

# Catalogue of the Vascular Plants of Madagascar (MadCat):

an authoritative, integrated  
information resource for  
biodiversity research and  
conservation

Sylvie Andriambololona, Marina Rabarimanarivo, Porter P. Lowry  
and Peter B. Phillipson.



# MADCAT: CONTEXT

- Online up-to-date synthesis of information on the flora of Madagascar
- Subset of TROPICOS with layers of project-specific data:
  - Conservation project
  - Project aims to support our understanding of the classification and taxonomy of each plant group

The screenshot shows the Tropicos website interface. At the top, there is a navigation bar with links for Home, Names, Specimens, References, Projects, Images, More, and Tools. The 'Projects' link is selected. Below the navigation bar, the page title is 'Projects' and the breadcrumb is 'Home > Projects'. A list of projects is displayed in a table-like format with alternating yellow and white rows. The project 'Catalogue of the Vascular Plants of Madagascar' is circled in red. Other projects listed include Ambatovy Madagascar, Andean Bryophytes, Annals Content (WFO), Catalogue of the Vascular Plants of the Department of Antioquia (Colombia), African Plant Database, Araceae, Araliaceae, Aroid Greenhouse, Berberis, Bignoniaceae, Bolivia Catalogue, Bolivia Bryophyte Project, Brassicaceae, Bryophytes (WFO), Central American Mosses, Flora of China, Moss Flora of China, Manual de Plantas de Costa Rica, Catalogue of the Vascular Plants of Ecuador, Engelm Online, Ferns & Lycophytes, Flora of Bolivia, Flora of Panama (WFO), GLORIA, Inga Taxonomy, IPCN Chromosome Reports, Novon Content (WFO), Flora of Pakistan, Flora Palaestina, Panama Checklist, The Pandanaceae Project, Paraguay Checklist, Paramos de Antioquia, Passiflora, Peru Checklist, Cretaceous & Cenozoic Plant Fossils, Pottiaceae, Rubiaceae, Catálogo de las Plantas Vasculares de la Selva Central, PERÚ, Checklist of the Shaw Nature Reserve, Threatened Species of Gabon, A World Checklist of Thymelaeaceae, Index to the Climate Change Vulnerability of Andean Plants, WBN Flora Database, and WFO-Cordiaceae.

# MADCAT: CONTEXT

- Reliable source on accepted names and synonyms (taxonomic assessment of all species), available specimens and associated images, geographical and ecological distribution, presence in Protected Areas , vernacular names, etc.
- Linkage with other databases and information sources

## Resources

### • Botanical

Liesner field guide  
The Plant List  
JSTOR Plants  
APG links  
Generic Tree Key  
Web Sites  
Glossary Fr/Eng

### • Online Library

Catalogue  
JSTOR  
Botanicus  
Gallica  
Adansonia  
Bull. Soc. Bot  
Flore de Madagascar  
Candollea

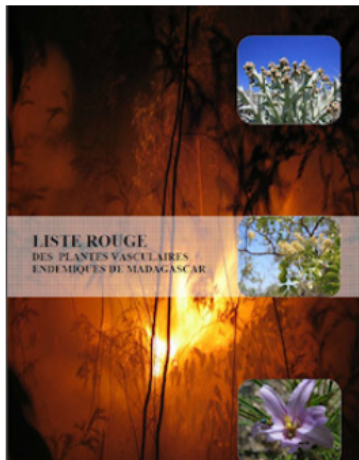
Notes  
Pteridologiques

General  
Literature

### • Maps

Biodimate  
Geology

**Publication of the Red List of Threatened Malagasy Plant Species.** In conjunction with the Malagasy Plant Specialist Group of the IUCN, we have been undertaking Threat Analysis and Conservation Status evaluations of Malagasy Vascular plants. To date approximately 3,000 evaluation have been completed, and in May 2011 a first plant Red List for Madagascar was published. It includes 1,676 species assessed as Vulnerable, Endangered or Critically Endangered.



## What's New?

**Higher Level Taxonomic Summary and Status Directory Completed.** For all plant families and higher levels a taxonomic summary was completed in June 2011, and updated as new information is incorporated into the database. It provides information on the taxonomic status of the group, including species numbers and endemicy taxon by taxon, and has links to image galleries for genera and higher levels.

**Candollea Notes.** The fourth in a new series of taxonomic notes on the Malagasy flora edited by project personnel and collaborators will be published in the twice-yearly journal of Geneva Botanical Garden and Herbarium. The first appeared in December, 2010. To date 25 short articles have been published dealing with diverse plant groups including:

Arecaceae	<i>Garcinia</i>	<i>Peltophorum</i>
Pandanaceae	<i>Hetaeria</i>	<i>Psychotria</i>
Brackenridgea	<i>Indigofera</i>	<i>Rhodocolea</i>
Capuronia	<i>Korthalsella</i>	<i>Stereospermum</i>
Cissus	<i>Memecylon</i>	<i>Tabernaemontana</i>
Croton	<i>Mimulopsis</i>	<i>Tina</i>
Cyperus	<i>Mimusops</i>	<i>Vernoniopsis</i>
<i>Didymoplexis</i>	<i>Nerplia</i>	<i>Xerochlamys</i>

## Key Resources

**Digital Library** - The Vahinala Project is contributing to the development of online resources and is compiling a list of resources relevant to the plants of Madagascar. Online resources are growing rapidly, and important sites include:

- BHL (Biodiversity Heritage Library)
- Botanicus
- Gallica
- Google Books
- JSTOR
- Real JB Madrid

The Muséum National d'Histoire Naturelle in Paris has a valuable catalogue of online resources at:

- [Revue en ligne](#)

### Links to Other Key Resources

- The Plant List
- African Plant Database
- JSTOR Plant Science (ex Aluka)
- Flore Numérique d'Afrique Centrale
- TROPICOS
- SONNERAT
- MBG Projects in Africa
- Angiosperm Phylogeny Website
- Conspectus of the Vascular Plants of Madagascar
- Gazetteer to Malagasy Botanical Collecting Localities

# MADCAT: CONTEXT



- Data delivered through TROPICOS (linked to standardized reference tables: names and synonyms, type specimens, authors, collectors, geographic units, journals and books, etc.
- Very high quality, carefully structured data: precise geo-referencing, reliable taxonomic circumscriptions (authoritative taxonomic reference), identifications provided by recognized specialists
- Integration of information obtained from a diversity of sources, all verified and validated

# MADCAT: SPECIES PAGE

## *Rhodocolea involucrata*

- Basic nomenclature data
- Synonymy
- Links to other sources
- Series of panels that can be opened or closed



## Catalogue of the Vascular Plants of Madagascar

Tropicos Names Specimens References Projects Images More Tools MOBOT Sign In | Login | ?

Browse  
Higher Taxa  
Orders  
Families  
Genera  
Species  
Plant Themes  
Name Searches  
Quick Search  
All Names  
Fern Index  
Red List

Madagascar > Lamiales > Bignoniaceae > Rhodocolea > Rhodocolea involucrata Choose Project English

***Rhodocolea involucrata* (Bojer ex DC.) H. Perrier**

IPNI NYBG mnhn J AP

Hide Name Details

**Published In:** Annales de l'Institut Botanique-Géologique Colonial de Marseille 6: 30. 1938. (Ann. Inst. Bot.-Géol. Colon. Marseille)

Hide Synonyms

**Synonymy**

- *Bignonia bracteosa* A. DC.
- *Colea involucrata* Bojer ex DC.
- *Colea poivreii* Baill.
- *Rhodocolea nobilis* Baill.
- *Rhodocolea racemosa* fo. *poivreii* (Baill.) H. Perrier

Red List

### Other Searches

- Specimen Full Search
- Specimens with Vernacular names
- References
- Geographic Search
- Collector Search
- Search Builder
- Project Query builder (Login required)
- Image Galleries
- Photo Gallery
- Specimens Scans
- All Image Galleries

### Project Name Data (Last Modified On 6/10/2009)

**Acceptance :** Accepted

### Taxon Profile (Last Modified On 10/9/2014)

**Distribution:** Endemic to Madagascar

**Lifeform/Habit:** Tree

**Vegetation Formation:** Forest

**Bioclimate:** Humid

**Elevation:** 0-499 m

**Provinces:** Antsiranana, Toamasina

- **Antsiranana Regions:** DIANA, SAVA

- **Toamasina Regions:** Analanjirofo

**Protected Areas:** Masoala, Nosy Mangabe

**NAP and other important sites outside protected areas:** Daraina complex

Hide Project Data

Show Project Data

Show Images

Show Specimen Map

Show Specimens

## Project data panel

- Distribution
- Ecology
- Protected areas
- Notes and comments

# MADCAT: SPECIES PAGE



## Catalogue of the Vascular Plants of Madagascar

Tropicos Names Specimens References Projects Images More Tools

MOBOT Sign In | Login | ?

### Browse

Higher Taxa

Orders

Families

Genera

Species

Plant Themes

### Name Searches

#### Quick Search

Search

All Names

Fern Index

Red List

### Other Searches

Specimen Full

Madagascar > Lamiales > Bignoniaceae > Rhodocolea >  
Rhodocolea involucrata

Choose Project English

**Rhodocolea involucrata (Bojer ex DC.) H. Perrier**



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- *Colea involucrata* Bojer ex DC.
- *Colea poivreii* Baill.
- *Rhodocolea nobilis* Baill.
- *Rhodocolea racemosa* fo. *poivreii* (Baill.) H. Perrier

Show Project Data

Show Images

Show Specimen Map

Show Specimens

Hide Images



### Image panel

- Living plants, linked to voucher specimen
- Type images
- Zoom function

### Resources

#### Botanical

Liesner field guide

The Plant List

JSTOR Plants

APG links

Generic Tree Key

Web Sites

Glossary Fr/Eng

#### Online Library

Catalogue

# MADCAT: SPECIES PAGE

## *Rhodocolea involucrata*

- Basic nomenclature data
- Synonymy
- Links to other sources
- Series of panels that can be opened or closed



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Orders

Families

Genera

Species

Plant Themes

Madagascar > Lamiales > Bignoniaceae > Rhodocolea >  
Rhodocolea involucrata

Choose Project English

***Rhodocolea involucrata* (Bojer ex DC.) H. Perrier**



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*involucrata* Bojer ex DC.  
*poivreii* Baill.  
*rhodocolea* nobilis Baill.  
*rhodocolea* racemosa fo. *poivreii* (Baill.) H. Perrier

Show Project Data

Show Images

Show Specimen Map

Show Specimens



## Image panel

- Living plants, linked to voucher specimen
- Type images
- Zoom function

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Tropicos Names Specimens References Projects Images More Tools

MOBOT Sign In | Login | ?

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Higher Taxa

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Species

Plant Themes

Madagascar > Lamiales > Bignoniaceae > Rhodocolea >  
Rhodocolea involucrata

Choose Project English

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Geographic Search

Collector Search

Search Builder

Project Query  
builder  
(Login required)

### Image Galleries

Photo Gallery

Specimens Scans

All Image Galleries

### Resources

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Catalogue

JSTOR

Botanicus

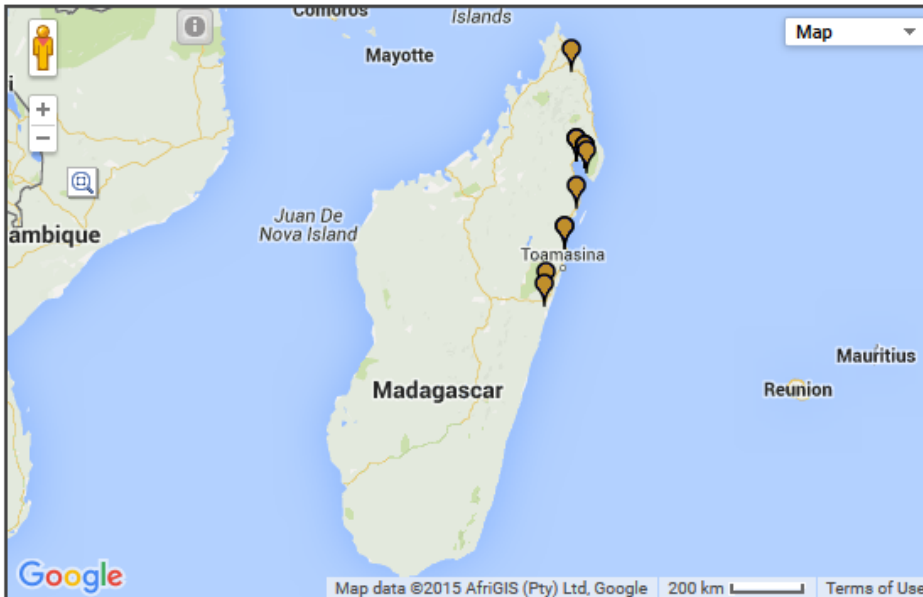
Gallica

Hide Specimen Map

Include specimens whose determinations have a qualifier

Include cultivated specimens

Include specimens on map with approximate coordinates



Country Occurrence Map Elevation Chart Phenology Charts

Maps Google Maps ESRI Google Earth (KML) SimpleMapprr

Hide Synonyms

H. Perrier

Show Project Data

Show Images

Show Specimen Map

Show Specimens

## Specimen Map panel

- Based on specimen data
- Interactive
- Display options
- Data export (KML)



# MADCAT: SPECIES PAGE

## *Rhodocolea involucrata*

- Basic nomenclature data
- Synonymy
- Links to other sources
- Series of panels that can be opened or closed



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Tropicos Names Specimens References Projects Images More Tools

MOBOT Sign In | Login | ?

### Browse

Higher Taxa

Orders

Families

Genera

Species

Plant Themes

### Name Searches

Quick Search

Madagascar > Lamiales > Bignoniaceae > Rhodocolea >  
Rhodocolea involucrata

Choose Project English

***Rhodocolea involucrata* (Bojer ex DC.) H. Perrier**



Hide Name Details

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6: 30. 1938. (Ann. Inst. Bot.-Géol. Colon. Marseille)

Hide Synonyms

### Synonymy



Satellite



- *Rhodocolea involucrata* (Bojer ex DC.) H. Perrier  
Gentry, Alwyn Howard - 62166  
13 April 1988 - 19 April 1988

Voloina

Rantabe

Masoloa  
National Park

(Baill.) H. Perrier

Show Project Data

Show Images

Show Specimen Map

Show Specimens

## Specimen Map panel

- Based on specimen data
- Interactive
- Display options
- Data export (KML)

# MADCAT: SPECIES PAGE



## Catalogue of the Vascular Plants of Madagascar

Tropicos Names Specimens References Projects Images More Tools

MOBOT Sign In | Login | ?

### Browse

Higher Taxa

Orders

Families

Genera

Species

Madagascar > Lamiales > Bignoniaceae > Rhodocolea >  
Rhodocolea involucrata

Choose Project English

***Rhodocolea involucrata* (Bojer ex DC.) H. Perrier**



Hide Name Details

**Published In:** Annales de l'Institut Botanico-Géologique Colonial de Marseille

Hide Specimens

- Include specimens whose determinations have a qualifier
- Include cultivated specimens

Specimens whose coordinates are enclosed in square brackets [ ] have been mapped to a standard reference mark based on political units.

### • Africa & Madagascar

- **Madagascar** : [18°56'47"S 047°06'03"E], Michelle Zjhra 908 (WIS)
- **Madagascar** Antsiranana, SAVA: Daraina Loky Manambato, 730 m, 13°14'28"S 049°36'26"E, 29 March 2004, P. Ranirison 535 (MO, WIS)
- **Madagascar** Toamasina: Nosy Mangabe RS, 0 - 330 m, 15°30'00"S 049°46'00"E, 13 April 1988 - 23 April 1988, George E. Schatz & Alwyn H. Gentry 2260 (MO)
- **Madagascar** Toamasina, Analanjirifo: Nosy Mangabe RS, 0 - 330 m, 15°30'00"S 049°46'00"E, 8 February 1988, George E. Schatz 1851 (MO, P)
- **Madagascar** Toamasina, Analanjirifo: Andranobe, 110 - 260 m, 15°40'24"S 049°57'51"E, 01 April 1994, Justin Rabe & et al. 13
- **Madagascar** Toamasina, Analanjirifo: Masoala Peninsula, 700 m, 15°39'30"S 049°57'30"E, June 1993, Michelle Zjhra & James Hutcheon 369 (MO, P)
- **Madagascar** Toamasina, Analanjirifo: Masoala Peninsula, 700 m, 15°39'30"S 049°57'30"E, June 1993, Michelle Zjhra & James Hutcheon 370 (WIS)
- **Madagascar** Toamasina, Analanjirifo: Nosy Mangabe RS, 30 m, 15°30'00"S 049°46'00"E, 13-19 April 1988, Alwyn H. Gentry & George E. Schatz 62164 (MO, P)
- **Madagascar** Toamasina, Analanjirifo: Nosy Mangabe RS, 30 m, 15°30'00"S 049°46'00"E, 13 April 1988 - 19 April 1988, Alwyn H. Gentry & George E.

le)

Hide Synonyms

Perrier

Show Project Data

Show Images

Show Specimen Map

Show Specimens

## Specimen panel

- Linked to complete specimen records
- Post-facto geo-referenced
- Selection filters

## *Rhodocolea involucrata*

- Basic nomenclature data
- Synonymy
- Links to other sources
- Series of panels that can be opened or closed

Adansonia  
Bull. Soc. Bot  
Flore de Madagascar  
Candollea  
Notes  
Pteridologiques  
General Literature

### • Maps

Bioclimate  
Geology  
Protected Areas  
Provinces  
Regions  
Ethnic groups  
Vegetation

### • Protected Areas

Details  
Nat. Parks  
SAPM

### • Gazetteers

MBG Gazetteer  
Fallingrain.com

# MADCAT: CURRENT STATISTICS

**28,652 total taxa treated, incl.:**

15,322 accepted names

12,873 synonyms

457 names of other status

**60% of genera** remain to be evaluated, estimated to add more than **1,500 undescribed species**

**1,015** estimated undescribed species among the 40% of genera evaluated

	Order	Family	Genus	Species
Accepted names	66	241	1,687	11,386 (10,965)
Endemic to Madagascar	0	5	304	8,916

MadCat: the most complete and reliable publicly available resource on Malagasy plants; it constitutes an easily accessible source of authoritative information on the island's flora



Asteropeiaceae



Barbeuiaceae



Physenaceae



Sarcolaenaceae



Sphaerosepalaceae

# KEY MADCAT 2020 OBJECTIVES

(ALIGNED TO THE AICHI GOALS AND THE GSPC TARGETS)

1. Deliver data to World Flora Online (WFO) in response to:

- Target 1 of GSPC: An online flora of all known plants
- Target 19 of Aichi: Knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied

MadCat will provide to WFO core information on all published, accepted species from Madagascar

*The World Flora Online will build upon existing knowledge and published floras, checklists and revisions to provide the first comprehensive and scientifically valid over-view account of the world's plant diversity by 2020*



# KEY MADCAT 2020 OBJECTIVES

(ALIGNED TO THE AICHI GOALS AND THE GSPC TARGETS)

## 2. Deliver comprehensive specimen records cited in all recent, authoritative taxonomic works

Plant Syst Evol (2009) 283:237–245  
DOI 10.1007/s00606-009-0223-3

ORIGINAL ARTICLE

### *Billburttia*, a new genus of Apiaceae (tribe Apieae) endemic to Madagascar

Anthony Richard Magee · Ben-Erik van Wyk ·  
Patricia M. Tilney · Fatima Sales · Ian Hedge ·  
Stephen R. Downie

Received: 27 January 2009 / Accepted: 14 September 2009 / Published online: 9 October 2009  
© Springer-Verlag 2009

**Abstract** The genus *Billburttia* is described to include two new species endemic to Madagascar, *B. capensoides* and *B. vaginoides*. Both species were tentatively placed within the problematic genus *Peucedanum* L. (as *Peucedanum* sp. A and *Peucedanum* sp. B) based on their dorsally compressed fruits lacking prominent dorsal ribs and with winged marginal ribs. Recently, however, the African members of *Peucedanum* have been shown to be only distantly related to the type of the genus and have therefore been segregated into six African endemic genera. While the Malagasy species appear superficially similar to members from one of these segregate genera, viz. *Notobubon*, they differ markedly in their fruit anatomical

*Billburttia*. The non-peucedanoid affinity of the genus, as suggested by the fruit anatomical data, was confirmed using ITS and *rps16* intron sequences. Both parsimony and Bayesian analyses of these data place *Billburttia* within the tribe Apieae of subfamily Apioideae and not closely related to either *Peucedanum* (Selineae) or the African peucedanoid genera (*Lefebvrea* clade of Tordylieae).

**Keywords** *Billburttia capensoides* · *Billburttia vaginoides* · Fruit anatomy · ITS · New genus · New species · *Peucedanum* · *rps16* intron · Sphaerocrystals

Taxonomic revision published in 2009 (6 years ago)

Species page for the two described species completed in MadCat

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## Catalogue of the Vascular Plants of Madagascar

[Tropicos](#) [Names](#) [Specimens](#) [References](#) [Projects](#) [Images](#) [More](#) [Tools](#)

### Browse

[Higher Taxa](#)  
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[Families](#)  
[Genera](#)  
[Species](#)  
[Plant Themes](#)

### Name Searches









#### Quick Search


[All Names](#)  
[Fern Index](#)  
[Red List](#)


### Other Searches

[Specimen Full Search](#)  
[Specimens with Vernacular names](#)  
[References](#)  
[Geographic](#)


Madagascar > Apiales > Apiaceae > Billburttia > Billburttia capenoides

***Billburttia capenoides* Sales & Hedge**        

**Published In:** Plant Systematics and Evolution 283(3-4): 242-243. 2009. (Dec. 2009) (*Pl. Syst. Evol.*) 

**Project Name Data**  [Edit](#) (Last Modified By User, System On 6/10/2009)

**Acceptance :** Accepted

**Taxon Profile**  [Edit](#) (Last Modified By User, System On 6/10/2009)

**Family indexing name:** Apiaceae

**Distribution:** Endemic to Madagascar

**Lifeform/Habit:** Herb

**Vegetation Formation:** Freshwater Wetland, Inselberg/Rock Face, Shrubland, Woodland

**Bioclimate:** Montane, Subhumid

**Elevation:** 1000-1499 m, 1500-1999 m, 2000-2499 m, over 2500 m

**Provinces:** Antananarivo, Fianarantsoa

**Protected Areas:** Andringitra

**NAP and other important sites outside protected areas:** Ankaratra, Itremo/Ambatofinandrahana

**Legacy Last Modified:** mada.rvn-06:33:37 30 Oct 2007

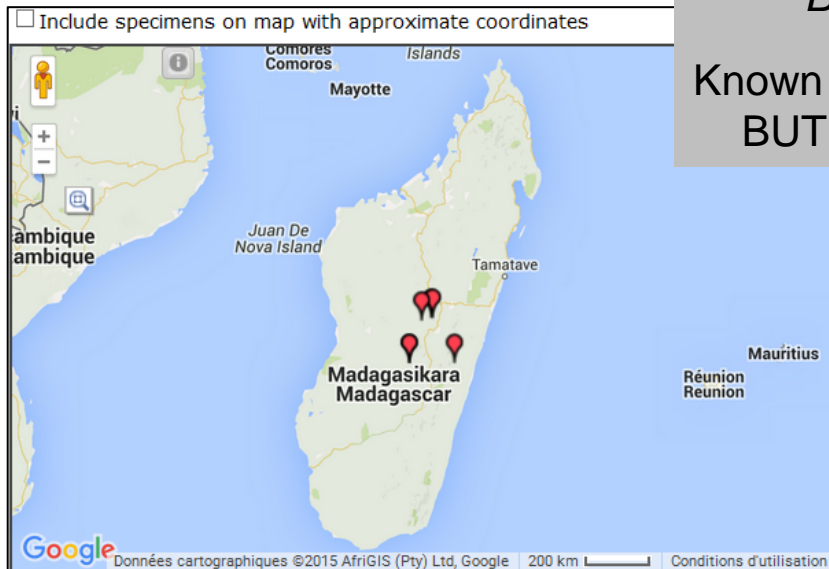
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*Billburttia capensoides* Sales & Hedge

Known from 6 specimens in TROPICOS-MadCat  
BUT MORE ARE CITED in THE PAPER



Hide Specimens ▾

- Include specimens whose determinations have a qualifier
- Include cultivated specimens

Specimens whose coordinates are enclosed in square brackets [ ] have been mapped to a standard reference mark based on political units.

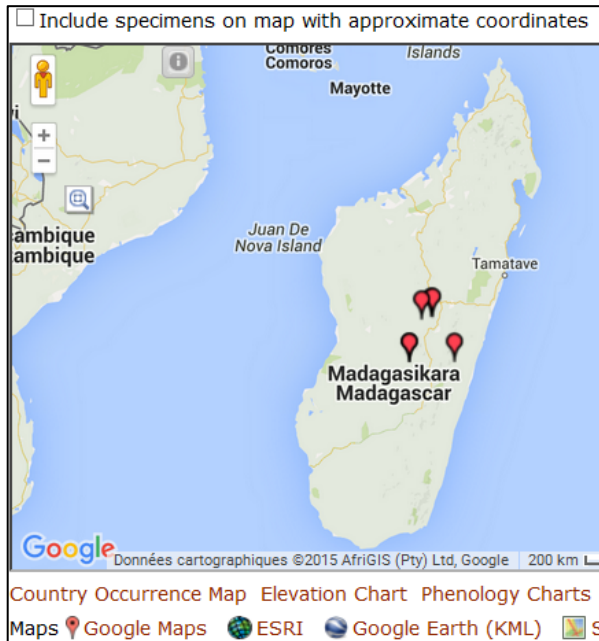
## • Africa & Madagascar

- **Madagascar** Antananarivo, Vakinankaratra: Faratsiho, 19°24'00"S 046°57'00"E, Jean M. Bosser 7563 (P)
- **Madagascar** Antananarivo, Vakinankaratra: Ankaratra, 19°20'00"S 047°15'00"E, 22 Jan 1975, Thomas B. Croat 28892A (MO)
- **Madagascar** Antananarivo, Vakinankaratra: Manjakatempo, 2320 m, 19°20'02"S 047°16'18"E, 28 October 2003, Peter B. Phillipson 5636 (MO)
- **Madagascar** Fianarantsoa, Amoron'i Mania: Itremo, 20°34'30"S 046°34'50"E, 27 Jan 1975, Thomas B. Croat 29892 (K, MO, P)
- **Madagascar** Fianarantsoa, Amoron'i Mania: Itremo, 1540 m, 20°34'40"S 046°35'11"E, 9 November 2002, Porter P. Lowry II 5841 (MO)
- **Madagascar** Fianarantsoa, Vatovavy-Fitovinany: 1610 m, 20°33'30"S 047°55'30"E, 11 Mar 1992, R.A. Clement, Peter B. Phillipson & Guy Rafamantanantsoa 2009 (MO)

# KEY MADCAT 2020 OBJECTIVES

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## 2. Deliver comprehensive specimen records to authoritative taxonomic works



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### *Billburttia capensis*

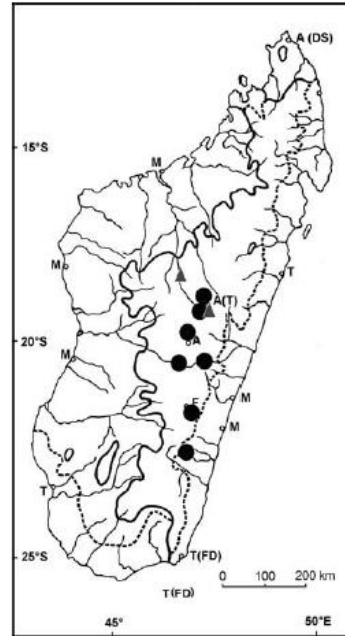


Fig. 3 The known geographical distribution of *Billburttia capensis* (circles) and *B. vaginoides* (triangles)

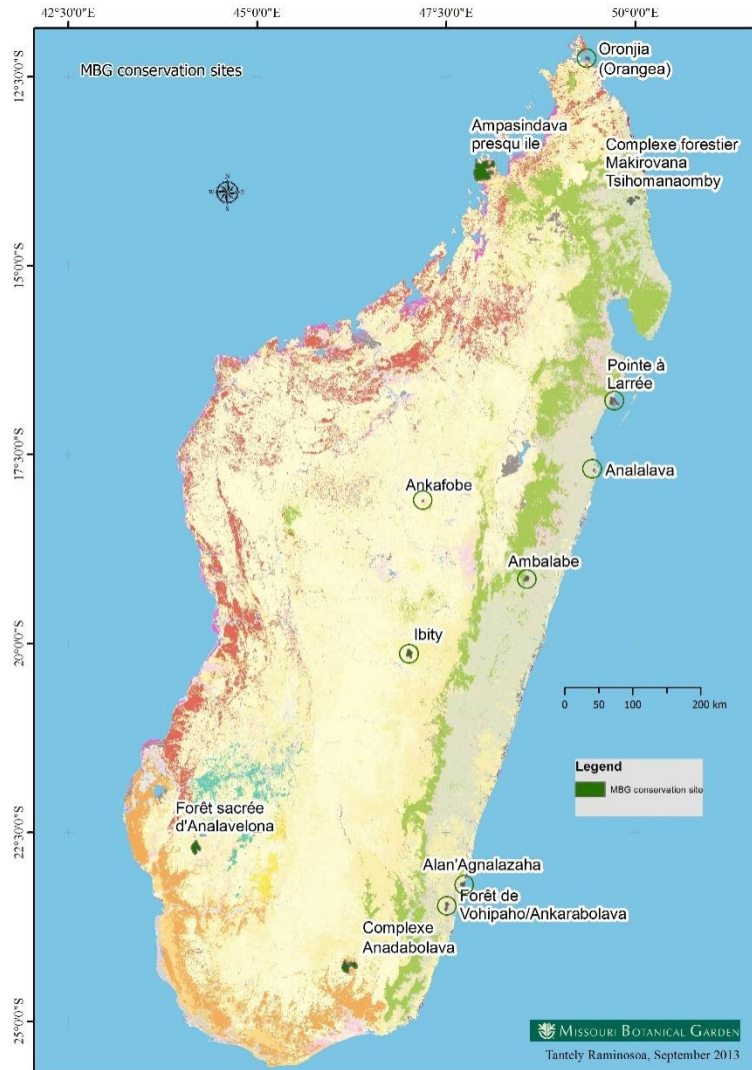
*Selected specimens examined* Baron 340, s. loc. (K, P); 2021, central Madagascar (BM, K). *Bosser* 7563, Faratsiho, Ankaratra (P). *Clement, Phillipson & Rafamantanantsoa* 2009, Fianarantsoa, Ambositra to Ambatofinandrahana on R.N. 35, 1600 m (E, MO, P). *Croat* 28892A, station forestière de Manjakatempo near sommet Hosiariivo, in massif l'Ankaratra (MO); 29892, vicinity of col de l'Itremo, massif de l'Itremo (MO, P). *Decary* 13035, Ambatofinandrahana, 1700 m (P); 13400, massif du Tsiafajavona, 2200-2600 m (P); 17248, Ambositra, dans les bois de Tapia (P); 17356, Ambatofinandrahana (P). *Du Puy, Labat & Andriantiana* M660, west of Ambositra, 20° 34'S, 46° 35'E, east margin of Itremo massif, 1290 m (K, P). *Guillaumet* 3588, plateau d'Andohariana, Andringitra, c. 2000 m (P). *Hildebrandt* 3571, nord Betsileo, Antsirabe (BM, K, P). *Hodgkin & Stansfields*.n, without locality (K). *Humbert* 3634, env. de Miarinarivo, SE d'Ambalavao, c. 1,200 m (P). *Humbert & Capuron* 28129, env. d'Ambatofinandrahana, c. 1450 m (P). *Jard. Bot. Tananarive* 221, pentes nord de Vohitra, Antsirabe (P); 3644, Tsiafajavona (P). *Keraudren* 218, env. d'Ambatofinandrahana (P). *Moeller, Andriantiana & Haevermans* 01-26, Fianarantsoa, Itremo, col d'Itremo, 20° 34'S, 46°34'E (E). *Perrier de la Bathie* 6792, env. d'Antsirabe, 1500 m (P); 6807, W du massif d'Andringitra, 1000 m, type de l'espèce (P). *Rakotovao* 52, Réserve Naturelle Intégrale no. 5, près de la montagne rocheuse Vangomena, plateau de Sonindrana, 2010 m (MO, P). *Rakotozafy* 631, Itremo (P). *Razafindrabe* 193, Fianarantsoa, Ambalavao, Sendrisoa, Antanifotsy, pic Boby d'Andringitra, 2658 m (MO, P). *Reserves Naturelles* 2278 *Razafindrakoto*, distr. Ambalavao, canton Sendrisoa (P). *Viguiet & Humbert* 1357, distr. Betafo, sommet du pic de Vohimalaza près Betafo, 1700 m (P); 1386, distr. Betafo, dans la coulée de laves de l'Iantsifitra, c. 1450 m (P); 1617, Betafo, monts Vararata, c. 2000 m (P); 1727, prov. Itasy, distr. Kitsamby, sur le flanc ouest de l'Ankaratra, entre Ambatofotsy et le Tsiafajavona, c. 2200 m (P). *Waterlot* s.n., Antsirabe (P).



# KEY MADCAT 2020 OBJECTIVES

(ALIGNED TO THE AICHI GOALS AND THE GSPC TARGETS)

## 3. Complete the compilation and refinement of flora data from MBG's 13 new protected areas



Implementation of community-based conservation at 13 Priority Areas for Plant Conservation by MBG

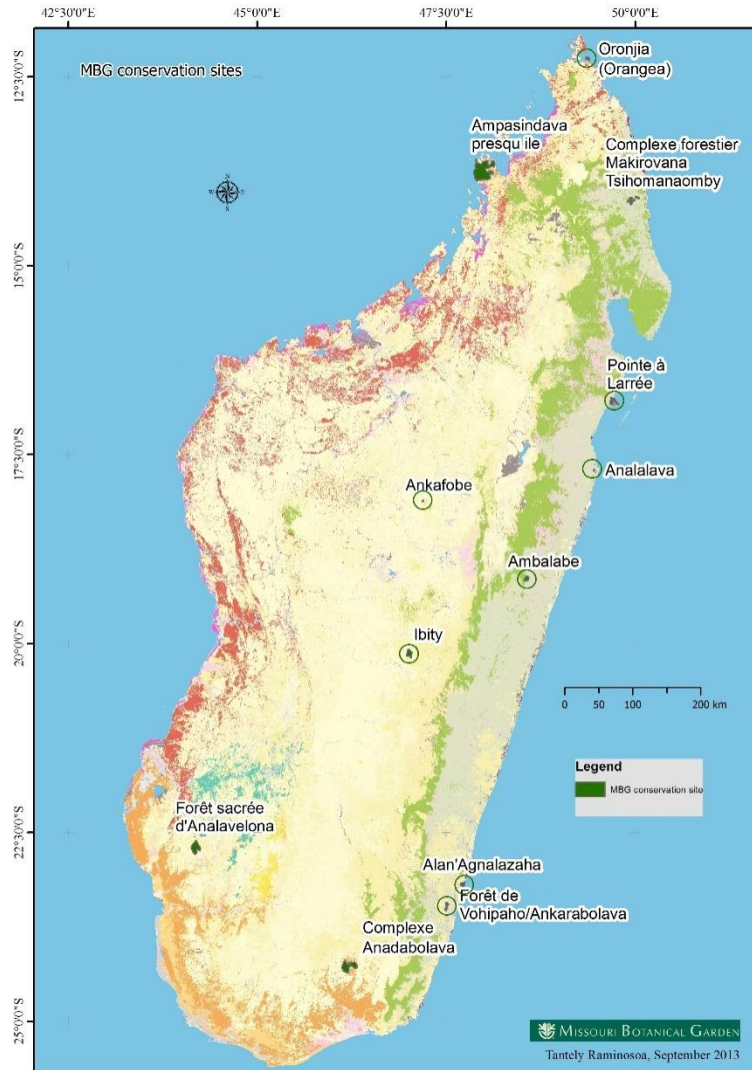
Analytical information-based decision making (integrating biological data including on the flora)



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The effective management of the PA hampered by the poor knowledge

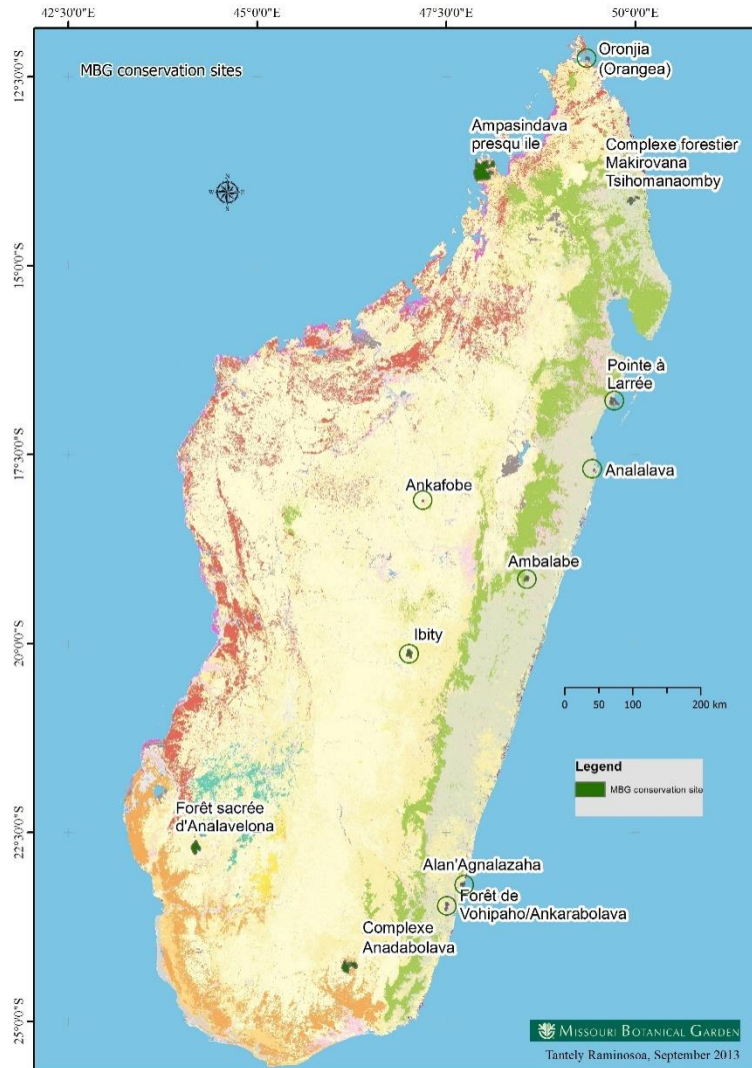
Objective : to facilitate the conservation of the community based conservation sites through the provision of an improved botanical data



# KEY MADCAT 2020 OBJECTIVES

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## 3. Complete the compilation and refinement of flora data from MBG's 13 new protected areas



Identification of each specimen (old and new from subsequent plant inventories) according to the most recent taxonomic treatment (where available) or by careful comparison with type specimens and other authoritative reference collections, using the resources at Madagascar's two national herbaria (TAN and TEF)

Identification by recognized specialists

TROPICOS is automatically updated as new information is captured into the MadCat

# KEY MADCAT 2020 OBJECTIVES

(ALIGNED TO THE AICHI GOALS AND THE GSPC TARGETS)

4. Expand and broaden targeted thematic content, e.g., invasive species, aquatic plants, species recorded in all of Madagascar's PAs

<p>Ethnic groups Vegetation • <b>Protected Areas</b> Details Nat. Parks SAPM • <b>Gazetteers</b> MBG Gazetteer Fallingrain.com</p>	<p><b>Plant Themes.</b> We are developing a series of MadCat special interest themes accessible through the '<b>Plant Themes</b>' link on the Navigation Bar, or through the '<b>Search Builder</b>'. These currently include:</p> <ul style="list-style-type: none"><li>• Parasitic Plants</li><li>• Endemic Plant Families</li><li>• Dye Plants</li></ul> <p><i>...more information and <a href="#">links</a></i></p>
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*Aponogeton* sp.: very sought as aquarium plant

# CONCLUSION



The MadCat provides the most reliable information source on the Malagasy flora

It is publicly accessible and contains a wide array of valuable and relevant data

The MadCat supports a wide range of decision-making processes, including Madagascar's National Biodiversity Assessment

Verified and validated information is delivered from the MadCat to GBIF via TROPICOS

MadCat: [www.tropicos.org/Project/MADA](http://www.tropicos.org/Project/MADA)