

# Programa Mata Atlântica

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*Coordenação de Estudos e Pesquisa*

### ***Sponsorship***



***Instituto de Pesquisas Jardim Botânico do Rio de Janeiro***



**THE JOHN D. AND CATHERINE T.  
MACARTHUR FOUNDATION**

*Support*



*Margaret Mee Botanical Foundation*

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## Introduction

The **Atlantic Rain Forest Research Program** (ARFRP) reports in the present document the results achieved in the period from July, 1997 to June, 1998. During this period the ARFRP was supported by The MacArthur Foundation, Shell do Brasil S.A. (up to December, 1997), PETROBRAS (since January, 1998), Brazilian Ministry for the Environment, Margaret Mee Botanical Foundation, as well as the Brazilian Council for Research Development (CNPq), which granted students and researchers with research scholarships.

This report comprises the continuity of the floristic survey for the Atlantic Rain Forest remnants at the Itatiaia National Park and at the Poço das Antas Biological Reserve; the recovery of degraded areas (ecological restoration) at Poço das Antas; and the improvement of the ARFRP database.

The consolidation of the results can be demonstrated by the publication of the "Atlantic Rain Forest Woods Catalogue", approaching subjects as floristic diversity and Atlantic Rain Forest Conservancy, and the edition of the "Poço das Antas Biological Reserve Vegetation Map".

Another important matter to highlight was the fact that Shell Brasil S.A. decided not to continue supporting the ARFRP from July/1997 on. After some contacts, the Rio de Janeiro Botanical Garden started negotiations with the Brazilian national oil agency, PETROBRAS, in October/1997, which were concluded in February/1998.

Despite of the instability of that period, the Program agenda were accomplished., and from March/1998 on the research activities have been normally executed.

By recognizing the importance of the ARFRP investigation on the Atlantic Rain Forest, the Brazilian Ministry for the Environment provided our Program with funds which were used to attend specific

demands. On the other hand, extra funds coming from partnerships with different non-governmental organizations allowed the Atlantic Rain Forest Program to plan the use of MacArthur Foundation resources only from the second semester of 1998 on.

In a summarized way, here are some comments about the Projects activities during the last year:

### ***1. Floristic and Environmental Surveys Project***

Besides the continuity of the floristic inventories, this project also kept the procedures to: a) maintain, exchange, update and identify species for the botanical collections from the study sites, as well as those from the Revegetation Project; b) include and handle information about species and individuals collected in the Program database.

Another goal of this project is to create digital maps for the study sites, based on conventional aerial photographs and LANDSAT 5TM satellites images, through the softwares ArcInfo, ArcView and ERDAS image75. Some corrections were done on the Poço das Antas Biological Reserve vegetation map in order to have it concluded.

The wood anatomy team dedicated this period to publish the first volume of the book "Atlantic Rain Forest Woods – wood anatomy of species from forest remnants in Rio de Janeiro State – Brazil", which presents anatomical features of 31 species from the Macae de Cima Ecological Reserve and the Poço das Antas Biological Reserve. The second volume is being edited, and must be published by September, 1998.

### ***2. Revegetation Project***

The results from the field activities (experimental plantations, seeds collection and seedlings production) achieved by the Revegetation Project during this period can be found in "ARFRP by numbers". In November, 1997 some preliminar results were presented at the 9<sup>th</sup> Annual International Conference of the Society for Ecological Restoration, in Ft. Lauderdale, Florida/USA. During the first months of 1998 the Program facilities at the Poço das Antas Reserve were improved: a new irrigation system was installed at the plants nursery; the plants nursery and the tools storehouse were reformed; and an abandoned Reserve facility was rebuilt and transformed in an office for the ARFRP researchers. As a new experience, the Revegetation Project staff has been done some plantings with educational purposes. In two residential *condominia* in Rio de Janeiro State located nearby forest patches, the Project has been planting with the participation of the residents, besides lectures about the whole Program to the local communities.

The studies on secondary succession at Poço das Antas were concentrated on the identification of the individuals collected and on the locating of new plots in areas of fragmented forest.

### ***3. Database Maintenance and Computer Services Project***

Until June 30, 1998, 29 botanical Angiosperm families were registered in the software Alice database. The botanical nomenclature of 585 out of 676 species were reviewed by the *Índex Kewensis* and/or other more recent expertise works. The families reviewed are listed on the Table at the end of the report (see "ARFRP by numbers"), followed by the total amount of species and the total amount of reviewed species.

The Lauraceae taxa collected at the Macaé de Cima Reserve have been being reviewed. **63** out of the **157** taxa had their nomenclature changed, and **13** remained not identified. The former list, which counted **44** Lauraceae species, has been reduced to **38** species. In order to standardize taxa description, a worksheet has been created to summarize species characteristics. So far, **15** species had been described with their flower characteristics drawn. All identified species had their home range

and common names investigated.

## Cooperation for Scientific Politics in Biodiversity Conservancy

The Atlantic Rain Forest Research Program has been cooperating with the Brazilian government and non-governmental institutions in order to establish scientific politics for biodiversity Conservancy. In this context, some events could be highlighted:

**Partnership with the S.O.S. Atlantic Rain Forest Foundation** to evaluate Atlantic Rain Forest Remnants Mapping, developed by them, based on Rio de Janeiro and Espírito Santo States cartographic information; in the period 1997-1998 .

**Participation in the 7<sup>th</sup> Atlantic Rain Forest Biosphere Reserve National Council Meeting**, at the São Paulo State Forestry Institute, São Paulo, SP - Marli Pires Morim de Lima, on May 14, 1997.

**Partnership**, from July, 1997 to June, 1999, with the **Atlantic Rain Forest Reserve National Council Meeting**, to implant the project *Atlantic Rain Forest Resources Inventory – Their Exploitation and Use*, supported by the Brazilian Fund for the Biodiversity (FUNBIO), in order to evaluate social-economic impacts and potential sustainable management; the S.O.S. Atlantic Rain Forest Foundation and the EMBRAPA Genetics Research Center also take part in this partnership.

**Participation in the V National Symposium on Sustainable Development in Atlantic Rain Forest Areas**, organized by the Atlantic Rain Forest Biosphere Reserve National Council, in União dos Palmares, Alagoas - Rejan R.Guedes-Bruni; November 9-12, 1997.

**Participation in the Conservation Units Brazilian Congress**, organized by the Universidade Livre do Meio Ambiente, in Curitiba, Paraná - Rejan R.Guedes-Bruni; November 15-23, 1997.

**Meeting for the Atlantic Rain Forest National Plan**, organized by the São Paulo State Government, in São Paulo City - Rejan R.Guedes-Bruni and Marli Pires Morim de Lima; on March 23, 1998.

**Atlantic Rain Forest Biosphere Reserve National Council Meeting**, São Paulo Environment State Department, in São Paulo City - Rejan R.Guedes-Bruni and Marli Pires Morim de Lima; on March 24, 1998.

**I Brazilian Symposium for Natural Ecosystems Ecological Restoration** (organization) – with the University of São Paulo ("Luiz de Queiroz" Agriculture College –ESALQ/USP – Depts. of Botany and Forestry Science), CATI-SP (São Paulo Environment State Department), IUFRO - Luiz Fernando Duarte de Moraes; since March 1998.

## Scientific contribution

### *1. Courses offered*

**Collection, herborization and management techniques of botanical collections** – linked to the Brazilian Botanical Society/RJ, hold in the Rio de Janeiro Botanical Garden- by João Marcelo

Alvarenga Braga and Ronaldo Marquete; in October 15 – 17, 1997.

**Plants Anatomy supporting Plants Taxonomy** – Graduate Course in Biology/University of Brasília - by Cecília Gonçalves Costa, PhD.; in March, 1998.

**Ecological Plant Anatomy** – Graduate Course in Ecology/UFRJ – coordinated by Cecília Gonçalves Costa, PhD., in May, 1998.

**Ecological Plant Anatomy** - in the XLIX Botany National Congress - Brazilian Botanical Society - coordinated by Elzeni Filadelfo Gusmão and ministered by Cecília Gonçalves Costa (PhD.), Nanuza Luiza de Menezes(PhD.) and Solange C. Mazzoni-Viveiros(PhD.); in July 26-31, 1998.

## **2. Lectures**

**The Atlantic Rain Forest Research Program: Revegetation Project** – Lecture and field trip for Forestry graduating students from the Universidade Federal de Lavras/MG; by Luiz Fernando Duarte de Moraes and Cíntia Luchiari; Poço das Antas Biological Reserve - Silva Jardim/RJ; on July 03, 1997.

**The Atlantic Rain Forest Research Program: Revegetation Project** – Lecture and field trip for Veterinary graduating students from Plínio Leite College (São Gonçalo/RJ); by Luiz Fernando Duarte de Moraes and Cíntia Luchiari; Poço das Antas Biological Reserve - Silva Jardim/RJ; on September 01, 1997.

**Morphology, Taxonomy and Economical Relevance of Menispermaceae**, by João Marcelo Alvarenga Braga - Santa Úrsula University - Plant Taxonomy Laboratory; on October 24, 1997.

**Current Status of Atlantic Forest Remnants in Rio de Janeiro State**, by Rejan R.Guedes-Bruni - Symposium on The Environment and Human Communities in Rio de Janeiro City; Geography Dept./UERJ; in November, 1997.

**The Agronomist performance in Environmental Sciences**, by Luiz Fernando Duarte de Moraes – Graduation Course in Agronomy, at ESALQ/USP; on April 13, 1998.

**Sampling Methods for Studies on Brazilian Flora**, by Rejan R. Guedes-Bruni - Graduate Course in Environment Science - Dept. of Geography, PUC/RJ; on May 16, 1998.

**The Atlantic Rain Forest Research Program: Revegetation Project** – Lecture and field trip for Forestry graduating students from UNESP (Botucatu/SP); by Luiz Fernando Duarte de Moraes and Cíntia Luchiari; Poço das Antas Biological Reserve - Silva Jardim/RJ; on May 11, 1998.

**Ecological Plant Anatomy**, by Cecília Gonçalves Costa, PhD., in the XLIX Botany National Congress - Brazilian Botanical Society; on July 27, 1998.

**Floristic Surveys in Conservation Units: The Itatiaia National Park Case**, by Marli Pires Morim de Lima, PUC/RJ, Rio de Janeiro - RJ; on April 29, 1998.

## **3. Scholarships**

### **Undergraduate**

**Andrea Costa Oertel** - CNPq (PIBIC) – July/1997 to December/1998 – adviser: Marli Pires Morim de Lima

**Carlos Henrique Reif de Paula** - CNPq (PIBIC) - since January/1997 – adviser: Rejan R. Guedes Bruni.

**Guilherme Eduardo Mury Alves** - CNPq (PIBIC) - from January to December/1997 – adviser: Rejan R. Guedes Bruni.

**Cristina Cavalcanti Moreira da Silva** - CNPq (PIBIC) - from January to December/1997 – adviser: Osnir Marquete.

**Gilmara Pires de Moura Silva** - CNPq (PIBIC) - from January to December/1997 – advisers: Claudia Franca Barros and Cátia Henriques Callado.

**Elaine da Silva** - CNPq (PIBIC) – since January/1998 – advisers: Claudia Franca Barros and Cátia Henriques Callado.

**Carlos Wagner de Oliveira** - CNPq (PIBIC) – since January/1998 – advisers: Osnir Marquete and Cátia Henriques Callado.

### **Graduate**

**José Anselmo de Lira Neto** – CNPq – March to December/1997 – adviser: Graziela Maciel Barroso, PhD.

#### ***4. Participation in Examination Boards***

Examiner : Haroldo Cavalcante de Lima

Course : Graduation

College : Universidade Estadual do Norte Fluminense (UENF)

Candidate : Guilherme C. da Silva

Title : **Levantamento Florístico e Fitossociológico da Mata do Carvão Mun. Campos, RJ.**

Date : July 15, 1997.

Examiner : Cecilia Gonçalves Costa (Presidente)

Course : PhD. in Biology

College : Universidade de São Paulo (USP)

Candidate : Solange Cristina Mazzoni-Viveiros.

Title : **Aspectos estruturais de *Tibouchina pulchra* Cogn. (Melastomataceae) sob impacto de poluentes atmosféricos provenientes do complexo industrial de Cubatão, SP-Brasil.**

Date : July 23, 1997.

Examiner : Cátia Henriques Callado

Course : Monografia de Bacharelado em Ciências Biológicas

College : Universidade do Rio de Janeiro (Uni-Rio)

Candidate : Luciana Santos da Silva

Title : **Anatomia de duas variedades de *Pitcairnia* L`Hértier (Bromeliaceae) da Floresta da Tijuca, Rio de Janeiro, RJ**

Date: : January 19, 1998.

### **5. Participation in Scientific Events**

#### **XLVIII BOTANICS NATIONAL CONGRESS**

**Crato/CE, July 27 to August 1<sup>st</sup>, 1997**

**Aspectos anatômicos do caule de *Hydrocotyle emarginata* (Vell. (Umbelliferae) R. M. B. Pinto & C. G. Costa.**

**Estudo da Plasticidade foliar em *Saranthea eichleri* Petersen (Marantaceae) A. do E. Santo & C. G. Costa.**

**Menispermaceae do estado do Rio de Janeiro J. M. de A. Braga.**

**Espécies de *Abuta* Aublet ex Barrère extra-amazônicas, Menispermaceae J. M. de A. Braga.**

#### **9th ANNUAL INTERNATIONAL CONFERENCE OF THE SOCIETY FOR ECOLOGICAL RESTORATION.**

**Fort Lauderdale, Florida - USA, November 12-15, 1997.**

**The Recovery of Atlantic Forest Degraded Areas in Southeastern Brazil L.F.D. de Moraes, J.M. Assumpção, C. Luchiari, R. Puglia-Neto, T.S. Pereira.**

**GIS Supporting Land Restoration Projects: The Poço das Antas Biological Reserve Case Study.**

L. F. D. de Moraes & G. Sparovek.

#### **CONSERVATION UNITS BRAZILIAN CONGRESS**

**Curitiba/PR, November 15 - 23, 1997.**

Rajan R.Guedes-Bruni, as a watcher.

#### **IV POÇO DAS ANTAS BIOLOGICAL RESERVE RESEARCHERS MEETING**

**Silva Jardim/RJ, July 03 and 04, 1998.**

**Fenologia de Espécies Arbóreas da REBIO de Poço das Antas.**

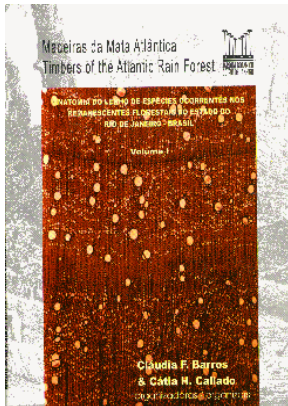


M.L.M.N. da Costa, C. Luchiari., L. F. D. Moraes & T. S. Pereira.

## 6. Scientific Events Organization

**João Marcelo Alvarenga Braga:** organizer committee for the *XVII Jornada Fluminense de Botânica*, held in Macaé/RJ; November 13 – 16, 1997.

**Luiz Fernando D. de Moraes and Cintia Luchiari:** organizer committee for the *IV Poço das Antas Biological Reserve Researchers Meeting*, 1998.



## 7. Book Published

Barros, C. F. & Callado, C. H. (orgs.). 1997. **Madeiras da Mata Atlântica - Anatomia do lenho de espécies ocorrentes em remanescentes florestais do estado do Rio de Janeiro - Brasil. Volume I.** Rio de Janeiro. Instituto de Pesquisas Jardim Botânico do Rio de Janeiro. 86 p.

## 8. Papers Published

Callado, C. H. & Costa, C. G. 1997. Wood anatomy of some *Anaueria* and *Beilschmiedia* species (Lauraceae). **IAWA Journal**. Vol. 18 (3): 247-259.

Callado, C. H. 1993/1997. Anatomia foliar de *Eugenia cuprea* (Berg.) Ndz. e *Marilerea suaveolens* Gard. (Myrtaceae) **Rodriguésia** 45/49 (71/75): 25-37.

Costa, C. G.; Coradin, V. T. R.; Czarneski, C. M. & Pereira, B. A. da S. 1997. Bark anatomy of arboreous Leguminosae of "Cerrado and Gallery Forest of central Brazil". **IAWA J.** 18(4):

Da Cunha, M. & R.C.Vieira 1993/1997. Anatomia foliar de *Psychotria velloziana* Benth. (Rubiaceae) **Rodriguésia** 45/49 (71/75): 39-50.

Neves, G.M. da S. *Dichapetalaceae*. 1997. In: Marques, M. do C. M., Vaz, A.M. S. da F., Marquete, R. (orgs.) Flórula da APA Cairuçu, Parati, RJ: Espécies Vasculares. **Série Estudos e Contribuições**. 14: 160-161.

Pessoa, S. de V. A. 1997. *Passifloraceae*. In: Marques, M. do C. M., Vaz, A.M. S. da F., Marquete, R. (orgs.) Flórula da APA Cairuçu, Parati, RJ: Espécies Vasculares. **Série Estudos e Contribuições**. 14: 388-395.

Rôças, G., Barros, C. F & Scarano, F. R. 1997. Anatomy plasticity of *Alchornea triplinervia* (Spreng.) Müll. Arg. (Euphorbiaceae) under distinct light regimes in a Brazilian Montane Atlantic Rain Forest. **Trees** **11**: 469-473.

Scarano, F.R.; Ribeiro, K.T.; Moraes, L.F.D.; Lima, H.C. 1997. Plant establishment on flooded and unflooded patches of a freshwater swamp forest in southeastern Brazil. **Journal of Tropical Ecology**. 14:793-803.

Vieira, C.M. Clusiaceae. 1997. In: Marques, M. do C. M., Vaz, A.M. S. da F., Marquete, R. (org.). Flórua da APA Cairuçu, Parati, RJ: Espécies Vasculares. **série Estudos e Contribuições**. 14: 136-143.

Valente, M.C.; Carauta, J.P.P. & Braga, J.M.A. 1998. *Dorstenia erecta* Vellozo (Moraceae). Caiapiá-erecto. Anatomia foliar e taxonomia. **Albertoa** **4**(25): 329-334.

Kennedy, H. & Braga, J.M.A. 1997. New species of *Calathea* (Marantaceae) from eastern Brazil. **Phytologia** **82** (2): 94-102.

### **9. Papers Sent for Publication**

Vieira, C.M. & Pessoa S. de V. A. Estrutura e composição do estrato herbáceo-subarbustivo de um pasto abandonado na Reserva Biológica de Poço das Antas, Mun. de Silva Jardim, RJ (sent in August/98 . **Rodriguesia**)

### **10. Papers in press**

Barros, C. F.; Machado, R. D. & Miguens, F. C. Leaf epidermis of *Plinia martinellii* G. M. Barroso et Peron (Myrtaceae). **Can. J. Bot.**

Barros, C. F.; Machado, R. D. & Miguens, F. C. Leaf ontogeny of *Plinia martinellii* G. M. Barroso et Peron (Myrtaceae). **Bot. J. Linn.**

Barros, C. F. & F. C. Miguens. Leaf epidermis of *Beilchmiedia rigida* (Mez.)Kosterm. (Lauraceae). *Acta Microscopica*.

Barroso, G. M., Lima, M. P. M. de et al. Morfologia de frutos e sementes de Dicotiledôneas e sua aplicação na Sistemática. Universidade Federal de Viçosa, MG.

Braga, J.M.A. Cissampelos vitis Vellozo e o gênero *Odontocarya* Miers. Complexidade taxonômica e nomenclatural. **Rodriguésia**.

Guedes-Bruni, R. R. et al. **Manual metodológico para inventários florísticos em Mata Atlântica**. Ed.UFRRJ.

Marquete, O. & Souza, R. C. O. S. *Miconia tristis* e *Miconia doriana* Cogn. (Melastomataceae) Anatomia do Eixo Vegetativo. **Rodriguésia**.

Schuback, P.D'A., Carvalho Junior. W. de & Pereira, N.R. Critério para o Monitoramento da Vegetação da Reserva Biológica de Poço das Antas através de imagens LANDSAT - 5TM. **Caderno de Geociências do IBGE**, nº 16.

## Current Field Works

Assumpção, J.M.; Moraes, L. F. D.; Luchiari, C; Puglia-Neto, R.. **Recovery of degraded areas using native species at the Poço das Antas Biological Reserve/IBAMA - Silva Jardim, RJ.**

Barros, C. F. & Callado, C. H. (orgs.) **Atlantic Rain Forest Woods – Wood Anatomy species from forest remnants in Rio de Janeiro State - Brazil. Volume II.**

Braga, J.M.A & Andreato, R.H.P. **Restablishing of three *Heliconia* species from the Atlantic Rain Forest in Southeastern Brazil.**

Callado, C. H. **Anatomical aspects and periodicity of tree growth rings in Atlantic Rain Forest species.**

Callado, H.; Costa, C. G.; Silva Neto, S. J. **Anatomical plasticity of *Alchornea triplinervia* (Spreng.) Müll. Arg. wood under different growing conditions in the Atlantic Rain Forest.**

Costa, M.L.M.N.; Luchiari, C.; Moraes, L.F.D.; Pereira, T.S. **Phenology of native tree species at the Poço das Antas Biological Reserve.**

Da Cunha, M. & C. Barros. ***Rudgea eugeniodes* (Rubiaceae): Leaf anatomy and micromorphology.**

Lia, M.P.M. de & Guedes-Bruni (org.). **Macaé de Cima Ecological Reserve, Nova Friburgo-RJ: Floristic aspects of vascular plant species. Vol. 3.**

Lira Neto, J.A. **Taxonomic study of Commelinaceae at the Itatiaia National Park.**

Moraes, L.F.D.; Luchiari, C.; Puglia-Neto, R.; Assumpção, J.M. **Performance of pioneer tree species in revegetation plantations with native species.**

Pessoa, S. de V.A. **Estudo da sucessão secundária na Reserva Biológica de Poço das Antas, Silva Jardim RJ - I. Dinâmica de regeneração e estabelecimento dos elementos arbóreo-arbustivos em área de mata degradada.**

Pessoa, S. de V.A. et Vieira, C.M. **Estudo da sucessão secundária na Reserva Biológica de Poço das Antas, Mun. Silva Jardim, Rio de Janeiro - III: Ilhas de vegetação e regeneração de áreas degradadas.**

Pessoa, S. de V.A. **Composição florística e estrutura de fragmentos florestais na Reserva Biológica de Poço das Antas.**

Silva Neto, S. J. **Levantamento das espécies de Rubiaceae Juss. do Parque Nacional do Itatiaia.**

Vieira, C.M. et Pessoa, S.de V.A. **Estudo da sucessão secundária na Reserva Biológica de Poço das Antas, Mun. Silva Jardim, Rio de Janeiro - IV. Síndrome de dispersão das espécies lenhosas.**

Schuback, P. d`A. **LANDSAT 5TM images use for the Itatiaia National Park vegetation mapping.**

## Professional Qualification

### PhD. - Finished

**Claudia Franca Barros**, Graduate in Science; Universidade Federal do Rio de Janeiro - Instituto de Biofísica Carlos Chagas Filho; in May, 1998 - Thesis: "*Estudo de Células Epidérmicas de Folhas de Espécies da Mata Atlântica*".

**Maura da Cunha**, Graduate in Science; Universidade Federal do Rio de Janeiro – Instituto de Biofísica Carlos Chagas Filho, in January, 1998 - Thesis: "*Estudos de sistemas hospedeiros de tripanosomatídeos em plantas*".

### PhD. - In course

**Cátia Henriques Callado** - Graduate in Plant Ecology, Universidade Federal do Rio de Janeiro, since November, 1996 - Thesis: "*Aspectos Anatômicos e Periodicidade dos Anéis de Crescimento em Espécies Arbóreas de Áreas Alagadas da Floresta Atlântica*".

**Haroldo C. de Lima** - Graduate in Plant Ecology, Universidade Federal do Rio de Janeiro, since January, 1996 - Thesis: "*Fitogeografia das Leguminosas Arbóreas - Uma análise da similaridade florística entre áreas de Mata Atlântica no Estado do Rio de Janeiro*".

**Helena Regina Lima Pugliali** - Graduate in Evolutive Aspects of Micromolecules - Universidade Federal do Rio de Janeiro; in March, 1992 - Thesis: "*Polaridade evolutiva em Zingiberiflorae*".

**Marli P. M. de Lima** - Graduate in Biological Science (Botanics) - UFRJ/Museu Nacional; in March, 1997 - Thesis: "*Leguminoseae do Parque Nacional de Itatiaia*"

**Rejan R.Guedes-Bruni** - Graduate in Ecology - Universidade de São Paulo (USP); in August, 1993 - Thesis: "*Estrutura de dossel em remanescentes de Floresta Atlântica no Rio de Janeiro*".

### MsC. - In course

**João Marcelo de Alvarenga Braga** – Graduate Course in Biology (Botanics) - UFRJ/Museu Nacional do Rio de Janeiro; since March, 1996 – Dissertation: "*Zingiberales Nakai da Reserva Biológica de Poço das Antas, Silva Jardim, RJ*".

**Sebastião José da Silva Neto**– Graduate Course in Biology (Botanics) - UFRJ/Museu Nacional do Rio de Janeiro; since March, 1996 – Dissertation: "*Simira Aubl. (Rubiaceae, Rondeletieae) do Brasil extra-amazônico*".

## Cooperative Actions

- Support to the agreement celebrated between the **Rio de Janeiro Botanical Garden and the Duque de Caxias Oil Refinery (REDUC)/PETROBRAS**, performing floristic and phytosociological surveys for conservative actions aiming the recovery of degraded forest areas (Saracuruna-Duque de Caxias/RJ).
- Support to the organization of the **IV Poço das Antas Biological Reserve Researchers Meeting, (1998)**.

- Support to **Phytochemical Studies Project** on Brazilian Monnimiaceae species (UFRJ no. 350901 P-030-1) - developed by Gilda Guimarães Leitão, from NPPN-UFRJ (November, 1997).
- Support to the organization of the exhibition **Leaves Frolic**, at the Riode Janeiro Botanical Garden Visitors Center (from February to May, 1998).
- Partnership with the Hannover Botanical Garden (Germany) to build a greenhouse for a Rio de Janeiro Atlantic Rain Forest exhibition (Regenwaldhaus), to be opened during *Expo 2000* (March, 1998 to May, 2000).
- Partnership with the Brazilian cosmetics company **Natura Cosmetics**, to organize an exhibition on Atlantic Rain Forest Aromas (since March, 1998).
- Support to the Project "Effects of Forest Fragmentation on Small Mammals Communities", coordinated by Fernando A. S. Fernandez, PhD., (Dept. of Ecology/ UFRJ), providing images from Poço das Antas Biological Reserve (June, 1998).

## **PMA in the media**

In order to inform people about the significance of conserving natural resources, the Atlantic Rain Forest Research Program activities have been shown through the media in several ways:

**Channel:** Discovery Channel/BBC

**Show Title:** *Wildlife - The Poço das Antas Biological Reserve.*

**Date:** August 22, 1997.

**Channel:** TV Cultura/Brazil

**Show Title:** Vídeo do Programa Mata Atlântica

**Date:** October 16, 1997.

**Channel:** TV Futura/Brazil

**Show Title:** *The Atlantic Rain Forest Today.*

**Date:** May 27, 1998.

**Channel:** TV Educativa/Brazil

**Show Title:** *The Brazilian Atlantis Rain Forest Current Status.*

**Date:** May 29, 1998.

## **Exhibition and Events**

## "Florestar" Exhibition

An exhibition about Research Projects on the Use of Natural resources - in Nova Friburgo/RJ - The Atlantic Rain Forest Research Program in The Macaé de Cima Ecological Reserve (September 6-18, 1997).

## New Technology and Equipment Purchasing

Equipament	Purpose
07 Pentium MMX 200 computers	Database equipment upgrade
04 Pentium MMX 166 computers	Database equipment upgrade
2 Collor Printer	Print jobs

## Program Staff

Period: 7/ 1997 to 6/1998

### Coordination

Rejan Guedes- Bruni

### Floristic and Phytosociology

Rejan R.Guedes-Bruni Gerente JBRJ

Marli Pires Morim de Lima Pesquisadora JBRJ

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Gilmara Pires Moura Bolsista CNPq-PIBIC

Adilson Martins Pintor Auxiliar de Campo FBMM

Antonio Tavares de Oliveira Auxiliar de Campo FBMM

**Revegetation**

Luiz Fernando D. de Moraes Gerente FBMM

José Maria Assumpção Pesquisador JBRJ

Cíntia Luchiari Pesquisadora FBMM

Tania Sampaio Pesquisadora JBRJ

Adilson Martins Pintor Auxiliar de Campo FBMM

Antônio Tavares de Oliveira Auxiliar de Campo FBMM

**Data**

Renato Pizarro Drummond Gerente FBMM

Alexandre Quinet Pesquisador FBMM

JBRJ - Instituto de Pesquisas Jardim Botânico do Rio de Janeiro

FBMM - Fundação Botânica Margaret Mee

IBGE - Fundação Instituto Brasileiro de Geografia e Estatística

USU - Universidade Santa Úrsula

UENF – Universidade Estadual do Norte Fluminense

UFRJ - Universidade Federal do Rio de Janeiro

UFRRJ - Universidade Federal Rural do Rio de Janeiro

CNPq - Conselho Nacional de Desenvolvimento Técnico-científico

CNPq-PIBIC - Projeto Institucional de Bolsa de Iniciação

## **The Atlantic Rain Forest Research Program by numbers**

### *Floristic and Environmental Surveys Project*

<b>07/97-06/98</b>	
49	field trips

1,068	individuals collected
409	plant species recorded according to seeds dispersion syndrome
15	bird species recorded by feeding habits
170	plant species recorded by ecological groups
793	species identified
46	Collected wood samples and registered in the RJBG wood collection
420	Microscopic sectioning for the RJBG wood collection
55	duplicates for exchange with wood collections
47	Papers presented in scientific events
01	Papers sent for publishing
35	Papers published
8	Lectures offered
6	Courses offered

*Floristic and Environmental Surveys Project – Botanic Collection Management*

<b>01/98-07/98</b>		Macaé de Cima	Paraíso	Poço das Antas	Itatiaia	Saracuruna
Botanic Handling	Material	36	-	134	448	157
Records		-	1	8	-	-
Data Input in Ecolog		-	-	51	391	75
Ecolog Updating		6	8	111	265	100

*Revegetation Project*

<b>07/97-06/98</b>	
8,349	Seedlings produced at the Reserve
5,411	Seedlings planted at the Reserve
1.97	Hectares revegetados
1.97	Hectares under weed control (maintainance)
38	Tree species used for seedlings production at the Reserve
27	Tree species used in the plantations
119.21	Kg of fruits collected
20.25	Kg of seeds collected
02	Species quantitatively evaluated (for fruits production)
05	Works presented in scientific events
01	Paper published
06	Lectures offered



*Database Maintenance and Computer Services Project*

Botanic families and the total amount of species reviewed

<b>Botanic families</b>	<b>Total of species</b>	<b>Species reviewed</b>	<b>Species not reviewed</b>
Amaryllidaceae	1	1	0
Araceae	39	26	13
Araliaceae	6	6	0
Basellaceae	1	1	0
Bombacaceae	8	6	2
Bromeliaceae	85	65	20
Campanulaceae	3	2	1
Caprifoliaceae	1	1	0
Celastraceae	3	2	1
Chloranthaceae	1	1	0
Cucurbitaceae	10	8	2
Cyperaceae	14	12	2
Dioscoreaceae	5	5	0
Ericaceae	4	2	2
Erythroxylaceae	3	1	2
Euphorbiaceae	37	33	4
Flacourtiaceae	14	14	0
Graminae	26	26	0
Hippocrateaceae	9	4	5
Labiatae	5	5	0
Lauraceae	76	76	0
Lentibulariaceae	4	3	1
Lobeliaceae	1	1	0
Loganiaceae	5	4	1
Loranthaceae	13	13	0
<b>Botanic families</b>	<b>Total of species</b>	<b>Species reviewed</b>	<b>Species not reviewed</b>
Magnoliaceae	1	1	0
Marantaceae	6	0	6
Melastomataceae	100	94	6
Moraceae	40	37	3
Myristicaceae	2	2	0

Myrsinaceae	9	8	1
Olacaceae	3	3	0
Oleaceae	2	2	0
Orchidaceae	35	35	0
Palmae	16	15	1
Podocarpaceae	2	0	2
Polygonaceae	3	3	0
Ranunculaceae	3	1	2
Rosaceae	4	3	1
Rutaceae	12	9	3
Sabiaceae	3	3	0
Sapindaceae	26	21	5
Sapotaceae	22	21	1
Scrophulariaceae	3	3	0
Symplocaceae	4	1	3
Thymeliaceae	4	4	0
Umbelliferae	2	1	1
<b>TOTAL :</b>	<b>676</b>	<b>585</b>	<b>91</b>

1,833	taxas on the species database
27,158	collets on the individuals database
123	publications on the literature database