

FSC® STANDARD

Brazilian FSC standard for Small and Low Intensity Managed Forests (SLIMF)

FSC-STD-BRA-03-2013 V3-2 EN



VERSION 3-2

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Forests (SLIMF)

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FSC Brasil

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The Forest Stewardship Council® (FSC) is an independent, not for profit, non-government organization established to promote environmentally appropriate, socially beneficial, and economically viable management of the world's forests.

FSC's vision is that the world's forests meet the social, ecological, and economic rights and needs of the present generation without compromising those of future generations.

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A SCOPE

The FSC Certification Standard for Small Scale and Low Intensity Forest Management in Brazil is applicable to all properties in Brazil, according to SLIMF's area and intensity specifications, for both native and planted forests.

The eligibility criteria for Small Scale and Low Intensity Managed Forests (SLIMF) in Brazil are presented in the table below:

Table 1 - Classification of Small Scale and Low Intensity Forest Management

SLIMF CLASSIFICATION	CRITERIA	FOREST TYPE	LIMITS	COMMENTS
Small-scale forestry operation	Area	Native forests in the Brazilian Amazon	up to 1,000 ha of the total area of the FMU	-This area should cover the whole of the Forest Management Unit.
		Forest Plantations In Brazil	up to 480 ha of the total area of the FMU and up to 1000 ha total area including PPA ¹ and LR ²	-The 480 hectares equals the effective forest management area, however, the sum of the area with the PPA and the LR of the entire property may not exceed 1,000 ha.
Low-intensity forestry operation	-Harvesting Rate proportional to the average annual increment (AAI) for the total production area of the forest management unit (FMU).	Native forests in the Brazilian Amazon	- The collection index of the FMU is less than 20% of the average annual increment (AAI) - Forest harvest limit of a maximum of 5,000 m³/year.	-In cases where the calculations of average annual increment (AAI) are not available, other measures of growth are accepted at the regional level to a certain type of forest may be used. -The intensity criterion applies mainly to the
		Forest Plantations In Brazil	-does not apply.	management of native forest and eventually to the management of plantations for the Non Timber Forest Products (NTFP) or other systems, such as the agro- silvi pastoral.
SLIMF groups	-	Native forests in the Brazilian Amazon	-There is no limit on the number of	- The limit of area or intensity
		Forest Plantations In Brazil	members in a SLIMF group	is defined per group member.

¹ PPA, according to Brazilian Forest Code (Law 4.771/65 replaced by Law n° 12.651 of May 25th 2012) means Protected Permanent Area, and is recognized by its environmental function of preserving water resources, landscape, geological stability, biodiversity, gene flow of fauna and flora, soil protection and ensure the well-being of human populations.

² LR or Legal Reserve is an area located within a rural property, dedicated to permanent preservation, necessary for the sustainable use of natural resources, conservation and rehabilitation of ecological processes, conservation of biodiversity and protection of native fauna and flora, according to the definition of the Forest Code (Law no. 4,771/1965 replaced by Law n° 12.651 of May 25th 2012).

Note 1: the forest producer may qualify as small or as low intensity according to the eligibility criteria

of the FSC (SLIMF ELIGIBILITY CRITERIA FSC-STD-01-003 (V1-0) EN), which contemplate the

condition of the management area or the percentage of harvest intensity. In case of community

management, the area eligibility criteria may be calculated by member.

Note 2: The low intensity criteria does not apply to forest palntations in Brazil because the majority

of small producers plant throughout the territory in one year, cutting in rotation age (usually 6 to 7

years for energy and celululose and 12 to 15 years for sawmill). So, imposing limits in terms of

intensity or volume to be cut wood, will cause the producer to maintain forests over the age of

rotation age, what implies in economic losses for the producers.

Rationale for the SLIMF area for forest management of Plantations in Brazil.

Eligibility criteria qualify SLIMF properties by size of management intensity. According to FSC

instructions this area may reach up to 100 hectares, but may be altered up to 1.000 hectares upon

approval by the international council. Thus, FSC Brazil in consensus with the technical commission

came to the conclusion that such 100 hectares do not include all small producers of planted forests,

mainly due to the heterogeneity of Brazilian regions.

Therefore, during meetings for discussions of this standard the area which would correspond to

the majority of small producers of planted forest was also discussed. Also, under consensus, it was

found that the maximum allowable size (1000 ha) was not consistent with the reality of the small

producers, but with the medium-sized producers of planted forests in Brazil.

A discussion around the definition of such value was then initiated. According to the participating

companies, the value of 500 ha of effective planting would support 90% of planted forest producers

participating in their support programs (partnerships).

Upon analysis of the national legislation it may be verified that such heterogeneity is taken into

account in the qualification of small farmers. Law no. 11,326/06 states that a farmer must have up

to four fiscal modules in order to be qualified as a small family farmer, in addition to meeting other

requirements. Thus, by applying this definition of area size used in agriculture for the forest

management unit, a small forest producer shall have an area of up to four fiscal modules in order

to qualify as such. Since the fiscal module in the country, due to regional characteristics, ranges

from 20 to 120 ha, a producer is considered small when holding a maximum area of 480 ha of

effective forest management. Permanent Preservation Areas (PPA) and Legal Reserves (LR)

established in the national legislation in force are not included in this total. The sum of the areas of

effective management and permanent preservation and legal reserve areas may not exceed 1000 ha (maximum limit for SLIMF worldwide), such values to be consistent with the national reality for the management of forest plantations.

EFFECTIVE DATE

July 17th 2013 Approval date July 30th 2013 Publication date Effective date July 30th 2013

REFERENCES

- FSC-GUI-60-100 Interpretation of the FSC Principles and Criteria for low scale and intensity operations;
- FSC Standard for Management of Forest Plantations.
- FSC-STD-60-002 V1-0 Structure and Content of National Forest Stewardship Standards
- FSC-PRO-01-001 The Development and Approval of the FSC Social and Environmental International Standards:
- FSC-STD-01-001 FSC Principles and Criteria for Forest Stewardship;
- FSC-STD-20-003 V.2-1 Local adaptation of generic Forest Stewardship Standards
- FSC-STD-01-002 FSC Glossary of terms.
- FSC Certification Standards for Forest Management on Land in the Brazilian Amazon final version:
- Forest Certification Standards for the Amazon Forest on Land, with Specific Indicators for the Community Management of Small Forest Properties and SLIMF, version 5.0 (not approved by FSC International);
- Smartwood Interim Guidelines for the Evaluation of the Management of Non-Timber Forest Products (NTFP) - August 2006 version
- FSC Certification Standard for Small Scale and Low Intensity Forest Management in Native Forests in the Brazilian Amazon – version 4.0 (not approved by FSC International);
- FSC Certification Standards of NTFPs in Atlantic Forest Remnants version dated February 2003 (not approved by FSC International);
- FSC Standards for Forest Management and Exploitation of Natural Populations of Brazilian Nuts version 4.0 (not approved by FSC International);
- FSC Standard for the Management of Forest Plantations.

D FSC NORMATIVE DOCUMENTS REPLACED BY THIS STANDARD

FSC-STD-BRA-01-2010 Evaluation standard for Community Forestry Management and Smallscale Producers in Brazil

DOCUMENT REVIEW MECHANISMS

This document, according to FSC's recommendations, shall be reviewed every five years, at which time it may be modified. Furthermore, all comments and suggestions regarding the document shall be organized together with local legislation changes, technological innovations or changes in the FSC P&C that might arise.

1 - INTRODUCTION

The present document has been prepared as a certification guide for small properties or low intensity management in natural forests and forest plantations in Brazil, according to the guidelines of the FSC under the SLIMF (Small and Low Intensity Managed Forests) policy. Initially, this standard was designed to meet the certification for forest management in small scale and low intensity in Native Forests in the Brazilian Amazon.

In this region, the "small-scale and low intensity management forest operations" represent the enterprises managed by community associations in different contexts, such as residents of Extractive Reserves (RESEX) or national forests (FLONAS), agrarian reform settlements projects promoted by the Brazilian Government, indigenous peoples, management performed by quilombolas (Remnants of the Quilombos), and also smaller private properties or those with low intensity of exploration. Native forest management may be intended to the exploitation of both timber and non-timber forest products, according to the specification of the management plan.

The initial document was prepared in 2004, and its first version was indeed approved on December 1. 2010.

In April, 2010, during a FSC Brazil's board meeting, it was decided that the above mentioned document would be adapted to include small producers of forest plantations.

This action was part of a joint effort by FSC Brazil, WWF-Brazil and the Federal University of Vicosa, and companies in the pulp, paper and packaging sectors, to develop a program for forest certification, based on the principles of the Forest Stewardship Council – FSC® for small producers in its forest partnership programs, among other small producers in family agriculture.

FSC forest certification has been increasingly important in Brazil. There are 11 million hectares of forest plantations certified worldwide, 2.87 million (26%) of which are located in Brazil, representing 51.83% of total forest plantations in the country. However, this area is concentrated on properties owned by only a few organizations. Until May 2010, 43 out of 51 management certificates issued for forest plantations in Brazil were for organizations holding areas larger than 5,000 hectares.

This concentration is due, in part, to the high cost (direct and indirect) of certification for forest management. Generally speaking, an organization holding 100 hectares has a significantly higher certification cost per hectare compared to one with an area of tens of thousands of hectares. As a result, there are a large number of uncertified small producers of forest plantations.

Therefore, this project intended to build a more appropriate standard, one that would facilitate the access of small and medium-sized Brazilian forestry producers to the FSC Forest Certification process.

2 - HISTORY OF THE STANDARD

2.1 - Preparation of the Certification Guide for Small and Low Intensity Managed Native Forests (N)

The first version of the document, which was intended exclusively for the certification of Small Properties or Low Intensity Management of Native Forests, was built in 9 stages, as follows:

- Stage 1 Preparation of version 1.0: Preparation of the initial document version 1.0 by an environmental consulting company;
- Stage 2 Workshop in Belém/PA: held on September 26 and 27, 2002, where version 1.0 was revised and version 2.0 was consolidated;
- Stage 3 Workshop in Rio Branco/AC: held on November 13 and 14, 2002, and included the participation of 21 people representing community management from all over Brazil, which resulted in the elaboration of version 3.0;
- Stage 4 Workshop in Porto Velho/RO: held on February 26 and 27, 2004 and attended by representatives of community associations, non-governmental and governmental organizations, and leaders of indigenous peoples. At this stage, version 3.0 was discussed and version 4.0 was proposed;
- Stage 5 Adaptations for SLIMF: At this stage the document's numbering order was changed, from version 4.0 to version 1.0 again, after the hiring of a consulting firm to adjust the Brazilian standards to the FSC International guidelines regarding the operation of SLIMF. During preparation of the new 1.0 version, the consulting firm was advised to guery specialists in community management in the Brazilian Amazon;
- Stage 6 Workshop in Manaus/AM: held on August 18 and 19, 2004, when the classification of "Small Scale" and "Low Intensity" forest operations was discussed, in addition to the indicators present in version 1.0. Aside from discussions concerning the scale and intensity of management, there were also changes in the document's indicators, giving rise to version 2.0;
- Stage 7 Field Test: performed in August 20 and 21, 2004, results have been systematized and reconsidered in version 3.0;

• Stage 8 – Public Consultation II: second public consultation with those interested in the

SLIMF, however, no indicator level collaboration was suggested;

Stage 9 – Approval by FSC Brazil's Board of Directors: evaluation and approval of the

final version 4.0 of the Standard by FSC Brazil's Board of Directors, in December 2004, then

forwarded to the FSC IC for final assessment.

In 2010, the referred standard was reviewed and, on December 1, 2010, its latest version was

released, still regarding the Certification for Small Properties or Low Intensity Management of

Native Forests.

2.2 - Reformulation of the Standard for Insertion of Indicators Related to Small and Low

Intensity Managed *Planted* **Forests (P)**

The certification standard for forest management in small scale and low intensity in Native Forests

in the Brazilian Amazon, published in 2010, went through a process of adaptation, which began in

2011, so that the document would also apply to small producers of forest plantations. The steps

for the reformulation of the document are described below.

• Stage 1 - Benchmarking with the certifiers: preparation of a document arising from a

Benchmarking process performed by accredited certification authorities in Brazil. In this process

the interim standard checklists for each certification authority were verified, individually

approved by the FSC, for inspection of the Management of Forest Plantations. This document

served as a basis for the second stage of the process;

• Stage 2 - Preparation of Version 1.0: two technical meetings were held in São Paulo.

The first took place on September 22 and 23, 2011, when the document prepared in stage 1

was discussed. Following this meeting a partnership between WWF, FSC Brazil and the Federal

University de Viçosa (UFV) was established for the preparation of the first version of this

standard (Version 0). This document was reviewed again by technical experts in the second

technical meeting, held on November 21 and 22, 2011. Following suggestions of experts and

researchers present at those meetings, "Version 1.0" of the standard was designed and then

forwarded to Public Consultation in February 2012.

Stage 3 – Preparation of Version 2.0 after face-to-face and online public

consultations:

Face-to-face Public Consultations

A total of 4 face-to-face public consultations were held from April 24 to May 10, 2012, aiming to

collect information, suggestions and complaints, in addition to clarifying doubts about the FSC

Certification Standard for Forest Management on Small Scale and Low Intensity Forest Plantations. The main objective of those meetings was to involve major stakeholders in the process, namely the small and medium-sized producers of planted forests.

Table 2 shows the date, time and number of attendants in each one of the 4 face-to-face public consultations held in Brazil for SLIMF standard of Forest Plantations.

Table 2 – Information on Face-to-face Public Consultations

Location	Date	Number of participants	Duration
Telêmaco Borba – PR, SESI - Av. Vidal de Negreiros, 225. (Time: 9:30 AM)	04/24/2012	70	4 hours
São João Evangelista – MG, IFMG, Av. 1º de Junho Nº 1043. (Time: 2PM)	05/05/2012	129	4 hours
Teixeira de Freitas – BA, Faculdade Pitágoras, Av. Juscelino Kubitschek, 3000. (Time: 6:30 PM)	05/08/2012	77	4 hours
Monte Dourado – PA, Clube Jariloca. R. Monte dourado, s/nº - Pará (Time: 9AM)	05/10/2012	35	6 hours

Online Public Consultation

The process of public consultation over the internet was active for two months (April and May), ending on May 31, 2012. A total of 8 general comments on the standard were obtained, and 86 comments concerning specific standard indicators were obtained. All of such comments were analyzed by the technical commission and constitute the basis for the definition of the standard indicators.

After the consolidation of the face-to-face and online public consultations, version 2.0 of the Standard was drafted.

Stage 4 - Preparation of Version 3.0: After the meeting with the technical teams responsible for the development of the standard (FSC Brazil, WWF Brazil and UFV) and FSC's Standards Development Committee, all suggestions made in the public consultations described in the previous item were assessed and version 3.0 of the SLIMF Standard was developed, including final considerations regarding each assessed Principle, Criterion and Indicator. This version is presented for approval by FSC International.

3 - DEFINITIONS

- a) The term SHALL is used with the meaning of an obligation.
- b) The general term used in this document to refer to the area of application of the principles, criteria and indicators, is FOREST MANAGEMENT UNIT (FMU).
- c) The principles and criteria defined here are applied to all the areas defined as FOREST MANAGEMENT UNITS, considering the peculiarities, the scale of the enterprise and the intensity of management.
- d) In this document, WORKER refers to DIRECT AND INDIRECT WORKERS.
- e) The term FOREST PRODUCER and/or PERSON IN CHARGE OF THE FOREST MANAGEMENT UNIT is used instead of "forest manager" as per the original FSC document.
- f) As a general rule, in case of COMMUNITY FOREST MANAGEMENT, the peculiarities and scale of the enterprise must be taken into account.
- g) Representation for Principle, Criterion and Indicator used in this document:
 - 1. Principle
 - 1.1. Criterion
 - 1.1.1 Indicator related to both planted and native forests
 - 1.1.1.P Indicator related exclusively to planted forests
 - 1.1.1.N Indicator related exclusively to native forests

Note 1: Although the indicators in Principle 5 relating to the management of non-timber products were created for the management of native forests, they also apply to Plantations, in case that occurs.

Note 2: All aspects of this standard are considered to be normative, including the scope, standard effective date, references, terms and definitions, notes, tables and annexes, unless otherwise stated. Verifiers are not normative.

4 - PRINCIPLE, CRITERIA AND INDICATORS

Principle 1 – COMPLIANCE WITH LAWS AND FSC PRINCIPLES

Forest management shall respect all applicable laws of the country in which they occur, and international treaties and agreements to which the country is a signatory, and comply

with all FSC Principles and Criteria.

1.1. Forest management shall respect all national and local laws and administrative

requirements.

1.1.1. There shall be no evidence of non-compliance with the applicable legislation and

administrative requirements by the forest management enterprise.

1.1.2. If any non-compliances with legal or regulatory requirements have been identified by the

enterprise or by third parties, they shall have been documented by the enterprise, were promptly

corrected, and effective action has been taken to prevent their recurrence.

1.1.3.N - The procedures outlined in the management plan, in the operational plan and in the area

usage plan (in the case of settlements and conservation units) shall be observed by the forest

managemnt enterprise.

1.1.4.N - The exploitation, collection and transportation of the products managed shall be

authorized by environmental agencies in cases where such is a legal requirement.

1.1.5. Any pending issue regarding compliance with legislation (example: environmental, laws

governing forest management, among others) shall be settled by the forest manager in

collaboration with the competent authorities.

1.1.6. In cases where the person in charge of forest management is a company or institution (for

example, a cooperative, association, union, institute etc.) such person shall be legally constituted

and hold the required registrations.

1.1.7.P - The person in charge shall demonstrate knowledge of relevant laws pertaining to activities

developed at the Forest Management Unit (FMU), including at least those referenced in the

Brazillian SLIMF standard

1.2. All applicable and legally prescribed fees, royalties, taxes and other charges shall be

paid.

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1.2.1 There shall be proof by the forest management enterprise of payment, income tax

statements, exemption, reduction or agreements relating to the required charges³.

1.2.2. Any pending payment of fees and charges shall be addressed by the forest management

enterprise before creditors or authorities.

1.3. In signatory countries, the provisions of all binding international agreements such as

CITES⁴ (Convention on International Trade of Flora and Fauna Species Threatened with

Extinction), ILO⁵ (International Labour Organization), ITTA⁶ (International Agreement On

Tropical Timber) and the Convention On Biological Diversity⁷ shall be respected.

1.3.1. There shall be no evidence of violation of applicable requirements of any international

agreements ratified by Brazil and listed in the Brazilian SLIMF standard.

Note: See Appendix 3

1.3.2. If any non-compliances with international agreements shall have been documented by the

enterprise, were promptly corrected, and effective action has been taken to prevent their

recurrence.

1.4. Conflicts between laws, regulations and the FSC Principles and Criteria shall be

evaluated for the purposes of certification, on a case by case basis, by the certifiers and the

involved or affected parties.

1.4.1. Any existing conflicts between laws and the FSC P&C shall be discussed by the certification

authority, the community and other parties involved.

1.4.2. The enterprise shall document the results of any such attempt to resolve the conflict.

Note: are considered as evidences, documents like: written evidence of any government,

certification body or FSC National Office formal interpretations, approvals, designations,

³ For the management of plantations it must be verified that all charges relating to activities on the forest management unit have been paid.

⁴ If the wood is harvested for export, the CITES international treaty specifications must be observed, with approval in Brazil by Decree No. 76,623/1975 and implementation by the Decree No. 3,607/2000.

⁵ All ILO conventions ratified by Brazil are included in the National Labour Legislation. So, if the FMU is in accordance

with the labor laws, it will also be in accordance with the ILO Treaties.

⁶ This Convention shall apply only to the management and the marketing of products from the native forest areas of the

FMU, see annex III.

⁷ This Convention was inserted into the national biosecurity and environmental legislation. So, if the FMU is in accordance

⁷ This Convention was inserted into the national biosecurity and environmental legislation. So, if the FMU is in accordance with these laws, therefore it will be complying with the Convention on Biological Diversity.

authorizations, exceptions/ exemptions from requirements, which might allow the conflict to be resolved.

1.5. Forest management areas should be protected from illegal harvesting, settlement and

other unauthorized activities. Ok

1.5.1.**N** – Field observations, available documents and interviews shall demonstrate the absence

of illegal and/or unauthorized activities, such as: illegal exploitation, hunting and predatory fishing,

arson, theft, invasion, and others within the management area. Ok

1.5.2. There should be evidence that the forestry producers seek alternatives, appropriate to the

local reality, for the control and protection of management areas. Invasion or illegal activities shall

be reported to the competent authorities.

1.6. Forest managers shall demonstrate a long-term commitment to adhere to the FSC

Principles and Criteria.

1.6.1.**N** – There shall be evidence (documental or otherwise) of the commitment to a responsible

forest management according to the FSC P&C, including as appropriate:

- Existence of commitment term signed by the producers regarding the forest management;

- Training activity that includes the participation of young people;

- Actions to make the next exploration/collection cycles feasible;

- Investment in equipment and infrastructure to support the handling and processing;

- Actions to maintain satisfactory communication and dissemination of management activities

before the involved producers;

- Actions to involve the families of communities that do not participate in management

activities.

1.6.2.**P** – There shall be evidence (documental) of commitment to the conduction of a responsible

forest management, in accordance with the FSC P&C.

1.6.3.P – In case the owner of the FMU has other areas with forest plantations that are not included

in the scope of certification, they shall provide the information (location, area, plantation type, form

of management, among others) relevant to those areas.

1.6.4.P – Forest plantation areas outside the scope of the certification shall not contradict FSC's

Principles and Criteria.8

PRINCIPLE 2 – TENURE AND USE RIGHTS AND RESPONSIBILITIES

Long-term tenure and use rights to the land and forest resources shall be clearly

defined, documented and legally established.

2.1. Clear evidence of long-term forest use rights to the land (e.g. land title, customary

rights, or lease agreements) shall be demonstrated.

2.1.1. The land and its forest resources rights of use shall be clearly defined and secured, whether

by means of legal documents or traditional rights acquired, uncontested by the competent bodies.

2.1.2.**N** – In the case of communities which lease areas for forestry, there shall be an agreement

between the parties, duly registered, that formalizes the rights and obligations of all parties

involved, in order to ensure access to the resource and the long-term commitment to the FSC P&C.

2.1.3 Cases of unsettled disputes concerning the rights of ownership and use of land shall be

under settlement by the competent body.

2.2. Local communities with legal or customary tenure or use rights shall maintain control,

to the extent necessary to protect their rights or resources, over forest operations unless

they delegate control with free and informed consent to other agencies.

2.2.1.**N** – Regarding exploration activities performed by third parties, there shall be evidence that

the forest owners managers hold control of exploration activities, participating in decision-making

processes related to forest management, such as: intensity of exploitation; species to be explored;

management areas; frequency and type of monitoring to be carried out; choice and definition of

methods and equipment to be used, among others.

2.2.2.N - Relationships between communities and third parties shall be governed by formal

agreements, prepared and approved with effective participation of representatives of communities,

in order to represent their interests.

⁸ The FMU must meet at least the five criteria of FSC brand association in its other areas of forest plantations, described in the FSC Organizations Membership Policy (FSC-POL-01-004 V2-0).

The five criteria are: no illegal logging and illegal timber trade or forest products; no traditional and human rights violations in forestry activities; no destruction of the areas deemed as high conservation value; no conversion of natural forests to

plantations or non-forestry use; and non-use of genetically modified organisms.

Note: Such agreements shall contain: a map or sketch identifying the management areas in

accordance with signed agreement between the parties; a description and division of

responsibilities of the involved parties; clause providing the correct implementation of the

management plan, compliance with applicable legislation (environmental and labor), monitoring

and observance of the FSC P&C.

2.2.3.N - In cases where the partnership between communities and third parties imply that the

complete execution of management activities shall be performed by third parties, the signed

agreements shall be monitored and, when possible, reviewed by the external organization

(governmental or non-governmental) appointed by the community.

2.2.4 - Where communities have delegated control of their legal or customary tenure or use rights,

or part thereof to a third party, it shall be demonstrated that it was done with free and informed

consent of the local communities.

2.2.5.**P** – In case there are reports of the existence of local communities which have the right to

use areas within the FMU, these shall be identified through maps, sketches or a written document

stating the areas of customary use or possession.

2.2.6.P - In case of areas of customary use, such shall be accessible to the holders of such right.

2.3. Appropriate mechanisms shall be employed to resolve disputes over tenure claims and

use rights. The circumstances and status of any outstanding disputes will be explicitly

considered in the certification evaluation. Disputes of substantial magnitude involving a

significant number of interests will normally disqualify an operation from being certified.

2.3.1. Land conflicts shall be identified and there are existing procedures⁹ provided for their referral

and search for solutions.

2.3.2. In cases of unsettled disputes regarding the rights of ownership and use of land, such shall

be forwarded by the competent body.

9 See Glossary (types of procedures)

2.3.3.P – The FMU candidate for certification shall not be involved in disputes of substantial magnitude involving a significant number of interests. If the area in question does not fulfill that

requirement, it shall be removed from the certification scope¹⁰.

PRINCIPLE 3 - INDIGENOUS PEOPLES' RIGHTS

The legal and customary rights of indigenous peoples 11 to own, use and manage their

lands, territories and resources shall be recognized and respected.

3.1 Indigenous peoples shall control forest management on their lands and territories

unless they delegate control with free and informed consent to other agencies.

3.1.1.**N** – the forest manager shall demonstrate that local communities maintain direct control over

the forestry operations or have delegated that control to third parties with free and informed

consent.

NOTE 1: For consent to be informed requires that the peoples concerned were fully and accurately

informed of the implications of any agreements and were consulted through appropriate

procedures and through their representative institutions (Ref, ILO Convention 169, Article 6).

NOTE 2: For consent to be free requires that it was given by the Indigenous Peoples through their

representative institutions and was freely expressed without coercion or duress. (Ref: ILO

Convention 169 Article 7).

3.1.2.N - There shall be means for controlling forestry activities carried out by third parties.

3.1.3.N - There shall be effective participation of indigenous peoples and their representatives

(meetings, assemblies and other) in discussions related to management activities and their

implications.

3.1.4. Forest producers shall demonstrate knowledge of the rules and agreements established in

relation to forest management.

¹⁰ In order to remove the area from the certification scope, the area exclusion criteria described in document FSC-POL-20-003 (2004) EN shall be observed.

¹¹ Traditional populations shall also be considered in this Principle, see definition in glossary.

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3.1.5.**P** – In case there are reports of the existence of indigenous peoples and/or traditional peoples

which have the right to use areas within the FMU, such shall be identified through maps, sketches

or a written document stating the areas to which they hold right of use or legal title.

3.1.6.N - Forestry operations on lands and territories owned by traditional peoples shall only be

started when there is clear evidence of their free and informed consent and in accordance with the

laws in force.

3.2. Forest management shall not threaten or diminish, either directly or indirectly, the

resources or tenure rights of indigenous peoples.

3.2.1. Neighboring communities or those within the area influenced by the forest operations shall

have the right of use of resources recognized and guaranteed by persons in charge of

management.

3.2.2. Neighboring communities or those within the area of influence, when affected by the

management, shall be invited to discuss the social and environmental impacts of forest

management.

3.2.3. The person in charge of the conduction of harvest or exploration activities shall take the

mitigating and compensatory measures needed to minimize the negative impacts¹².

3.3 Sites of special cultural, ecological, economic or religious significance to indigenous

peoples¹³ shall be clearly identified in cooperation with such peoples, and recognized and

protected by forest managers.

3.3.1. There shall be evidence that locations of special significance were identified by the person

in charge of management, along with indigenous peoples.

3.3.2. Measures have been taken to ensure the protection and allow access of indigenous and

local peoples to location identified as of particular significance to them.

3.4. Indigenous peoples shall be compensated for the application of their traditional

knowledge regarding the use of forest species or management systems in forest

¹² The management of forest plantations shall take into account the scale and intensity of forest activities

¹³ In the case of Forest Plantations Management the traditional populations under this criterion must also be considered.

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operations. This compensation shall be formally agreed upon with their free and informed consent before forest operations commence.

3.4.1. In case the person in charge of the management make use of traditional knowledge of

communities, the compensation shall be discussed, agreed and formalized with the parties

involved.

3.4.2. The formalized agreement shall contemplate the interests of the community whilst respecting

the confidentiality of their knowledge and protecting all intellectual property rights.

PRINCIPLE 4 - COMMUNITY RELATIONS AND WORKER'S RIGHTS OK

Forest management operations shall maintain or enhance the long-term social and

economic well-being of forest workers and local communities.

4.1. The communities within, or adjacent to, the forest management area should be given

opportunities for employment, training, and other services.

4.1.1.N - There shall be evidence of employment of local labor.

4.1.2.**P** - There shall be evidence that preference is given to the employment of local labor.

4.1.3. There shall be evidence of training opportunities and other services to local or adjacent

communities (including forest dependent people)¹⁴.

4.1.4.P - There shall be evidence that the producer endeavors to minimize the differences between

the employees and the third party providers / contractors in order to avoid poor working

relationships.

4.2. Forest management should meet or exceed all applicable laws and/or regulations

covering health and safety of employees and their families.

4.2.1. Working conditions shall be healthy, hygienic and safe in the forest management unit for all

employees, subject to local realities, including:

Quality of food and water:

Infrastructure of camps;

Ergonomic conditions of activities.

¹⁴ For the Management of Plantations this indicator shall be applied in accordance with the scale and intensity of activities.

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4.2.2. Everyone involved in management activities shall use personal protective equipment (PPE)

appropriate to the activities performed and at no cost to workers.

4.2.3. The persons in charge of forest management and workers shall be aware and adopt

measures to prevent accidents in the workplace.

4.2.4. In case of accident, workers shall know the procedures for first aid and emergency.

4.2.5. Workers assume roles for which they are qualified, and properly use the equipment to

perform the work.

4.2.6. In the event of accidents, such shall be recorded and there are measures to avoid them and

reduce them.

4.2.7. In the case of forest activities located in areas with transit of people, there shall be signs

and information boards identifying safety risk situations.

4.2.8. According to the local reality, public transportation of workers must be conducted in vehicles

that comply with regulations for safe transportation.

4.2.9. The work of adolescents between 14 and 16 years of age shall be controlled, shall not be

arduous¹⁵ nor restrict¹⁶ school activities.

4.2.10 In the case that exploration¹⁷ is performed by third parties, the latter shall comply with

requirements contained in the Norma Regulamentadora 3118 to security and healf for rural

employer, populary NR 31, and in any other applicable legislation.

¹⁵ See Glossary

¹⁶ Restrict school activities, i.e. activities performed by adolescents within the property may not hinder or prevent them from going to school or fully performing their school activities.

¹⁷ In the case of forest plantations, all management activities starting from the preparation of the area are considered.

See Glossary

¹⁸ NR 31 is an oficial legislation wich aims to establish the principles to be observed in the organization and work environment in order to make it compatible planning and development activities in agriculture, livestock, forestry,

aquaculture and forestry with health and safety and environment the work.

4.3. The rights of workers to organize and voluntarily negotiate with their employers shall be guaranteed as outlined in Conventions 87 and 98 of the International Labour Organisation (ILO)¹⁹.

4.3.1. There shall be evidence that employees have freedom of association and unionization.

4.3.2. There exists no evidence of unjust work relationships such as:

• "Aviamento", or advance of goods in exchange for credit;

Unequal wages and working conditions for the same positions;

 Any kind of discrimination against women and minorities. This analysis shall include the cultural specificities guaranteed in the federal constitution (e.g. indigenous peoples).

Wages lower than the regional average²⁰, according to the activity performed.

4.3.3. Labor relations shall be formalized (in its different forms, such as partnerships and others),

including employees and contractors²¹.

4.3.4. In cases where the economic and social conditions of the forest enterprise make the strict

formalization of labor difficult, (registration as per labor legislation), there shall be some means of

formalization that is accepted by the local union overseeing regulation of the employment

relationship (e.g., a provision of services contract with defined rights and obligations).

4.3.5. Workers thus hired shall demonstrate awareness of such contracts and know their rights and

obligations.

4.3.6. There shall be mechanisms for dialogue and resolution of claims between the workers and

employer, and others involved with the management.

¹⁹ The text of this criterion has been adapted to better represent the scope of its application in Brazil. For such, the following sentence has been excluded from the original text of the criterion: "... as outlined in Conventions 87 and 98 of the International Labor Organization (ILO)", as Brazil has not ratified such conventions and Brazilian law does not allow the worker to choose between different unions. The point of this criterion is to assess the worker's freedom to associate and form trade unions.

²⁰ The amount of remuneration shall be referenced according to the formal references of the region (base salary of the category, local union or other representative bodies)

²¹ If the producer hires a third party to perform management activities on his property, the parties shall enter into a "Service Provision Contract", which shall constitute a guarantee.

4.3.7. There shall be internal procedures to ensure that service providers comply with labor

legislation.

4.4. Management planning and operations shall incorporate the results of evaluations of

social impact. Consultations shall be maintained with people and groups (both men and

women) directly affected by management operations.

4.4.1.P - The forest producer shall identify the main social impacts, appropriate to the scale and

intensity, caused by management activities.

4.4.2. There shall be assessment of social impacts, either through partnerships with technical

consultancy institutions, universities and others, or informally undertaken by communities.

4.4.3 In the event that negative social impacts caused by management activities are identified,

measures are taken to minimize such impacts.

4.4.4. There shall be mechanisms appropriate to the scale and intensity of management, to

maintain regular consultations with people and groups who are directly affected by the operations,

in order to identify the social impacts and the possibilities to avoid or reduce such impacts.

4.5. Appropriate mechanisms shall be employed for resolving grievances and for providing

fair compensation in the case of loss or damage affecting the legal or customary rights,

property, resources, or livelihoods of local peoples. Measures shall be taken to avoid such

loss or damage.

4.5.1. There shall be appropriate means dedicated to the identification and resolution of conflicts,

such as meetings and others.

4.5.2. In case of loss or damage affecting legal or traditional rights, measures shall be adopted to

provide fair compensation, freely agreed upon by both parties.

4.5.3. When grievances are raised, measures shall be taken to avoid them in future and they shall

be responded to promptly and fairly.

PRINCIPLE 5 - BENEFITS FROM THE FOREST

Forest management operations shall encourage the efficient use of the forest's

multiple products and services to ensure economic viability and a wide range of

environmental and social benefits.

5.1. Forest management should strive toward economic viability, while taking into account

the full environmental, social, and operational costs of production, and ensuring the

investments necessary to maintain the ecological productivity of the forest.

5.1.1.N - The revenue and costs related to production shall be known and documented, including

subsidies and other support received.

5.1.2.N - A portion of the revenue should be applied by the community as working capital or fund

to sustain the activity.

5.1.3.N - The communities that depend on external support from institutions (both technical and

economical) to perform the management shall have a plan or strategy to reduce such dependence

over time.

5.1.4.N - The communities invest in training local people or hiring experts that contribute to increase

their independence in environmental and financial management.

5.1.5.N - The cost of significant activities (including the cost of social and environmental

commitments) shall be assessed, as well as the necessary investment implicit in the forest

management plan.

5.1.6.P - The planning of forest activities in the FMU shall aim towards an economically viable

situation for the producer, so that the revenue to be obtained is sufficient to cover the costs of forest

management throughout its cycle.

5.1.7.P - There shall be a control system for costs and revenue from activities and for necessary

investments implicit in the forest management plan.

5.2. Forest management and marketing operations should encourage the optimal use and

local processing of the forest's diversity of products.

5.2.1.N - The community shall discuss and seek ways to diversify production and benefit the

product locally.

5.2.2.P - The producers shall take into consideration local production, use and / or processing and

/ or commercialization initiatives that add value to forest products.

5.2.3.P - The community access to the FMU for management and non-predatory collection of forest

products, timber or otherwise, shall be permitted and regulated in the locations where such access

already existed for legal or historical reasons, by means of formal permission granted by the person

in charge of the FMU, in observance of property rights and legal restrictions.

5.3. Forest management should minimize waste associated with harvesting and on-site

processing operations and avoid damage to other forest resources.

5.3.1.N - The exploitation of timber and non-timber products shall be planned and performed so

as to reduce waste while maintaining quality and product value and minimizing damage to the

forest.

5.3.2.N - For timber management, there shall be no evidence of high and / or damaged stumps,

damage caused by improper felling or timber product left in the forest.

5.3.3. The equipment used in forest management activities shall be technically adequate in order

to minimize waste, damage and impacts to the forest.

5.3.4. Forest management must be performed in such a way that reduces waste while minimizing

the removal of unused biomass and maintaining product quality.

5.4. Forest management should strive to strengthen and diversify the local economy,

avoiding dependence on a single forest product.

5.4.1.N - There shall be evidence that the community seeks to diversify the number of managed

species and products obtained from the forest.

5.4.2.**P** - Producers shall check the possibility of alternative markets for their timber and non-timber

production, as well as the consortium with other activities that hold market potential and

opportunities.

5.4.3.**P** - The producer shall prioritize the use of local goods and services.

5.5. Forest management operations shall recognize, maintain, and, where appropriate,

enhances the value of forest services and resources such as watersheds and fisheries.

5.5.1. There shall be no evidence that forest management is undermining the value of forest

resources and services (such as fishing, hunting, collection of non-timber forest products, tourism

activities, and others).

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5.5.2.P - The producer shall recognise and perform actions that demonstrate the conservation their

permanent preservation areas and other natural remnants for maintenance of water resources and

biodiversity.

5.6. The rate of harvest of forest products shall not exceed levels which can be

permanently sustained.

5.6.1.**N** - For timber management, the exploration rate shall be determined based on estimates of

growth, ensuring that it does not exceed the replenishment capacity of the forest.

5.6.2.N - For non-timber management, the exploration rate shall be defined taking into account the

precautionary principle and preferably determined based on scientific information, and / or local

experiences available and / or traditional knowledge on the use of managed species.

5.6.3.P - There shall be a system of inventory and forest production planning appropriate to the

respective scale of operation.

5.6.4.P - The producer shall observe proper rotation of the product target and the sustainability of

forest production.

PRINCIPLE 6 - ENVIRONMENTAL IMPACT

Forest management shall conserve biological diversity and its associated values,

water resources, soils, and unique and fragile ecosystems and landscapes, and, by so

doing, maintain the ecological functions and the integrity of the forest.

6.1. Assessment of environmental impacts shall be completed -- appropriate to the scale,

intensity of forest management and the uniqueness of the affected resources - and

adequately integrated into management systems. Assessments shall include landscape

level considerations as well as the impacts of on-site processing facilities. Environmental

impacts shall be assessed prior to commencement of site-disturbing operations.

6.1.1.P - The person in charge of the FMU shall demonstrate knowledge of the possible impacts

derived from forestry activities.

6.1.2. Prio to the execution of activities, the environmental impacts shall be identified, documented

and taken into consideration in decision making, and procedures that shall be revised if necessary

every five years, adopted seek to minimize environmental impacts (e.g., intensity of thinning,

planning and construction of roads, courtyards and infrastructure such as bridges, drain inlets,

water passages and others).

6.1.3. In cases that negative environmental impacts resulting from management activities are

identified; there shall be measures in place²² for the recovery, mitigation and compensation of such

impacts.

6.1..4. The management plans and/or other relevant policies and procedures of the enterprise shall

identify the actions to be taken to prevent, mitigate or reduce the environmental impacts identified

as a result of the assessments.

6.2. Safeguards shall exist which protect rare, threatened and endangered species and their

habitats (e.g., nesting and feeding areas). Conservation zones and protection areas shall be

established, appropriate to the scale and intensity of forest management and the

uniqueness of the affected resources. Inappropriate hunting, fishing, trapping and

collecting shall be controlled.

6.2.1.N - The rare, threatened or legally protected and endangered species and HCV present in

the forest management shall be known, listed and updated.

6.2.2. Measures to identify, conserve protect, maintain and or enhance such species and their

habitats shall be taken, appropriate to the scale and intensity of management.

6.2.2.**P** - The producer shall demonstrate, based on best available information, knowledge of the

probable presence of endemic, rare, threatened or endangered species and HCV in the FMU.

6.2.3. Hunting activities in the management area shall be controlled and restricted to the

subsistence needs of the community. The use of dogs shall be constrained to avoid predatory

hunting.

6.2.4.P - The producers shall have their environmental protection, conservation areas and areas

of HCV identified on maps or sketches, and know their exact location in the field.

6.2.5. Conservation zones and protection area as APP - Permanent Protect Area or Legal

Reserve, shall have been selected to maximise their contribution to the conservation of biodiversity

²² For the management of plantations such measures shall be considered in accordance with the scale and intensity of

management activities.

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in relation to their size (for example through the creation of conservation corridors, protected

wetland areas and consolidation of natural areas). The location of conservation zones shall be

sufficient overall to ensure the continuing presence of rare, threatened or endangered species as

listed, to protect existing examples of ecosystems in their natural state (see Criterion 6.4 and 10.5

where appropriate) and are not less than 10% of the area of the FMU under assessment.

Expalanatory Note: The threshold requirement for Conservation Areas and Reserves Set Aside

was defined taking into account the requirements in the Brazilian Forest Law (Law n° 12.651 of

May 25th 2012) and FSC-GUI-60-004. The law provides for a 20% requirement as Conservation

and Reserves Set Aside; but also gives room for some operations to keep less than 20% of the

FMU for the same purpose. In order not to exclude operations that will decide for less than 20%

Conservation and Reserves Set Aside area, the FSC 10% minimum was required of all operations.

6.2.6. **P** - The producer shall take steps to prevent inappropriate activities of hunting, fishing,

trapping and collection of fauna and / or flora in the FMU. When permitted, in accordance with

legislation in force, such activities shall be monitored (referring to criteria 1.5).

6.3 Ecological functions and values shall be maintained intact, enhanced, or restored,

including:

a) Forest regeneration and succession.

b) Genetic, species, and ecosystem diversity.

c) Natural cycles that affect the productivity of the forest ecosystem.

6.3.1. N - There shall be no evidence that forest management impairs the ecological functions and

values of the forest.

6.3.2. P - There shall be no evidence that the management of forest plantations impair the

ecological functions and values of natural remnants.

Forest regeneration and succession.

6.3.3. **P** When required, the recovery of protected areas that are a priority for conservation in the

FMU, preference shall be given to the most appropriate techniques, and when the restoration of

the area implies plantations, the choice of species shall prioritize species that are native and

endemic to the region.

Genetic, species and ecosystem diversity

 $6.3.4.\ N$. Old, non-commercial trees; trees with special ecological value; standing dead trees food

for wildlife and dead fallen wood (with no phitosanitary risks) shall all be systematically retained

within the production area of the FMU, and in sufficient quantity to support populations of species

of birds and insects dependent on old trees and dead wood across the FMU.

6.3.5. N Small-scale sites of high ecological value (e.g. nesting sites, small wetlands, ponds, small

open areas, etc) shall be systematically retained and protected (e.g. through appropriate buffer

zones) throughout the production area of the FMU.

Natural cycles

6.3.6. **N** Site preparation and harvesting methods shall been designed to minimize soil erosion and

compaction and maximizes the retention of nutrients on site.

6.3.7. N Protective areas shall be established between the management areas and the areas,

which have high risk of fire or erosion (e.g. bordering on pastures or small farming areas).

6.3.8. P In plantation areas of the FMU a proportion of non-target tree and under storey species

shall be retained within the plantation matrix throughout the management cycle

6.4. Representative samples of existing ecosystems within the landscape shall be

protected in their natural state and recorded on maps, appropriate to the scale and

intensity of operations and the uniqueness of the affected resources.

Note: The Indicators for this Criterion should be considered in conjunction with those for Criteria

6.2 and 6.3 and 10.5.

6.4.1.N - There shall be evidence of protection of representative samples of all existing

ecosystems within the landscape.

6.4.2.N - In case of areas managed by third parties, there shall be maps identifying at least the

areas of permanent protection, the areas for management and the so-called representative

samples of ecosystem.

6.4.3.**P** - Representative samples of ecosystems shall be identified and evaluated by the forest

manager, and are monitored at least once a decade to identify and evaluate long term changes.

The results of this evaluation shall be taken into consideration in management of the conservation

zones, according to the scale and intensity.

6.4.4.P - The person in charge of the FMU shall protect representative samples of existing

ecosystems.

6.4.5. - The conservation zones and protection areas designated by the forest enterprise that cover

at a minimum an equivalent of 10% of the FMU area (see Criterion 6.2) shall include representative

areas of examples of ecosystems in their natural state.

6.5. Written guidelines shall be prepared and implemented to: control erosion; minimize

forest damage during harvesting, road construction, and all other mechanical disturbances;

and protect water resources.

6.5.1. Protective measures shall be taken between the management areas and areas at risk of fire,

erosion, invasion of animals and others²³ (e.g. vicinity of pastures and crops), which may impact

the managed forest and its resources.

6.5.2.N - For forest management in the Amazon, pre-exploration cutting of vines shall occur at

least 12 months before harvest and preferably in the trees to be explored and the ones intertwined

in them. The option not to perform the cutting of vines shall be technically justified.

6.5.3.N - When applicable, the Planning of primary and secondary roads, patios and crossing

streams shall be based on the following considerations:

Primary roads and patios constitute permanent infrastructure of the management unit;

There exist written and previously established specifications;

The lowest possible forest area shall be used, always aiming to minimize impacts to

surrounding areas;

The crossing of watercourses shall be avoided, and when performed, measures shall be

adopted to minimize environmental impacts (such as construction of infrastructures that

enable the continuous flow of the water).

6.5.4.N - In the Amazon forest management, directed felling of trees techniques shall be used to

reduce damage, especially in relation to trees intended for the next harvest, facilitate removal and

reduce excessive openings in the canopy.

6.5.5.N - In forest management in the Amazon, testing for hollows shall be performed in order to

avoid the exploration of hollow trees.

²³ Risk area for other reasons that may impact the managed forest and its courses.

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6.5.6.**N** - Where applicable, the minimum age (or diameter) and / or reproductive maturity shall be determined for the first and subsequent exploitations.

6.5.7.**N** - In the *Caatinga* forest management:

 Silvopastoral practice shall make use of existing technical guidelines in order to respect the bearing capacity of the area;

Exploitation waste shall be kept in the area explored;

Fire shall not be used within the forest management area.

• In the case of the use of harvest chainsaw, measures shall be adopted to prevent damage

to regrowth of stumps;

• Full or partial removal of stumps shall not be applied;

• The layout and size of the plots shall be made to minimize impacts to the landscape and

allow the flow of wildlife.

6.5.8.**N** - For management of NTFPs with suppressed individuals, that does not have specific regulations, management shall be based on an inventory or mapping (appropriate to the size and patterns of spatial occurrence of the species), and specific measures and practices shall be presented to promote the maintenance of the population, according to the scale and intensity of

management.

6.5.9. For non-timber management without suppression of individuals:

The collection cycle shall comply with the replenishment capacity of the managed resource;

• The collection practice shall not impair the vitality, the health of the individual.

6.5.10. For non-timber management without removal of individuals, with exudates as the managed

product (oils, resins, among others):

The proper height and depth for cuts or drillings shall be determined;

• The maximum number or size of cuts or drilling shall be determined; cuts or drillings shall

not exceed the established depth.

6.5.11. For non-timber management without removal of individuals, with leaves, branches and

trunks as managed products (palms that affiliate):

• The proportion of remaining healthy leaves, branches and trunks necessary to the survival

of the individuals shall be maintained:

- Reproductive structures (flowers and fruits and apical buds) shall remain intact and show no signs of post-harvest damage;
- Established pruning techniques (percentage, time, quantity) shall be applied by all producers.
- 6.5.12. For non-timber management without suppression of individuals, roots as the managed product (including the root of hemiepiphytes like timbó vine, titica vine and others):
 - Harvesting techniques shall be consistent with the maintenance of species' propagation capacity, whether by seed or root;
 - Only a portion of the root shall be harvested and a viable portion shall be left for regrowth and / or survival of the individual.
- 6.5.13. For non-timber management without suppression of the individual, with Reproductive Structures as managed products (flowers, fruits and seeds):
 - The trees shall not be damaged to induce early flowering and fruiting;
 - A certain portion of flowers, fruits and seeds shall remain in the forest for the wildlife populations and regeneration of the species.
- 6.5.14. For non-timber management without suppression of the individual, with bark as managed product:
 - The trees shall not be girdled;
 - The height, area and depth of cuts established for bark harvesting practices shall be respected:
 - The exploitation of bark shall not be performed during the plant's reproductive season.
- 6.5.15. For non-timber management without suppression of the individual, with vine as the managed product:
 - The support tree shall not be brought down for collection;
 - Support trees shall not be damaged during collection;
 - The vine shall be cut with at its maximum;
 - The stump shall be left at a height that enables regeneration.
- 6.5.16.P The person in charge of the FMU shall identify the main environmental aspects of each forest operation and infrastructure built, along with their potential impacts.

6.5.17.P - There shall be guidelines to prevent, control or mitigate the main negative impacts and

enhance positive impacts of forestry activities, according to the scale and intensity of management.

6.5.18.P - Workers (employees or third parties) shall be aware that spillage of fuels / oils or

chemicals can harm the environment, and shall be capable of performing appropriate emergency

cleaning procedures immediately following accidental spills of such products.

6.6. Management systems shall promote the development and adoption of environmentally

friendly non-chemical methods of pest management and strive to avoid the use of chemical

pesticides. World Health Organization Type 1A and 1B

and chlorinated hydrocarbon pesticides; pesticides that are persistent, toxic or whose

derivatives remain biologically active and accumulate in the food chain beyond their

intended use; as well as any pesticides banned by international agreement, shall be

prohibited. If chemicals are used, proper equipment and training shall be provided to

minimize health and environmental risks.

6.6.1. FSC standards on the use of chemical pesticides, as per description above, shall be met.

6.6.2. Chemicals, when used, shall be handled by trained personnel using IPE (e.g. masks, gloves,

etc.) and observed the recommended use, handling and storage, according to the legislation in

force.

6.7. Chemicals, containers, liquid and solid non-organic wastes including fuel and oil shall

be disposed of in an environmentally appropriate manner at off-site locations.

6.7.1. The waste shall be collected, separated (hazardous and non hazardous) and disposed of

in an environmentally appropriate manner, according to the local reality.

6.7.2. The enterprise shall keep an up to date list identifying the off-site location(s) for the disposal

of all its chemicals, containers, liquid and solid non-organic wastes (including fuel and oil).

6.7.3. Fuels and waste classified as hazardous (such as fuel containers, batteries, tires, among

others) shall be collected and stored in suitable location, avoiding soil contamination and risk of

accidents.

6.7.4.**P** The person in charge of management shall guarantee that there is no reuse of automotive

engine and machine oils, also known as burned oil, for lubrication of chainsaws or other use, as

provided by national law.

 $\textbf{6.8. Use of biological control agents shall be documented}, \\ \textbf{minimized}, \\ \textbf{monitored and strictly}$

controlled in accordance with national laws and internationally accepted scientific

protocols. Use of genetically modified organisms shall be prohibited.

6.8.1.N - The use of biological control agents shall be documented, minimized, monitored and

strictly controlled in accordance with national laws and internationally accepted scientific protocols.

6.8.2. Genetically modified organisms shall not be used.

6.8.3.P - Any use of biological control agents in the FMU shall be justified, documented, monitored

and controlled.

6.9. The use of exotic species shall be carefully controlled and actively monitored to avoid

adverse ecological impacts.

6.9.1.N - Species that do not occur in the management unit (exotic species) shall be used only in

justified and controlled situations.

6.9.2. If there is evidence that the species is invasive, the forest manager shall evaluate the

potential to eradicate the species within and immediately outside the FMU. If there is a reasonable

possibility of successful eradication then the forest enterprise shall put in place a plan to achieve

this in the shortest financially feasible time span.

6.9.3. If there is evidence that the species has significant adverse ecological impacts outside the

areas in which it is already established, but is not invasive, the forest enterprise shall put in place

a plan to eradicate the species within the FMU in shortest financially feasible time span.

6.9.4.P - The species selected for commercial planting shall be appropriate to the site and

management objectives.

6.9.5.P - There shall be monitoring and control of invasive exotic species in protected areas of the

FMU.

6.10. Forest conversion to plantations or non-forest land uses shall not occur, except in

circumstances where conversion:

a) Entails a very limited portion of the forest management unit; and

b) Does not occur on high conservation value forest areas; and

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c) Will enable clear, substantial, additional, secure, long term conservation benefits across

the forest management unit.

6.10.1.**N** Any conversion of forest to plantations or non-forest land within the FMU: a) Does not occur on high conservation value forest areas, and b) Does not affect a total of more than 5% of the area of the FMU, and c) Does not exceed 0.5% of the area of the FMU in any one year and

d) Enables clear, substantial, additional, secure, long-term conservation benefits across the

FMU.

NOTE: Areas scheduled for conversion cannot be higher than required by national legislations and

shall meet the threshold set by FSC in the indicator 6.10.1 N above.

6.10.2.N - In the case of conversion to non-forest uses, there shall be internal rules that regulate

and control the opening of new areas.

6.10.3.P - Any conversion of forest to plantations or non-forest land within the FMU: a) Does not

occur on high conservation value forest areas, and b) Does not affect a total of more than 5% of

the area of the FMU, and c) Does not exceed 0.5% of the area of the FMU in any one year and d)

Enables clear, substantial, additional, secure, long-term conservation benefits across the FMU.

6.10.4.P - The person responsible for the FMU shall take actions to restore and / or preserve

natural forests or threatened non-forest habitats, around or adjacent to the disturbed area (where

conversions occurred) when needed.

PRINCIPLE 7 - MANAGEMENT PLAN

A management plan -- appropriate to the scale and intensity of the operations - shall be

written, implemented, and kept up to date. The long term objectives of management, and

the means of achieving them, shall be clearly stated.

7.1. The management plan and supporting documents shall provide:

a) Management objectives.

b) Description of the forest resources to be managed, environmental limitations, land use

and ownership status, socio-economic conditions, and a profile of adjacent lands.

c) Description of silvicultural and/or other management system, based on the ecology of

the forest in question and information gathered through resource inventories.

d) Rationale for rate of annual harvest and species selection.

e) Provisions for monitoring of forest growth and dynamics.

f) Environmental safeguards based on environmental assessments.

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g) Plans for the identification and protection of rare, threatened and endangered

species.

h) Maps describing the forest resource base including protected areas, planned

management activities and land ownership.

i) Description and justification of harvesting techniques and equipment to be used.

7.1.1.N - There shall be a description of local communities, the number of people involved with

management, operation history, form of organization and institutions involved with management.

7.1.2.N - For timber management, a management plan shall be prepared containing items a

through i of P7c1, at least.

7.1.3.N - For non-timber management, in cases where there is no regulation, a simplified

management plan shall be elaborated containing at least the items a, d and i of P7c1.

7.1.4. The Management Plan shall be prepared with the participation of the producers involved in

the forest management.

7.1.5.**P** - The written management plan shall include goals, a description of the FMU (plantation

areas and types of protected areas present) and silvicultural and harvesting methods.

7.1.6.P - The written management plan shall contain the identification of key aspects of each forest

operation and infrastructure built, along with their potential impacts.

7.1.7.P - The written management plan shall contain a description of protective measures for

comprised areas.

7.1.8.**P** - The written management plan shall contain maps or sketches of the FMU indicating the

plantations areas, protected areas (PPA and LR), HCV areas and built infrastructure.

7.2. The management plan shall be periodically revised to incorporate the results of

monitoring or new scientific and technical information, as well as to respond to

changing environmental, social and economic circumstances.

7.2.1. The management plan (and supporting documentation) shall be reviewed and revised every

five years, if necessary.

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 $7.2.2.{\mbox{\bf P}}$ - In case there is any change in the scope of the certification or in management activities,

such shall be included in the Management Plan.

7.3. Forest workers shall receive adequate training and supervision to ensure proper

implementation of the management plan.

7.3.1. The personnel involved in management activities shall know the contents of the

management plan and / or procedures related to their work activities.

7.3.2. All workers (including contractors) shall be sufficiently qualified / trained to perform assigned

tasks effectively and safely.

7.3.3. All workers (including contractors) shall be monitored to ensure conduction of activities

efficiently and safely.

7.4. While respecting the confidentiality of information, forest managers shall make publicly

available a summary of the primary elements of the management plan, including those listed

in Criterion 7.1.

7.4.1. If requested²⁵, information on the management plan shall be available.

7.5. The local population and / or the relevant interest groups are involved in the elaboration

and / or implementation (decision making and negotiation processes) of the community

forest management plan.

Note: This criterion is specific to community forest management in native forests.

7.5.1.N - The drafting and implementation of forest management shall take into account traditional

knowledge and cultural aspects of the local community.

7.5.2.N - There shall be evidence (e.g. reports, minutes of meetings and assemblies, among

others) that the various segments of the community participate and contribute in decision-making

and negotiation connected to the management plan.

PRINCIPLE 8 - MONITORING AND ASSESSMENT

²⁵ Whenever requested, information on the management plan is made available to the requestor, as appropriate.

8. Monitoring shall be conducted -- appropriate to the scale and intensity of forest

management -- to assess the condition of the forest, yields of forest products, chain of

custody, management activities and their social and environmental impacts.

8.1. The frequency and intensity of monitoring should be determined by the scale and

intensity of forest management operations as well as the relative complexity and fragility of

the affected environment. Monitoring procedures should be consistent and replicable over

time to allow comparison of results and assessment of change.

8.1.1. There shall be a documented description of how monitoring is performed (e.g., which

information will be monitored, with what frequency and intensity, in which areas, among others).

8.1.2. Monitoring shall include periodic gathering of information (according to the scale, intensity

and peculiarities of management), which enables the monitoring of impacts of management in the

long-term.

8.1.3. For non-timber management, the gathering of information, whether formal (following

documented methods) or visual (i.e., monitoring of vitality, disease, growth, mortality, recovery,

increased or decreased dispersal, etc.) shall enable the adequacy of management practices.

8.2. Forest management should include the research and data collection needed to

monitor, at a minimum, the following indicators:

a) Yield of all forest products harvested.

b) Growth rates, regeneration and condition of the forest.

c) Composition and observed changes in the flora and fauna.

d) Environmental and social impacts of harvesting and other operations.

e) Costs, productivity, and efficiency of forest management.

Yield of all forest products harvested:

8.2.1. There shall be periodic records of productivity and harvest of forest products.

Costs, productivity, and efficiency of forest management

8.2.2. There shall be periodic monitoring of management costs.

8.2.3.N - For timber or non timber management that cause suppression of individuals, there are

methods for monitoring the growth of managed resources, according to the scale and intensity of

management and applicable regulations.

Environmental and social impacts of harvesting and other operations

8.2.4 There shall be assessment of social impacts resulting from management activities.

Composition and observed changes in the flora and fauna

8.2.5. Sufficient records shall be kept of the presence of any rare or threatened species of flora or

fauna, in order to identify significant trends over time.

NOTE: See Appendix 4

Growth rates, regeneration and condition of the forest.

8.2.6.P - Producers shall monitor the control of exotic species, so that they do not invade the areas

of environmental protection;

8.2.7.**P** - Producers shall monitor deployment, maintenance, harvesting and transportation costs

connected to the management activities;

8.2.8.**N** Pre- and post- harvest inventory shall be carried out for all harvested areas.

8.2.9.N The data collected during pre- and post- harvest inventory shall be sufficient to provide a

reasonable estimate of species composition, stocking, growth rates, regeneration and presence of

commercially significant pests or dis-eases over the FMU as a whole.

8.3. Documentation shall be provided by the forest manager to enable monitoring and

certifying organizations to trace each forest product from its origin, a process known as the

"chain of custody".

8.3.1. A system shall be in place²⁶, which allows all products (timber and non-timber) collected in

the FMU to be easily identified as such from the moment of harvest to the point of sale.

8.3.2. The identification system shall enable the physical product to be attached to a record,

including the following information:

Type of product;

Volume (or amount) of product;

Production location;

Date of production.

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²⁶ Management of Plantations shall take into account the scale and intensity of management activities.

8.3.3. Sales invoices shall be kept for all products sold, identifying at least:

• Name and address of purchaser;

The date of sale:

Type of product;

Volume (or amount) sold;

(Plantations) allowing the inclusion of certification code.

8.3.4. All products sold as "FSC certified" shall be readily identifiable as such, both the physical

product and the tracing records and sales invoices.

8.3.5. The forestry enterprise shall keep copies of records of production and sales invoices

accounting for at least five years.

8.3.6.P - In order to avoid mixing certified and non-certified forest products, products shall be kept

separately and clearly identified.

8.4. The results of monitoring shall be incorporated into the implementation and revision of

the management plan.

8.4.1. The information gathered through monitoring²⁷ shall be documented (reports, minutes,

audio, video and others) and used at the review of management practices.

8.4.2. There is evidence in the field (modification of harvesting techniques, change in the cutting

intensity for some species, development of new silvicultural treatments and others) occurring in

management practices.

8.5. While respecting the confidentiality of information, forest managers shall make publicly

available a summary of the results of monitoring indicators, including those listed in

Criterion 8.2.

8.5.1. When requested, monitoring records shall be available for consultation.

Principle 9 - MAINTENANCE OF HIGH CONSERVATION VALUE FORESTS

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²⁷ Monitoring of management of plantations shall be performed technically (based on documented methodologies) or

Management activities in high conservation value forests shall maintain or enhance the attributes which define such forests. Decisions regarding high conservation value forests shall always be considered in the context of a precautionary approach.

9.1. Assessment to determine the presence of the attributes consistent with High

Conservation Value Forests will be completed, appropriate to scale and intensity of forest

management.

9.1.1.N - The producer shall identify and map areas of the Forest Management unit with the

following attributes of high conservation value, in terms of ecological, economic, social and cultural

aspects.

HCV 1 - Areas containing significant concentrations of biodiversity values in global, regional or

national level (e.g. endemism, endangered species, biodiversity refuges).

HCV 2 - Extensive forest areas, in a global regional or national relevance scale, where viable

populations of most or all natural species occur in natural patterns of distribution and abundance.

HCV 3 - Areas within, or containing rare, threatened or endangered ecosystems.

HCV 4 - Areas that provide basic environmental services in situations of extreme importance (e.g.

protection of river basins, erosion control).

HCV 5 - Areas fundamental to meeting basic needs of local communities (e.g. subsistence, health).

HCV 6 - Areas of extreme importance to the cultural identity of traditional communities (areas of

cultural, ecological, economic or religious significance identified in conjunction with such

communities).

NOTE: It is recommended the consultation of "FSC Step-by-step: A guide of good practices to

meet the requirements of FSC certification for biodiversity and High Conservation Value Forests in

small forests and small-scale management.

9.1.2.P - The producer shall conduct an evaluation to identify and map attributes of high

conservation value in connection to ecological aspects²⁸.

9.1.3.P - There is an evaluation in place to identify attributes of high conservation value connected

to socioeconomic aspects²⁹.

²⁸ Refers to the Proforest classification for HVC 1, 2, 3 and 4, see glossary.

²⁹ Refers to the Proforest classification for HVC 5, see glossary.

9.1.4.P - There is an evaluation in place to identify attributes of high conservation value connected

to cultural and / or religious aspects³⁰.

9.2. The consultative portion of the certification process must place emphasis on the

identified conservation attributes, and options for the maintenance thereof.

9.2.1. A consultation with local stakeholders on the existence and attributes of high conservation

value areas shall be conducted.

9.2.2.**P** - Prior to the consultation, the person responsible for the FMU shall identify the relevant

local stakeholders.

9.3. The management plan shall include and implement specific measures that ensure the

maintenance and/or enhancement of the applicable conservation attributes consistent with

the precautionary approach. These measures shall be specifically included in the publicly

available management plan summary.

9.3.1. Protection measures for the identified areas and attributes shall be adopted. The adopted

measures shall take into account the precautionary principle as well as the scale and intensity of

management.

9.3.2. In case of unawareness of the impact of management to the areas or attributes of high

conservation value, the precautionary principle proposed by FSC shall be adopted.

9.3.3. The management plan shall describe the attributes identified in the forest as high

conservation value, as well as the measures to be taken to ensure the maintenance of such

attributes.

9.3.4.P - The person in charge of management shall identify the main obstacles or threats to areas

identified as High Conservation Value (HCV).

9.4. Annual monitoring shall be conducted to assess the effectiveness of the measures

employed to maintain or enhance the applicable conservation attributes.

9.4.1.**N** - See P8.c2 indicators.

³⁰ Refers to the Proforest classification for HVC 6, see glossary.

9.4.2.**P** - Whenever areas are identified as holding HCV attributes, the producer shall monitor the

measures employed for its conservation.

PRINCIPLE 10 – PLANTATIONS

Plantations shall be planned and managed in accordance with Principles and Criteria 1 - 9

and Principle 10 and its Criteria. While plantations can provide an array of social and

economic benefits, and can contribute to satisfying the world's needs for forest products,

they should complement the management of, reduce pressures on, and promote the

restoration and conservation of natural forests.

10.1. The management objectives of the plantation, including natural forest conservation

and restoration objectives, shall be explicitly stated in the management plan, and clearly

demonstrated in the implementation of the plan.

10.1.1.**P** - Producers shall demonstrate the objectives of forest plantations and the requirements

of C7.1 above in their management plan.

10.1.2.P - Natural forest conservation and restoration objectives shall include the identification and

protection of rare, threatened and endangered species.

10.1.3.**P** - Management practices shall be compatible with the established objectives.

Note: for this criterion users of the standard shall also take into account indicators under criterias

5.6; 6.3; 7.1.and also 8.2.

10.2. The design and layout of plantations should promote the protection, restoration and

conservation of natural forests, and not increase pressures on natural forests. Wildlife

corridors, streamside zones and a mosaic of stands of different ages and rotation periods

shall be used in the layout of the plantation, consistent with the scale of the operation. The

scale and layout of plantation blocks shall be consistent with the patterns of forest stands

found within the natural landscape.

10.2.1.P - Producers shall allocate forest plantations so as not to damage the areas under

environmental protection.

10.2.2.**P** - The final cut of the stands of forest plantations, where possible and feasible, shall not

be performed at the same time.

10.2.3.P - Where possible and feasible, actions shall be taken to promote connectivity between

remnants of native vegetation.

10.3. Diversity in the composition of plantations is preferred, so as to enhance economic,

ecological and social stability. Such diversity may include the size and spatial distribution

of management units within the landscape, number and genetic

composition of species, age classes and structures.

10.3.1.P - The plan adopted in the forest management of planted areas shall take into account the

landscape, not only within the property but also of its surroundings, and when necessary promote

the restoration of natural environments, ensuring the ecological sustainability of forest plantations.

10.3.2.P - Where possible and feasible, the management of plantations shall maintain and / or

enhance landscape diversity through the variation of species, genetic diversity and age class.

10.4. The selection of species for planting shall be based on their overall suitability for the

site and their appropriateness to the management objectives. In order to enhance the

conservation of biological diversity, native species are preferred over exotic species in the

establishment of plantations and the restoration of degraded ecosystems. Exotic species,

which shall be used only when their performance is greater than that of native species, shall

be carefully monitored to detect unusual mortality, disease, or insect outbreaks and

adverse ecological impacts.

10.4.1.P - The species selected for commercial planting shall be appropriate to the site and

management objectives.

10.4.2.**P** - There shall be a clear justification for the choice of species and genotypes chosen for

the plantation, which takes into account the objectives of the plantation, and the climate, geology

and soils at the planting sites.

10.4.3.**P** - If there is a native species, which meets the management objectives, as well as an exotic

species, the native species shall be selected in preference to the exotic species.

10.4.4.P - There shall be a formal procedure for evaluating every site prior to planting to ensure

that the species proposed for planting is suited to the site and to the objectives of management.

10.5. A proportion of the overall forest management area, appropriate to the scale of the

plantation and to be determined in regional standards, shall be managed so as to restore

the site to a natural forest cover.

10.5.1.**P** - The indicators refer under 6.4 shall be adhered to by the forest manager of plantations.

10.5.2.P - At least 10%, or even more in accordance with Brazilian Legislation, of the area of the

FMU under assessment shall be managed so as to retain it as or restore it to the condition of

natural forest appropriate to the locale of the FMU. This area shall be included in the identified

conservation zones.

See the note under C6.2 above.

10.6. Measures shall be taken to maintain or improve soil structure, fertility, and biological

activity. The techniques and rate of harvesting, road and trail construction and

maintenance, and the choice of species shall not result in long term soil degradation or

adverse impacts on water quality, quantity or substantial deviation from stream course

drainage patterns.

10.6.1.P - Producers shall adopt appropriate silvicultural techniques to conserve soil.

10.6.2.P - Harvest and transportation activities shall be undertaken in order to minimize potential

impacts to the soil.

10.6.3.P - Harvest and transportation activities shall be undertaken in order to minimize potential

impacts to water resources of the FMU.

10.7. Measures shall be taken to prevent and minimize outbreaks of pests, diseases, fire

and invasive plant introductions. Integrated pest management shall form an essential part

of the management plan, with primary reliance on prevention and biological control

methods rather than chemical pesticides and fertilizers. Plantation management should

make every effort to move away from chemical pesticides and fertilizers, including their use

in nurseries. The use of chemicals is also covered in Criteria 6.6 and 6.7.

10.7.1.P - Producers shall monitor attacks of pests and diseases in their management areas,

addressing these issues when necessary.

10.7.2.**P** – Producers shall prevent and monitor the occurrence of fire in their management areas

and, if necessary, fight the fire or report it to the nearest fire department.

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10.7.3.P - Producers shall demonstrate their commitment to reduce the use and amount of

chemicals in the FMU.

Note: Consider the above indicators for pesticides, pests and diseases with the criteria below:

Criterion 6.6, Criterion 6.7, 8.2, 8.4, for invasive species see Criterion 6.9, For fertilizers see

Indicator 6.3.

10.8. Appropriate to the scale and diversity of the operation, monitoring of plantations shall

include regular assessment of potential on-site and off-site ecological and social impacts,

(e.g. natural regeneration, effects on water resources and soil fertility, and impacts on local

welfare and social well-being), in addition to those elements addressed in principles 8, 6

and 4. No species should be planted on a large scale until local trials and/or experience

have shown that they are ecologically well-adapted to the site, are not invasive, and do not

have significant negative ecological impacts on other ecosystems. Special attention will be

paid to social issues of land acquisition for plantations, especially the protection of local

rights of ownership, use or access.

10.8.1.P - The indicators refer to criteria 4.4, 6.1 and 8.2.

10.9. Plantations established in areas converted from natural forests after November 1994

normally shall not qualify for certification. Certification may be allowed in circumstances

where sufficient evidence is submitted to the certification body that the manager/owner is

not responsible directly or indirectly of such conversion.

10.9.1.P - Forest plantations shall not occupy areas of natural forests and / or ecosystems of high

conservation value converted after November 1994, except under conditions described in criterion

6.10.

10.9.2.P - There shall be clear evidence supported by social, environmental and economic

stakeholders in the country concerned that the current owner/manager was neither directly nor

indirectly responsible for the conversion.

5 - GLOSSARY

Biological control agents = living organisms used to eliminate or regulate the population of other

living organisms.

Family farmer = in accordance with Law No. 11,326/06, family farmer is the producer who simultaneously meets the following requirements:

- 1 does not hold, in any capacity, an area larger than four (4) fiscal modules;
- 2 employs mostly labor of his own family in the economic activities of his enterprise or undertaking;
- 3 has a minimum percentage of household income sourced from the economic activities of his enterprise or business, as defined by the Executive Branch;
- 4 manages his enterprise or business together with his family.

Also as beneficiaries of this Law:

 Foresters who simultaneously meet all requirements of the main paragraph of this article, manage native or exotic forests and promote sustainable management of such environments;

Pesticides = are chemicals used to prevent, combat or control a pest. By such definition, pests include: insects, ticks, spiders, rodents, fungi, bacteria, weeds or any other animal or vegetable life form detrimental to the health and well being of men, agriculture, livestock, the forest and its products and other raw materials.

Apprentices = adolescents aged 14 to 18 years old who by law are allowed to work provided that under technical and professional training administered in accordance with the guidelines and bases of legislation in force, with the guarantee of access to education and compulsory school attendance (Statute of the Child and Adolescent, Law 8069/1999, Chapter V).

Permanent Preservation Area (PPA) - for an area to be considered as permanent preservation area, its forests and other forms of vegetation shall necessary be located in accordance with the following conditions (according to the definition of the Law 4,771/65 replaced by Law n° 12.651 of May 25th 2012):

- a) for watercourses as of standards enumerated below:
 - 1. 30 meters (thirty meters) for the watercourses that are less than 10 meters (ten meters) wide:
- 2. 50 meters (fifty meters) for watercourses that are 10 (ten) to 50 meters (fifty meters) wide;
- 3. 100 meters (one hundred meters) for watercourses that are 50 (fifty) to 200 m (two hundred meters) wide;

4. 200 (two hundred meters) for watercourses that are 200 (two hundred) to 600 m (six

hundred meters) wide;

5. 500 (five hundred meters) for watercourses that have a width exceeding 600 m (six

hundred meters).

b) around ponds, lakes or natural or artificial water reservoirs;

c) in springs even if intermittent and in water bodies, whatever its topographical situation, within a

minimum radius 50 meters (fifty meters) wide;

d) at the top of the hills, mounts and mountains;

e) at slopes or portions of slopes steeper than 45 °, equivalent to 100% in the line of maximum

gradient;

f) in sandbanks, fixing dunes or stabilizing mangroves;

g) at the edges of plateaus, from the rupture line of the relief, in the range of not less than 100 m

(one hundred meters) in horizontal projections;

h) at altitudes above 1,800 m (one thousand eight hundred meters), whatever the vegetation.

Legal Reserve Area (LR) = area located within a rural property, dedicated to permanent

preservation, necessary for the sustainable use of natural resources, conservation and

rehabilitation of ecological processes, conservation of biodiversity and protection of native fauna

and flora, according to the definition of the Forest Code (Law no. 4,771/1965 replaced by Law n°

12.651 of May 25th 2012).

Regulamentory Normative 31/05 (NR 31) - which aims to establish the principles to be observed

in the organization and work environment in order to make it compatible planning and

development activities in agriculture, livestock, forestry, aquaculture and forestry with health and

safety and environment the work.

Environmental Protection Area = this terminology refers to the sum of permanent preservation

and legal reserve areas present in the FMU.

Degraded area = Natural area that suffered interference of anthropic (human) action and that no

longer holds the original ecological function or can no longer maintain the economic function for

which it was intended.

Bordering areas = areas neighboring a specific object area. Bordering areas may be demarcated

by imaginary lines, or even be determined by existing geographic or physical occurrences.

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Impact assessment = process of identification and verification of the possible consequences of

human action in course or proposed (See definition of Social and Environmental Impacts).

"Aviamento" = dispensing of goods whereby the owner of the capital or the manager of the

extractive company) organizes the forward sale of subsistence products for workers and/or

extractive producers). A facility known as "shed" usually serves as point of sale, where prices are

higher than the market. In addition, the workers (or extractive producers) become subjected to

forced labor in exchange for the contracted debt.

River basin = total area of drainage of (surface and groundwater) waters, that feed a specific

network of rivers and their tributaries, forming micro basins.

Chain of Custody = the channel through which products are distributed, from their origin in the

forest to the processing area.

Natural cycles = cycles of nutrients and minerals resulting from interactions between soil, water,

plants and animals in forest environments, which affect the ecological productivity of a given site.

CITES = Convention on International Trade in Wild Fauna and Flora in Danger of Extinction

(document available at:

http://www.ibama.gov.br/sisbio/legislacao.php?id_arq=24)

Local or surrounding community = human group that resides in the areas adjacent to the FMU,

in either rural or urban properties (such as districts, villages or neighborhoods of the municipality

in which the FMU is located).

Traditional community = culturally diverse groups that are recognized as such, that have their

own forms of social organization, that occupy and use lands and natural resources as a condition

for their cultural, social, religious, ancestral and economic reproduction, using knowledge,

innovations and practices generated and transmitted by tradition.

Ergonomic conditions = ideal set of interactions between man and other system elements, with

the aim of improving human welfare.

Connectivity = measure of the degree of interconnection between remnants of native vegetation

resulting from the process of fragmentation of the landscape.

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Traditional knowledge = information or individual or collective practices of an indigenous or local community, with actual or potential value, associated to genetic heritage (Provisional Measure No.

2,186-16 / 2001).

Forestry Support Contract = partnership system between the forest producer and a forestry

company which establishes an agreement that guarantees the purchase of wood, at the end of the

cycle, by such company. Typically, in such partnerships, the establishment of forest plantation is

carried out under the aid of the supporting company (supply of seedlings, inputs and technical

assistance).

Temporary employment contract = agreement between the employee and employer,

necessarily in written form, which shall expressly contain the reason justifying the demand for

temporary work, as well as procedures for payment of services rendered. Such may not exceed

three months, unless an authorization is granted by the local body of the Ministry of Labor and

Social Security (see description of Temporary Work).

Biological

Diversity

Convention

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available

at

http://www.mma.gov.br/port/sbf/chm/cdb/decreto1.html

Forest Conversion = change in land use, through the conversion of the area with the presence

of native vegetation into agricultural or forestry plantations.

Criterion = a means of judging whether or not a principle has been fully complied with. A criterion

adds meaning and functionality to the principle without constituting itself a measure of

performance. "A category of conditions or processes by which forest management may be

assessed. The criterion is characterized by a set of related indicators that are monitored

periodically" Adapted from Montreal - The Process.

Obligation = to hold an obligation, moral commitment or need for something.

Customary rights = rights resulting from a long series of habitual or customary actions, constantly

repeated, which have, by their repetition and uninterrupted acquiescence, acquired the force of

law within a given geographical or sociological unit. The customary right is acquired simultaneously

by self-recognition, external recognition, added to a set of characteristics that differentiate the

community from its surroundings.

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Rights of use = rights of use of forest resources that may be defined by local custom, mutual

agreements, or prescribed by other entities with rights of access. Such rights may restrict the use

of certain resources to specific levels of consumption or to specific harvesting techniques.

Biological diversity = the variety of living organisms of all sources including, *inter alia*, terrestrial,

marine and other aquatic ecosystems and the ecological complexes of which they are part: which

includes diversity within a species, between species and between ecosystems. (Biological

Diversity Convention, 1992).

Scope = total area defined by the organization or by forest producers, which shall be submitted to

the certification process.

Ecosystem = a collection of communities of plants and animals and their physical environments

functioning together as an interdependent unit.

Surrounding = location adjacent or close to the Forest Management Unit, which can be influenced

by or influence management activities.

IPE = Individual Protective Equipment, is any means or device for personal use to protect the

worker's physical integrity during work activities.

Scale and intensity of forest management = Scale refers to the size of the forest management

enterprise, i.e., whether the FMU is small, medium or large. It is directly related to the total area of

the FMU. Intensity refers to the amount of cubic meters collected and removed from the FMU.

Threatened species = any species that might in the foreseeable future become extinct or be in

danger of extinction, in the entirety or a significant part of its occurrence area.

Endangered species = any species that may become extinct in the foreseeable future if the causal

factors resulting in the threat continue operating throughout the entirety or a significant part of its

area of occurrence.

Endemic species = native and restricted species occurring within a specific geographical area.

Exotic species = species introduced, not native to the referred area.

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Native species = species that occurs naturally in the region.

Rare Species = species whose populations are not numerous, but that does not fall into the

"endangered" or "vulnerable" categories.

Vegetative Structures = vegetative structure means a variety of plant parts such as stems, roots,

bark, and apical buds (the primary growth point at the tip of the stem). This vast array of NTFP is

regularly harvested for use as food, medicine and construction materials. The impact of the

exploration of the plant tissues will depend on the growth of the plant and the exploration's

technique and intensity. Intense and uncontrollable exploration of vegetative structures may result

in plant death. However, with the proper harvesting techniques, plants may recover from damage

due to exploitation of the leaves, buds and twigs, due to compensatory growth. This may result in

higher biomass production when compared to undisturbed plants. The ability to produce a larger

quantity of biomass or to maintain it stable depends on: i) harvesting techniques; ii) intensity of

exploitation and iii) forms of plant growth (Tropenbos, 1995; Peters, 1994).

Exudates = plants produce many useful exudates such as latex, resins, oils and gums. Exudates

are commonly used as sealants, medicine, food and in industrial applications. The harvest of

exudates may be conducted by collection, perforations or incisions made in the tree bark. The

impact of such type of collection is determined case by case, and may reference the maturity of

the plant and the frequency and intensity of collection, as well as the mortality rate of plants

connected to the technique applied. If properly conducted, the extraction shall not kill the explored

tree. However, excessive perforation, or tree felling to enable collection of exudates will result in

the death of the individual. Perforations at moderate intensity in a tree may decrease its force by

the diversion of energy needed to produce seeds to be used in the production of latex. When an

exudate is extracted, the physiological demands of the tree to produce latex or oil-resin will further

compete with the ecological necessity of producing seed and performing its physiological activities

(Peters, 1994).

High Conservation Value Forest = forests which possess one or more of the following, in

accordance with the classification set forth by Proforest:

HCV 1 - Areas containing significant concentrations of biodiversity values in global, regional or

national level (e.g. endemism, endangered species, biodiversity refuges).

HCV 2 - Extensive forest areas, in a global regional or national relevance scale, where viable

populations of most or all natural species occur in natural patterns of distribution and abundance.

HCV 3 - Areas within, or containing rare, threatened or endangered ecosystems.

HCV 4 - Areas that provide basic environmental services in situations of extreme importance (e.g.

protection of river basins, erosion control).

HCV 5 - Areas fundamental to meeting basic needs of local communities (e.g. subsistence, health).

HCV 6 - Areas of extreme importance to the cultural identity of traditional communities (areas of

cultural, ecological, economic or religious significance identified in conjunction with such

communities).

Native forest = forest area where most of the major physical and biological characteristics and

key elements of the original ecosystems such as complexity, structure and diversity are present.

Fragment = remnant of an ecosystem isolated by anthropogenic and / or natural barriers.

Ecological functions = characterized as the function performed by an ecosystem, including

processes such as productivity, nutrient conservation and regulation of hydrological cycles.

Geo-referencing = consists of a description of a rural property as of its characteristics, limits and

boundaries, through the coordinates of the defining vertices geo-referenced to the Brazilian

geodetic system, with positional accuracy determined by INCRA.

Environmental impact = any change in the physical, chemical and biological properties of the

environment, beneficial or otherwise, resulting from the activities, products or services connected

to a forest management operation.

Social impact = any change in the environment resulting from activities, products or services

connected to forest management operation that directly or indirectly affects: health, safety and

welfare of the population surrounding the FMU.

Indicators = quantitative or qualitative variable which can be measured or described, and which

provides a means of judging whether a forest management unit complies with the requirements of

a given FSC criterion. Indicators define the requirements to be met by the persons in charge of

forest management and are the main assessment basis of the forest.

Integrity of the forest management unit = the composition, dynamics, function and structural

attributes of a forest plantation.

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Forest Inventory = it constitutes the basis for use of forest resources planning, and it enables the

characterization of a given area and the qualitative and quantitative knowledge of the species

comprised in it.

ITTA = International Tropical Timber Agreement (International Tropical Timber Agreement)

(http://sedac.ciesin.columbia.edu/entri/texts/ITTA.1994.txt.html available in English).

Local laws = include all legal norms set forth by government agencies whose jurisdiction is lower

than national, such as municipal, district and customary.

Long term = the time scale adopted by the owner (holder of ownership title or manager) of the

forest area, according to the objectives of the management plan, harvest rate and commitment to

maintain a permanent forest cover. The period involved will vary according to context and

ecological conditions. Furthermore, it shall be determined by the time required for a given

ecosystem to recover its natural structure and composition, after harvesting or disorders, or time

necessary for such ecosystem to reach maturity conditions or primary characteristics.

Forest Management = forest management aiming to achieve economic and social benefits,

seeking to protect the mechanisms of environmental sustainability of the ecosystems under

management.

Regulation Norm No.31 (NR 31) = Work Safety and Health Regulation Norm for work in

agriculture, livestock, forestry and aquaculture according to the Ordinance n.86 as of March 3,

2005.

ILO = International Labor Organization (available at http://www.oitbrasil.org.br/normas.php)

Genetically modified organisms = biological organisms that have been induced by various

means to constitute structural genetic changes, which would not occur naturally or spontaneously.

Landscape = portion of the territory defined in terms of legal or geomorphological elements. It may

include one or more basins or part of river basins. It includes the physical, biological and human

components contained within that portion of the territory.

Natural landscape = a geographical mosaic composed of interactive ecosystems, resulting from

the influence of geological, topographic, edaphic (soil), climatic, biotic and human interactions

within a given area.

Stakeholders = individuals and organizations holding a legitimate interest in goods and services

provided by an FMU, and those with an interest in environmental and social effects generated by

the activities, products or services promoted by the FMU. These include individuals and

organizations engaged in environmental control over the FMU, local people, employees, investors,

insurers, customers, consumers, parties interested in the environment, consumer associations and

the general public (Modified from Upton and Bass, 1995).

Small producer = forest producers are defined as small when holding a forest management unit

up to 480 ha, including protected areas (Permanent Preservation and Legal Reserve Areas) and

infrastructure (road, facilities, areas unsuitable for planting, etc.).

Forest Management Plan (FMP) = the forest management plan is a written document based on

proper technical criteria, in accordance with environmental legislation and other national laws

available. The Management Plan refers to the planning of forest activities in the management unit

as a whole.

Plan of Use of the Area = document that regulates the use of a particular territory.

Annual Operating Plan (AOP) = document to be submitted to the competent environmental

authority, containing the information established in its technical guidelines, with the specification

of activities to be performed within a 12-month period.

Forest plantation = areas with forest species resulting from human activity either by planting or

seeding, with or without intensive silvicultural treatments.

Invasive plants = plant species that have high survivability and colonization of space, usually with

rapid growth and development, occupying niches of other species through its mechanisms of

natural regeneration.

Indigenous population or indigenous peoples = the existing descendants of the peoples who

wholly or partially inhabited the current territory of a country, at the time when people from different

cultures or ethnic origins arrived therein, coming from other parts of the world, to subdue such

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people, and through conquest, settlement or other means reduced them to a non-dominant or

colonial situation; people who today live more strongly in accordance with their social, economic

and cultural customs and traditions, than with institutions of the country of which they are now part,

under a State structure which mainly incorporates the national, social and cultural characteristics

of other segments of the population which are predominant (Working definition adopted by the UN

Work Group).

Traditional population = human group, including remnants of Quilombo communities,

distinguished by its cultural conditions, which is organized traditionally by successive generations

and its own customs, preserving its social and economic institutions.

Tenure = fact or law that indicates socially defined agreements entered into by individuals or

groups, recognized by legal statutes or customs relating to the "set of rights and obligations"

connected to the ownership, occupation, access and/or use of a particular area unit or its

associated resources (such as individual trees, plant species, water or mineral resources, among

others). There are situations where possession of an area is taken with the intention to work on it,

which may be an individual act (family) or social (community) act.

Pests = Living organisms (usually insects, fungi, bacteria and viruses) that by using plants as a

food source or as a host, modify their normal rate of growth and development in sufficient degree

to cause economic damage to forest plantations.

Principle = rule or essential element; in the case of FSC, a rule or an essential element of forest

management.

Precautionary Principle = preventive measures applied by the manager, according to his

capabilities, so that the environment is protected. Where there are threats of serious or irreversible

damage, the lack of full scientific certainty shall not be deemed a reason for postponing cost-

effective measures to prevent environmental degradation. (Adapted from Principle 15 of Rio

Declaration on Environment and Development as of June 1992).

Local Processing = the primary processing of forest raw material at the location where it was

harvested within the forest management unit.

Ecological Processes = processes by which forest ecosystems retain their structure and

dynamics, including regeneration following natural disturbances and harvesting of forest products,

and ensuring the production of environmental services.

Ecological productivity = all products of vegetable or animal origin obtained from the forest

except the wood.

Producer = he and his family who cultivates agricultural or forest products, or manufactures

articles of consumption out of raw materials, or that promotes such cultivation or manufacture.

Non Timber Forest Products (NTFPs) are resources / biological products other than wood that

may be obtained from the forests for subsistence and / or commercialization. They may come from

natural, primary or secondary forests, planted forests and / or agroforestry systems. NTFPs

describe a wide range of products including medicinal plants, fibers, resins, types of latex, oils,

gums, fruits, nuts, foods, spices, dyes, construction materials, rattan, bamboo and hunting. This

document refers only to plant products that may be obtained from various organisms and plant

parts, including reproductive propagules, plant exudates, and vegetative structures such as roots

and bark. (Peters, 1994).

Chemicals = the range of fertilizers, insecticides, herbicides, fungicides and hormones

Reproductive propagules = the reproductive propagules of a plant, its fruits, leaves, stolons,

rhizomes and seeds, which are often collected for use as food, oil, pharmaceuticals and crafts.

The collection of reproductive propagules may in the short term represent the smallest damage to

NTFPs as the population produces more offspring (seeds) and immature individuals (seedlings,

juvenile trees) than is necessary to keep its number of reproductive adults. Excess seeds are

needed to offset the extremely high risk of mortality during the juvenile stage. The continuous

removal of significant amounts of descendants, however, may directly affect the ability of the plant

to reproduce. In the long-term, mortality may exceed recruitment. A small drop in recruitment may

cause a noticeable change in population structure, resulting in a decrease of density and modifying

the structure of size classes. Continuous exploitation may also affect the genetic composition of

the population of trees under exploitation. Moreover, in areas where commercial collectors

decrease the amount of fruits and seeds, frugivores, which play a critical role in the germination

and seed dispersion, may migrate to more isolated forests (Peters, 1994).

Recovery = Process by which an ecosystem is managed in order to restore one or more functions

and services of the forest.

Regeneration = results from natural processes of succession, after total or partial suppression of

vegetation by anthropic action or natural causes, and may be driven by management activities or

naturally.

Person in charge of forest management = a person or group responsible for the operation and

management of the forest resource and enterprise, as well as the system and structure of

management, planning and field activities. The terms herein refer to the owner of the land, the

holder of land tenure, and the person legally responsible for the forest management unit, all of

which may be a company, a producer or a community organization.

Restoration = process whereby a degraded forest ecosystem or a wild population are managed

in order to resemble as much as possible their original structure and shape.

Forest Services = intangible products of forest areas, or products difficult to measure, useful to

men, such as carbon sequestration, regulation of water runoff, among others.

Forestry = cultivation and maintenance of a forest by manipulating the vegetation establishment,

composition and growth aiming to better meet the objectives of its owner. Which may or may not

include timber production.

SLIMF (Small and Low Intensity Managed Forests) = The forest management unit that meets

specific FSC requirements related to size and / or intensity of impact.

Succession = progressive changes in the species composition and structure of the forest caused

by natural processes (without human intervention) over time.

Indigenous lands and territories = lands traditionally occupied by indigenous peoples, where

they live permanently or periodically, used for productive activities, essential to the preservation of

environmental resources necessary for their well being and for their physical and cultural

reproduction according to their uses, customs and tradition.

Types of Procedures = for means of assessment, procedures may be considered as the following:

written text, design, layout or oral account of producers.

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Forest worker = every worker active in any of the forest management activities. It may be the producer himself (see family farmer), an employee or a third party (hired only for a certain activity).

Rural worker = any individual who, within a rural property or facility, provides non-eventual services to rural employers, under the latter's dependence and by means of salary (Law No.

5.889/1973).

Family Labor = characterized when forest management, in addition to the rural producer, also

comprises mostly labor from the producer's own family in forest activities.

Arduous work = any work that requires constant attention and supervision above the ordinary.

According to Oliveira (2002) the following may be regarded as arduous work:

a) Physical exertion in the lifting, transportation, handling, loading and unloading of

objects, materials, products and parts;

b) Awkward, vicious and stressful postures;

c) Repetitive efforts;

d) Alternating periods of sleeping and waking or feeding;

e) Use of personal protective equipment that prevent the full exercise of physiological

functions such as touch, hearing, breathing, vision, attention, leading to physical and

mental overload:

f) Excessive attention or concentration:

g) Contact with the public which leads to psychological wear;

h) Direct care of people involving first aid, treatment and rehabilitation activities that

result in psychological wear;

Working directly with people in care, development and education activities that lead

to mental and physical wear;

j) Confinement or isolation;

k) Direct contact with repugnant substances, objects or situations, human and animal

cadavers:

Work in direct capture and sacrifice of animals.

Temporary work = provided by an individual to a company or other individual, to meet the need

for temporary replacement of permanent personnel or for an extraordinary increase in services

(Law No. 6.019/1974).

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Forest Management Unit (FMU) = area, continuous or not, defined and subject to forest management, by the person in charge of the forest management unit, corresponding or not to the total area of the property or possession, including facilities, production areas (forest plantations) and protected areas (permanent preservation and legal reserve areas on the property), that is, the management activities.

Note: For forest plantations the total area of 480 hectares is the maximum allowable for actual planting, however permanent preservation areas and legal reserves, added to actual planting areas, may not exceed a total of 1000 hectares.

Annual Production Unit (APU) = subdivision of Forest Management Area, intended to be exploited within a year.

Viable = Any operation or activity considered feasible by technical and / or economic means.

APPENDIX 1 - LIST OF ABBREVIATIONS

APU - Annual Production Unit

CITES - Convention on International Trade in Wild Fauna and Flora in Danger of Extinction

FMU - Forest Management Unit

HCV - High Conservation Value Forest

ILO - International Labour Organization

ITTA - International Agreement On Tropical Timber

IPE - Individual Protective Equipment

LR - Legal Reserve

NTFP - Non Timber Forest Products

NR 31 – Regulamentory Normative 31

PPA - Permanent Protected Area

SLIMF - Small and Low Intensity Managed Forests

APPENDIX 2 - LIST OF KEY LAWS APPLIED TO FOREST IN BRAZIL

Environmental and Forestry Law

■ Law No. 5870/73 - Adds paragraph in article 26 of Law No. 4771 as of September 15, 1965, establishing the new Forest Code, replaced by Law n° 12.651 of May 25th 2012.

- Law No. 7653/88 Amends the wording of the arts. 18, 27, 33 and 34 of Law No. 5197 of January 3, 1967, which provides for the protection of wildlife, and other measures.
- Law No. 8974/95 Regulates items II and V of paragraph 1 of art. 225 of the Federal Constitution, establishes standards for the use of genetic engineering and environmental release of genetically modified organisms, authorizing the Executive Branch to create, within the Presidency, the National Biosafety Technical Commission, and other measures.
- Law No. 10165/00 Environmental Control and Monitoring Fee Amendment to Law 6938 as of August 31, 1981, which provides for the National Environmental Policy, its aims, formulation mechanisms and implementation, and other measures.
- Law No. 11428/06 Provides for the use and protection of native vegetation in the Atlantic Forest Biome, and other measures.
- Law No. 11326/06 National Family Farming Policy
- Law No. 12651/06 as of May 25, 2012 Provides for the protection of native vegetation; amends Laws Nos. 6938 as of August 31, 1981, 9393, as of December 19, 1996, and 11428 as of December 22, 2006; repeals Laws No. 4771 as of September 15, 1965, and 7754 as of April 14, 1989, and Provisional Measure No. 2166-67 as of August 24, 2001; and other measures.

Normative Instructions - MMA

- Normative Instruction No. 003/03 Recognizes as species of Brazilian fauna threatened with extinction those on the list annexed to this Instruction, considering only amphibians, birds, terrestrial invertebrates, mammals and reptiles.
- Normative Instruction No. 005/04 Recognizes as endangered species and overexploited species, or species threatened with overexploitation, aquatic invertebrates and fish comprised in the Annexes of this Normative Instruction.
- Normative Instruction No. 008/04 The planting and conduction of forest species, native or exotic, with the aim to produce and cut, within areas of agriculture and livestock production which are altered, underutilized or abandoned, located outside of Permanent Preservation and Legal Reserve Areas, are exempted from submission of project design and technical inspection.
- Normative Instruction No. 052/05 Amendment to Annexes I and II of the MMA Normative Instruction No. 05, as of May 21, 2004.
- Normative Instruction No. 006/08 as recognized species of flora threatened with extinction those listed in Annex I and recognized as species of flora disabled those data listed in Annex II of this Instruction.

Normative Instructions - Instituto Chico Mendes de Conservação Da Biodiversidade

- Normative Instruction No. 01, as of September 18, 2007, Disciplines guidelines, norms and procedures for the preparation of the Participatory Management Plan for the Federal Conservation Unit of categories Extractive Reserve and Sustainable Development Reserve.
- Normative Instruction No. 09, April 28, 2010. Establishes procedures for obtaining Authorization of Suppression of Vegetation within the National Forests for the execution of works, plans, activities and projects of public utility or social interest, as well as for alternative use of land, under circumstances set forth by Law No. 9985, as of July 18, 2000, by the act of creation of the Conservation Unit and by its respective Management Plan.
- Normative Instruction No. 16, as of August 4, 2011, Regulates, under the Institute Chico Mendes, guidelines and administrative procedures for the approval of the community Sustainable Forest Management Plan (SFMP) for the exploitation of timber resources within Extractive Reserve, Sustainable Development Reserve and National Forest.

Normative Instructions - IBAMA

- Normative Instruction No. 169/2008 Establishes and standardizes the categories of use and management of wild animals in captivity in Brazil, to meet sociocultural, scientific research, conservation, exhibition, maintenance, breeding, reproduction, commercialization, slaughtering and processing of products and by-products purposes contained in the Federal Technical Registry (CTF) of Potentially Polluting Activities or Users of Natural Resources.
- Normative Instruction No. 4, as of September 8, 2009. Provides for technical procedures for the use of vegetation within the Legal Reserve under a sustainable forest management system, and other measures.

Normative Instructions CTNBio (National Technical Commission on Biosafety)

- Normative Instruction No. 16/98 Provides for standards for the development and presentation of maps and sketches required for planned release of genetically modified organisms - GMOs - in the environment.
- Normative Instruction No. 17/98 Provides for regulations governing the activities of importing, commercialization, transportation, storage, handling, consumption, release and disposal of products derived from GMOs.

Regulamentory Instructions – Ministery of Work and Employ

Regulamentory Normative 31/05 - wich aims to establish the principles to be observed in the
organization and work environment in order to make it compatible planning and development
activities in agriculture, livestock, forestry, aquaculture and forestry with health and safety and
environment the work.

Decrees

- Decree No. 1.298/94 Approves the National Forests Regulation, and provides other measures.
- Decree No. 2.120/97 Provides new wording to the arts. 5, 6, 10 and 11 of Decree No. 99.274 as of June 6, 1990, which regulates the Laws Nos. 6902 as of April 27, 1981, and 6938 as of August 31, 1981.
- Decree No. 3.179/99 Regulates Law no. 9605/98 (Environmental Crimes) Provides for the specification of penalties for conduct and activities harmful to the environment, and other measures.
- **Decree No. 3.942/01** Provides new wording to the arts. 4, 5, 6, 7, 10 and 11 of Decree No. 99274 as of June 6, 1990.
- Decree No. 4.339/02 Establishes principles and guidelines for implementation of the National Biodiversity Policy.
- **Decree No. 4.340/02** Regulates articles of Law 9985 as of July 18, 2000, which establishes the National System of Conservation of Nature Units SNUC, and other measures.
- **Decree No. 4.382/02** Regulates taxation, auditing, collection and administration of the Rural Property Territorial Tax ITR.
- **Decree No. 4.613/03** Regulates the National Water Resources Council, and other measures.
- Decree No. 6.040/07 Establishes the National Policy for Sustainable Development of Traditional Peoples and Communities.
- **Decree No. 6.469/08** Adopts the Recommendation No. 007 as of May 28, 2008, of the National Environmental Council CONAMA.
- Decree No. 6.514/08 Provides for offenses and administrative penalties to the environment, establishes the federal administrative procedure for calculation of such offenses, and other measures
- Decree No. 6.686/08 Amends and adds provisions to Decree No. 6514 as of July 22, 2008, which provides for offenses and administrative penalties to the environment and establishes the federal administrative procedure for calculation of such offenses.
- Unnumbered Decree /08 Establishes the Management Committee of the Sustainable Amazon Plan - CGPAS.
- Decree No. 6.792/09 Amends and adds provisions to Decree No. 99.274 as of June 6, 1990, to provide for the composition and performance of the National Environmental Council -CONAMA.

CONAMA Resolutions

 Resolution No. 411/09 - Provides for procedures for inspection of industries which consume or process forest timber products and byproducts of native origin, and their naming patterns and coefficients of volumetric income, including charcoal and sawmill waste.

- Resolution No. 417/09 Provides for basic parameters for definition of primary vegetation and successional stages of secondary vegetation of Sandbanks in the Atlantic Forest and other measures.
- Resolution No. 420/09 Provides for criteria and guiding values of soil quality as of the presence of chemicals and establishes guidelines for environmental management of areas contaminated by these substances due to anthropic activities.
- Resolution No. 423/10 Provides for basic parameters for identification and analysis of primary vegetation and successional stages of secondary vegetation in Altitude Fields associated or comprised by the Atlantic Forest.
- Resolution No. 425/10 Provides for criteria for the characterization of activities and sustainable agriculture projects of family farmers, family rural entrepreneurs, and traditional peoples and communities, as social interest for the purposes of production, intervention and recovery of Permanent Preservation Areas and other limited-use areas.
- Resolution No. 428/10 Provides, under the environmental permit on the authorization of the agency responsible for the management of the Conservation Unit (CU), mentioned in paragraph 3 of article 36 of Law No. 9985 as of July 18, 2000, as well as the agency responsible for the management of the UC in the case of environmental licensing of enterprises not subject to EIA-RIMA, and other measures.
- **Resolution No. 429/11** Provides for the recovery of Permanent Preservation Areas PPAs.

Provisional Measures

Provisional Measure No. 571, as of May 25, 2012 - Amends Law 12651, as of May 25, 2012, which provides for the protection of native vegetation; amends Laws Nos. 6938 as of August 31, 1981, 9393, as of December 19, 1996, and 11428 as of December 22, 2006; repeals Laws No. 4771 as of September 15, 1965, and 7754 as of April 14, 1989, and Provisional Measure No. 2166-67 as of August 24, 2001; and other measures.

Ordinances

- Ordinance No. 006-N/92 Recognizes the Official List of Species of Endangered Brazilian Flora, adding a species (Astronium fraxinifolium) to the list published by IBAMA Ordinance No. 37-N, as of April 3, 1992.
- Ordinance No. 220/03 Establishes the Committee on Environmental Policy Integration -CIPAM.
- Ordinance No. 319/03 Establishes the minimum requirements for the accreditation, registration, certification, qualification, experience and professional training of environmental auditors to perform specified environmental audits.
- Ordinance No. 290/04 Provides for the rules governing the Permanent Technical Chamber of Endangered Species and Species Overexploited or Threatened with Overexploitation.
- Ordinance No. 182/06 Creates within the Biodiversity and Forests Secretary SBF, in advisory capacity, the Brazilian Forum for Zero Extinction.

- Ordinance No. 354/06 Establishes Working Group to propose policies, programs, instruments and actions aimed to encourage the restoration and preservation of permanent preservation areas PPAs; propose strategies and instruments for monitoring the PPAs; plan the activities to be developed for the national campaign "Vamos cuidar das APPs".
- Ordinance No. 357/06 Establish, under the Ministry of the Environment, a Permanent Committee in order to suggest procedures for articulation and integration of actions and related issues of the National Environment Council, CONAMA and the Water Resources National Council -CNRH.
- Ordinance No. 590/07 Appoint representatives of agencies and entities, appointed by holders, to compose the Permanent Committee of articulation and integration of the National Environment Council, CONAMA and the Water Resources National Council - CNRH, established by Ordinance No. 357, as of November 18, 2006.
- Ordinance No. 316/09 Provides for the instruments of implementation of the National Biodiversity Policy aimed at the conservation and recovery of endangered species.

APPENDIX 3 - LIST OF MULTILATERAL AGREEMENTS AND ILO CONVENTIONS RATIFIED BY BRAZIL

Table 3 - Multilateral Agreements and ILO Conventions Ratified by Brazil (in bold, those that apply directly to forest producers)

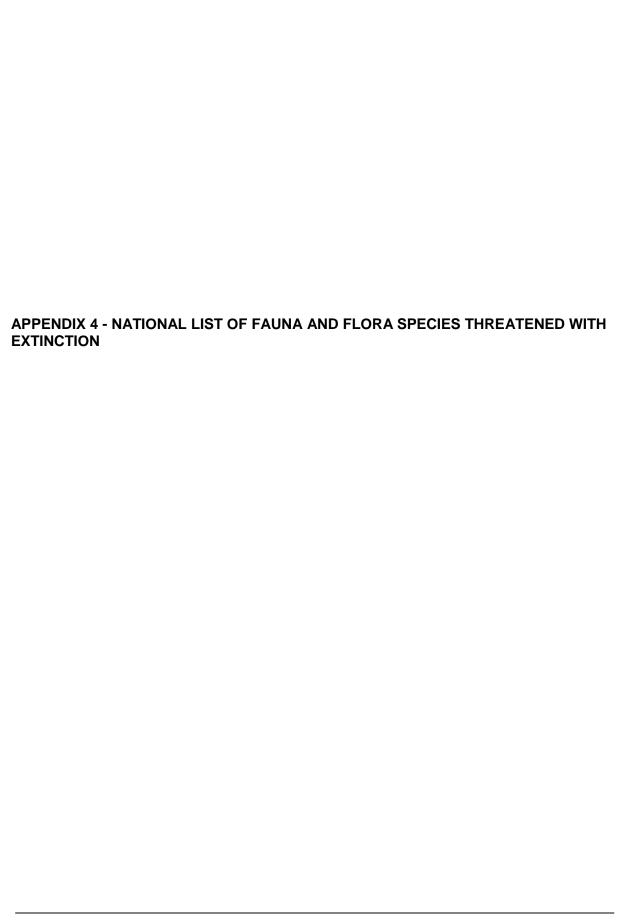
Number	Convention			
06	Night Work by Minors in Industry, promulgated by Decree no. 423 as of December 12, 1935.			
11	Right to Unionize in Agriculture, promulgated by Decree no. 41,721 as of June 25, 1957.			
12	Compensation for Accident at Work in Agriculture, promulgated by Decree no. 41,721 as of June 25, 1957.			
14	Weekly Rest in Industry, ratified on April 25, 1957, promulgated by Decree no. 41,721 as of June 25, 1957; that of January 5, 1949, does not apply.			
16	Medical Examination of Minors in Maritime Labor, promulgated by Decree no. 1,398, as of January 19, 1937.			
19	Equal Treatment, promulgated by Decree no. 41,721 as of June 25, 1957.			
21	Inspection of Emigrants on Board of Ships, promulgated by Legislative Decree no. 20, as of June 18, 1965.			

22	Contract of Engagement of Seamen, promulgated by Legislative Decree no. 20,		
	as of June 18, 1965.		
26	Methods for Minimum Wage Fixing, promulgated by Legislative Decree no. 24,		
	as of May 29, 1965.		
29	Forced or Compulsory Labor, promulgated by Decree no. 41,721 as of June		
	25, 1957.		
42	Professional Indemnity for Illness (revised), promulgated by Decree no.		
	1,361, as of January 12, 1937.		
45	Employment of Women on Underground Work of Mines, promulgated by Decree		
	no. 3,233 as of November 3, 1938.		
53	Certificates of Capacity of Merchant Navy Officers, promulgated by Decree-Law		
	no. 477 as of June 8, 1938.		
81	Labor Inspection in Industry and Commerce promulgated by Decree no. 41,721		
	as of June 25, 1957.		
88	Organization of the Employment Service, promulgated by Decree no. 41,721 as		
	of June 25, 1957.		
89	Night Work of Women in Industry (revised), promulgated by Decree no. 41,721		
	as of May 25, 1957.		
92	Accommodation of Crews (revised), promulgated by Decree no. 36,378 as of		
	October 22, 1954.		
94	Work Clauses in Contracts of Public Agencies, promulgated by Decree no.		
	58,818 as of July 14, 1966.		
95	Protection of Wages, promulgated by Decree no. 41,721 as of June 25,		
	1957.		
97	Migrant Workers (revised), promulgated by Decree no. 58,819 as of July 14,		
	1966		
98	Right to Unionization and Collective Bargaining, promulgated by Decree		
	no. 33,196 as of June 29, 1953		
99	Methods of Minimum Wage Fixing in Agriculture, promulgated by Decree		
	no. 41,721 as of June 25, 1957.		
100	Equal Remuneration for Men and Women Workers for Work of Equal Value,		
	promulgated by Decree no. 41,721 as of June 25, 1957.		
102	Minimum Standards of Social Security promulgated by Legislative Decree no.		
	269 as of November 19, 2008.		
103	Support of Motherhood (review)		

no. 58,821 as of July 14, 1966. Abolition of Forced Labor, promulgated by Decree no. 58,822 as of July 166. Weekly Rest in Commerce and Offices, promulgated by Decree no. 58, of July 14, 1965. Discrimination in Respect of Employment and Occupation, promulous by Decree no. 62,150 as of January 19, 1968. Medical Examination of Fishermen, promulgated by Decree no. 58,827 as 14, 1966. Protection against radiation, promulgated by Decree no. 62,151 as of 19, 1968. Objectives and Basic Standards of Social Policy, promulgated by Decree 66,496 as of April 27, 1970. Equal Treatment of Brazilians and Foreigners in matters of Social S promulgated by Decree no. 66,497 as of April 27, 1970. Protection of Machinery, promulgated by Decree no. 1,255,	823 as Ilgated of July lanuary
1966. Weekly Rest in Commerce and Offices, promulgated by Decree no. 58 of July 14, 1965. Discrimination in Respect of Employment and Occupation, promulated by Decree no. 62,150 as of January 19, 1968. Medical Examination of Fishermen, promulgated by Decree no. 58,827 as 14, 1966. Protection against radiation, promulgated by Decree no. 62,151 as of 19, 1968. Objectives and Basic Standards of Social Policy, promulgated by Decree 66,496 as of April 27, 1970. Equal Treatment of Brazilians and Foreigners in matters of Social S promulgated by Decree no. 66,497 as of April 27, 1970.	823 as Ilgated of July lanuary
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promulgated by Decree no. 66,497 as of April 27, 1970.	
	ecurity,
119 Protection of Machinery promulgated by Decree po 1 255	
September 24, 1994.	as of
120 Hygiene in Commerce and Offices, promulgated by Decree no. 66,49	8 as of
April 27, 1970.	
Employment Policy, promulgated by Decree no. 66,499 as of April 27, 19	970.
124 Medical Examination of Adolescents for Underground Work in	Mines,
promulgated by Decree no. 67,342 as of October 5, 1970.	
125 Certificates of Capacity of Fisherman, promulgated by Decree no. 67,34	1 as of
October 5, 1970.	
126 Accommodation on Board of Fishing Vessels, promulgated by Decree no	. 2,420
as of December 16, 1997.	
127 Maximum Weight of Loads, promulgated by Decree no. 67,339	as of
October 5 4070	
October 5, 1970.	
Minimum Wage Fixing, especially in developing countries, promulga	
Minimum Wage Fixing, especially in developing countries, promulgation Decree no. 89,686 as of May 22, 1984.	
Minimum Wage Fixing, especially in developing countries, promulgated Decree no. 89,686 as of May 22, 1984. Remunerated Holidays (Revised), promulgated by Decree no. 3,19	ited by
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134	Prevention of occupational accidents for seafarers, promulgated by Legislative			
	Decree no. 43, as of April 10, 1995.			
135	Protection of Workers' Representatives, promulgated by Decree no. 131, as of			
	May 22, 1991.			
136	Protection against risks of poisoning from benzene, promulgated by Decree no.			
	1,253, as of September 27, 1994.			
137	Port work, promulgated by Decree no. 1,574, as of June 31, 1995.			
138	Minimum age for admission, promulgated by Decree no. 4,134, as of			
	February 15, 2002.			
139	Prevention and control of occupational hazards caused by carcinogenic			
	substances or agents, promulgated by Decree no. 157 as of June 2, 1991.			
140	Paid educational leave, promulgated by Decree no. 1,298, as of September			
	29, 1994.			
141	Organizations of rural workers, promulgated by Decree no. 1,703 as of			
	December 17, 1995.			
142	Human resources development, promulgated by Decree no. 98,656 as of			
	December 21, 1989.			
144	Tripartite consultations on international labor standards, promulgated by Decree			
	no. 2,518, as of March 12, 1998.			
145	Continued employment of seafarer, promulgated by Decree no. 128 as of May			
	22, 1991.			
146	Convention relating to paid annual leave for seafarers promulgated by Decree			
	no. 3,168, as of September 14, 1999.			
147	Minimum standards for the Merchant Navy, promulgated by Decree no. 447 as			
	of February 7, 1992.			
148	Air pollution, noise and vibration, promulgated by Decree no. 93,413 as of			
	October 15, 1986.			
151	Right to Unionize and Labor Relations in Public Administration, promulgated by			
	Legislative Decree no. 206 as of June 15, 2010.			
152	Safety and Hygiene of Port Works, promulgated by Decree no. 99,534 as of			
	September 19, 1990.			
154	Promotion of collective bargaining, promulgated by Decree no. 1,256, as			
	of September 29, 1994.			
155	Safety and health of workers, promulgated by Decree no. 1,254, as of			
	September 29, 1994.			

159	Professional Rehabilitation and Employment to Disabled People, promulgated				
	by Decree no. 129 as of May 22, 1991.				
160	Labor statistics (review), promulgated by Decree no. 158 as of July 2, 1991.				
161	Services and Health of workers, promulgated by Decree no. 127 as of May 22,				
	1991.				
.162	Safe Use of Asbestos, promulgated by Decree no. 126 as of May 22, 1991.				
163	Welfare of seafarers at sea and in port, promulgated by Decree no. 2,669, as of				
	July 15, 1998.				
164	Health Protection and Medical Care for seafarers, promulgated by Decree no.				
	2,671, as of July 15, 1998.				
166	Repatriation of Seafarers, promulgated by Decree no. 2,670, as of July 15, 199				
167	Convention on the Safety and Health in Construction, promulgated by Decree				
	no. 6,271 as of November 22, 2007.				
168	Employment Promotion and Protection against Unemployment, promulgated by				
	Decree no. 2,682, as of July 22, 1998.				
169	On Indigenous and Tribal Peoples, promulgated by Decree no. 5,051, as of April				
	19, 2004.				
170	Safety at Work with Chemicals, promulgated by Decree no. 2,657, as of July				
170					
170	Safety at Work with Chemicals, promulgated by Decree no. 2,657, as of July				
	Safety at Work with Chemicals, promulgated by Decree no. 2,657, as of July 3, 1998.				
171	Safety at Work with Chemicals, promulgated by Decree no. 2,657, as of July 3, 1998. Night Work, promulgated by Decree no. 5,005 as of March 08, 2004.				
171	Safety at Work with Chemicals, promulgated by Decree no. 2,657, as of July 3, 1998. Night Work, promulgated by Decree no. 5,005 as of March 08, 2004. Convention on the Prevention of Major Industrial Accidents, promulgated by				
171 174	Safety at Work with Chemicals, promulgated by Decree no. 2,657, as of July 3, 1998. Night Work, promulgated by Decree no. 5,005 as of March 08, 2004. Convention on the Prevention of Major Industrial Accidents, promulgated by Decree no.4,085, as of January 15, 2002.				
171 174	Safety at Work with Chemicals, promulgated by Decree no. 2,657, as of July 3, 1998. Night Work, promulgated by Decree no. 5,005 as of March 08, 2004. Convention on the Prevention of Major Industrial Accidents, promulgated by Decree no.4,085, as of January 15, 2002. Convention on safety and health in mines, promulgated by Decree no. 6,270, as				
171 174 176	Safety at Work with Chemicals, promulgated by Decree no. 2,657, as of July 3, 1998. Night Work, promulgated by Decree no. 5,005 as of March 08, 2004. Convention on the Prevention of Major Industrial Accidents, promulgated by Decree no.4,085, as of January 15, 2002. Convention on safety and health in mines, promulgated by Decree no. 6,270, as of November 22, 2007.				
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171 174 176	Safety at Work with Chemicals, promulgated by Decree no. 2,657, as of July 3, 1998. Night Work, promulgated by Decree no. 5,005 as of March 08, 2004. Convention on the Prevention of Major Industrial Accidents, promulgated by Decree no.4,085, as of January 15, 2002. Convention on safety and health in mines, promulgated by Decree no. 6,270, as of November 22, 2007. Convention Concerning the Inspection of Living Conditions and work of seafarers, promulgated by Decree no. 6,766, as of February 10, 2009. Convention on the Prohibition of the Worst Forms of Child Labour and				
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171 174 176 178	Safety at Work with Chemicals, promulgated by Decree no. 2,657, as of July 3, 1998. Night Work, promulgated by Decree no. 5,005 as of March 08, 2004. Convention on the Prevention of Major Industrial Accidents, promulgated by Decree no.4,085, as of January 15, 2002. Convention on safety and health in mines, promulgated by Decree no. 6,270, as of November 22, 2007. Convention Concerning the Inspection of Living Conditions and work of seafarers, promulgated by Decree no. 6,766, as of February 10, 2009. Convention on the Prohibition of the Worst Forms of Child Labour and Immediate Action for their Elimination promulgated by Decree no. 3,597, as of September 12, 2000.				



	Nome Científico, Autor e Data	Nome Popular	Unidade da Federação
Vertebrados			
Mammalia (M	amíferos)		
Didelphi	morphia		
Dide	elphidae		
	Caluromysiops irrupta Sanborn, 1951	Cuíca-de-colete	RO
Xenarthr	a		
Brac	dypodidae		
	Bradypus torquatus Illiger, 1811	Preguiça-de-coleira	BA, ES, MG, RJ, SE
Dasy	ypodidae		
	Priodontes maximus (Kerr, 1792)	Tatu-canastra	AC, AM, AP, BA, DF, ES, GO, MG, MS, MT, PA, PI, RO, RR, TO
	Tolypeutes tricinctus (Linnaeus, 1758)	Tatu-bola	AL, BA, GO, PI, RN
Мугі	mecophagidae		
	Myrmecophaga tridactyla Linnaeus, 1758	Tamanduá-bandeira	AC, AM, AP, BA, DF, GO, MA, MG, MS, MT, PA, PI, PR, RO, RR, RS, SC, SP, TO
Chiropte	ra		
Phyl	llostomidae		
	Lonchophylla bokermanni Sazima, Vizotto & Taddei, 1978 Lonchophylla dekeyseri Taddei, Vizotto & Sazima, 1983 Platyrrhinus recifinus (Thomas, 1901)	Morcego Morcego Morcego	MG, RJ DF, GO, MG, PI CE, ES, MG, PE, SP
Vesi	pertilionidae	morocyc	02, 20, 110, 1 2, 01
	Lasiurus ebenus Fazzolari-Corrêa, 1994 Myotis ruber (E. Geoffroy, 1806)	Morcego Morcego	SP PR, RJ, SC, SP
Primates Ateli	dae	Custika da mãos quivas	MA
	Alouatta belzebul ululata Elliot, 1912 Alouatta guariba guariba (Humboldt, 1812) Ateles belzebuth E. Geoffroy, 1806 Ateles marginatus E. Geoffroy, 1809 Brachyteles arachnoides (E. Geoffroy, 1806) Brachyteles hypoxanthus (Kuhl, 1820)	Guariba-de-mãos-ruivas Bugio, barbado Coatá, macaco-aranha Coatá Muriqui, mono-carvoeiro Muriqui	MA BA, MG AM PA PR, RJ, SP BA, ES, MG
Calli	trichidae		
	Callithrix aurita (E. Geoffroy in Humboldt, 1812) Callithrix flaviceps (Thomas, 1903) Leontopithecus caissara Lorini & Persson, 1990 Leontopithecus chrysomelas (Kuhl, 1820) Leontopithecus chrysopygus (Mikan, 1823) Leontopithecus rosalia (Linnaeus, 1766) Saguinus bicolor (Spix, 1823)	Sagüi-da-serra-escuro Sagüi-da-serra Mico-leão-de-cara-preta Mico-leão-de-cara-dourada Mico-leão-preto Mico-leão-dourado Sagüi-de-duas-cores	MG, RJ, SP ES, MG PR, SP BA, MG SP RJ AM
Cebi	dae		
	Cebus kaapori Queiroz, 1982 Cebus robustus (Kuhl, 1820) Cebus xanthosternos Wied-Neuwied, 1826 Saimiri vanzolinii Ayres, 1985	Macaco-caiarara Macaco-prego Macaco-prego-de-peito-amarelo Macaco-de-cheiro	MA, PA BA, ES, MG BA, MG, SE AM
Pithe	eciidae		
	Cacajao calvus calvus (I. Geoffroy, 1847) Cacajao calvus novaesi Hershkovitz, 1987 Cacajao calvus rubicundus (I. Geoffroy & Deville, 1848) Callicebus barbarabrownae Hershkovitz, 1990 Callicebus coimbrai Kobayashi & Langguth, 1999 Callicebus melanochir Wied-Neuwied, 1820 Callicebus personatus (E. Geoffroy, 1812) Chiropotes satanas (Hoffmannsegg, 1807) Chiropotes utahicki Hershkovitz, 1985	Uacari-branco Uacari-de-novaes Uacari-vermelho Guigó Guigó-de-coimbra-filho Sauá, guigó Sauá, guigó Cuxiú-preto Cuxiú	AM AM AM BA, SE SE BA, ES, MG ES, MG MA, PA MT, PA
Carnivor	a		
Cani	dae		

Lobo-guará

Chrysocyon brachyurus (Illiger, 1815)

BA, DF, GO, MA, MG, MS, MT, PR, RJ, RS, SC, SP, TO

AC, AM, AP, BA, DF, GO, MA, MS, MT, PA, PR, RO, RR, SC, SP, TO Speothos venaticus (Lund, 1842) Cachorro-vinagre

Felidae

Leopardus pardalis mitis (Cuvier, 1820) Jaguatirica AL, BA, CE, DF, ES, GO, MA, MG, MS, MT, PB, PE,

PI, PR, RJ, RN, RS, SC, SP, TO AL, AM, AP, BA, CE, DF, ES, GO, MA, MG, MS, MT, Leopardus tigrinus (Schreber, 1775) Gato-do-mato

PA, PB, PE, PI, PR, RJ, RN, RR, RS, SE, SC, SP,

AC, AM, AP, BA, DF, ES, GO, MA, MG, MS, MT, PA, Leonardus wiedii (Schinz 1821) Gato-maracajá

PI, PR, RJ, RO, RR, RS, SC, SP, TO BA, DF, GO, MG, MS, MT, PI, RS, SP, TO Oncifelis colocolo (Molina, 1810) Gato-palheiro

Onça-pintada Panthera onça (Linnaeus, 1758)

AC, AM, AP, BA, ES, GO, MA, MG, MS, MT, PA, PI, PR, RJ, RO, RR, RS, SP, TO

Onça-parda, suçuarana, puma, onça-vermelha, leão-baio Puma concolor capricornensis (Nelson & Goldman, 1929) ES, MG, MS, PR, RJ, RS, SC, SP

Puma concolor greeni (Nelson & Goldman, 1931) Onça-vermelha, suçuarana, onça-parda, AL, BA, CE, MA, PB, PE, PI, RN, SE

Pteronura brasiliensis (Gmelin, 1788) AC, AM, AP, DF, GO, MA, MS, MT, PA, PR, RJ, RO, RR, SP, TO Ariranha

Eubalaena australis (Desmoulins, 1822) Baleia-franca-do-sul, baleia franca, BA, ES, PR, RJ, RS, SC, SP

baleia franca austral

Balenopteridae

Balaenoptera borealis Lesson, 1828 Baleia-sei, baleia espadarte ES, PB, RJ, RS, SC Balaenoptera musculus (Linnaeus, 1758) Balaenoptera physalus (Linnaeus, 1758) Megaptera novaeangliae (Borowski, 1781) PB, RJ, RS Baleia-azul Baleia-fin

BA, PB, RJ, RS, SP AL, BA, CE, ES, MA, PB, PE, PR, RJ, RN, RS, SC, Baleia-iubarte, iubarte

Physeteridae

Physeter macrocephalus Linnaeus, 1758 Cachalote AL, BA, CE, ES, PA, PB, PE, PR, RJ, RN, RS, SC, SE SP

Pontoporidae

Pontoporia blainvillei (Gervais & d'Orbigny, 1844) Toninha, cachimbo, boto-amarelo, ES, PR, RJ, RS, SC, SP

franciscana

Sirenia

Trichechidae

Trichechus inunguis (Natterer, 1883) AM, AP, PA, RO, RR Peixe-boi-da-amazônia

Trichechus manatus Linnaeus, 1758 Peixe-boi-marinho AL, AP, CE, MA, PA, PB, PE, PI, RN

Artiodactyla

Blastocerus dichotomus (Illiger, 1815) GO, MG, MS, MT, PR, RO, RS, SP, TO Cervo-do-pantanal

Mazama nana (Hensel, 1872) Veado-bororó-do-sul PR, RS, SC, SP

Rodentia

Echimvidae

Callistomys pictus (Pictet, 1841) Carterodon sulcidens (Lund, 1841) Phyllomys brasiliensis (Lund, 1840) Phyllomys thomasi (Ihering, 1897) Rato-de-espinho MS, MG, DF Rato-da-árvore MG SP Rato-da-árvore Phyllomys unicolor (Wagner, 1842) Rato-da-árvore BA

Erethizontidae

BA, ES, MG, RJ, SE Chaetomys subspinosus (Olfers, 1818) Ouriço-preto

Muridae

Juscelinomys candango Moojen, 1965 Rato-candango Kunsia fronto (Winge, 1887) Phaenomys ferrugineus (Thomas, 1894) Rhagomys rufescens (Thomas, 1886) Rato-do-mato MG DE Rato-do-mato-ferrugíneo Rato-do-mato-vermelho RJ, SP RJ, SP Wilfredomys oenax (Thomas, 1928) Rato-do-mato PR. RS. SC

Ctenomys flamarioni Travi. 1981 Tuco-tuco RS

Aves (Aves)

Tinamiformes

Crypturellus noctivagus noctivagus (Wied, 1820) Nothura minor (Spix, 1825) BA, ES, MG, PR, RJ, RS, SC, SP DF, GO, MG, MS, MT, SP Codorna, codorna-buraqueira

Taoniscus nanus (Temminck, 1815) Inhambú-carapé DE GO MG PR SP TO

Procellariiformes

Albatroz-de-tristão, albatroz-de-gough Diomedea dabbenena (Mathews, 1929) Diomedea epomophora Lesson, 1825 Albatroz-real, albatroz-real-meridional RJ, RS, SC Diomedea exulans Linnaeus, 1758 Diomedea sanfordi (Murphy, 1917) Thalassarche chlororhynchos (Gmelin, 1789) Albatroz-viajeiro, albatroz-errante Albatroz-real-setentrional RJ, RS, SC, SP RS, SC RJ, RS, SC, SP Albatroz-de-nariz-amarelo Thalassarche melanophris (Temminck, 1828) Albatroz-de-sobrancelha PR, RJ, RS, SC, SP

Procellariidae

Procellaria aequinoctialis Linnaeus, 1758 Procellaria conspicillata Gould, 1844 Pterodroma arminjoniana (Giglioli & Salvatori, 1869) Pardela-preta, pretinha, patinha Pardela-de-óculos Pardela-da-trindade BA, ES, PR, RJ, RS, SC, SP BA, ES, RJ, RS, SC, SP ES PR, RJ, RS, SC, SP Pterodroma incerta (Schlegel, 1863) Fura-buxo-de-capuz Puffinus Iherminieri Lesson, 1839 Pardela-de-asa-larga

Pelecaniformes

Fregata ariel Gray, 1845 Fregata minor (Gmelin, 1789) ES ES Tesourão-pequeno Tesourão-grande

Phaethon aethereus Linnaeus, 1758 Rabo-de-palha BA. PE BA, PE Rabo-de-palha-de-bico-laranja Phaethon lepturus Daudin, 1802

Ciconiiformes

Tigrisoma fasciatum (Such, 1825) Socó-jararaca GO, MT, PR, RS, SC, SP

Anseriformes Anatidae

> Mergus octosetaceus Vieillot, 1817 Pato-mergulhão BA, GO, MG, PR, RJ, SC, SP, TO

Falconiformes Accipitridae

> Gavião-cinza RS SC Circus cinereus Vieillot 1816

Acciptridae

BA, DF, GO, MA, MG, MT, PA, PR, RJ, RS, SC, SP, TO Harpyhaliaetus coronatus (Vieillot, 1817) Águia-cinzenta

Leucopternis lacernulata (Temminck, 1827) Gavião-pombo-pequeno AL, BA, MG, PB, PR, SC, SP

Galliformes

BA, ES, MG, RJ MA, PA AL, PE Crax blumenbachii Spix, 1825 Mutum-do-sudeste Crax fasciolata pinima (Pelzeln, 1870) Mitu mitu (Linnaeus, 1766) Mutum-de-penacho Mutum-de-alagoas Penelope jacucaca Spix, 1825 Penelope ochrogaster Pelzeln, 1870 Penelope superciliaris alagoensis Nardelli, 1993 AL, BA, MG, PB, PE, PI MG, MT, TO AL, PB, PE Jacucaca Jacucaca Jacu-de-barriga-vermelha Jacu-de-alagoas Pipile jacutinga Spix, 1825 Jacutinga BA, PR, RJ, RS, SC, SP

Phasianidae

Odontophorus capueira plumbeicollis Cory, 1915 Uru-do-nordeste AL, CE, PB, PE

Gruiformes

Psophiidae

Psophia viridis obscura Pelzeln, 1857 MA, PA Jacamim-de-costas-verdes

Rallidae

Porzana spiloptera Durnford, 1877 Sanã-cinza RS

Charadriiformes

Larus atlanticus Olrog, 1958 Gaivota-de-rabo-preto Thalasseus maximus (Boddaert, 1783)

AL, AM, AP, BA, CE, ES, MA, PA, PB, PE, PR, RJ, Trinta-réis-real RN, RS, SE, SC, SP

* Numenius borealis (Forster, 1772) AM. MT. SP Maçarico-esquimó

Columbiformes

Columbidae

Claravis godefrida (Temminck, 1811)

Columbina cyanopis (Pelzeln, 1870)

Pararu Rolinha-do-planalto BA, ES, MG, PR, RJ, SC, SP

GO, MS, MT, SP

Amazona brasiliensis (Linnaeus, 1766) Amazona pretrei (Temminck, 1830) Amazona rhodocorytha (Salvadori, 1890) Amazona vinacea (Kuhl, 1820) * Anodorhynchus glaucus (Vieillot, 1816) Anodorhynchus hyacinthinus (Latham, 1790) Anodorhynchus leari Bonaparte, 1856 Cyanopsitta spixii (Wagler, 1832) Guaruba guarouba (Gmelin, 1788) Pyrrhura anaca (Gmelin, 1788) Pyrrhura cruentata (Wied, 1820) Pyrrhura lepida coerulescens Neumann, 1927

Pyrrhura lepida lepida (Wagler, 1832) Pyrrhura leucotis (Kuhl, 1820) Pyrrhura pfrimeri Miranda-Ribeiro, 1920 Touit melanonota (Wied, 1820)

PR, SC, SP RS, SC Papagaio-da-cara-roxa; chauá Papagaio-charão Papagaio-de-peito-roxo

AL, BA, ES, MG, RJ, SP BA, ES, MG, PR, RJ, RS, SC, SP MS, PR, RS, SC AP, BA, GO, MA, MG, MS, MT, PA, PI, SP, TO Arara-azul-pequena Arara-azul-grande

Arara-azul-de-lear Ararinha-azul BA, PE, PI AM, MA, PA AL, CE, PE BA, ES, MG, RJ Ararajuba Cara-suja Fura-mato Tiriba-pérola MA Tiriba-pérola Tiriba-de-orelha-branca MA PA BA, ES, MG, RJ GO. TO Tiriba-de-orelha-branca Apuim-de-cauda-vermelha BA, ES, RJ, SP

Cuculiformes

Cuculidae

Neomorphus geoffrovi dulcis Snethlage, 1927

Jacu-estalo

ES, MG, RJ

Caprimulgiformes

Caprimulgidae

Caprimulgus candicans (Pelzeln, 1867)

Bacurau-de-rabo-branco

ES, MT, SP

Apodiformes

Trochilidae

Glaucis dohrnii (Bourcier & Mulsant, 1852) Phaethornis margarettae Ruschi, 1972 Phaethornis ochraceiventris camargoi Grantsau, 1988 Popelaria langsdorffi langsdorffi (Temminck, 1821) Thalurania watertonii (Bourcier, 1847)

Balança-rabo-canela Besourão-de-bico-grande Besourão-de-bico-grande Rabo-de-espinho Beija-flor-das-costas-violetas BA, ES BA, ES, PE AL. PE AL, BA, PE, SE

Coraciiformes

Momotidae

Momotus momota marcgraviana Pinto & Camargo, 1961

Udu-de-coroa-azul-do-nordeste

AL, PB, PE

Piciformes

Picidae

Celeus torquatus tinnunculus (Wagler, 1829) Dryocopus galeatus (Temminck, 1822) Piculus chrysochloros polyzonus (Valenciennes, 1826) Picumnus exilis pernambucensis Zimmer, 1947 Picumnus limae Snethlage, 1924

Pica-pau-dourado-escuro-do-sudeste Pica-pau-anão-dourado Pica-pau-anão-da-caatinga

Pica-pau-de-coleira-do-sudeste

Pica-pau-de-cara-amarela

BA, ES, MG PR, RS, SC, SP ES, RJ AL, PB, PE

Ramphastidae

Pteroglossus bitorquatus bitorquatus Vigors, 1826

Aracari-de-pescoco-vermelho

MA. PA

Passeriformes

Conopophagidae

Conopophaga lineata cearae (Cory, 1916) Conopophaga melanops nigrifrons Pinto, 1954 Cuspidor-do-nordeste Chupa-dente-de-máscara AL, BA, CE, PB, PE AL, PA, PB

Calyptura cristata (Vieillot, 1818) Carpornis melanocephalus (Wied, 1820) Cotinga maculata Statius Muller, 1776 Iodopleura pipra leucopygia Salvin, 1885 Procnias averano averano (Hermann, 1783) Tijuca condita Snow, 1980 Xipholena atropurpurea (Wied, 1820)

Tietê-de-coroa, anambé-mirim Cochó, sabiá-pimenta Crejoá, cotinga-crejoá Anambezinho, anambé-de-crista Araponga-de-barbela Saudade-de-asa-cinza Anambé-de-asa-branca

AL, BA, ES, PR, RJ BA, ES, MG, RJ AL, PB, PE AL, BA, CE, MA, PB, PE, PI, TO AL, BA, ES, PB, PE, RJ, SE

Dendrocolaptidae

Dendrexetastes rufigula paraensis Lorenz, 1895 Dendrocincla fuliginosa taunayi Pinto, 1939 Dendrocincla fuliginosa trumai Sick, 1950 Dendrocincla merula badia Zimmer, 1934 Dendrocolaptes certhia medius Todd, 1920

Arapacu-canela-de-belém Arapaçu-pardo-do-nordeste Arapaçu-pardo-do-xingu Arapaçu-da-taoca-maranhense Arapaçu-barrado-do-nordeste

AL, PE MT MA, PA AL, MA, PA, PE

Drymornis bridgesii (Eyton, 1849) Arapaçu-platino Arapacu-escamado-de-wagler Lepidocolaptes wagleri (Spix, 1824) Xiphocolaptes falcirostris (Spix, 1824) Arapaçu-do-nordeste Arapaçu-de-garganta-amarela-do-nordeste Xiphorhynchus fuscus atlanticus (Cory, 1916) Caryothraustes canadensis frontalis (Hellmayr, 1905) Furriel-do-nordeste

AL, MG, PE Curaeus forbesi (Sclater, 1886) Anumará Gubernativ cristata (Vieillot, 1817) Oryzoborus maximiliani Cabanis, 1851 Sporophila cinnamomea (Lafresnaye, 1839) Sporophila falcirostris (Temminck, 1820) Sporophila frontalis (Verreaux, 1869) Cardeal-amarelo RS AL, AM, BA, DF, ES, GO, MG, MT, PA, RJ, RO, SP GO, MG, MS, PR, RS, SP Bicudo, bicudo-verdadeiro Caboclinho-de-chapéu-cinzento Cigarra-verdadeira Pixoxó, chanchão BA, ES, MG, PR, RJ, SP ES, MG, PR, RJ, RS, SC, SP Sporophila melanogaster (Pelzeln, 1870) Sporophila nigrorufa (d'Orbigny & Lafresnaye, 1837) Sporophila palustris (Barrows, 1883) Caboclinho-de-barriga-preta Caboclinho-do-sertão GO, MG, PR, RS, SC, SP BA, GO, MG, MS, MT, RS, SP Caboclinho-de-papo-branco Tangara cyanocephala cearensis Cory, 1916 Soldadinho Tangara cyanocephala corallina (Berlepsch, 1903) Tangara fastuosa (Lesson, 1831) Saíra-de-lenco, soldadinho AL. PE Pintor-verdadeiro AL, PB, PE, RN

Tico-tico-do-campo

BA. MG. PI

RS, SC

BA, CE, PE

AL, PE

AL, CE, PB, PE

BA, CE, MA, MG, PB, PE, PI

AL, CE, PE DF, GO, MG, MS, MT, PA, PR, SP

Coryphaspiza melanotis (Temminck, 1822)

Xanthopsar flavus (Gmelin, 1788)

Grallaria varia intercedens Berlepsch & Leverkühn, 1890 BA, ES, PE Tovacucu-malhado

Carduelis yarrellii Audubon, 1839 AL, BA, CE, PB, PE, PI Pintassilgo-bajano

Veste-amarela

Acrobatornis fonsecai Pacheco, Whitney & Gonzaga, 1996 ВА Acrobata Asthenes baeri (Berlepsch, 1906) AL PB PF Automolus leucophthalmus lammi 7 immer 1947 Barranqueiro-do-nordeste Coryphistera alaudina Burmeister, 1850 Geobates poecilopterus (Wied, 1830) Corredor-crestudo Andarilho, bate-bunda BA, DF, GO, MG, MS, MT, SP Leptasthenura platensis Reichenbach, 1853 Limnoctites rectirostris (Gould, 1839) Rabudinho RS Junqueiro-de-bico-reto RS, SC Philydor novaesi Teixeira & Gonzaga, 1983 Pseudoseisura lophotes (Reichenbach, 1853) Sclerurus caudacutus caligineus Pinto, 1954 Limpa-folha-do-nordeste ΑL Vira-folha-pardo-do-nordeste AL Sclerurus caudacutus umbretta (Lichtenstein, 1823) Sclerurus scansor cearensis Snethlage, 1924 Vira-folha-pardo-do-sudeste

Vira-folhas-cearense

Soldadinho-do-araripe, lavadeira-da-

BA, MG AL, PE GO, MT, TO Synallaxis cinerea Wied, 1831 Synallaxis infuscata Pinto, 1950 João-baiano João-do-araguaia Synallaxis simoni Hellmayr, 1907 Thripophaga macroura (Wied, 1821) Xenops minutus alagoanus Pinto, 1954 Bico-virado-liso AL, PB, PE

Motacillidae

Anthus nattereri Sclater, 1878 Caminheiro-grande MG, PR, RS, SC, SP

Muscicapidae

BA, ES Cichlopsis leucogenys leucogenys Cabanis, 1851 Sabiá-castanho

Pipridae

Antilophia bokermanni Coelho & Silva, 1998 Piprites pileatus (Temminck, 1822) Caneleirinho-de-chapéu-preto, MG, PR, RJ, RS, SC, SP caneleirinho-de-boné-preto Schiffornis turdinus intermedius Pinto, 1954 Flautim-marrom AL, PB, PE

Cercomacra laeta sabinoi Pinto, 1939

Merulaxis stresemanni Sick, 1960 Scytalopus iraiensis Bornschein, Reinert & Pichorim, 1998 Entufado-baiano, bigodudo-baiano BA PR, RS Macuguinho-do-breio

Biatas nigropectus (Lafresnaye, 1850) Papo-branco MG, PR, RJ, SC, SP Cercomacra ferdinandi Snethlage, 1928 Chororó-tocantinense TO

Formigueiro-de-cabeça-negra, papa-formigas-de-cabeça-negra Formigueiro-do-litoral, com-com Formicivora erythronotos Hartlaub, 1852 RJ Formicivora littoralis Gonzaga & Pacheco, 1990 RJ Herpsilochmus pectoralis Sclater, 1857 Herpsilochmus pileatus (Lichtenstein, 1823) Chorozinho-de-papo-preto Chorozinho-da-bahia BA, MA, RN, SE BA AL BA ES MG PR PE Myrmeciza ruficauda (Wied, 1831) Formiqueiro-de-cauda-ruiva Myrmotherula minor Salvadori, 1864 Myrmotherula snowi Teixeira & Gonzaga, 1985 Choquinha-pequena BA, ES, MG, RJ, SC, SP Choquinha-de-alagoas AL, PE Myrmotherula urosticta Sclater, 1857 Phlegopsis nigromaculata paraensis Hellmayr, 1904 Choquinha-de-rabo-cintado Mãe-de-taoca-pintada BA, ES, MG, RJ MA, PA

Olho-de-fogo-rendado, papa-taoca-da-Pyriglena atra (Swainson, 1825) BA, SE bahia Pyriglena leuconota pernambucensis Zimmer, 1931 Papa-taoca

Rhopornis ardesiaca (Wied, 1831) Stymphalornis acutirostris Bornschein, Reinert & Teixeira, Gravatazeiro Bicudinho-do-brejo BA, MG PR, SC

1995 Terenura sicki Teixeira & Gonzaga, 1983 Thamnophilus aethiops distans Pinto, 1954 Thamnophilus caerulescens cearensis (Cory, 1919) AL, PE AL, PE CE Zidedê-do-nordeste Choca-da-mata-de-baturité AL, PE Thamnophilus caerulescens pernambucensis Naumburg, Choca-da-mata-do-nordeste Nemosia rourei Cabanis, 1870 Saíra-apunhalada ES Tyrannidae Alectrurus tricolor (Vieillot, 1816) Galito DF, ES, GO, MG, MS, PR, SP BA, DF, GO, MA, MG, MS, MT, PR, SP, TO Culicivora caudacuta (Vieillot, 1818) Maria-do-campo, papa-moscas-docampo Cocoruta Elaenia ridleyana Sharpe, 1888 Hemitriccus kaempferi (Zimmer, 1953) PE PR, SC Maria-catarinense AL, CE, PB, PE BA AL, PE PR, RS, SC, SP Hemitriccus mirandae (Snethlage, 1925) Phylloscartes beckeri Gonzaga & Pacheco, 1995 Maria-do-nordeste Borboletinha-baiano Phylloscartes ceciliae Teixeira, 1987 Cara-pintada Phylloscartes kronei Willis & Oniki, 1992 Phylloscartes roquettei Snethlage, 1928 Platyrinchus mystaceus niveigularis Pinto, 1954 Maria-da-restinga Cara-dourada Patinho-do-nordeste MG AL, PB, PE Polystictus pectoralis pectoralis (Vieillot, 1817) Tricolino-canela, papa-moscas-canela GO, MS, MT, PR, RS, SP Vireonidae Vireo gracilirostris Sharpe, 1890 PΕ Juruviara-de-noronha Reptilia (Répteis) Corallus cropanii (Hoge, 1953) Jibóia-de-cropan SP Colubridae Dipsas albifrons cavalheiroi Hoge, 1950 Dormideira-da-queimada-grande Heterodactylus lundii Reinhardt & Lütken, 1862 Cobra-de-vidro MG Placosoma cipoense Cunha, 1966 Lagartinho-do-cipó Anisolepis undulatus (Wiegmann, 1834) Camaleãozinho RS Cnemidophorus abaetensis Dias, Rocha & Vrcibradic, 2002 Lagartixa-de-abaeté
Cnemidophorus littoralis Rocha, Araújo, Vrcibradic & Costa,
Lagarto-da-cauda-verde 2000 Cnemidophorus nativo Rocha, Bergallo & Peccinini Seale, Lagartinho-de-linhares 1997 BA, ES Cnemidophorus vacariensis Feltrim & Lema, 2000 Lagartinho-de-vacaria RS Tropiduridae Liolaemus lutzae Mertens, 1938 RS, SC Liolaemus occipitalis Boulenger, 1885 Lagartinho-da-praia Bothrops alcatraz Marques, Martins & Sazima, 2002 Bothrops insularis Amaral, 1922 Jararaca-de-alcatrazes SP SP Jararaca-ilhoa Bothrops pirajai Amaral, 1923 Jararaca RΑ Testudines Phrynops hogei Mertens, 1967 Cágado, cágado-de-hoge ES, MG, RJ Cheloniidae Caretta caretta Linnaeus, 1758 Cabeçuda, tartaruga-meio-pente AL, BA, CE, ES, MA, PE, RJ, RN, RS, SE AL, AP, BA, CE, ES, MA, PA, PE, PR, RJ, RN, RS, SE, SC, SP AL, BA, ES, PE, RJ, RN, SE, SP Chelonia mydas Linnaeus, 1758 Tartaruga-verde, aruanã Eretmochelys imbricata Linnaeus, 1766 Tartaruga-de-pente Lepidochelys olivacea Eschscholtz, 1829 Tartaruga-oliva AL. BA. CE. ES. PE. PR. RJ. RN. SE. SP Dermochelys coriacea Linnaeus, 1766 Tartaruga-de-couro AL, BA, CE, ES, MA, PE, PR, RJ, RS, SC, SP Amphibia (Anfíbios) Anura Bufonidae

Flamenguinho, sapinho-de-barriga-

Sapinho-narigudo-de-barriga-vermelha RS

Melanophryniscus dorsalis (Mertens, 1933)

Melanophryniscus macrogranulosus Braun, 1973

Hylic	dae		
	Hyla cymbalum Bokermann, 1963 Hyla izecksohni Jim & Caramaschi, 1979 Hylomantis granulosa Cruz, 1988 * Phrynomedusa fimbriata Miranda-Ribeiro, 1923 Phyllomedusa ayeaye (B. Lutz, 1966)	Perereca Perereca Perereca-verde Perereca-de-folhagem-com-perna- reticulada	SP SP PE SP MG
	Scinax alcatraz (B. Lutz, 1973)	Perereca	SP
Lept	odactylidae		
	Adelophryne baturitensis Hoogmoed, Borges & Cascon, 1994	Rãzinha	CE
	Adelophryne maranguapensis Hoogmoed, Borges & Cascon, 1994	Rãzinha	CE
	Holoaden bradei B. Lutz, 1958 Odontophrynus moratoi Jim & Caramaschi, 1980 Paratelmatobius lutzii Lutz & Carvalho, 1958 Physalaemus soaresi Izecksohn, 1965 Thoropa lutzi Cochran, 1938 Thoropa petropolitana (Wandolleck, 1907)	Rāzinha Sapinho Sapinho Rāzinha Rāzinha Rāzinha	MG, RJ SP MG RJ ES, MG, I ES, RJ
Invertebrados			
Arachnida (Ar	acnideos)		
Amblypy	gi		
Cha	rinidae		
	Charinus troglobius Baptista & Giupponi, 2003	Aranha-chicote	BA
Araneae			
Arar	neidae		
	Taczanowskia trilobata Simon, 1895	Aranha	PA
Cori	nnidae		
	landuba caxixe Bonaldo, 1997 landuba patua Bonaldo, 1997 landuba paubrasil Bonaldo, 1997 landuba vatapa Bonaldo, 1997	Aranha Aranha Aranha Aranha	BA BA BA BA
Cteni	idae		
	Phoneutria bahiensis Simó & Brescovit , 2001	Aranha-armadeira	BA
Eresi	idae		
	Stegodyphus manaus Kraus & Kraus, 1992	Nenhum	AM
Symp	phytognathidae		
	Anapistula guyri Rheims & Brescovit, 2003	Aranha-de-solo	GO
Opiliones			
Gony	rleptidae		
	Giupponia chagasi Pérez & Kury, 2002 Iandumoema uai Pinto-da-Rocha, 1996 Pachylospeleus strinatii (Silhavy, 1974)	Opilião Opilião Opilião	BA MG SP
Minu	idae		
	Spaeleoleptes spaeleusa (H. Soares, 1966)	Opilião	MG
Pseudoso	corpiones		
Cher	netidae		
	Maxchernes iporangae Mahnert & Andrade, 1998	Pseudoescorpião	SP
Chth	oniidae		
	Pseudochthonius strinatii (Beier, 1969)	Pseudoescorpião	SP
Diplopoda (Dip	olópodos)		
Polydesn	nida		
Chel	odesmidae		
	Leodesmus yporangae (Schubart, 1946)	Gongolo, piolho-de-cobra	SP
Cryp	todesmidae		
Pyrg	Peridontodesmella alba Schubart, 1957 odesmidae	Gongolo, Piolho-de-cobra	SP

Yporangiella stygius Schubart, 1946

Spirobolida

Piolho-de-cobra

Rhinocrichidae		
Rhinocricus padbergi Verhoeff, 1938	Gongolo-gigante	RJ
Insecta (Insetos)		
Collembola		
Arrhopalitidae		
Arrhopalites amorimi Palacius-Vargas & Zeppelini, 1995 Arrhopalites gnaspinius Palacius-Vargas & Zeppelini, 1995 Arrhopalites lawrencei Palacius-Vargas & Zeppelini, 1995 Arrhopalites papaveroi Zeppelini & Palacius-Vargas, 1999 Arrhopalites wallacei Palacius-Vargas & Zeppelini, 1995	Colembolo Colembolo Colembolo Colembolo Colembolo	SP SP DF, SP MS SP
Paronellidae		
Trogolaphysa aelleni Yosii, 1988 Trogolaphysa hauseri Yosii, 1989	Colembolo Colembolo	SP SP
Ephemeroptera		
Leptophlebiidae		
Perissophlebiodes flinti (Savage, 1982)	Siriruia	RJ
Odonata		
Aeshnidae		
Aeshna eduardoi Machado, 1984	Libélula, cavalo-de-judeu	MG
Coenagrionidae		
* Acanthagrion taxaensis Santos, 1965	Libélula	RJ
Leptagrion acutum Santos, 1961 Minagrion mecistogastrum (Selys, 1876)	Libélula Libélula	ES RJ, SP
Gomphidae		,
Praeviogomphus proprius Belle, 1995	Libélula	RJ
Megapodagrionidae	Liborata	1.0
Heteragrion obsoletum Selys, 1886 Heteragrion petiense Machado, 1988	Libélula Libélula, cavalo-de-judeu	MG MG
Pseudostigmatidae	Liberala, cavalo de judea	mo
Coarazuphium bezerra Gnaspini, Vanin & Godoy, 1998	Besouro	GO
Coarazuphium cessaima Gnaspini, Vanin & Godoy, 1998 Coarazuphium pains Alvares & Ferreira, 2002 Coarazuphium tessai (Godoy & Vanin, 1990) Schizogenius ocellatus Whitehead, 1972	Besouro Besouro Besouro Besouro	BA MG BA SP
Cerambycidae		
Hypocephalus armatus Desmarest, 1832 Plaumanniella novateutoniae Fisher, 1938	laiá-de-cintura, carocha Besouro	BA, MG RS, SC
Chrysomelidae		
Doryphora reticulata (Fabricius 1787) Ensiforma caerulea Jacoby, 1876 Schematiza aneurica Bechyné, 1956	Besouro Besouro Besouro	RS, SC RS, SC, SP RS, SC, SP
Dynastidae		
Agacephala margaridae Alvarenga, 1958 Dynastes hercules paschoali Grossi & Arnaud, 1991 Megasoma actaeon janus Felsche, 1906 Megasoma gyas gyas (Herbst, 1785) Megasoma gyas rumbucheri Fischer, 1968	Besouro Besouro-de-chifre Besouro-de-chifre Besouro-de-chifre	PA BA, ES MS, SP BA, ES, MG, RJ, SP BA, CE, MG, PB, PE
Scarabaeidae		
Dichotomius schiffleri Vaz de Mello, Louzada & Gavino, 2001	Besouro-rola-bosta	ES
Lepidoptera		
Hesperiidae		
Cyclopyge roscius iphimedia (Plötz, 1886) Drephalys miersi Mielke, 1968 Drephalys mourei Mielke, 1968 Ochropyge ruficauda (Hayward, 1932) Parelbella polyzona (Latreille, 1824) Pseudocroniades machaon seabrai Mielke, 1995 Turmada camposa (Plötz, 1886) Zonia zonia diabo Mielke & Casagrande, 1998	Borboleta Borboleta Borboleta Borboleta Borboleta Borboleta Borboleta Borboleta	MG, RJ, SP PR, SC RJ, SC PR, SC ES, RJ, SC RJ RJ GO, SP

Arawacus aethesa (Hewitson, 1867) Magnastigma julia Nicolay, 1977 alidae Actinote quadra (Schaus, 1902) Actinote zikani D'Almeida, 1951 Caenoptychia boulleti Le Cerf, 1919 Callicore hydarnis (Godart, 1824) Dasyophthalma delanira Hewitson, 1862	Borboleta Borboleta, borboleta-palha Borboleta Borboleta	ES, MG DF, MG MG, RJ, SP SP ES, RJ, RS, SP
alidae Actinote quadra (Schaus, 1902) Actinote zikani D'Almeida, 1951 Caenoptychia boulleti Le Cerf, 1919 Callicore hydarnis (Godart, 1824)	Borboleta, borboleta-palha Borboleta Borboleta	MG, RJ, SP SP
Actinote quadra (Schaus, 1902) Actinote zikani D'Almeida, 1951 Caenoptychia boulleti Le Cerf, 1919 Callicore hydarnis (Godart, 1824)	Borboleta Borboleta	SP
Actinote zikani D'Almeida, 1951 Caenoptychia boulleti Le Cerf, 1919 Callicore hydarnis (Godart, 1824)	Borboleta Borboleta	SP
Caenoptychia boulleti Le Cerf, 1919 Callicore hydarnis (Godart, 1824)	Borboleta	
Callicore hydarnis (Godart, 1824)		ES DIDS SD
Dasvophthalma delanira Hewitson 1862	Borboleta	MG, RJ, SP
	Borboleta	RJ
Dasyophthalma geraensis Rebel, 1922	Borboleta	MG, RJ, SP
Dasyophthalma vertebralis Butler, 1869	Borboleta	ES, MG
Doxocopa zalmunna (Butler, 1869)	Borboleta Borboleta	RJ, SP
Episcada vitrea D'Almeida & Mielke, 1967		RJ BA
		PB, PE
		BA, ES, MG
	Borboleta	ES, MG, RJ
yalyris leptalina (C. Felder & R. Felder, 1865)	Borboleta	ES, MG, RJ
Hypoleria fallens (Haensch, 1905)	Borboleta	ES, MG, RJ
Melinaea mnasias thera C. Felder & R. Felder, 1865	Borboleta	BA, RJ, SP
Vapeogenes cyrianassa xanthone Bates, 1862	Borboleta	BA, ES, MG, RJ
Varope guilhermei Casagrande, 1989	Borboleta	RS, SC
Orobrassolis ornamentalis (Stichel, 1906)	Borboleta	MG, PR, SP
Paititia neglecta Lamas, 1979	Borboleta	AC
	Borboleta	RJ, SP
		AL, PB
		MG, RJ, SP
	Borboleta	MG, RJ, SP
•	D-t-l-t-	55
		PE DI OR
ilnorea narmonia caissara (zikan, 1941)	Borboleta	ES, MG, RJ, SP
nidae		
Eurytides iphitas (Hübner, 1821)	Borboleta	ES, RJ
Heraclides himeros baia (Rothschild & Jordan, 1906)	Borboleta	BA, GO
Heraclides himeros himeros (Hopffer, 1865)	Borboleta	ES, MG, RJ
Mimoides lysithous harrisianus (Swainson, 1822)	Borboleta	RJ
Parides ascanius (Cramer, 1775)	Borboleta	RJ
Parides bunichus chamissonia (Eschscholtz, 1821)	Borboleta	SC
Parides burchellanus (Westwood, 1872)	Borboleta	DF, GO, MG, SP
Parides lysander mattogrossensis (Talbot, 1928)	Borboleta	MT, RO
Parides panthonus castilhoi D' Almeida, 1967	Borboleta	SP
e		
Charonias theano theano (Boisduval, 1836)	Borboleta	MG, PR, SC, SP
		PR, RJ, SP
		BA, ES, RJ, SC
		BA, ES
		,
² arapoynx restingalis Da Silva & Nessimian, 1990	Mariposa	BA, RJ
dae		
Fucorna sanarita (Schaus, 1902)	Borboleta	RJ, SP
		SP
		MG
		RJ
	Borboleta	ES, RJ
	Borboleta	RJ, SC, SP
Dirphia monticola Zerny, 1923	Mariposa	RJ
га		
Exomalopsis (Phanomalopsis) atlantica Silveira, 1996	Abelha	SP
Melipona capixaba Moure & Camargo, 1995	Uruçu-negra, pé-de-pau	ES
Kylocopa (Diaxylocopa) truxali Hurd & Moure, 1963	Abelha	GO, MG
sprotopa (Drangrotopa) transit fluid di Houle, 1903	r months	00, 1110
idae		
i <mark>dae</mark> Acromyrmex diasi Gonçalves, 1983	Formiga, quemquém	DF, SP
i <mark>dae</mark> A <i>cromyrmex diasi</i> Gonçalves, 1983 A <i>lta robust</i> a Borgmeier, 1939	Saúva-preta	ES, RJ
i <mark>dae</mark> Acromyrmex diasi Gonçalves, 1983		
	Apploteria fallens (Haensch, 1905) Alelinaea mnasias thera C. Felder & R. Felder, 1865 Alapeogenes cyrianassa xanthone Bates, 1862 Narope guilhermei Casagrande, 1989 Probrassolis ornamentalis (Stichel, 1906) Paultia neglecta Lamas, 1979 Pampasatyrus gyrtone (Berg, 1877) Pessonia epistrophus nikolajewna (Weber, 1951) Polygrapha suprema (Schaus, 1920) Pseudocercyonis glaucope boenninghausi (Foetterle, 1902) Parides himeros baia (Rothschild & Jordan, 1906) Heracildes himeros bimeros (Hopffer, 1865) Alimoides lysithous harrisianus (Swainson, 1822) Parides burichus chamissonia (Eschscholtz, 1821) Parides burchellanus (Westwood, 1872) Parides burchellanus (Westwood, 1872) Parides lysander mattogrossensis (Talbot, 1928) Parides panthonus castilhoi D' Almeida, 1967 Perides panthonus castilhoi D' Almeida, 1967 Perrhybris flava Oberthür, 1896 Bee Charonias theano theano (Boisduval, 1836) Hoschoneura methymna (Godart, 1819) Perrhybris flava Oberthür, 1896 Bee Charonias theano theano (Boisduval, 1836) Perrhybris flava Oberthür, 1896 Bee Charonias theano theano (Boisduval, 1836) Perrhybris flava Oberthür, 1896 Bee Charonias theano theano (Boisduval, 1836) Perrhybris flava Oberthür, 1896 Bee Charonias theano theano (Boisduval, 1836) Perrhybris flava Oberthür, 1896 Bee Charonias theano theano (Boisduval, 1836) Perrhybris flava Oberthür, 1896 Bee Charonias theano theano (Boisduval, 1836) Perrhybris flava Oberthür, 1896 Bee Charonias theano theano (Boisduval, 1836) Perrhybris flava Oberthür, 1899 Bee Charonias theano theano (Boisduval,	Strasseia menelaus eberti (Weber, 1963) Helicionius nattereri C. Felder & R. Felder, 1865 Hydyn'ris fiammetta (Hewitson, 1852) Hydyn'ris leptalina (C. Felder & R. Felder, 1865) Hydyn'ris leptalina (C. Felder & R. Felder, 1865) Hydyn'ris leptalina (C. Felder & R. Felder, 1865) Hydelria fallens (Haensch, 1905) Helinaea mnasias thera C. Felder & R. Felder, 1865 Helinaea mnasias thera C. Felder & R. Felder, 1865 Helinaea masias thera C. Felder & R. Felder, 1865 Helinaea masias thera C. Felder & R. Felder, 1865 Helinaea masias thera C. Felder & R. Felder, 1865 Helinaea masias thera C. Felder & R. Felder, 1865 Helinaea masias thera C. Felder & R. Felder, 1865 Helinaea masias thera C. Felder & R. Felder, 1865 Horboleta Harborge guilhermei Casagrande, 1989 Borboleta Harborge guilhermei Casagrande, 1989 Horboleta Derboleta Derboleta Harborge guilhermei Casagrande, 1989 Horboleta Derboleta Harborge guilhermei Casagrande, 1989 Horboleta Derboleta Harborge guilhermei Casagrande, 1989 Horboleta Derboleta Harborge guilhermei Casagrande, 1980 Horboleta Derboleta Horboleta Derboleta Harborge guilhermei Casagrande, 1980 Horboleta Derboleta Horboleta Derboleta Horboleta Harborge guilhermei Casagrande, 1980 Horboleta Harborge guilhermei Casagrande, 1980 Horboleta Derboleta Derboleta Horboleta Derboleta Derboleta Horboleta Harborge guilhermei Casagrande, 1980 Horboleta Derboleta Derboleta Horboleta Derboleta Derboleta Derboleta Horboleta Derboleta Derb

Onychophora (Onicóforos)

Euonychophora

Peripatidae

	Peripatus acacioi Marcus & Marcus, 1955	Onicóforo	MG
Oligochaeta	(Oligoquetos)		
Haplot	axida		
Gl	ossoscolecidae		
	* Fimoscolex sporadochaetus Michaelsen, 1918 Rhinodrilus alatus Righi, 1971 * Rhinodrilus fafner Michaelsen, 1918	Minhoca-branca Minhocuçu Minhocuçu, minhoca-gigante	MG MG MG
Gastropoda	(Gastrópodos)		
Stylom	matophora		
Bu	limulidae		
	Tomigerus (Biotocus) turbinatus Pfeiffer, 1845 Tomigerus (Digerus) gibberulus Burroco, 1815	Caracol Caracol	BA AL, PE
Me	egalobulimidae		
	Megalobulimus cardosoi Morretes, 1952 Megalobulimus grandis Martens, 1885	Aruá-do-mato Aruá-do-mato; aruá-gigante; caracol- gigante	AL, PE SP
	Megalobulimus lopesi Leme, 1989 Megalobulimus parafragilior Leme & Indrusiak, 1990 Megalobulimus proclivis Martens, 1888	Caracol-gigante-da-boracéia Caracol-gigante Aruá-alongado	SP SP RS
St	reptaxidae		
	Rectartemon depressus Heynemann, 1868	Caracol	RS
St	rophocheilidae		
	Gonyostomus henseli Martens, 1868 Gonyostomus insularis Leme, 1974 Mirinaba curytibana Morretes, 1952	Caracol Caracol-da-ilha Caracol	RS SP PR

^{*} Espécies extintas

National List of Fish and Aquatic Invertebrate Species Threatened with **Extinction**

Scientific Name, Author and Date	Popular Name
Nome Científico, Autor e Data	Nome Popular
Invertebrados Aquáticos	
Condylactis gigantea (Weiland, 1860)	Anêmona do mar
Cerianthomorphe brasiliensis Carlgreen, 1931	
Cerianthus brasiliensis Melo-Leitão, 1919	
Gorgonacea	
Gorgoniidae	
Phillogorgia dilatata (Esper, 1806)	Orelha-de-elefante
Asteroidea	
Forcipulatida	
Asterinidae	
Coscinasterias tenuispina (Lamarck, 1816)	Estrela-do-mar
Paxillosida	
Astropectinidae	
Astropecten braziliensis Müller & Troschel, 1842	Estrela-do-mar
Astropecten cingulatus Sladen, 1889	Estrela-do-mar
Astropecten marginatus Gray, 1840	Estrela-do-mar
Luidiidae	
Luidia clathrata (Say, 1825)	Estrela-do-mar
Luidia ludwigi scotti Bell, 1917	Estrela-do-mar
Luidia senegalensis (Lamarck, 1816)	Estrela-do-mar
Spinulosida	
Echinasteridae	
Echinaster (Othilia) brasiliensis Müller & Troschel,	Estrela-do-mar
1842	
Echinaster (Othilia) echinophorus Lamarck, 1816	Estrela-do-mar
Echinaster (Othilia) guyanensis Clark, 1987	Estrela-do-mar
Valvatida	
Asterinidae	
Asterina stellifera (Möbius, 1859)	Estrela-do-mar
Ophiodiasteridae	
Linckia guildingii Gray, 1840	Estrela-do-mar
Narcissia trigonaria Sladen, 1889	Estrela-do-mar
Oreasteridae	
Oreaster reticulatus (Linnaeus, 1758)	Estrela-do-mar
Bivalvia	
Unionoida	
Hyriidae	
Castalia undosa Martens, 1827	Concha-borboleta
Diplodon caipira (Ihering, 1893)	Marisco-de-água-doce
Diplodon dunkerianus Lea, 1856	Marisco-de-água-doce

Diplodon expansus Küster, 1856	I 1
Diplodon fontainianus (Orbigny,	
1835)	
Diplodon greeffeanus Ihering, 1893	Marisco-de-água-doce
Diplodon iheringi Simpson, 1900	Marisco-barrigudinho
Diplodon koseritzi Clessin, 1888	Marisco-do-junco
Diplodon martensi Ihering, 1893	Marisco-de-água-doce
Diplodon pfeifferi Dunker, 1848	Marisco-de-água-doce
Diplodon rotundus Wagner, 1827	Concha-disco
Mycetopodidae	Control disco
Anodontites elongates Swainson, 1823	Marisco-pantaneiro
Anodontites ensiformis Spix, 1827	Estilete
Anodontites ferrarisii Orbigny, 1835	Redondo-rajado
Anodontites iheringi Clessin, 1882	Alongado-rajado
Anodontites soleniformes Orbigny, 1835	Marisco-de-água-doce
Anodontites tenebricosus Lea, 1834	Marisco-rim
Anodontites trapesialis Lamarck,	Prato, saboneteira
1819	. rate, cabonetena
Anodontites trapezeus Spix, 1827	Marisco-de-água-doce
Bartlettia stefanensis Maicand, 1856	Ostra-de-rio
Fossula fossiculifera Orbigny, 1835	Fóssula
Leila blainvilliana Lea, 1834	Leila
Leila esula Orbigny, 1835	Leila
Monocondylaea paraguayana Orbigny, 1835	Cofrinho
Mycetopoda legumen Martens, 1888	Faquinha-arredondada
Mycetopoda siliquosa Spix, 1827	Faquinha-truncada
Demospongiae	•
Hadromerida	
Potamolepidae	
Oncosclera jewelli (Volkmer, 1963)	Feltro-d'água
Uruguaya corallioides (Bowerbank, 1863)	
Sterrastrolepis brasiliensis Volkmer- Ribeiro & De	
Rosa-Barbosa, 1978	
Haplosclerida	
Spongillidae	
Anheteromeyenia ornata (Bonetto & Ezcurra de	Geléia-de-água
Drago, 1970)	
Corvoheteromeyenia australis (Bonetto & Ezcurra	
de Drago, 1966)	
Corvoheteromeyenia eterosclera Ezcurra de Drago,	
1974	
Corvospongilla volkmeri De Rosa-Barbosa, 1988	
Heteromeyenia insignis Weltner, 1895	
Houssayella iguazuensis Bonetto & Ezcurra de	
Drago, 1966	
Racekiela sheilae Volkmer-Ribeiro, De Rosa-	
Barbosa & Tavares, 1988	
Poecilosclerida	
Metaniidae	
Metania kiliani Volkmer-Ribeiro & Costa, 1992	
I E CDIDOIGES	
Echinoidea	
Cassiduloida Cassidulidae	

Considulus mitia Kray 4054	Ouries de mar irregular
Cassidulus mitis Krau, 1954	Ouriço-do-mar-irregular
Cidaroida	
Cidaridae	
Eucidaris tribuloides (Lamarck, 1816)	Ouriço-satélite
Echinoida	
Echinidae	
Paracentrotus gaimardi (Blainville, 1825)	Ouriço-do-mar
Enteropneusta	
Spengelidae	
Willeya loya Petersen, 1965	
Gastropoda	
Mesogastropoda	
Hydrobiidae	
Potamolithus troglobius Simone & Miracchiolli,	
1994	
Naticidae	
Natica micra (Haas, 1953)	Búzio
Vermetidae	Buzio
Petaloconchus myrakeenae Absalão & Rios, 1987	
Holothuroidea	
Apodida	
Synaptidae	Daning de mas
Synaptula secreta Ancona-Lopez, 1957	Pepino-do-mar
Aspidochirotida	
Stichopodidae	
Isostichopus badionotus (Selenka, 1867)	Pepino-do-mar, holotúria
Hydrozoa	
Capitata	
Milleporidae	
Millepora alcicornis Linnaeus, 1758	Coral-de-fogo
Malacostraca	
Amphipoda	
Hyalellidae	
Hyalella caeca Pereira, 1989	
Decapoda	
Aeglidae	
Aegla cavernicola Turkay, 1972	
Aegla leptochela Bond-Buckup & Buckup, 1994	
Aegla microphtalma Bond-Buckup & Buckup, 1994	
Atyidae	
Atya gabonensis Giebel, 1875	Coruca
Atya scabra (Leach, 1815)	Coruca
Gecarcinidae	Coluca
	Caranguaio ladrão
Gecarcinus lagostoma Milne-	Caranguejo-ladrão
Edwards, 1835	
Grapsidae	
Percnon gibbesi Milne-Edwards,	
1853	
Palaemonidae	50
Macrobrachium carcinus (Linnaeus, 1758)	Pitu, lagosta-de-água-doce, lagosta-de-são- fidelis
Porcellanidae	
Minyocerus angustus (Dana, 1852)	

Delveheete	
Polychaeta	
Amphinomida	
Amphinomidae	\/ d- f
Eurythoe complanata (Pallas, 1766)	Verme - de - fogo
Eunicida	
Eunicidae	
Eunice sebastiani Nonato, 1965	
Onuphidae	
Diopatra cuprea (Bosc, 1802)	
Peixes	
Elasmobranchii	
Carcharhiniformes	
Carcharhinidae	
Isogomphodon oxyrhynchus (Müller & Henle, 1839)	Quati
Negaprion brevirostris (Poey, 1868)	
Triakidae	
Galeorhinus galeus (Linnaeus, 1758)	Cação-bico-doce
Mustelus schmitti Springer, 1939	Cação-cola-fina, caçonete
Lamniformes	
Cetorhinidae	
Cetorhinus maximus (Gunnerus,	Tubarão - peregrino
1765)	The second of th
Orectolobiformes	
Ginglymostomatidae	
Ginglymostoma cirratum (Bonnaterre, 1788)	Cação-lixa, tubarão-lixa,
Singly motoria circum (Bornaterie, 1700)	lambaru
Rhincodontidae	lambara
Rhincodon typus Smith, 1828	Tubarão - baleia
Pristiformes	rabardo barcia
Pristidae	
Pristis perotteti Müller & Henle,	Peixe-serra
1841	i cixc-scria
Pristis pectinata Latham, 1794	Peixe-serra
Rhinobatiformes	T CIAC-SCITA
Rhinobatidae	
	Daia viola
Rhinobatus horkelii (Müller & Henle, 1841)	Raia-viola
Squatiniformes Squatinidae	
	One # - onin coninhere
Squatina guggenheim Marini, 1936	Cação-anjo-espinhoso
Squatina occulta (Vooren & Silva, 1991)	Cação-anjo-liso
Actinopterygii	
Batrachoidiformes	
Batrachoididae	
Potamobatrachus trispinosus Collette, 1995	Mangangá
Characiformes	
Anostomidae	
Leporinus thayeri Borodin, 1929	Piau
Sartor tucuruiense Santos & Jégu, 1987	
Characidae	
Astyanax gymnogenys Eigenmann, 1911	Lambari
Brycon devillei (Castelnau, 1855)	Piabanha
Brycon insignis Steindachner, 1877	Piabanha
Brycon nattereri Günther, 1864	Pirapitinga

Brycon opalinus (Cuvier, 1819)	Pirapitinga, pirapitinga-do-sul
Brycon orbignyanus (Valenciennes, 1850)	Piracanjuba, piracanjuva,
	bracanjuva
Brycon vermelha Lima & Castro,	Vermelha
2000	
Bryconamericus lambari Malabarba & Kindel, 1995	Lambari
Coptobrycon bilineatus (Ellis, 1911)	
Glandulocauda melanogenys Eigenmann, 1911	
Glandulocauda melanopleura Eigenmann, 1911	
Hasemania maxillaris Ellis, 1911	Lambari
Hasemania melanura Ellis, 1911	Lambari
Henochilus wheatlandii Garman,	Andirá, anjirá
1890	
Hyphessobrycon duragenys Ellis, 1911	
Hyphessobrycon flammeus Myers, 1924	Engraçadinho
Hyphessobrycon taurocephalus Ellis, 1911	Lambari
Lignobrycon myersi (Miranda-Ribeiro, 1956)	Piaba-faca
Mimagoniates lateralis (Nichols,	
1913)	
Mimagoniates rheocharis Menezes & Weitzman, 1990	
Mimagoniates sylvicola Menezes & Weitzman,	
1990	
Mylesinus paucisquamatus Jégu & Santos, 1988	Pacu
Myleus tiete (Eigenmann & Norris, 1900)	Pacu-prata
Nematocharax venustus Weitzman, Menezes &	
Britski, 1986	
Ossubtus xinguense Jegú, 1992	Pacu
Rachoviscus crassiceps Myers, 1926	
Rachoviscus graciliceps Weitzman & Cruz, 1980	-
Spintherobolus ankoseion Weitzman & Malabarba,	
1999	
Spintherobolus broccae Myers, 1925	
Spintherobolus leptoura Weitzman & Malabarba,	
1999	
Spintherobolus papilliferus Eigemann, 1911	
Stygichthys typhlops Brittan & Böhlke, 1965	
Crenuchidae	
Characidium grajahuensis Travassos, 1944	Canivetinho, mocinha
Characidium lagosantensis Travassos, 1947	Canivete
Characidium vestigipinne Buckup & Hahn, 2000	
Cyprinodontiformes	
Poeciliidae	
Phalloptychus eigenmanni Henn,	Barrigudinho
1916	
Phallotorynus fasciolatus Henn, 1916	Guarú
Phallotorynus jucundus Ihering, 1930	Guarú
Rivulidae	
Austrolebias adloffi (Ahl, 1922)	
Austrolebias affinis (Amato, 1986)	Peixe anual
Austrolebias alexandri (Castello & Lopez, 1974)	Peixe anual
Austrolebias carvalhoi (Myers, 1947)	
Austrolebias charrua Costa & Cheffe, 2001	Peixe anual

Austrolebias cyaneus (Amato, 1987)	Peixe anual
Austrolebias ibicuiensis (Costa, 1999)	
Austrolebias luteoflammulatus (Vaz- Ferreira,	Peixe anual
Sierra & Scaglia, 1974)	T CIAC AIRGAI
Austrolebias minuano Costa & Cheffe, 2001	Peixe anual
Austrolebias nigrofasciatus Costa & Cheffe, 2001	Peixe anual
Austrolebias periodicus (Costa, 1999)	Peixe anual
Campellolebias brucei Vaz-Ferreira & Sierra, 1974	
Campellolebias chrysolineatus Costa, Lacerda &	
Brasil, 1989	
Campellolebias dorsimaculatus Costa, Lacerda &	
Brasil, 1989	
Cynolebias griseus Costa, Lacerda & Brasil, 1990	
Leptolebias citrinipinnis (Costa, Lacerda &	
Tanizaki, 1988)	
Leptolebias cruzi (Costa, 1988)	
Leptolebias fractifasciatus (Costa, 1988)	
Leptolebias leitaoi (Cruz & Peixoto, 1991)	
Leptolebias marmoratus (Ladiges, 1934)	
Leptolebias minimus (Myers, 1942)	
Leptolebias opalescens (Myers, 1941)	
Leptolebias splendens (Myers, 1942)	
Maratecoara formosa Costa & Brasil, 1995	
Megalebias wolterstorffi (Ahl, 1924)	
Nematolebias whitei (Myers, 1942)	
Plesiolebias xavantei (Costa, Lacerda & Tanizaki,	
1988)	
Simpsonichthys alternatus (Costa & Brasil, 1994)	
Simpsonichthys auratus Costa & Nielsen, 2000	
Simpsonichthys boitonei Carvalho, 1959	
Simpsonichthys bokermanni (Carvalho & Cruz,	
1987)	
Simpsonichthys constanciae (Myers, 1942)	
Simpsonichthys flammeus (Costa, 1989)	
Simpsonichthys fulminantis (Costa & Brasil, 1993)	-
Simpsonichthys ghisolfi Costa, Cyrino & Nielsen,	
1996	
Simpsonichthys hellneri (Berkenkamp, 1993)	
Simpsonichthys izecksohni (Cruz, 1983)	
Simpsonichthys magnificus (Costa & Brasil, 1991)	
Simpsonichthys marginatus Costa & Brasil, 1996	
Simpsonichthys multiradiatus (Costa & Brasil,	
1994)	
Simpsonichthys myersi (Carvalho, 1971)	
Simpsonichthys notatus (Costa, Lacerda & Brasil,	
1990)	
Simpsonichthys parallelus Costa, 2000	
Simpsonichthys perpendicularis Costa, Nielsen & De Luca, 2001	
Simpsonichthys rosaceus Costa, Nielsen & De	
Luca, 2001	
Simpsonichthys rufus Costa, Nielsen & De Luca,	
2000	

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Ituí
Ital
Peixe-borboleta
Peixe-polipoleta
Jacundá
Jacundá
Joaninha
Judininia
Acará
Acdid
Neon
Grama
Bodião-Ilhéu
Donzelinha
Peracuca
Peracuca
Peracuca

Pimelodella kronei (Ribeiro, 1907)	Bagre-cego
Rhamdia jequitinhonha Silfvergrip, 1996	Bagre, jundiá
Rhamdiopsis microcephala (Lütken, 1874)	Bagrinho
Taunaya bifasciata (Eigenmann & Norris, 1900)	Bagrinho
Loricariidae	
Ancistrus formoso Sabino & Trajano, 1997	Cascudo
Delturus parahybae (Eigenmann & Eigenmann,	Cascudo-laje
1889)	
Harttia rhombocephala Miranda-Ribeiro, 1939	Cascudo
Hemiancistrus chlorostictus Cardoso & Malabarba,	Cascudo
1999	
Hemipsilichthys garbei Ihering, 1911	Cascudo
Hemipsilichthys mutuca Oliveira & Oyakawa, 1999	Cascudo
Hypancistrus zebra Isbrücker & Nijssen, 1991	Cascudo-zebra
Pogonopoma parahybae (Steindachner, 1877)	Cascudo
Pseudotocinclus tietensis (Ihering, 1907)	Cascudinho
Pimelodidae	
Aguarunichthys tocantinsensis Zuanon, Rapp Py-	
Daniel & Jégu, 1993	
Conorhynchos conirostris (Valenciennes in Cuvier	Pirá, pirá-tamanduá
& Valenciennes 1840)	
Steindachneridion amblyura (Eigenmann &	Surubim
Eigenmann, 1888)	
Steindachneridion doceana (Eigenmann &	Surubim-do-doce
Eigenmann, 1889)	
Steindachneridion parahybae (Steindachner, 1876)	Surubim-do-paraíba
Steindachneridion scripta (Ribeiro, 1918)	Surubim
Trichomycteridae	
Homodiaetus graciosa Koch, 2002	Cambeba
Homodieatus passarelii (Miranda-Ribeiro, 1944)	
Listrura campos (Miranda-Ribeiro, 1957)	Candiru, bagre-mole
Listrura nematopteryx De Pinna,	
1988	
Listrura tetraradiata Landim & Costa, 2002	
Microcambeva barbata Costa & Bockmann, 1994	Cambeva
Trichogenes longipinnis Britski & Ortega, 1983	
3,	
Trichomycterus castroi Pinna, 1992	Cambeva
Trichomycterus itacarambiensis Trajanoi & Pinna,	Cambeva
1996	
Trichomycterus paolence (Eigenmann, 1917)	Cambeva

National List of Fish and Aquatic Invertebrate Species Overexploited or **Threatened of Overexploitation**

Scientific Name, Author and Date	Popular Name
Nome Científico, Autor e Data	Nome Popular
Invertebrados Aquáticos	
***Gastropoda	
***Mesogastropoda	
***Strombidae	

***Ctrombus galieth Cabatar, 1005	Dúzio do chanáu		
***Strombus goliath Schoter, 1805	Búzio-de-chapéu		
Malacostraca			
Decapoda			
Gecarcinidae	Ouriement animals		
Cardisoma guanhumi (Latreille, 1825)	Guaiamum, goiamú, gaiamú		
Ocypodidae			
Ucides cordatus (Linnaeus, 1763)	Ucá, caranguejo-uçá, caranguejo-verdadeiro,		
	caranguejo-de-mangue, catanhão		
Palinuridae			
Panulirus argus (Latreille, 1804)	Lagosta		
Panulirus laevicauda (Latreille, 1817)	Lagosta		
Penaeidae			
Farfantepenaeus brasiliensis (Latreille, 1817)	Camarão-rosa		
Farfantepenaeus paulensis (Pérez-Farfante, 1967)	Camarão-rosa		
Farfantepenaeus subtilis (Pérez-Farfante, 1967)	Camarão-rosa		
Litopenaeus schimitti (Burkenroad, 1936)	Camarão-branco		
Xiphopenaeus kroyeri (Heller, 1862)	Camarão-sete-barbas		
Portunidae			
Callinectes sapidus (Rathbun, 1896)	Siri; siri-azul		
Peixes	,		
Elasmobranchii			
Carcharhiniformes			
Carcharhinidae			
*** Carcharhinus longimanus (Poey,	Tubarão-estrangeiro; tubarão-galha-branca-		
1861)	oceânico		
*** Carcharhinus porosus (Ranzani, 1839)	Tubarão-junteiro, tubarãoazeiteiro		
*** Carcharhinus signatus (Poey, 1868)	Tubarão - toninha		
Prionace glauca (Linnaeus, 1758)	Tubarão - azul		
Sphyrnidae	Tubarao - azur		
Sphyrna lewini (Griffith & Smith, 1834)	Tubarão - martelo		
Sphyrna tiburo (Linnaeus, 1758)	Cação-martelo-da-aba-curta, panã-da-		
Spriyma abaro (Emilacus, 1700)	abacurta, cação-martelo, cambeva-pata		
Sphyrna zygaena (Linnaeus, 1758)	Tubarão-martelo liso		
Lamniformes	Tubarao-martelo iiso		
Lamnidae			
****Lamna nasus (Bonnaterre, 1788)	Tuborão golfinho		
	Tubarão - golfinho		
Odontaspididae	Mangana		
Carcharias taurus Rafinesque, 1810	Mangona		
Actinopterygii			
Characiformes			
Characidae			
Colossoma macropomum (Cuvier, 1818)	Tambaqui		
Prochilodontidae			
**Semaprochilodus insignis. (Jardine &	Jaraqui		
Schomburgk, 1841)			
**Semaprochilodus taeniurus (Vallenciennes, 1817)	Jaraqui		
Clupeiformes			
Clupeidae			
Sardinella brasiliensis (Steindachner, 1879)	Sardinha		
Gadiformes			
Merlucciidae			
****Merluccius hubbsi Marini, 1933	Merluza		
Gasterosteiformes			

Syngnathidae	
Hippocampus erectus Perry, 1810	Cavalo-marinho
Hippocampus reidi Ginsburg, 1933	Cavalo-marinho
Lophiiformes	
Lophiidae	
Lophius gastrophysus Miranda-Ribeiro, 1915	Peixe-sapo
Osteoglossiformes	
Osteoglossidae	
Arapaima gigas (Cuvier, 1817)	Pirarucu
Perciformes	
Lutjanidae	
***Lutjanus analis (Cuvier, 1828)	Caranha, cioba, vermelho, vermelho-cioba
Lutjanus purpureus Poey, 1867	Pargo, vermelho
Ocyurus chrysurus (Bloch, 1790)	Cioba, guaiúba
Rhomboplites aurorubens (Cuvier, 1829)	Realito, paramirim
Mugilidae	
Mugil liza Valenciennes, 1836	Tainha
Mugil platanus (Günther, 1880)	Tainha
Pinguipedidae	T GITT IG
Pseudopercis numida (Miranda-Ribeiro, 1915)	Namorado
Pomatomidae	Hamorado
Pomatomus saltatrix (Linnaeus, 1766)	Anchova
Sciaenidae	Anchova
Cynoscion quatucupa (Cuvier, 1830)	Pescada-olhuda
Macrodon ancylodon (Bloch & Schneider, 1801)	Pescadinha-real
Micropogonias furnieri (Desmarest, 1823)	Corvina
Umbrina canosai (Berg, 1895)	Castanha
Serranidae	Castarina
Epinephelus itajara (Lichtenstein, 1822)	Mero, canapu, merote (jovem), bodete (jovem)
Epinephelus marginatus (Lowe, 1834)	Garoupa
Epinephelus morio (Valenciennes, 1828)	Garoupa-são-tomé
Epinephelus niveatus (Valenciennes, 1828)	Cherne
Mycteroperca bonaci (Poey, 1860)	Badejo; badejo-quadrado
Polyprion americanus (Schneider, 1801)	Cherne-poveiro
Sparidae	Cheme-povello
Pagrus pagrus (Linnaeus, 1758)	Dargo roca
	Pargo - rosa
Siluriformes Ariidae	
	Page
Genidens barbus (Lacepède, 1803)	Bagre
Pimelodidae	Diramutaha
Brachyplatystoma vaillantii (Valenciennes, 1840)	Piramutaba
* Brachyplatystoma rousseauxii (Castelnau,1855)	Dourada
Zungaro zungaro (Humboldt, 1821)	Jaú
Tetraodontiformes	
Balistidae	D
****Balistes capriscus Gmelin, 1789	Peroá

Alterations included by NORMATIVE INSTRUCTION NO. 52, AS OF NOVEMBER 8, 2005

^{*}Alteration of scientific name

^{**}Alteration of name of species

^{***}Relocated from Appendix I to Appendix II

^{****} Excluded from IN

Official List of Species of Brazilian Fauna and Fauna Threatened with **Extinction**

Family	Species	Author	State	Biome
Família	Espécie	Autor	Unidades da Federação	Bioma
Acanthaceae	Ruellia chamaedrys**	(Nees) Angely	SP	Mata Atlântica
Acanthaceae	Staurogyne brachiata	(Hiem) Leonard	RJ	Mata Atlântica
Acanthaceae	Staurogyne veronicifolia	(Nees) Kuntze	ES	Mata Atlântica
Acanthaceae	Staurogyne warmingiana	(Hiem) Leonard	MG	Cerrado
Acanthaceae	Stenandrium stenophyllum	Kameyama	MG	Cerrado
Alstroemeriaceae	Alstroemeria capixaba	M.C.Assis	ES	Mata Atlântica
Amaranthaceae	Gomphrena chrestoides	C.C.Townsend	BA	Caatinga
Amaranthaceae	Gomphrena duriuscula	Moq.	BA	Mata Atlântica
Amaranthaceae	Gomphrena hatschbachiana	Pedersen	BA	Cerrado
Amaranthaceae	Gomphrena scandens	(R.E.Fr.) J.C.Siqueira	ES, MG, RJ	Mata Atlântica
Amaranthaceae	Lecosia oppositifolia	Pedersen	ES	Mata Atlântica
Amaranthaceae	Pfaffia argyrea	Pedersen	MG	Cerrado
Amaranthaceae	Pfaffia minarum	Pedersen	MG	Cerrado
Amaranthaceae	Pfaffìa townsendii	Pedersen	GO	Cerrado
Amaryllidaceae	Griffinia liboniana	Morren	BA, MG	Cerrado / Mata Atlântica
Amaryllidaceae	Hippeastrum brasilianum	(Traub & J.L.Doran) Dutilh	ES, MG	Mata Atlântica
Amaryllidaceae	Worsleya rayneri (Imperatriz-do-Brasil, rabo- de-galo)	(Hook.f.) Traub & Moldenke	RJ	Mata Atlântica
Anacardiaceae	Myracrodruon urundeuva	Engl.	BA, DF, GO,	Cerrado /
	(Aroeira-do-sertão)		MA, MG, MS, MT, SP	Caatinga
Anacardiaceae	Schinopsis brasiliensis	Engl.	BA, CE, DF, GO, MA, MG, MS, PI, TO	Cerrado / Caatinga
Apocynaceae	Blepharodon hirsutum	Goyder	BA	Caatinga
Apocynaceae	Cynanchum morrenioides	Goyder	BA	Cerrado / Caatinga

Apocynaceae	Ditassa arianeae	Fontella	BA, ES, RJ	Mata Atlântica
Apocynaceae	Ditassa maricaensis	Fontella	RJ	Mata Atlântica
Apocynaceae	Gonolobus dorothyanus	Fontella & E.A.Schwarz	RJ	Mata Atlântica
Apocynaceae	Matelea marcoassisii	Fontella	SP	Mata Atlântica
Apocynaceae	Metastelma harleyi	Fontella	BA	Cerrado
Araceae	Anthurium langsdorffii (Antúrio-espada)	Schott	RJ	Mata Atlântica
Araceae	Anthurium luschnathianum (Antúrio-da-praia)	Kunth	RJ	Mata Atlântica
Araceae	Philodendron fragile	Nadruz & Mayo	RJ	Mata Atlântica
Araceae	Philodendron spiritus-sancti	G.S.Bunting	ES	Mata Atlântica
Araucariaceae	Araucaria angustifolia (Pinheiro-brasileiro, pinheiro- do-paraná)	(Bertol.) Kuntze	MG, PR, RJ, RS, SC, SP	Mata Atlântica
Arecaceae	Acanthococos emensis	Toledo	MG, SP	Cerrado
Arecaceae	Attalea barreirensis (Catolé)	Glassman	BA	Cerrado
Arecaceae	Attalea brasiliensis	Glassman	DF	Cerrado
Arecaceae	Bactris hatschbachii	Noblick ex A. J. Hend.	PR, SP	Mata Atlântica
Arecaceae	Butia eriospatha (Butiá)	(Mart. ex Drude) Becc.	PR, RS, SC	Pampa
Arecaceae	Euterpe edulis (Jussara, palmito)	Mart.	AL, BA, ES, GO, PB, PE, PR, RJ, RN, SE, SC, SP	Mata Atlântica
Amelliaceae	Southbya organensis	Herzog	RJ	Mata Atlântica
Aspleniaceae	Asplenium beckeri**	Brade	ES	Mata Atlântica
Aspleniaceae	Asplenium bradeanum	Handro	SP	Mata Atlântica
Aspleniaceae	Asplenium castaneum	Schltdl. & Cham.	RJ	Mata Atlântica
Aspleniaceae	Asplenium praemorsum	Brade	ES	Mata Atlântica

Aspleniaceae	Asplenium schwackei	Christ	MG	Cerrado
Asteraceae	Anteremanthus hatschbachii	H.Rob.	MG	Cerrado
Asteraceae	Aspilia grazielae	J.U.Santos	MS	Pantana1
Asteraceae	Aspilia paraensis	(Huber) J.U.Santos	PA, RO	Amazônia
Asteraceae	Aspilia pohlii	(Schultz Bip. ex Baker) Baker	GO	Cerrado
Asteraceae	Aspilia procumbens	Baker	RN	Mata Atlântica
Asteraceae	Chaptalia arechavaletae	Hieron. ex Arechav.	RS	Pampa
Asteraceae	Hysterionica pinnatisecta	Matzenb & Sobral	SC	Mata Atlântica / Pampa
Asteraceae	Lychnophora ericoides	Mart.	GO, MG, SP	Cerrado
	(Arnica, arnica-da-serra)			
Asteraceae	Senecio caparoensis	Cabrera	MG	Mata Atlântica
Asteraceae	Senecio promatensis	Matzenb.	RS	Pampa
Asteraceae	Senecio ramboanus	Cabrera	RS	Pampa
Asteraceae	Viguiera aspilioides	Baker	PR	Cerrado
Asteraceae	Viguiera corumbensis	Malme	MS, MT	Cerrado
Asteraceae	Viguiera guaranitica	Chodat	RS	Mata Atlântica
Asteraceae	Viguiera hilairei	Blake	MG	Cerrado
Asteraceae	Viguiera paranensis	(Malme) J.U.Santos	PR	Mata Atlântica
Begoniaceae	Begonia jureiensis	S. J. Gomes da Silva & Mamede	SP	Mata Atlântica
Bignoniaceae	Adenocalymma magnoalatum	Scud.	MG	Mata Atlântica
Bignoniaceae	Adenocalymma ubatubense	Assis & Semir	SP	Mata Atlântica
Bignoniaceae	Digomphia densicoma	(Mart. ex DC.) Pilg.	AM	Amazônia
Bignoniaceae	Jacaranda carajasensis	A.H.Gentry	PA	Amazônia
Bignoniaceae	Jacaranda crassifolia	Morawetz	RJ	Mata Atlântica
Bignoniaceae	Jacaranda intricata	A.H.Gentry & Morawetz	GO	Cerrado
Bignoniaceae	Jacaranda rugosa	A.H.Gentry	PE	Caatinga
Bignoniaceae	Jacaranda subalpina	Morawetz	RJ, SP	Mata Atlântica

Bignoniaceae	Tabebuia botelhensis	A.H.Gentry	RJ, SP	Mata Atlântica
Bignoniaceae	Tabebuia selachidentata	A.H.Gentry	BA	Caatinga
Blechnaceae	Blechmum andimum	(Baker) C.Chr.	MG, RJ	Mata Atlântica
Blechnaceae	Blechnum mochaenum var. squamipes	(Hieron.) de la Sota	RS, SC	Mata Atlântica / Pampa
Blechnaceae	Blechmum sprucei	C.Chr.	MG	Mata Atlântica
Bromeliaceae	Aechmea apocalyptica	Reitz	PR, SC, SP	Mata Atlântica
Bromeliaceae	Aechmea blumenavii	Reitz	SC	Mata
	(Gravatá, monjola, bromélia)			Atlântica
Bromeliaceae	Aechmea cariocae	L.B.Sm	BA	Caatinga / Mata Atlântica
Bromeliaceae	Aechmea eurycorymbus	Harms	PA, PE	Caatinga / Mata Atlântica
Bromeliaceae	Aechmea kleinii (Gravatá, monjola, bromélia)	Reitz	SC	Mata Atlântica
Bromeliaceae	Aechmea muricata	(Arruda) L.B.Sm.	AL, PE	Mata Atlântica
Bromeliaceae	Aechmea pimenti-velosoi (Gravatá, monjola, bromélia)	Reitz	SC	Mata Atlântica
Bromeliaceae	Aechmea werdermannii	Harms	PE	Mata Atlântica
Bromeliaceae	Aechmea winkleri	Reitz	RS	Mata Atlântica
Bromeliaceae	Billbergia alfonsi-joannis (Poço-de-jacó, gravatá, monjola, bromélia)	Reitz	ES, SC	Mata Atlântica
Bromeliaceae	Canistrum fosteriamum	L.B.Sm.	BA	Mata Atlântica
Bromeliaceae	Cryptanthus burle-marxii	Leme	PE	Mata Atlântica
Bromeliaceae	Cryptanthus fosterianus*	L.B.Sm.	PE	Mata Atlântica
Bromeliaceae	Dyckia agudensis	Irgang e Sobral	RS	Mata Atlântica
Bromeliaceae	Dyckia alba	S.Winkl.	RS	Pampa

Bromeliaceae	Dyckia cabrerae	L.B.Smith et Reitz	SC	Mata Atlântica
Bromeliaceae	Dyckia distachya (Gravatá, bromelia)	Hassl.	RS, SC	Mata Atlântica
Bromeliaceae	Dyckia elisabethae	S.Winckl.	RS	Pampa
Bromeliaceae	Dyckia hatschbachii (Gravatá, bromélia)	L.B.Sm.	PR	Mata Atlântica
Bromeliaceae	Dyckia ibiramensis (Gravatá, bromélia)	Reitz	SC	Mata Atlântica
Bromeliaceae	Fernseea itatiaiae	Baker	MG, RJ, SP	Mata Atlântica
Bromeliaceae	Guzmania monostachia	Rusby ex Mez	CE	Mata Atlântica
Bromeliaceae	Hohenbergia castellanosi	L.B.Sm. & R.W.Read	BA	Mata Atlântica
Bromeliaceae	Hohenbergia correia-araujoi	E.Pereira & Moutinho	BA	Mata Atlântica
Bromeliaceae	Hohenbergia littoralis	L.B.Sm.	BA	Mata Atlântica
Bromeliaceae	Neoregelia binotti*	(Antoine) L.B.Sm.	SP	Mata Atlântica
Bromeliaceae	Nidularium bocainensis	Leme	SP	Mata Atlântica
Bromeliaceae	Nidularium utriculosum*	Ule	ES	Mata Atlântica
Bromeliaceae	Orthophytum amoenum	(Ule) L.B.Sm.	BA	Caatinga
Bromeliaceae	Portea grandiflora	Philcox	BA	Mata Atlântica
Bromeliaceae	Portea kermesina	K.Kock	BA	Mata Atlântica
Bromeliaceae	Tillandsia afonsoana	T. Strehl	RS	Pampa
Bromeliaceae	Vriesea biguassuensis (Gravatá, monjolinha, bromélia)	Reitz	SC	Mata Atlântica
Bromeliaceae	Vriesea brusquensis (Gravatá, monjola, bromélia)	Reitz	PR, SC	Mata Atlântica
Bromeliaceae	Vriesea cearensis	L.B.Sm.	CE	Mata Atlântica
Bromeliaceae	Vriesea muelleri (Gravatá)	Mez	PR, SC	Mata Atlântica

Bromeliaceae	Vriesea pinottii	Reitz	PR, SC	Mata
	(Gravatá, monjola, bromélia)			Atlântica
Bromeliaceae	Vriesea triangularis	Reitz	SC	Mata
	(Gravatá, monjolinha, bromélia)			Atlântica
Bruchiaceae	Pringleella subulata	(Müll.Hal.) Broth.	MG, RJ	Mata Atlântica
Burseraceae	Bursera simaruba	(L.) Sarg.	AM	Amazônia
Burseraceae	Trattinnickia ferruginea	Kuhlm.	MG	Mata
	(Almacega)			Atlântica
Burseraceae	Trattinnickia mensalis	Daly	BA, ES	Mata
	(Amescla-tapina, amescla)			Atlântica
Cactaceae	Arthrocereus melanurus ssp odurus	(F. Ritter) N. P. Taylor & Zappi	MG	Cerrado
Cactaceae	Arthrocereus rondoniamus	Backeb. & Voll	MG	Cerrado
Cactaceae	Brasilicereus markgrafii	Backeb. & Voll	MG	Caatinga / Cerrado
Cactaceae	Cipocereus crassisepalus	(Buining & Brederoo) Zappi & N.P.Taylor	MG	Cerrado
Cactaceae	Cipocereus laniflorus	N. P. Taylor & Zappi	MG	Cerrado / Mata Atlântica
Cactaceae	Cipocereus pusilliflorus	(F.Ritter) Zappi & N.P.Taylor	MG	Caatinga / Cerrado
Cactaceae	Coleocephalocereus fluminensis ssp. decumbens	(F. Ritter) N.P. Taylor & D.C. Zappi	MG	Mata Atlântica
Cactaceae	Coleocephalocereus purpureus	(Buining & Brederoo) F.Ritter	MG	Caatinga
Cactaceae	Discocactus horstii	Buining & Brederoo	MG	Caatinga / Cerrado
Cactaceae	Echinopsis calochlora	K.Schum.	MS	Cerrado / Pantanal
Cactaceae	Espostoopsis dybowskii	(RolGoss.) Buxb.	BA	Caatinga
Cactaceae	Facheiroa cephaliomelana ssp estevesii	(P.J. Braun) N. P. Taylor & Zappi	BA	Caatinga
Cactaceae	Melocactus azureus	Buining & Brederoo	BA	Caatinga
Cactaceae	Melocactus deinacanthus	Buining & Brederoo	BA	Caatinga
Cactaceae	Melocactus glaucescens	Buining & Brederoo	BA	Caatinga
Cactaceae	Melocactus pachyacanthus	Buining & Brederoo	BA	Caatinga
Cactaceae	Melocactus violaceus ssp. ritteri	N.P.Taylor	BA	Mata Atlântica

Cactaceae	Micranthocereus auriazureus	Buining & Brederoo	MG	Caatinga / Cerrado
Cactaceae	Micranthocereus polyanthus	(Werderm.) Backeb.	BA	Caatinga
Cactaceae	Micranthocereus streckeri	Van Heek & Van Criekinge	BA	Caatinga
Cactaceae	Pilosocereus aurisetus ssp. aurilanatus	(F.Ritter) D.C.Zappi	MG	Cerrado
Cactaceae	Pilosocereus azulensis	N. P. Taylor & Zappi	MG	Caatinga
Cactaceae	Pilosocereus brasiliensis ssp. brasiliensis	(Britton & Rose) Backeb.	ES, RJ	Mata Atlântica
Cactaceae	Rhipsalis cereoides	(Backeb. & Voll) Backeb.	ES, RJ	Mata Atlântica
Cactaceae	Tacinga braunii	Esteves	MG	Caatinga
Cactaceae	Uebelmannia buiningii	Donald	MG	Cerrado
Cactaceae	Uebelmannia gummifera	(Backeb. & Voll) Backeb.	MG	Cerrado
Cactaceae	Uebelmannia pectinifera ssp. pectinifera	Buining	MG	Cerrado
Celastraceae	Maytemus rupestris	Pirani & Carvalho- Okano	MG	Cerrado
Celastraceae	Salacia mosenii	A.C.Sm.	RJ, SP	Mata Atlântica
Chrysobalanaceae	Hirtella insignis	Briq. ex Prance	BA, ES, RJ	Mata Atlântica
Chrysobalanaceae	Hirtella parviunguis	Prance	BA	Mata Atlântica
Chrysobalanaceae	Hirtella santosii	Prance	BA	Mata Atlântica
Chrysobalanaceae	Licania aracaensis	Prance	AM	Amazônia
Chrysobalanaceae	Licania bellingtonii	Prance	RO	Amazônia
Chrysobalanaceae	Licania indurata (Milho-cozido)	Pilg.	SP	Mata Atlântica
Chrysobalanaceae	Parinari brasiliensis	(Schott) Hook. f.	MG, RJ	Mata Atlântica
Combretaceae	Buchenavia pabstii	Marquete &Valente	BA, ES	Mata Atlântica
Combretaceae	Buchenavia rabelloana (Piqui-merindiba)	N.F.Mattos	ES, SP	Mata Atlântica
Combretaceae	Terminalia acuminata	(Fr. All.) Eichl.	RJ	Mata Atlântica

Rourea pseudospadicea	G.Schellenb.	SP	Cerrado / Mata Atlântica
Ipomoea carajasensis	D.Austin	PA	Amazônia
Ipomoea cavalcantei	D.Austin	PA	Amazônia
Ipomoea macedoi	Hoehne	MG	Cerrado
Costus cuspidatus	(Nees & Mart.) P.J.M.Maas	BA, ES, RJ	Mata Atlântica
Costus fragilis	Maas	PA	Amazônia
Costus fusiformis	Maas	PA	Amazônia
Bulbostylis distichoides	Lye	BA	Cerrado
Bulbostylis nesiotis	(Hemsl.) C.B.Clarke	ES	Mata Atlântica
Bulbostylis smithii	Barros	MG	Cerrado
Pleurostachys angustifolia	Boeck.	RJ	Mata Atlântica
Rhynchospora warmingii	Boeck.	BA	Caatinga
Dicksonia sellowiana	Hook.	MG, PR, RJ,	Mata
(Xaxim, xaxim-imperial)		KS, SC, SP	Atlântica
Atractylocarpus brasiliensis	(Müll.Hal.) R.S.Williams	RJ	Mata Atlântica
Atractylocarpus longisetus	(Hook.) E.B.Bartram	RJ	Mata Atlântica
Campylopus densicoma	(Müll.Hal.) Paris	RJ	Mata Atlântica
Davilla glaziovii	Eichler	RJ	Mata
(Erva-de-santa-luzia, cipó- cabloco)			Atlântica
Ephedra tweediana	Fisch. & C.A.Mey.	RS	Mata Atlântica
Actinocephalus cipoensis**	(Silveira) Sano	MG	Cerrado
Actinocephalus claussenianus	(Koem.) Sano	MG	Cerrado
Paepalanthus crinitus	Tissot-Squalli	MG	Cerrado
Paepalanthus extremensis	Silveira	MG	Cerrado
Darama I and have Involve	Ruhland	MG	Cerrado
Paepalanthus hydra	Kunana	MG	Certage
Paepalanthus nyara Paepalanthus rhizomatosus	Silveira	MG	Cerrado
	Ipomoea carajasensis Ipomoea cavalcantei Ipomoea macedoi Costus cuspidatus Costus fragilis Costus fisiformis Bulbostylis distichoides Bulbostylis nesiotis Bulbostylis smithii Pleurostachys angustifolia Rhynchospora warmingii Dicksonia sellowiana (Xaxim, xaxim-imperial) Atractylocarpus brasiliensis Atractylocarpus longisetus Campylopus densicoma Davilla glaziovii (Erva-de-santa-luzia, cipócabloco) Ephedra tweediana Actinocephalus cipoensis** Actinocephalus ciausseniamus Paepalanthus crinitus	Ipomoea carajasensis D.Austin Ipomoea cavalcantei D.Austin Ipomoea macedoi Hoelme Costus cuspidatus (Nees & Mart.) P.J.M.Maas Costus fragilis Maas Costus fusiformis Maas Bulbostylis distichoides Lye Bulbostylis nesiotis (Hemsl.) C.B.Clarke Bulbostylis smithii Barros Pleurostachys angustifolia Boeck. Rhynchospora warmingii Boeck. Dicksonia sellowiana (Xaxim, xaxim-imperial) Atractylocarpus brasiliensis (Müll.Hal.) Atractylocarpus longisetus (Hook.) E.B.Bartram Campylopus densicoma (Müll.Hal.) Paris Davilla glaziovii (Erva-de-santa-luzia, cipócabloco) Ephedra tweediana Fisch. & C.A.Mey. Actinocephalus cipoensis** (Silveira) Sano Actinocephalus claussenianus (Koem.) Sano Paepalanthus crinitus Tissot-Squalli	Ipomoea carajasensis D.Austin PA Ipomoea cavalcantei D.Austin PA Ipomoea macedoi Hoehne MG Costus cuspidatus (Nees & Mart.) P.J.M.Maas PA P.J.M.Maas PA Costus fragilis Maas PA ES, RJ P.J.M.Maas PA Bulbostylis distichoides Lye BA Bulbostylis nesiotis (Hemsl.) C.B.Clarke ES Bulbostylis smithit Barros MG RJ Rhynchospora warmingii Boeck. RJ Rhynchospora warmingii Boeck. BA Dicksonia sellowiana (Xaxim, xaxim-imperial) R.S.Williams Atractylocarpus brasiliensis (Müll.Hal.) R.S.Williams RJ Campylopus densicoma (Müll.Hal.) Paris RJ Davilla glaziovii Eichler RJ Campylopus densicoma Fisch. & C.A.Mey. RS Actinocephalus cipoensis** (Silveira) Sano MG Paepalanthus crimitus Tissot-Squalli MG MG PA PA PA PA PA PA PA P

Eriocaulaceae	Syngonanthus brasiliana	Giu1.	MG	Cerrado
	(Brasiliana)			
Eriocaulaceae	Syngonanthus elegans	(Bong.) Ruhland	MG	Cerrado
	(Sempre-viva, sempre-viva- pé-de-ouro)			
Eriocaulaceae	Syngonanthus harleyii	Moldenke	BA	Caatinga
Eriocaulaceae	Syngonanthus magnificus (Sempre-viva-gigante)	Giul.	MG	Cerrado
Eriocaulaceae	Syngonanthus mucugensis (Sempre-viva-de-mucugê)	Giul.	BA	Caatinga
Eriocaulaceae	Syngonantus suberosus (Margarida)	Giul.	MG	Cerrado
Erythroxylaceae	Erythroxylum bezerrae (Pirunga, maçarenga)	Plowman	CE, PI	Caatinga
Erythroxylaceae	Erythroxylum catharinense	Amaral	SC	Mata Atlântica
Erythroxylaceae	Erythroxylum compressum	Peyr.	BA	Mata Atlântica
Erythroxylaceae	Erythroxylum distortum	Mart.	BA	Caatinga / Mata Atlântica
Erythroxylaceae	Erythroxylum lealcostae	Plowman	BA	Mata Atlântica
Erythroxylaceae	Erythroxylum mattossilvae	Plowman	BA	Mata Atlântica
Erythroxylaceae	Erythroxylum membranaceum	Plowman	BA	Mata Atlântica
Erythroxylaceae	Erythroxylum pauferrense (Guarda-orvalho, pau-crioulo)	Plowman	РВ	Caatinga
Erythroxylaceae	Erythroxylum substriatum	O.E.Schulz	RS	Mata Atlântica
Erythroxylaceae	Erythroxylum tianguanum	Plowman	CE	Caatinga
Euphorbiaceae	Dalechampia riparia	L.B.Sm. & Downs	SC	Mata Atlântica
Fabaceae	Aeschynomene fructipendula	Abruzzi de Oliveira	RS, SC	Mata Atlântica
Fabaceae	Amburana cearensis var. acreana (Cerejeira, cumaru-de-cheiro,	(Ducke) J.F. Macbr.	AC, MT, RO	Amazônia
	imburana-de-cheiro)			

Fabaceae	Caesalpinia echinata	Lam.	AL, BA, ES,	Mata
	(Pau-brasil, pau-pernambuco, ibirapitanga)		PB, PE, RJ, RN, SP	Atlântica
Fabaceae	Dalbergia elegans	A.M.Carvalho	ES	Mata Atlântica
Fabaceae	Dalbergia nigra	(Vell.) Allemão ex	BA, ES, MG,	Mata
	(Jacarandá-da-bahia, jacarandá-cabiúna)	Benth.	RJ, SP	Atlântica
Fabaceae	Dimorphandra wilsonii	Rizzini	MG	Cerrado
	(Faveiro-de-wilson)			
Fabaceae	Grazielodendron riodocense	H.C.Lima	ES, RJ	Mata
	(Peroba-candeia)			Atlântica
Fabaceae	Machaerium obovatum	Kuhlm. & Hoehne	RJ	Mata
	(Jacarandá)			Atlântica
Fabaceae	Melanoxylon brauna	Schott	AL, BA,	Mata
	(Braúna, baraúna, graúna, braúna-preta, ibitaúva, maria- preta, muiraúna, rabo-de- macaco)		MG, PB, PE, RJ, SP	Atlântica
Fabaceae	Mimosa balduinii	Burkart	RS	Mata Atlântica
Fabaceae	Mimosa bracteolaris	Benth.	RS	Pampa
Fabaceae	Mimosa catharinensis	Burkart	SC	Mata Atlântica
Fabaceae	Mimosa heringeri	Barneby	GO	Cerrado
Fabaceae	Mimosa humifusa	Benth.	MG	Cerrado
Fabaceae	Mimosa montiscarasae	Barneby	MG	Cerrado
Fabaceae	Mimosa pabstiana	Barneby	MG	Cerrado
Fabaceae	Mimosa suburbana	Barneby	GO	Cerrado
Fabaceae	Peltogyne maranhensis	Huber ex Ducke	MA, PA	Amazônia
	(Pau-roxo)			
Fabaceae	Swartzia glazioviana	(Taub.) Glaz.	RJ	Mata Atlântica
Fabaceae	Swartzia pickelii	Killip ex Ducke	AL, PB, PE	Mata Atlântica
Educati	(Jacarandá-branco)	Cons	D.C.	D
Fabaceae	Trifolium argentinense	Speg.	RS	Pampa
	(Trevo)			
Gentianaceae	Prepusa hookeriana	Gardner	RJ	Mata Atlântica
	(Cravinha-do-campo)			Anamica

Geocalycaceae	Leptoscyphus gibbosus	(J.Taylor) Mitt.	RJ	Mata Atlântica
Gesneriaceae	Sinningia cardinalis (Rainha-do-abismo, rainha- do-penhasco)	(Lehm.) H.E.Moore	RJ	Mata Atlântica
Gesneriaceae	Sinningia cochlearis (Rainha-do-abismo, dama-do- penhasco)	(Hook.) Chautems	RJ	Mata Atlântica
Gesneriaceae	Sinningia guttata	Lindl.	RJ	Mata Atlântica
Gesneriaceae	Sinningia hirsuta	(Lindl.) G.Nicholson	RJ	Mata Atlântica
Gesneriaceae	Sinningia lindleyi	Schauer	RJ	Mata Atlântica
Gesneriaceae	Vanhouttea bradeana	Hoehne	RJ	Mata Atlântica
Gesneriaceae	Vanhouttea fruticulosa	(Glaz. ex Hoehne) Chautems	RJ	Mata Atlântica
Gesneriaceae	Vanhouttea lanata	Fritsch	RJ	Mata Atlântica
Grammitidaceae	Ceradenia warmingii	(C.Chr.) Labiak	MG	Mata Atlântica
Grammitidaceae	Terpsichore semihirsuta	(Klotzsch) A.R.Sm.	RJ	Mata Atlântica
Heliconiaceae	Heliconia angusta (Bico-de-guará)	Vell.	ES, RJ	Mata Atlântica
Heliconiaceae	Heliconia citrina	Emygdio & Santos	RJ	Mata Atlântica
Heliconiaceae	Heliconia farinosa	Raddi	RJ	Mata Atlântica
Heliconiaceae	Heliconia lacletteana	Emygdio & Santos	RJ	Mata Atlântica
Heliconiaceae	Heliconia sampaiona	Emygdio	RJ	Mata Atlântica
Iridaceae	Pseudotrimezia elegans	Ravenna	MG	Cerrado
Iridaceae	Pseudotrimezia gracilis	Chukr	MG	Cerrado
Iridaceae	Pseudotrimezia synandra	Ravenna	MG	Cerrado
Iridaceae	Pseudotrimezia tenuissima	Ravenna	MG	Cerrado
Iridaceae	Trimezia fistulosa var. fistulosa (Trimesia-chifre-de-bode)	R.C.Foster	MG	Cerrado

Iridaceae	Trimezia fistulosa var. longifolia	Chukr	MG	Cerrado
	(Trimesia-chifre-de-bode)			
Iridaceae	Trimezia pusilla	Ravenna	GO	Cerrado
Isoetaceae	Isoetes bradei**	Herter	SP	Mata Atlântica
Isoetaceae	Isoetes luetzelburgii	U.Weber	PA, PB	Caatinga
Jungermanniaceae	Jungermannia decolor	Schiffn.	MG	Mata Atlântica
Lamiaceae	Eriope machrisae	(Epling) Harley	GO	Cerrado
Lamiaceae	Hesperozygis ringens	(Benth.) Epling	RS	Pampa
Lamiaceae	Hyptidendron claussenii	(Benth.) Harley	MG	Cerrado
Lamiaceae	Hyptis arenaria	Benth.	TO	Cerrado
Lamiaceae	Hyptis carvalhoi	Harley	BA	Caatinga
Lamiaceae	Hyptis frondosa	S.Moore	MT	Cerrado
Lamiaceae	Hyptis imbricatiformis	Harley	GO	Cerrado
Lamiaceae	Hyptis pachyphylla	Epling	GO	Cerrado
Lamiaceae	Hyptis penaeoides	Taub.	GO	Cerrado
Lamiaceae	Hyptis pinheroi	Harley	BA	Caatinga
Lamiaceae	Hyptis rhypidiophylla	Briq.	MG	Cerrado
Lamiaceae	Hyptis simulans	Epling	CE, MG, PE	Caatinga
Lamiaceae	Hyptis tagetifolia	Harley	GO	Cerrado
Lauraceae	Aniba rosaeodora	Ducke	AM, AP, PA	Amazônia
	(Pau-rosa, pau-rosa, itaúba)			
Lauraceae	Beilschmiedia rigida	(Mez) Kosterm.	RJ	Mata Atlântica
Lauraceae	Dicypellium caryophyllaceum	(Mart.) Nees	PA	Amazônia
	(Cravo-do-maranhão, pau- cravo, casca-preciosa)			
Lauraceae	Ocotea basicordatifolia	Vattimo-Gil	SP	Mata Atlântica
Lauraceae	Ocotea bragae	Coe-Teix.	SP	Mata Atlântica
Lauraceae	Ocotea catharinensis (Canela-preta)	Mez	PA, RS, SC	Mata Atlântica
Lauraceae	Ocotea langsdorffii	(Meisn.) Mez	BA, MG	Cerrado
Lauraceae	Ocotea odorifera	(Vellozo) Rohwer	ES, MG, PR,	Mata
Lauraceac	(Canela-sassafrás, sassafraz)	(Vellozo) Rollwei	RJ, RS, SC, SP	Atlântica

Lauraceae	Ocotea porosa	(Nees) Barroso	PR, RS, SC	Mata
Lattraceae	(Imbuia)	(Nees) Dalloso	FK, K3, 5C	Atlântica
Lauraceae	Persea punctata	Meisn.	SP	Mata Atlântica
Lauraceae	Phyllostemonodaphne geminiflora	(Mez) Kosterm.	MG, RJ	Mata Atlântica
Lauraceae	Rhodostemonodaphne capixabensis	Baitello & Coe-Teix.	ES	Mata Atlântica
	(Canela-do-nativo, oliveira- da-praia)			
Lecythidaceae	Bertholletia excelsa	Kunth	AC, AM,	Amazônia
	(Castanheira, castanheira-do- pará, castanheira-do-brasil)		MA, PA, RO	
Lecythidaceae	Cariniana ianeirensis	R. Knuth	RJ	Mata
	(Jequitibá)			Atlântica
Lecythidaceae	Cariniana parvifolia	S.A.Mori et al.	ES	Mata
	(Jequitibá-cravinho)			Atlântica
Lecythidaceae	Couratari asterotricha	Prance	ES	Mata Atlântica
Lecythidaceae	Eschweilera piresii	S.A.Mori	PA	Amazônia
Lecythidaceae	Eschweilera rabeliana	S.A.Mori	AP	Amazônia
Lejeuneaceae	Blepharolejeunea securifolia	(Steph.) R.M.Schust.	RJ	Mata Atlântica
Lejeuneaceae	Bromeliophila natans	(Steph.) R.M.Schust.	RJ, SP	Mata Atlântica
Lejeuneaceae	Drepanolejeunea aculeata	Bischler	RJ, SP	Mata Atlântica
Lejeuneaceae	Myriocoleopsis fluviatilis	(Steph.) E.Reiner & Gradst.	PR, SC, SP	Mata Atlântica
Lentibulariaceae	Utricularia biovularioides	(Kuhlm.) P.Taylor	GO	Cerrado
Lepidoziaceae	Paracromastigum dusenii	(Steph.) R.M.Schust.	RJ	Mata Atlântica
Loganiaceae	Spigelia aceifolia	Woodson	MG	Cerrado
Loganiaceae	Spigelia cipoensis	Zappi	MG	Cerrado
Lycopodiaceae	Huperzia aqualupiana	(Spring) Rothm.	MG	Cerrado
Lycopodiaceae	Huperzia rubra	(Cham. & Schlecht.) Trevis.	BA, MG	Cerrado
Lythraceae	Cuphea adenophylla	T.B.Cavalc.	MG	Cerrado
Lythraceae	Cuphea cipoensis	T.B.Cavalc.	MG	Cerrado
Lythraceae	Cuphea teleandra	Lourteig	MG	Cerrado
Lythraceae	Diplusodon ericoides	Lourteig	GO	Cerrado
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Lythraceae	Diplusodon glaziovii	Koehne	MG	Cerrado
Lythraceae	Diplusodon gracilis	Koehne	TO	Cerrado
Lythraceae	Diplusodon hatschbachii	Lourteig	GO	Cerrado
Lythraceae	Diplusodon minasensis	Lourteig	MG	Cerrado
Lythraceae	Diplusodon panniculatus	Koehne	GO	Cerrado
Lythraceae	Diplusodon retroimbricatus	Koehne	GO	Cerrado
Lythraceae	Diplusodon vidalii	Lourteig	MG	Cerrado
Malpighiaceae	Aspicarpa harleyi	W.R.Anderson	BA	Cerrado
Malpighiaceae	Stigmaphyllon bradei	C.E.Anderson	SP	Mata Atlântica
Malvaceae	Calyptraemalva catharinensis	Krapov.	SC	Mata Atlântica
Malvaceae	Cienfuegosia hasslerana	Hochr. ex Chod. & Hassler	RS	Pampa
Malvaceae	Pavonia alnifolia	A.StHil.	RJ	Mata Atlântica
Melastomataceae	Cambessedesia hermogenesii	A.B.Martins	BA	Cerrado
Melastomataceae	Eriocnema acaulis	Triana	MG	Mata Atlântica
Melastomataceae	Eriocnema fulva	Naudin	MG	Mata Atlântica
Melastomataceae	Lavoisiera itambana	DC.	MG	Cerrado
Melastomataceae	Marcetia oxycoccoides	Wurdack & A.B.Martins	BA	Cerrado
Melastomataceae	Merianthera burlemarxii	Wurdack	ES	Mata Atlântica
Melastomataceae	Ossaea warmingiana	Cogn.	DF, MG	Cerrado
Melastomataceae	Tibouchina bergiana	Cogn.	MG	Cerrado
Melastomataceae	Tibouchina quartzofila	Brade	ES	Mata Atlântica
Meliaceae	Swietenia macrophylla (Mogno, águano, caóba)	King	AC, AM, MA, MT, PA, RO, TO	Amazônia
Monimiaceae	Macropeplus friburgensis	(Perkins) I.Santos & Peixoto	RJ	Mata Atlântica
Monimiaceae	Macrotorus utriculatus	(Mart. ex Tul.) Perkins	BA, ES, RJ, SP	Mata Atlântica
Monimiaceae	Mollinedia boracensis	Peixoto	SP	Mata Atlântica
Monimiaceae	Mollinedia gilgiana	Perkins	ES, RJ,	Mata Atlântica

Monimiaceae	Mollinedia glabra	Perkins	ES, RJ	Mata Atlântica
Monimiaceae	Mollinedia lamprophylla (Erva-santa)	Perkins	ES, RJ	Mata Atlântica
Monimiaceae	Mollinedia longicuspidata	Perkins	RJ	Mata Atlântica
Monimiaceae	Mollinedia stenophylla	Perkins	RJ	Mata Atlântica
Moraceae	Brosimum glaucum	Taub.	MG	Mata Atlântica
Moraceae	Dorstenia elata (Caiapiá-grande)	Hook.	BA, ES, MG, RJ	Mata Atlântica
Moraceae	Dorstenia fischeri (Caiapiá)	Bureau	RJ	Mata Atlântica
Moraceae	Dorstenia temuis (Violeta-da-montanha, violeta-montes)	Bonpl. Ex Bureau	PR, SC	Mata Atlântica
Myrtaceae	Calyptranthes pereireana	Mattos & D.Legrand	RJ	Mata Atlântica
Myrtaceae	Calyptranthes restingae	Sobral	BA	Mata Atlântica
Myrtaceae	Eugenia itacarensis	Mattos	BA	Mata Atlântica
Myrtaceae	Eugenia villae-novae	Kiaerksk.	RJ	Mata Atlântica
Myrtaceae	Myrcia follii	G.M.Barroso & Peixoto	ES	Mata Atlântica
Myrtaceae	Myrcia gilsoniana	G.M.Barroso & Peixoto	ES	Mata Atlântica
Myrtaceae	Myrcia isaiana	G.M.Barroso & Peixoto	ES	Mata Atlântica
Myrtaceae	Neomitranthes nitida	Mattos	SP	Mata Atlântica
Myrtaceae	Neomitranthes pedicellata	(Burret) Mattos	SP	Mata Atlântica
Myrtaceae	Plinia callosa	Sobral	BA	Mata Atlântica
Myrtaceae	Plinia hatschbachii	(Mattos) Sobral	PR	Mata Atlântica
Myrtaceae	Plinia ilhensis	G.M.Barroso	RJ	Mata Atlântica
Myrtaceae	Plinia rara	Sobral	BA	Mata Atlântica

Myrtaceae	Plinia renatiana	G.M.Barroso & Peixoto	ES	Mata Atlântica
Ochnaceae	Ouratea luschnathiana	(Tiegh) K.Yamam.	RJ	Mata Atlântica
Oleaceae	Chionanthus subsessilis	(Eichler) P.S.Green	MG	Mata Atlântica
Orchidaceae	Campylocentrum pernambucense	Hoehne	AL, PE	Mata Atlântica
Orchidaceae	Catasetum uncatum (Rabo-de-tatu)	Rolfe	PE	Mata Atlântica
Orchidaceae	Cattleya dormaniana (Catléia)	Rchb.f.	RJ	Mata Atlântica
Orchidaceae	Cattleya granulosa	Lind1.	AL, BA, ES, PB, PE, RN	Mata Atlântica
Orchidaceae	Cattleya labiata (Catléia, parasita-roxa)	Lindl.	AL, CE, PB, PE, SE	Caatinga / Mata Atlântica
Orchidaceae	Cattleya schilleriana	Rchb.f.	BA, ES	Mata Atlântica
Orchidaceae	Cattleya temuis	M.A.Campacci & P.L.Vedovello	BA	Caatinga
Orchidaceae	Cattleya velutina (Catléia)	Rchb.f.	ES, MG, RJ, SP	Mata Atlântica
Orchidaceae	Cattleya warneri	T.Moore	BA, ES, MG	Mata Atlântica
Orchidaceae	Chaubardia heloisae	(Ruschi) Garay	ES	Mata Atlântica
Orchidaceae	Cleistes carautae	Toscano Brito & Leon	MG	Mata Atlântica
Orchidaceae	Constantia cipoensis	Porto & Brade	MG	Cerrado
Orchidaceae	Constantia microscopica	F.E.L.Miranda	MG	Cerrado
Orchidaceae	Galeandra curvifolia	Barb.Rodr.	PA	Amazônia
Orchidaceae	Habenaria itacolumia	Garay	MG	Cerrado
Orchidaceae	Masdevallia gomesii-ferreirae	Pabst	PE	Mata Atlântica
Orchidaceae	Pabstia schunkiana	V.P.Castro	ES	Mata Atlântica
Orchidaceae	Phragmipedium lindleyanum (Sapatinho)	(R.H.Schomb. ex Lindl.) Rolfe	AL, BA, PE	Caatinga / Mata Atlântica
Orchidaceae	Phragmipedium vittatum (Sapatinho)	(Vell.) Rolfe	DF, GO, MG, PR, RJ, SP	Cerrado / Mata Atlântica

Orchidaceae	Pleurothallis gomesii- ferreirae	Pabst	AL, PE	Mata Atlântica
Orchidaceae	Pseudolaelia cipoensis	Pabst	MG	Cerrado
Orchidaceae	Pseudolaelia citrina	Pabst	ES, MG	Mata Atlântica
Orchidaceae	Scuticaria itirapinensis	Pabst	SP	Cerrado
Orchidaceae	Sophronitis brevipedunculata	(Cogn.) Fowlie	MG	Cerrado
Orchidaceae	Sophronitis endsfeldzii	(Pabst) van den Berg & M.W.Chase	MG	Cerrado
Orchidaceae	Sophronitis fidelensis	(Pabst) C.Berg &	RJ	Mata
	(Lélia-de-são-fidelis)	M.W.Chase		Atlântica
Orchidaceae	Sophronitis jongheana	(Rchb.f.) van den Berg	MG	Cerrado /
	(Lélia)	& M.W.Chase		Mata Atlântica
Orchidaceae	Sophronitis kautskyi	(Pabst) van den Berg & M.W.Chase	ES	Mata Atlântica
Orchidaceae	Sophronitis lobata	(Lind1.) van den Berg & M. W. Chase	RJ	Mata Atlântica
Orchidaceae	Sophronitis perrinii	(Lindl.) van den Berg & M. W. Chase	ES, MG, RJ	Mata Atlântica
Orchidaceae	Sophronitis tenebrosa	(Rolfe) van den Berg & M.W.Chase	BA, ES	Mata Atlântica
Orchidaceae	Sophronitis virens	(Lindl.) C.Berg & M.W.Chase	ES, MG, RJ	Mata
	(Lélia-verde)	M.W.Chase		Atlântica
Orchidaceae	Sophronitis xanthina	(Lindl.) van den Berg & M. W. Chase	BA, ES	Mata Atlântica
Orchidaceae	Thelyschista ghillanyi	(Pabst) Garay	BA	Caatinga
Orobanchaceae	Magdalenaea limae	Brade	RJ	Mata Atlântica
Orobanchaceae	Nothochilus coccineus	Radik.	ES, MG	Mata Atlântica
Passifloraceae	Passiflora hatschbachii	Cervi	MG	Mata Atlântica
Passifloraceae	Passiflora imbeana	Sacco	RJ	Mata Atlântica
Passifloraceae	Passiflora ischnoclada	Harms	SP	Mata Atlântica
Passifloraceae	Passiflora margaritae	Sacco	ES	Mata Atlântica
Passifloraceae	Passiflora saccoi	Cervi	MG	Cerrado
Phytolaccaceae	Microtea bahiensis	Marchior. & J.C.Siqueira	BA	Mata Atlântica

Picramniaceae	Picramnia coccinea	W.W. Thomas	BA	Mata Atlântica
Plagiochilaceae	Plagiochila boryana	Gottsche ex Steph.	RJ	Mata Atlântica
Plantaginaceae	Angelonia alternifolia	V. C. Souza	TO	Cerrado
Plantaginaceae	Ildefonsia bibracteata	Gardner	RJ	Mata Atlântica
Poaceae	Anomochloa marantoidea	Brongn.	BA	Mata Atlântica
Poaceae	Axonopus carajasensis	M.N.C.Bastos	PA	Amazônia
Poaceae	Chusquea pulchella	L.G.Clark	SP	Mata Atlântica
Poaceae	Glaziophyton mirabile	Franch	RJ	Mata Atlântica
Poaceae	Gymnopogon doellii	Boechat & Valls	DF, GO, MG	Cerrado
Poaceae	Olyra latispicula	Soderstr. & Zuloaga	BA	Mata Atlântica
Poaceae	Panicum brachystachyum	Trin.	MG	Cerrado
Poaceae	Paspalum biaristatum	Filg. & Davidse	GO	Cerrado
Poaceae	Paspalum longiaristatum	Davidse & Filg.	GO	Cerrado
Poaceae	Paspalum niquelandiae	Filg.	GO	Cerrado
Poaceae	Piptochaetium palustre	Mujica-Salles & Longhi-Wagner	SC	Mata Atlântica
Poaceae	Raddia angustifolia	Soderstr. & Zuloaga	BA	Mata Atlântica
Poaceae	Sucrea sampaiana	(Hitchc.) Soderstr.	ES, RJ	Mata Atlântica
Poaceae	Thrasyopsis jurgensii	(Hack.) Soderstr. ex A.G.Burman	PR, RS, SC	Pampa / Mata Atlântica
Podostemaceae	Mourera fluviatilis	Aubl.	AP, PE, RR, SP	Amazônia / Mata Atlântica
Podostemaceae	Podostemum saldanhamum	(Warm.) C.T.Philbrick & A.Novelo	RJ	Mata Atlântica
Polygalaceae	Polygala franchetii	Chodat	DF, GO	Cerrado
Pottiaceae	Erytrhophyllastrum andinum	(Sull.) R.H.Zander	PR	Mata Atlântica
Pottiaceae	Leptodontium wallisii	(Müll.Hal.) Kindb.	RJ	Mata Atlântica
Proteaceae	Euplassa nebularis	Rambo & Sleumer	RS	Pampa
Pteridaceae	Adiantum diphyllum	(Fée) Maxon	BA	Mata Atlântica

Pteridaceae	Cheilanthes incisa	Kunze ex Mett.	RJ	Mata Atlântica
Pteridaceae	Eriosorus flexuosus	(Humb. & Bonpl. ex Kunth) Copel.	MG, SP	Cerrado / Mata Atlântica
Pteridaceae	Eriosorus rufescens	(Fée) A.F.Tryon	RJ	Mata Atlântica
Pteridaceae	Pellaea gleichenioides	(Hook.) Christ	MG	Cerrado
Ricciaceae	Riccia ridleyi	A.Gepp	PE	Caatinga
Rubiaceae	Erithalis insularis	(Ridl.) Zappi & T.S.Nunes	PE	Mata Atlântica
Rubiaceae	Faramea bahiensis	Müll.Arg.	BA, ES	Mata Atlântica
Rubiaceae	Faramea coerulea	(Nees & Mart.) DC.	BA	Mata Atlântica
Rubiaceae	Galianthe souzae	E. L. Cabral & Bacigalupo	SP	Cerrado
Rubiaceae	Guettarda leae	Ridl.	PE	Mata Atlântica
Rubiaceae	Hindsia glabra	K.Schum.	RJ	Mata Atlântica
Rubiaceae	Hindsia ibitipocensis	Di Maio	MG	Cerrado
Rubiaceae	Hindsia violacea**	Benth.	RJ	Mata Atlântica
Rubiaceae	Melanopsidium nigrum	Colla	BA, ES, RJ	Mata Atlântica
Rubiaceae	Mitracarpus rigidifolius	Stand1.	BA	Cerrado
Rubiaceae	Rudgea interrupta	Benth.	RJ	Mata Atlântica
Rubiaceae	Rudgea macrophylla	Benth.	RJ	Mata Atlântica
Rubiaceae	Rudgea pachyphylla	Müll.Arg.	RJ, SP	Mata Atlântica
Rubiaceae	Rudgea parvifolia	(Cham.) Müll.Arg.	RJ	Mata Atlântica
Rubiaceae	Staelia hatschbachii	J.H.Kirkbr.	MG	Cerrado
Rutaceae	Almeidea coerulea	(Nees & Mart.) A.St Hil.	BA	Mata Atlântica
Rutaceae	Conchocarpus bellus	Kallunki	ES	Mata Atlântica
Rutaceae	Euxylophora paraensis (Pau-amarelo, paucetin, amarelão, espinheiro)	Huber	AC, AM, MA, PA	Amazônia

Rutaceae	Metrodorea maracasana	Kaastra	BA	Mata Atlântica
Rutaceae	Nycticalanthus speciosus	Ducke	AM	Amazônia
Rutaceae	Pilocarpus alatus	C. J. Joseph ex Skorupa	MA, PA	Amazônia
Rutaceae	Pilocarpus jaborandi (Jaborandi, jaborandi-de- pernambuco, arruda-do-mato, jaborandi-branco)	Holmes	CE, PE	Mata Atlântica
Rutaceae	Pilocarpus microphyllus (Jaborandi-legitimo, jaborandi-do-maranhão)	Stapf ex Wardleworth	PA, MA, PI	Cerrado
Rutaceae	Pilocarpus trachylophus (Jaborandi-do-ceará, arruda- do-mato)	Holmes	BA, CE, MG	Cerrado
Rutaceae	Raulinoa echinata	R.S.Cowan	SC	Mata Atlântica
Santalaceae	Acanthosyris pauloalvimii (Mata-cacau)	G.M.Barroso	BA	Mata Atlântica
Sapindaceae	Talisia subalbens (Cascudo)	(Mart.) Radlk.	MT	Cerrado
Sapotaceae	Pouteria psammophila var. xestophylla	(Miq.) Baehni	BA, ES, RJ, SE, SP	Mata Atlântica
Scrophulariaceae	Buddleja speciosissima	Taub.	MG, RJ	Mata Atlântica
Siparunaceae	Siparıma temuipes (Limoeiro-bravo)	Perkins	SP	Mata Atlântica
Solanaceae	Cestrum tubulosum	Sendtn.	SP	Cerrado
Solanaceae	Nicotiana mutabilis	Stehmann & Semir	RS	Mata Atlântica
Solanaceae	Nierembergia pinifolia	Miers	RS	Pampa
Solanaceae	Petunia reitzii	L.B.Sm. & Downs	SC	Mata Atlântica
Solanaceae	Petunia saxicola	L.B.Sm. & Downs	SC	Mata Atlântica
Solanaceae	Schwenckia lateriflora	(Vahl) Carvalho	RJ	Mata Atlântica
Solanaceae	Schwenckia novaveneciana	Carvalho	ES	Mata Atlântica
Solanaceae	Solamım arenarium	Sendtn.	RS	Pampa / Mata Atlântica

Solanaceae	Solamım bahiamım	S.Knapp	BA	Mata Atlântica
Solanaceae	Solanum spissifolium**	Sendtn.	SP	Mata Atlântica
Symplocaceae	Symplocos altissima**	Brand	RJ	Mata Atlântica
Symplocaceae	Symplocos neglecta**	Brand	RJ	Mata Atlântica
Thelypteridaceae	Thelypteris novaeana	(Brade) Ponce	ES	Mata Atlântica
Theophrastaceae	Jacquinia brasiliensis (Barbasco, pimenteira, tingui)	Mez	AL, BA, CE, ES, PB, PE, PI, RJ, RN, SE	Mata Atlântica
Trigoniaceae	Trigoniodendron spiritusanctense	E.F.Guim. & Miguel	ES	Mata Atlântica
Verbenaceae	Lippia bromleyana	Moldenke	BA	Caatinga
Verbenaceae	Stachytarpheta procumbens	Moldenke	MG	Cerrado
Violaceae	Hybanthus albus	(A.StHil.) Baill.	BA, MG	Caatinga
Vitaceae	Cissus immdata	(Baker) Planch.	MG	Cerrado
Xyridaceae	Xyris almae	Kral & Wand.	BA	Caatinga
Xyridaceae	Xyris augusto-coburgi	Szyszyl. ex G.Beck	RJ, SP	Mata Atlântica
Xyridaceae	Xyris cipoensis (Coroinha)	L.B.Sm. & Downs	MG	Cerrado
Xyridaceae	Xyris coutensis (Cacau, coroa-cacau)	Wand. & Cerati	MG	Cerrado
Xyridaceae	Xyris hystrix (Coroa)	Seub.	MG	Cerrado
Xyridaceae	Xyris morii	Kral & L.B.Sm.	BA	Caatinga
Xyridaceae	Xyris nigricans (Coroa)	L.A.Nilsson	MG	Cerrado
Xyridaceae	Xyris phaeocephala	Kral & Wand.	BA	Cerrado
Xyridaceae	Xyris platystachya	L.A.Nilsson	MG	Cerrado
Xyridaceae	Xyris retrorsifimbriata	Kral & L.B.Sm.	BA	Cerrado

^{*}Presumably extinct in nature

^{**}Presumably extinct