

Museu Nacional

Annual  
**Report**  
2018



RIO DE JANEIRO  
MUSEU NACIONAL  
2019

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# Annual **Report** 2018

Museu Nacional

**Museu Nacional/UFRJ**  
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photo: Acervo Instituto J. Safra collection

## Director's Message

What a year...

Just when the institution had decided to publish its annual report, which has not been done for quite some time, the tragedy of September 2nd, 2018 struck us. The decision to renew the publication of our annual reports, for the first time in bilingual form, was taken by the new management even before its inauguration on February 7th, 2018. The objective is to present the main data about the Museu Nacional, which has just completed two centuries of existence, and provide transparency to Brazilian society and to other countries about all topics related to the museum, from scientific, cultural, and educational activities, to financial issues. And the most important: show what the Museu Nacional has done along the year!

There is no way around emphasizing in this report that the fire impacted the day-to-day life of the institution, and thus, its performance. All researchers, technicians, and students had their routine changed, many having their work profoundly hampered. About 200 teachers and technicians and nearly 400 students who conducted their activities in the palace, suddenly lost their working space, being forced to move to other facilities of the museum or even out of it.

Until that fatal Sunday, everything was coming along very well. The museum was beautifully pictured during the carnival at the Marquês de Sapucaí Sambadrome, an administrative restructuring was in course, new employees for vital areas have started at the institution, and discussions about a renewed museum plan which includes much-needed changes in several aspects were being carried out. We had also started contacting companies and the government and fostered greater interaction with

institutions from many different fields. Our bicentenary commemoration on June 6th had filled us with hope for the third century of the museum that was just starting. Since March, we even organized a course on first actions in the case of a fire incident, a pioneer initiative in the institution. Almost a hundred of our employees and students were trained by the Civil Defense of Rio de Janeiro in the five editions of this course that were completed at the time of the tragedy. But the fire happened precisely at the beginning of a Sunday evening, when no one was in the palace. There was no water in the hydrants and, what is even more absurd, at the time of this report, there is still none...

Let there be no illusion: the reconstruction of the Museu Nacional will not be an easy task! It will be painful, sometimes frustrating, and will need time. However, the plain rebuilding of the museum is mandatory and necessary to Brazil! The Museu Nacional is one of those few institutions that transcend borders and can be considered a world heritage.

Even before the fire, we were rethinking the way this institution was operating, from its position in the organogram of the Universidade Federal do Rio de Janeiro (UFRJ - to where it was relocated in 1946), to the way that the museum relates to society. After this tragedy, these considerations are more important than ever.

As in every catastrophe, there is always the day after. Without in any way wanting to minimize the harmful consequences of the fire, I think that it is important to see the situation imposed on our institution as a great opportunity. We are now faced with the chance to rebuild the museum, turning it into a model for similar institutions. There are new ways that museums can be organized and, for all, in the way they interact with society. It will be up to us, together with UFRJ, to put ourselves at the forefront of this process.

But we will not be able to accomplish the reconstruction of the Museu Nacional alone! We need the support of the Ministério da Educação (MEC) and other partners, such as UNESCO, the Instituto do Patrimônio Histórico e Artístico Nacional (IPHAN), the Instituto Brasileiro de Museus (IBRAM), the

Banco Nacional de Desenvolvimento Econômico e Social (BNDES), and the Associação Amigos do Museu Nacional (SAMN), just to mention a few that have already been working with us. And we will need the help of foreign governments and institutions, particularly for recomposing the collections. We also hope to raise support from the business community, that will be able to make a fundamental contribution so that the new Museu Nacional regains and expands national and international relevance, comparable to the main museums of natural history and anthropology around the world. This goal is not only totally feasible but stands right on the horizon!

The first steps have already been taken. We received something around R\$ 16 million from MEC. The major part (around R\$ 10 million) was used in the palace shoring, including a temporary roof to enable the rescue activities of the items still buried inside the building. A total of R\$ 5 million was transferred by MEC to UNESCO for the purpose of developing two projects: the executive project of the internal reconstruction of the palace and the development of a pre-project of the new exhibitions. Detailing and implementing the latter will be dependent above all on the donation of new items from the national and international community. Lastly, the UFRJ received close to R\$ 1 million to develop the project to reconstruct the facade and the roofs of the palace. But the main support came from the federal congressmen of Rio de Janeiro: the promise of R\$ 55 million to start the palace physical restructuring. This amount was obtained after a public hearing as an amendment to the federal budget.

In addition to assisting in obtaining this amendment, the public hearing held on October 30th in the Brazilian National Congress had an important role in showing the situation of the institution, resulting in some individual parliamentary amendments for specific purposes. We have now all necessary conditions to carry on the rescue activities in the palace, as well as the reconstruction of new laboratories, albeit in temporary facilities. All this should happen in 2019.

Other important initiatives from many national and foreign institutions are equally important. We would like to emphasize the help from the German Government, which pledged a donation of

1 million euros from which about EUR 180,000 (R\$ 756,106.60) was already released. Concerning support for research and teaching activities, we received R\$2,522,780.00 from the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) that was allocated to the six museum graduate programs. The Fundação de Amparo à Pesquisa do Rio de Janeiro (FAPERJ), despite its extremely difficult situation, helped the museum through concession of scholarships for one year to more than 70 scientists. Based on all these initiatives and actions we can firmly state that, despite the tragedy, the institution breathes!

I would like to finish this introduction to the 2018 Annual Report by thanking the hundreds of people, including researchers, teachers, students, liberal professionals, children and others, who supported the museum throughout 2018 with donations to the account SOS-Museu Nacional, run by SAMN! I would also like to specially acknowledge the employees and students of the museum for all their efforts put into the reconstruction of our institution, including the rescue activities. By recovering part of the collections from the debris, not only the memory of the Museu Nacional is being rescued but also pieces of Brazilian history are saved. Hopefully, we, as a nation, might learn to treasure these items more than ever, taking better care of them from now on.

I am convinced that all working together, in alignment with our many partners, is the best path toward the museum's reconstruction. It is good for Rio, it is good for Brazil!


  
**Alexander W. A. Kellner** Director

photo: Fórum de Ciência e Cultura



## Overview

Throughout 2018, activities (some conceived and initiated by the previous administration) for the official celebrations of the Bicentenary of the Museu Nacional of the Federal Universidade Federal do Rio de Janeiro (UFRJ) were carried out. Founded by Dom João VI on June 6th, 1818, since 1892 the Museu Nacional has occupied the ancient Paço de São Cristóvão (São Cristóvão Palace) in Quinta da Boa Vista, the São Cristóvão imperial neighborhood in downtown Rio de Janeiro.

At the beginning of 2017, our institution was honored by the proposal to present its history, a tribute to its Bicentenary: the Museum was chosen as the theme of the Grêmio Recreativo Escola de Samba Imperatriz Leopoldinense (GRESIL) samba school. This was a magical time for the Museum community, from the release of the synopsis to the parade in the Marquês de Sapucaí Sambadrome, with the samba theme “A Royal Night in the Museu Nacional”. This first activity, conducted throughout 2017, included a presentation of the theme at the Roquette Pinto Auditorium, the synopsis, an exhibit of costume sketches and prototypes in the Imperatriz neighborhood, the selection of the samba theme, organization of the NM community in the parade groups, rehearsals of the Court and technical rehearsals (when the people of Ramos were admitted free to the exhibits). All this culminated in the parade itself, held in the early hours of February 13th, 2018. This was a meaningful opportunity to celebrate the Bicentenary playfully, with the carnival parade producer and director Cahê Rodrigues together with all his scenery construction. Therefore, at the beginning of 2018, an old dream was already coming true: to have the history of the Museu Nacional and the

São Cristóvão Palace portrayed in the largest national cultural manifestation and with high international visibility – the Carnival parades in the Marquês de Sapucaí Sambadrome.

In the midst of this early activity, the newly elected Director, Alexander Kellner, was inaugurated on February 7th, five days before the parade. During that month, Director Kellner gave interviews on the Bicentenary celebrations and the meaning of the Museu Nacional participation in the Carnival parade.

In order to promote greater interaction among primary and secondary school teachers, researchers and students, and to strengthen the institution and its Postgraduate degree programs (PGPs), the first session of the Museu Nacional Inaugural Classroom was held on March 13th, 2018, with the participation of the Museum Administration, the coordinators of the PGPs and the student representatives, the Central Library, the Francisca Keller Library, the Seção de Assistência ao Ensino (SAE) and the Postgraduate Students Association (PSA) of the UFRJ.

At the beginning of the mandate, the new Administration held, in April, an Internal Seminar at the Roquette Pinto Auditorium, with the segments associated with the Museum Administration, aiming to broaden the dialogue between them. During the meeting, the sectors made a brief presentation about their teams and activities, analyzing their insertions in the current organization chart of the institution.

As part of the Bicentenary celebration, to express our appreciation to GRESIL, the Museum Administration proposed to reciprocate by bringing the Carnival to the exhibit rooms of the University environment. A committee was formed to organize an innovative exhibit, with displays of 30 costumes made by GRESIL in different rooms of the permanent exhibition. This exhibit was inaugurated on May 18th with an event organized by the Instituto Brasileiro de Museus (IBRAM) to mark InterMuseu Nacional Day. In the Roquette Pinto Auditorium,

the President of IBRAM, Prof. Marcelo Araújo, and the Museum Director hosted the event, with the directors of different Brazilian museums in the audience. On this occasion President Araújo officially launched, among other actions, the Museum Passport (free admission to 70 museums and cultural centers). He has also inaugurated the short-term exhibit “The Museum Produces Samba: The Imperatriz Leopoldinense Samba School is Enshrined in the Bicentenary of the Museu Nacional”, to the sound of the GRESIL drums.

On the following day, the costumes donated by the Museu Nacional employees graced the São Cristóvão Cultural Tourism event held on the 19th and 20th. By the next month we were ready for the official Museu Nacional Bicentenary Commemoration held on June 6th for selected members of the public, marking the reopening of the Sala da Baleia (Whale Room). The event attracted several participants, among them university and museum authorities. A general audience attended the event, including university and museum officials. The president of the Instituto Brasileiro de Museus (IBRAM) was the only representative of the Federal sphere, proving to be a strong partner for the institution. The Director’s expected speech was interrupted, in a happy breach of protocol, by historically important figures in the creation of the Museu Nacional. Actors representing Emperor Dom João VI, Carlota Joaquina, Dona Maria and Empress Leopoldina greeted the guests. The Director spoke about the importance of the date and prospects for the institution before the deeply moved audience. Besides, the comprehensive exhibit “Coral Expedition: 1865-2018” was inaugurated, which presented to the guests the discovery of corals with their environments and their state of conservation, from Dom Pedro II’s Brazil until today. The traditional anniversary program, which presents the research and collection of the Museum, was held on June 9th and 10th, with workshops, exhibits and guided tours. Medals marking the Bicentenary were coined by the Casa da Moeda.

Some of these initiatives had highly positive results, such as the launching of the successful crowdfunding campaign to reopen the room displaying *Maxakalisaurus topai*, the first large dinosaur skeleton to assembled in Brazil, held in July; on June 24th there was a special participation

of the Museu Nacional in the 70th Congress of the Brazilian Society for the Progress of Science (SBPC). On the 30th, the Museum inaugurated the IBRAM Seminar “200 Years of Museums” at the Centro Cultural Banco do Brasil (CCBB), on the 30<sup>th</sup>, presenting its history and prospects for the future.

On August 20th, an exciting event was held in the Sala da Baleia, with the opening of the 49th Brazilian Congress of Geology, whose theme “Geology: Knowing the Past to Build the Future” was reflected in the lecture “The Museu Nacional and Mineralogy in Nineteenth-Century Brazil”. On the following day, the Museum’s Central Library organized the II Special Seminar on the “Place of Memory” of the Museu Nacional Library, as part of the Bicentenary celebrations, which provided a venue to exchange experiences and information on different research projects in the Museum.

At the height of our expectations for the year 2018, the month of September rocked the institution, with the tragic Museu Nacional fire on Sunday, the 2<sup>nd</sup>. The following week was a mix of desolation and indignation in an environment of uncertainties. Immediately, the Administration formed working groups in order to gather all the employees in the Horto Botânico and prevent the institution from fragmenting. The working groups acted on different fronts to raise, receive and distribute donations, such as furniture, computer equipment, office supplies, collections, and resources. An institutional e-mail address was created for allocating these areas. The Museum website played an essential role in publicizing the criteria for donations, with follow-up and encouragement from the Events Section, aiming to maintain the institution in the forefront of the media. The Associação Amigos do Museu Nacional assumed responsibility for collecting resources for the institution. Two weeks after the fire, IBRAM held the 12th Museum Week, and the various museum institutions began discussions of policies to preserve their own collections.

The existing departments in the Horto Botânico (Botany and Vertebrates) then began to provide temporary housing for some of the laboratories, as well as secretaries of departments and postgraduate programs that were previously located in the Palace. The facilities of the Teaching Pavilion were essential for conducting academic activities such as classes and lectures as well as



photo: Raphael Pizzino/Coordcom UFRJ

defenses of master's dissertations and doctoral theses. In parallel to the interviews with the director, the rescue team in the Palace ruins was reinforced. This team was under the coordination of the archaeologist and former Director Claudia Rodrigues Carvalho, by the staff of the institution, and later by students from UFRJ.

The institution provided leadership and advisory services in Brasília during October and during the presidential election, in the distribution of projects for the task force to provide information to senators and federal deputies for the reconstruction of Museu Nacional departments and sectors during the week when the Congress was finalizing the annual budget, on the 30th and 31st. This activity was concluded on November 7th. In the same month, from the 23rd to the 30th, the 6th Egyptology Week of the Museu Nacional/SEMNA was held.

On December 4, the 7th Fluminense Heritage Week was inaugurated at the Museu Histórico Nacional, in which the postage stamp commemorating the 200th anniversary of the Museu Nacional and the round table "Museu Nacional: Current Situation and Prospects" was launched. On the following day, in the Horto Botânico Auditorium, lectures were presented on "Popular Classes and the Consumption of Culture in the Museu Nacional", with Fernanda Guedes, Museu Nacional Coordinator of the Center for Communication and Events, and "Considerations on the Rescue in the Museu Nacional", with Claudia Rodrigues Carvalho. On the 9th, at the Alameda das Sapucaias (Quinta da Boa Vista), the week closed with the Museu Nacional Vive Festival (the Museu Nacional Lives), with the presentation of Seção de Assistência ao Ensino (SAE) teaching material (Entomology, Ichthyology, and Geology, among other areas); and collections of the Museum's best-known objects, produced by public-school students, among other activities by the Seção de Museologia (SEMU).

The year ended with the last session of the Museum Convocation, in an exciting festive event crowned with honors and recognition of the institution staff members as the best workers in the struggle to reconstruct the Museu Nacional, with the implementation of the Museu Nacional Vive project.





Science  
in Focus



# Science | ANTHROPOLOGY in Focus



photo: J. Safra Institute collection

Through scientific activities and discussions during the nineteenth and twentieth centuries, the five sectors comprising the Department of Anthropology (DA) were organized, as well as Technical Reserves and Exhibit Rooms: Archeology, Biological Anthropology, Ethnology, Linguistics, and Social Anthropology. Some of these sectors date from more than a century ago, when they began to keep “anthropological collections”, such as human remains, objects of daily and ritual use, as well as bibliographical collections and language documentation.

This model of Anthropology concords with models generated in other parts of the world, especially under the aegis of museology and the need for epistemological understanding of human biological, historical, social and cultural processes. This is exemplified by the Department’s broad and complex set of scientific collections. At the point where it was in terms of collection and inventory conditions before the accident of September 2nd, 2018, in eight major collection axes (archaeological, archaeobotanical, microbotanical, ichthyological, ethnographic, linguistic, and bibliographic), the Department holdings included about 1.2 million items (listed, catalogued, and new collections) in 24 major collections and archives.

In the post-accident situation, the work of recovering remnants of the ethnographic collections that survived the fire has already begun, and working groups have been formed with support from external experts. In addition, we are looking for safe bases - with the help of laboratories and researchers in the areas of Information Technology and New Digital Technologies - for the work of digital rescue, with professional organization of backups and creation of pages and availability of the surviving collections (materials and digital) and creation of virtual exhibits, before resuming appropriate conditions to generate new collections with the support of national and international institutions, as well as researchers, collectors and groups of indigenous, Afro-Brazilian and people in general. Finally, the continuity of the work in progress and the emergency, medium-term and long-

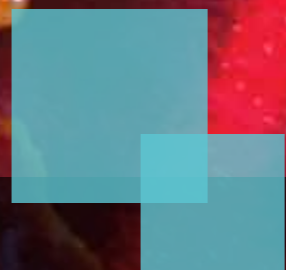
term digital reorganization and material collections and exhibits will be resumed as soon as the teams in the Department sectors are relocated to the premises of the Horto Botânico, in Quinta da Boa Vista, and the land adjoining the Quinta, in the old Stables.

Up to the date of the fire, the DA held approximately 529,710 items recorded in its five sectors, an approximate total (including unlisted items) of 1,220,272. Most of the books listed were lost in the accident, both on paper and partly digital volumes on external hard drives. A large set of documents, however, survived in a variety of digital bases (from software such as Word editors and Excel tables, to databases such as Access and Archaïos). In this situation, besides the work of material rescue of “remnants of anthropological collections” in the archaeological site that became the Palace of Quinta da Boa Vista, there is also the work of digital rescue, in which the accomplishment of general inventories and organization of the surviving backup have first priority, before it is possible to resume the work of research and generation of new anthropological collections.

With regard to the loss of the patrimony, it is not possible, because of the extent of the fire, to quantify what was lost, nor to predict what will be recovered. The work of recovering remnants from the ethnographic, biological, and paleogeological collections that follows will take time. In any event, as has been reported in the press, the first findings have exceeded our early expectations.

The following are the main achievements during the reporting period:

I	PPGAS Inaugural Class. “Affirmative policies and the situation of the black in Brazil today”, with Kabengele Munanga (USP). Museu Nacional, Roberto Cardoso de Oliveira Room, 04/10/2018.
2	Exhibit on “Natives: The First Brazilian People”. Native Peoples Memorial, DF, 08/29 to 12/16/2018. Accomplishment: Ethnology and Ethnography Department. Curatorship: João Pacheco de Oliveira.
3	PPGAS/NM Students Seminar. Horto Botânico Auditorium, MN/UFRJ, September 17 to 21, 2018. Accomplishment: Postgraduate Program in Social Anthropology.
4	“50 Years of PPGAS: Memory and Reconstruction” Seminar. Horto Botânico Auditorium, MN/UFRJ, 11/12/2018. Accomplishment: Postgraduate Program in Social Anthropology.
5	SEMNA Edition (Museu Nacional Egyptology Week). Horto Botânico Auditorium, MN/ UFRJ, November 26 to 30, 2018. Accomplishment: SESHAT (Laboratory of Egyptology of the Museu Nacional). Coordination: Antonio Brancaglion.
6	Competition for the position of collections manager, involving the areas of Ethnology, Archaeology and Biological Anthropology.
7	Participation of professors, technicians and students in the organization of a rescue working team after the fire (Archaeology, Biological Anthropology and Ethnology). Coordination: Claudia Rodrigues Carvalho.
8	Master’s and doctoral thesis defenses (PPGAS, PPGARQ, PROFFLIND): Master’s Degree, 40 (PPGAS, 16; PPGARQ, 6; PROFFLIND, 18), Doctorate Degree, 24 (PPGAS, 18; PPGARQ, 6).
9	Indigenous Presence in the Postgraduate Program: 17 students from different peoples and regions (PPGAS, six; PROFFLIND, 11).
IO	Affirmative action: 15 Doctorate Degree Students (12 blacks, 3 natives) and 14 Master’s Degree Students (11 blacks, 3 natives).
II	Accomplishment of scientific collections inventory (collection, losses, rescue expectations).



Science | BOTANY  
**in Focus**

The Department of Botany (DB) is composed of 13 active professors, one of them recently having received a Ph.D. in Ethnobotany, two collaborating professors, three biologists, 13 technicians (four new entrants in the Herbarium), a new collection technologist, two volunteer collaborators, 40 students from the Postgraduate Program in Biological Sciences - Botany (PPGBot), 33 students from the Scientific Initiation Program, five students from the Junior Scientific Initiation Program of Pedro II School, and five postdoctoral students, in four study groups: Plant Reproduction (Laboratories of Reproductive Biology, Anatomy and Palynology); Plants Used by Traditional Communities (Laboratory of Ethnobotany); Algae Biodiversity and Water Quality (Laboratory of Phycology); Taxonomy and Phylogeny of Angiosperms (Taxonomy Laboratories), belonging to 4 different research lines of the PPGBot (Embryophyte Morphology, Ethnobotany, Taxonomy and Ecology of Cryptogams and Diversity and Evolution of Angiosperms).

DB researchers participated in partnerships with 15 national and eight international institutions, conducting 74 research projects with 52 published articles, including 22 in Brazilian journals and 30 in international journals. Six book chapters were completed and eight taxa new for science were described.

The DB participated actively in the celebrations of the Museu Nacional Bicentenary, with exhibits and workshops produced by different laboratories and the Herbarium, as well as the “Spring in Museums” event, with presentations of various subjects under study in the department.

Another critical point was the engagement of everyone when it became necessary to shelter our colleagues from different departments and sectors after the tragic fire. Thus, in the BD building, there are currently professors and students from other departments, in addition to the Invertebrate Department Office and the Allowances and Tickets sector. The

PPGBot secretariat now shares its former space with postgraduate degree candidates in Anthropology.

In 2018, the DB completed a survey of 373 species of plants (belonging to 91 families) present in the Horto Botânico, in addition to maintaining the entire area. Partnerships were signed with the Health Department of the Municipality of Rio de Janeiro to carry out the control of snail populations in the canals and lake of the Horto Botânico and with a biologist researcher from UERJ, who works for animal and indigenous protection of the Manaú-Arawak ethnic groups, through the controlled and supervised supply of surplus bamboo material from the Horto Botânico for use in Maracanã Village.

#### To read:

Alves-de-Souza, C.; Benevides, T.; Menezes, M.; Jeanthon, C.; Guillou, L. 2018. First report of vampyrellid predator-prey dynamics in a marine system. *ISME Journal* 13:1110-1113. Available at: <https://doi.org/10.1038/s41396-018-0329-0>.

Abreu, N.L.; Alves, R.J.V.; Cardoso, S.R.S.; Bertrand, Y.J.K.; Sousa, F.; Hall, C. F.; Pfeil, B.E.; Antonelli, A. 2018. The use of chloroplast genome sequences to solve phylogenetic incongruences in *Polystachya* Hook (Orchidaceae Juss). *PeerJ* 6:e4916. Available at: <https://doi.org/10.7717/peerj.4916>.

# Science in Focus | ENTOMOLOGY

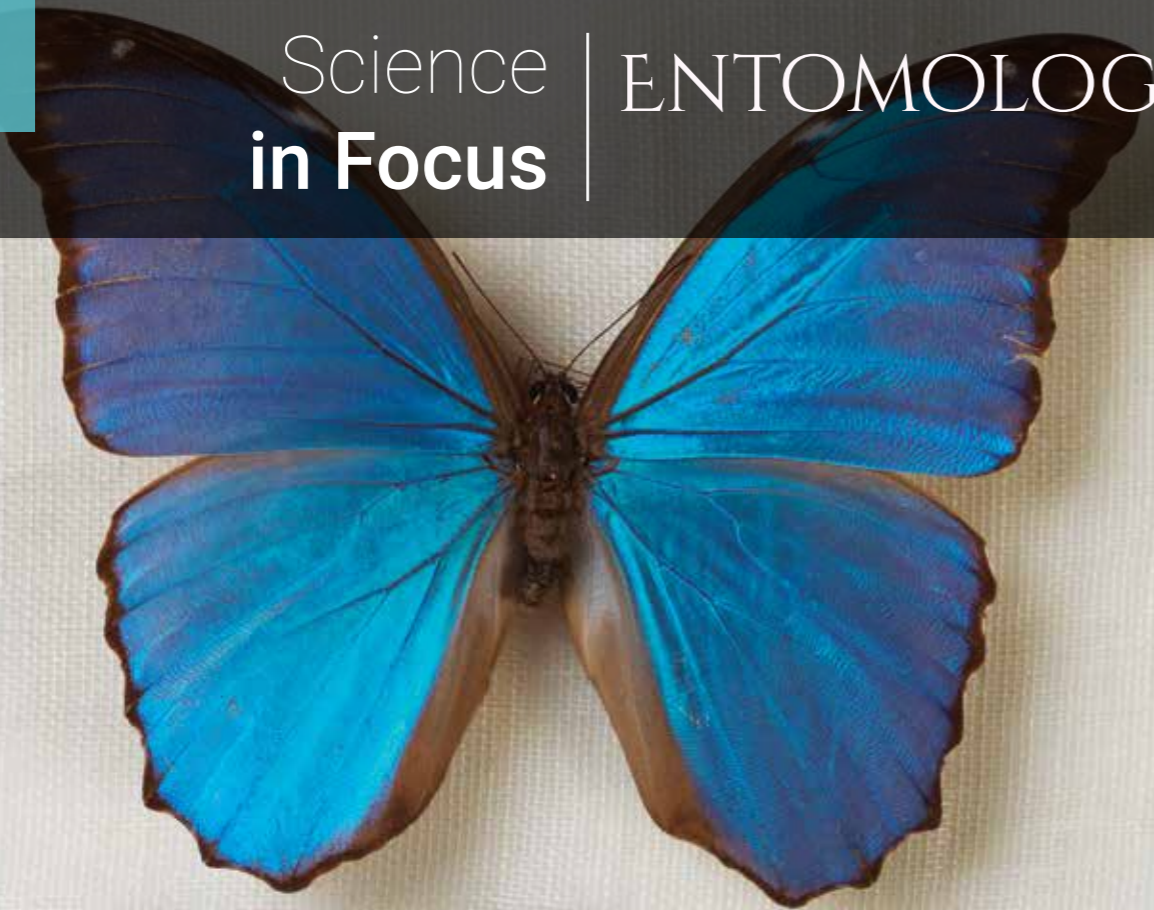


photo: J. Safra Institute collection

The Entomology Department (DE) of the Museu Nacional included 11 professors in 2018, one of them a retired researcher emeritus; seven holders of scholarships from the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq), six specialized technicians with undergraduate and postgraduate degrees, and 58 trainees, at different levels of education, from scientific initiation to postdoctoral candidates. The staff conducts research and teaching in the Postgraduate Program in Zoology (PPGZoo) of the Museu Nacional/UFRJ, where they administer 16 courses and orient 36 master's. Moreover, the staff participates in undergraduate and other programs and regular courses in different parts of Brazil.

DE conducts several lines of research involving insects, focusing on systematics, morphology, biology, ecology, biodiversity and natural history. These research activities resulted in 59 scientific articles, published in qualified national and international journals and book chapters, as well as presentations in congresses, symposia, lectures and round tables.

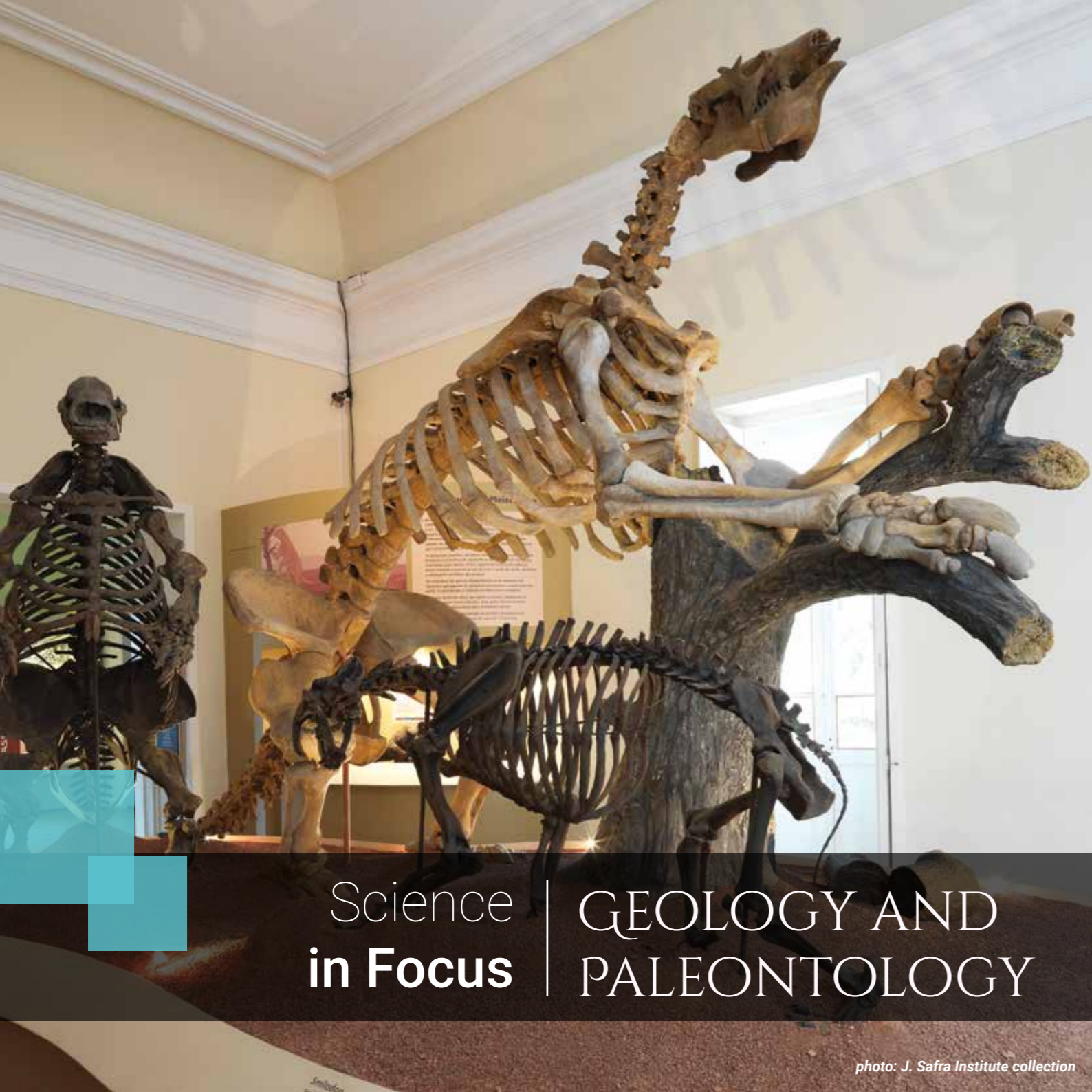
As administrative activities, the members of DE participate in committees, university organizations and as department heads. DE professors and technicians lend their time for the identification of entomological material, serve on editorial staffs of scientific journals, provide opinions to development agencies, and review manuscripts for scientific journals as ad hoc consultants.

At the end of the year, as a result of a competitive process, a professor and a technologist joined the professional staff of the Department.

## To read:

Santos, M.G.; Maia, V.C. 2018. A synopsis of fern galls in Brazil. *Biota Neotropical* 18(3):e20180513. Available at: <http://dx.doi.org/10.1590/1676-0611-bn-2018-0513>.

Monné, M. 2018. An updated list of the type specimens of Caelifera (Orthoptera) in the Museu Nacional, Rio de Janeiro. *Zootaxa* 4462:73-95. Available at: <http://dx.doi.org/10.11646/zootaxa.4462.1.3>.



## Science in Focus | GEOLOGY AND PALEONTOLOGY

photo: J. Safra Institute collection

The Department of Geology and Paleontology (DGP) presents the activities carried out by its administrators in the areas of research, teaching, extension, and curation in 2018.

Members of the Department attained high research productivity, publishing 40 articles in national and international journals, two books and a book chapter, as a result of numerous projects coordinated by professors and technicians.

In education, we continued the specialization course in Quaternary Geology, offering eight subjects under the responsibility of DGP staff members. We had a significant role in postgraduate student training *stricto sensu*: in geosciences, Geopaleontological Heritage of the Museu Nacional, which composes 70% of the teaching staff, offering more than 20 regular subjects; in zoology, with three professors offering three topics; in geology, from the Institute of Geosciences of UFRJ, in which six professors are responsible for eight disciplines; and in Analysis of Basins and Banners of Universidade do Estado do Rio de Janeiro (UERJ), in which a professor works.

We highlight the work in collaboration with several programs in Brazil, where we participated in numerous master's and doctorate committees. The teaching staff oriented nine specialization students, 34 candidates for the Master's Degree, and 22 for the Doctorate Degree. It also offered four courses in the undergraduate geology program of the Institute of Geosciences of UFRJ, with three professors, besides orienting 36 scientific initiation projects and course completion studies.

The department also organized the IV Brazilian Symposium on Paleoinvertebrates, which was attended by more than 100 participants from 35 research institutions. In curatorial activities, the Department continued to organize and digitize the collection and its information, which will enable the retrieval of data on much of the material rescued in

the fire. At this point, we mention the participation of 10 employees, including technicians and professors, as permanent members of the rescue team. Moreover, all other professors and technicians worked in the rescue of the collection, more specifically in their rooms and collection areas. Several tons of pieces have already been removed; however, the quantification and typing of the amount recovered are still in its early stages. It is essential to mention the rescue of the Ammonite *Coilopoceras lucianoi*, the symbol of the Brazilian Society of Paleontology.

In the extension area, DGP maintained several exhibits before and after the fire at the Palace: respectively, the workshops for the Bicentenary celebrations and the “Museu Nacional Lives” event. The second section of the project “Girls in Science”, which occurred after the fire, was attended by 175 girls from 117 private and 58 public schools. Also notable are the “Afternoons of Geosciences”, monthly lectures open to the scientific community, which were interrupted after September 2; in addition to the “DGP Responds” project, in which the community can ask questions directly to the professors and technicians of the DGP by e-mail. There are two other extension projects: “Young Scientists from Quinta da Boa Vista” and “Geology Is for Everyone”. Also, dozens of press releases and interviews have been published in newspapers, home pages of scientific societies, and news media.

#### To read:

Ybert, J-P.; Carvalho, M.A.; Scheel-Ybert, R., 2018. Grãos de pólen de plantas vasculares do Estado do Rio de Janeiro, Brasil, 1 ed., Rio de Janeiro: Museu Nacional, 236 p. Série Livros Digital, v. 6.

Witovisk, L.; Carvalho, L. B.; Costa, A. F.; Guedes, E.; Zucolotto, M. E.; Trindade, V.; Souza, T.; Sá, N. P.; Villas Boas, S. N.; Maciel, B. S.; Cabral, U. G.; Paula, P. J. G.; Nunes, S., 2018. Curso de Extensão “Meninas com Ciência”: potencialidades da divulgação da Geologia e Paleontologia na perspectiva de gênero. Anuário do Instituto de Geociências UFRJ. (Impresso) 41(2):233-240.

## Science | INVERTEBRATES in Focus



photo: J. Safra Institute collection

The Department of Invertebrates (DI) currently has 11 professors (three of them are CNPq productivity fellows), four mid-level technicians, one biologist, and one secretary. In 2018, a great achievement for the DI was the hiring of two new professors, in the areas of the diversity of Annelida and Marine Malacology. Both professors bring new lines of research that expanded and strengthened DI. Also, there was an increase in technical staff, representing by the arrival of a biologist with doctorate degree and a medium-level technician. In the year 2018, all 11 professors from the department published 43 scientific articles.

As main extension activities, is highlighted the participation of DI in the Bicentenary of the Museu Nacional / UFRJ with workshops in the sectors of Carcinology, Echinodermata, Arachnology and the Laboratory of Biodiversity of Annelida is highlighted. Also worthy of note are the activities carried out by “Coral Vivo” project, such as the training course for young people from Costa do Descobrimento (Discovery Coast), Bahia, the Regional Meetings of the Action Plan for Conservation of Coral Environments (PAN Corals), along with the Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio) and the inauguration of the exhibit “Coral Expedition: 1865-2018”, which was curated by two professors of the DI.

Besides, it is pointed out the remarkable performance of DI professors in governmental processes to evaluate the state of conservation of Brazilian invertebrate fauna, according to the Red Book of Threatened Brazilian Fauna - Invertebrates, of 2018. Four professors from the Department are authors, two of them participating as taxon coordinators (Cnidaria and Porifera) and two participants in evaluation workshops (Echinodermata and Porifera).

With the fire, DI lost facilities and infrastructure of five of its nine laboratories and its two largest collections, Arachnology and Malacology. DI professors and technicians

aided in the collection rescue during the fire, when some optical equipment and computers were saved. At this time, some of the professors and technicians are working on the recovery of the collection, in particular the Malacology Collection. The affected professors and their teams are provisionally housed in laboratories of colleagues located in the Horto Botânico.

#### To read:

Zamudio, K.R.; Kellner, A.; Serejo, C.; De Britto, M.R.; Castro, C.B.; Buckup, P.A.; Pires, D.O.; Couri, M.; Kury, A.B.; Cardoso, I.A.; Monné, M.L.; Pombal, J.; Patiu, C.M.; Padula, V.; Pimenta, A.D.; Ventura, C.R.R.; Hajdu, E.; Zanol, J.; Bruna, E.M. ; Fitzpatrick, J.; Rocha, L.A. 2018. Lack of science support fails Brazil. *Science* 361: 1322-1323.

Garcia-Cisneros, A.; Palacín, C.; Ventura, C.R.R.; Feital, B. Paiva, P.C.; Pérez-Portela, R. 2018. Intraspecific genetic structure, divergence and high rates of clonality in an amphi-Atlantic starfish. *Molecular Ecology* 27:752-772.



Researchers from the Department of Vertebrates (DV) maintained a predominant role in Brazilian Zoology in 2018, through publications, staff training and curation of the collections.

Twenty five staff members worked in the Department (13 professors and 12 technicians), 34 postgraduate students and 33 undergraduate students from several state institutions, distributed in four sectors: Ichthyology, Herpetology, Ornithology and Mastozoology. DV also has a research laboratory in Molecular Biodiversity and an X-ray laboratory.

Researchers from DV have developed projects on vertebrate fauna diversity and evolution, having conducted more than 20 collection expeditions in several states, such as Rio de Janeiro, Minas Gerais, Pernambuco and Goiás. As a result of these works, more than a hundred scientific articles and book chapters, including descriptions of new species of fish, amphibians and snakes and a new genus of birds, as well as various conferences and papers at national and international congresses. They also worked on the development of a national collection policy and access to genetic resources, carrying out continual scientific dissemination.

A new staff member was hired, and Prof. Paulo Buckup received the “Faz Diferença” Award from the newspaper O Globo.

After September 2, about 40 staff members and students from departments affected by the fire were allocated in the DV.

#### To read:

Alves, R.J.V. Weskler, M.; Oliveira, J.A.; Buckup, P.A.; Pombal, José., et al. 2018. Brazilian legislation on genetic heritage harms Biodiversity Convention goals and threatens basic biology research and education. *Anais da Academia Brasileira de Ciências (Online)*, 90:1279-1284.

Espindola, V. C.; Tencatt, L.; Pupo, F. M. R. S.; Villa Verde, L.; Britto, M. R. 2018. From the inside out: a new species of armoured catfish *Corydoras* with the description of poorly-explored character sources (Teleostei, Siluriformes, Callichthyidae). *Journal of Fish Biology* 92:1463-1486.



# Postgraduate Education





# SOCIAL ANTHROPOLOGY

## *Stricto Sensu* Master and Doctorate Degrees

The Postgraduate Program in Social Anthropology (PPGAS) is the first Anthropology course founded in Brazil and reached its 50th anniversary in 2018. In these 50 years, 495 dissertations (16 in 2018) and 344 theses (18 in 2018) were defended, a large part of them published and many receiving honors. In 2018, for example, a master's degree dissertation from PPGAS received the award of Best Dissertation from the National Association of Postgraduate Studies and Research in the Social Sciences (ANPOCS).

PPGAS has maintained the highest possible evaluation by the Coordenação de Aperfeiçoamento de Pessoal de Ensino Superior (CAPES) since its inception, and has consolidated its position as an institution of national and international academic prestige that plays an extremely important role in the production of anthropological knowledge and in higher education in its field, including other Latin American countries, as well as training staff in various governmental and non-governmental agencies, with important contributions in the formulation and debate of public policies in the most varied sectors.

Nowadays, PPGAS has 20 professors from the Academic Directory (AD) on the permanent staff and one collaborator (emeritus professor). In 2018, 16 of these professors were CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico) scholarship recipients, and eight were scholarship recipients from the "Our State Scientist" (CNE) program of the Rio de Janeiro State Fundação de Amparo à Pesquisa do Estado do Rio de Janeiro (FAPERJ). The professors maintain 11 active lines of research and are organized in 13 centers, which function as networks that bring together professors and students of PPGAS and researchers from other institutions around specific projects.

The PPGAS has a total of 158 students (in October 2018) coming from different states and countries, including 107 doctoral candidates, 41 master's candidates and 10 in an Interinstitutional Master's Program (Minter) with the Universidade Federal de Viçosa (UFV).

In 2018, 28 theoretical courses were offered, also attended by a significant number of students from other postgraduate institutions.

Since its beginning, PPGAS has maintained relevant international links of collaboration and exchange, exemplified in 2018 by the start of a Capes-Cofecub project with France and the approval of a second project that starts in 2019, both with the École des Hautes Études en Sciences Sociales (EHESS) and the second also involving the École Normale Supérieure (ENS); a finalization of an agreement with the National University of San Martín (UNSAM) in Buenos Aires; six international projects with the participation of PPGAS professors; the achievement of the position of visiting professor in the Universities of Chicago and Oxford; the active participation of professors in events abroad, exemplified by the 40 lectures, conferences or presentations of work in different countries in 2018; and the presence of three students with scholarships from the Students Program – Postgraduate Covenant (PEC-PG) from other countries in Latin America, and three students with co-responsibility with EHESS (France).

Also related to the international nature of the PPGAS, we can highlight some essential publications of PPGAS professors abroad, whether of books or unpublished articles, or of translations of books already published. PPGAS also maintains active exchanges with national institutions through projects such as the aforementioned Minter, two projects supported by CAPES through Memórias Brasileiras ("Brazilian Memories"), a document involving several institutions in various regions of the country, and a PROCAD- Amazonia approved at the end of 2018 with the Universidade Estadual do Maranhão (UEMA) and the Universidade Federal do Amazonas (UFAM).

We also work to bring knowledge and anthropological debates to a broader audience, such as the exhibit Primeiros Brasileiros (“First Brazilians”), which was held in Brasília in 2018, at the Native Peoples Memorial.

The program has been gaining a renewed and intense internal dynamism with the pioneering implementation of affirmative action policies since 2012, which have already resulted in the arrival of 19 black students for the master’s and 13 for the doctorate degrees, as well as nine indigenous students from several ethnicities and regions of origin for the master’s degree and six for the doctorate.

Finally, it is important to mention the disastrous effects of the fire, which completely destroyed the PPGAS facilities, with the loss of the Francisca Keller Library (FKL), which was a reference for all of Latin America in the area of Anthropology with its 40 thousand items, as well as the facilities of the secretary’s office, the historical and administrative archives of the Program and the professors’ research collections and the nucleus, formed over five decades. However, PPGAS plans to continue bending all efforts toward reconstruction, with the dedication of the professors, students and employees.



## ARCHAEOLOGY

### *Stricto Sensu* Master’s and Doctorate Degrees

The Postgraduate Program in Archaeology (PPGARq), founded in 2006, aims to provide to their students a solid theoretical training allied to archaeological practice in the field and in the laboratory, seeking to train researchers and professors for investigation and transmission of knowledge about the remote and recent past of humankind, in particular the different cultures that occupied what is now Brazilian territory; the preservation of the archaeological resource base of the nation, in the light of archaeological and environmental legislation; and the transmission of knowledge in undergraduate and postgraduate levels. The faculty works and orients students in three lines of research: Material Culture Studies, Settlement of Brazilian Territory and Populations, and Environment and Culture, grouped in a unique concentration area in Archaeology. The program, which is very young, has grown significantly and is now recognized as a highly important center for academic qualification in Archaeology, standing out for its high academic and scientific productivity.

In 2018, the teaching staff had 12 permanent professors and two collaborators. The Program had 23 research projects underway in three research lines and a total of 135 bibliographic products, of which 55 had students as authors. In 2018, 12 places were offered for the master’s degree, with 14 enrolled and 10 approved in the selection process, and ten places for the doctorate degree (seven enrolled and seven approved). In that year, 34 students were enrolled in the doctorate and 31 in the master’s degree programs, and six were undergraduates in each course. The average time to complete these academic degrees was

57 months for the doctorate and 30 months for the master's. PPGArq has 13 scholarships for the master's degree (11 CAPES and two CNPq) and 11 scholarships for the doctorate (nine CAPES and two FAPERJ).

The vast majority of graduates of the program remain involved in activities related to Archaeology, whether in the academic area or in the area of preservation of the archaeological heritage. Most of the students who received their master's degrees are now participating in doctorate projects, in the program itself or in other universities. Many graduates are now in the business world, some of them involved in contracted projects. Currently, around 20% of the graduates are employed in public service in the area of Archaeology, the majority approved by public tenders.

The professors of PPGArq have offered courses in the undergraduate programs at UFRJ and other institutions, and are heavily invested in the orientation of scientific initiation students.

Until 2018, PPGArq had a laboratory infrastructure that was an international standard in its different areas of activity, notably Precolonial Archeology, Historical Archeology, Archeobotany and Bioarcheology; however it was seriously impacted by the September 2018 fire incident. At the present time, the Program remains strongly engaged in the reconstruction of an infrastructure suited to the continuity of academic and institutional activities. Even so, classes and other academic activities have been routinely held since the week following the event, primarily in the classroom building located in the Horto Botânico of the Museu Nacional.

As scientific cooperation, in 2018, the agreements with the Empresa Brasileira de Pesquisa Agropecuária (EMBRAPA), the Instituto Alberto Luiz Coimbra de Pós-Graduação e Pesquisa de Engenharia (Coppe) of UFRJ, the Laboratory of Three-Dimensional Models

of the Instituto Nacional de Tecnologia (INT), and the international agreement between the PPGArq and the University of Buenos Aires (UBA), Università degli Studi "Gabriele d'Annunzio" Chieti-Pescara and Gerda Henkel Foundation are particularly notable.

In 2018, for the second year in a row, the prestigious Luiz de Castro Faria Award, offered by the Centro Nacional de Arqueologia do Instituto do Patrimônio Histórico e Artístico Nacional (CNA / IPHAN), was given to a student of the PPGArq. After honoring Dr. Paulo Roberto do Canto Lopes in 2017, the 6th award in 2018 went to Master Leidiana Alves da Mota for the dissertation "Yesterday Firewood, Today Coal; Anthropological analysis of the Early and Middle Holocene of Toca do Boqueirão da Pedra Furada (Piauí-Brazil): landscape, paleoenvironment and paleoethnobotany".

Also, in 2018, the performance of PPGArq was indirectly recognized internationally through the classification of UFRJ in the QS World University Rankings as one of the 150 best universities in the world in Archaeology (our program is unique in the University), being the second recipient in Latin America and the first in South America.



## BOTANY

### *Stricto Sensu* Master's and Doctorate Degrees

The PPGBot began its activities in 1972 with the master's degree and in 1998 the doctorate was established. It has a concept (evaluation level) of 4 from CAPES, with 447 dissertations and 109 theses defended. PPGBot is structured in the Plant Biology concentration area, with seven lines of research and 19 projects, which cover three major areas of Botany: Morphology, Taxonomy and Ecology.

In 2018, 28 students joined the program (20 for the master's and eight for the doctorate), 14 graduated (10 with master's and four with doctorate degrees) and 65 students are currently in the program (29 master's and 36 doctoral candidates). PPGBot has quotas of grants from CAPES Social Demand Program (eight in the master's and 22 in the doctorate), CNPq (seven master's and four doctorate degrees), in addition to a master's/CAPES of wide competition granted by the Pro-Rector, one master's and two doctorate degrees in the Program of Qualification in Taxonomy (PROTAX)-II and one doctorate from CAPES-ANA public notice.

The teaching staff is composed of professors from the Museu Nacional, from the Institute of Biology and the Faculty of Pharmacy of UFRJ, the Jardim Botânico do Rio de Janeiro (JBRJ), the Universidade Federal Rural do Rio de Janeiro (UFRRJ), the Universidade Federal do Estado do Rio de Janeiro (UNIRIO), and Universidade Feral Fluminense (UFF), and has 26 professors (19 in the Permanent Nucleus (PN) and seven collaborators). The Program has nine professors with productivity grants from CNPq and two Young Scientists from Our State of FAPERJ.

PPGBot has a postdoctoral scholarship in the National Postdoctoral Program (PNPD) of CAPES. There are 45 subjects classified as general formation, compulsory and specific for vascular and non-vascular plants, of which 24 were given in 2018. The Special Topics subjects enable us to offer content that is not provided in the regular curriculum, and eight short courses of this kind were taught in 2018. The short course "Diversity of Climbing Plants in the Neotropics" was given by Dr. Pedro Acevedo Rodriguez, from the Museu Nacional of Natural History, United States, from September 10 to 20. The course had 20 students from both PPGBot and outside. The comprehensiveness of the subjects, englobing different sub-areas of Botany, causes the Program to receive students from other undergraduate programs at UFRJ and other institutions. In 2018, eight courses received 14 students from other PPGs, namely: JBRJ, Universidade Federal de Rondônia (UFRO), UERJ, UFRJ, UFRRJ and Universidade do Estado de São Paulo (USP). Ninety-seven scientific articles were published.

UFRJ won funding from CAPES-PRINT (Institutional Internationalization Program) and PPGBot was awarded four missions of from seven to 20 days abroad, four grants from the six-month Sandwich Program (PDSE) and three Youth Scholarships Talent with experience abroad. Fifteen papers were presented by eight students and six professors from the Permanent Nucleus (PN) at two international events: XII Latin American Congress of Botany in Quito, Ecuador and International Conference on Comparative Biology of Monocotyledons – Monocots VI, in Natal, Rio Grande do Norte, Brazil.

The following projects with international cooperation are conducted: 1) Control of cyanobacterial blooms in tropical aquatic systems: studies in mesocosm — partners: UFRJ, UERJ, Universidade Federal de Juiz de Fora (UFJF), Wageningen University, Wageningen, Netherlands; 2) International Research Group (GDPI) Diversity, Evolution and Biotechnology of Seaweed (DEBAM) — partners: UFRJ, UERJ, USP, Université de Sorbonne, IRN, the Pontificia Universidad Católica de Chile, the Universidad Austral de

Chile, the Universidad de Los Lagos, the Universidad de Concepción, the Universidad Católica de la Santísima Concepción, and the Universidad de Magallanes; and 3) Evolution and Diversification of Bromeliads in the Neotropics — partners: UFRGS, UNIRIO, University of Vienna (Austria) and University of Gothenburg (Sweden). Projects of the PPGBot had support for the development of research and/or scholarships (Post-Doctoral Scientific Initiation), from several development agencies (FAPERJ, CNPq, CNPq/MCTIC /FAPs PROTAX, PIBIC-UFRJ/CNPq, PROPPG/UFRRJ, UFRRJ/PIBIC, UNIRIO-PROPGPI/DPQ, CAPES-ANA, CAPES-PRINT).

PPGBot and the Department of Botany, because they work in a building in the Horto Botânico, were not directly affected by the fire in the Palace. All secretarial, didactic, and research activities and the integrity of the collection were preserved.



## QUATERNARY GEOLOGY

*Lato Sensu*

The specialization course in Quaternary Geology has been offered by DGP since 2001 uninterruptedly, offering 15 vacancies per year. It is a *lato sensu* free and interdisciplinary course that integrates the areas of Geology, Paleontology and Archaeology. The teaching staff is composed mostly of professors from the Museu Nacional and the Institute of Geosciences of UFRJ, with collaborators from UERJ and UNIRIO. The course has a specific focus for professionals trained in the areas of Geology, Geography, Oceanography, Biology, History, Archaeology, Engineering, among others interested in knowledge of the techniques used in the study of Quaternary Geology.

This course aims to train researchers to study geological, paleontological and archaeological problems that occurred in the Quaternary Period, through the description, analysis and interpretation of elements of Quaternary Geology, as well as the use of specialized literature, implying the dynamization, and updating of professionals.

The course has five compulsory subjects and 20 optional subjects, each with a workload of 45 hours. The classes are theoretical and practical, with some topics that include obligatory fieldwork. To complete and obtain the title of Specialist in Quaternary Geology, the student must take 450 hours (up to 495 hours) and present a final monograph with a subject pertinent to the course in a maximum period of 16 months.

In 2018, there were 16 candidates enrolled in the selection process, with the approval of 12 students. Among these, seven have met the requirements of the disciplines and

are in the process of preparing their final monographs for the course, which will be exceptionally evaluated up to July 2019, due to the fire.

Also in 2018, the reformulation of the curriculum of the course was approved, to reduce its workload and adapt it to the level of a specialization. The new degree also offers five compulsory 45-hour subjects and 15 optional 30-hour subjects. Thus, to obtain the degree, the student must complete 375 hours and have his or her final monograph approved.



## LINGUISTICS AND INDIGENOUS LANGUAGES

### *Stricto Sensu e Lato Sensu* **Professional Master's Degree**

**T**he Linguistics sector, associated with the Department of Anthropology, was created in 1958. Among its creators was the eminent linguist Joaquim Mattoso Câmara Jr., who was responsible for the introduction of linguistics as a science in Brazil.

This sector offers three postgraduate courses of study, namely the Professional Master's in Linguistics and Indigenous Languages (PROFLLIND), the Specialization Course in Brazilian Indigenous Languages (CELIB), and the Specialization Course in Generative Grammar and Cognition Studies (CEGEC). The Program also includes the Center for the Documentation of Indigenous Languages (CELIN), specialized in indigenous languages and varieties of Brazilian Portuguese, with a collection composed of textual, sound and visual materials, as well as a laboratory. In recent years, it has assumed characteristics of a research center, to conduct investigations, especially on the indigenous languages spoken in Brazil.

The researchers and professors conduct a wide range of studies, aiming to ensure the breadth and plurality of research and training. Currently, among the main axes of research from this group of professionals are investigations of grammar theory, grammatical (functional) categories, phonology, (ethno-) semantics, linguistic politics, writing and orality, together with the study/reinterpretation of grammars produced on indigenous languages, and formal reworking of typological characteristics. Another axis of research groups studies

on language categories and cognitive categories that relate, on the one hand, to language/culture/society and, on the other hand, to language and cognition. Still within the scope of this last axis, other studies aim to make explicit the language/speech relation, especially how the subject-native discursive position has been constituted in political and ideological terms throughout the history of contact.

The Program focuses, in particular, on training researchers in Brazilian indigenous languages through the study of methods for collecting, describing and analyzing indigenous language data in the light of current linguistic theories and documentation, the evaluation and reanalysis of previously published and unpublished descriptive material, thus ensuring knowledge of classification, historical formation of the field of expertise, language/culture/society relations, and relations between language and cognition.

The sector offers extension courses in the context of the Museu Nacional itself, and there are linguistic activities outside the headquarters for several indigenous groups speaking different languages and located in different parts of Brazil, including Amazonas, Rondônia, Mato Grosso, and Paraná. The remaining activities, due to institutional configuration, have been carried out in a context of intra- and interinstitutional collaboration.

The Professional Master's in Linguistics and Indigenous Languages was internationally recognized in 2018, linked to one of the five areas that ranked UFRJ among the 100 best universities in the world, according to the QS World University Rankings by Subject, published in 2019.



## GEOPALEONTOLOGICAL HERITAGE

### *Stricto Sensu* Master's Degree

The Postgraduate Program in Geosciences — Geopaleontological Heritage (PPGGeo) emerged from the experience gained by the DGP over more than 15 years with the Specialization Course in Quaternary Geology, the activities of its researchers in other postgraduate programs, the experience of curating geoscientific collections (since the 19th century), the vast knowledge and work of its researchers in geological and paleontological sites, and the perception of the lack of courses aimed at training professionals capable of acting in the recognition, preservation and management of the national geoscientific heritage.

The teaching staff is composed of 21 research professors who teach 27 courses in four quarters annually.

The huge fire that caused the total destruction of the inner area of the Palace, including exhibits and various research and teaching facilities, strongly impacted PPGGeo. All scientific collections related to the Program have been damaged. The total loss will only be known after the end of the recovery process but is highly significant.

Almost all the research laboratories (about 90%) were destroyed, so the equipment used for this purpose was lost, as well as all related furniture.

Another impact of fundamental importance was the loss of all the historical and administrative documentation of the Program.

Until 2018, 21 dissertations have been completed (two classes). At this time, the program, along with students and mentors, has already partly or entirely reformulated all dissertation projects that were affected. Of the dissertations under development, approximately 20% were heavily impacted, so extensive changes are needed; about 40% were moderately impacted, requiring relatively general modifications; and the remaining 40%, especially those in the final phase, were less affected, so that with some minor changes they could fully achieve their original objectives.

In spite of the large size of the fire, the Program has not interrupted its activities, since both the administrative office and the classrooms were preserved because they were located in other buildings used for museum educational activities. This made it possible to continue the school term then in progress. Also, additional class activities (courses and lectures) continued, including the completion of the Biomechanics course, taught by a foreign specialist, from October 8 to 12, 2018, with 18 students participating.

With the collaboration of the Postgraduate Program and Research Pro-rector of UFRJ, administrative procedures that were lost are already in the final stage of restructuring.

These initiatives and the hard and dedicated work of all members of the Program have allowed us to continue the selection process for the class of 2019 (20 vacancies offered). In this context, the PPGGeo community is developing initiatives in different lines of research, aiming to overcome the impact of the fire, as described in the following activities.

Collection Replacement: in the process of implementation, through obtaining financial resources to support fieldwork.

Equipment Replacement: support lines for this purpose are in the process of attempting to reestablish laboratories and resume present and future research projects.

Furniture Replacement: as mentioned in the previous item, laboratories and research offices are also attempting to replace their furniture.

Extension of the scholarship period without impacting scholarships for new classes: regarding the ongoing projects, especially those that were more heavily affected, we aim to increase the scholarship periods for the affected students, with concern that this action does not cause an interruption in granting new scholarships for future classes, which could impact the continuity of the Program.

Review of the evaluation process (the next eight years): in this regard, CAPES was requested to review the evaluation process of the program, since, in addition to the impacts of the fire, the Program is a “new course”. Thus, a meeting or visit of the CAPES Geosciences Committee to the Museu Nacional was requested, to indicate the best procedure to adopt.



## ZOOLOGY

### *Stricto Sensu* Master's and Doctorate Degrees

The Postgraduate Program in Biological Sciences – Zoology (PPGZoo) was created in 1972. With almost 50 years of tradition, the Program has as its fundamental mission to train masters and doctors capable of becoming professionals qualified to carry out activities in research and higher education in Zoology, as well as to be multipliers in the training of personnel. The achievement of this mission is linked to the concept that teaching and research are necessarily linked, which is achieved by these objectives: provide the students a theoretical-practical basis, through the curriculum and other structural conditions and other resources, to develop projects of high quality; promote academic debate within the scope of the program, through internal seminars, lectures by invited professors, etc.; stimulate the exchange between students and the national and international scientific community through participation in congresses, visits to scientific collections; encourage the dissemination of results of students research through the publication of articles in qualified journals; guarantee the academic and scientific experience so that the students can carry out, in the future, the orientation activities at the undergraduate and postgraduate levels; promote actions that allow students to work in extension activities and teaching experiences.

The PPGZoo acts in the concentration area of Zoology, including projects in various themes distributed in four research lines: Systematics and Biodiversity; Animal Ecology and Conservation; Paleontology; and Applied Zoology. The curricular structure provides basic subjects in the area of Zoology, as well as more specific topics that allow the student to have an opportunity to delve more deeply into different methodologies, techniques, and theories of the subarea in which they choose to specialize in their professional lives.

The teaching staff of PPGZoo included, in 2018, 40 mentors, among those associated with the Museu Nacional or the Institute of Biology (UFRJ). By the end of 2018, 701 master's and 251 doctors were trained. During 2018, 149 students have been through PPGZoo, with 18 master's degrees and 19 doctorate degrees conferred.

PPGZoo's strengths are the diversification of its projects, its highly qualified bibliographic production, the high degree of internationalization and intensive activities of professors and students in social insertion actions.

The integration with the undergraduate course is also very intense, with several professors working in disciplines of the Biological Sciences course at UFRJ and in orienting scientific initiation students.

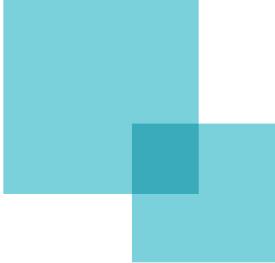
The best way to recognize the success of the fundamental mission of PPGZoo is through the professional placement of its graduating students; many become researchers scattered throughout Brazil, where they contribute in the creation of new nuclei, and then gain prominence in their academic and research careers. In 2018, 213 articles were published in scientific journals, and 23 students traveled abroad for sandwich training, visits to collections, or to participate in congresses. In 2018, the PPGZoo integrated the UFRJ Internationalization Project, with resources to increase international exchange.

The fire at the Museu Nacional strongly impacted the activities of PPGZoo, both in dissertation projects and theses in progress because of the loss of material under study, and in the secretarial infrastructure, classrooms and research laboratories. Immediately, a contingency plan was drawn up to support the students whose projects were affected and to initiate a structural reconstruction of the program. The secretary's office and classrooms were set up in new spaces in the Horto Botânico and, by the end of 2018, they were already equipped and in full operation, without hampering academic activities. Through financial support from CAPES, PPGZoo will be able to acquire essential equipment for the continuity of orientation activities, aiming at maintaining the flow of students.



# Scientific Collections

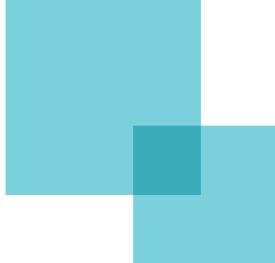
ANTHROPOLOGY  
BOTANY  
EDUCATION  
ENTOMOLOGY  
GEOLOGY AND  
PALEONTOLOGY  
HISTORY AND ART  
INVERTEBRATES  
VERTEBRATES


 Scientific Collections | ANTHROPOLOGY  
BIOLOGICAL ANTHROPOLOGY

The collection of biological anthropology had its collections represented by 3,000 specimens gathered in 2,336 samples affected by the tragic fire that occurred on 2th of September, 2018. This collection included, among other prominent items, the oldest remnant of Homo sapiens found in national territory (Lagoa Santa Region, MG) and one of the oldest in the Americas, the skull of Luzia, in addition to the largest collection on the old people who inhabited this region thousands of years ago represented by about 200 bone fragments of individuals from Lagoa Santa. After the accident, the sector has been dedicating itself to the work of rescuing parts that resisted the fire in partnership with employees from different sectors of the MN. In this process, by the end of 2018, entire or fragmented pieces of the collection were found, including approximately 80% of Luzia's skull. Other activities in the sector regarding the collection and curatorship were the review of the organization and new inventory of the material of the archaeological site Sambaqui Ilhote East and subsequent continuity of the tipping.

Review of the organization, inventory, repacking and preparation for tipping the material of the Atalaia condominium site.

Organization, cleaning, inventory and preparation for analysis of remnant recovered in Praça XV, whose guardianship by the Museu Nacional will only be temporary. Review of the inventory of collections as: Botocudos and Lapa Mortuária de Confins. In the first case, this action is due to the studies carried out on the "Botocudos Collection" from a decolonizing perspective, which necessarily leads to the review of the structure of this set. In the case of Lapa Mortuária, after dating suggested the presence of temporally very different sets of human remnants, we sought to separate the material based on taphonomic characteristics. If this strategy were successful, a new organization would be given to this collection.


 Scientific Collections | ANTHROPOLOGY  
ARCHAEOLOGY

The Archaeological Collection is composed of a set of collections with different characteristics from each other and stored in different spaces. The Archaeological Technical Reserve had an exceptional archaeological collection until September 2018, unique in Brazil and the largest in the country, composed of more than 150,000 pieces (24,441 items listed, estimated as more than 100,000 items, plus 50,000 pieces in backlog). This collection was characterized by the high diversity of the objects preserved, covering archaeological cultures from the Upper European Paleolithic to Historical Brazil of the 19th century, and encompassing collections related to different prehistoric and historical cultures that existed in Brazil, other parts of the Americas and in the Old World (understood here as Europe, Asia and Africa) in multi-millennium time intervals. Its extraordinary diversity included lithic artifacts from the Upper Paleolithic; Egyptian mummies and ceremonial objects; ceramics, glass, bronzes, and Greco-Roman frescoes; thousands of lithic fragments, ceramic, bone and metal artifacts from different prehistoric American cultures, from hunters/gatherers to so-called high cultures, from Mexico, Venezuela, Peru, Bolivia, Chile, Uruguay, and above all from Brazil, as well as pieces from the historical period, both colonial and imperial, recovered in archaeological excavations. Especially important were the collections of Classical Archaeology (Ancient Egypt and Mediterranean) and Andean (pre-Columbian), as well as an unrivaled collection of Brazilian Archaeology, representing from southern Brazil to Amazonia. This last included collections gathered from 1867 until recent collections assembled by professors from these places. Most of these collections were absolutely unique in Brazil and even worldwide, with respect not only to Brazilian Archaeology, but also to the Egyptian and Mediterranean collections.

The Casa de Pedra (Stone House) Archeology Laboratory houses important collections related to coastal archaeology, mainly from the state of Rio de Janeiro, especially from sambaquis (shell middens) and ceramist groups, as well as historical material related to archaeological rescue (about 200,000 items). The Horto Technical Reserve (“Reserve 2”) mainly houses historical material from archaeological rescue activities, as well as the archaeological collection associated with the excavations of the retired Professor of the Museu Nacional Dr. Maria da Conceição Beltrão (estimated at more than 50,000 items). Finally, an archaeological collection from archaeological rescue activities under the responsibility of the retired Prof. Tania Andrade Lima is temporarily stored in containers (estimated at about 180,000 pieces).

The fire that devastated the Palace left the Technical Reserve of Archeology hard hit, but a large part of the material is being recovered from beneath the rubble. It is not possible at this time to make a quantitative estimate of the number of pieces recovered, but the results obtained so far by the Museu Nacional Rescue Team are extremely promising and suggest that a significant part of the Collection will be recovered.

In addition, all the material stored in Horto Botânico was preserved, including the Casa de Pedra Archeology Laboratory, the Horto Technical Reserve and temporary containers.



## Scientific Collections | ANTHROPOLOGY ARCHAEOBOTANICAL

The Archaeobotanical Collections consist of a set of interrelated collections housed by the Archaeobotanical and Landscape Laboratory (LAP) of the Archaeology sector. They include Reference Collections, collections of parts of current taxonomically well-determined plants that support the identification of botanical remnants of archaeological or natural origin and thus contribute to archaeobotanical, paleoecological and conservation of forest ecosystems, besides contributing to studies of anatomy and plant morphology. They also include Archaeobotanical Collections, which gather samples of vegetation remnants from archaeological sites of the diverse cultures that have occupied Brazilian territory, from pre-colonial times to historical period. Including all six archaeobotanical subcollections (Antracoteca, Xiloteca, Carpoteca, Fitoliteca, Amidoteca, Wood Laminoteca, Anthracology and Microarchaeobotany) The collection includes 10,518 samples with estimates of 527,587 items and other 600 items in the backlog. Details of these collections are given as follow:

**Antracoteca:** Reference collection of Present charred timber. Begun in 1994, this was the first and, by 2018, the largest collection of carbonized tropical woods and the second-largest collection of these woods in the world, after only the collection of the Université Montpellier-II in France. The LAP Antracoteca contained 2,358 specimens belonging to 1,286 species and 548 genera in 103 families. The samples come from several Brazilian plant formations (especially Atlantic Forest, semi-deciduous forest, Brazilian Cerrado, Brazilian restinga and mangrove forest), obtained by field collections and donations from xilotecas (collections of wood pieces), with 23% of this total vouchered. Samples of non-carbonized wood are conserved for most of the samples of the Antracoteca, in order to enable future studies on wood anatomy, experimentation or other fields.

**Carpoteca:** Reference collection of fruits, seeds and subterranean organs, incorporating both species of the current flora of diverse Brazilian plant formations, as well as species of cultivated, native and introduced plants, obtained from field collections, solicitation of donations from herbariums and other carpotecas, or acquisition at fairs and markets, in addition to a significant number of samples obtained through an agreement with EMBRAPA. This collection currently contains more than 500 samples that are preserved by desiccation, carbonization or in a humid environment, for the purpose of a more direct comparison with archaeological material.

**Microbotanical collections:** Reference collections of phytoliths and starch grains. Composed of micrographs of fruits, seeds, roots, tubers or vegetative parts of the plants of the Carpoteca, they may be prepared from fresh plants or material obtained by donation of herbariums and other scientific collections. This collection currently contains about 100 samples of phytoliths and starch grains and is actively expanding.

**Archaeobotanical collections:** Collection of archaeological botanical remnants, mainly charred wood, originating from various pre-colonial and historical sites.

**Microarcheobotanical collections:** Consists of sets of micrographs of plants (especially phytoliths and starch grains) from various historical and prehistoric archaeological sites with various cultural affiliations that have occupied Brazil.

All these collections were completely lost in the fire. Reconstruction projects are ongoing.



Scientific  
Collections | ANTHROPOLOGY  
ETHNOLOGY

The data available from the ethnography and ethnology sector (SEE) indicated, prior to the fire, the existence of 41,495 listed items distributed in three main spaces: the permanent exhibition, the main reserve (R1) and the R2 reserve. An inventory process was underway to identify the location and state of preservation of the parts of these records. Moreover, based on the book of registers, it was intended to seek to identify objects of interest of researches developed in other departments of the Museu Nacional, which consequently were not at that time in the spaces of the SEE. Not yet incorporated into this survey, there are two collections that escaped the fire. The first, titled “The First Brazilians”, with about 300 objects, results from a multimedia exhibition on the indigenous peoples of the Northeast. From August/2018 to February/2019, I was roaming the indigenous peoples Memorial in Brasília. There are catalogues (in Portuguese and Spanish), partial inventory, photographic documentation and didactic material. The second was donated to SEE by the heirs of the anthropologist Rafael Pessoa and had not yet been inventoried, because it needed hygiene and restoration.

For decades, the SEE has had an inadequate staff in view of the extent and complexity of the ethnographic collections, as well as to attend to the large numbers of requests for inquiries and research in the collection. For this reason, partnerships with researchers were established to better organize and document specific collections.

During a postdoctoral internship at the Museu Nacional, the anthropologist Manuel Ferreira Lima Filho from the Universidade Federal de Goiás (UFG) carried out the identification and study of the Karajá collection.

Mariza de Carvalho Soares, with the support of the technicians of SEE, carried out a survey of the African collection. She organized the “Kumbukumbu” exhibit, with a catalogue in printed and digital versions.

Professor Renata Menezes from PPGAS and her students documented the popular culture collection.

The indigenous people best represented in the collection was the Ticuna (from Amazonas), with more than a thousand objects, organized and documented through a research project, with the assistance of Bianca Castro França and the indigene Salomão Clemente (Ticuna). The Master’s Thesis came from it, the first thesis to be defended in the Postgraduate Program in Conservation of Collections of Museu de Astronomia (MAST) about the Ticuna collection; this thesis will be published as a book.



Scientific  
Collections | BOTANY  
HERBARIUM

During 2018, the Herbarium (acronym R in the Index Herbariorum) has a permanent staff of 14 members (three professors, a botanical collections manager technologist, and eight herbarium technicians), in addition to 30 trainees.

The archive is divided into three collections: Phanerogams, Cryptogams and Types, each collection supervised by a curator and a chief curator. Historical specimens are also under the supervision of a curator, although they do not constitute a separate collection. Aiming toward a reorganization of the collection, a new material quantification is in development. As of December 2018, about 27% of the collection was inventoried, whose extrapolated numbers resulted in an estimate of 286,718 specimens of plants in total (sheets). Since 2008, the herbarium R integrate INCT-Virtual Herbarium of Flora and Fungi of Brazil (INCT-HVFF), a cooperative network among 116 national herbariums, with the collaboration of foreign institutions and support from CNPq, CAPES and Foundations of Research Support (Faps). In 2018, Herbarium staff carried out 109 national exchanges and 19 international exchanges, as well as receiving 78 visitors and 194 consultations. A total of 587 new samples were included. The Herbarium R publishes its data in the portal INCT-HVFF, as well as in the Information System on Brazilian Biodiversity (SiBBR), Global Biodiversity Information Facility (GBIF) and Integrated Digitized Biocollections (iDigBio). The Type collection is also available in Global Plants. In 2018, considering the three collections, the Herbarium R counted 59,775 records on line - 40,644 from the general collection, 12,534 cryptogams and 6,587 Types, which meant an increase of 13% in the total data (8% are georeferenced) and 25% (4,546) of the images are available for free and open access, respectively. Soon, the herbarium will also use the JABOT platform; it is already in the last phase of testing.

This year, 2,592,938 records and 15,537 images from the R collection, 472,549 records and 11,629 of the Type collection and 364,008 records and 99 images of Cryptogams, which are available on line, were consulted.

In 2018, 104 publications in high-impact journals utilized the collections metadata (38 from the general collection, 10 cryptogams and 18 Types).

The herbarium also participated in extension activities related to the Bicentenary of the Museu



Scientific Collections | EDUCATION

Since 1959, the loan collection of Seção de Assistência ao Ensino (SAE) has been used to disseminate the Museum's research and exhibits through educational activities inside and outside the institution. Consisting of items collected and donated by the Museum's team of researchers and staff, as well as other institutions, the collection features over 2,000 items of paleontological and geological material (rocks, minerals, and fossils); zoological material (porifers, cnidaria, flatworms, annelids, mollusks, arachnids, echinoderms, fish, reptiles, amphibians, birds, and mammals) as well as anatomical parts and human fetuses.

Due to the tragedy occurred in September 2018, SAE collection material is currently packaged in three sectors of the Vertebrate Department; however, loans continued almost

uninterruptedly. The segregation of the collection's items has hampered the loan process, which was suspended only in September, but its demand has grown steadily over the years. The public's great interest in SAE's didactic collection can be seen from the number of requests for use by kindergarten, elementary, high school and university teachers, as well as other institutions – for example, non-governmental organizations (NGOs) and museums. Between 2017 and 2018, 4,714 lots were loaned, thus directly or indirectly reaching an audience of over 36,000 people. Because it is a collection available for loan, it often constitutes the first or even the only contact of the public with the Museu Nacional's material, either because this public resides in more distant areas or because it has displacement difficulties. Thus, the teaching material is used for various educational purposes, such as conventional classes, laboratory classes, science fairs, exhibitions, lectures, courses, projects and different events aiming the dissemination, diffusion and popularization of science; specimens are available for practical demonstrations at the National Science and Technology Week (Ministry of Science, Technology, Innovations and Communications, MCTIC), at school science fairs and exhibitions at Espaço Ciência Viva, among others.

In this way, the Museu Nacional collaborates with other museums and science centers throughout the nation, performing its role in the development of a scientific awareness in the field of Natural Sciences and supporting governmental actions. The collection has been fundamental to the continuity of SAE's activities, a Section that not only continues to lend the material, but also, since the tragedy, has been present in Quinta da Boa Vista Park every Sunday, in order to maintain and strengthen the museum's relationship with society. In addition, SAE visits several schools and scientific institutions and develops educational activities using this collection.



Scientific Collections | ENTOMOLOGY  
APTERYGOTA

The collection of Apterygota (moths, collembolans, etc ...) had its immense collection of 6 million copies lost due to the fire of September 2, 2018.



Scientific Collections | ENTOMOLOGY  
BLATTARIA

Before the fire, the Blattaria collection contained an estimated 25,000 specimens. All were lost in the fire, including alcohol-preserved material borrowed from the USP entomological collection that was to be identified for doctoral theses of two students in the Postgraduate Program in Zoology. Through field collections after the fire, 510 specimens have been received and curated.



Scientific Collections | ENTOMOLOGY  
COLEOPTERA

Before the fire, the Coleoptera collection contained an estimated 3,400,000 specimens. All were lost in the fire, except about 1,500 specimens on loan to researchers in various Brazilian and international institutions. About 3,000 specimens were since received through donations. Field collections have added about 3,000 specimens. The Coleoptera collection currently contains about 7,500 specimens.



Scientific Collections | ENTOMOLOGY  
DIPTERA

The Diptera collection (except for aquatic dipterans) had an estimated 550,000 samples before the fire. Most of these were lost in the fire, leaving about 42,000 specimens that were allocated at the DIPNEO Laboratory, in the annex building Alípio de Miranda Ribeiro, and about 650 specimens that were on loan to researchers from various institutions. These 42,000 samples include valuable type-material from ten families, most notably Cecidomyiidae, with a collection of about 10,000 samples distributed in 1,400 types of 112 species of 46 genera. This collection is admittedly the most important and representative of this family of Diptera in the Neotropical Region. In addition to the Cecidomyiidae type-material, DIPNEO Laboratory houses 234 holotypes from 79 genera of nine other families. These are Muscidae (147 holotypes from 50 genera), Fanniidae (25 holotypes from two genera), Anthomyiidae (18 holotypes from nine genera),

Agromyzidae (18 holotypes from four genera), Calliphoridae (12 holotypes from five genera), Drosophilidae (11 holotypes of a single genus), Ephydriidae (nine holotypes of four genera), Bombyliidae (three holotypes of three genera), and Syrphidae (one holotype). After the fire, several batches of in alcohol dipterans were obtained by donation or field collections carried out by teaching staff, technicians and collaborators of the department, material which is still in the screening, assembly and identification phases. It is estimated that today the total Diptera Collection (except aquatic dipterans) is approximately 43,500 samples.



## Scientific Collections | ENTOMOLOGY HEMIPTERA

Unfortunately, the tragic fire on the night of September 2nd, 2018, almost entirely destroyed the Hemiptera collection (lato sensu, Heteroptera, Coleorrhyncha, Auchenorrhyncha and, Sternorrhyncha). This collection housed approximately 160,000 specimens, including about 900 holotypes. The Hemiptera collection was one of the most important collections in Latin America, with about 100,000 specimens. This collection included specimens of various families and was especially rich in representatives of Miridae (about 22,000 specimens). Most of the species came from the Neotropical region, with specimens from other zoogeographical regions also present. About 800 types, mainly of the Miridae species described by Prof. José C. M. Carvalho, deceased in 1994, were in the Museu Nacional. The Auchenorrhyncha and Sternorrhyncha collections were

smaller but were in the process of being expanded, mainly the first group. The Cicadellidae collection contained several types of described species, in the Auchenorrhyncha archive collected by Prof. Johann Becker, deceased in 2004, in little-studied Brazilian ecosystems such as the Amazon Rainforest.

About 1,000 specimens of this collection escaped from the fire because they were on loan to researchers of other institutions, mostly in Brazil, to carry out taxonomic, phylogenetic and other kinds of studies. These specimens will be incorporated into a new collection, as will the specimens that were collected in recent field work. This material is already being assembled, labeled and identified. In all, it is estimated that the Hemiptera collection currently has about 2,000 specimens.



## Scientific Collections | ENTOMOLOGY HYMENOPTERA

Before the fire, about 200,000 specimens composed the Hymenoptera collection; they were fixed on pins and alcohol-preserved. After the fire, almost all specimens were lost, except about 200 specimens of wasps, bees and ants that were on loan to researchers of various Brazilian institutions. A donation of specimens in alcohol has been received, and is being sorted and organized for identification and incorporation into the new Hymenoptera collection. Because this material is still being processed, an estimate of the number of specimens is not yet possible. The expectation is that during this year the new material will be incorporated officially into the collection.



Scientific  
Collections | ENTOMOLOGY  
AQUATIC INSECTS

**B**efore the fire, the Aquatic Insects Collection contained about 1,300,000 specimens. All specimens were lost in the fire, except for about 2,600 that were on loan to researchers of various Brazilian institutions. Through donations, about 100,000 specimens have since been received. Today, the Aquatic Insects Collection contains an estimated total of 102,600 specimens.



Scientific  
Collections | ENTOMOLOGY  
LEPIDOPTERA

**B**efore the fire, the Lepidoptera Collection contained about 250,000 specimens. The Order Lepidoptera order is the group of insects popularly known as moths and butterflies, and is among the most biodiverse in the Class Insecta. After the fire, all specimens were lost. In December, the collection was restarted, resulting in 226 specimens.



Scientific  
Collections | ENTOMOLOGY  
SMALLER ORDERS

**B**efore the fire, the collection of smaller insect orders or orders without a specialist curator in the institution contained about 120,000 specimens. Some of these orders are the Orthoptera (grasshoppers, crickets, katydids, etc.), Mantodea (praying mantises), Phasmatodea (walking sticks), Psocoptera (booklice), Dermaptera (earwigs), etc.

The terrible fire that has affected the Museum decimated the collections of Orthoptera and related orders such as Mantodea, Dermaptera and Phasmida, destroying the entire collection. The only specimens remaining from these collections are the few specimens that had been lent to researchers of various Brazilian institutions. Of the Mantodea, 13 remaining specimens are presently on loan to researchers at the Jardim Botânico do Rio de Janeiro. Among Orthoptera, 314 grasshoppers and katydids were lent to a researcher from the Universidade Estadual do Pará (UEPA) and they have already been returned to the Museu Nacional; 80 other grasshoppers remain on loan to a researcher at the Universidade Federal do Mato Grosso do Sul (UFMS), and 39 other grasshoppers to a researcher at the Museo de La Plata in Argentina. The total remaining in the Orthoptera collection is 433 specimens, of which 314 are from loans returned to the Museum.

Since September, about 2,000 specimens preserved wet (in ethanol) and about 200 specimens preserved dry have been incorporated into the Orthoptera Collection. A donation of 75 mounted specimens (preserved dry) was received.

Up to February 2019, four collection expeditions were carried out and the resulting specimens were incorporated into the Collection: Orthoptera, about 550 dried specimens

and 200 in ethanol, totaling 750 specimens; Mantodea, 10 dried specimens and 15 in ethanol; and Phasmida, 30 dried specimens and 5 in ethanol. The Orthoptera Collection now has about 3,500 specimens, the Mantodea Collection 38 specimens and the Phasmida Collection 35 specimens.



Scientific  
Collections

GEOLOGY AND  
PALEONTOLOGY  
ECONOMIC GEOLOGY

The Economic Geology Collection contains 1,004 heritage-listed lots (some of them include more than one specimen). The collection of ores, minerals, rocks and mineral products dates from the 19th century, with the oldest donations made in 1820 (Baron von Eschwege) and 1824 (Sellow). In the 1940's, the Economic Geology Collection was officially constituted from the collection of various dispersed samples from other collections, receiving the current heritage-listed numbering. The main collectors and donors were Henri Gorceix, Ney Vidal, Alberto Betim Paes Leme, Ruy de Lima e Silva, Viktor Leinz, Orville Derby, and Cândido Simões Ferreira, among others. Mining companies (Co. Morro Velho, Co. Minas da Passagem, Co. Morro da Mina), government agencies (DNPM, Geological and Mineral Brazil Service) and countless individual donors have donated most of the samples. The collection has various samples which were displayed in the "Exposição do Centenário do Brasil" (Brazil Centenary Exhibition) in 1922. In 2005, when steel compactor cabinets were installed in the DGP Technical Reserve, the Economic

Geology Collection spent about 2 years in interim storage and, in 2007, it was reorganized and packaged on the new shelving. The collection's last entry was in 1959. The collection records are in an old inventory book that was photographed at the beginning of 2018.



Scientific  
Collections

GEOLOGY AND  
PALEONTOLOGY  
METEORITES

The current curator received the collection in 1997 and followed procedures similar to those of his predecessors, Profs. Walter da Silva Curvello and Wanderley Alves de Andrade.

An Inventory book (lost in the fire) and old forms had been scanned, and the file was saved from the fire. A digital catalogue recorded on a floppy disk and an obsolete computer, PC-500. Unfortunately, two printed copies, one in alphabetical order and another in numerical order, were both destroyed in the fire.

The collection numbering system was carried out in this form: each different meteorite received a number followed by MT (01-MT, for example). Every specimen from that meteorite received the same inventory number. In some cases, letters after numbers were added to distinguish the various masses (01a-MT, for example).

In 2000, the Catalogue of the Meteorite Collection was published in the journal Meteoritics & Planetary Science.

The inventory can be summarized according to data from the existing files, for the following years:

2000: the inventory number was 104-MT;

2014: in catalogue, the number was 237-MT;

2015: the number still was 237-MT;

2017: the number was 323-MT;

2018: the number was 345-MT in the inventory book, but was 332-MT in the digital catalogue.

The Meteorite Collection increased mainly through exchanges with other museums and collectors registered in the International Meteorite Collectors Association (IMCA). The last option was quite advantageous because the large museums, such as the Smithsonian Institution, simply exchanged one sample for another of the same type and size. Thus, there was no way to obtain different types of meteorites. In the past, many Brazilian meteorites were donated to these museums, and therefore, the possibility of exchanges for new samples is reduced.

The exchanges were carried out with duplicate samples or pieces of a meteorite that were exchanged for other pieces with the same value. The value of a meteorite is calculated by a formula.

The current digital catalogue was entered in Microsoft Office Access and Excel files. The collection was awaiting resources from Faperj APQ4, notice of 2015, to purchase special cabinets and the software Filemaker.

After the fire, about 400 samples were recovered, although they are not from 400 different types of meteorites. 100% of meteorites weighing more than 1kg; 80% of those over 100g; 60% of those over 50g; 10% of those over 2g; and none weighing less than 2g were recovered.

More time is required to evaluate consequences of the fire. Some meteorites were slightly altered, and others were heavily damaged. Most of them have not yet been identified because they no longer have their bases.



Scientific  
Collections

GEOLOGY AND  
PALEONTOLOGY  
MINERALOGY

The Mineralogy Collection belongs to the Mineralogy Sector of the Geology and Paleontology Section, which is one of the oldest sections of the Museu Nacional. This collection is associated with great names in European and Brazilian mineralogy and with prominent personalities of colonial, Empire and Republic times.

The collection contains 7,650 registered records with 10,000 specimens, including those of the Werner Collection (Karl Eugen Pabst von Ohain's European Collection, organized systematically by Abraham G. Werner). This collection was brought to Brazil in 1808 by the Portuguese Royal Family; later, it composed the first scientific collection of Museu Nacional.

Other important collections are associated with historical figures from the 18th to 20th centuries and contributed to the history of the Museu Nacional. Among them are the collection of Dom Pedro II (samples from different parts of the world that were collected, bought and/or received by the Emperor of Brazil and donated to Museu Nacional); samples that belonged to Princess Leopoldina of the House of Hapsburg, to her grandson Prince Pedro Augusto de Saxe, and samples collected and/or donated by eminent scientists of the 19th and 20th centuries, such as Baron von Eschwege (German geologist and metallurgist who lived in Brazil from 1808 to 1821), Orville Derby (American geologist and geographer who composed the Empire Geologic Commission in 1875), Claude-Henry Gorceix (French mineralogist and founder of the School of Mines, the Escola de Minas de Ouro Preto, in 1876), Othon Leonardos (Brazilian engineer and geologist who participated in founding courses in Geology at Brazilian institutions), Marechal Cândido Rondon (Brazilian wilderness scholar who participated in various expeditions to explore the Amazon region), Noronha Santos (historian and member of

the Instituto Histórico e Geográfico do Brasil), the former president Getúlio Vargas (Brazilian lawyer and politician) and Jacques P. Cassedane (an important 20th-century mineralogist and professor at the Universidade Federal do Rio de Janeiro).

Part of the collection was acquired from renowned collections or from foreign researchers in the 19th and 20th centuries, such as the Mallet, Leidy, Adnet and Foote Collections.

Lastly, the collection contains specimens of various known mineral classes and of different origins, collected and/or acquired by members of the staff or outside researchers for the Museu Nacional.



Scientific  
Collections

GEOLOGY AND  
PALEONTOLOGY  
PALEOBOTANY

The Paleobotany Collection is the oldest collection in Brazil and among the largest in Latin America. The historical importance of this collection lies in its picture of the beginning of the sciences in Brazil during the 19th century. The first plant fossil collected in Brazil is stored in this collection and identified as *Psaronius brasiliensis* Adolphe Brongniart 1827, in addition to European Carboniferous fossils that were acquired to promote Brazilian charcoal studies in the 19th century. In the 1970's, the collection was extraordinarily increased with the addition of collections of Brazilian Carboniferous fossils gathered by Elias Dolianiti and José Henrique Millan. Dr. Diana Mussa, considered

the greatest Brazilian paleobotanist, was also a professor in the Museu Nacional until 2006 and collaborated extensively in the collection of fossil woods from the Brazilian Paleozoic. Today, the collection contains 4,267 heritage-listed specimens from Brazil and 1,616 specimens from other countries, in addition to 1,250 specimens under analysis to be added to the inventory, totaling 7,133 plant fossil specimens.

Paleozoic fossils, Devonian flora compressions from Paraná, Carboniferous flora from Santa Catarina and São Paulo, and Permian pteridophyte logs and stems compose the largest part of the National Collection. Mesozoic fossils from the Bacia de Tucano (Tucano Basin) and the Bacia do Araripe (Araripe Basin) and some Cenozoic fossils from the states of São Paulo, Rio de Janeiro and Ilha da Trindade (Trinity Island) in the state of Espírito Santo are also part of the collection.

The specimens from other countries include collections from European and North American Carboniferous and Cretaceous fossils from James Ross Island, Antarctic Peninsula, collected by Museu Nacional research expeditions to Antarctica from 2006-2007. In addition, there are a few specimens from the European and North American Mesozoic.

During 2018, studies of fossils from the Ilha da Trindade, Bacia do Araripe, and Quaternary woods from the state of Maranhão were conducted. A didactic collection composed of fossils with no record of provenance to lend to schools was under development.

The collection was quite damaged because of the fire on September 2nd, and the collection rescue phase ended on January 23rd, 2019. The specimens are now undergoing cleaning, cataloguing and information-recovering processes. It is not yet possible to estimate how much was rescued.

About 11,500 fossil records of Porifera, Cnidaria, Mollusca (Bivalvia and Gastropoda and Cephalopoda), Bryozoa, Brachiopoda, Arthropoda (Insecta, Arachnida, Crustacea and Trilobita), Echinodermata and ichnofossils, including fossil records from three geological eras (Paleozoic, Mesozoic and Cenozoic), in addition to microfossils compose the DGP Paleoinvertebrate Collection. This rich collection began in the second decade after the foundation of the Museu Nacional. However, some specimens and specific collections of paleoinvertebrates were stored in separate cabinets in the old Geology section or in cabinet drawers that composed exhibits in the Museu Nacional until the new inventory book was developed in the late 1940's.

The launching of the Foreign Fossils Collection, obtained through purchase, donations or exchanges through the 19th century and until the first half of the 20th century, totaling 3,060 records with 10,929 specimens, started the sequence of fossils in the inventory book. Among the foreign collections from the 19th century that were included in this book are: 1) The Michelotti Collection, received in 1836 as a donation by Italian paleontologist Giovanni Michelotti, one of the oldest collections in the Museu Nacional and the first foreign fossil collection donated to the institution; 2) the Paris Basin fossil collection, which was presented to Dom Pedro II in 1872 and belonged to the Emperor's private collection, then known as the Imperial Museum; and 3) the Museum of Comparative Zoology Fossil collection, from Harvard University, United States of America (USA). Because the North Americans Charles Frederick Hartt and Orville Adelbert Derby were in Brazil, they brought the collection to Brazil in the final two decades of that century. Collections acquired in the 20th century include: 1) Casts from Ward's Natural Science Establishment; 2) from the Royal Ontario Museum, Canada; 3) from the Porto

University Faculty of Sciences, Portugal; 4) from the Buffalo Society of Natural Sciences; and 5) from Oklahoma University (donated in the 1990s), the last two of these institutions of the USA.

These archives included fossils collected by pioneers of formal paleontology research in Brazil: the members of the Imperial Geology Commission, extinct in 1877, Charles Frederick Hartt and Orville Adelbert Derby, who managed the Paleoinvertebrate Collection in the last two decades of the 19th century. Although extensive material collected by the old Commission was cited in the geology literature, the inventory book listed about 1,705 records with 35,423 specimens, included in the late 1940's and inventoried in 1999.

From this point, the fossil collections and records in the inventory book of the Paleoinvertebrate Collection reflected the specialties of each professor of the current DGP and of donations received from other researchers and/or research institutions. Amazon Neogene Fossils (Pirabas Formation) and Gehard Beurlen's Brazilian Cretaceous Ammonite Collection enriched the archive during the second half of the 20th century. The collection also received, in the early 2000's, a large collection of Paleozoic invertebrates collected by geologists of Petrobras during the Orville Derby expedition in the three great Paleozoic Brazilian basins (Amazonas, Parnaíba and Paraná), carried out between 1985 and 1987, and named the Orville Derby Collection after the expedition. From expeditions to Antarctica, DGP professors brought large numbers of new marine invertebrate fossils into the collection. Finally, in 2016, the Museu Nacional received the largest fossil collection repatriated to Brazil, named the Caster Collection, comprising one ton of fossils, which was organized in the 1940's by this professor, and was formerly located in the United States. Finally, the two professors who work with this collection, together with postgraduate students, have enriched its content with Paleozoic collections from the Parnaíba and Paraná basins used for taphonomic and taxonomic studies and with historical research on this same collection.

All data and information about the collection were in the Paleoinvertebrate Laboratory Research

Office, and the Paleoinvertebrate Collection and typed files were in DGP collection rooms. In the fire, all material, including the physical and photographed Inventory Book, forms, and computerized material in the laboratory computers were destroyed, halting the information acquisition and updating about the Paleoinvertebrate Collection.

However, the analysis found that in the mid-1990's, the collection had 6,874 records, totaling 53,117 specimens. It might be possible through analysis of files and photographs that were in personal computers of the curators, and also by using the digitalization carried out for the Paleo database of the Companhia de Pesquisa de Recursos Minerais (CPRM). In 2005, before the incorporation of the Antarctica Collection, the collection already contained about 8,000 records, and increased to the current 11,500 records in the last 13 years. Therefore, conservative estimates of the number of samples indicate 53,117 records as of the 1990's, in addition to more than 4,600 specimens, which is the approximate number of records carried out subsequently, totaling about 58,000 specimens of invertebrate fossils, of which more than 550 were fossil types, comprising the largest collection of the department.



**T**he Paleovertebrate Collection, the oldest Brazilian collection, had about 12,000 specimens organized in over 7,000 collection records. The importance of this collection lies in the geographical coverage of its specimens and because it has

materials with great historic value, collected long ago and some of them associated with the Royal Family (the first fossils in the collection date from 1826).

From 1994, the Paleovertebrate Collection began a process of organization and informatization. Simultaneously with this work, a catalog of vertebrate fossils was developed through a detailed bibliographic survey, which resulted in the publication of the first catalog of type specimens and figures from the Paleovertebrate Collection in August 1997.

In 2010, the Collection had doubled in size and passed through a new reorganization and informatization process, resulting in an upgraded database. For this purpose, the Paleovertebrate Collection Management Laboratory was created, and in addition to managing this process, it also offers space with workbenches and magnifiers, where all requests to visit this collection were attended. Two- and three-dimensional images were being generated in this laboratory, to be annexed to the data for each specimen. The provision of this database virtually, in order to democratize access to information on this collection, was the intention of the curatorial team.

The Paleovertebrate Collection was housed in the Palace of the Museu Nacional. The fire caused a collapse of the upper levels, which fell onto the Collection. The cabinets holding the collection were accessible and the collection rescue process began more than 2 months after the cabinets were pulled from the rubble. This process is still ongoing; as of now about 30% of the specimens have been rescued. After the rescue is completed, it will be necessary to clean and treat the pieces and re-record their inventory numbers, an activity that will require several years.


Scientific  
Collections

## GEOLOGY AND PALEONTOLOGY

PALINOLOGY

An important and distinct paleontological collection is deposited in the Plant Paleoecology Laboratory (LPAV) as a result of the developed works in the Paleobotany and Paleopalynology sector through the last years. All the slides that came from outcrop collections and subsurface material (perforations in sediments or deep wells) were deposited in this collection. Lastly, about 2,007 slides constitute the Collection of Microscopy Slides, categorized by locations. Temporarily, all the collection slides are deposited in preexistent cabinets to the LPAV creation. A more modern slide deposit already is in the priority items list of the next projects. The sample list is digitalized in Excel tables. The Palynological slides came from four centers of greater interest that are currently being developed: 1) the Paleozoic - Material that came from Devonian Sediments from Parnaíba basin and Paraná Basin; 2) Mesozoic - material from Cretaceous from Sergipe basin (Aptian-Albian) and Cretaceous from James Ross Sub-basin (Albian-Campanian); 3) Cenozoic - material from the Resende, Volta Redonda, Macacu and Solimões Basins; 4) Quaternary - material from Campos, Santos Basins and the Rio de Janeiro coastal region and several regions of Bolivia.


Scientific  
Collections

## GEOLOGY AND PALEONTOLOGY

PETROGRAPHY

The Petrography Sector belongs to the oldest Geology and Paleontology Department in Brazil. Its history dates from 1842, when the 3rd Section was created, named Geology, Mineralogy, Physical and Biological Sciences. The Petrography Collection belongs to this sector; the collection is composed of 5,535 records, in addition to a collection with about 300 thin slides.

This collection has significant geological and historical importance. Samples from all over Brazil and from many foreign locations are deposited in the Petrography Collection, acquired during the 19th century and in the first decades of the 20th century. The Collection has samples and slides from important campaigns of geological discovery, such as the Imperial Geological Commission and the Rondon Commission, with contributions from Claude-Henry Gorceix, Charles Frederick Hartt, Orville Derby, João Martins da Silva Coutinho, and Luis Felipe Gonzaga de Campos, among many other distinguished naturalists and geologists. Some samples are attributed to Emperor Pedro II's private collection, which he donated after his exile.

The Petrography Collection was organized in the current form in the 1940's, when DGP researchers gathered the entire petrographic collection, which comprised reference collections, projects, and department researchers' collections into a single collection. For this reason, the Petrography Collection is composed of several small collections, most prominently the Imperial Collection, the Bernard Stürtz-Bonn Collection, and samples from the Imperial Geological Commission.

The thin slides represent an important part of the Petrography Collection, because its history, as well as the collection history, represents the development of geological sciences in Brazil. “Reference Collections” can be found inside this one, acquired by the Emperor as a way to support research conducted mainly in the course of the Imperial Geological Commission.

A Collection Informatization Project has been conducted since 2012 in the Petrography Sector. Photos of each specimen were taken, and the Inventory Books, forms of each sample and the collection notebook were digitized. Collections and digitalization of information about the thin slides began, and new, still-unstudied slides of representative specimens from the collection were manufactured, from the end of 2017 through 2018.

The expectation is to create a catalog with collection information and make it available in digital format within the next few years. New sample slides have been made each year, just as new samples are received and sorted for eventual insertion into the Collection, which continues to expand.



Scientific  
Collections

GEOLOGY AND  
PALEONTOLOGY  
SEDIMENTARY ROCKS

The Collection of Sedimentary Rocks was created in mid-2005, with the initial intention of serving for the didactic classes on macroscopic description sedimentary rocks in the specialization course in Quaternary Geology of the

Geology and Paleontology Department. The Collection, composed of specimens of sedimentary rocks with remarkable features (texture, sedimentary structures, mineralogy, fossils), has been formed through collections during curatorial fieldwork and donations from undergraduate and postgraduate students, geologists, and other collaborators. Later, the collection was used in the courses on Stratigraphy and Sedimentology (MNA-774) of the Postgraduate Program in Archaeology (from 2007); and on Sedimentography (MNG-703) of the Postgraduate Program in Geopaleontological Heritage (from 2016); both are from the Museu Nacional/UFRJ. The Collection is the most active DGP archive in terms of didactic use. It is composed of siliciclastic sedimentary rocks (sandstone, conglomerate, pelite) and carbonates (limestone, tufa, travertine, speleothem) collected in sedimentary areas of Brazil (Paraná, Araripe, Sergipe, Alagoas, Recôncavo, São José de Itaboraí basins, etc.), and from other countries (Chile, Mexico, Portugal, Scotland). The Collection also includes various samples of sandstone and ferruginated conglomerates in the Barreiras Formation and other Quaternary units; metasedimentary rocks from the Iron Quadrangle and other metamorphic regions; and some samples of sedimentary rocks collected by former professors in the department and that were not incorporated into any collection. The Sedimentary Geology Collection includes 1001 records of sediment samples. It was computerized in excel spreadsheet and unfortunately the inventoried data was lost in the fire. Whether samples have resisted fire is unknown. In the first semester of 2018, with the help of undergraduate scientific initiation students, the collection was reorganized, cleaned, and stored in steel cabinets, and each sample was entered in the inventory book.



## Scientific Collections | HISTORY AND ART

The History and Art Collection of the Museu Nacional of Brazil is constituted mostly by paintings on canvas, pieces of furniture, and objects representative of the Institution's history.

The Art Collection includes paintings of different levels of aesthetic quality, although with great documentary and iconographic value. The holdings include works by renowned painters such as Portinari, Décio Villares, Antoine Taunay, Dimitri Ismailovitch, Henrique Bernadelli, and Johann Rugendas, among others. Also preserved are museographic paintings that record part of the history of exhibits at the Museu Nacional.

In 2018, the inventory of the painting collection in the Seção de Museologia, started in 2015, was continued (SEMU). At the beginning of the inventory, the paintings were dispersed in different dependencies of the Institution and the organization of these pieces into a collection began.

This work consisted of photographic documentation of the paintings, technical forms detailing the conservation status, surface cleaning for preventive conservation, packaging of the canvases, cleaning and reorganization of the storage spaces, and computerization of technical data sheets. As of September 2018, about 140 canvases were identified and inventoried; among these were over 100 canvases with important artistic value that mainly showed scientific and historical personalities, ethnological subjects and representations of the history of the Museu Nacional Palace and the Quinta da Boa Vista.

In the History Collection, the First Reign Museum/House of Marquesa de Santos Collection, of the Anita Mantuano Foundation of Arts of the State of Rio de Janeiro (FUNARJ), on loan the Museu Nacional was of great importance. This collection had 63 items: 54 pieces of furniture, seven metal jars, a work made in paper, and a painting on canvas.

The historic collection had furniture from the 19th and 20th centuries, pieces that belonged to Imperial Brazil and the Royal Family. Other holdings included representative collections of the history of scientific accomplishments and the Museum Collections, such as scientific instruments and laboratory furniture.

Through 2018, pieces of this collection could be seen in traveling Monarchy exhibits, such as the Coral Expedition - 1865-2018 and in the commemorative exhibit on June 6th, 2018, for the Bicentenary celebration of the Museu Nacional.



## Scientific Collections | INVERTEBRATES ARACHNIDA

The Arachnida collection gathered a total of 24,087 samples and included an estimate of 240,000 specimens in addition to other 50,000 unlisted specimens (backlog). All this material was severely affected by the fire that occurred on 2th September 2018, with virtually total loss. Only 800 samples were saved once they were on loan.



Scientific Collections | INVERTEBRATES  
CNIDARIA

The Cnidaria collection (jellyfish, corals, anemones, etc...) is composed of 8,652 lots (which include 48,613 specimens). In addition to this material, other 350 specimens are part of the backlog. The collection was not affected by the fire since the sector is located in the Horto Botânico.



Scientific Collections | INVERTEBRATES  
CRUSTACEA

Prof. Alceu Lemos de Castro (1920-1988) founded the Crustacea Collection in 1945. Currently, the Crustacea Collection has approximately 27,500 tumbled lots representing about 270,000 specimens. In addition to this material, another 10,000 lots (100,000 specimens) are part of the backlog and were lost in the fire. Most of the Crustacea Collection consists of material from the continental shelf (up to 300 meters), of groups such as Decapoda, Amphipoda, Isopoda and Cirripedia from southern, southeastern, and northeastern Brazil. Many lots of Cirripedia and Amphipoda came from other parts of the world through exchanges with foreign institutions. From 2000 on, the Crustacea Collection incorporated important and unprecedented material of Crustacea from the deep sea (from 200 to 2,200 meters), as a result of different projects, such as the Program for the Evaluation of the Sustainable Potential of Living Resources in the

Exclusive Economic Zone (REVIZEE), Deep Ocean (OCEANPROF), and HABITATS.

In 2014, the Museu Nacional became a member of the Information System about Brazilian Biodiversity was started, funded by MCTIC and the Global Fund for the Environment (GEF), which required the Museum to ensure a priori conditions for computerization of biological collections and to make this information available to the national academic community and to society in general. This was an incentive for the digitization of the Carcinology Collection data, between 2014 and 2017, and the partial provision of these data in the SiBBr platform. Currently, the Carcinology Collection has 24,016 available lots in the SiBBr platform. Simultaneously, the implementation of the Collection Management Program (Specify) in the Brazil Museu Nacional Zoological Collections was started. Data had to be mapped according to the program structure, and now 5,000 lots have been included in the Specify database. However, the project is halted temporarily due to the lack of support for information technology (IT). In 2018, the Collection added 196 lots through heritage-listing in Excel tables. The Crustacea Sector received about 300 lots that came from the “Costões Rochosos” (rocky coasts) project - Ecology, Impacts and Conservation in Lagos Regions and Northern Rio de Janeiro, regarding mainly the groups Decapoda and Peracarida, and about 1,000 lots related to the order Isopoda, which came from the “AMBES” project; among these, 155 lots were heritage-listed in the collection. The fire did not affect the main room of the Invertebrates Collection, located in the Alípio Miranda Ribeiro annex, where most of the Carcinology Collection remains untouched (27,491 lots).

However, about 10,000 lots not yet heritage-listed were lost in the fire because they were in the Carcinology Laboratory, which was destroyed. At the end of 2018, there was a general cleaning of the shelves and maintenance of the alcohol collection. Following the Museum tragedy, the Carcinology Sector has survived through the unity of the team, and the team is determined to rebuild the lost structure and continue the important Crustacea Collection curatorial activities.



Scientific Collections | **INVERTEBRATES**  
ECHINODERMATA

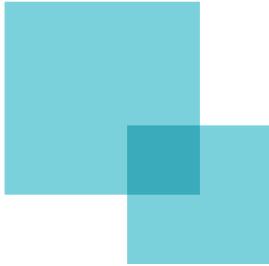
**T**he Phylum Echinodermata is composed of five categories (Crinoidea, Asteroidea, Ophiuroidea, Echinoidea, and Holothuroidea) which contains nearly 7,000 species, exclusively marine. This animal group with its peculiar appearance (a star shape with five rays) arose more than 500 million years ago, in the Cambrian, and has become highly diverse, with almost 35,000 described fossil species. Nowadays, the species occupy all seas and oceans, in all latitudes (from the tropics to polar zones) and depths (from shallow waters to ocean abysses). They are usually numerous and play fundamental roles as primary consumers or top predators in the marine community.

The Echinodermata sector is one of the few laboratories in the country that studies this phylum exclusively. Its team has carried out studies to investigate the fauna in coastal and deep environments, taxonomy, the reproduction of coastal species, and morphological and genetic variations among populations. Recently, there has been a special effort to increase taxonomic and biological knowledge of the species included on the Official List of Threatened Aquatic Invertebrates and of invasive species.

The curatorial activity (expansion and maintenance) of the Zoological Collection of Echinodermata is also conducted in this Laboratory. This collection was initiated in 1960 by Prof. Ignácio Aureliano Machado Brito, and it includes more than 6,000 listed lots from Brazilian waters (coastal and deep), the Antarctic, and other parts of the world. In relation to Brazilian coast, it presents a broad sample of the Campos Basin region, including deep-sea areas, regarding material collected in research programs for this region, such as the REVIZEE and HABITATS Programs, the latter coordinated by PETROBRAS.

The Echinodermata collection had 44,150 specimens (44,000 registered and 150 backlog) assembled in 4,532 samples (4,482 registered and 50 backlog). After the fire the collection lost a total of 150 specimens.

Nowadays, the Echinodermata Collection is housed in the Collection Room of the Invertebrates Department, situated in the annex to São Cristóvão Palace, and is being digitized. However, after the fire, the updated digital files were lost, as well as file documents (listing forms) and some lots that were in the Echinodermata Laboratory. At this time, digital files with about 80% of the listed lots have been recovered. The current challenge is to update the digital file from existing lots and to continue expanding the Collection.



Scientific Collections | **INVERTEBRATES**  
MOLLUSCA

**T**he Mollusca collection is one of the oldest and most representative of Brazil. It includes the record of occurrence of 41,458 samples that include 144,612 specimens of marine, terrestrial and limic molluscs, originating from localities in Brazil and abroad. In addition to the registered material it is estimated that there were another 40,000 samples ready to be registered (backlog). With the fire of 2th September it is estimated that 176,970 epecimens of the collection have been affected. On the other hand, the collection data is 100% computerized in the Specify platform, including images of most of the copies, which ensured the safeguarding of the collection data.

The first references about the collection indicate that mollusks were displayed in cabinets in the first building of the Museu Nacional, at the beginning of the XIX century. The first numbering system was organized only in the 1940's, and only in 1954 did the Collection have a specialist mollusc curator, Prof. Arnaldo Campos dos Santos Coelho (deceased in 2015), who conducted the initial reorganization of the physical space of collection, which began to steadily grow with exchanges and collections, which were being intensified in Brazil. In 2006 the collection curatorship was transferred to the current curator and in 2018 a second curator was added to the staff.

Until September 2018, the Mollusca Collection was located in a room on the first floor of the historic Palace of the Museu Nacional, occupying 42 compactor closets and one tank for large cephalopods. The Collection housed important historical material, from the Geological Commission of Imperial Brazil (1875-1878), the Rondon Commission (1907-1915), the pioneering expedition to Trindade Island, and material treated by eminent zoologists such as Hermann von Ihering.

The fire in the Museu Nacional Palace destroyed the collection installations, but through prompt action by the technician Claudio José Fernandes da Costa, with the help of colleagues and firefighters, the type-material was saved. Today, these types are located in the Paulo Secchin Young Collection room with the Invertebrate Collection.

During the rescue of the historic Palace archives, a considerable number of lots will be recovered from incinerated cabinets and reincorporated, because many of them have intact labels or fragments of information that could be replaced by consulting the collection data. Some recovered samples are among the items in a temporary exhibit in the Centro Cultural Banco do Brasil about the recovery of the Museu Nacional. The Mollusca Collection will be recomposed and will grow rapidly, through collections by the Malacology sector and collaborators, and through donations from partner institutions of the Museu Nacional/UFRJ.



## Scientific Collections | INVERTEBRATES POLYCHAETA

**P**olychaete annelids are one of the most diverse groups of marine invertebrates. They occur all around the world and dominate macrobenthic communities in terms of richness and abundance. Many species have key roles in communities, changing the environment, reworking sediment, or participating in structuring new environments.

The Polychaeta Collection is an important testimony to the diversity of the group, since it houses specimens from the Brazilian coast from the intertidal zone to about 4,000 meters deep, the Antarctic, and 19 other countries (Australia, Belize, China, Costa Rica, Croatia, United States, France, England, Israel, Japan, Norway, New Caledonia, New Guinea, Panama, Kenya, Republic of Palau, São Tomé and Príncipe, Uruguay and Venezuela). The Collection presently contains 6,002 lots (45 holotypes and 144 paratypes) containing approximately 37,000 individuals from 40 of the 70 families included in Polychaeta.

The collection is located in the Paulo Secchin Young Collections Room in the Department of Invertebrates, and occupies around 10 square meters. It is divided into two sub-collections, MNRJP and IBUFRJ. The MNRJP Collection started in 1999 in the ID (Department of Invertebrates), when Doctor Elianne Pessoa Omena, a specialist in Polychaeta, was a Visiting Professor in the Museu Nacional. In the same year, in the Institute of Biology of UFRJ, with the curatorship of Paulo Cesar de Paiva, the IBUFRJ Collection began, named in tribute to Professor Edmundo Ferraz Nonato of the Oceanographic Institute of the Universidade de São Paulo, who initiated modern studies of polychaetes in Brazil and trained students who continued and extended this research. In 2015, the IBURFJ Collection (4,121 lots) was donated to ID and transferred from the Institute of Biology to the Museu Nacional. New lots are added only to the MNRJP Collection, which today contains 1,881 lots.

In 2018, a scholarship holder from the Technician Capacitation and Training (TCT) Program of FAPERJ and a collection technician from ID participated in curating the Polychaeta Collection. During the year, the following activities were carried out: 1) incorporation of 389 new lots (three holotypes and 16 paratypes) into the Collection, representing 56 species and 27 families; 2) development and online provision of plates with photographs of 5 holotypes; 3) updating of collection data in SiB-Br; 4) transformation of spreadsheet items from the MNRJP list, so that data can be exported to the Specify platform; and 5) five loans. The specimens have been appropriately curated, enabling researchers to access the collection.



## Scientific Collections | VERTEBRATES HERPETOLOGY

**H**erpetology houses four different collections: two of amphibians (MNRJ and Adolpho Lutz) and two of reptiles (MNRJ and Adolpho Lutz). The MNRJ Amphibian Collection contains approximately 93,100 specimens and the Reptile Collection contains almost 27,100 catalogued specimens. There are 7,000 samples of amphibians and reptiles to be incorporated into the Collection. Also, nearly 3,600 and 2,100 tissue samples of amphibians and reptiles, respectively, are associated with the specimens. There are 4,320 and 5,130 photographs of amphibians and reptiles linked to samples. There is also an incipient collection of amphibian vocalizations, with 505 recordings. One hundred and ten specimens are presumed to have been lost in the fire (mainly artistic preparations).

Although most of the growth of the collections has occurred since the 1980s, the specimens

of Brazilian amphibians studied by the pioneers Alípio de Miranda Ribeiro and Adolpho Lutz, as well as Bertha Lutz, are deposited in the Museu Nacional, which increases the scientific and historic importance of the collection. The Department also houses some of the illustrations and slides made by Adolpho and Bertha Lutz.

Herpetology houses an important collection of types (holotypes, paratypes, syntypes, lectotypes, and paralectotypes), that is, the specimens that were used to describe a species for the first time. Thus, there are about 400 and 60 name-bearing specimens of amphibians and reptiles, respectively, deposited in the Herpetology Collection.

Given the importance of its collections, the Herpetology sector welcomed 51 researchers from other institutions and 71 shipments (loans and returns) were made during 2018. As most of the research conducted by researchers in Herpetology of the Museu Nacional (employees and students) is taxonomic, there is also an intensive movement of specimens held by other institutions that are lent to Herpetology, totaling 2,300 specimens in 2018.

All Herpetology professors act as curators and two biologists act as collection managers.



## Scientific Collections | VERTEBRATES ICHTHYOLOGY

Ichthyological research started at the end of the 19th century when Alípio de Miranda Ribeiro began his eminent career as a professional scientist. Alípio dedicated most of his life to building the collection in the Museu Nacional, until his passing in 1939. His principal contribution to Brazilian ichthyology included the monumental publication entitled *Fauna Brasiliensis* and the establishment and organization of the Ichthyology Collection that today has the abbreviation MNRJ. The material catalogue of the Fish Collection formally began in 1939, and has become computerized since 1993, through the MUSE program, first in the “NEODAT” Project and now in the Brazilian Biodiversity Information System (SiBBr). During the last two decades, the collection increased by five times and now exceeds 50,000 lots with about 600,000 specimens, covering all the major freshwater drainage basins in Brazil, as well as coastal waters, deep waters of the continental shelf, and specimens representing all continents. It also includes dry-mounted exhibit specimens (more than 600 lots), skeletal material, cleared and stained samples, and more than 12,000 tissue samples to study deoxyribonucleic acid (DNA). Through 2018, the Type-Specimen Collection contained 7,133 specimens, including 262 primary types. The collection, housed in a 588-square-meter facility, is under the care of three faculty members, assisted by a full-time biologist and technologist, besides many undergraduate and postgraduate students, volunteers and post-doctoral students. Annually, close to 30 researchers visit the collection and approximately 38 inter-institutional loans are made. Associated facilities include digital radiography equipment and a molecular analysis laboratory.



## Scientific Collections | VERTEBRATES MAMMALS

The Mammal Collection had its origins at the beginning of the 19th century, but began to have some value for the science of Mammology only at the beginning of the 20th century, with the pioneering work of Alípio de Miranda Ribeiro on the material from the Rondon Collection. Until then, the Collection consisted essentially of mounted specimens for display, which were replaced frequently. Following the arrival of João Moojen in 1939, the scientific archive gained in importance, with the incorporation of material resulting from two large inventories connected to public-health projects: the Service of Studies and Research on Yellow Fever in 1940 and the National Plague Service in 1950. These inventories were complementary in geographical representation, and today form the basis material for a significant part of Brazilian studies of mammals. Their collections, which contain a large set of samples from each locality, have made possible studies of the ontogenetic, taxonomic and geographic variation of primates, rodents and marsupials, structure analysis of annual fluctuations of rodents and marsupials, and the possible implications of multiannual climatic oscillation. These samples have shown new sets, mainly in 1990, results of development researches in different biomes in the country. They include complete skeletons, specimens in liquids, and tissues for genetic material extraction of karyotype specimens, permitting more comprehensive morphological analysis and integrated approaches in taxonomic studies.

The Mammals Collection contains approximately 100,000 specimens; in 2018 almost 84,400 were recorded. Besides the principal Mammals Collection, the Tissues and Genetic Samples Collection has 12,000 specimens.

In 2018, 400 new records representing 10 mammal orders from nine Brazilian states were added to the directory. The sector received visits from 21 postgraduate professors and students

from several national institutions, to examine the Collection material for use in theses and dissertations.

The recent destruction of the Museu Nacional's principal building did not damage the mammal research collection, which is housed in a separate building. However, the 500 specimens on exhibit, including skins and mounted skeletons, some with symbolic value for being recognized by many generations, were completely destroyed.



## Scientific Collections | VERTEBRATES ORNITHOLOGY

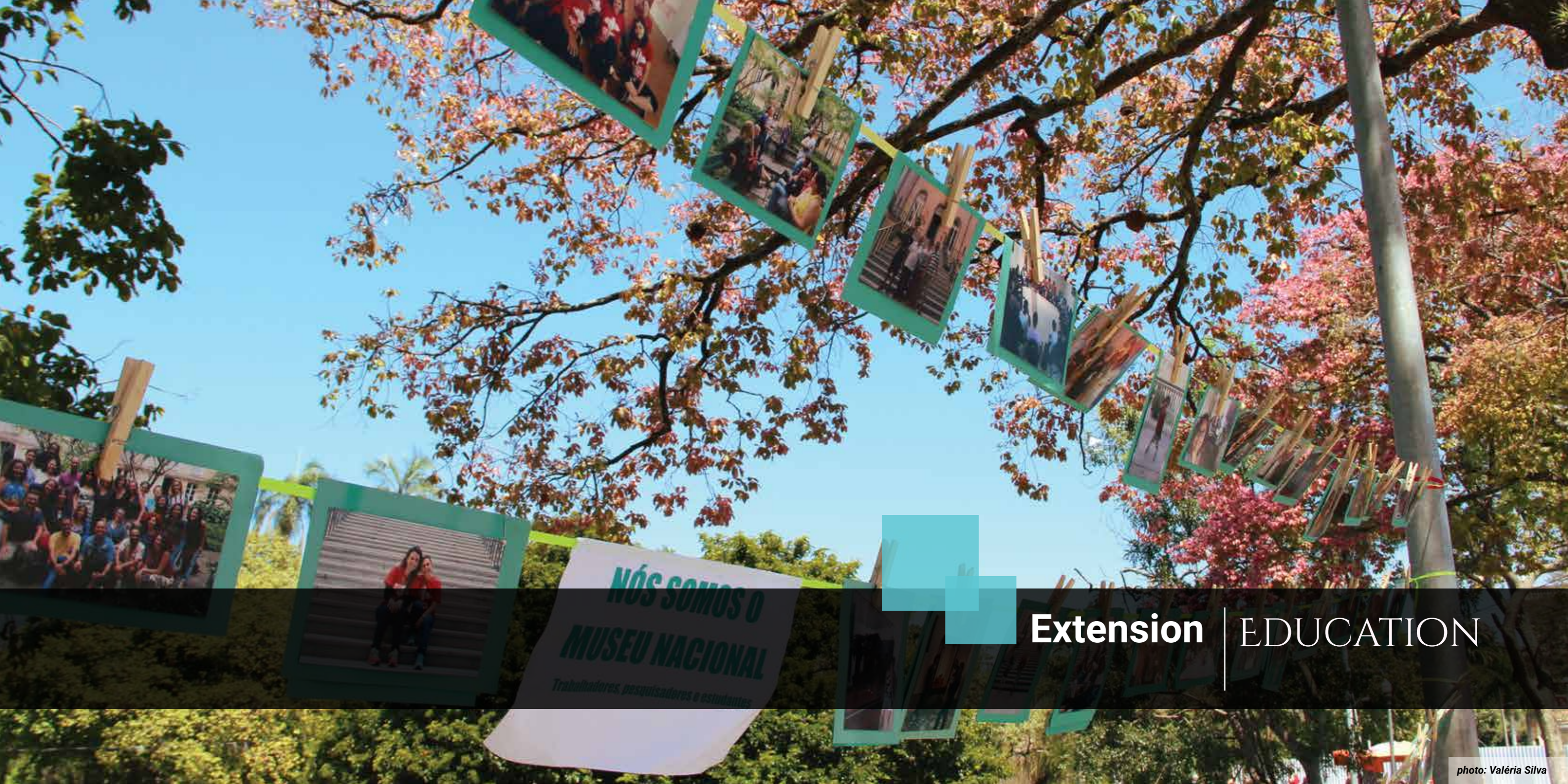
One of the most important activities in the Ornithology sector is undoubtedly the management of the Ornithological Collections and the attendance to the interested public. Today, our Collection has 60,800 fallen specimens and 5,000 tissue samples, among which about 1,000 specimens were dropped in 2018. Subsequently, we present each of the most important Collections of Ornithology.

**Anatomical Collection:** historically neglected in Brazil, the anatomical collection has remained poorly representative, compared to our diversity of birds. This happens because, in ornithology, most descriptions of specimens are based on the plumage coloration, which can be preserved, as seen in taxidermy specimens, without conserving an entire bird. In the last 15 years more than 20,000 specimens were listed and incorporated into anatomical

collections in the Museu Nacional, almost 3,000 of them in 2018 alone. Most of these specimens were collected in the field and some were received from projects of associated researchers, environmentally licensed projects (such as rescues from a hydroelectric power plant), or were killed by colliding with vehicles. The increase in this Collection has enabled the training of master's and doctoral students in anatomy and bird classification in the last few years.

**Bird Tissue Collection:** This has recently become one of the most important collections of bird tissues from the Caatinga and Amazonia, with more than 5,000 specimens collected with resources from research projects. Given this progress, our collection became part of the Barco de Brasileiro (Brazilian Boat) project of surveying our biological diversity through the molecular barcode system. Notably, the creation of a collection of bird tissues in the Museu Nacional has already had the multiplier power to contribute to studies of other institutions, including the Instituto Nacional de Pesquisa do Amazonas (INPA), the Museu Paraense Emílio Goeldi in Belém, and the University of São Paulo, as well as stimulating a new focus on master's and doctoral research. During the year 2018, several master's, doctoral and even postdoctoral projects have benefited from the Bird Tissue Collection.

**Taxidermy Specimens Collection:** Although it was not a priority in fieldwork, the Specimen Collection is one of the largest and the most representative of Brazil's avian fauna. Today, our Collection contains 52,361 specimens, with almost 1,000 listed in 2018. The Collection is 80% digitized and 70% computerized, making this 70% available for public consultation on the Global Biodiversity Information Facility web page. From early 2018 to the present, the data base was cited in 13 scientific articles. Prepared specimens for scientific purposes (morphological, taxonomic and biogeographical studies) and exhibits are part of this Collection, that is, specimens for consultation by the general public for their artistic and scientific value. Specimens are being prepared to occupy new spaces after the rebuilding of the Museu Nacional.



**NÓS SOMOS O  
MUSEU NACIONAL**  
*Trabalhadores, pesquisadores e estudantes*

**Extension** | EDUCATION

**The Museum Mystery Box:** This project is aimed at groups of students from 3 to 8 years old. Selected objects available to touch contribute to sharing experiences and development of scientific concepts, with the narrative as an affectionate bond to stimulate questions. Twelve visits with seven schools (four private and three public) were conducted in 2018.

**Didactic-Scientific Collection for loan:** Between 2017 and 2018, more than 4,714 lots were lent to preschool, elementary and high school teachers and college professors, and to other institutions (NGO's and museums), reaching more than 36,000 people.

**Science Popularization Events:** Five public-participation events were organized, including the National Week of Science and Technology in Fiocruz (Museum of Life), in Campo de São Bento (City Hall of Niterói) and on Fundão Island (Pro-Rector of Extension, PR-5) in Rio de Janeiro, beside other events such as Living Science and Museum Republic Projects.

**The Museum goes to school:** Objects from the Scientific Teaching Collection were taken to 14 schools for teachers (in ten public and four private institutions) to use in instructing on different subjects. To improve the project structure, a collective financing campaign was carried out.

**Samba in the Museum:** Special guided tours were based on the Imperatriz Leopoldinense Samba School, which used the theme "A Royal Night in the Museu Nacional" for their parade in. On technical rehearsal days at the Quinta da Boa Vista, eight tours were conducted for 300 participants, to bring the community and the Museum closer together.

**The Museum was formerly a palace:** A series of lectures for the general public deals with historical aspects of the Empire, starting with the Paço de São Cristóvão and its residents. The first lecture, about the Empress Leopoldina, was given by Paulo Rezutti on September 7, and was attended by 150 of the 471 registrants.

**Children in the Museum - Vacations with Science:** the annual activity that seeks to encourage creativity, curiosity and knowledge enlargement for children from 5 to 7 years old in different areas, such as Astronomy, Botany, Paleontology, Zoology, Archaeology, and Ethnology. Thirty children drawn among the over 400 enrolled participated in the five meetings.

**Museum at Quinta - Meeting with the Community:** On Sundays, some of the objects from the Scientific Teaching Collection are exhibited. In addition to promoting education, this activity attempts to maintain the bond formed generations ago between the Museu Nacional and the public that visits the park. The 13 meetings attracted almost 4,500 visitors.

**Academic production:** Participation in the National Meeting on Educational Practices in Museums and Technology and Science Centers organization; 3rd National Meeting of the Brazilian Association of Centers and Science Museums and the Idea Museum - Education in Debate. Data collection from the 2017-2018 round from the Observatory of Museums and Technology and Science Centers (OMCC&T), giving lectures, participating in round tables, and presenting papers at academic events.

**The Seção de Assistência ao Ensino on Networks:** Educational activities have been developed on Instagram and Facebook to encourage conversation, interactivity, and collaboration about the Museu Nacional subjects and also to establish ways to make science more accessible to reach new audiences.

**Educational School Tours:** From March through August, 68 educational tours with 1,310 students (from Pedro II High School and PIC Jr. Interns) and 165 chaperones were conducted by MN docents.

**VII Training Course for docents of the Museu Nacional:** Aimed at undergraduate students, teachers and tourist guides. Fifty people participated, selected from the 700 people who initially registered. Subjects such as Museum Education, Docent Training, Cultural Accessibility, Public Studies, and the contents of particular exhibits were addressed.

# Extension | EXHIBITS



Samba in the Museum:

Imperatriz is enshrined in the Museu Nacional bicentenary

Short-term,  
inaugurated on  
May 18, 2018

In February, the Imperatriz Leopoldinense Samba School brought the Museu Nacional into the parade of major samba schools in Rio de Janeiro, with the theme of the 200th Anniversary of the Museu Nacional. Following this exposure, the Museum reciprocated by bringing 30 parade costumes to the Quinta da Boa Vista Palace. The costumes representing the different areas of knowledge represented in the Institution — Anthropology, Botany, Zoology, Geology and Paleontology — were displayed in the respective halls, forming a “conversation” between popular culture and science. The opening on May 18 celebrated InterMuseu Nacional Day, with the participation of a traditional samba drum corps from the Ramos neighborhood.

Coelacanth:

The most amazing fish story

Long-term,  
inaugurated on  
June 6, 2018

The exhibit brought before the public a life-sized plaster replicate of the Coelacanth in the Museu Nacional of Natural History in Paris, France. The replicate was obtained for the 150th Anniversary of the Museu Nacional and exhibited for the first time in 1970. The Coelacanth does not cause tsunamis, but stimulated discussion about vertebrate evolution in this exhibit.

Coral Exhibit:

1865-2018

Short-term,  
inaugurated on  
June 6, 2018

The exhibit invited visitors to explore the discovery of corals and their conservation status from the Empire period to the present day. The exhibit used interactive screens and various objects such as fossils, rocks, specimens of Brazilian coral reefs, and scientific instruments, including collected pieces by Geological Commission of Empire expedition in XIX century. The exhibit is part of the schedule of the Bicentenary Commemoration of the Museu Nacional and has been on display as “Living Coral”, sponsored by PETROBRAS, since 2006.

200 years

of the Museu Nacional Exhibit

Short-term,  
held on  
June 6, 2018

Exhibit of symbolic specimens from the Museu Nacional holdings, shown during the 200<sup>th</sup> anniversary ceremony of the Institution. This exhibit included, among the pieces, portraits of Emperors Dom Pedro II and Dom João VI; horns and antlers of animals; commemorative coins and medals; the decree creating the Royal Museum (the present Museu Nacional) and the ornate goblet with a carved coral cover representing the Battle of Constantine, the first piece of the Museu Nacional.

### Cretaceous Park:

*Maxakalisaurus Topai*

Long-term,  
reopened on  
July 19, 2018

Held thanks to a successful collective financing campaign that raised approximately R\$58,000 in just 30 days. The exhibit displayed Brazilian dinosaurs and pterosaurs, paleo-vertebrate fossils from the Mesozoic Era, known as the “Age of Dinosaurs”. The model skeleton popularly known as “Dinoprata” was dismantled after a termite infestation in its base. Due to the support of our 370 benefactors, the hall has undergone adaptations and modernization, displaying new fossil specimens to the public.

### First Brazilians

The exhibit takes the visitor on a journey through Brazil’s history, marking the different ways that indigenous peoples were viewed and incorporated into the process of forming the nation. The exhibit presents, through theme centers, the first meeting, the colonial world, the indigenous world, and the indigenous peoples in contemporary Brazil. The items include many images of Tupinambá cloaks and a set of *praiás* (ritual clothes) from the Pankaratu indigenous people, as well as *maracás* (rattles), bows and arrows, and headdresses, all from peoples in northeastern Brazil (Xucuru, Kiriri, Tupinambá and Fulniô). These objects are some of the only holdings on Indigenous Ethnology of the Museu Nacional that were unaffected by the September fire. The exhibit received more than 30,000 visitors before it closed in February 2019.

Short-term,  
reopened in  
August 2018,  
at the Indigenous Peoples  
Memorial, Brasília, DF



photo: SAE collection



## Extension | OTHER ACTIVITIES

In 2018, the Museu Nacional conducted extension activities coordinated by lecturers and administrative technicians. They involved the participation of undergraduate and postgraduate students with members of the public, students and teachers from primary school, high school, and college, among others, reaching more than 14,000 people. Also, after September seven new projects were developed, courses and extension events up to the first semester of 2019, with a potential to reach more than 30,000 people.

### EXTENSION ACTIVITIES IN 2018:

#### **Science offers Samba — Extension activities of the Museu Nacional with the Imperatriz Leopoldinense community:**

The Museu Nacional opened its doors to the community of the Imperatriz Leopoldinense Samba School, which paid tribute to the 200th anniversary of the Museu Nacional in its parade theme for 2018. Lectures, workshops, guided tours to exhibits, laboratories and play activities were conducted.

#### **Young scientists club in the Museu Nacional (UFRJ) - Science in Quinta:**

Project in partnership with Municipal

Secretary of Education of Rio de Janeiro City, conducted annually with 25 students from public schools. Activities such as these are carried out weekly: visits to exhibits and laboratories in the NM and other museums, as well as field activities. This program was one of the winners of the 9th IBERMUSEUS Education Award.

#### **Basic course in brazilian indigenous languages, with special attention to the Tupi-Guarani language family:**

This course provided information about basic aspects of Brazilian indigenous languages, presenting fundamental grammatical structures in

the classification of these languages, the movement of the speakers, discussing the relationship between language and culture.

**Human Evolution Course:** This course followed the sequence of knowledge production in Human Evolution, the dissemination of research, and the transformation in discoveries in the media, and the theoretical and methodological challenges of research and teaching Human Evolution, discussing these challenges in the field.

#### **Human evolution in the classroom — Constructing educational materials for public schools:**

This project attempted to establish a conversation among teachers of human evolution and related subjects in public elementary schools, understanding the importance of teachers as multipliers to enhance the dialogue with students and society.

**Girls in science course:** This course addressed topics in geology and paleontology, and the presence and importance of women in the sciences in

photo: Girls in science course



Brazil. Workshops were carried out with fun and educational activities, aimed exclusively at girls from the 6th to the 9th grades.

#### **The Museu Nacional on the Internet — democratization and globalization of access to one of the most diversified world museological archives 2018:**

This activity made possible the creation of spaces for the democratic socialization of art, science and culture through the use of new communication technologies.

**Pedagogical potential of the teaching collection of the Seção de Assistência ao Ensino in the Museu Nacional, from the perspective of a dialogue between museum and society:**

Activities related to instruction, professors, elementary school educators, public and private institutions through educational material available to this public from the Education Assistance Section.

**Nature reporter:** This activity aimed to take students from the 7th grade of municipal public schools, to make naturalistic observations and to record natural phenomena through photographs, directing them to conduct a study of the subject observed, to discuss the topic of their study, and to publish it in a blog.

**Chat wheel — countryside, forestry, and water people, the agrarian reform and the ruralist offensive:** This was performed during the V University Journey to Defend the Agrarian Reform in UFRJ, and it sought to sensitize the academic community and broaden the debate on the struggle for land and issues involving the peoples of the countryside, the forest, and the waters.

**Vertebrates — biodiversity and evolution:**

A project developed in parallel to the reorganization of the public exhibit of vertebrate specimens from the point of view of their conservation, re-identification and museographic adequacy, involving questions of conservation, evolution, and biodiversity of the vertebrate fauna.

**Visiting the Museu Nacional — Potencial beyond the exhibits:**

This activity took place in October 2018, during the Academic Integration Week of UFRJ, providing a visit to Museu Nacional spaces that are not always open to the general public and showing different sectors backstage, laboratories and other locations in the Horto Botânico.

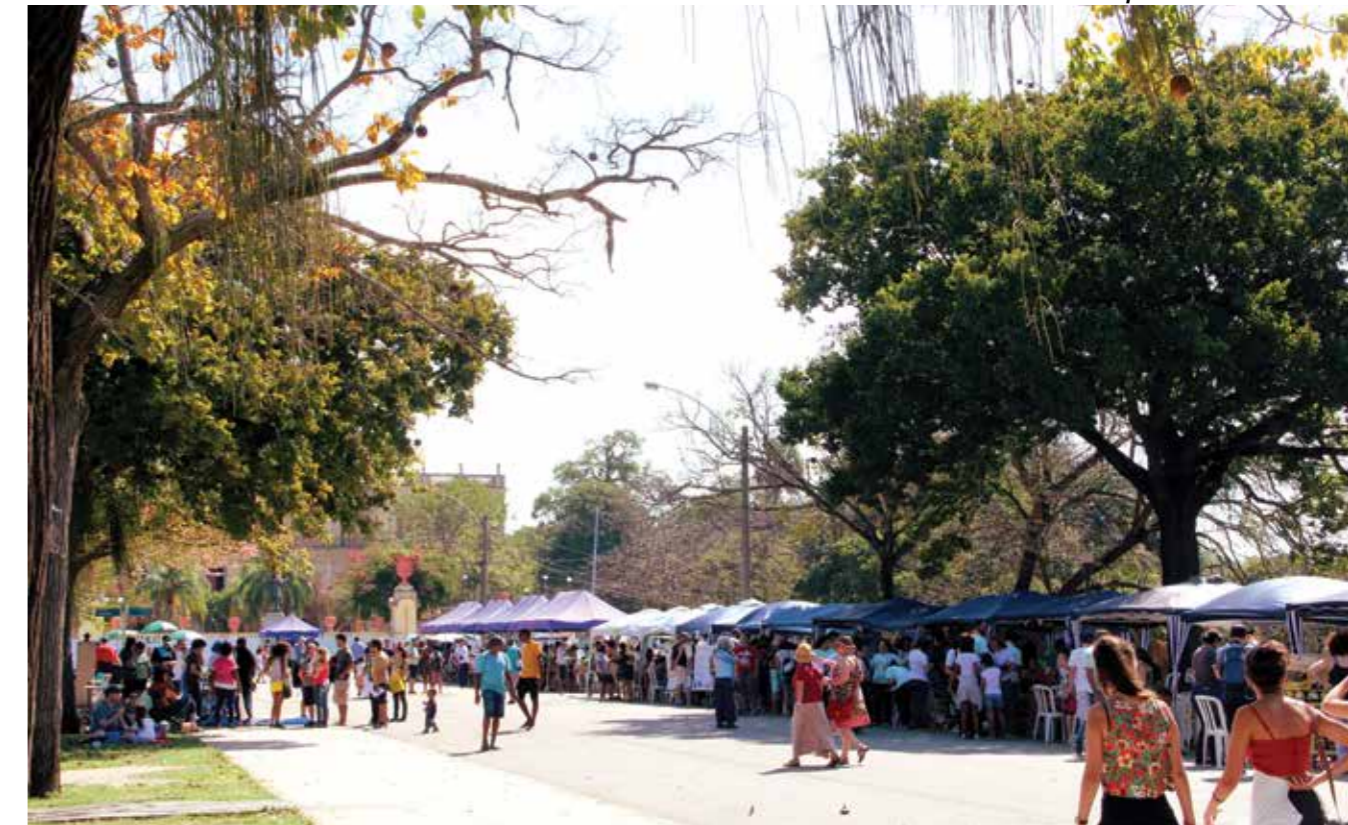
**Museu Nacional lives Festival I:** Visitors were given access to the part of the collection that was not damaged by the fire, since these are collections that were in other buildings of the Institution; as well as participating in several activities promoted by the academic community, in the context of the 2nd Spring of Museums.

## Extension | 2019

### ACTIVITIES APPROVED TO START IN 2019:

- Science, history and culture: The Museum at Quinta da Boa Vista - Young Naturalist Course on Invertebrates in schools, on the Internet and in the Museu Nacional - Mangueira 90 years: recording and materializing memories - Museu Nacional Vive (Museu Nacional Lives).
- Multilingualism, linguistic policy and language policy: Perspectives on the teaching of languages in Brazil.
- Rebirth from the ashes: Memories, stories and initiatives of the Museu Nacional/UFRJ.

photo: Valéria Silva



# Conservation and Restoration

CENTRAL CONSERVATION  
AND RESTORATION  
LABORATORY - LCCR

Safeguarding the Museu Nacional holdings, prior to 1946 when the Museu Nacional was incorporated into the Universidade Federal do Rio de Janeiro, was the responsibility of the internal policies of each research department in the Institution. Because of the enormous number of objects that compose the Museu Nacional holdings and the requirements for their preservation, the **Central Conservation and Restoration Laboratory** (CLCR) was created in 2010.

The formation of this laboratory as a suitable space with specialized technicians, tries to — considering that part of the holdings were not damaged by the fire and the 2,000 remaining items — mitigate the difficulties imposed by a the large number of objects previously accommodated in a building that had been adapted but was still far from ideal, with the necessary financial and human resources. We have a mission to act on behalf of the preservation of cultural and scientific holdings in a preventive and/or remedial form. The main duties of the conservator/restorer are: to plan, organize, manage, direct, supervise and carry out activities of Conservation and/or Restoration of an integrated and flexible nature; maintain and manage the collections and patrimony in order to guarantee that they do not become degraded or disappear; understand all aspects of the material objects (historical, cultural, artistic and philosophical); develop and provide technical reports to institutions and insurance companies; provide technical advice or consultancy; accompany the mounting, transport and custody of cultural patrimony in exhibits; initiate activities, studies, and research in the field of preservation; stimulate and promote interdisciplinary activities with other areas; and orient, supervise and execute programs for training, improvement, and specialization in the field.

Aware of all these questions, situations and relevant conditions about preservation of the holdings and museum collections, about the low investment in these institutions, the lack of financial, technological, and human resources, etc., our mission remains: to promote access to the past, preserve material objects for future generations, sensitize young people,

and raise awareness by professionals and citizens, aiming to chance the rooted mentality in scientific museums such as the Museu Nacional, where many people continue to understand their working tools solely as elements of study. Items belonging to scientific museum collections need to be also recognized as cultural assets, museum objects, sources, documents, memory symbols, and repositories of history and context. This is not about a challenge, but it is an institutional provocation, and one of the most significant challenges we need to overcome has to do with the institutionalization of procedures, practices, norms, and protocols that aim for the protection of these objects uniquely, independent of the location where they are kept.

The team is composed of two restorers, three restoration technicians and two bookbinders. In 2018, 1,053 items passed through the process of conservation and restoration. Five projects, one publication, and one exhibit were developed. Two events and 13 training sessions were held. The team was visited by 73 people, participated in 13 academic/scientific events, and in the rescue group, collecting 509 remnants.

The team received an honorable mention for the work “Fossils of the Past, Book of the Present: Treatment of the Record Book of the Paleontological Collection of Vertebrates of the Museu Nacional” in the 9th Week of Academic Integration of UFRJ.

## Conservation and Restoration

### RESCUE GROUP



photo: Marcos Gusmão

Soon after the fire at the Museu Nacional, the **Center for Rescue of Collections of the Museu Nacional** was constituted, a group composed of diverse members of the support staff, most of them associated with the curation of the different collections of the Institution. The Center has received support from national and international institutions (IPHAN, IBRAM, ICOM, UNESCO, ICCROM) in the discussion and organization of general rescue procedures and in the follow-up to the development of the preliminary protocol.

Rescue activities officially started on September 24th, 2018, with the participation of the Rescue Coordinating Center in the meeting on the Beginning of Construction, held with Concrejato (the company contracted for building stabilization, debris removal, installation of the building cover and support for rescue activities) and representatives from the Technical Office of UFRJ, Museu Nacional and IPHAN.

During this phase of monitoring the activities of the company, the rescue actions preferred for monitoring areas of intervention of Federal Police and the building safety requirements, essential to guarantee the safety of the workers and the correct recovery of the remaining collections. This period prior to the systematic excavation was called the shoring phase. As the building became more and more secure, it was possible to improve the planning and monitor the conditions of preservation of visible collections. Thus, strategies were developed to optimize the recovery of the collections.

Since the beginning of the shoring phase, the rescue nucleus was expanded with other employees, with various part-time periods, and two external collaborators in the conservation area. This group was called the “rescue team”. By the end of 2018, about 1,000 records had been recovered, of which 80% are pieces of the collection. Because many parts are recorded in lots, the true number of recovered objects cannot be estimated. These data will be evaluated in the inventory phase. Ceramics, metals,

rocks, minerals and fossils are among the best-preserved raw materials. Remnants of bones and shells are also among the elements recovered, although in different states of conservation.

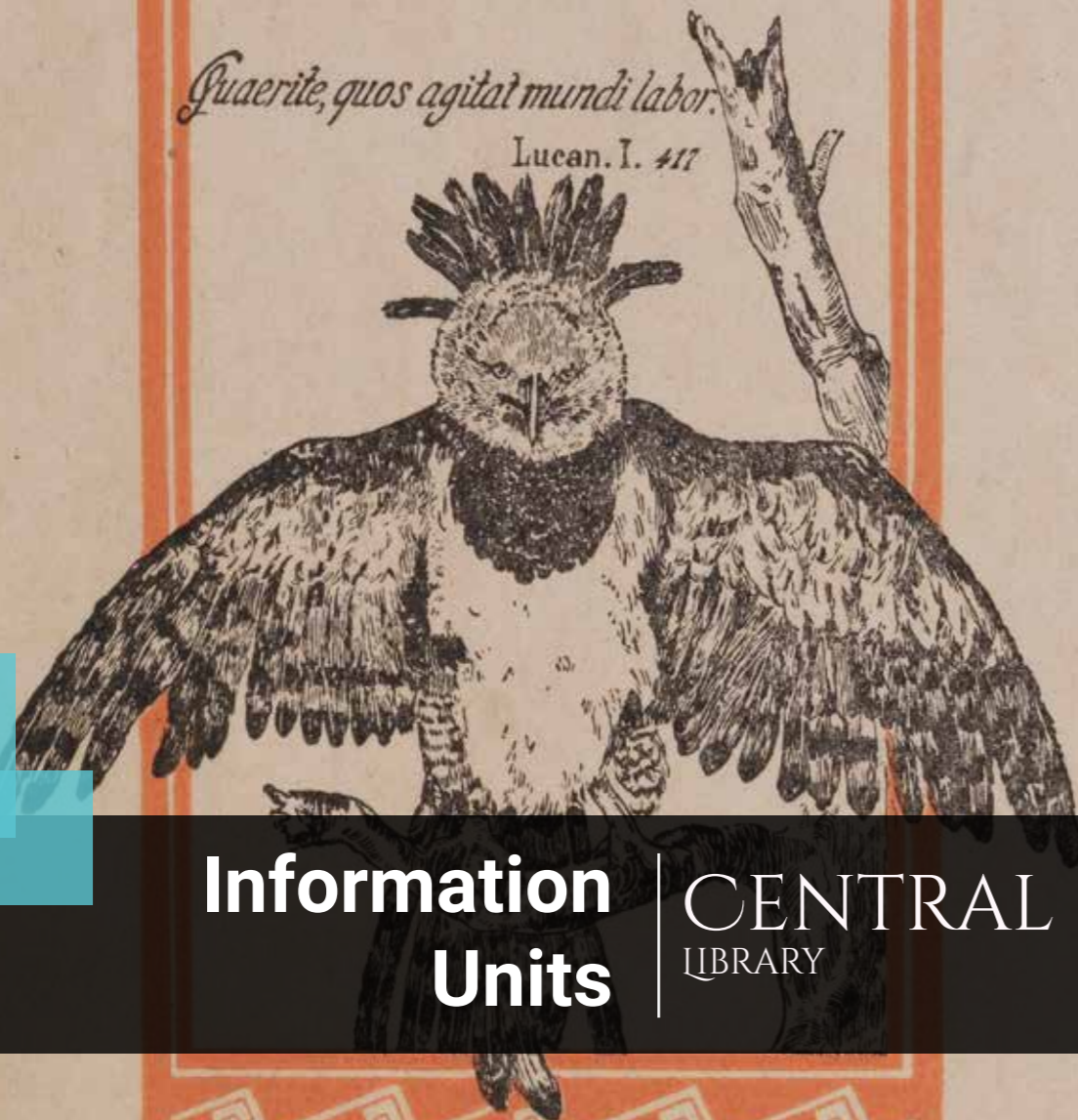
*photo: Diogo Vasconcellos/Coordcom UFRJ*



# MUSEU NACIONAL RIO DE JANEIRO

*Quaerite, quos agitat mundi labor.*

Lucan. I. 417



**Information  
Units**

**CENTRAL  
LIBRARY**

The **central library** is one of the complementary units of the technical structure of the Museu Nacional. It is constituted of the sections of Customer Service, Formation of the Collection, and Technical Treatment. The mission is to ensure access to information for the production of knowledge in the areas of Natural and Anthropological Sciences, supporting education, research and extension activities and assuming responsibility for safeguarding the scientific and cultural heritage in its custody. It has been located in the Horto Botânico since 1989, in a building with a total area of 4000 square meters. The building was constructed to house the library, and approximately 536.92 square meters (including the Reading Room) were ceded to different departments and administrative sections after the fire at the Palace.

Four rare works were lent to the Museum for the exhibit “Expedição Coral: 1865-2018”, namely: Thayer Expedition, by Charles Hartt (1870); Corals and Coral Islands, by James Dana (1872); A Journey in Brazil, by Louis Agassiz (1868); and Volume 1, from 1866-1871, of the Transactions of the Connecticut Academy of Arts and Sciences, and were unfortunately lost in the fire.

Thirteen employees, six belonging to the staff of the Museum and seven working for the System of Libraries and Information (SiBI), comprise the staff of the department. The employees hold the positions of librarian-documentalist (nine), business assistant (two), business auxiliary (one) and secretarial technician (one). The Junior Scientific Initiation Program (PIC Jr.), an institutional agreement with Pedro II High School, enabled the participation of four high-school trainees in the project “Automated Circulation in the Library of the Museu Nacional”.

The library prepared an interactive quiz for the Bicentenary of the Institution, a question-and-answer game based on the publications in the Books Series, edited by the Publications Committee. There also was a production of a “Did You Know?” video and distribution of books and bookmarks.

The Library staff organized the Second Special Seminar entitled “Place of Memory: the Collection of the Museu Nacional Library as Cultural Heritage”, with lectures by professors/researchers from the Museu Nacional, of the Course on Library Science and Information Management of UFRJ and the School of Library Science of UNIRIO.

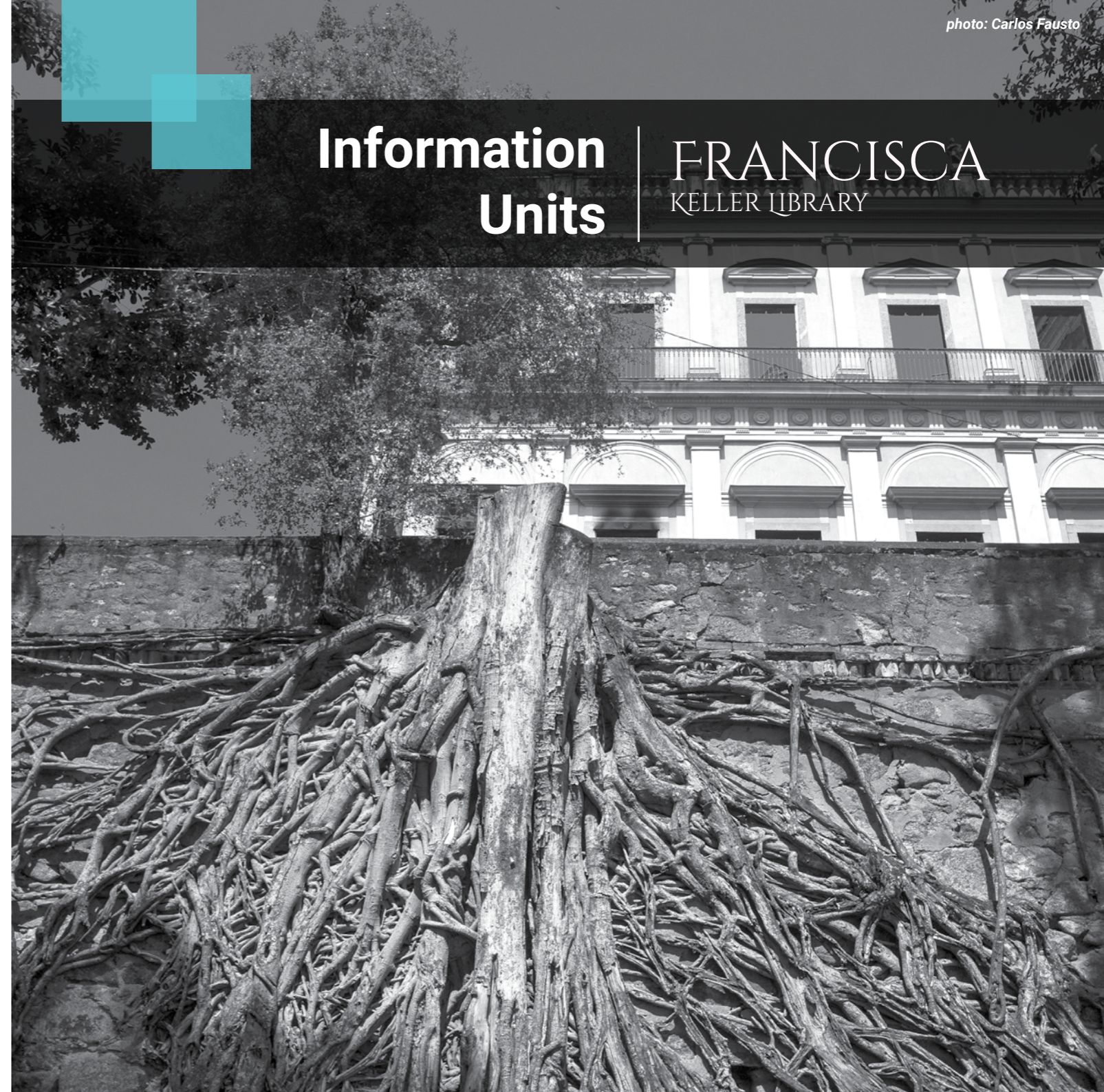
The Library is vast; its holdings included approximately 48,982 titles and 461,421 volumes as of 2018, with an increase of 1,867 volumes since the previous year. This growth in volumes is due to spontaneous donations and the publication exchange program, in operation since 1876. The lack of a flowmeter due to a sudden interruption of operation resulted in manual people counting. This fact associated to the complete disruption of user assistance services in September, when space and collection inventory had to be reorganized, directly affected the indicators from the Central Library. As a consequence, the flow of users was 590 people per year, considerably fewer than the 3,409 people in 2017.

The library received registered 123 users, including postgraduate students (82), technical-administrative (15), trainees (nine), undergraduate students (eight), professors (six) and others (three). The collection circulation had 1,289 consultations and 303 loans. 852 volumes, which subsidized the bibliographic research for the organization of the exhibit “A Gallery with Excellent Paintings”, from the Museu Nacional de Belas Artes, was highlighted. The website and the digital library of rare and ancient works received, respectively, 28,681 and 34,925 visits. Concerning technical cooperation, the agreements with the Network of Libraries and Art Information Centers (REDARTE) and the National Plan for the Recovery of Rare Works (PLANOR) remain in force.

Finally, library security was widely discussed by the Central Library at the first Meeting of Cultural Collections Security of the Fundação Oswaldo Cruz (Fiocruz), in the IX Seminar on Memory, Documentation and Research: Policies for Preservation, Dissemination, Technical Processing and Security of Rare Collections in the Public Institutions of SiBI and in the XIII National Meeting of Rare Collections of the National Library.

# Information Units

FRANCISCA  
KELLER LIBRARY



**F**rancisca Keller Library (FKL), created in 1968, is part of the Postgraduate Program in Social Anthropology (PPGAS). The FKL reached its 50th anniversary in 2018 and was considered one of the most important libraries of the social sciences in Brazil. The library had an invaluable collection of anthropological literature, with about 37,000 volumes, among them reference works, books, periodicals, theses, dissertations, congress proceedings, leaflets and special materials. It offered consulting and loan services, national switching, various trainings, bibliographic search orientations, normalization, etc.

About 22,000 books, 14,000 journal volumes, 1531 theses and dissertations, 108 CDs and 127 DVDs, among other special materials were lost during the fire. 290 books, eight theses and dissertations and 12 journal volumes were saved from the fire because they were on loan to registered users. Part of the digital collection of theses and dissertations were also saved from the fire.

In 2018, 155 users were active: 115 students (from PPGAS, from other postgraduates at UFRJ and from other UFRJ units), 16 professors, 11 employees and nine researchers and trainees.

Until August 31, 2018, FKL carried out 2,100 home loans to registered users: 2,032 book loans, 14 leaflets, 27 journals and 27 theses and dissertations. The local consults in the library totaled 288, divided into 266 books, five leaflets, three periodicals and 14 theses and dissertations. These services, as for the others, have been interrupted since September.

Over 2018, we continued the project to digitize the old theses and dissertations (TDs) of PPGAS. This began in October 2016 and aimed to preserve and make available in open access the entire academic production of the program, since its creation.

From the set of TDs prior to 2006, which were only available on paper until then, we made available about 115 dissertations and 67 theses in Minerva Base. This project, interrupted by the fire and by the physical destruction of the collection, did preserve part of our collection of theses and dissertations. Part of the TD collection (theses and dissertation) is also preserved in the Academic Memory Center (CMA) of UFRJ, which constitutes the legal depository of the theses and dissertations produced in UFRJ.

Immediately after the fire, the FKL staff initiated reconstruction efforts. The professors of PPGAS, the chief librarian and the library team formed a committee for this purpose. On September 13th, the “FKL+50” donation campaign was created, with a website through which donors can give books or financial resources. On this website, we also publish the names of the donors who have already committed to donate and other information. As of December, we have already received countless donations from Brazilian and foreign researchers and from national and international publishers and institutions. Since then, the FKL team has focused on managing these donations and offerings, as well as on issues regarding the space where the library will function, in the Central Library building.

From this aspect, as a note of optimism, we mention the huge national and international mobilization for the FKL reconstruction, which is a reflection of the prestige of the PPGAS and of its former library. Within a few months, a number of books equivalent to those existing before the fire have been secured, with contributions from publishers, researchers and their families, scientific associations, libraries, private companies and the general public. Now, we are receiving the invaluable contributions of Prof. Marina Correia, from the Faculty of Architecture and Urbanism (FAU) of UFRJ, and her students, who are volunteering to develop a project to restart the library, which will serve as the focal point for reconstruction of the PPGAS in the post-disaster period. At this time, our main problem is logistics and infrastructure to enable the restarting of library activities.

## Information Units

## ARCHIVE SECTION



The **Archive Section** (SEMEAR), previously called the Historical File, keeps custody of the historical (permanent) documentation of the Museu Nacional. The main missions are to recover and disseminate the information contained in the archival documentation; to ensure the physical integrity of these materials; and to support research about the institution, the Imperial Palace and the sciences in Brazilian history.

Before the fire, about 3.5 million items constituted the collection, comprising 500 linear meters of textual documents, with about 20,000 iconographic pieces in 57 archival chests, as well as 416 items, including maps, drawings, pictures and engravings, 822 publications (books, theses and dissertations) and 70 three-dimensional objects.

The remaining collection consists of photographic documents and videotapes that record the institution's activities and projects, plus negatives, contact prints, slides and photographs, and a newer set of video records; and cinematographic and photographic laboratory equipment dating from the second half of the 19th century to the early 20th century. This testifies to the investment made by the Museu Nacional to qualify technically in the field of imaging.

The team is composed of five public employees and benefits from technical advice by a professor of the Course on Library and Information Management at the UFRJ. The employees hold the positions of librarian-documentarian (one), archivist (one), historian (one) and administrative support (two).

Activities in 2018 include services to about 50 researchers, in person and at a distance; the organization of Giralda Seyferth's personal archive; the conclusion of the preliminary description of the Heloisa Fénelon Fund; and a technical visit to incorporate the collections of Arnaldo Coelho and Janira Costa, deceased directors.

The Section participates in the PIC Jr. and in the Young Talents Program for Science (JT), supported by the Fundação de Amparo à Pesquisa do Estado do Rio de Janeiro (FAPERJ) and the Fundação Centro de Ciências e Educação Superior a Distância do Estado do Rio de Janeiro (CECIERJ). Under guidance by the team, PIC Jr. and JT scholars presented their academic studies in the 9th Week of Academic Integration of the UFRJ and in the 19th Scientific Conference of the project Young Talents for Science, respectively: “Giralda Seyferth, Anthropologist of Immigration: Organization of Her Personal Archive” and “Bertha Lutz and Her Performance at the San Francisco Conference in 1945: Inclusion of Gender Equality in the UN Charter”. This latter presentation received honorable mention, winning third place in the area of Human Sciences.

The employees participated in different courses and events for their professional development: 1st Course on Preventing and Combating Fire: Lecture and Practices of Prevention and Fire Fighting; 1st International Congress on Digital Humanities; Intern National Seminar of the Museu Nacional; and 9th Luso-Brazilian Conference on Open Access, held at the University Institute of Lisbon, Portugal.

The activity “Sowing the History of Science at the UFRJ Museu Nacional” was organized for the Bicentenary celebrations. The exhibit displayed a facsimile of the decree creating the Museum, works associated with backgrounds and photos of illustrious visitors to the Museum, flags, and videos about museum scientists and the organization of the workshop “Illustrious Visitors for Children”.

The Memory Rescue Group of the Museu Nacional, of which SEMEAR is one of the members, was constituted after the fire.

The Bertha Lutz Fund received the Memory of the World Award, granted by the United Nations Educational, Scientific and Cultural Organization (UNESCO), which conferred

the title of “National Registry of Brazil for Lost and Missing Documentary Heritage”.

The Reconfiguration Group of the Historical Archive (RAH) of the Museu Nacional was constituted, and includes the Arquivos Nacional (AN), the Fundação Instituto Oswaldo Cruz (FIOCRUZ), the Instituto Brasileiro de Informação em Ciência e Tecnologia (IBICT), the Museu de Astronomia e Ciências Afins (MAST), the Sistema de Arquivos (SIARQ), Colégio Brasileiro de Altos Estudos (CBAE) - the latter two part of UFRJ - and last, the Moreira Salles Institute (IMS), carrying out the reconfiguration of part of the archival collection from electronic copies provided by researchers, the development of a project with BNDES, and the reconstruction of the photographic collection of the Museu Nacional.



**Amigos  
d'O Museu Nacional**

The Associação Amigos do Museu Nacional (SAMN) was founded on January 13th, 1937 as the Associação Amigos do Museu Nacional. It is a scientific, cultural, charitable and philanthropic non-profit Civil Association.

Its governing board is formed by professors and technical-administrators of the Museu Nacional, elected for the 2018-2019 biennium: Vera Lúcia de Moraes Huszar, President; Luiz Fernando Dias Duarte, Vice-President; Andrea F. Costa, 1st Secretary; Débora de Oliveira Pires, 2nd Secretary; Eduardo Martins de Barros, 1st Treasurer; and Clovis Barreira e Castro, 2nd Treasurer. The SAMN office presently has eight employees. The Association has permanent legal and accounting management advisors.

According to its Statute, the SAMN aims to support the Museu Nacional Activities, promoting or participating in activities related to the development of Brazilian society, such as in the areas of environmental conservation; culture; indigenous peoples; traditional communities; the national scientific, historical, artistic and cultural patrimony; the national memory; and environmental, museum and heritage education. It is recognized by the University as a legitimate entity capable of conducting the activities set forth in its Statute. It is a non-profit public entity of the State of Rio de Janeiro and is part of the Federação de Amigos de Museus do Brasil (FEAMBRA) and the National Register of Environmental Entities (CNEA) of the Ministry of the Environment.

The SAMN is one of the owners of an environmental protection area consisting of a 40-hectare remnant of the Atlantic Forest in the state of Espírito Santo, the Biological Station of Santa Lucia (EBSL). It constitutes the Area Manager, with the participation of UFRJ and the Instituto Nacional da Mata Atlântica (INMA). The SAMN funded the renovation and construction of small bridges and trails, facilitating their use by researchers and students, as well as installing signage, educational and property signs in 2018. It also started the process to regularize its land issue with various bodies, and to update its corporate name in the local county office.

SAMN administers projects within the scope of its Statutes, working with various funding agencies, such as the Fundação Boticário, Japan Foundation, and Fundo Brasileiro para a Biodiversidade (FUNBIO), among others. It performed in 14 projects and activities in 2018, two of which ended in this period and one is in readjustment. Three initiatives aimed at holding exhibitions, projects and extension courses were made possible through collective financing campaigns. Worthy of note is the signing the Concession Agreement for Non-Refundable Financial Collaboration between the Banco Nacional de Desenvolvimento Econômico e Social (BNDES) and SAMN, mediated through the UFRJ, in 2018, which includes actions to restore the Museu Nacional, to expand its exhibits and to improve its financial sustainability. Aiming to support the MN in the emergency actions taken after the fire, SAMN opened an account in a bank and another in PayPal to receive donations. Also in the same year, SAMN supported the Museum with its own resources and collaborated with the collection, both through parliamentary amendments and the inclusion of projects of the Museu Nacional in edicts for financing, etc.

## Projects and Activities

### Mineralogy Exhibits: Economic Geology

*Source of financing:  
Vale, under the National  
Program of Support for  
Culture / Ministry of Culture  
(PRONAC / MINC) - IN  
READJUSTMENT.*

Long-term exhibit that presents the historical Mineralogy Collection of the Museu Nacional. Coordinator: Alexander Kellner, Department of Geology and Paleontology.

### **Contract between the** Instituto Meros do Brasil (IMB) and SAMN

Administrative and financial management of the project  
“Meros do Brasil”. Coordinator: Maíra Borgoni, IMB.

*Source of financing:*  
PETROBRAS – IN  
PROGRESS.

### **Contract for the award** Of non-refundable financial collaboration between BNDES and SAMN

Cultural Project 3rd Phase of the Revitalization Program  
of the Museu Nacional - 200 Years Plan of the Museum,  
with the intervention of UFRJ, within PRONAC / MINC, and  
covering restoration of its heritage, expansion of exhibits and  
improvement of financial sustainability. Coordinator: Alexander  
W.A. Kellner, director of the Museu Nacional.

*Source of financing: BNDES.*  
*Period: June 2018 to June*  
*2022 - IN PROGRESS.*

### **In the world of *Maxakalisaurus***

Obtaining collective funding to renew the permanent exhibit  
Maxakalisaurus, because of the termite attack, and reopen the  
exhibit room to visitors. Coordinator: Alexander W. A. Kellner,  
Department of Geology and Paleontology.

*Source of financing:*  
*collective, Improvement*  
*Platform - COMPLETED.*

### **Girls in Science,** Geology, Paleontology and Gender in The Museu Nacional – 3Rd Edition (2018)

As a result of the partnership of women scientists, technicians  
and students of DGP, it aimed to discuss with 100 girls from  
public and private schools every year the role of women  
in science, to stimulate curiosity about the subject and to  
stimulate scientific thinking. Coordinator: Luciana Witowsky,  
Department of Geology and Paleontology.

*Sources of financing:*  
*recurrent collective, Leasing*  
*Platform - IN PROGRESS;*  
*Shell Brasil Petróleo Ltda. -*  
*COMPLETED.*

### **Acquisition of japanese study books** (Anthropology, Archaeology, History And Related) for the Museu Nacional library.

*Source of funding: Japan*  
*Foundation - IN PROGRESS.*

Promotion of study of the Japanese collection of the  
Ethnology Sector and research on Japanese studies in the  
Interdisciplinary Research on Japanese Studies Group of the  
Museu Nacional. Coordinators: Wagner W. Martins and Silvia  
Reis.

### **“Museu Nacional vive”** in Schools

*Source of financing:*  
*collective, Platform*  
*Improvement - IN*  
*PROGRESS.*

Collective financing with the purpose of resuming the activities  
of the Museu Nacional with schools, especially elementary and  
middle schools. Coordinator: Sheila Nicolas Villas Bôas,  
Seção de Assistência ao Ensino

Activities of SAMN

IN PROGRESS

Creation of the account SOS Museu Nacional, on September 5, 2018, to receive national and international donations, as emergency support to the Museum after the fire.

Creation of a PayPal account, in October 2018, to receive national and international donations, as emergency support to the Museu Nacional after the fire.

Emergency aid for the Museu Nacional:

Rescue and primary care

IN PROGRESS

Acquisition of materials and equipment for the activities of the recovery team of the collection that has remained, even if altered or with less damage, after the fire. Source of financing: donation from Federal Republic of Germany. Coordinator: Ronaldo Fernandes, Department of Vertebrates.

Ecotrophic and Socioeconomic Approach

as a tool to subsidize fishery resource management actions

Source of financing: Brazilian Fund for Biodiversity (FUNBIO) - IN PROGRESS.

Generation of ecological, social and economic information on marine fisheries in the state of Rio de Janeiro to support actions for sustainable management of fishery resources, using an interdisciplinary approach. Coordinator: Marcelo Viana, Department of Marine Biology, Institute of Biology, UFRJ.

Restructuring of The Museu Nacional

Ethnology Sector

Source of financing: Vale - IN PROGRESS.

Physical and material restructuring of the sector. Coordinator: João Pacheco de Oliveira Filho, Department of Anthropology. Period: December 2018 to December 2020.

Young scientists of the Museu Nacional Club (UFRJ):

Science in *Quinta*

IN PROGRESS.

Promotion of scientific culture, science education and the popularization of scientific knowledge through the implementation of educational activities in the exhibit spaces and laboratories of the institution, as well as the accomplishment of field activities among young students from 8th and 9th grades of elementary school of municipal public schools located in the same area as the Museu Nacional. Source of financing: IBERMUSEUS Prize for Education. Coordinator: Andréa Fernandes Costa, Teaching Assistance Section

Agreement between Meros do Brasil Institute

(IMB) and SAMN

Source of financing: PETROBRAS - IN PROGRESS.

Administrative and financial management of the Meros do Brasil project. Coordinator: Maíra Borgoni, IMB.



photo: Fernanda Guedes

# Museu Nacional

IN NUMBERS

# Financial Report

## Total Revenue and Expenses 2018

### I. UFRJ General Budget - Expenses (R\$)



Water and  
sewage  
51.390,60



Electricity  
1.411.833,60



Janitorial  
2.348.295,00



Admission Fees  
186.391,68

1. SUBTOTAL  
10.664.665,69



Air Conditioning  
Maintenance  
13.297,05



Lifts  
Maintenance  
45.438,00



Security  
5.344.666,44



Other (approx.)  
1.263.353,32

### 2. Participatory Budget and Other Sources of UFRJ (R\$)

#### 2.1. Summary of funds received in 2018 (R\$)



	1 <sup>st</sup> Portion	2 <sup>nd</sup> Portion	3 <sup>rd</sup> Portion
Consumption	108.430,00	108.430,00	-
Services	29.690,00	29.690,00	-
Permanent	35.049,00	35.049,00	-

2.1 TOTAL  
346.338,00

#### 2.2. Sum PROAP/PNPD (R\$)

Consumption	27.383,86
Ticket	13.691,93
PJ Services	27.383,86
JICTAC+Tx. insc.	1.525,00

PROFLIND	5.000,00
PPGAS	142.032,08
PPGZOO	105.499,48

2.2 TOTAL  
321.841,21

#### 2.3. Other credits (R\$)

PQI	18.000,00
Institute of Medical Biochemistry Leopoldo de Meis	10.000,00

2.3 TOTAL  
28.000,00

2.1- 2.3.SUBTOTAL  
696.854,21

#### 2.4. Spending (R\$)



Consumption	48.305,96
Services	54.286,00
Permanent	251.575,78
Cost aid	52.599,81
Daily payments and tickets	14.126,57

Transf. FCC festivities	7.929,99
PPGAS	77.460,00
PPGZOO	81.133,52

2.4. SUBTOTAL  
587.417,63

#### 2.5. Value returned for non-use (R\$)

Museu Nacional	0,76
PROAP	1.820,58
Other	18.677,20

2.5. SUBTOTAL  
20.498,54

#### 2.6. 2019 PROEX/PNPD balance (R\$):

PPGAS	64.572,08
PPGZOO	24.365,96

2.6. SUBTOTAL  
88.938,04

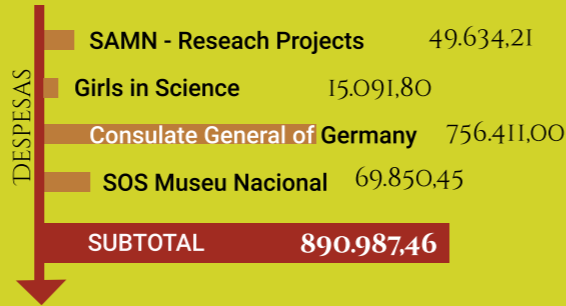
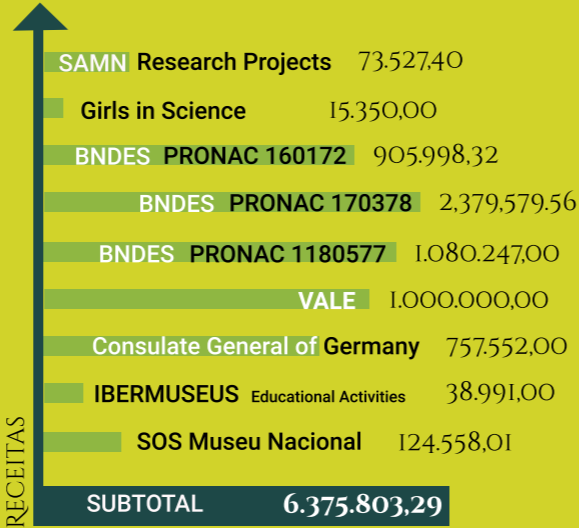
3. Personnel - Permanent Staff (R\$)

Salaries - Total Gross Value	44.883.926,56
Discounts	15.539.248,95
Salaries - Total Net Value	29.344.677,61

4. FUJB - Fundação Universitária José Bonifácio (R\$)

Consumption	138.404,49	Previous Balance (12/31/2017)	65.988,93
Daily Payment and Admission Fees	38.610,93	Museum Admission Receipts	350.715,65
Taxes	18.993,75	Expenses	391.205,15
Services	6.058,27	Final Balance (12/31/2018)	25.499,43
Personnel	74.360,90		
Permanent	4.892,00		
Course	1.597,60		
Various	108.287,21		
	391.205,15		

5. Associação Amigos do Museu Nacional - SAMN (R\$)



6. Coordenação de Aperfeiçoamento de Pessoal de Ensino Superior - CAPES (R\$)



Emergency support for postgraduate programs at the Museum

Expenses 533.780,00  
Funds 2.000.000,00  
**Subtotal 2.533.780,00**

Expensy Summary (R\$)



Personnel	44.883.926,56
UFRJ General Budget	10.664.665,69
Museu Nacional Budget	587.417,63
FUJB	391.205,15
SAMN	890.987,46
<b>TOTAL Expenditure of the Museu Nacional</b>	<b>57.418.202,49</b>

Notes: The values of this report do not include individual projects received by researchers

Staff

Staff	Employees
Technical-Administrative	218
Professors	90
Total	308

Retirement	Civil Servent
Voluntary	9
Illness	1
Total	10

Professional	
Archaeologist	1
Administrative Assistant	1
Biologist	1
Professor	4
Museologist	4
Cultural Producer	1
Visuals Scheduler	3
Laboratory Technician	6
Technologist	8
Total	29

# Annual Budget

compared to others



photo: José Roberto da Silva



Visitation



	Paid Admission	Gratuidade			Grand Total
		until 4PM	after 16h	total free	
January	11.139	2.282	3.484	5.766	16.905
February	3.930	712	2.621	3.333	7.263
March	5.164	1.084	3.242	4.326	9.490
April	7.430	1.973	4.080	6.053	13.483
May	7.237	6.656	1.074	7.730	14.967
June	6.078			7.453	13.531
July	2.079			4.424	6.503
August					0
September					0
October					0
November					0
December					0
Total	43.057	12.707	14.501	39.085	82.142

Free entrance to Museum from 15h to 16h worked from January to May.  
In June, the gratuity occurred on the last Sunday of the month.  
Data from July 12 to September 2 was lost in the fire.

photo: Marco Fernandes / Coordcom UFRJ



Museu Nacional

Communication  
& Events team

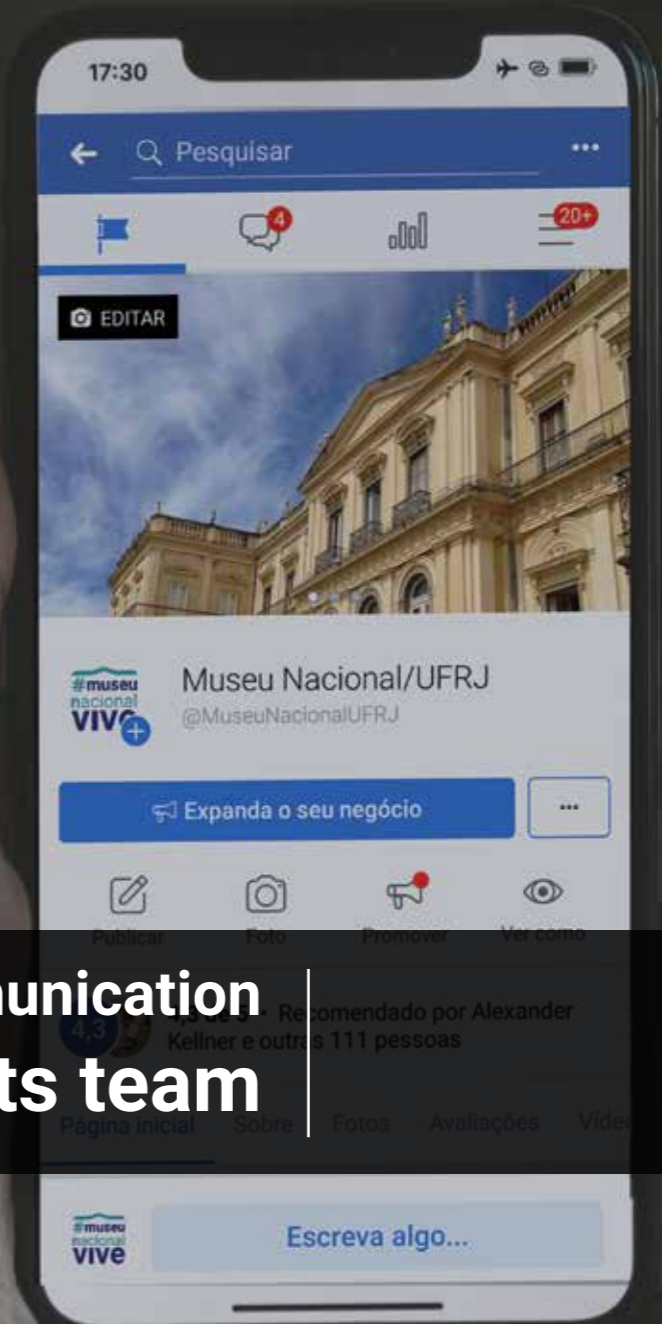


photo composition of Hussain Ibrahim

Connected to the Executive Board, the **Communication & Events team** is responsible for planning and executing strategic actions to strengthen the institution.

The Communication & Events sector also organizes activities for the press, manages social media sites, organizes internal and scientific events, and promotes communication and partnership with government spheres, similar institutions and other sectors of UFRJ.

In 2018, it was responsible, among other events, for the inauguration ceremony of the new Board and the celebration of the 200th anniversary of the founding of the Museum. The event was commemorated by a solemn ceremony for the internal public and authorities, as well as by a free public event at Alameda das Sapucaias, the 12th annual “Science, History and Culture: the Museum at Quinta da Boa Vista”, where 30,000 people attended on June 9th and 10th.

After the fire of September 2nd, the team defined crisis management actions through the release of press on its communication channels and newspapers and also coordinated the activities of the advisory company Trevo Comunicativa.

The work was guided by transparency, seeking to meet the demands in an agile and objective manner, with its main spokesman being the director of the Museum.

As part of the institution’s strengthening strategies, the Center created the “Museu Nacional Vive” campaign, encouraging the engagement of the internal museum community as well as the broader population. This campaign has been ingrained in all undertakings of the institution since then.

According to a media report covering the months of June to December 2018, 22,937 articles covered the Museum, totaling R\$ 924,145,836.00 in spontaneous media.

Our media



museunacional  
34835 likes



museunacional1818  
62383 tweets



museunacional  
33200 followers



www.museunacional.ufrj.br  
1.907.562 views

*\*Source:  
Coordination of Museu Nacional Site*

photo: Valéria Silva



Rio de Janeiro Federal University

Denise Pires  
Rector (Management: Current)  
Carlos Frederico Leão Rocha  
Vice-Rector (Management: Current)

Roberto Leher  
Rector (Management: July/2015 to July/2019)  
Denise Nascimento  
Vice-Rector (Management: July/2015 to July/2019)

Museu Nacional  
Alexander Wilhelm Armin Kellner  
Director

Cristiana Serejo  
Deputy Director

Lygia Fernandes  
Assistant Education Director

Luis Fernando Dias Duarte  
Assistant Technical-Scientific Director

Wagner William Martins  
Assistant Administrative Director

Museu Nacional Publications Commission  
Ulisses Caramaschi  
President

Lia M. S. Ribeiro  
Secretary

Leandra Pereira de Oliveira / Mariângela Menezes  
Publishers / Organizers

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Social Communication Coordinating Body  
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Coordinator  
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Coordinator: Cristina Helena Carneiro

English Review  
Janet Reid

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MUSEU  
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UFRJ



Museu Nacional

Annual  
**Report**  
2018

