Creating new knowledge in biodiversity and translating it into public policies in São Paulo, Brazil.

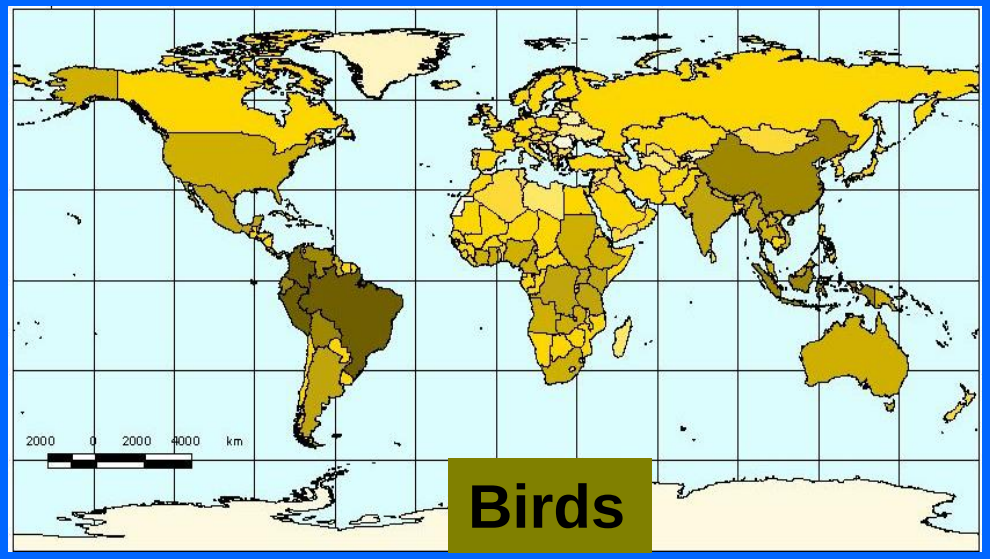
Prof. Carlos A. JOLY

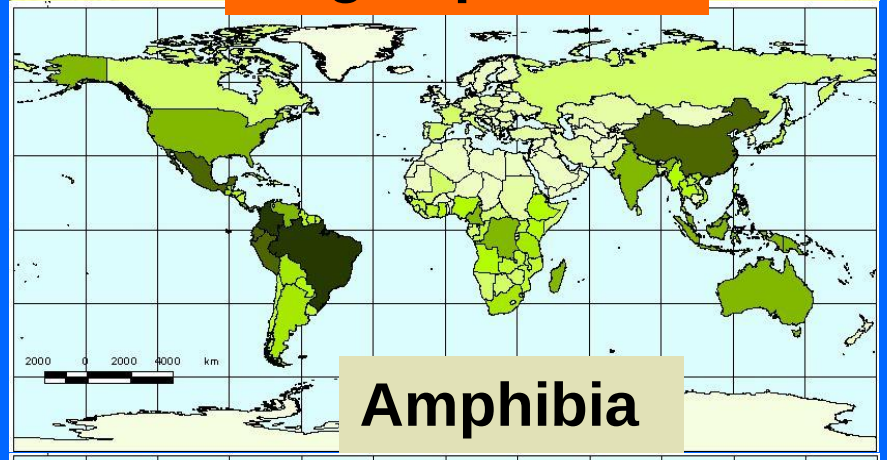
Biology Institute & Environment and Society Program

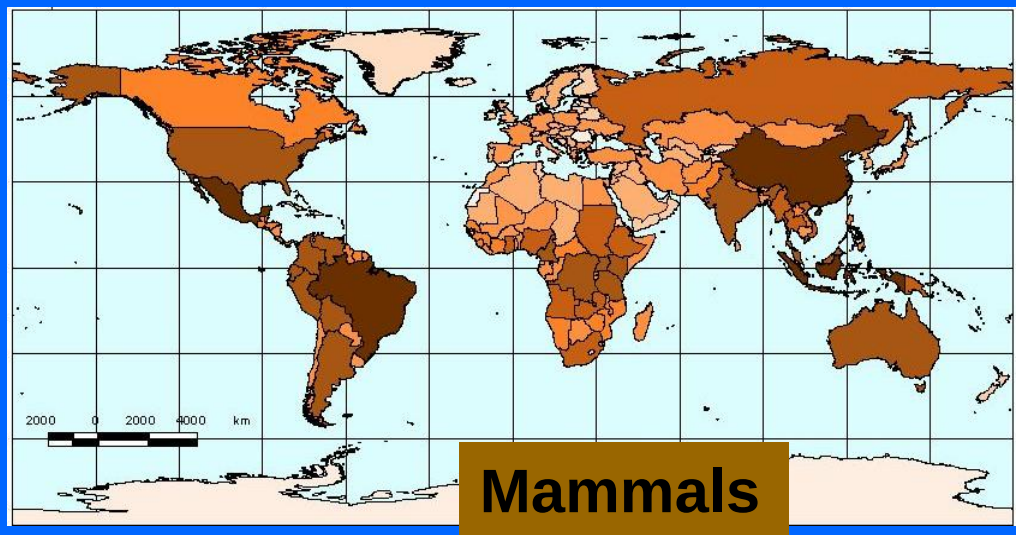
UNICAMP

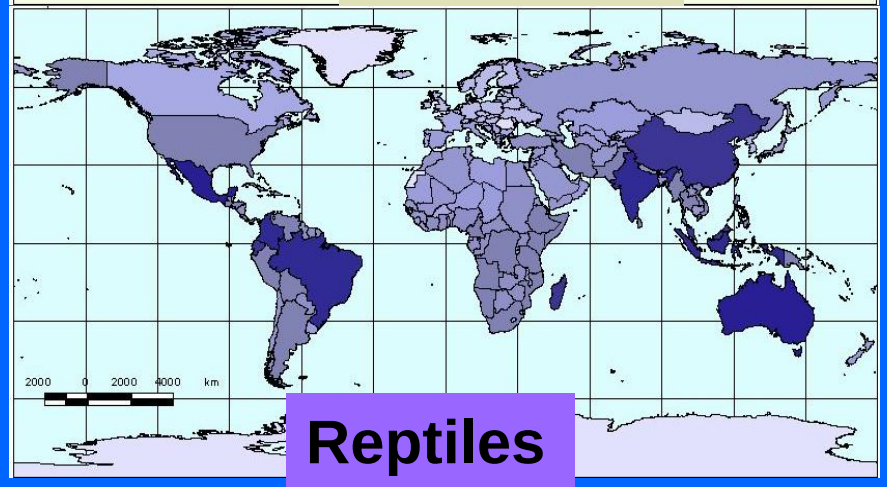
Deputy Secretary – Secretariat of Policies and Programs in Research and Development

Ministry of Science & Technology





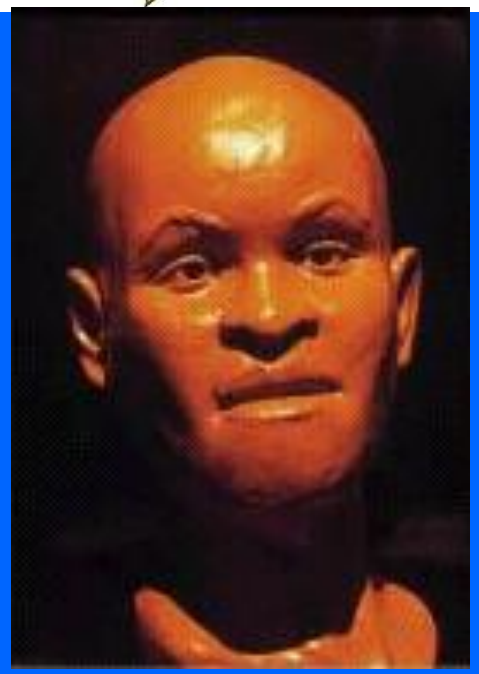




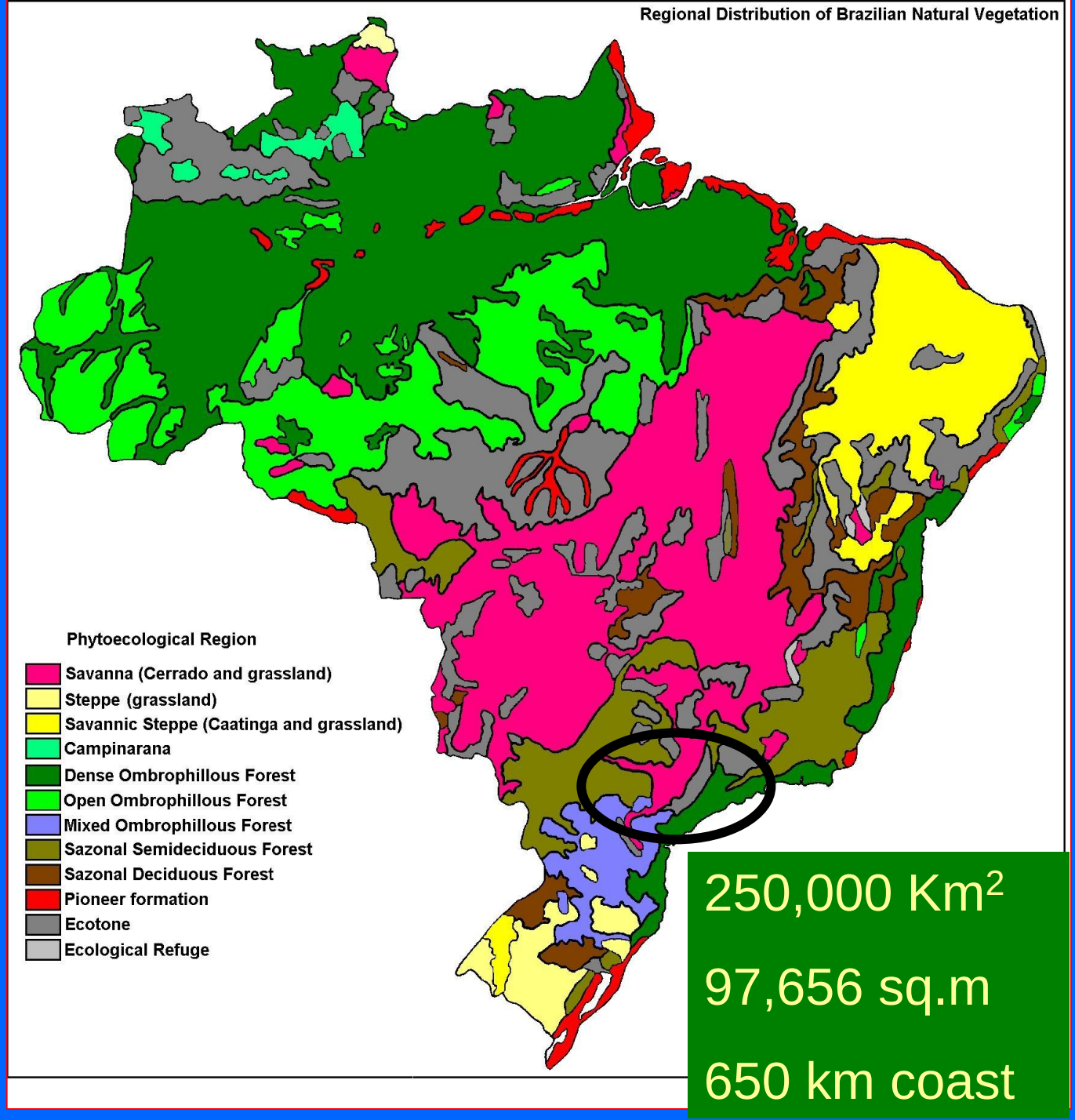
Number of species

01- Arara
02- Araweté
03- Ashaninka
04- Asurini
05- Bororo
06- Enawenê Nauê
07- Guarani
08- Juruna/Yudja
09- Kaapor
10- Kayapó
11- Kalapalo
12- Karajá
13- Kaxinawá
14- Krahô
15- Maioruna

16- Marubo
17- Matis
18- Matipu
19- Mehinako
20- Rikbaktsa
21- Suruí
22- Tembé
23- Ticuna
24- Tirió
25- Waiana Apalaí
26- Waurá
27- Wai Wai
28- Waiãpi
29- Yecuana/Maiongong



High ethnic diversity pre & pos Columbus. At least 15.000 years of human presence/occupation.



250,000 Km^2

97,656 sq.m

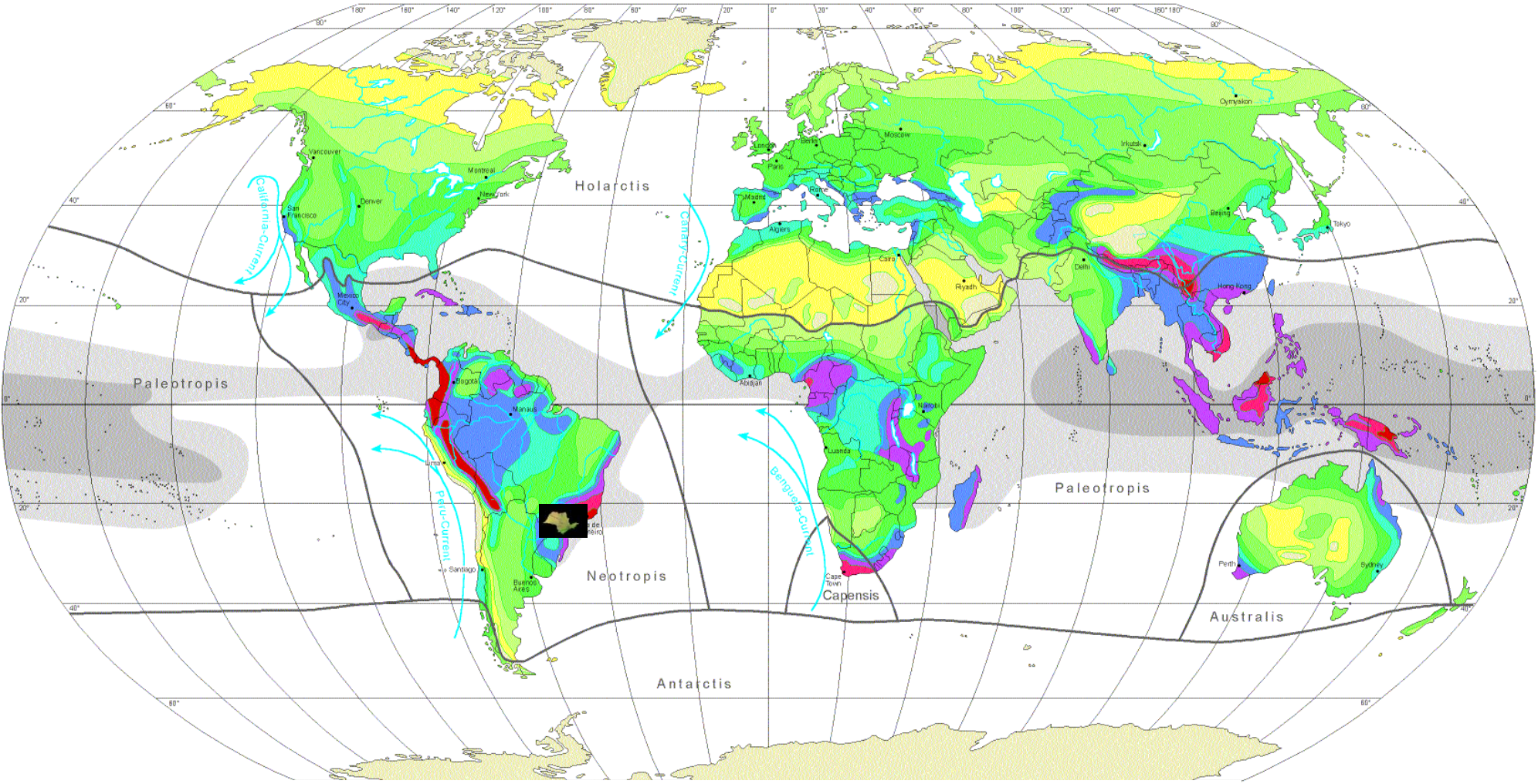
650 km coast

ATLANTIC RAIN FOREST (Mata Atlântica) evergreen in the coast , seasonal inland + north limit of *Araucaria* Forest.

Southern limits of the CERRADO (savanna).

Large contact areas between Cerrado and Mata Atlântica, both considered as hot spots by Myers et al.(2000)

GLOBAL BIODIVERSITY: SPECIES NUMBERS OF VASCULAR PLANTS



Diversity Zones (DZ): Number of species per 10.000km^2

- DZ 1 (<100)
- DZ 2 (100 - 200)
- DZ 3 (200 - 500)
- DZ 4 (500 - 1000)
- DZ 5 (1000 - 1500)
- DZ 6 (1500 - 2000)
- DZ 7 (2000 - 3000)
- DZ 8 (3000 - 4000)
- DZ 9 (4000 - 5000)
- DZ 10 (≥5000)

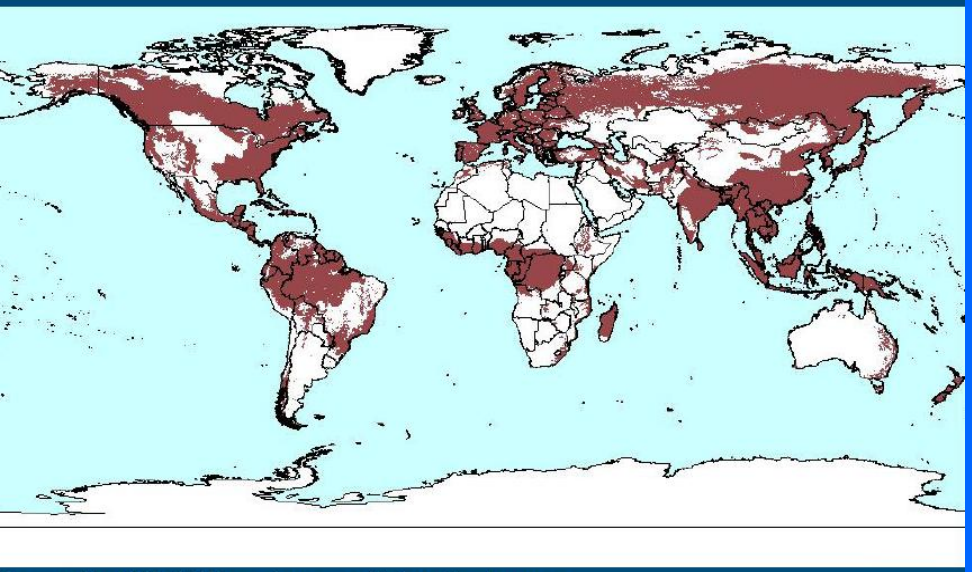
Capensis floristic regions

Robinson Projection
Standard Parallels 38°N und 38°S
Scale 1: 130000000

Barthlott, N. Biedinger, G. Braun
eig, G.Kier, W. Lauer & J. Mutke 1997
dified after
Barthlott, W. Lauer & A. Placke1996
partment of Botany and Geography
versity of Bonn
rman Aerospace Research Establishment, Cologne

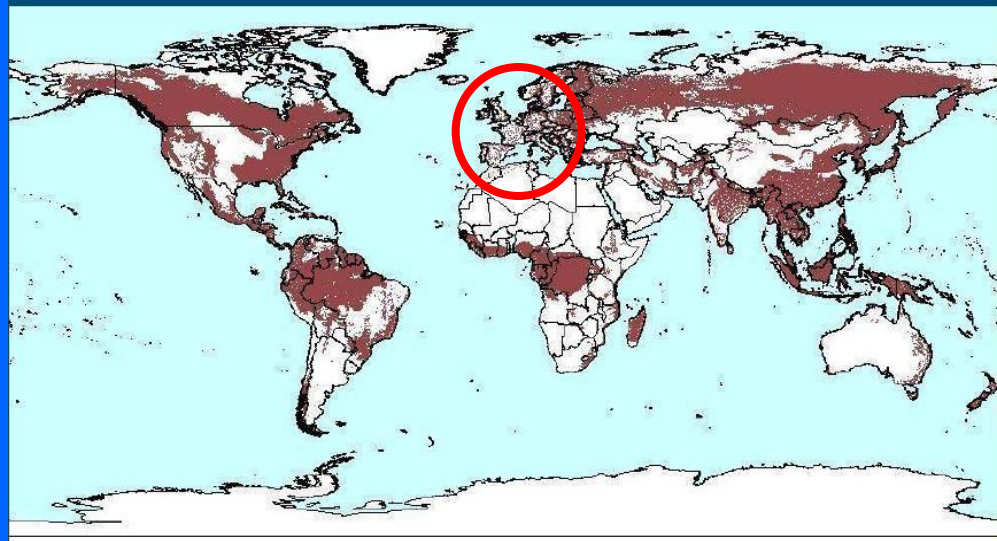
tography: M. Gref
partment of Geography
versity of Bonn

Evolution of World Primary Forests : 8000 years ago



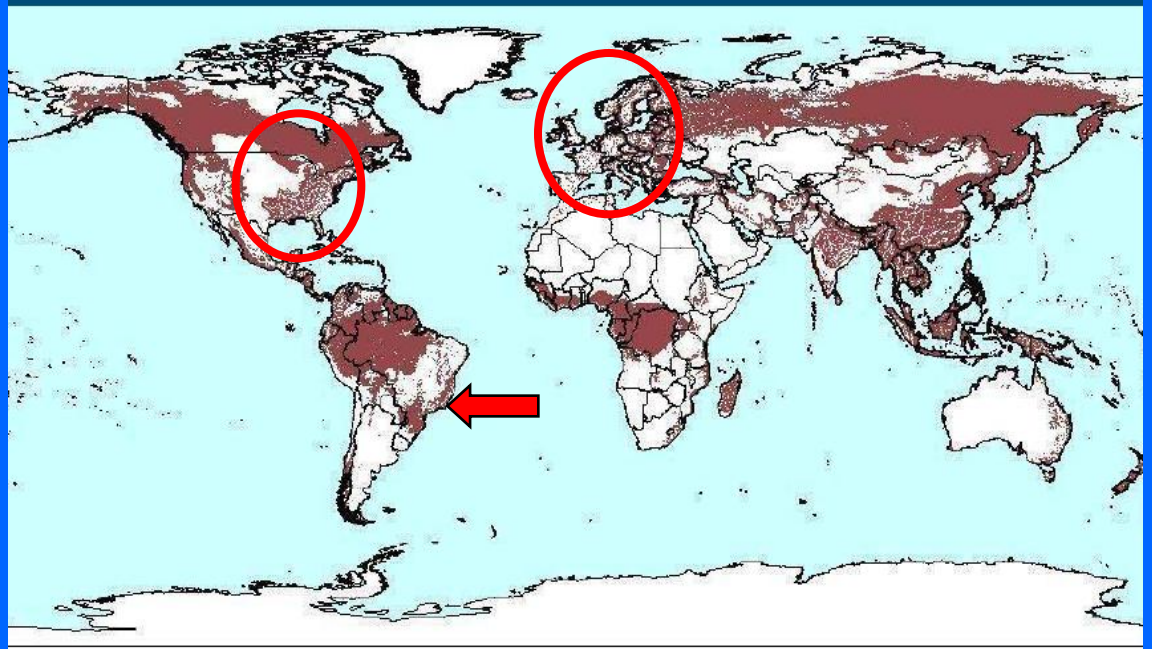
Prepared by EMBRAPA based on several international sources

Evolution of World Primary Forests : Year 1650

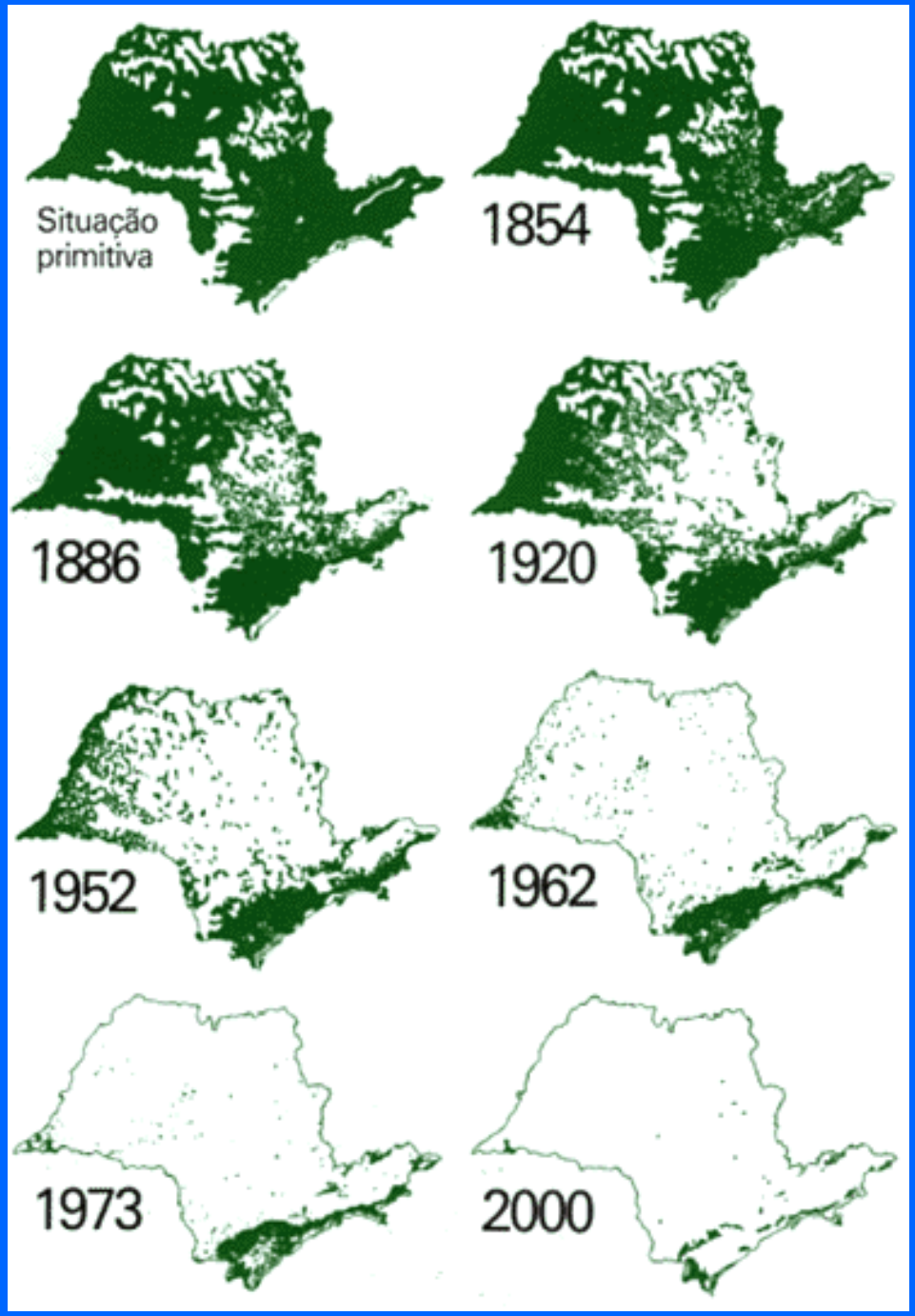


Prepared by EMBRAPA based on several international sources

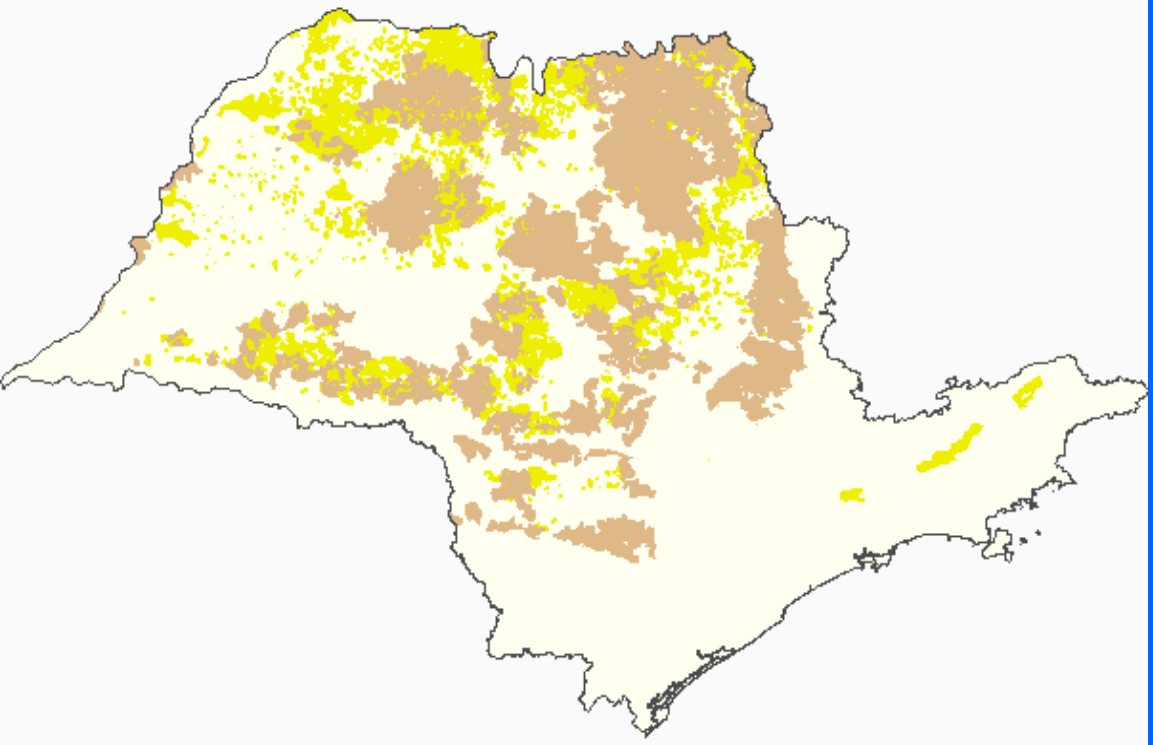
Evolution of World Primary Forests : Year 1850

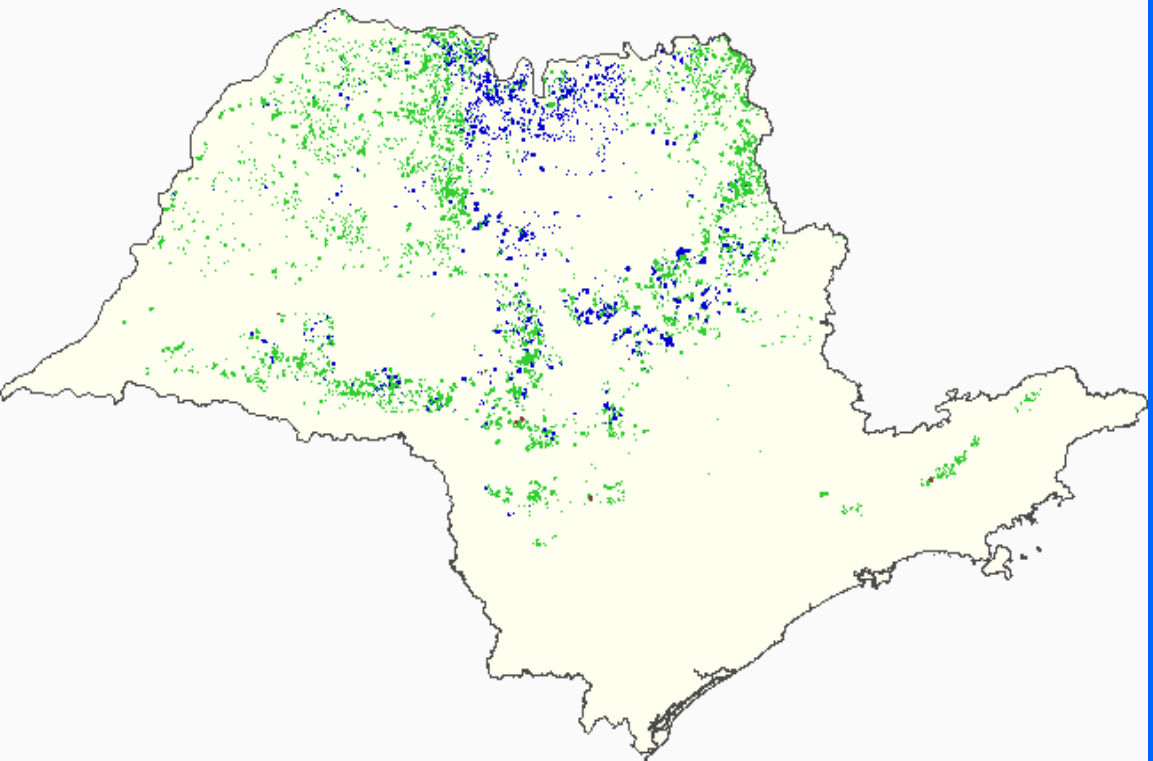


Prepared by EMBRAPA based on several international sources



In the State of São Paulo de area covered by native forests decreased from 85% in 1500 to 13% in 2005. Approximately 65% of forest remnants are along the Serra do Mar, and only 50% are protected within State Parks..





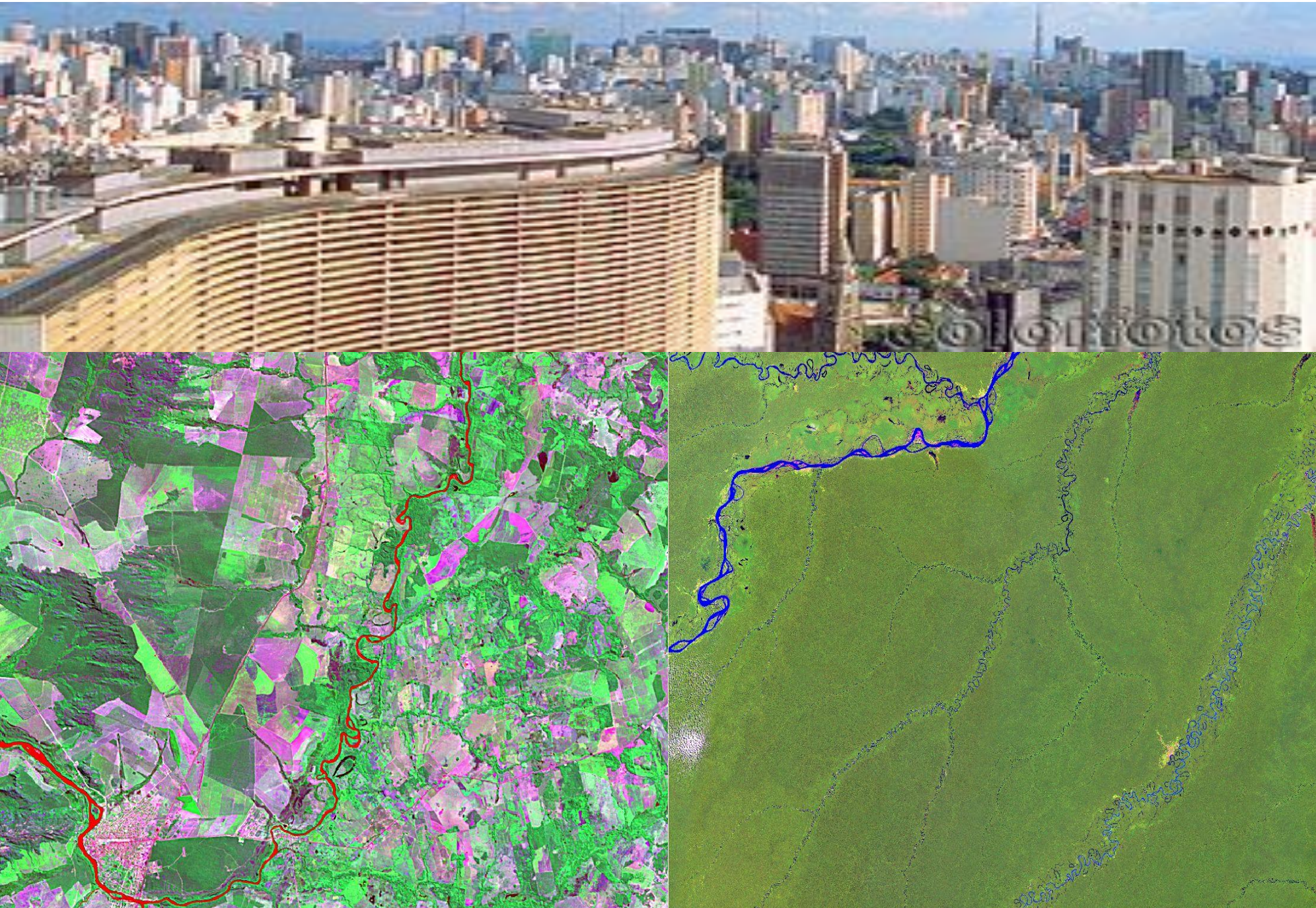
Originally 14% of the State of São Paulo was covered by Cerrado, and until 1950 most of it (85%) was preserved.

Since the first ethanol boom, in the 70's, conversion of Cerrado into sugarcane plantation has been fast.

In 2005 approximately 2% of the original area was still covered by native Cerrado, and less then 10% was preserved within State Parks.

≈ 8.500 fragments

Three realities



Information about Brazilian biodiversity could be summarized in the following equation:

- Oceans of data
- Rivers of information
- Streams of knowledge
- Drops of understanding
- **Droplets of sustainable use**

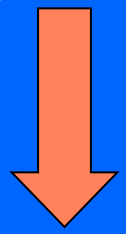
The big challenge in this strategic area was to establish an integrated biological information system, using taxonomic, biogeographic & ecological knowledge associated with bio-informatics and remote sensing tools.

To face this challenge in February 1996 a group of researchers started to work together with FAPESP(State of São Paulo Research Foundation), aiming to establish the basis of a Research Program on Biodiversity Conservation and Sustainable Use for the State of São Paulo.

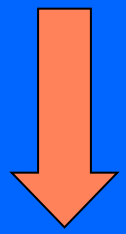
1996

Research Leaders

FAPESP's Biological Science Coord.



FAPESP's Scientific Director



COORDENATION GROUP - BIOTASP

1997

Homepage

Discussion List

Diagnostic → PUBLICATION

↓

WORKSHOP DE SERRA NEGRA

↓

ARTICULATED THEMATIC PROJECTS

1998

18 THEMATIC PROJECTS

INTERNATIONAL EVALUATION

2 FIRST VOLUMS OF THE SERIES Biodiversity of the State of São Paulo: synthesis of the available knowledge at the end of the XX century.


BIODIVERSIDADE
DO ESTADO DE SÃO PAULO, BRASIL
1
MICRORGANISMOS
& VÍRUS


BIODIVERSIDADE
DO ESTADO DE SÃO PAULO, BRASIL
2
FUNGOS MACROSCÓPICOS
& PLANTAS


BIODIVERSIDADE
DO ESTADO DE SÃO PAULO, BRASIL
3
INVERTEBRADOS MARINHOS


BIODIVERSIDADE
DO ESTADO DE SÃO PAULO, BRASIL
4
INVERTEBRADOS DE
ÁGUA DOCE


BIODIVERSIDADE
DO ESTADO DE SÃO PAULO, BRASIL
5
INVERTEBRADOS TERRESTRES


BIODIVERSIDADE
DO ESTADO DE SÃO PAULO, BRASIL
6
VERTEBRADOS


BIODIVERSIDADE
DO ESTADO DE SÃO PAULO, BRASIL
7
INFRA-ESTRUTURA PARA A
CONSERVAÇÃO DA
BIODIVERSIDADE

MARCH 1999

The Research Program on Characterization, Conservation and Sustainable Use of the Biodiversity of the State of São Paulo, called **"BIOTA/FAPESP, The Virtual Institute of Biodiversity"**, is the result of the articulation of the scientific community in compliance to the **Convention on Biological Diversity**, signed at the 1992 Earth Summit in Rio de Janeiro and ratified by the Brazilian National Congress in 1994.

Biota

FAPESP

Biota/Fapesp Program

BIO*prospec*TA

Veja mais

Atlas

BIOTA NEOTROPICA journal

Environmental Information System

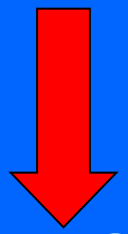
português

www.biota.org.br

The **Research Program on Characterization, Conservation and Sustainable Use of the Biodiversity of the State of São Paulo**, called **"BIOTA/FAPESP: The Virtual Institute of Biodiversity"**, is the result of the articulation of the scientific community in compliance to the **Convention on Biological Diversity**, signed at the 1992 Earth Summit in Rio de Janeiro and ratified by the Brazilian National Congress in 1994.

SCOPE

Microorganisms



Higher Plants & Vertebrates

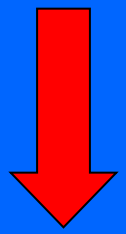
Terrestrial

Fresh Water

Marine

SCOPE

Inventories



Landscape Ecology

Human dimensions of biodiversity conservation and sustainable use

MANDATORY USE OF GPS AND A STANDARD SAMPLING PROTOCOL WITH 9 OBLIGATORY FIELDS

BIOTA/FAPESP - Ficha Padrão Para Coleta/Registro

Usuário: Érica Speglich (erica)

Projeto: Desenvolvimento e estruturação de um Sistema de Informação Ambiental para o Programa Biota/Fapesp

Autor da Coleta

Referência Bibliográfica da Coleta

Data da Coleta

Início

Fim

Município Adamantina , SP

Localidade

Unidade de conservação

Ambiente Terrestre

Dados adicionais para Ambiente AQUÁTICO:

- Temperatura °C
- Condutividade µS/cm
- Oxigênio Dissolvido mg/l
- pH
- Disco de Secchi m
- Turbidez NTU
- Ordem do Rio

Bacia Hidrográfica --- Não se aplica ---

Coordenadas

- Latitude
- Longitude

OU

- UTM X
- UTM Y
- Zona

Precisão da Coleta Área da Coleta

Extensão da Coleta m

Ecossistema

- Floresta Ombrófila Densa
- Floresta Ombrófila Mista
- Área c/ influência flúvio-marinha - Mangue (Arbórea)
- Área c/ influência flúvio-marinha - Marisma

Habitat/Localização GERAL/Área Ripária

- Formação alto-montana
- Formação montana
- Formação sub-montana
- Formação baixo montana
- Pasto
- Cultura perene
- Cultura anual
- Área de uso intensivo

Microhabitats/Localização Particular

- Ambiente de copa
- Serapilheira
- Perifiton
- Areia grossa
- Cascalho
- Argila

Método de Coleta

Descrição do método

Observações Finais

Palavras Chave

Listas de Espécies

- Lista de espécies 1 Browse...
- Lista de espécies 2 Browse...
- Lista de espécies 3 Browse...
- Lista de espécies 4 Browse...
- Lista de espécies 5 Browse...

O campo abaixo possibilita a associação desta ficha de coleta com outra ficha inserida pelo mesmo usuário(login). Isto permite indicar interações ecológicas entre espécies (ex: fitófago, predador, dispersor, etc.).

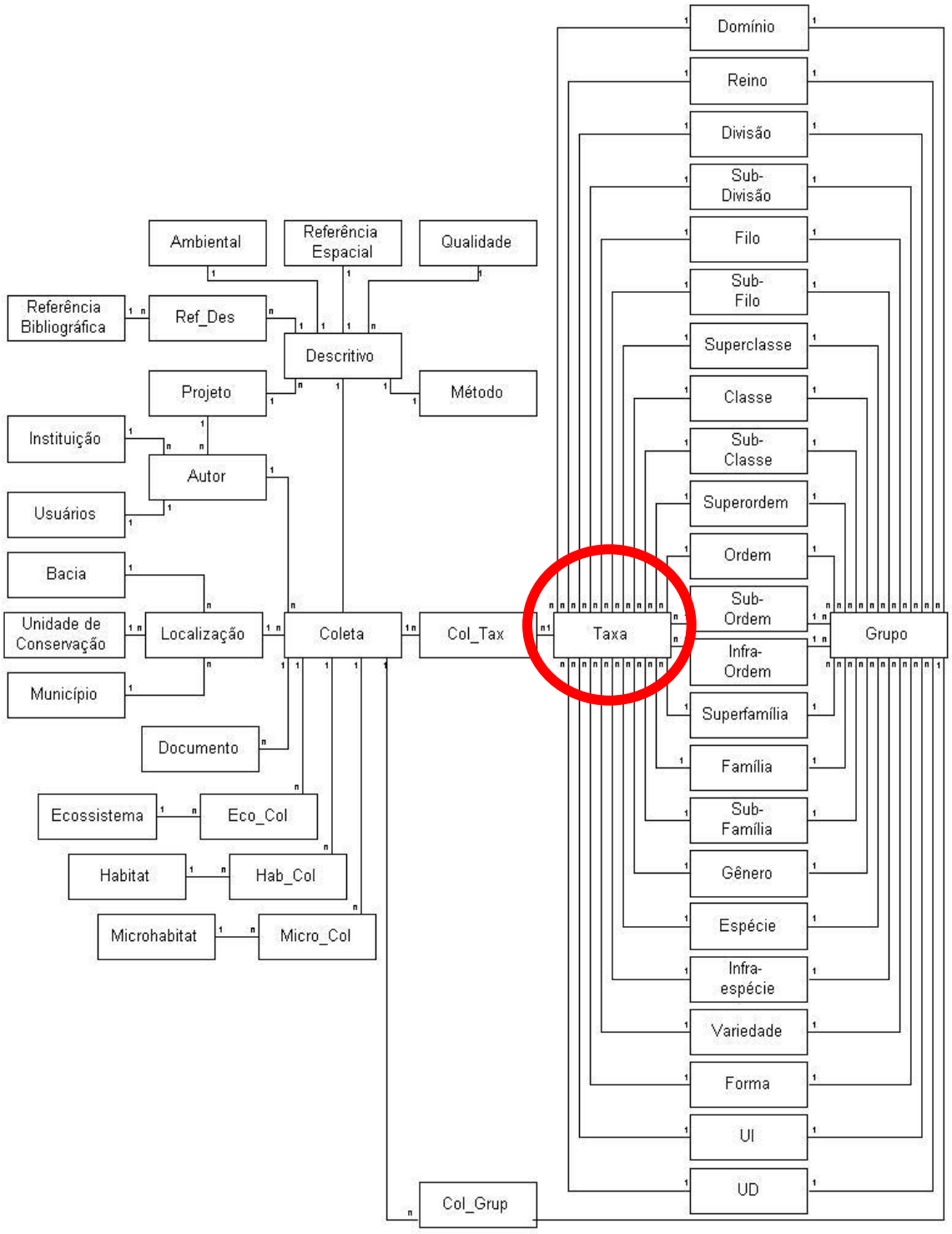
Espécies Associadas

Atenção: Caso você ainda não tenha publicado seu artigo, dissertação ou tese sobre a sua coleta e tem receio de que os dados sejam copiados por pessoas mal-intencionadas, informe abaixo a data que deseja liberar a lista de espécies para o público. Suas listas de espécies **não** serão mostradas antes desta data.

Data de Liberação --- ----

enviar testar campos

Data bank structure



Código: 671

Sobre a coleta/registro:

Coletor: Carlos Alfredo Joly

Município: Jundiaí, SP

Localidade: Mirante da Serra do Japi

Ambiente: Terrestre

Bacia Hidrográfica: Piracicaba/Capivari/Jundiaí

Coord. Geográficas: 23S 10' 56" / 46W 53' 29"

Data: 27/07/1997 a 27/07/1997

Método: Coleta ao longo da trilha Mirante/DAE

Ecossistema: Floresta Estacional Semidecidual

Habitat: Formação montana

Microhabitat:

Outras observações: coleta de frutos

Informações taxonômicas:

Conteúdo: 1 Taxa e 1 Grupo Taxonômico.

Grupos taxonômicos: Angiospermae

Cláudia M. Bauzer Medeiros IC/UNICAMP

Alexandre Marino - CRIA

Ricardo P. Scachetti - CRIA

Sidnei de Souza - CRIA

DIGITAL ON LINE MAP BASE

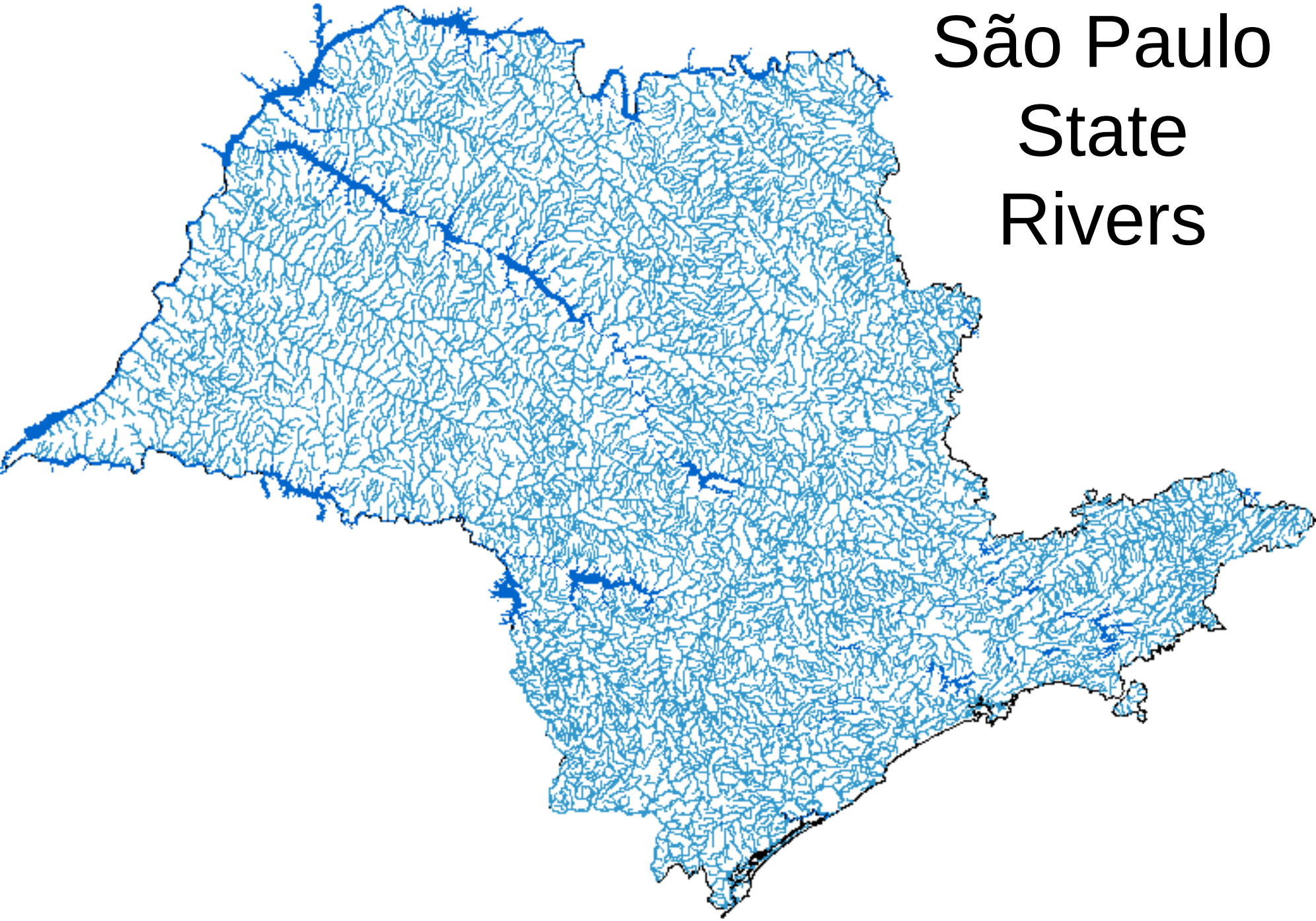
ESCALA 1:50.000

Urban Areas; Roads & Highways; Political & Administrative Divisions, Rivers & Watersheds, Conservation Units, Reforestation with ***Pinus*** spp & ***Eucalyptus*** spp

REMNANTS OF NATIVE VEGETATION

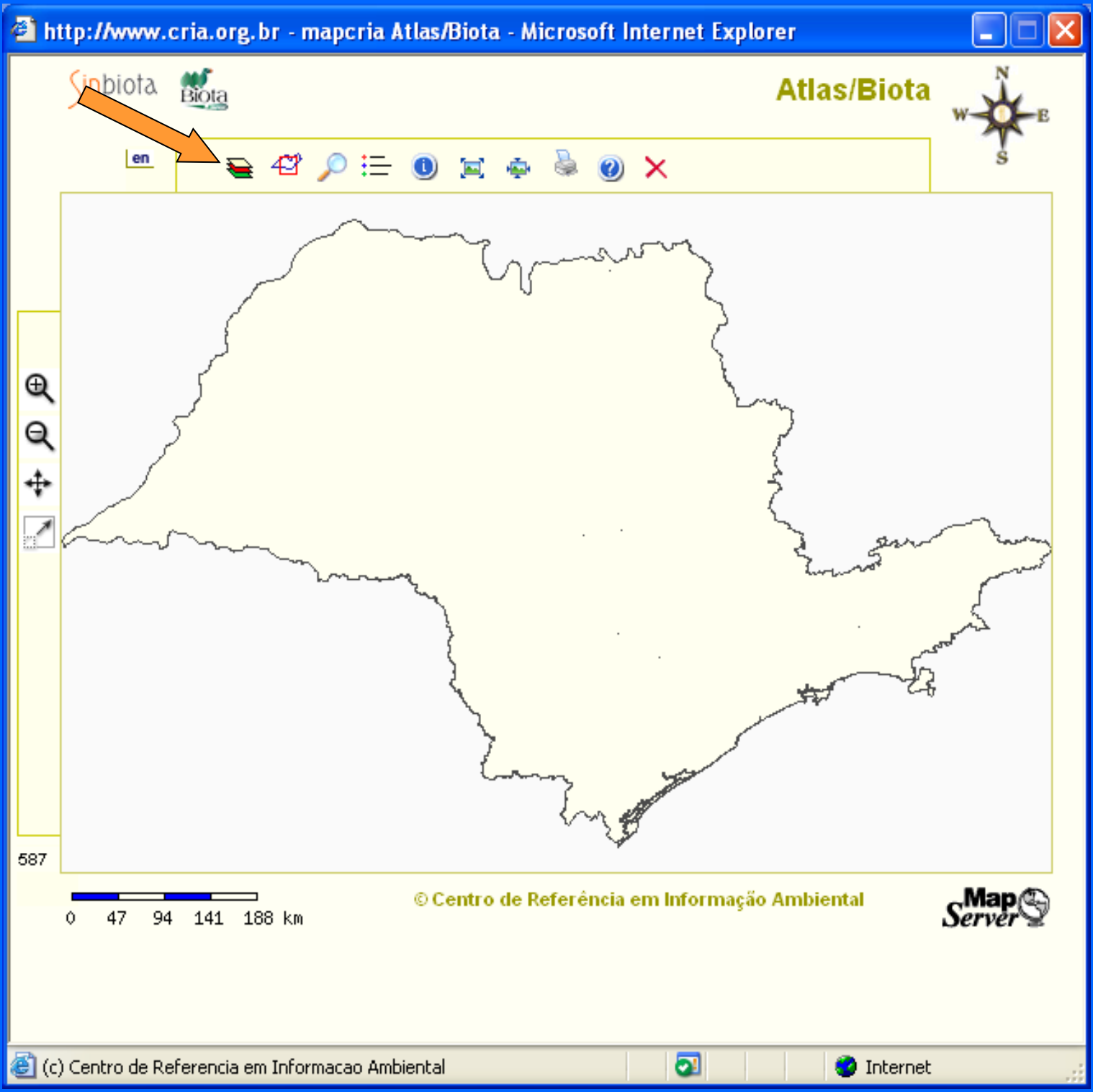

São Paulo
State
Municipalities

São Paulo State Rivers




São Paulo
State Parks


São Paulo
State
Watersheds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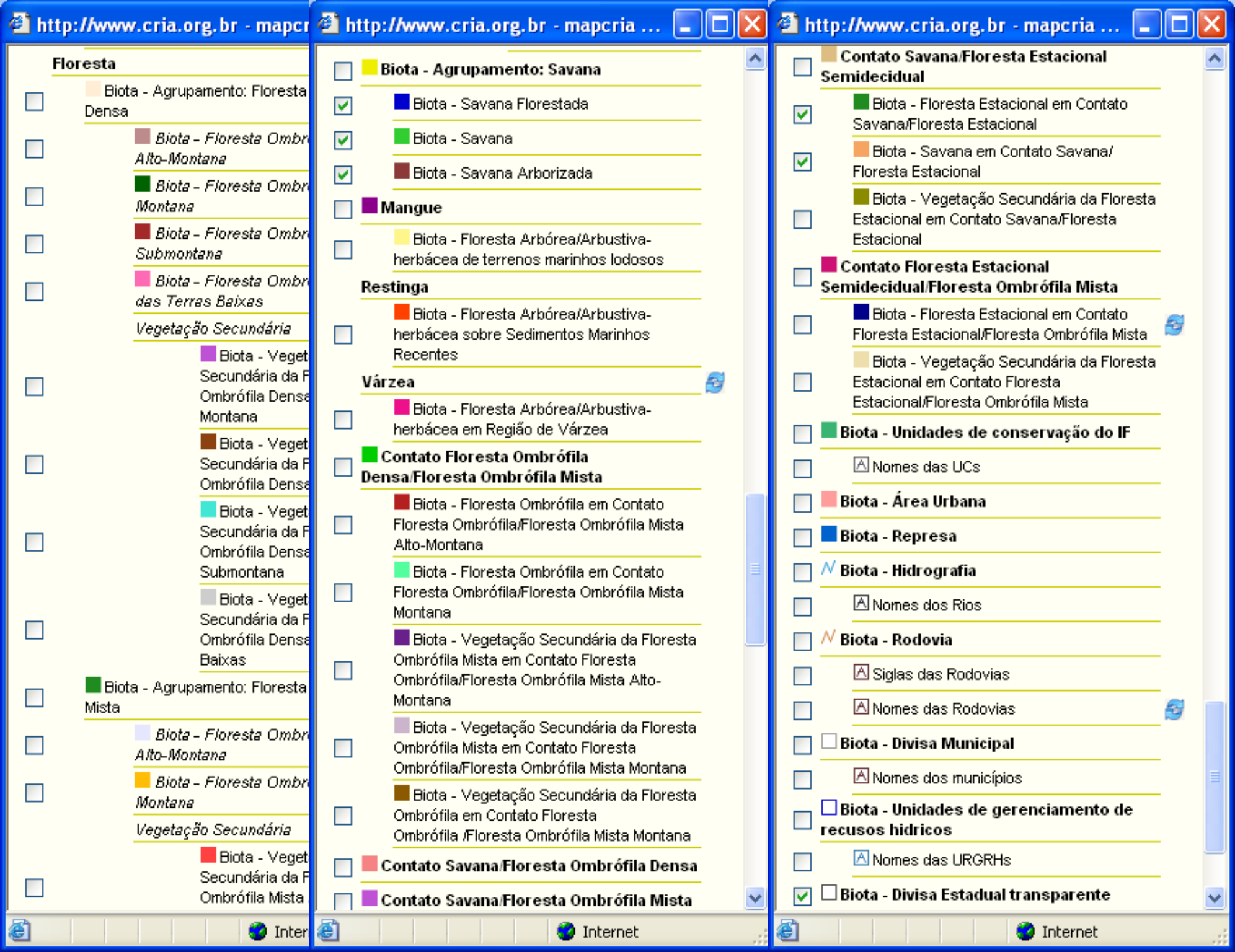
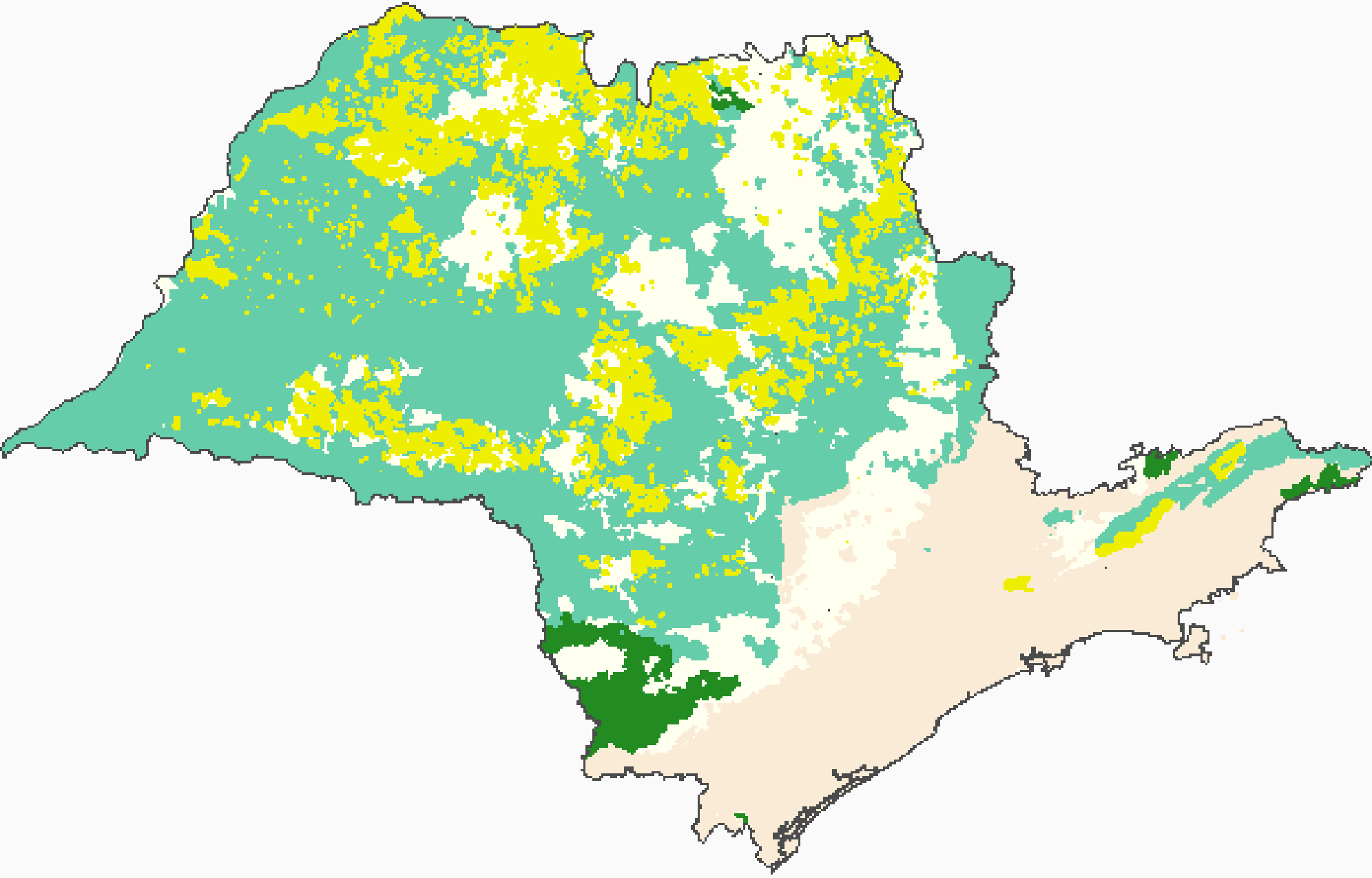
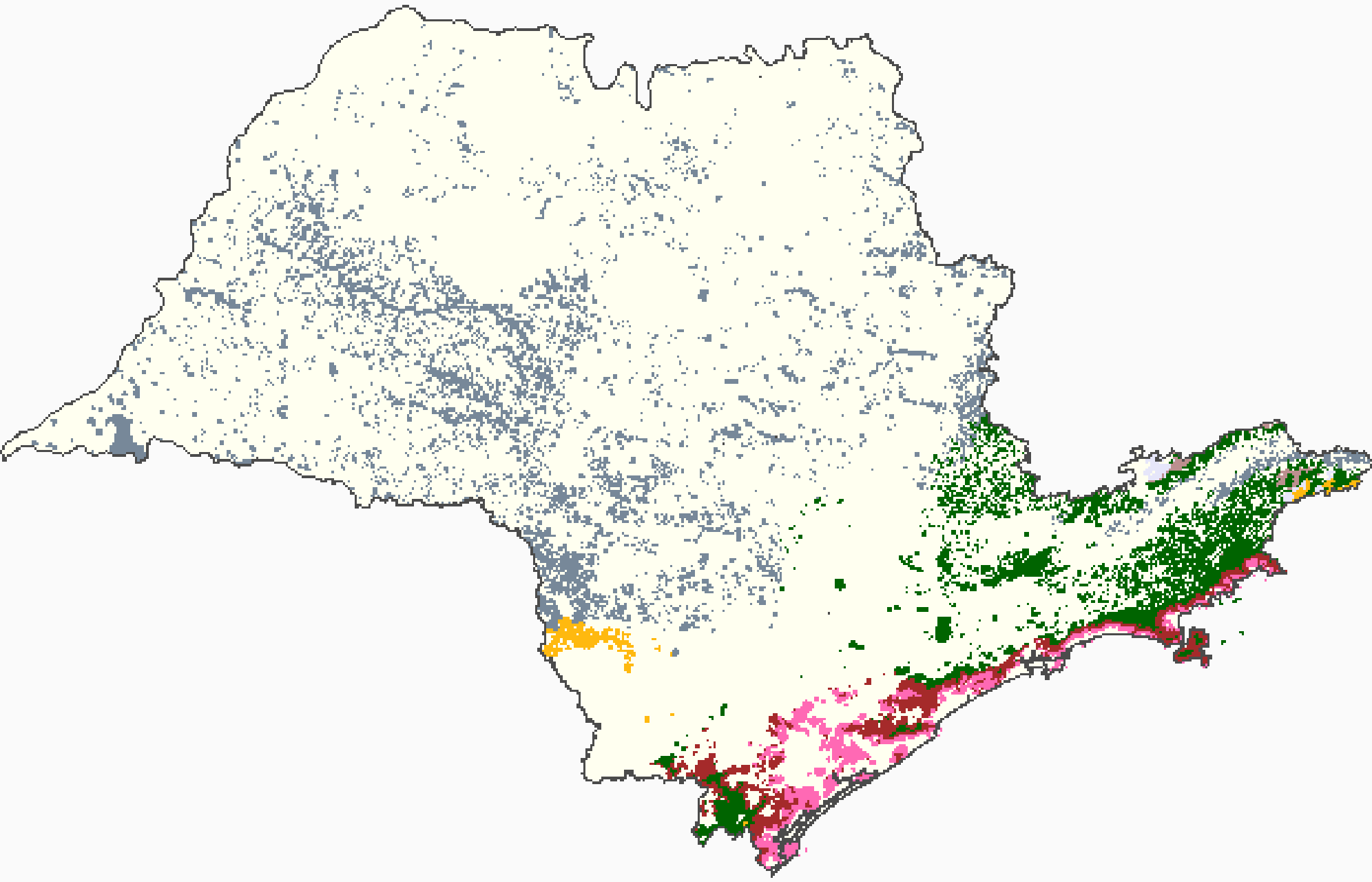
Internet


http://www.cria.org.br - mapcr
Floresta
Biota - Agrupamento: Floresta Densa
Biota - Floresta Ombr Alto-Montana
Biota - Floresta Ombr Montana
Biota - Floresta Ombr Submontana
Biota - Floresta Ombr das Terras Baixas
Vegetação Secundária
Biota - Veget Secundária da F Ombrófila Densa Montana
Biota - Veget Secundária da F Ombrófila Densa
Biota - Veget Secundária da F Ombrófila Densa Submontana
Biota - Veget Secundária da F Ombrófila Densa Baixas
Biota - Agrupamento: Floresta Mista
Biota - Floresta Ombr Alto-Montana
Biota - Floresta Ombr Montana
Vegetação Secundária
Biota - Veget Secundária da F Ombrófila Mista
Inter
http://www.cria.org.br - mapcria ...
Biota - Agrupamento: Savana
Biota - Savana Florestada
Biota - Savana
Biota - Savana Arborizada
Mangue
Biota - Floresta Arbórea/Arbustiva-herbácea de terrenos marinhos lodosos
Restinga
Biota - Floresta Arbórea/Arbustiva-herbácea sobre Sedimentos Marinhos Recentes
Várzea
Biota - Floresta Arbórea/Arbustiva-herbácea em Região de Várzea
Contato Floresta Ombrófila Densa/Floresta Ombrófila Mista
Biota - Floresta Ombrófila em Contato Floresta Ombrófila/Floresta Ombrófila Mista Alto-Montana
Biota - Floresta Ombrófila em Contato Floresta Ombrófila/Floresta Ombrófila Mista Montana
Biota - Vegetação Secundária da Floresta Ombrófila Mista em Contato Floresta Ombrófila/Floresta Ombrófila Mista Alto-Montana
Biota - Vegetação Secundária da Floresta Ombrófila Mista em Contato Floresta Ombrófila/Floresta Ombrófila Mista Montana
Biota - Vegetação Secundária da Floresta Ombrófila em Contato Floresta Ombrófila /Floresta Ombrófila Mista Montana
Contato Savana/Floresta Ombrófila Densa
Contato Savana/Floresta Ombrófila Mista
Internet
http://www.cria.org.br - mapcria ...
Contato Savana/Floresta Estacional Semidecidual
Biota - Floresta Estacional em Contato Savana/Floresta Estacional
Biota - Savana em Contato Savana/Floresta Estacional
Biota - Vegetação Secundária da Floresta Estacional em Contato Savana/Floresta Estacional
Contato Floresta Estacional Semidecidual/Floresta Ombrófila Mista
Biota - Floresta Estacional em Contato Floresta Estacional/Floresta Ombrófila Mista
Biota - Vegetação Secundária da Floresta Estacional em Contato Floresta Estacional/Floresta Ombrófila Mista
Biota - Unidades de conservação do IF
Nomes das UCs
Biota - Área Urbana
Biota - Represa
Biota - Hidrografia
Nomes dos Rios
Biota - Rodovia
Siglas das Rodovias
Nomes das Rodovias
Biota - Divisa Municipal
Nomes dos municípios
Biota - Unidades de gerenciamento de recusos hidricos
Nomes das URGRHs
Biota - Divisa Estadual transparente
Internet

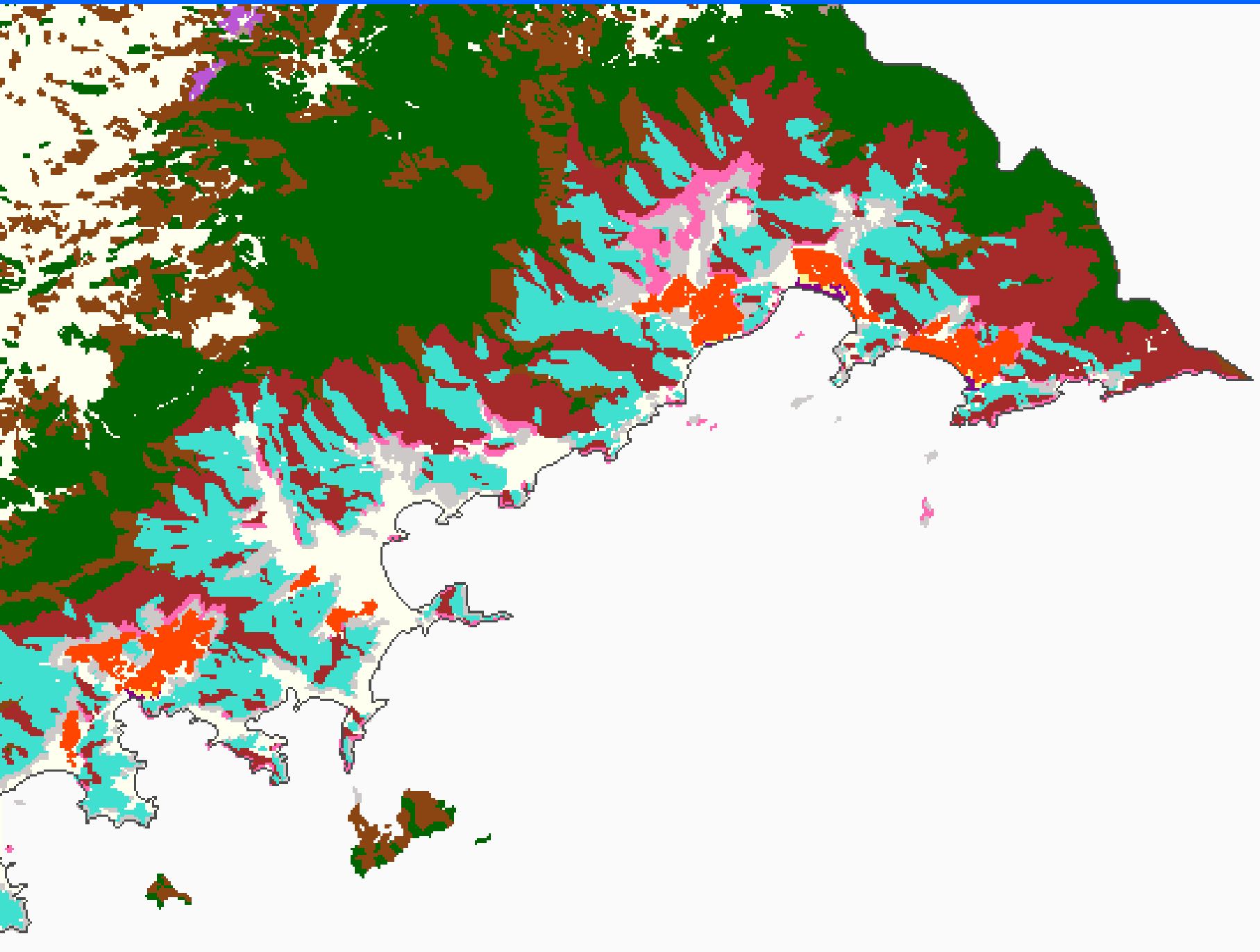
Phytogeographic Domains



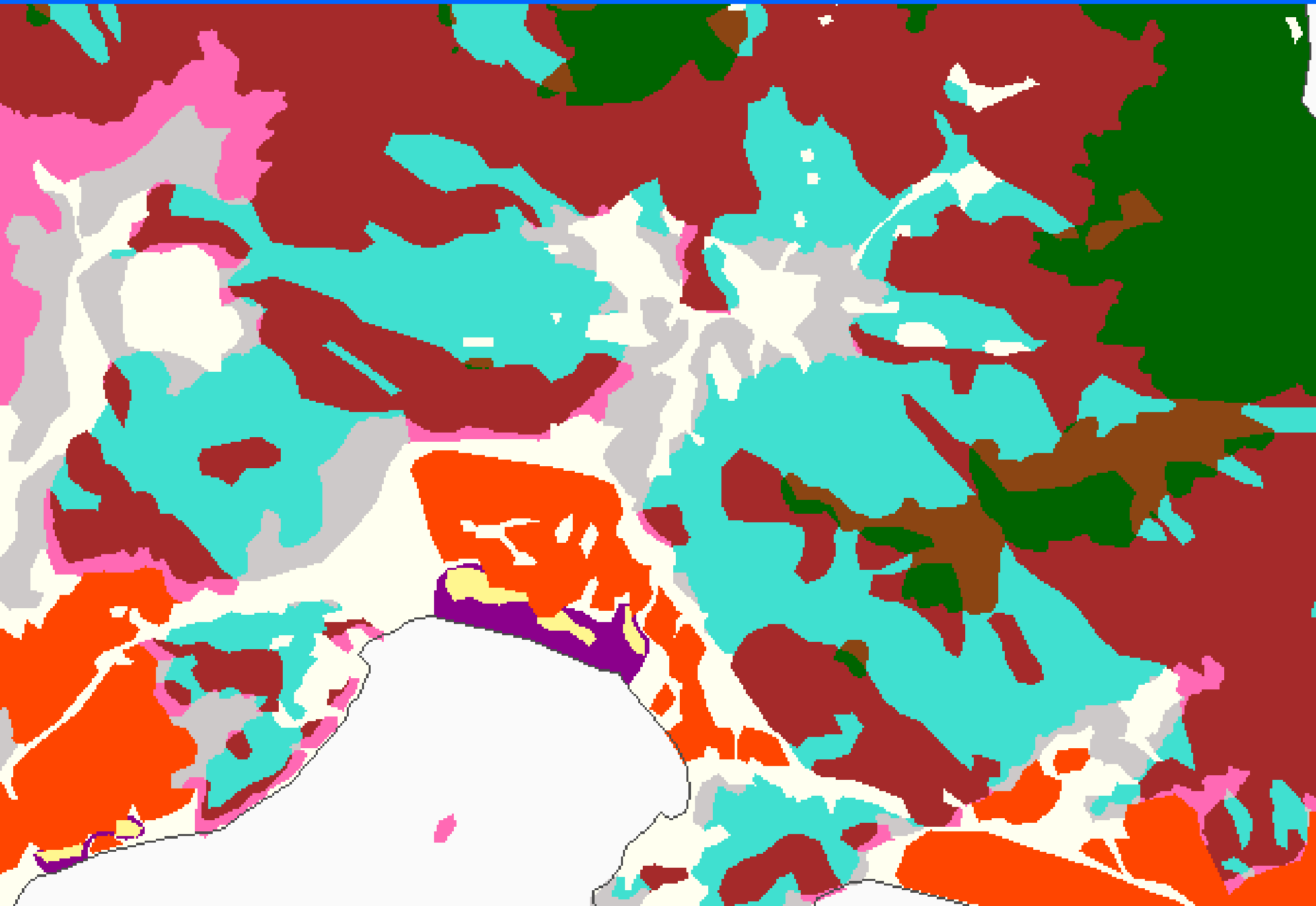
Forest Remnants



Ombrophilous Dense Forest



OD Forest + Restinga + Mangrove



Dr. Francisco José do N. Kronka

Marco Aurélio Nalon & Equipe

Instituto Florestal - Sec. Meio Ambiente

Dr. Jansle Vieira Rocha

Dr. Rubens Lamparelli

Dr. Álvaro Penteado Crosta

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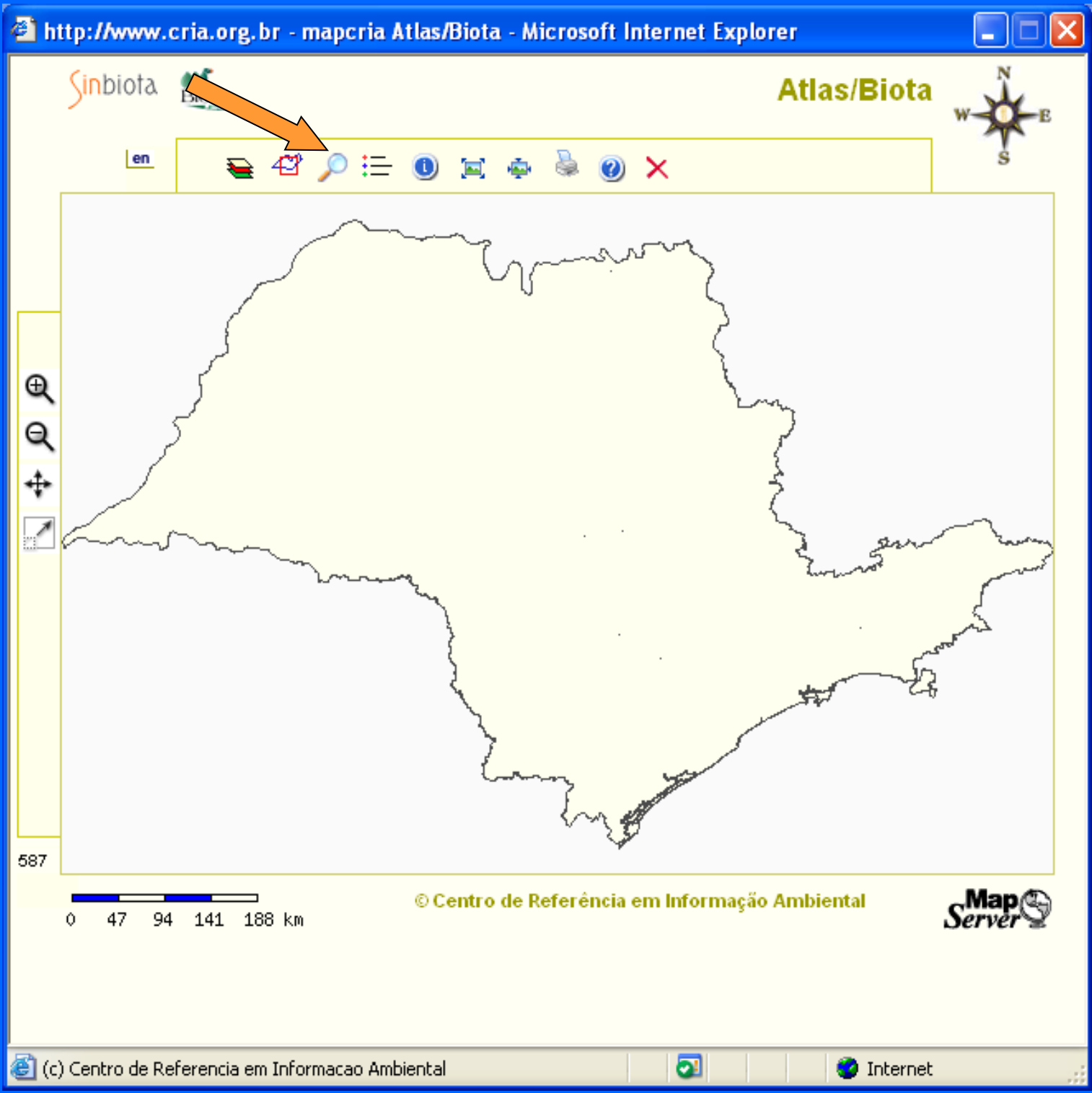
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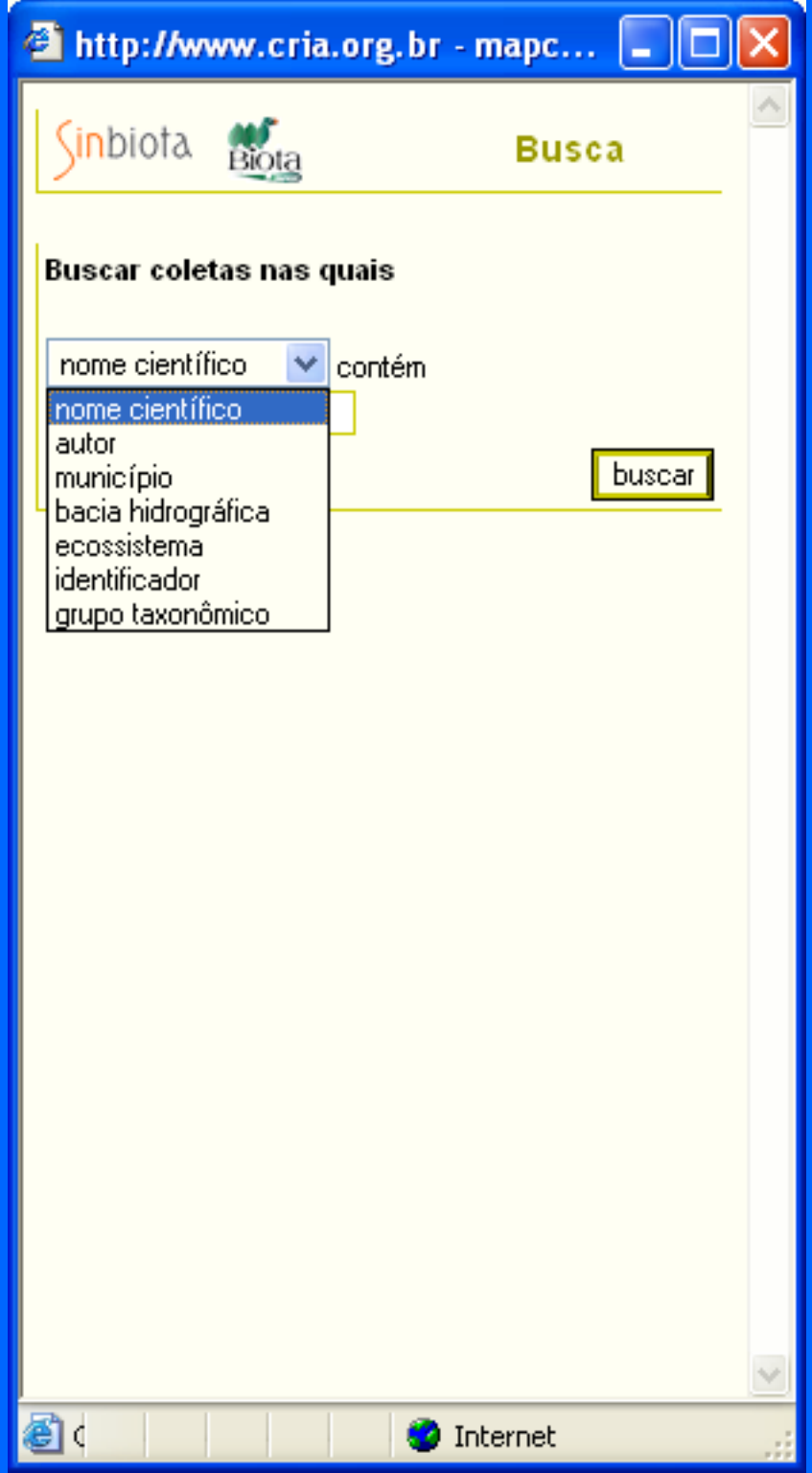
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autor
município
bacia hidrográfica
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identificador
grupo taxonômico
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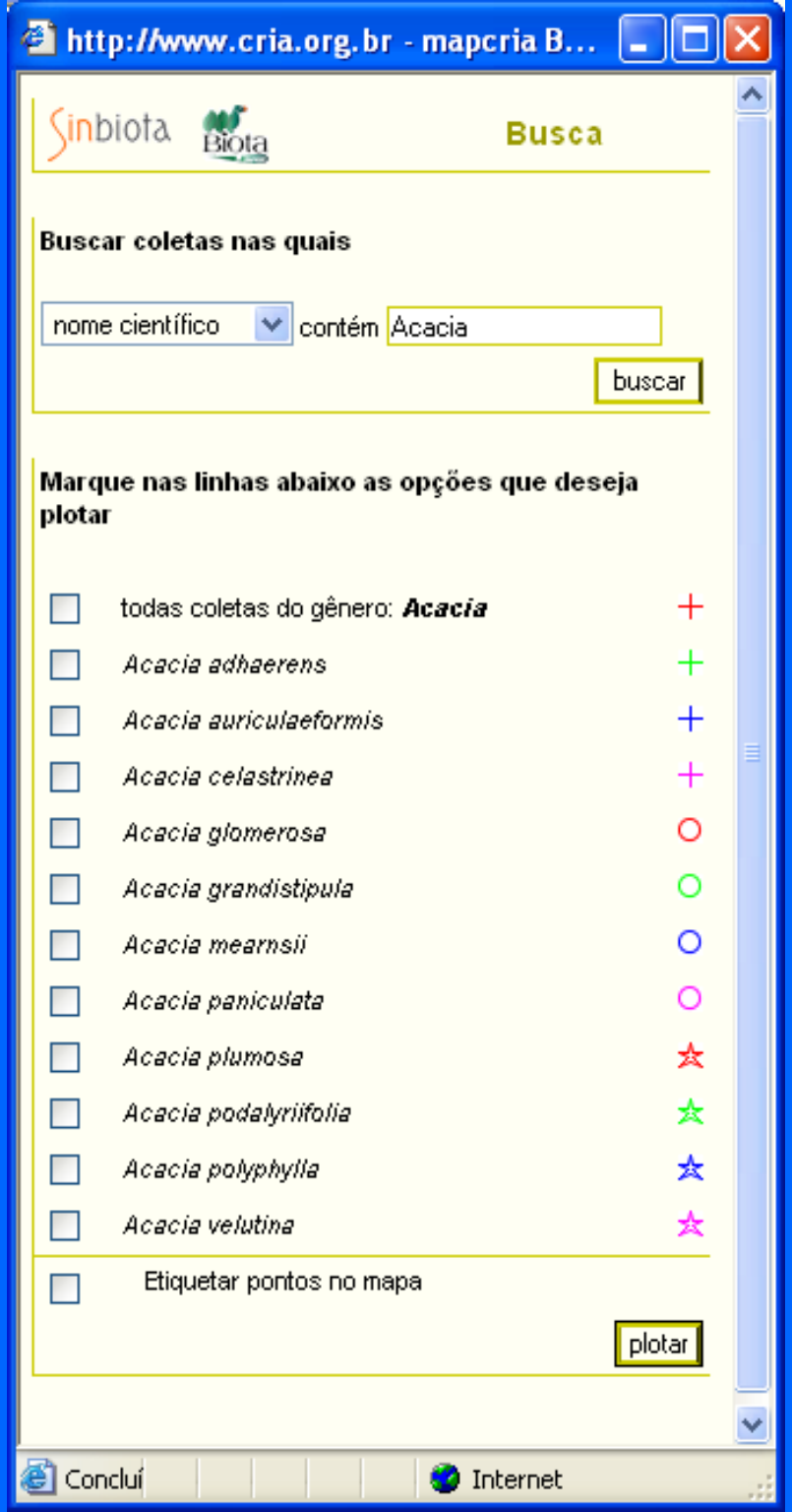
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Acacia adhaerens
Acacia auriculaeformis
Acacia celastrinea
Acacia glomerosa
Acacia grandistipula
Acacia mearnsii
Acacia paniculata
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Acacia polyphylla
Acacia velutina
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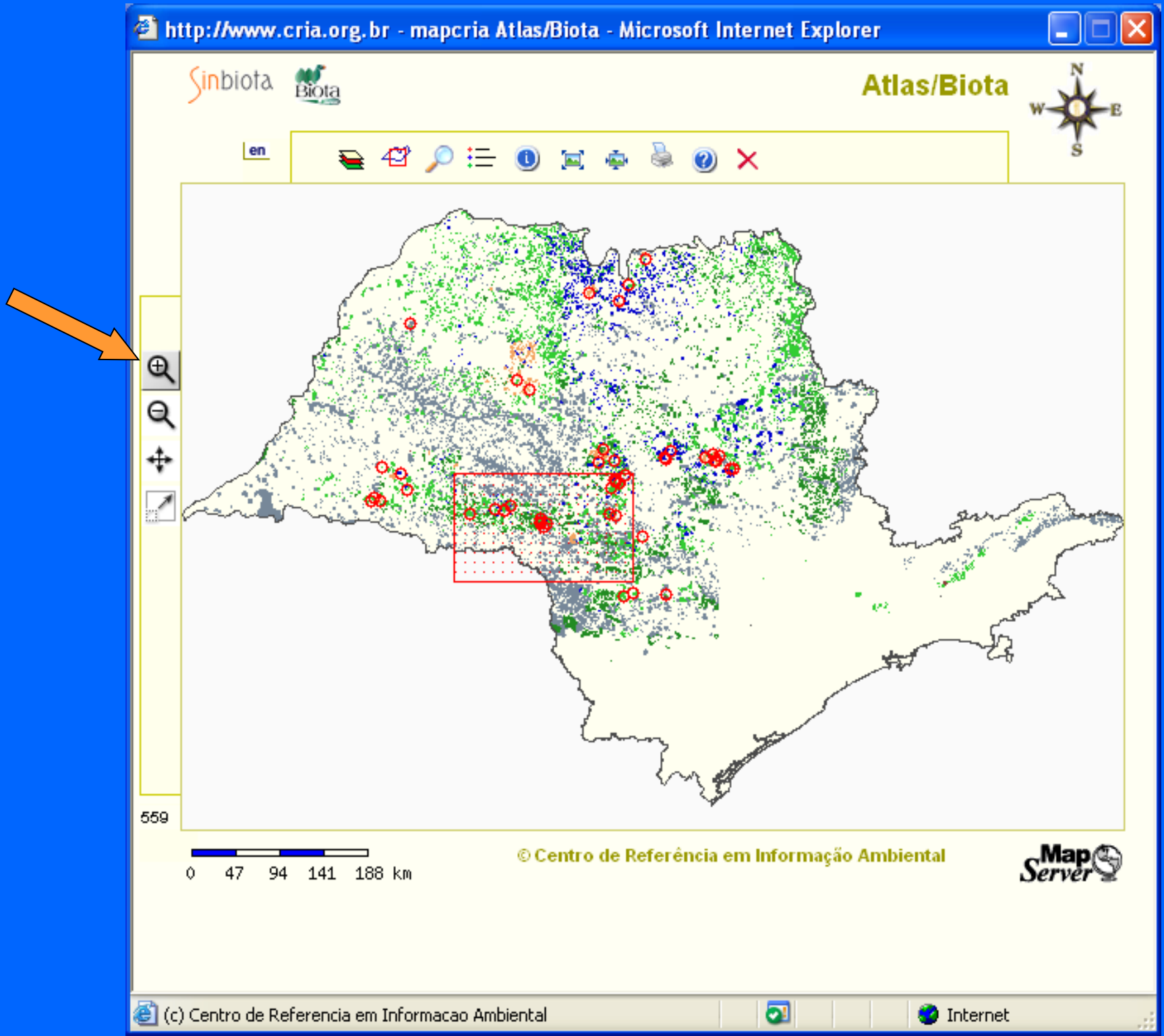
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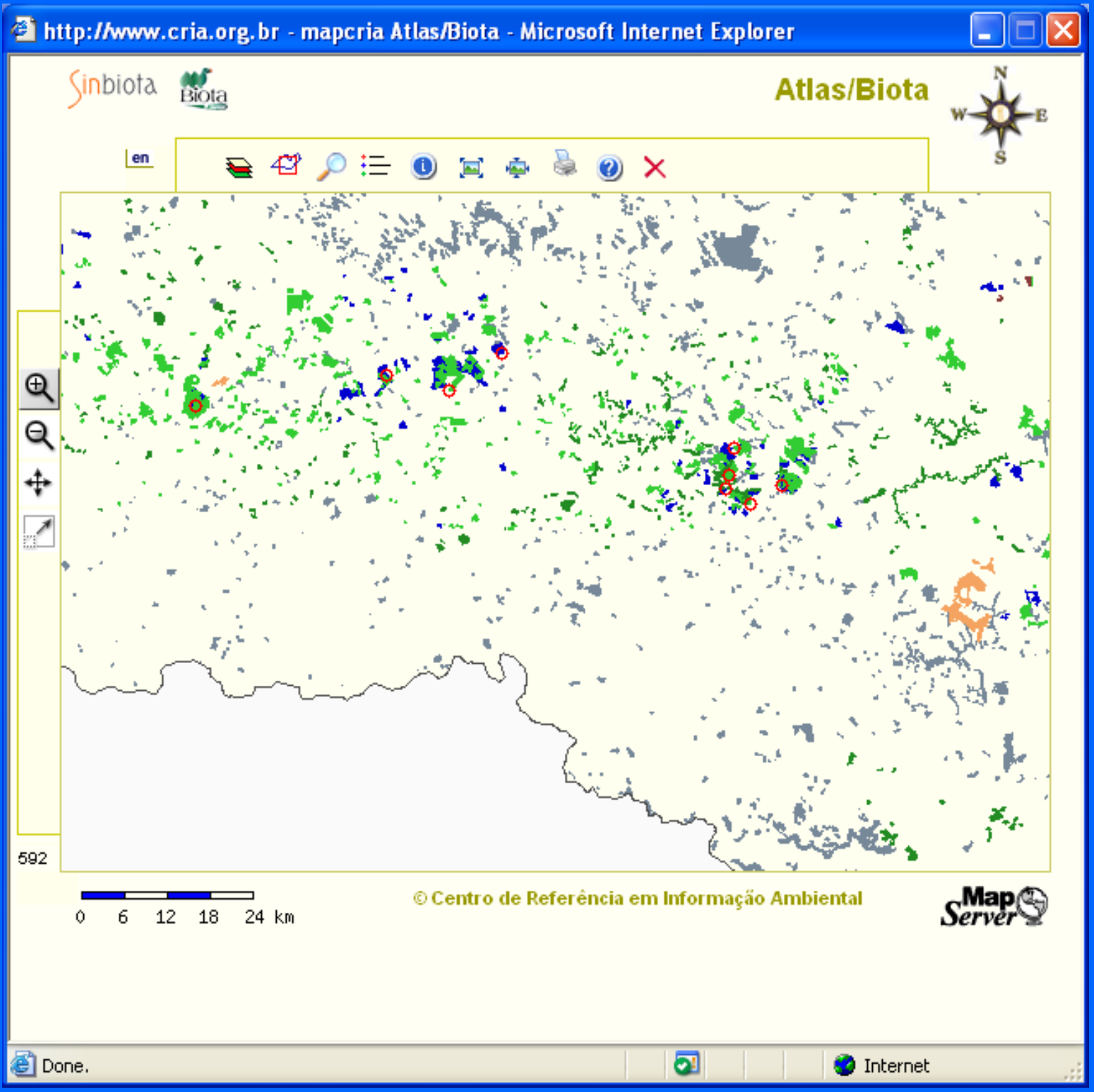
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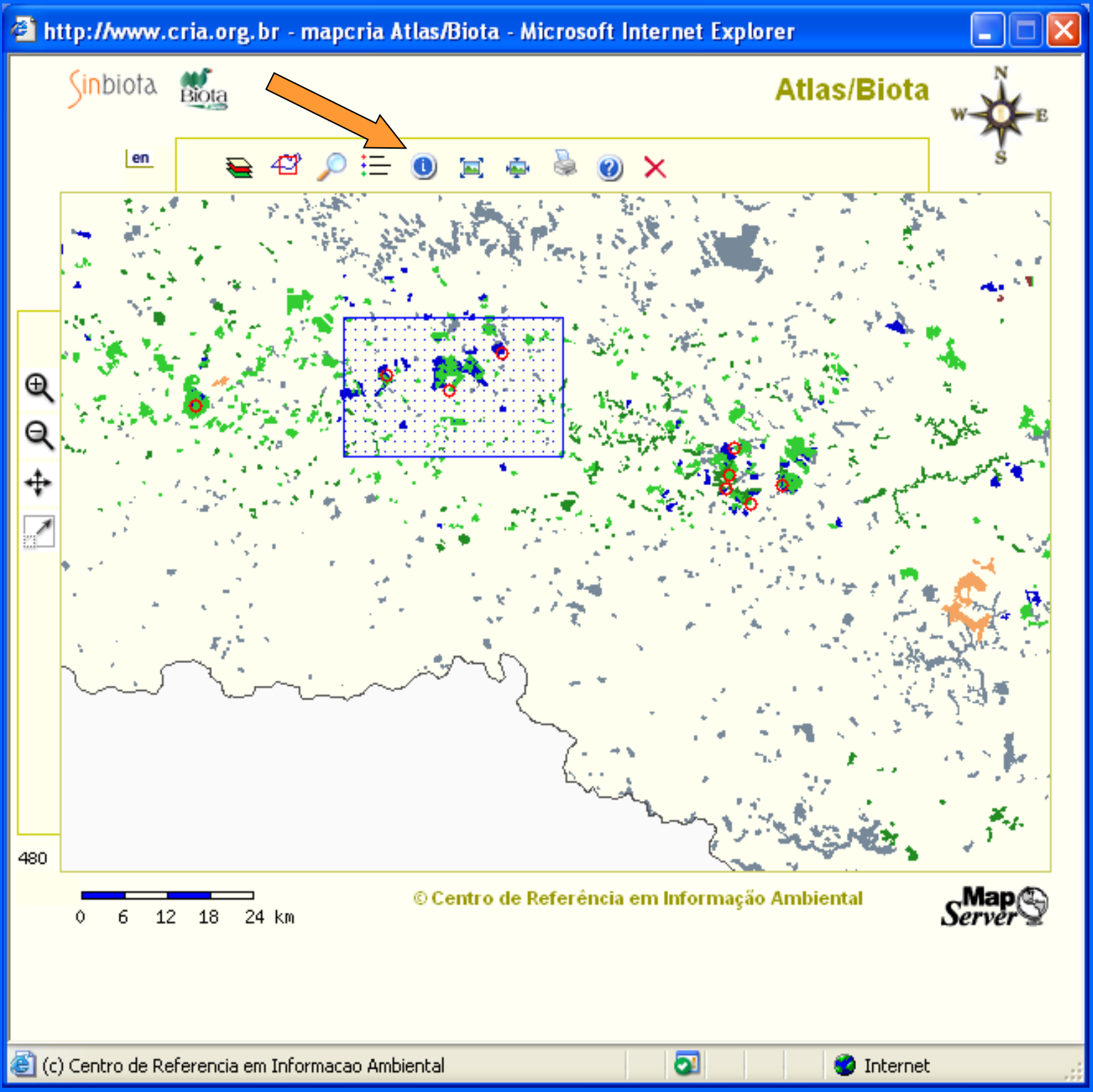
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inbiota

english

	Código/ Usuário	Data	Autor/ Método	Grupo	Localização	Oper.
☐	736 marinez	30/09/1999 a 30/09/1999	Giselda Durigan Levantamento Botânico Expedito	Angiospermae	Campos Novos Paulista, SP Fazenda Alvorada de Bragança	exibir
☐	745 marinez	30/09/1999 a 30/09/1999	Giselda Durigan Levantamento Botânico Expedito	Angiospermae	Campos Novos Paulista, SP Fazenda Alvorada de Bragança	exibir
☐	746 marinez	29/09/1999 a 29/09/1999	Giselda Durigan Levantamento Botânico Expedito	Angiospermae	Campos Novos Paulista, SP	exibir
☐	747 marinez	06/10/1999 a 06/10/1999	Giselda Durigan Levantamento Botânico Expedito	Angiospermae	Echaporã, SP Fazenda Asa Branca	exibir

4 registros encontrados (* coletas com espécie associada)

exibir dados completos | limpar | todos

stema de Informação Ambiental - SinBiota Internet

Consulta ao Banco de Dados

Código: 736

Sobre a coleta/registro:

Coletor	Giselda Durigan
Data	30/09/1999 a 30/09/1999
Município	Campos Novos Paulista , SP
Localidade	Fazenda Alvorada de Bragança
Unidade de Conservação	
Ambiente	Terrestre
Bacia Hidrográfica	Médio Paranapanema
Precisão do GPS	100m
Precisão da Coleta	Área da Coleta
Ecossistema	Cerrado lato sensu (Savana)
Habitat	Cerrado "stricto sensu" (Savana Arbórea Aberta)
Microhabitat	
Método	Levantamento Botânico Expedito
Descrição do Método	Método de levantamento florístico rápido cuja unidade amostral é o tempo que, neste caso, é de 15 minutos. O tempo total de coleta é definido pela curva espécie x tempo. O tempo mínimo de coleta é de 60 minutos.
Outras observações	A lista de espécies vinculada a esta coleta é constituída de espécies arbóreas em sua maioria e de algumas espécies não arbóreas mas de interesse econômico
Palavras Chave	árvores

Informações taxonômicas:

Conteúdo	185 Taxa e 1 Grupo Taxonômico.
Grupos taxonômicos	Angiospermae

Dados sobre o autor da coleta:

Projeto	Viabilidade de Conservação dos remanescentes de Cerrado do

stema de Informação Ambiental - SinBiota - Microsoft Internet Explorer
uivo Editar Exibir Favoritos Ferramentas Ajuda
reço http://sinbiota.cria.org.br/sia/consulta?taxa+736 Ir Links Assistente de Web Norton AntiVirus

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Consulta ao Banco de Dados

Lista de espécies associada à coleta 736

Definição do grupo: Angiospermae	
domínio	**Eukaria**
reino	**Plantae**
divisão	**Spermatophyta**
classe	**Angiospermae**

Hierarquia taxonômica obrigatória para este grupo: familia, genero, especie, autor_ano, ui, ud.
Nome(s) Comum: angiosperma, plantas com flor

FAMILIA	GENERO	ESPECIE	AUTOR_ANO	UI	UD
Anacardiaceae	sp *Anacardium*	*humile*	A. St.-Hil.		
Anacardiaceae	sp *Lithraea*	*molleoides*	(Vell.) Engl.		
Anacardiaceae	sp *Tapirira*	*guianensis*	Aubl.		
Annonaceae	sp *Annona*	*cacans*	Warm.		
Annonaceae	sp *Annona*	*coriacea*	Mart.		
Annonaceae	sp *Annona*	*crassiflora*	Mart.		
Annonaceae	sp *Annona*	*dioica*	A. St.-Hil.		
Annonaceae	sp *Duguetia*	*lanceolata*	A. St.-Hil.		
Annonaceae	sp *Xylopia*	*aromatica*	(Lam.) Mart.		
Apocynaceae	sp *Aspidosperma*	*tomentosum*	Mart.		
Apocynaceae	sp *Himatanthus*	*obovatus*	(Müll. Arg.) Woodson		

stema de Informação Ambiental - SinBiota Internet

Data Bank

+

Atlas

+

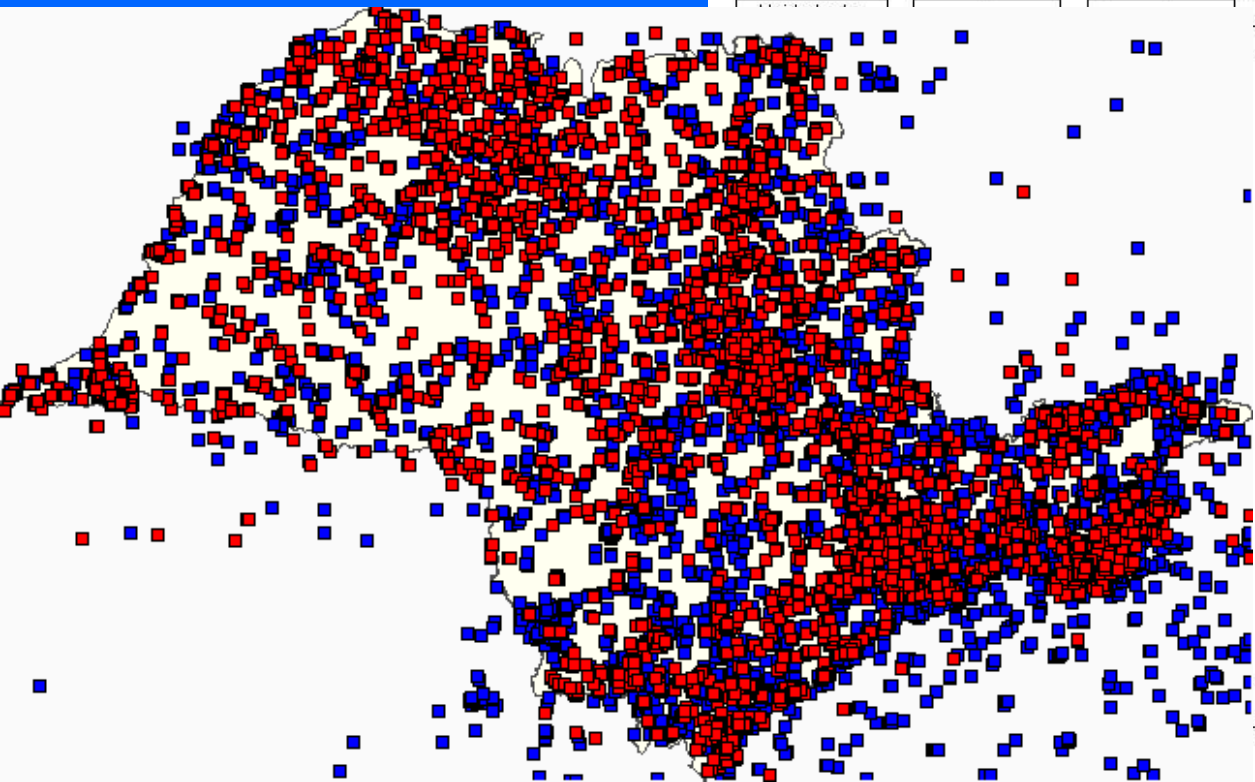
Friendly Interface

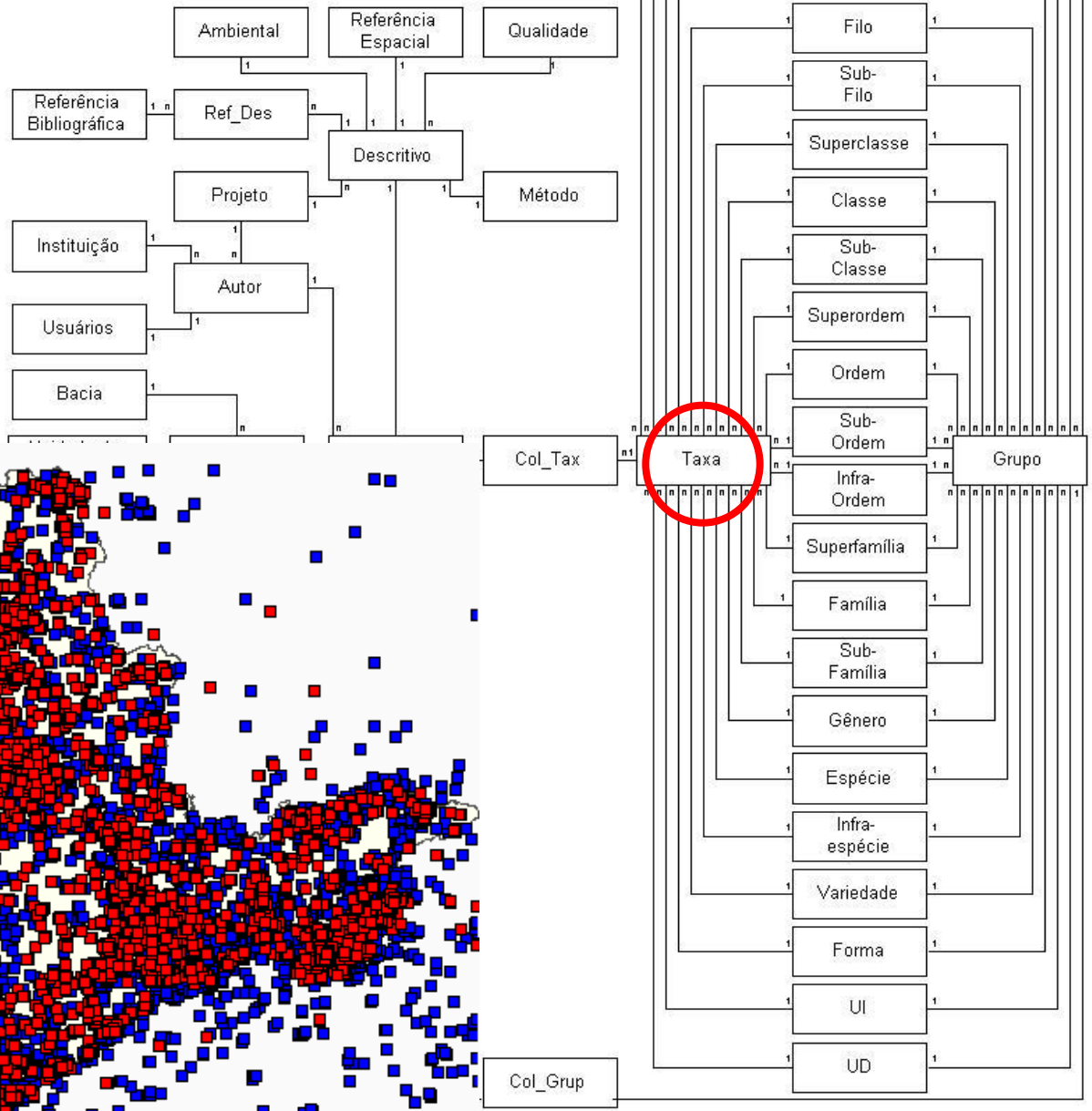
CRIA - Reference Center on Environmental Information

PRODUCT

Georeferenced databank with

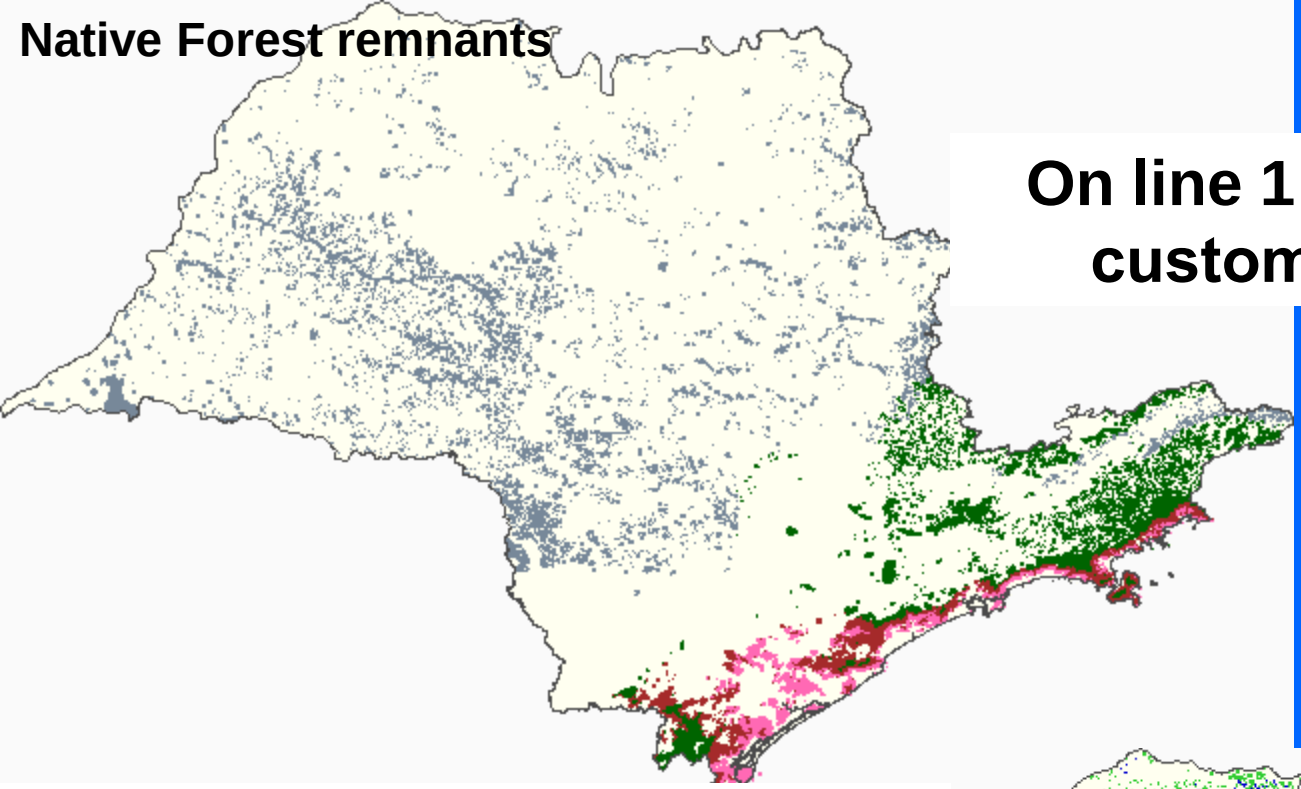
102.704 registers
11.820 species





PRODUCT

On line 1:50.000 Digital Map customized “on the fly”



34 types of native vegetation (IBGE)

Conservation Units

Urban areas

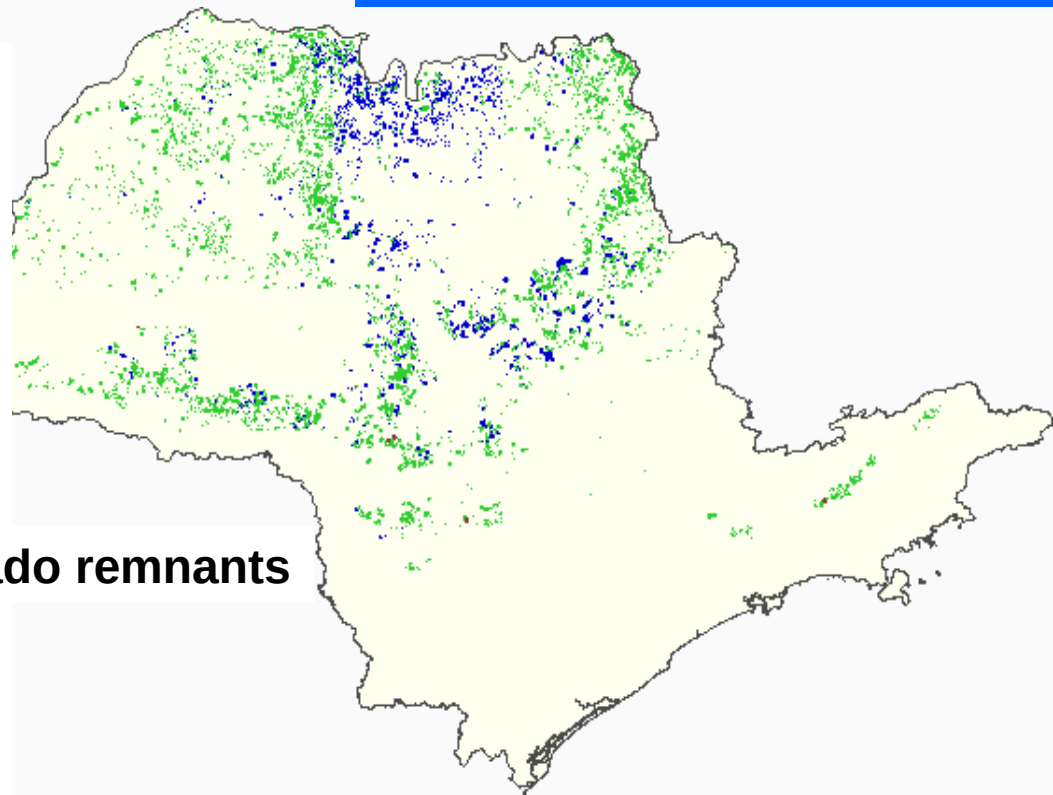
Rivers & dams

Roads

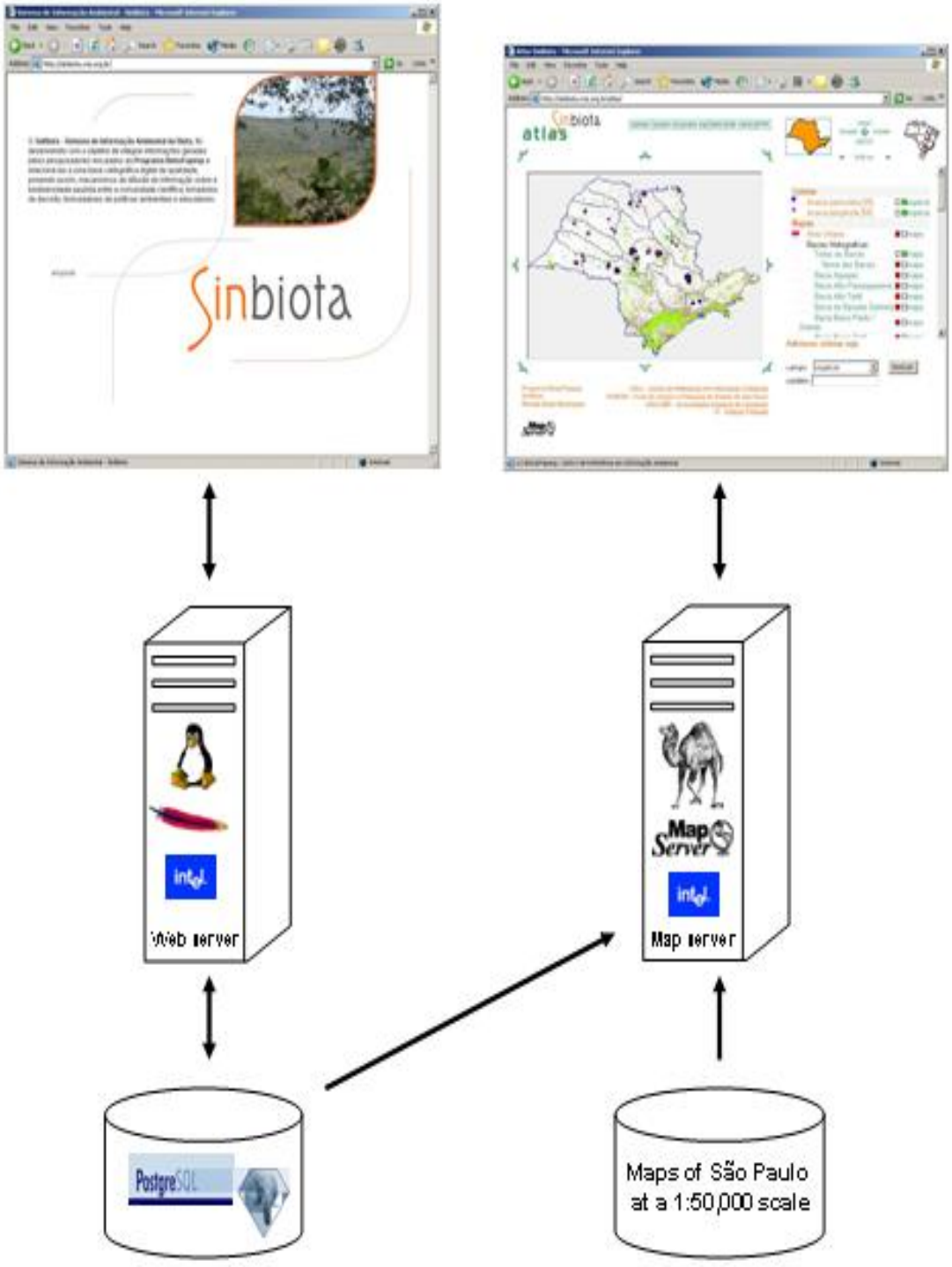
Municipalities

***Pinus* spp & *Eucalyptus* spp**

Production Forests



Arquitetura do Sistema



PRODUCT

Integrated system using open source software

Intel/Linus Server

Data Bank - PostgreSQL

Standards and protocols

172 taxonomic groups

***On line* data "feeding"**

Public access to all data and maps

Interoperability with other initiatives like GBIF

PRODUCT

SpeciesLink in Numbers

>200 collections & sub-collections

> 4.000.000 registers on-line

>1.900.000 georreferenced

>315.000 species

bioprospecta

rede biota de bioprospecção e bioensaios

PRODUCT

O **BIOprospecTA - Rede Biota de Bioprospecção e Bioensaios**, é uma iniciativa que visa organizar a demanda e otimizar a utilização de recursos na grande área do conhecimento que a temática bioprospecção abrange

- objetivo
- núcleo de coordenação
- submissão de pré-propostas
- Projetos em Andamento
- lista de discussão

www.bioprospecta.org.br


BIOTA
+10
PRODUCT
biota neotropica
ISSN 1676-0611
português- español
vol 11 n2
Special Section
Floristic of the Atlantic Rainforest
BIOTA NEOTROPICA is a scientific journal of the Program Biota/Fapesp – The Virtual Institute of Biodiversity that publishes the results of original research work, associated or not to the program, that involve characterization, conservation and sustainable use of biodiversity in the Neotropical region.
editorial
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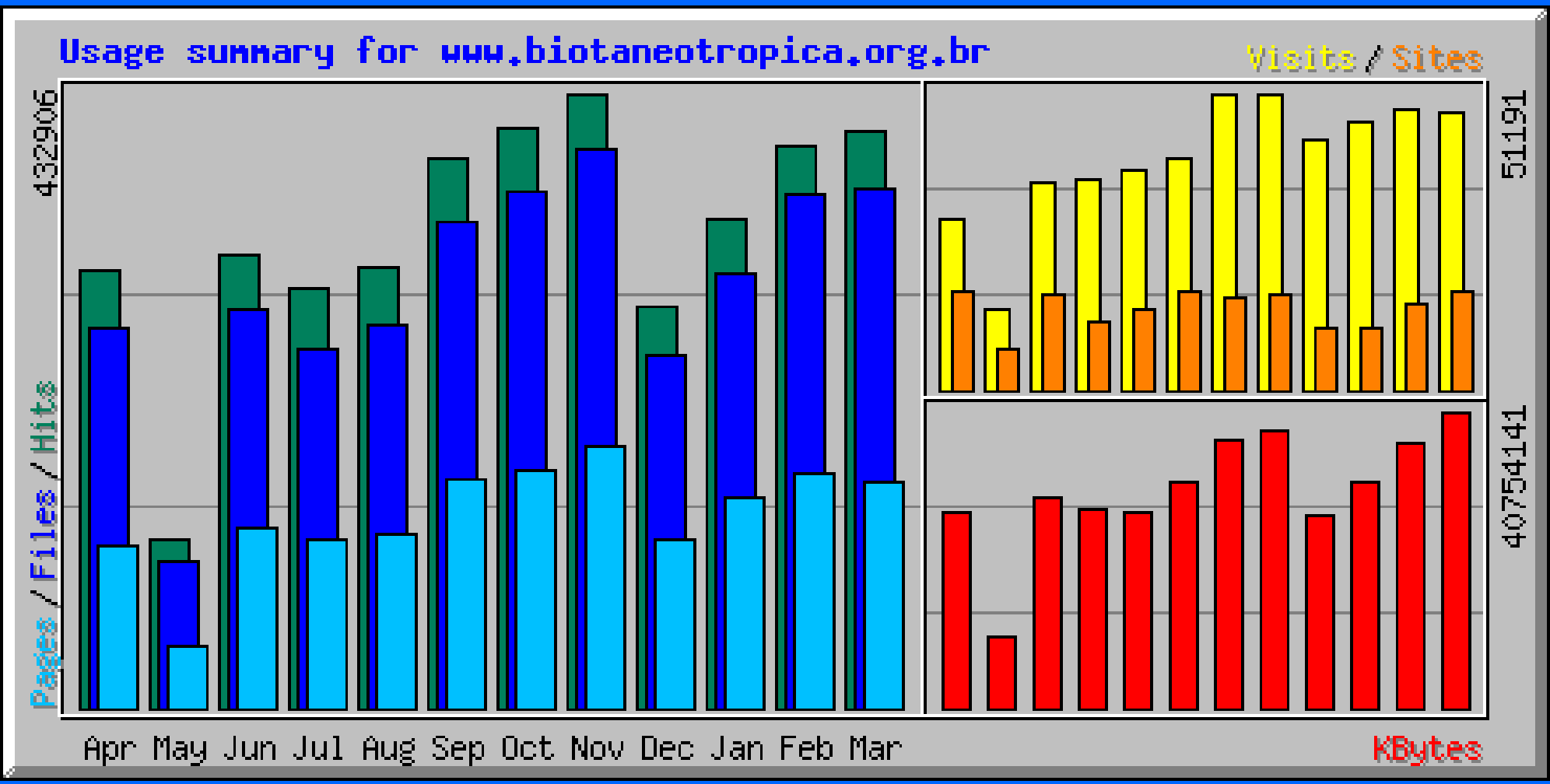
thematic reviews
identification keys
taxonomic reviews
short communications
information
other
search
http://www.biotaneotropica.org.br

PRODUCT



> 40.000 visits per month

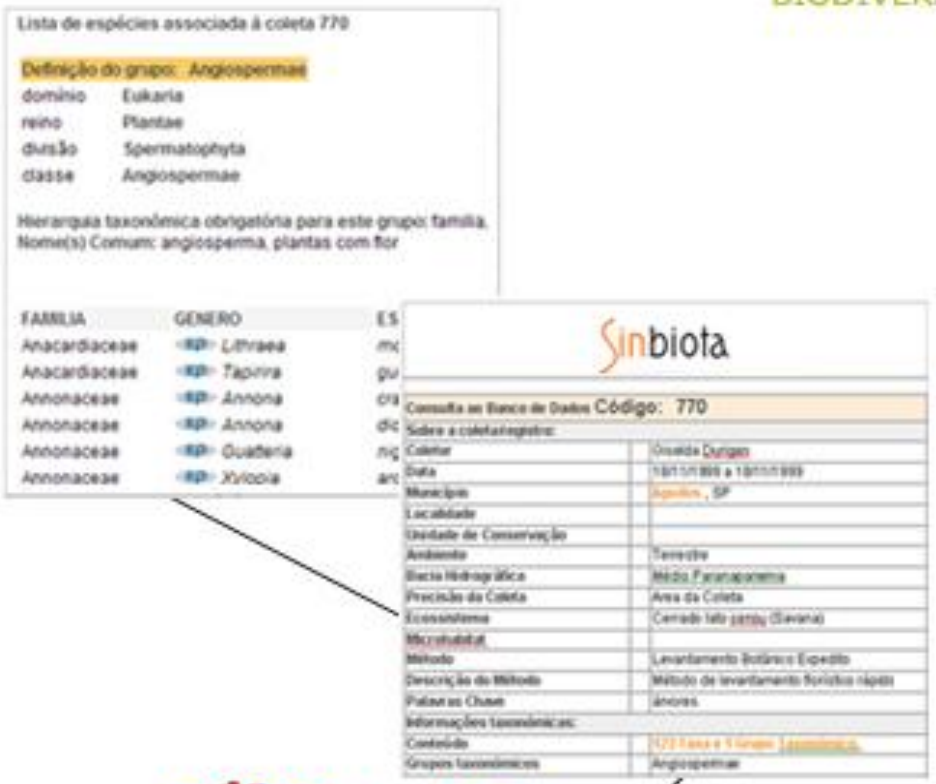
BIOTA +10

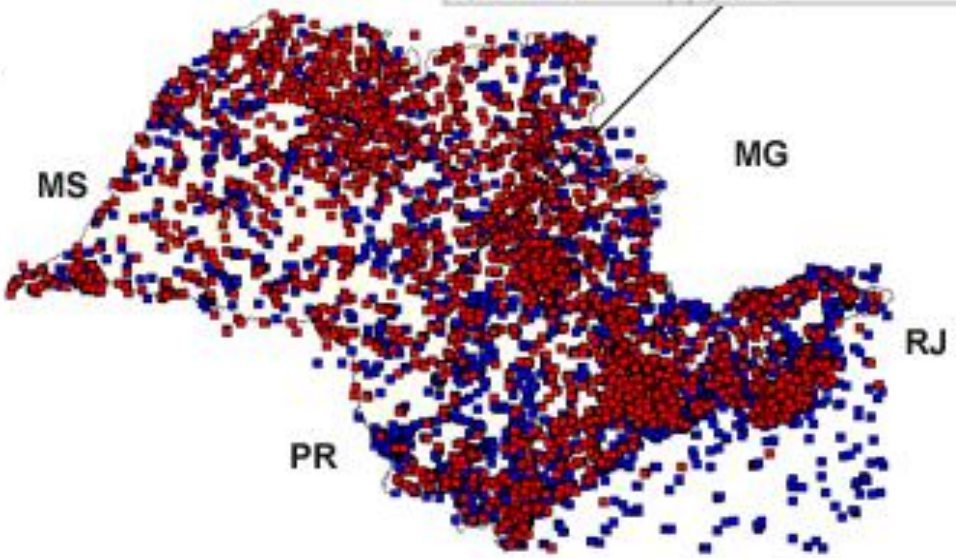
biota neotropica

BIODIVERSITY OF THE STATE OF SÃO PAULO
CHECK LIST

vol 10 n4a

SPECIAL ISSUE





BIOTA NEOTROPICA is a scientific journal of the Program Biota/Fapesp – The Virtual Institute of Biodiversity that publishes the results of original research work, associated or not to the program, that involve characterization, conservation and sustainable use of biodiversity in the Neotropical region.

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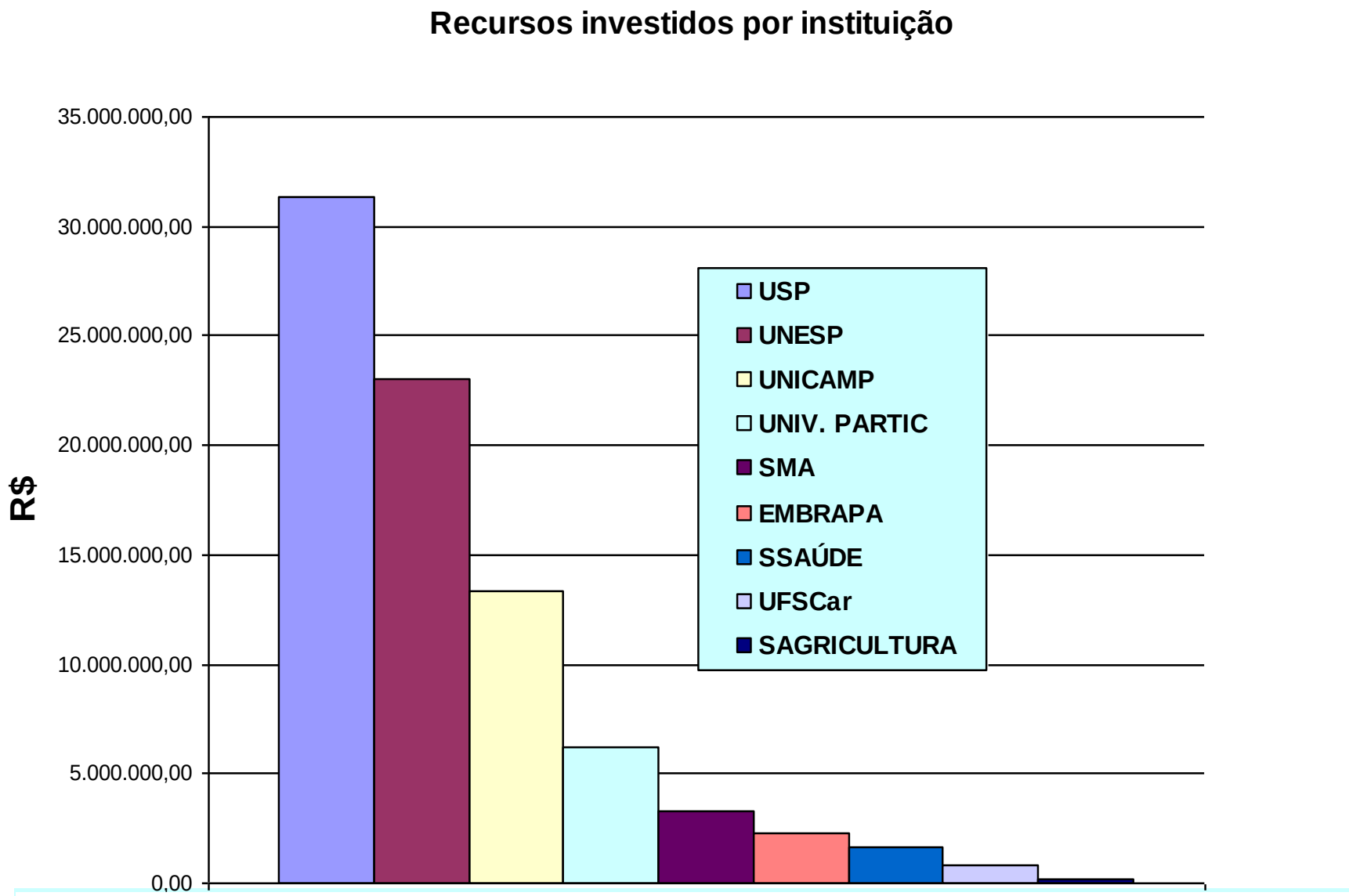
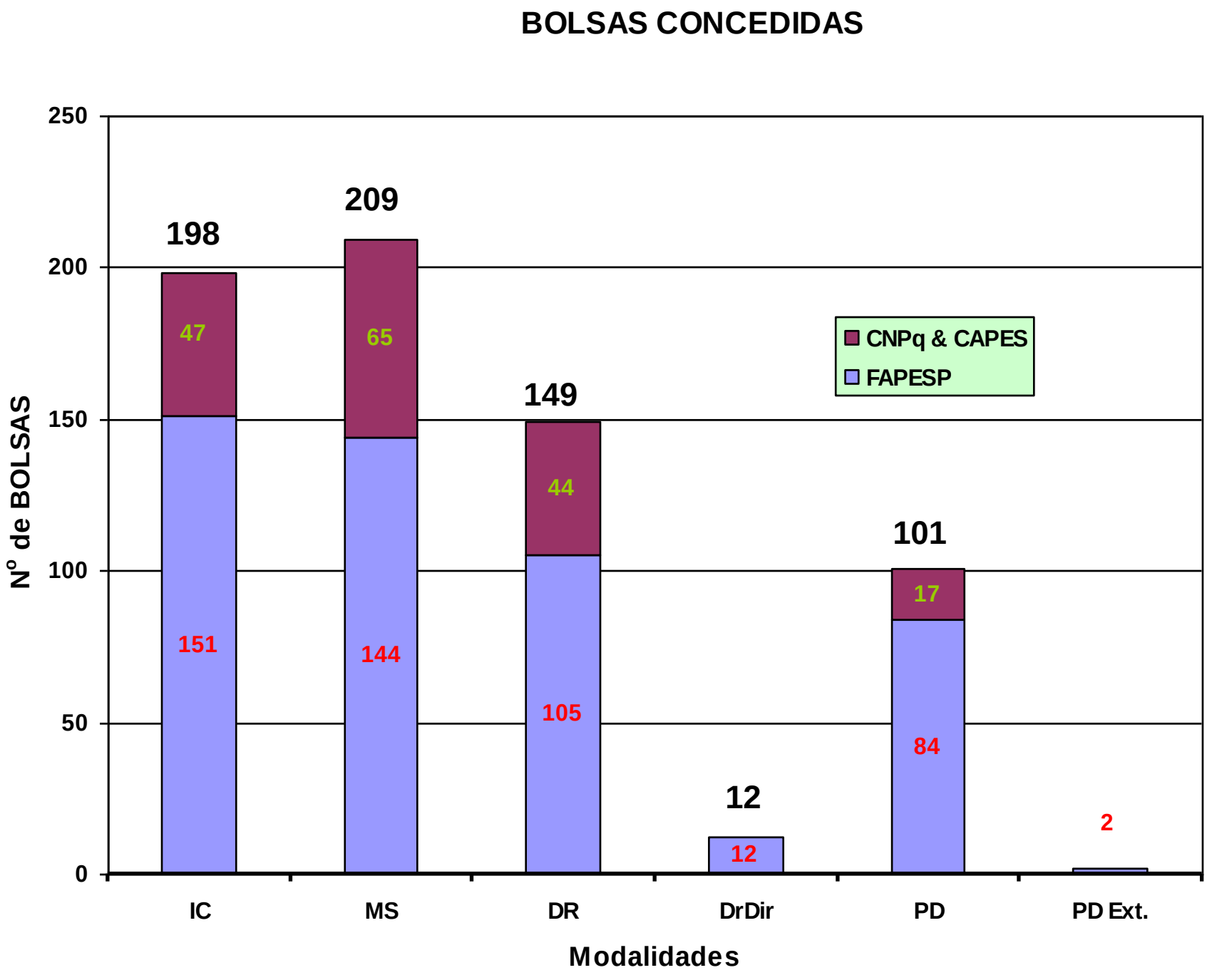
inventories

Fishes
Amphibians
Reptiles
Birds
Mammals
+
30 Invertebrate



TOTAL AMOUNT OF FAPESP'S INVESTMENT IN THE BIOTA/FAPESP PROGRAM 1998-2010

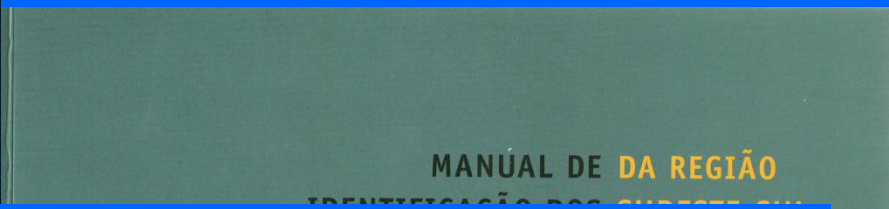
R$ 98.772.262,50 ≈ US$ 40.000.000,00


BOLSAS CONCEDIDAS
250
200
150
100
50
0
Nº de BOLSAS
198
209
149
101
12
47
65
44
17
151
144
105
84
12
2
CNPq & CAPES
FAPESP
IC
MS
DR
DrDir
PD
PD Ext.
Modalidades

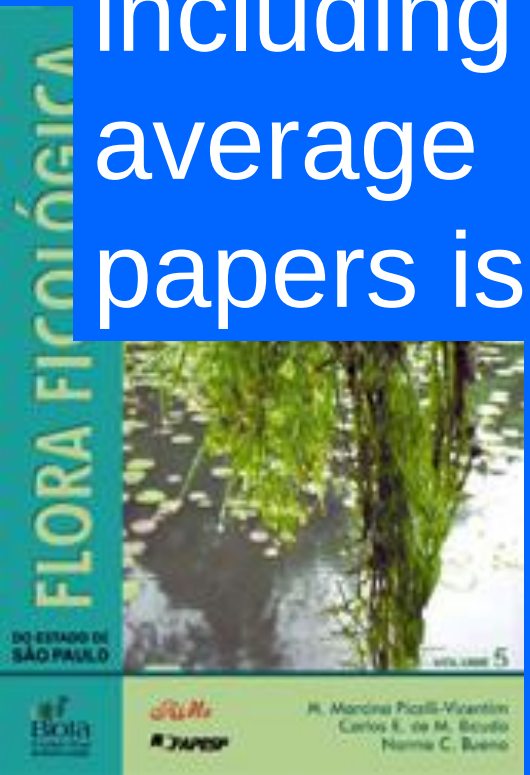
Professional training

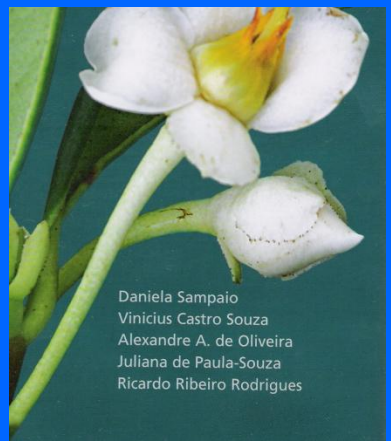
Agência	IC	MSc	PhD	Pos-Docs
FAPESP	**125**	**104**	**64**	**62**
CNPQ/CAPES	47	65	44	17
TOTAL	**172**	**169**	**108**	**79**

PRODUCTS



In 10 years the BIOTA Program published **> 850** papers, in 210 journals, at least 130 indexed by ISI, including **Nature** and **Science**. The average impact index of published papers is 1.219.





PRODUCT

Phanerogams
62.600 registers
Species: **5.463**

Cryptogams
1.815 registers
Species: **433**

Mammals
8.062 registers
Species: **149**

Reptile
431 registers
Species: **74**

Birds
19.742 registers
Species: **520**

Amphibians
17.351 registers
Espécies: **168**

Fishes
11.620 registers
Species: **349**

PRODUCT

Landscape Metrics

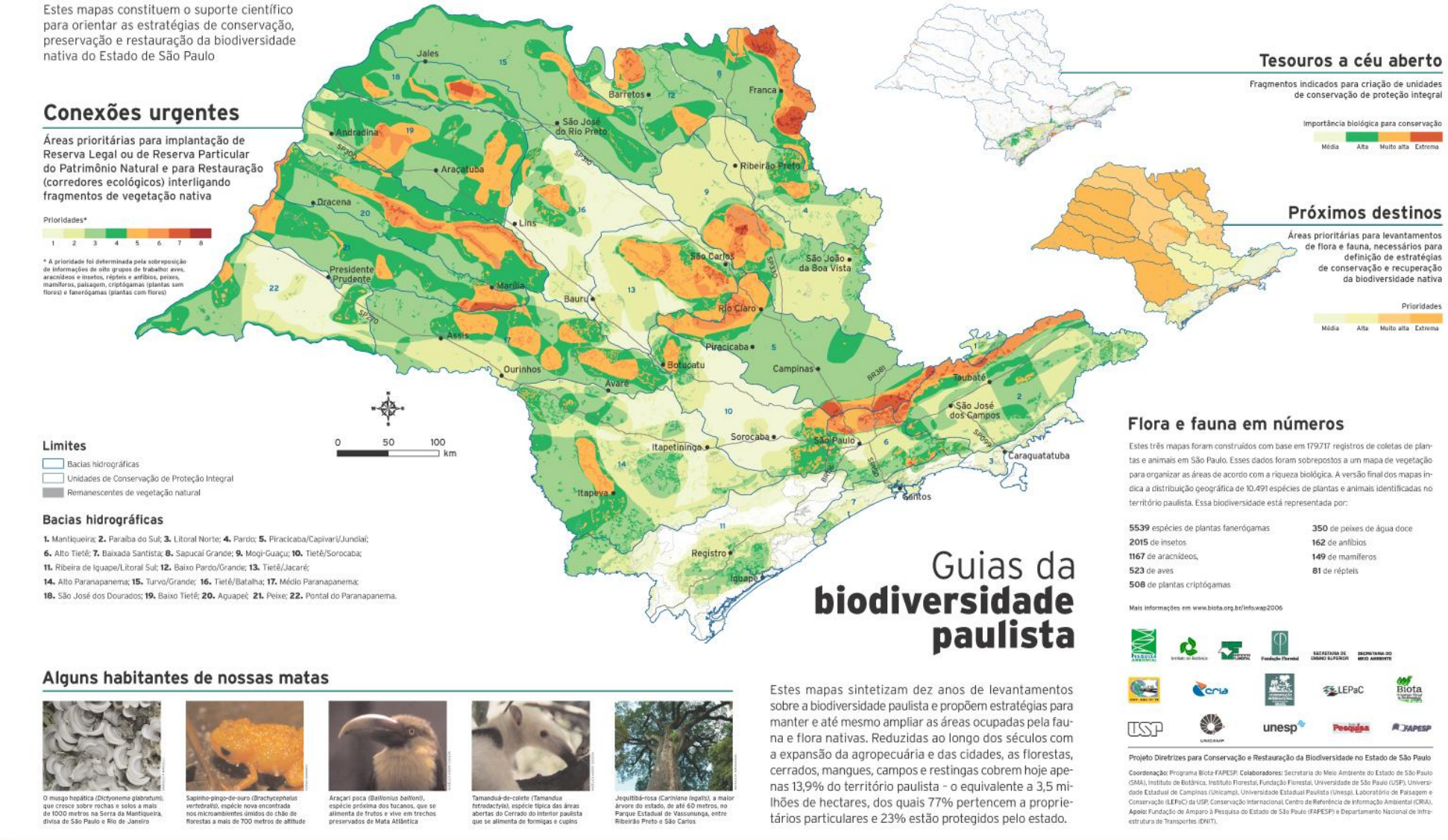
1. Remnant area
2. Area index – size and format
3. Proximity

Biodiversity Indexes

1. List of species/remnant richness
2. Number of endemic species
3. Number of endangered species (category of Risk)
4. Single occurrences for the State of São Paulo
5. Number of occurrences in the State of São Paulo
6. Presence/Risk of invasive species

Para o verde renascer

PRODUCT



BIOTA/FAPESP Program – Map of the priority areas for biodiversity conservation and restoration for the State of São Paulo.

PRODUCT

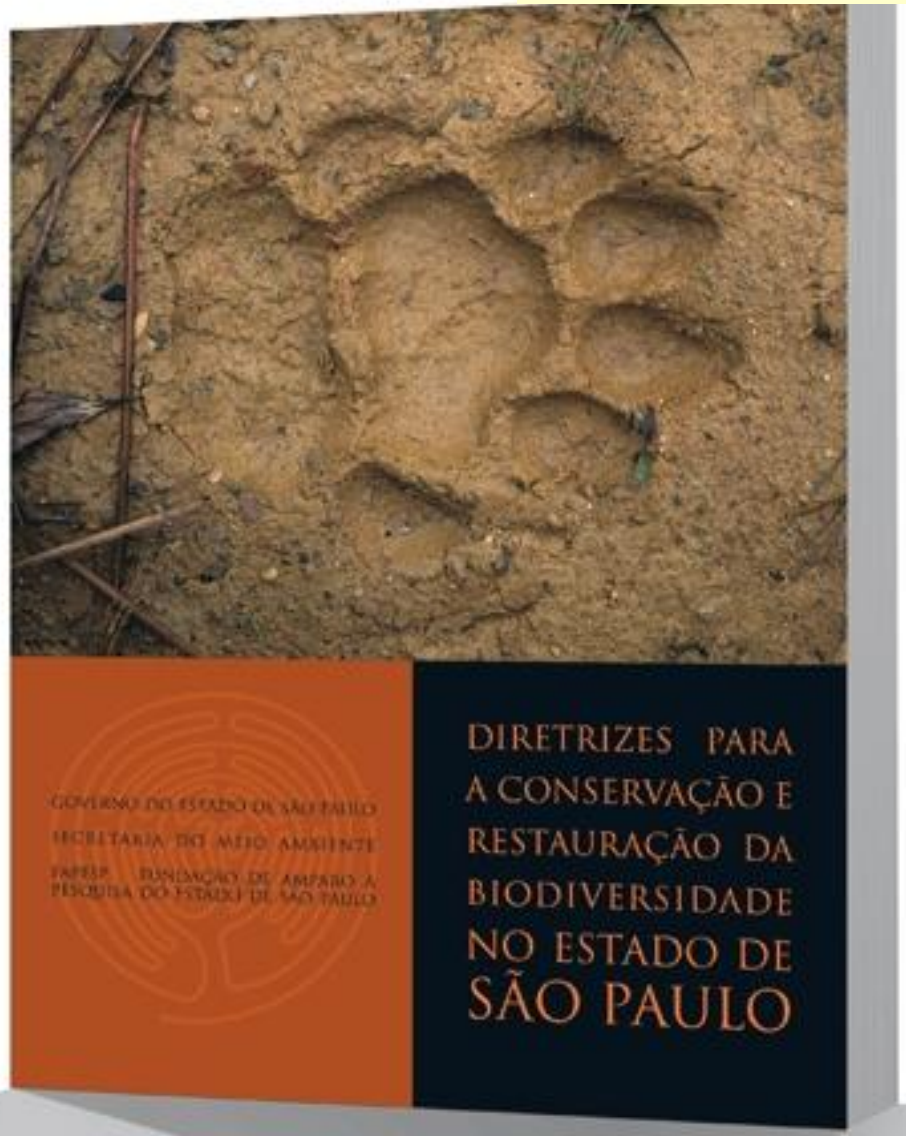
XICO GRAZIANO
Secretário de Estado do Meio Ambiente
convida para o lançamento do livro

DIRETRIZES PARA A CONSERVAÇÃO E RESTAURAÇÃO DA BIODIVERSIDADE NO ESTADO DE SÃO PAULO*

Dia 24 de novembro de 2008
Segunda-feira, às 16:30 horas
Av. Miguel Estéfano, 3.031 - Água Funda
São Paulo - SP

Informações:
Jardim Botânico • Tel: 11 5073 6300 ramal 219
Assessoria de Comunicação • 11 3133 4099

*Exemplares disponíveis aos presentes no evento



Realização:

Biota FAPESP Instituto de Botânica SECRETARIA DO MEIO AMBIENTE GOVERNO DE SÃO PAULO

RESOLUÇÃO SMA-15 DE 13 DE MARÇO DE 2008.

PRODUCT

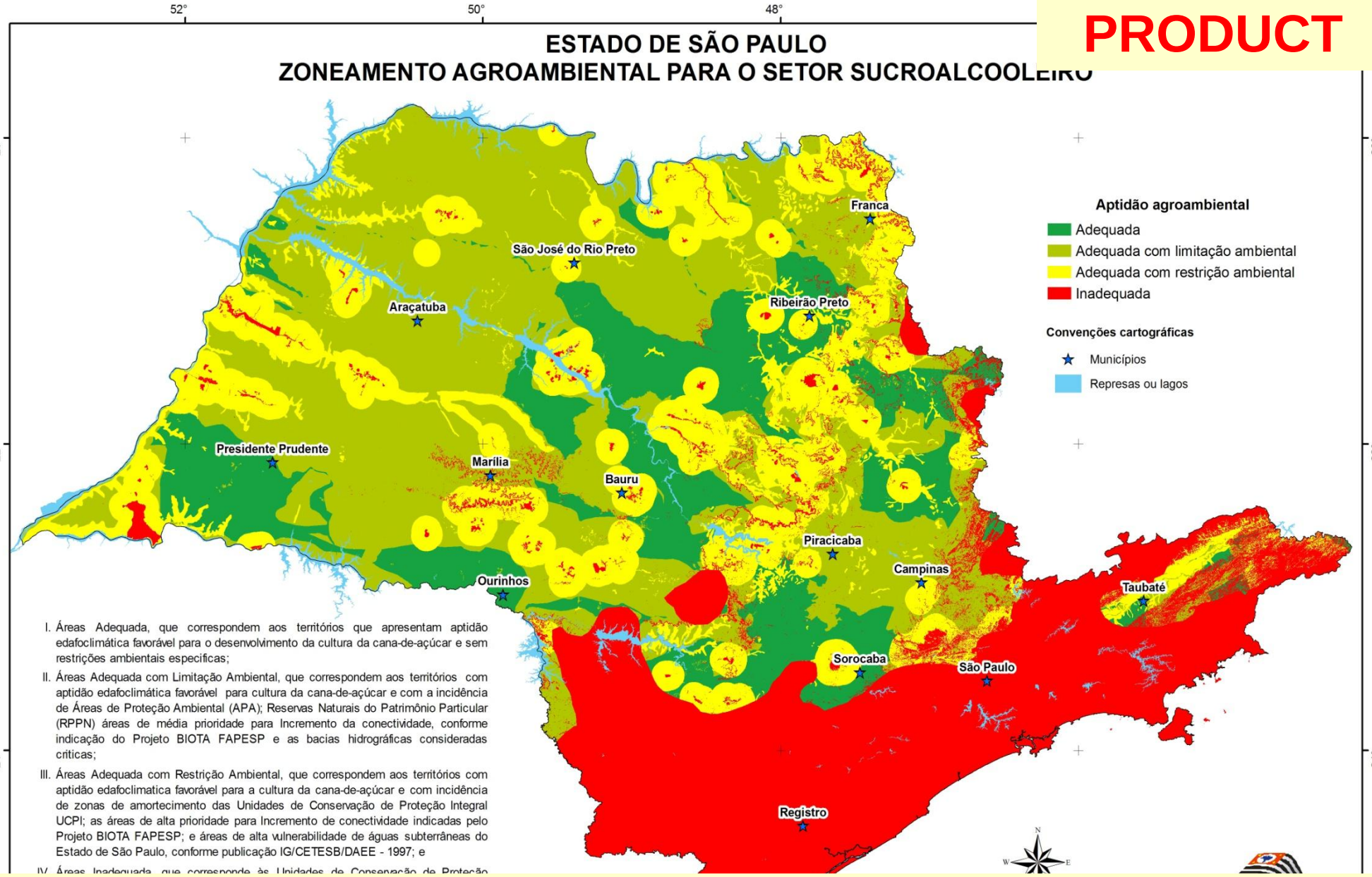
The map produced by BIOTA/FAPESP is adopted by the State Secretary of Environment as State police for biodiversity conservation and restoration.

de autorização para supressão de vegetação nativa considerando as áreas prioritárias para incremento da conectividade.

O **SECRETÁRIO DE ESTADO DO MEIO AMBIENTE**, em cumprimento ao disposto nos artigos 23, VII, e 225, § 1º, I, da Constituição Federal, nos artigos 191 e 193 da Constituição do Estado, nos artigos 2º e 4º da Lei federal nº 6.938, de 31 de agosto de 1981, e nos artigos 2º, 4º e 7º da Lei estadual nº 9.509, de 20 de março de 1997, e

Considerando os resultados obtidos pela equipe de pesquisadores do Projeto Biota FAPESP e as informações presentes no mapa de "Áreas prioritárias para incremento da conectividade" e "Áreas prioritárias para criação de Unidades de Conservação" resultantes do Projeto Biota FAPESP;

PRODUCT



The map produced by the BIOTA/FAPESP Program is adopted by the State Secretary of Agriculture – areas of sugarcane expansion.

PRODUCT

ATO NORMATIVO Nº 565/2009-PGJ

(Pt. nº 5.070/2009)

Dispõe sobre as metas gerais e regionais para a atuação do Grupo de Atuação Especial de Defesa do Meio Ambiente (GAEMA) e da Rede de Atuação Protetiva do Meio Ambiente.

O PROCURADOR-GERAL DE JUSTIÇA, no exercício das atribuições que lhe são conferidas pelo art. 19, inciso XII, alínea "c", da Lei Complementar Estadual nº 734, de 26 de novembro de 1993, como também o disposto no art. 3º. do Ato Normativo nº 552/08 – PGJ, de 4

The map produced by the BIOTA/FAPESP Program is adopted by the Procuradoria de Justiça do Estado de São Paulo.

SCIENCE 11 JUNE 2010 VOL 328: 1358-1359

POLICYFORUM

ECOLOGY

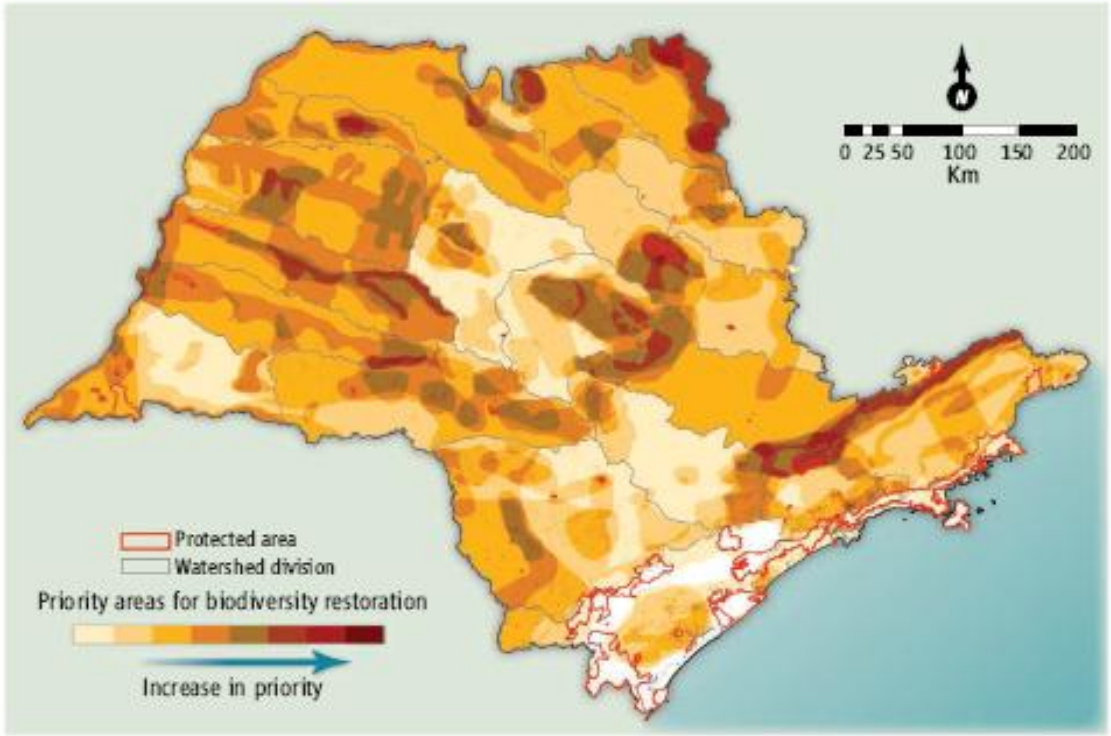
Biodiversity Conservation Research, Training, and Policy in São Paulo

The BIOTA-FAPESP program is linking a decade of research on biodiversity into public policy in the state of São Paulo.

Carlos A. Joly,[1]* Ricardo R. Rodrigues,[2] Jean Paul Metzger,[3] Célio F. B. Haddad,[4] Luciano M. Verdade,[2] Mariana C. Oliveira,[5] Vanderlan S. Bolzani[6]

Since the Convention on Biological Diversity (CBD) in 1992, biodiversity conservation (the protection of species, ecosystems, and ecological processes) and restoration (recovery of degraded ecosystems) have been high priorities for many countries. Scarce financial resources must be optimized, especially in developing countries considered megadiverse (*1*), by investing in programs that combine biodiversity research, personnel training, and public-policy impact. We describe an ongoing program in the state of São Paulo, Brazil, that may be a useful example of how conservation initiatives with a solid scientific basis can be achieved.

São Paulo's rich native biodiversity is threatened by changes in land cover and fragmentation (*2*, *3*). This prompted scientists in 1999 to found the Virtual Institute of Biodiversity, BIOTA-FAPESP. FAPESP, the State of São Paulo Research Foundation, is a nonpolitical, taxpayer-funded foundation, one of the main funding agencies for scientific and technological research in Brazil,



Priority areas for biodiversity restoration in São Paulo. The figure also shows the existing network of state parks (red lines) and the state's division of Water Management Units (gray lines). (See SOM.)

BIOTA

FAPESP

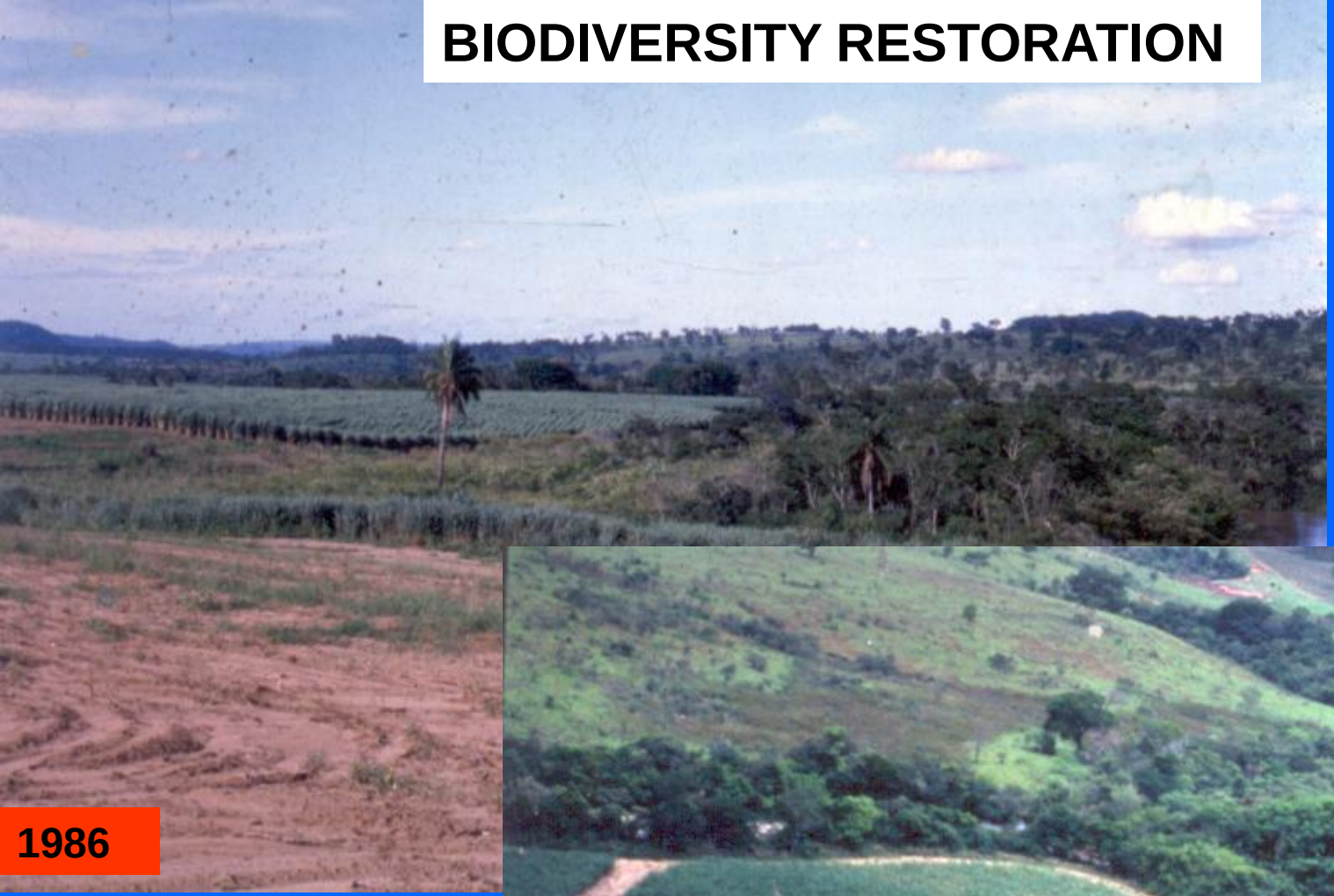
+ 10

SCIENCE PLAN & STRATEGYES

FOR THE NEXT DECADE

Expand the geographic area to the natural limits of biomes.

BIODIVERSITY RESTORATION

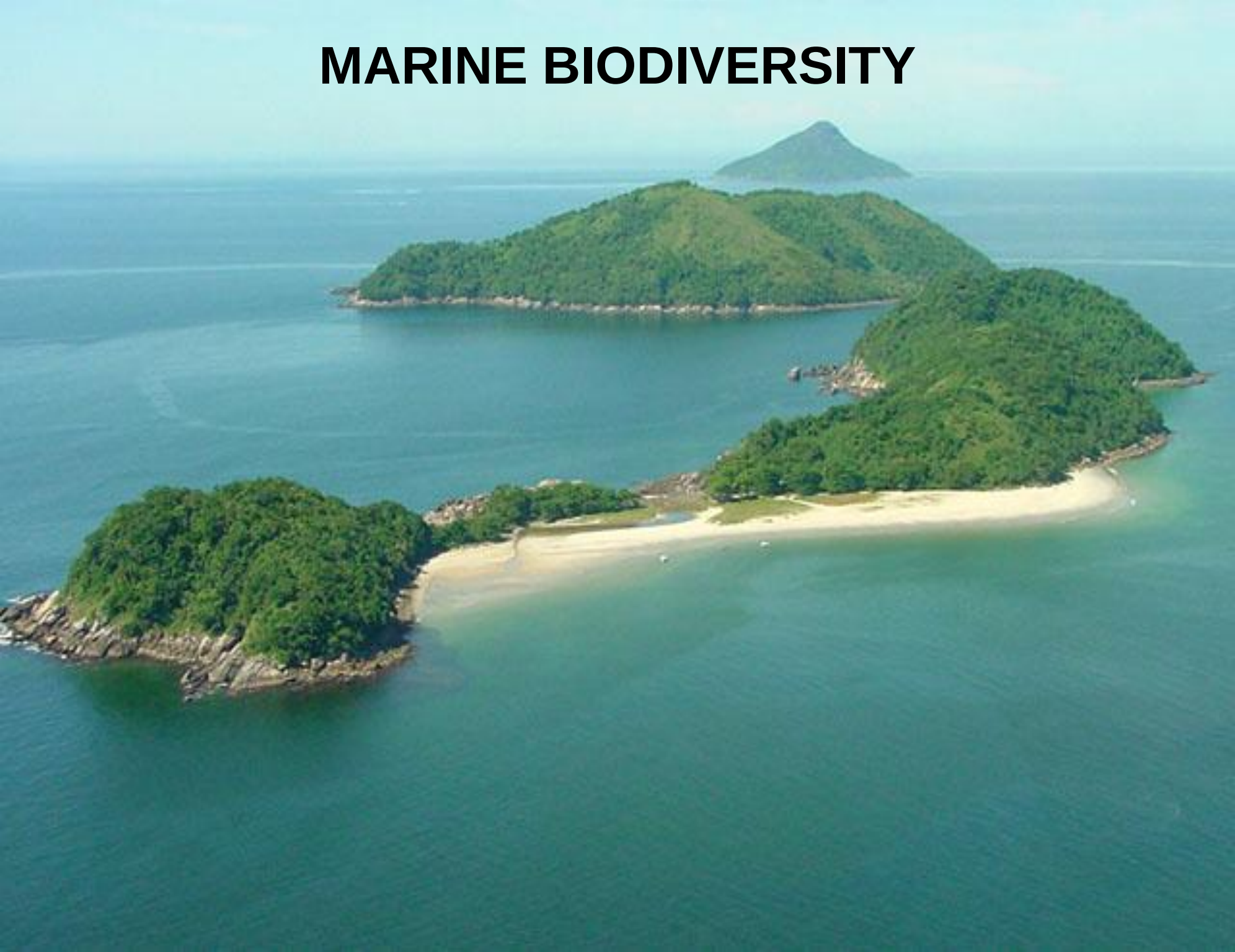


1986

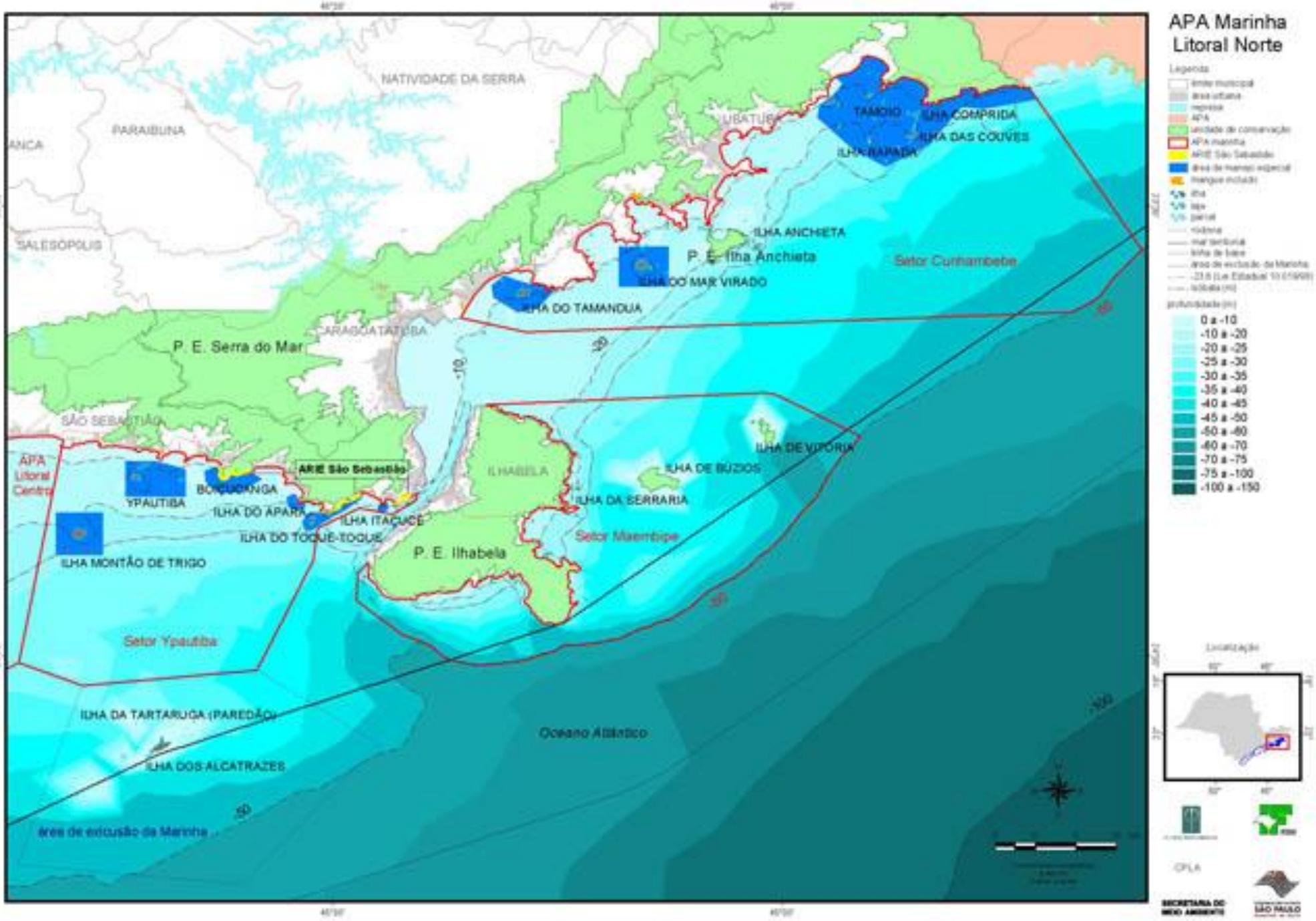
1996

Primary & High School - General Public

MARINE BIODIVERSITY



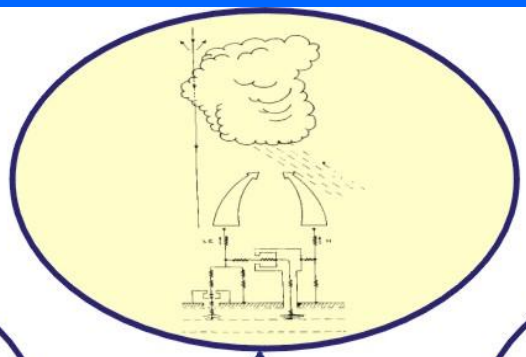
MARINE BIODIVERSITY



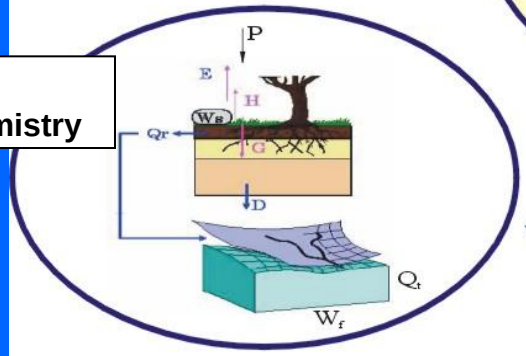
Ecosystem Functioning

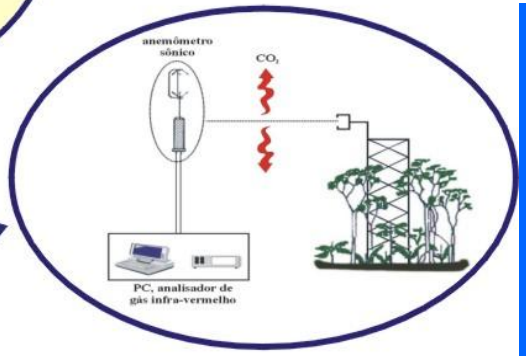
Phytossociology
Biometry (C stocks)
Photosynthesis
Leaf metabolism C & N
Plant-Atmosphere Coupling
Water balance

Biosphere-Atmosphere Coupling



Hydrology Hydrochemistry





Carbon, nitrogen & water fluxes

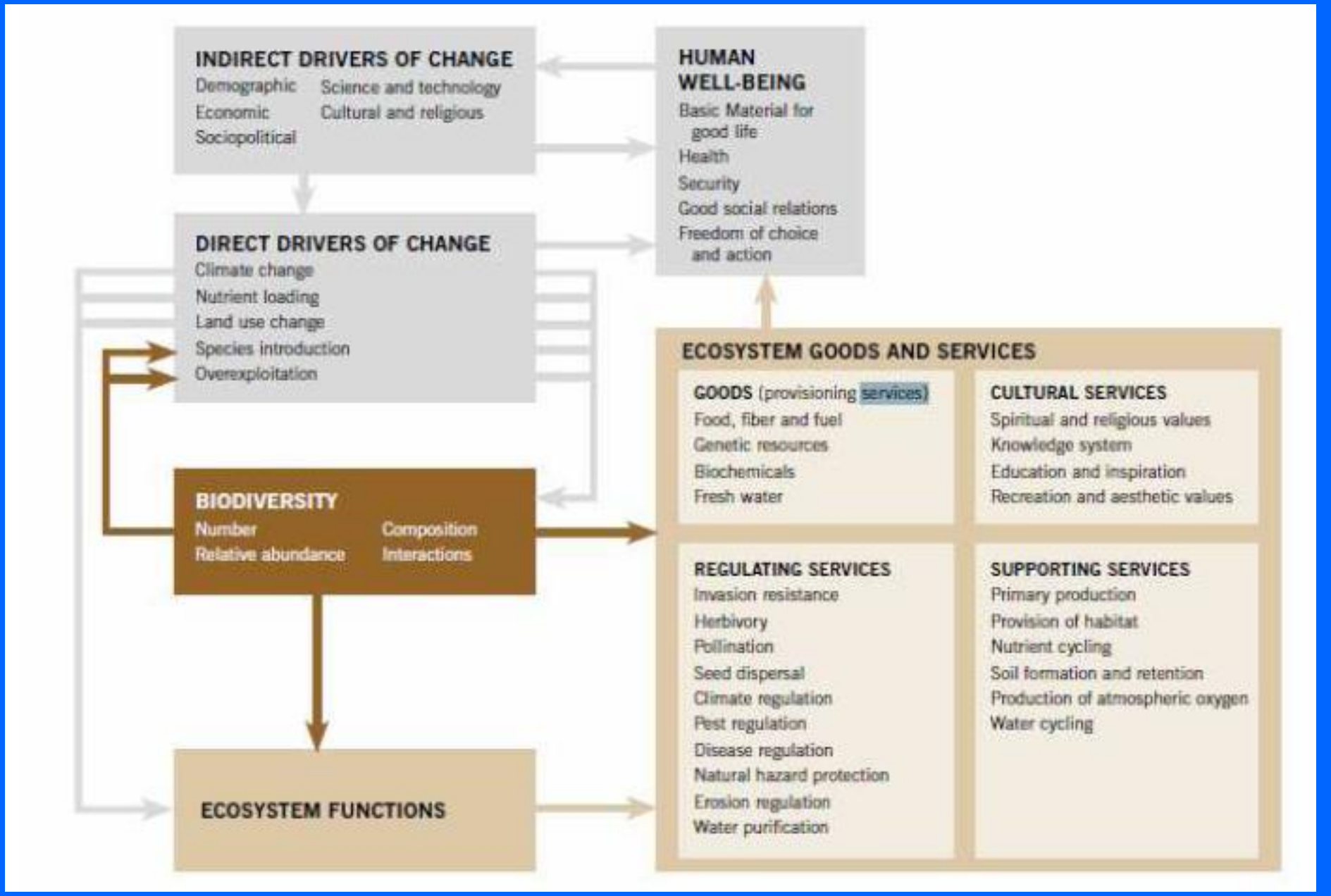
Natural Ecosystems

Land use changes

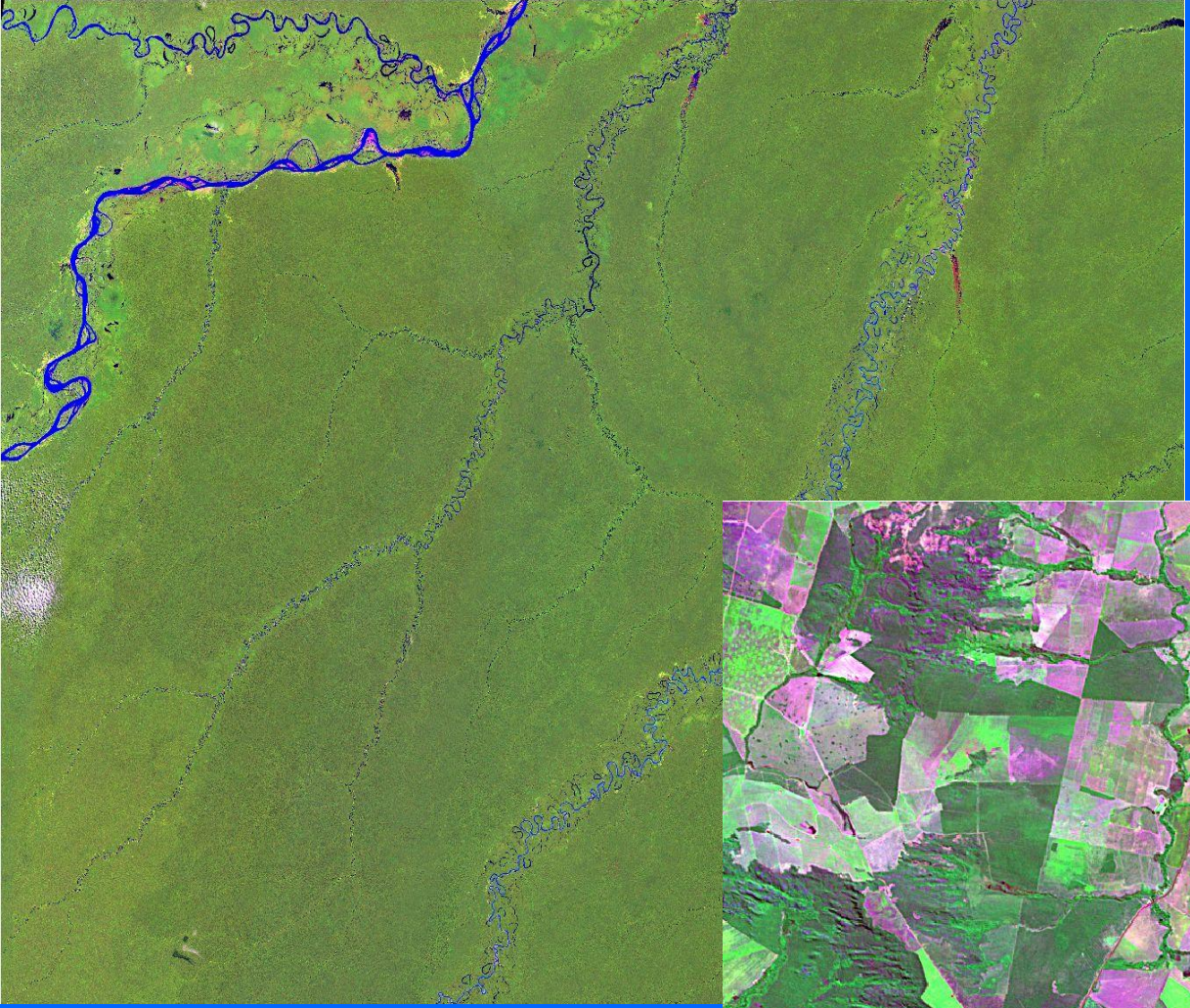
Ecophysiology, Isotopy

Courtesy Humberto R. Rocha

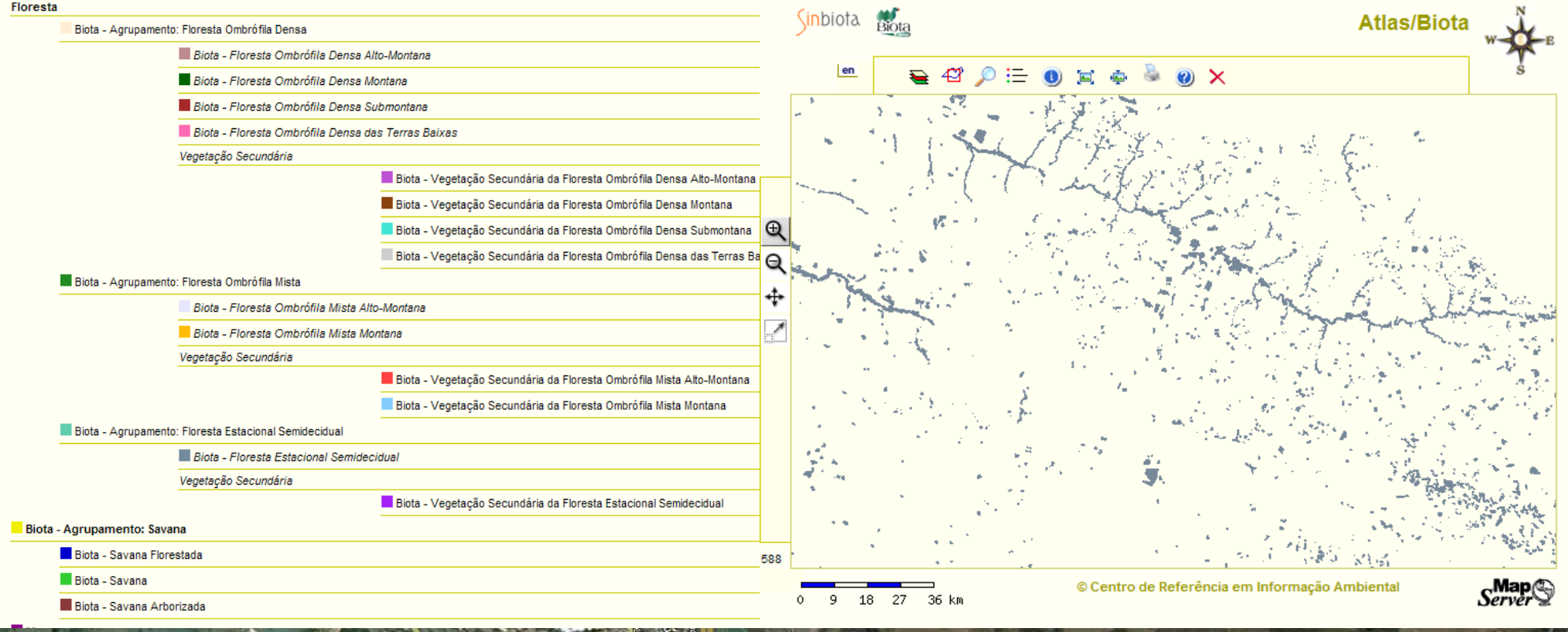
Ecosystem Services



Natural landscapes

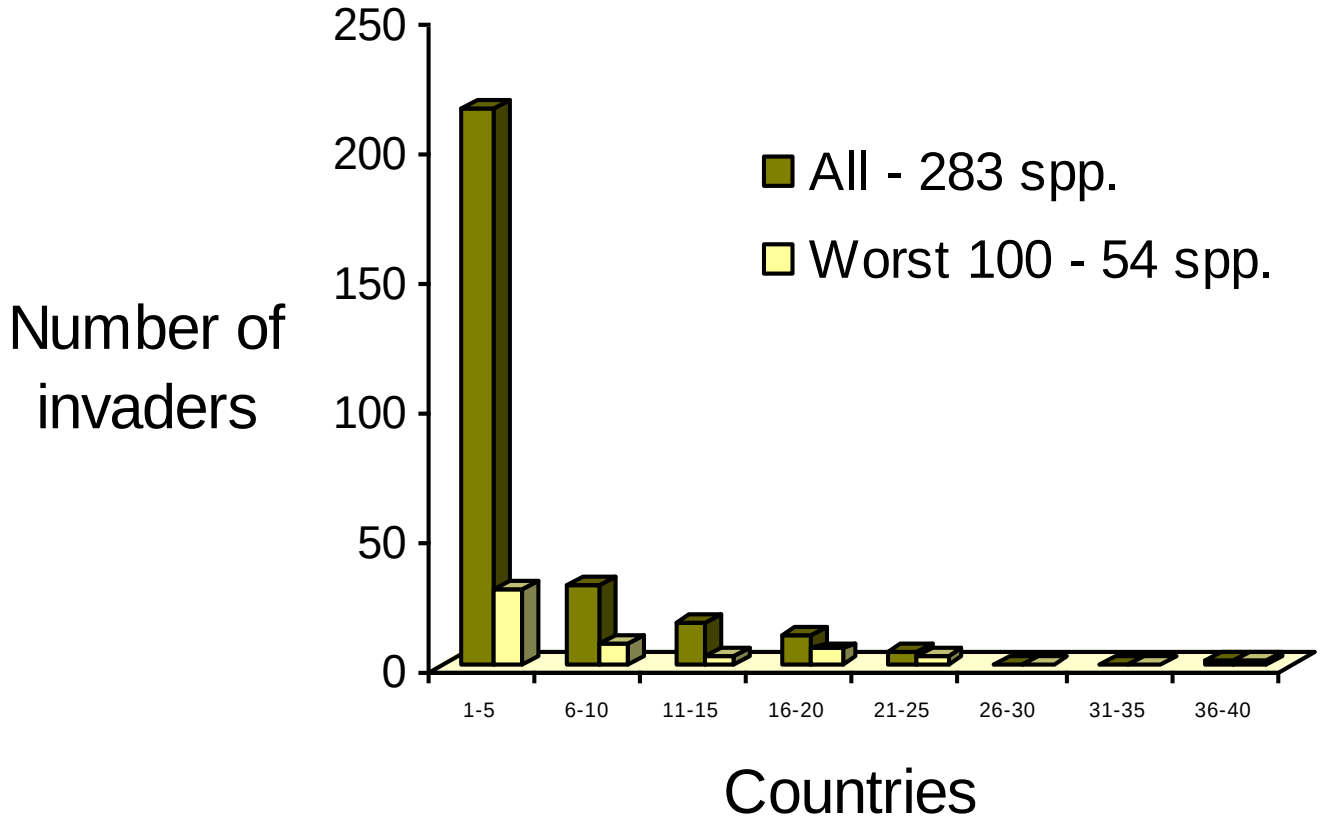


Man made landscapes


Floresta
Biota - Agrupamento: Floresta Ombrófila Densa
Biota - Floresta Ombrófila Densa Alto-Montana
Biota - Floresta Ombrófila Densa Montana
Biota - Floresta Ombrófila Densa Submontana
Biota - Floresta Ombrófila Densa das Terras Baixas
Vegetação Secundária
Biota - Vegetação Secundária da Floresta Ombrófila Densa Alto-Montana
Biota - Vegetação Secundária da Floresta Ombrófila Densa Montana
Biota - Vegetação Secundária da Floresta Ombrófila Densa Submontana
Biota - Vegetação Secundária da Floresta Ombrófila Densa das Terras Ba
Biota - Agrupamento: Floresta Ombrófila Mista
Biota - Floresta Ombrófila Mista Alto-Montana
Biota - Floresta Ombrófila Mista Montana
Vegetação Secundária
Biota - Vegetação Secundária da Floresta Ombrófila Mista Alto-Montana
Biota - Vegetação Secundária da Floresta Ombrófila Mista Montana
Biota - Agrupamento: Floresta Estacional Semidecidual
Biota - Floresta Estacional Semidecidual
Vegetação Secundária
Biota - Vegetação Secundária da Floresta Estacional Semidecidual
Biota - Agrupamento: Savana
Biota - Savana Florestada
Biota - Savana
Biota - Savana Arborizada
Sinbiota
Atlas/Biota
en
588
0 9 18 27 36 km
© Centro de Referência em Informação Ambiental
MapServer

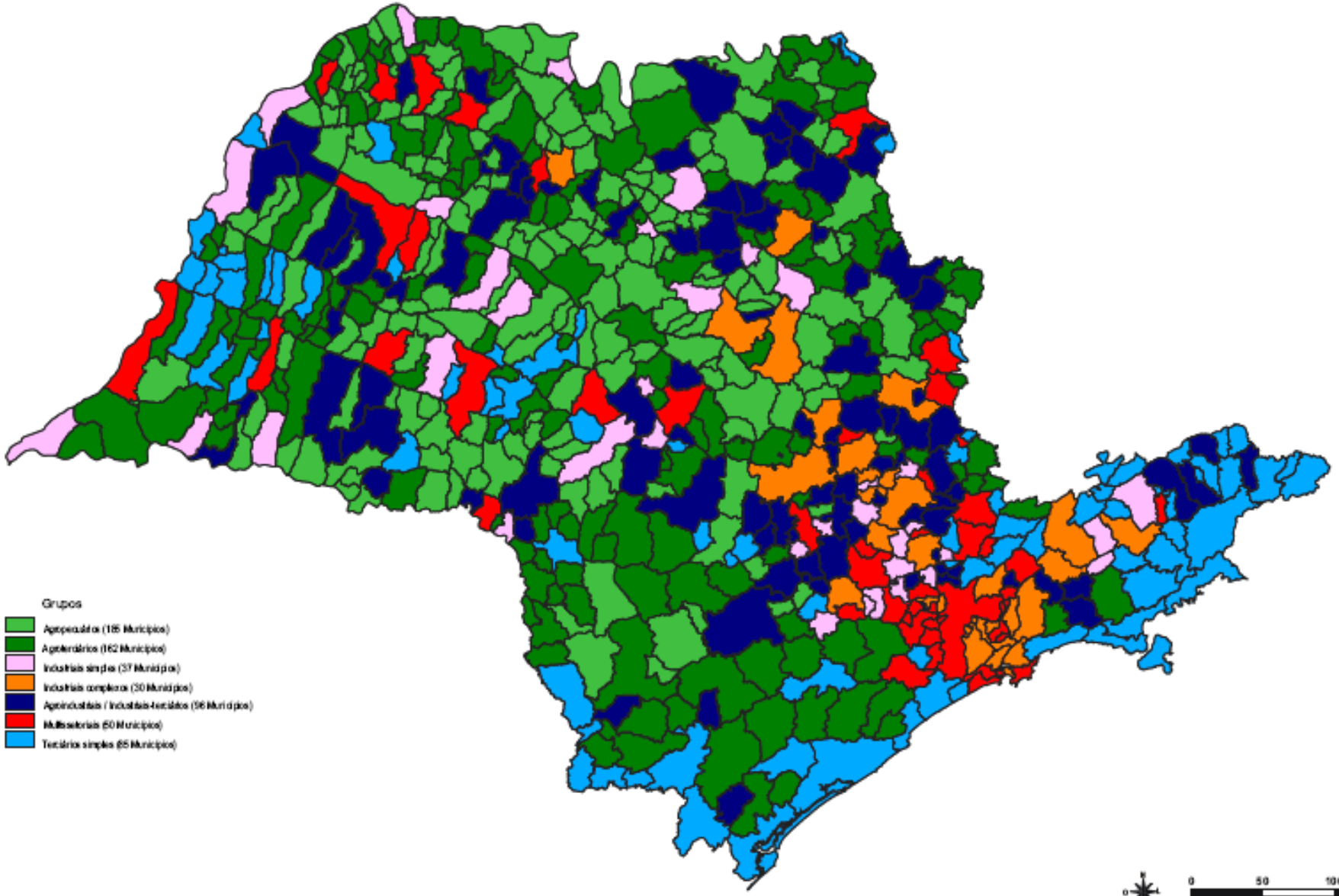

SP-328
R. Cironamo Estella
R. José Rizzo
R. Aoriano Furegato
Rod. José Fregonesi

Invasive species & GMOs



Source of original data
Global Invasive Species Data Base

Courtesy Mary Kalin Arroyo

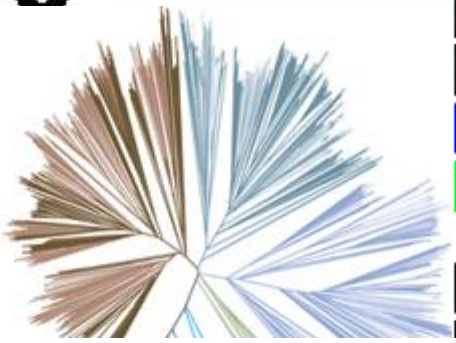


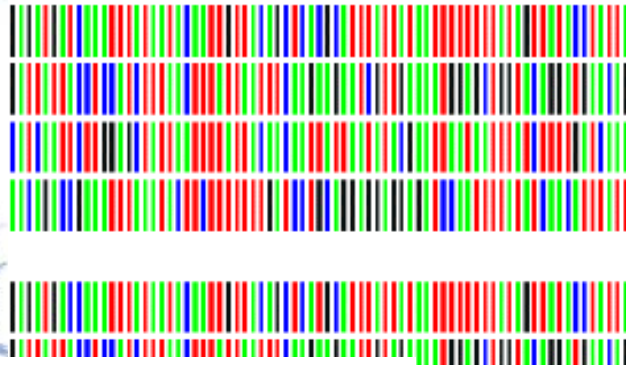
Fonte: Instituto Brasileiro de Geografia e Estatística – IBGE. Fundação Seade

BIOTA

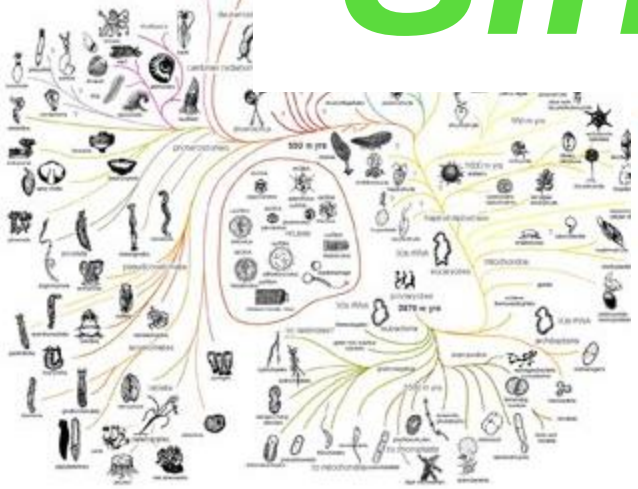
FAPESP

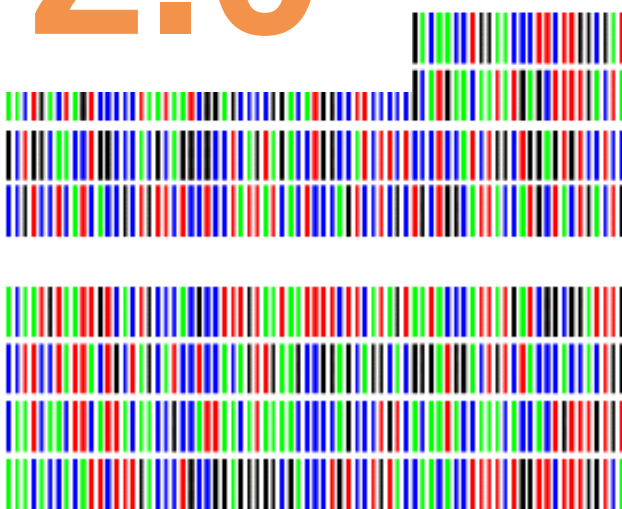
+ 10





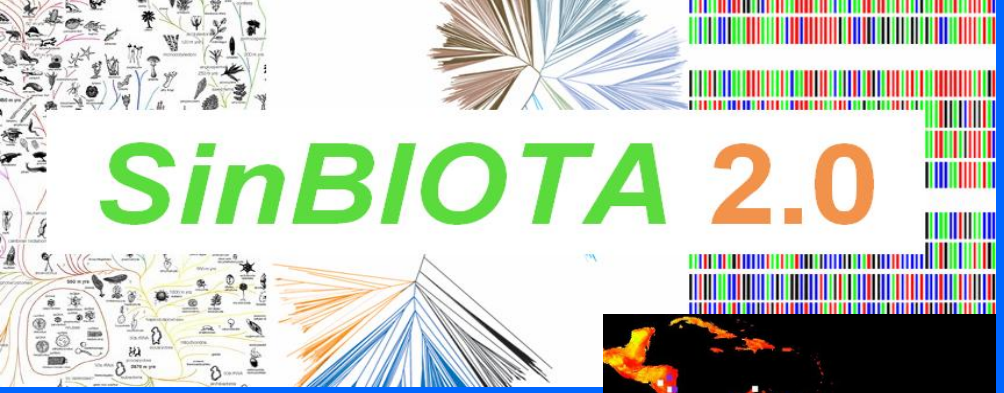
SinBIOTA 2.0





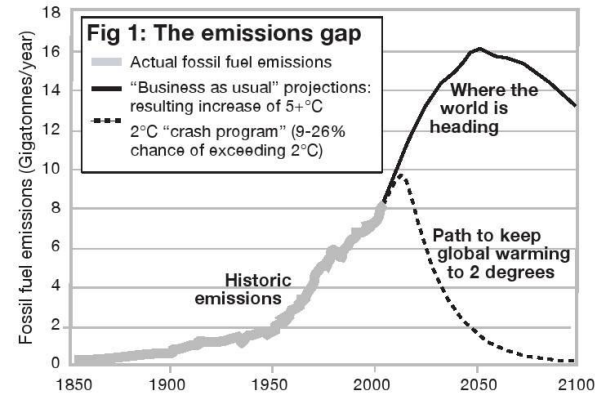
NEW INTERFACES

SinBIOTA 2.0

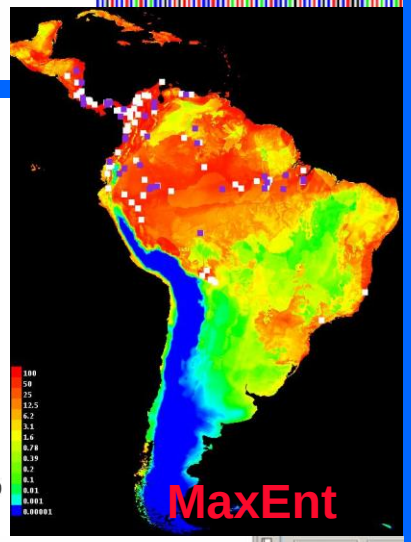


CONSORTIUM FOR THE BARCODE OF LIFE

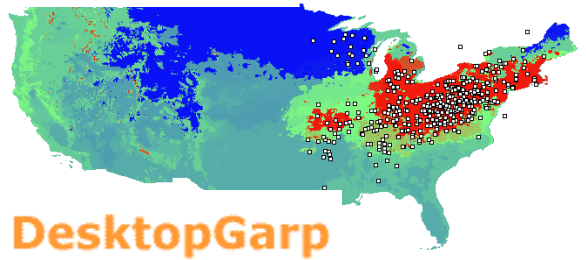
DNA Barcoding

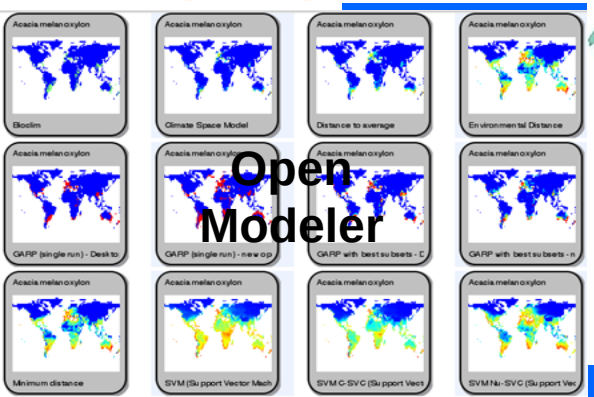


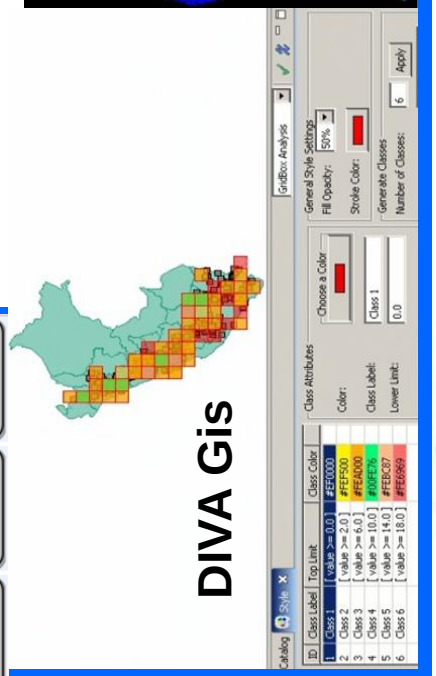
Source: *Historic emissions/BAU path:* GCP Report No 5/2006 www.globalcarbonproject.org. BAU based on 2001 IPCC report scenario. *2°C "crash program" path:* Athanasiou, T, S Kartha, P Baer, 2006. "Greenhouse Development Rights", EcoEquity/Christian Aid (www.ecoequity.org)



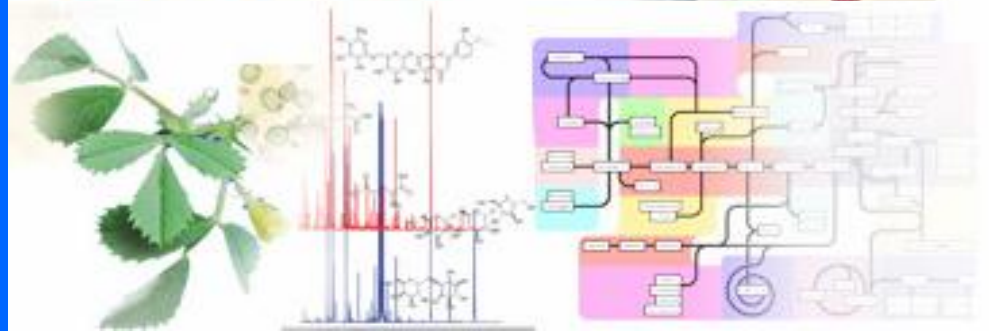
Data Management and Bioinformatics Challenges of Metagenomics

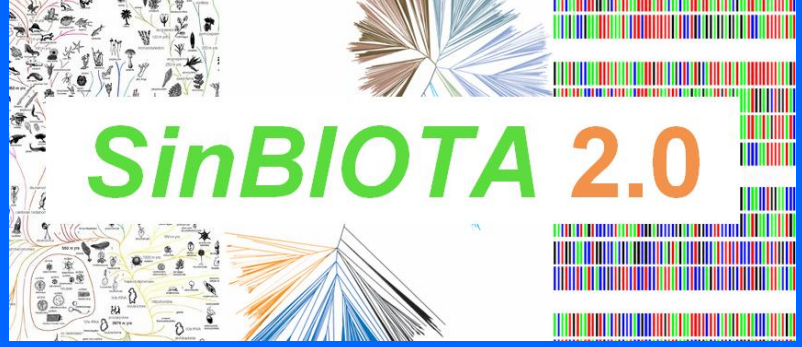






METABOLOMICS





FULL INTEROPERABILITY

GROUP ON EARTH OBSERVATIONS | GEO BON

Biodiversity Observation Network

The Group on Earth Observations Biodiversity Observation Network – GEO BON – is the biodiversity arm of the Global Earth Observation System of System of Systems (GEOSS).

PPBIO – SISBIOTA – REPENSA

BIOTA BA - BIOTA ES - BIOTA MG

BIOTA MS - BIOTA RS

SinBIOTA 2.0

National Center for High Performance Computing in São Paulo

UNICAMP

VERSÕES: PORTUGUESE | ESPAÑOL

HOME
- What is it?
- Why using ?
- Hardware
- Software
- Training
- Information

What is the CENAPAD-SP ?

CENAPAD-SP (National Center for High Performance Computing in São Paulo) was founded on March 1994, under the agreement between Unicamp (State University of Campinas) and FINEP (Financer for Studies and Projects, from brazilian Ministry of Science and Tec

Its mission is to puting and consulting services to the academic comm and the private sector.

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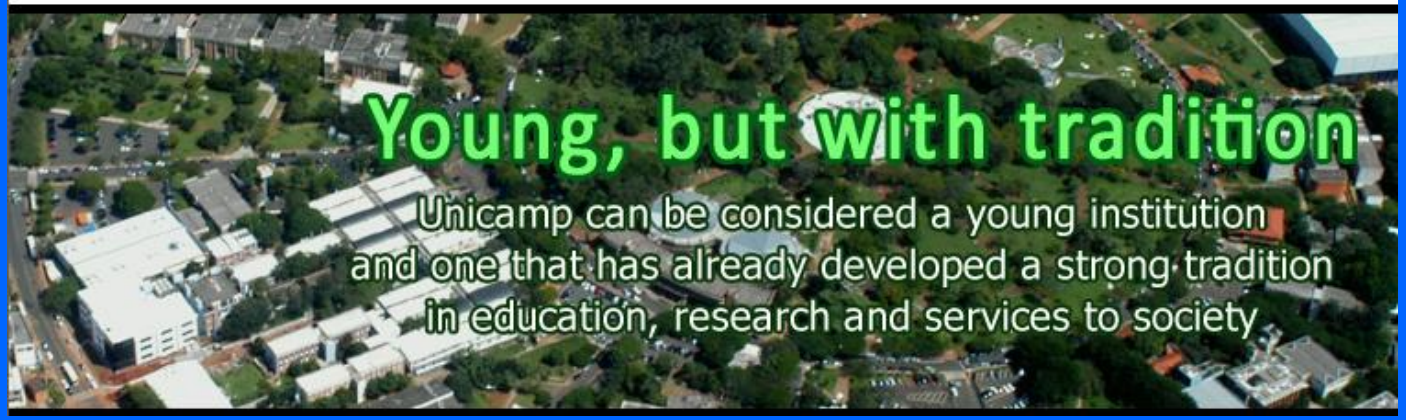
UNICAMP

UNIVERSIDADE ESTADUAL DE CAMPINAS

Unicamp | Structure | Teaching and Research | International relations | Location | Contact



VI – Evaluation Meeting of the BIOTA/FAPESP Program

08 – 13th July 2008 - Araraquara

Scientific Advisory Committee

Arthur D. **CHAPMAN** - Marcelo **TABARELLI** - Gordon **CRAIG** - João Batista **CALIXTO** - Rober **VERPOORTE**

BIOTA - http://www.biota.org.br/info/sac/sac6

BIOprospecTA - http://www.biota.org.br/info/sac/sac6_biop.pdf

2008, November 10th and 11th

International Symposium "Evolutionary Biology and Biodiversity Conservation: Scientific and Social Aspects"

Nº of attendees: 300

Speakers (17)

Dr. Michael Donoghue, Yale University, USA

Dr. Paulo Eugênio de Oliveira, Universidade Federal de Uberlândia, Brazil

Dr. Tetsukazu Yahara, Kyushu University, Japan

Dr. Elena Conti, University of Zurich, Switzerland

Dr. Joel Cracraft, American Museum of Natural History, USA

Dr. Kazuhiro Kogure, Tokyo University, Japan

Dr. Thomas M. Lewinsohn, Biology Department, UNICAMP, Brazil

Dr. Craig Moritz, University of California, Berkeley, USA

Dr. Ana Carnaval, University of California, Berkeley, USA

Dr. Bruno Walther, DIVERSITAS, France

Dr. Keith Crandall, Brigham Young University, Provo, Utah, USA

Dr. Anne-Hélène Prieur-Richard, DIVERSITAS, France

Dr. Anne Larigauderie, DIVERSITAS, France

Dr. Simon Tillier, Museum National d'Histoire Naturelle, France

Dr. Christoph Häuser, State Museum of Natural History, Stuttgart, Germany

Dr. Andrew Hendry, McGill University, Montreal, Quebec, Canada

Representative of the Ministry of the Environment, Brazil

2009, November 9th and 10th

International Workshop on Applied Ecology and Human Dimensions in Biological Conservation

Speakers 6 abroad + 2 Brazil - Nº of attendees: 300

2009, December 3rd and 4th

BIOTA-FAPESP International Symposium on DNA Barcoding

Speakers 10 abroad + 8 Brazil Nº of attendees: > 300

2010, February 25th and 26th

BIOTA-FAPESP International Workshop on Metabolomics in the Context of Systems Biology

Speakers 8 abroad + 13 Brazil - Nº of attendees: > 300

2010, September 9th and 10th

BIOTA-FAPESP Workshop on Marine Biodiversity: Current Advances on Bioprospecting, Biogeography and Phylogeography

Speakers 8 abroad + 6 Brazil - Nº of attendees: > 300

2010, September 9th and 10th

BIOTA-FAPESP Workshop on Marine Biodiversity: Current Advances on Bioprospecting, Biogeography and Phylogeography

Speakers 8 abroad + 6 Brazil - Nº of attendees: > 300

2010, November 9th and 10th

BIOTA-FAPESP International Symposium on Phylogeography

Speakers 10 abroad + 9 Brazil - Nº of attendees: > 300

2010, November 23rd

BIOTA-FAPESP International Workshop on Long-Term Studies on Biodiversity

Speakers (8) 2 abroad + 6 Brazil - Nº of attendees: > 200

2011, April 7th and 8th 3rd

BIOTA-FAPESP Workshop: biodiversidade, educação e divulgação.

Speakers 6 Brazil - Nº of attendees: ≈ 100

BIOTA program activities – promoting the science of biodiversity

BIOTA program stimulating research on biodiversity

+ 10

Inducing calls for grant applications

1. BIOTA – Marine Organisms

22 applications received and registered by FAPESP

10 applications approved by FAPESP ≈ 45% Approval

2. BIOTA – Biological Collections

No data available

3. BIOTA - Taxonomy, Systematics and Phylogeography

46 applications received and registered by FAPESP

?? applications approved by FAPESP

BIOTA program activities – promoting the science of biodiversity

BIOTA
FAPESP
+ 10

BIOTA program stimulating research on biodiversity

4. BIOTA - Microorganisms (microbial diversity, taxonomy, ecology, ecologia, systematics, phylogeny, collections in unique ecosystems, biochemistry, genomics and biotechnology)

46 applications received and registered by FAPESP
Peer-review analysis is underway

BIOTA program activities – promoting the science of biodiversity

BIOTA program stimulating research on biodiversity

+ 10

Inducing a NATIONAL PROGRAM

SISBIOTA Brazil – a join FAPESP/CNPq funding program "National Research System on Biodiversity"

Focus:

a) Enhance the knowledge and to promote better characterization the Brazilian Biodiversity.

b) Promote investigations and the synthesis of the state-of-art of the Brazilian Biodiversity.

c) Consolidation of national scientific and technological capacity for biodiversity studies.

Almost 50 applications received by CNPq

19 applications recommended by CNPq

04 applications approved by CNPq and FAPESP


http://www.conabio.gob.mx/
Conabio
Sistema Nacional de Información sobre Biodiversidad
Corredor Biológico Mesoamericano
Proyectos
Cooperación internacional
Restauración ambiental
Centro de documentación
Mapa de sitio y búsqueda
Comisión nacional para el conocimiento y uso de la biodiversidad
Mamíferos terrestres de Centro y Norte América
Catálogos de especies
Colecciones científicas
Geoinformación
Sistema de información Biótica
Red mundial de información sobre biodiversidad
Banco de imágenes
Eventos Conabio
Nabci
Biodiversitas
Novedades y noticias
Páginas invitadas y sitios de interés
Oportunidades de trab
Transparencia y acceso a la informaci
http://www.inbio.ac.cr
Instituto Nacional de Biodiversidad COSTA RICA
Qué es INBio
Biodiversidad
Servicios
INBioparque
Editorial
Encuesta
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English
Buscamos Ideas
ICSU in Latin America
Vision
Mission
Secretariat
Regional Committee
Regional Consultation
Events
Forthcoming Events
Scientific Planning Groups
News
http://www.i
mboldt.org.co
Bienvenidos al
Instituto de Ecol
Un Instituto Científico Milenio Chileno
English
Buscar
Acerca del IEB
Investigación
Publicaciones
Un instituto de investigación científica que se apoya en el trabajo interinstitucional en red
Universidad de Chile
Universidad Católica
Universidad de La Serena
Universidad de Concepción
Universidad de Magallanes
Fundación Senda Darwin
Fundación Omora
© Instituto de Ecología y Biodiversidad (IEB)
Investigación y Difusión
Paleoecología & Biogeografía
Ecología de Ecosistemas
Procesos Microevolutivos
Impactos del Cambio Global
Conservación y Sociedad
Premio Fundación BBVA a la Investigación en Biología de la Conservación (España) – 2004
Volvo Environment Prize (Suecia) – 2005
Buscar en IAvH
Novedades
Preguntas
Mapa
Contáctenos
Bogotá, 18 de January de 2008
Registrarse al Boletín
su correo
Enviar
Descargas de Interés
Protectores de pantalla
Descárguelos >> aquí
Ver artículo completo >>
>> Fuente - 2007-12-14 Nueva comunidad virtual de ictiología
COMUNIDAD DE ICTIOLOGÍA
SiB
CHM Mecanismo de Facilitación
BCH Intercambio de Información sobre Seguridad de la Biotecnología
Biocomercio sostenible
Proyectos

Biodiversity Knowledge, scope of research and priority areas: an assenssment for Latin America and the Caribbean

ICSU
International Council for Science
Regional Office for
Latin America and the Caribbean

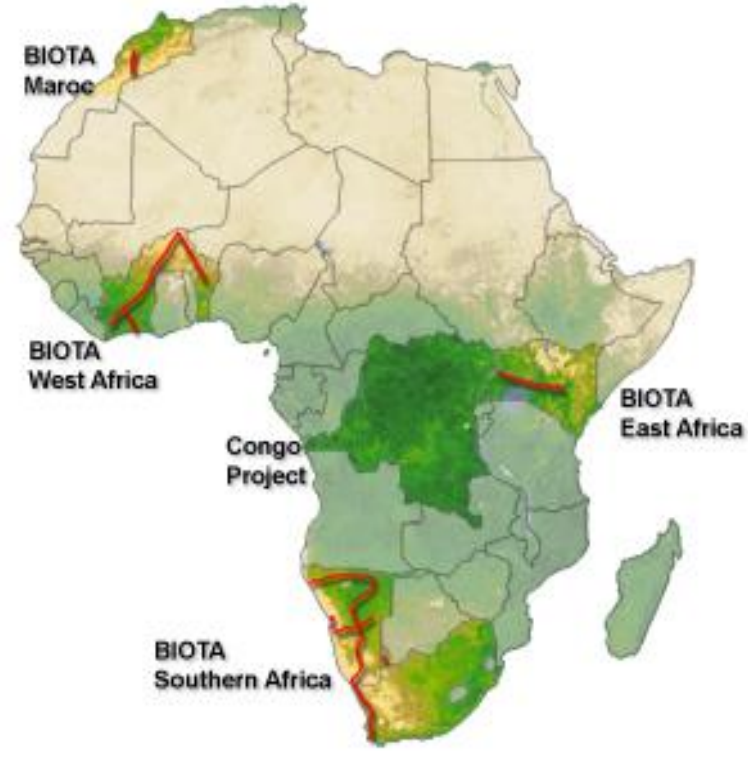
PARTNERSHIPS

bioGENESIS

a core project of DIVERSITAS

BIOTA AFRICA

BIOdiversity Monitoring Transect Analysis in Africa



Federal Ministry of Education and Research

FONA – Research for Sustainable Development

SUSTAINABLE LAND MANAGEMENT

TFO – The Future Okavango

More on this topic

TFO Projects

more ...

Send weblink to a colleague

Visitors since 31 December 2010 (official launch of the website)

2782

Scientific support for sustainable land and resource management in the Okavango basin

The Okavango basin with its variety of savannah woodlands and wetland ecosystems linked by the central lifeline of the Okavango River is a global hot-spot of accelerating change and land use conflicts. The river has its source in the rainy highlands of Angola and terminates in the Okavango Delta, the world's largest inland delta and the largest freshwater swamp south of the equator. The TFO project will analyze ecosystem functions and services within this trans-boundary basin of high international visibility and high potential transferability of results to other tropical and sub-tropical regions.

Photo of the day - 23 May 2011

Namibia: Slash and burn agriculture, Caprivi.
(Photo: Manfred Finckh)

« yesterday

tomorrow »

News

28 April 2011 (Thursday)
The Future Okavango had been invited to present the project at the extraordinary meeting of Okavango Basin Steering Committee (OBSC) in Johannesburg on April 14th. A delegation of three TFO Project members, Prof. Dr. Wellington Masamba (ORI-Botswana), Dr. Patrick Klintenberg (DRFN-Namibia) and Dr. Thomas Falk (PUM Germany) travelled to Johannesburg and Prof. Masamba gave a 30 Minutes presentation and the participants then discussed project issues with OBSC.Information and minutes of the OBSC Meeting can be downloaded by project members internal area.

31 March 2011 (Thursday)
On March 18th 2011 TFO subproject SP10 held a stakeholder workshop at Seronga, Botswana. Local stakeholders were informed about the project and participants discussed relevant aspects of future research. Minutes can be downloaded by projectmembers in the internal area.

31 March 2011 (Thursday)
On March 15th 2011 a TFO Stakeholder workshop was held at Mashare Namibia. Local stakeholders were informed about the project and participants discussed relevant aspects of future research. Minutes can be downloaded by projectmembers in the internal area.

29 March 2011 (Tuesday)
The workshop 'Integration of ecological and socio-economic work in TFO: from ecosystem functions to ecosystem services' was held from March 2nd to 3rd, 2011 in Braunschweig, Germany. Results of the workshop are downloadable for TFO members in the internal area.

25 February 2011 (Friday)
A flyer on the TFO project is now available in the download section.
more

18 February 2011
Two new documents - a German brochure and an English presentation - introducing the background, aims and strategies of the TFO project can be downloaded in the download

Top of page

TRY Database publication

Press Release 3/2011

Jena, June 24, 2011

Max Planck Institute for Biogeochemistry

Global plant database set to promote biodiversity research and Earth-system sciences

The world's largest database on plants' functional properties, or traits, has been published. Scientists compiled three million traits for 69,000 out of the world's ~300,000 plant species. The achievement rests on a worldwide collaboration of scientists from 106 research institutions. The initiative, known as TRY, is hosted at the Max Planck Institute for Biogeochemistry in Jena (Germany). Jointly coordinated with the University of Leipzig (Germany), IMBIV-CONICET (Argentina), Macquarie University (Australia), CNRS and

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Prof Susan Trumbore
Phone: +49 3641 57 6110
Fax: +49 3641 57 7100
susan.trumbore@bgc-jena.mpg.de

Prof Martin Heimann
Phone: +49 3641 57 6350

BIODIVERSITY AND ECOSYSTEM PROCESSES IN HUMAN MODIFIED TROPICAL FORESTS

NERC has agreed to invest £8M in the Biodiversity and ecosystem Processes in Human Modified Tropical Forests Programe.

NERC's investment consists of £4.8M for work associated with the SAFE platform in SE Asia, 1.6M to develop new technologies for long-term observations of biogeochemical cycling in tropical ecosystems, and £1.6 to develop work in the Brazilian Atlantic Rainforest as a comparative site.

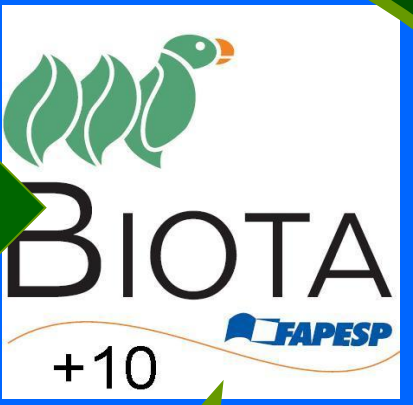
FAPESP
São Paulo Research Foundation

FAPESP

São Paulo Research Foundation

rectorate for Biological Sciences

Dimensions of Biodiversity



National Science Foundation

WHERE DISCOVERIES BEGIN

NSF Web Site

Home | Funding | Awards | Discoveries | News | Publications | Statistics | About | FastLane

BIOTA program activities – 2010 International Year of Biodiversity

BIOTA MEETINGS

2010, November 23rd

BIOTA-FAPESP Getting Post 2010 Biodiversity Targets Right

Speakers (33)
Mr. Ahmed Djoghlaf
Nicholas King/GBIF
Bráulio Dias/MMA
Antonio Mauro Saraiva/IABIN
David Oren/MCT
Eduardo Morales Guillaumin/CONABIO Mexico
Maria Auxiliadora Mora/INBIO Costa Rica
Monica Vera - Fund. Humboldt Colômbia
Timothy M. Vogel/Univ. Lyon France
Jack Anthony Gilbert/Plymouth Marine UK
Alfred Püehler/ Univ. Bielefeld Germany
Márcio Lambais/ESALQ-USP
Vivian Pellizari/ USP
Arco J. van Strien/Statistics Netherland
Philip M. Fearnside /INPA
Antonio Mauro Saraiva/USP
Carlos Grelle/UFRJ
Geraldo Wilson Afonso Fernandes/UFMG
Luciano M. Verdade / USP
Mauro Galetti / UNESP
Ronald O'Dor / Dalhousie University – Canada.
Thomas M. Lewinsohn IB / Eduardo Eizirik / PUCRS
Marcelo Tabarelli / UFPE
Carlos A. Joly & Alexandre F. Colombo / UNICAMP
Luiz Antonio Martinelli / CENA-USP
Humberto R. Rocha / IAG-USP
Alexandre Martensen / IB-USP
Naercio A. Menezes / MZ-USP
Célio F. B. Haddad / UNESP Rio Claro
Maria Alice dos Santos Alves & Mariana Vale / UERJ
Adriano Pereira Paglia / UFMG
Miguel Calmon / TNC

IPBES

Hosts

Ministério do Meio Ambiente
Governo Federal

NORWEGIAN MINISTRY OF THE ENVIRONMENT

Expert meeting on IPBES and capacity building

An international expert meeting on the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and capacity building was convened in Trondheim, Norway, from 25 to 27 May 2011.

The meeting was co-hosted by the Governments of Brazil and Norway, and was planned and organized by the Norwegian Directorate for Nature Management.

Following the "Busan Outcome" from June 2010, and the decisions relating to IPBES taken by the United Nations General Assembly in December 2010 and the UNEP Governing Council in February 2011, the

Related links

ipBes

As result of a joint proposal – BIOTA & Ministry of Environment + Ministry of Science and Technology + Ministry of Foreign Affairs the Brazilian government is presenting a proposal to HOST IPBES Capacity Building Program

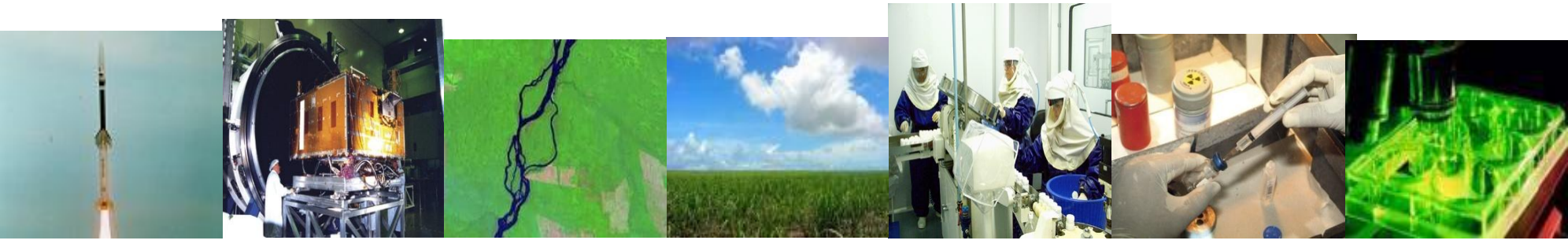
VII – Evaluation Meeting of the BIOTA/FAPESP Program

03 – 10th July 2011 – São Carlos

Scientific Advisory Committee

Arthur D. **CHAPMAN** – Daniel **FAITH** – Donald **POTTS** - Robert **VERPOORTE**

The BIOTA/FAPESP, and its Sub-Program BIO*prospec*TA, keeps exciding our expectations, in the speed it uses the evaluation reports to improve and make an extraordinary contribution to biodiversity science!



Brazilian Environmental Challenges

Ministry of Science & Technology

SEPED – Research and Development Policies and Programs

Dr. Carlos A. Joly – carlos.joly@mct.gov.br

05/05/2011

SEPED - Secretaria de Políticas e Programas de Pesquisa e Desenvolvimento


Thank you !