGIC PAULA E PRES. GUY PEIXOTO JR (CESTINHA & REBOTINHO)



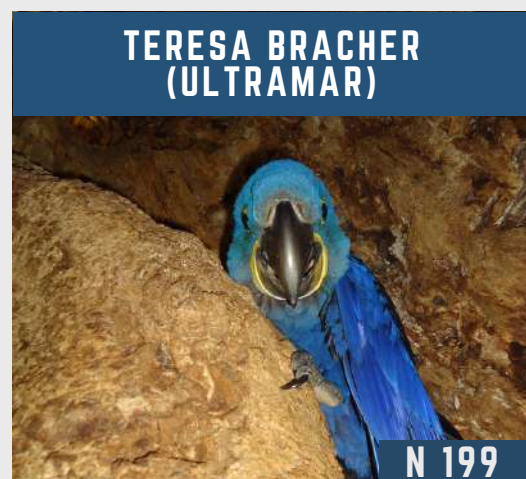
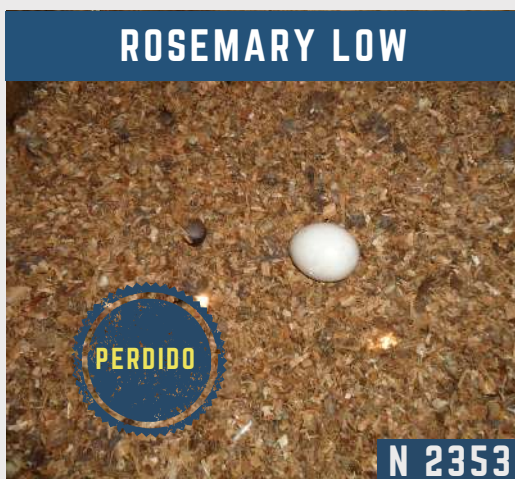
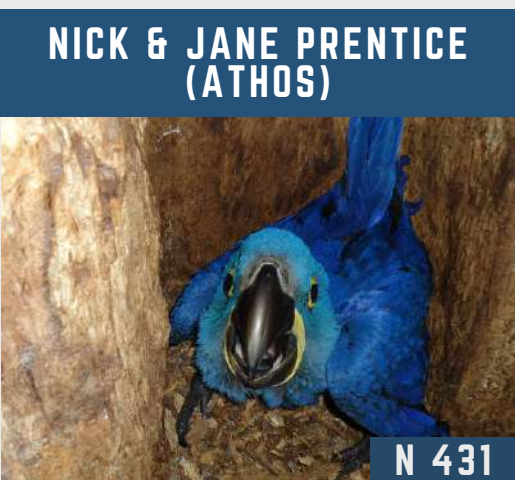
N 2029

CHRISTOPHER APOSTOL



N 2059

MEET THE GODCHILDREN OF THE EIGHTH EDITION OF THE "ADOPT A NEST" CAMPAIGN (2/2)





FIRES IN PANTANAL

Studies are conducted in the medium and long term. We are watching. **And taking action.**

In 2021 there were still records of fires in the farms where the Hyacinth Macaw Project operates. The researches continue and so do the actions to mitigate the impact of fires. Learn about the related activities that the Hyacinth Macaw Project carried out in this period.



Brigade Training

Project team members participated in brigade training offered by SOS Pantanal, at Caiman Farm



Monitoring

In previously affected areas, monitoring was intensified



Food supplementation

Bunches of acuri were offered to the macaws as food supplementation, in one of the areas most impacted by fire: Fazenda São Francisco do Perigara - MT



Installation of boxes

More than 80 artificial nests were installed in order to supply the natural cavities lost by the fire.



Nest management

Both the artificial nests and especially the natural ones were managed to guarantee quality cavities for the use of the macaws and other species



Priority Areas Assessment

Based on the field data, the Project helped in the decision making regarding the selection of priority areas for the fire management plan

OTHER ACTIVITIES

As part of its work, the Hyacinth Macaw Project also promotes observation tourism, lectures and workshops. We support other research and train people to continue field activities.

People attended in
780 Observation
Tourism



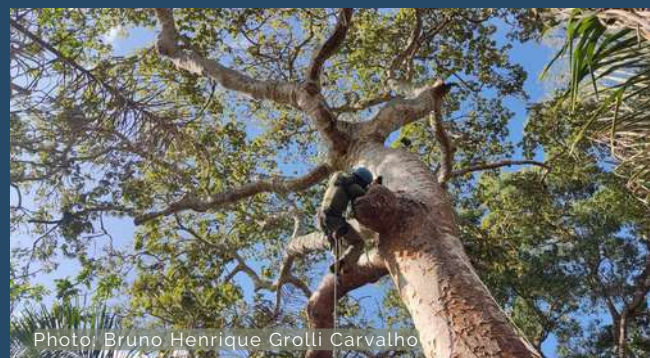
332 Lectures
held



11 Research in
partnership



9 People
trained





THE URBAN BIRDS PROJECT - MACAWS IN THE CITY

The "Urban Birds Project - Macaws in the City" studies the ecological relationships of the Blue-and-yellow Macaw (*Ara ararauna*) in the urban area of Campo Grande, Mato Grosso do Sul. For this purpose it carries out nest management and promotes the conservation of the species in the urban area.

Its main objectives are:

1. Study the basic biology of the Blue-and-yellow Macaw;
2. Study the interactions of this species in the city (people, traffic, buildings);
3. Use it as a tool for education, ecotourism, and to promote biodiversity conservation.

Each year specific objectives emerge to be worked on in the field, such as sanitary aspects, movement, and dispersion of the individuals.



Photo: Kefany Ramalho.

MONITORING AND MANAGEMENT OF NESTS

A total of 766 monitorings of 222 natural nests and seven artificial nests were performed, which totaled 229 nests monitored, all located in the municipality of Campo Grande, Mato Grosso do Sul. Most of the nests monitored are in the urban area of the city and only four are in rural areas. The monitoring was carried out by a permanent field team of no more than three people composed of biologists and academics.



Photos: Larissa Tinoco, Fernanda Fontoura, Kefany Ramalho.



Photo: Larissa Tinoco.



Photo: Kefany Ramalho.



Photo: Larissa Tinoco.



Photo: Kefany Ramalho.



Photo: Everson Freitas.



Photo: Larissa Tinoco.



Photo: Larissa Tinoco.



Photo: Larissa Tinoco.

GENERAL REPRODUCTION DATA

This year, the reproduction of the Blue-and-yellow macaws began in June, with the first eggs being laid. However, the peak of egg-laying occurred in August, of hatchlings in August and September, and of juvenile flights in November and December.

The number of breeding pairs was higher than last year and consequently the number of born and surviving pups accompanied by the Project team was also higher.

229 monitored nests

66% of the nests had eggs

81% of the chicks were marked with a ring and nanochip

+250 juveniles flew

28 juvenile with medals



THIS SEASON, 81 OCCURRENCES WERE REGISTERED, INVOLVING 65 INDIVIDUALS OF BLUE-AND-YELLOW MACAW.

When the chicks leave the nest, they sometimes cannot land on a tree and end up on the ground, landing on roofs and walls. They can stay for several hours in the same place, which causes concern to the residents. During this period, the Institute receives several rescue requests. Most of the animals do not need medical attention and are placed in a safe place, like a tree. Other birds do not need to be removed from where they are. In most of the occurrences the animals were just relocated to a safe place, 27 individuals went to the Wild Animal Rehabilitation Center (CRAS/MS - Centro de Reabilitação de Animais Silvestres de Mato Grosso do Sul - IMASUL), but only nine were released after evaluation by the veterinarian.



Photos: Kefany Ramalho, Larissa Tinoco, Flávia Zagury.

"ADOPT A CHICK" CAMPAIGN 2ND EDITION



The Adopt a Chick Campaign was created to supplement the resources needed to carry out the activities of the Urban Birds - Macaws in the City Project. The campaign relies on donations made by individuals and companies, which receive various bonuses for participating.

**IN THIS EDITION SIX
CHICKS WERE
ADOPTED!**

**ALL THE CHICKS WERE
HEALTHY AND FLEW AT THE
EXPECTED AGE!!!**

PETMOM



SICOOB



RAMAL PROPAGANDAS



VICTOR SANTOS



PLAN LOTEAMENTOS





OTHER ACTIONS

Besides the research projects, the Hyacinth Macaw Institute has been disseminating its scientific results and achievements with several audiences, involving the society as allies for the conservation of biodiversity. Through environmental education, meetings with different partners and potentials, with knowledge for the generation of public policies, lectures, observation tourism, in the workshops of handcrafts with the community and divulgations in the media, learning opportunities, personal welfare, social benefits and satisfaction in contributing to the research projects are generated. The different actions offered by the Hyacinth Macaw Institute, provide a greater involvement of the public and a democratization of science. The knowledge sharing offered by the Institute is organized in several activities for different audiences and age groups, providing an adequate language for the understanding of the public involved.

The Hyacinth Macaw Institute involves several citizens in its scientific activities, generating knowledge and understanding about the importance of biodiversity conservation



+120 Lectures for different audiences



+28 Inter-institutional articulations

+55 Meetings

+12 Workshops to promote entrepreneurship with the community



+29 Participation in Live streams

+250 Press Releases



+100 k Followers on Social media

THE WORK IN NUMBERS



ACKNOWLEDGEMENTS

Partners, the hyacinth macaw breeding season in 2021-2022 had the highest reproductive success in recent years. After the fires at Caiman in 2019, we verified increased loss of nest trees, pressure on habitat due to competition, predation and alteration of the relationship between species, among other factors that persisted and led to numerous losses in 2020. In 2021 fires occurred, to a lesser extent at Caiman, but due to the training of the team by the Pantanal Brigades and previously developed management, they allowed no eggs or nestlings to be lost. At the Hyacinth Macaw Reproduction Center at Caiman, the results of the intense management and increase or replacement of artificial nests made the difference. From a total of 137 monitored eggs 55% were born and of these, 73% survived and flew. Most of the pairs that had the survival of two chicks were in artificial nests. This can be explained by the fact that today the artificial nests are installed in open areas to avoid the arrival of predators by canopy contact. Outside Caiman another 72 eggs were monitored, totaling 209 eggs monitored in this reproductive season 2021-2022, which ended with the last chick leaving the nest in April 2022.



Your support allows us to carry out research for the maintenance of biodiversity in the Pantanal, helping us to continue the work of the Hyacinth Macaw Project. Your partnership is fundamental in this context and we are very grateful to have you with us. This year, it will be a privilege to count on you once again!

ACCOMPLISHMENT AND SUPPORT

CAMPAIGN SPONSORS

Adopt a Nest Campaign - 8th Edition

INDIVIDUAL PERSON

Carlos Saldanha, Christopher Andrew Mouravieff Apostol, Indiara Puton Dias de Souza, Nick and Jane Pretince, Rosemary Low, Rose and Alfredo Setubal, Tatiana Ferreira and Dr. Marcelo Ferreira, Teresa Bracher

LEGAL PERSON

Anilhas Capri, Ara Bleau - Pegoraro Participações S/A, FHitz, PHARE Global Markets (Carlos Areia e Lenka), HIGHSTIL, ABRADIT, Arbois, Bioparc Conservation, SICOOB, CBB

Adopt a Chick Campaign - 2nd Edition

INDIVIDUAL PERSON

Victor Santos

LEGAL PERSON

Joiás PETMON, SICOOB, Hedge UB, Ramal PROPAGANDAS

SUPPORT

SEMADUR, Moradores de Campo Grande

SPONSORS 2021-2022



TEAM AND COLLABORATORS

The people behind this work

President:

Neiva Maria Robaldo Guedes

Executive Director:

Eliza Mense

Finance and Communication Director:

Eveline R. Castanho

People service and Environmental Education:

Elisiane Mascarenhas

Field coordination:

Neiva Guedes - General Coordination
Larissa Tinoco – Urban Birds Project
Fernanda Fontoura – Hyacinth Macaw Project

Field Team:

Ana Cecília P. L. Rocha – Biologist
Kefany Ramalho – Biologist
Bruno H. G. Carvalho – Biologist
Luciana P. Ferreira – Biologist
Grace Ferreira da Silva - Biologist
Sabrina Appel - Biologist

Neliane Corrêa – Adm. and geographer
Cézar Corrêa – Technician in Conservation

Lucas Rocha – Research Assistant
Everson Freitas – Research Assistant
Wesley S. Leite - Research Assistant
Gonçalo R. Silva - Research Assistant

Scholarship and volunteers:

Flávia Bouch Zagury
Maria Eduarda M. Nascimento

Occasional participation:

Marcos Roberto F. Cardoso-
Environmental Analyst
(SEMA-MT)
Pedro Scherer Neto (PSN a Foundation)

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Contact

HYACINTH MACAW INSTITUTE

Klaus Stuhrk Street, 106, Jd Mansur

+55 (67) 3222-1205

<http://www.institutoararaazul.org.br/>

Instagram: @institutoararaazuloficial

Facebook: @institutoararaazul

E-mail: contato@institutoararaazul.org.br