



**Botanic Gardens  
Conservation International**

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**Memorandum of Agreement**

Between Botanic Gardens Conservation International, of Descanso House, 199 Kew Road, Richmond, Surrey, TW9 3BW, United Kingdom, hereinafter known as **BGCI**, and the **Herbario Nacional de Bolivia**, La Paz, Bolivia, hereinafter known as **HNB**.

***Ex situ* conservation and population reinforcement of two Bolivian species in danger of extinction – *Magnolia madidiensis* (EN) and *Syagrus yungasensis* (CR)**

The agreement shall take effect on signature of this agreement by the respective Parties.

Signed by:

**Carla Maldonado, Director**  
Herbario Nacional de Bolivia

Date:

**Mónica Moraes R.**  
Herbario Nacional de Bolivia

Date:

**Paul Smith, Secretary General**  
Botanic Gardens Conservation International

Date:

**Joachim Gratzfeld, Regional Programmes Director**  
Botanic Gardens Conservation International

Date:

### **Terms and Conditions:**

- 1) **HNB** shall, for the duration of this agreement:  
Implement the Terms of Reference as per **ANNEX 1**.
- 2) The duration of this agreement shall be from **15 January 2018 – 15 January 2019**.
- 3) This agreement may be terminated at any time:
  - (a) By mutual consent; or
  - (b) By either party giving one month's written notice of their decision to terminate the agreement.
- 4) **BGCI** will pay **HNB** at the price and on the terms as follows:
  - a) The total value of the amount to be paid out is **USD 10,000**, issued in the following instalments:
    - **USD 8,000** upon the return of the signed contract;
    - **USD 2,000** upon completion of agreed milestones and submission of a financial report by **15 January 2019**;
  - b) **BGCI** will pay the funds to the nominated bank account of **HNB** as per **ANNEX 2**;
  - c) Any unspent funds are to be returned to **BGCI** at the end of the contract.
- 5) **HNB** is responsible for payment of all necessary Taxes and Fees applicable under Bolivian law from within the total value sum.
- 6) **HNB** is not covered by any professional indemnity insurance from **BGCI** and is responsible for arranging its own professional indemnity insurance.
- 7) **HNB** is responsible for ensuring that travel, medical and personal liability insurance, including insurance for personal property, required for undertaking this role is in place as appropriate.
- 8) **BGCI** will not be held liable in any way for injury, loss or damage, unless shown to be directly responsible due to its actions or negligence.
- 9) **HNB** shall have no current interests or contracts liable to conflict with the requirements of this contract.
- 10) This work and all information relating to it are confidential.
  - a) No publication shall be made of this work or its results or any other work of **BGCI** without the prior consent in writing of the **BGCI**;
  - b) Information must not be communicated to any third party in relation to this contract, except insofar as may be necessary in order to carry out the contract work;
  - c) Information gained during the currency of this contract shall not be applied after the contract is terminated without the approval of **BGCI**;
  - d) Any information of a character confidential to the affairs of either **BGCI** or **HNB** to which either party becomes privy as a result of the work to be performed under this agreement, shall be treated as confidential, during as well as after the

performance of the said services, subject to obligations under law, including the Freedom of Information Act.

- 11) **HNB** agrees to furnish **BGCI** with all relevant background information, notes and other materials relevant to this agreement:
  - a) Upon completion **HNB** will warrant that all written materials provided to **BGCI** are free of copyright or other provisions of ownership by any third parties to the best of their knowledge;
  - b) Any images or other non-written materials provided to **BGCI** under this contract that are the property of **HNB** may be used by **BGCI** for this and future subject-related resources, with the acknowledgment of **HNB** as the owner of these materials. Such materials may not be passed on by **BGCI** to any third party without the written permission of **HNB**.



## Bolivia

Some 20,000 higher plant species have been inventoried for Bolivia, of which 2,934 are native trees. Families with the highest native tree numbers are the Fabaceae (424), followed by Rubiaceae (154), Melastomataceae (148) and Lauraceae (131). 8.5% of all the Bolivian trees are endemic to the country (Moraes *et al.*, 2017). The *Red List of the Threatened Flora of Bolivia* (2012) records 339 species. The main threats relate to logging, habitat conversion to agriculture and grazing grounds for livestock, as well as coca plantations.

Especially in tropical and subtropical broadleaf forests of the Yungas ecoregion, at elevations ranging from 900 to 4,000 meters above sea level, over 156 tree species are at threat of extinction. Given the particular tree diversity in this zone and the major threats that a number of species are facing, BGCI is seeking support to start a new conservation initiative in Bolivia. The project will focus on two endemic species, *Magnolia madidiensis*, Magnoliaceae and *Syagrus yungasensis*, Arecaceae.

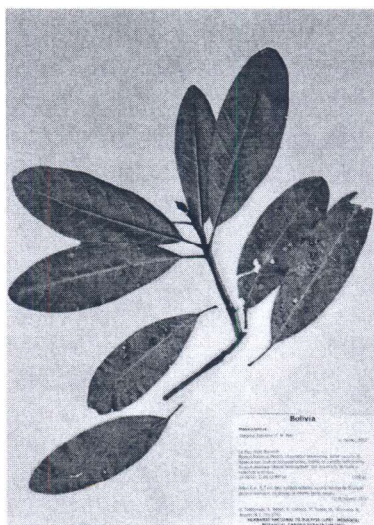
### **Ex situ conservation and population reinforcement of two Bolivian species in danger of extinction – *Magnolia madidiensis* (EN) and *Syagrus yungasensis* (CR)**

#### **Project goal**

The goal of this three-year project is to develop integrated species conservation action by establishing *ex situ* conservation collections as well as collections for use in reinforcement programmes *in situ* for populations facing greatest threats.

#### **Background**

*Magnolia madidiensis* is an endemic tree of the Andean montane, pluvial forests, and sub-andean Yungas forests in Madid National Park. Fully developed flowers have not been recorded to this day. The species is known from four locations only with an estimated extent of occurrence less than 4,000 km<sup>2</sup>. The forest habitat is severely fragmented and is declining mostly due to logging and the rapid expansion of pastoral lands and agriculture. *M. madidiensis* has been assessed as EN (*IUCN Red List of Threatened Species*, 2016). *Syagrus yungasensis* is an endemic, solitary palm restricted to narrow valleys and steep slopes of the Yungas mountain ranges of La Paz (Real Cordillera), in the eastern Bolivian Andes. Known from only one location, forest clearing for coca plantations and fires hamper natural regeneration. In addition, seedlings and juvenile plants are exposed to grazing pressure from herbivores. As a result, the species has been included in the *Red List of the Threatened Flora of Bolivia* (2012) as CR.



*Magnolia madidiensis* (EN), holotype



*Syagrus yungasensis* (CR)

**Project partners**

- National Herbarium, La Paz
- La Paz Botanic Garden

**Planned activities for 2018**

1. Extensive bibliographical and herbarium reviews to inform field surveys and determine collection priorities.
2. Initial field survey and inventory work including collection of plant material for propagation at the botanic garden in La Paz.
3. Identification of national institutions to establish *ex situ* conservation collections of the target species.

**Expected outcomes**

1. Target species secured through the establishment of conservation collections at Bolivian botanic gardens and other institutions participating in this project.
2. Increased technical capacity of project staff to propagate and maintain the species in the long-run.

## Terms of Reference

### ***Ex situ* conservation and population reinforcement of two Bolivian species in danger of extinction – *Magnolia madidiensis* (EN) and *Syagrus yungasensis* (CR)**

#### **Background:**

*Magnolia madidiensis* is an endemic tree of the Andean montane, pluvial forests, and sub-andean Yungas forests in Madid National Park. Fully developed flowers have not been recorded to this day. The species is known from four locations only with an estimated extent of occurrence less than 4,000 km<sup>2</sup>. The forest habitat is severely fragmented and is declining mostly due to logging and the rapid expansion of pastoral lands and agriculture. *M. madidiensis* has been assessed as EN (*IUCN Red List of Threatened Species*, 2016). *Syagrus yungasensis* is an endemic, solitary palm restricted to narrow valleys and steep slopes of the Yungas mountain ranges of La Paz (Real Cordillera), in the eastern Bolivian Andes. Known from only one location, forest clearing for coca plantations and fires hamper natural regeneration. In addition, seedlings and juvenile plants are exposed to grazing pressure from herbivores. As a result, the species has been included in the *Red List of the Threatened Flora of Bolivia* (2012) as CR.

#### **Project goal:**

Development of integrated conservation action *Magnolia madidiensis* and *Syagrus yungasensis* by establishing *ex situ* conservation collections as well as collections for use in reinforcement programmes *in situ* for populations facing greatest threats.

#### **Activities in the first year (15 January 2018 – 15 January 2019):**

1. Extensive bibliographical and herbarium reviews to inform field surveys and determine collection priorities.
2. Initial field survey and inventory work including collection of plant material for propagation at the botanic garden in La Paz.
3. Identification of national institutions to establish *ex situ* conservation collections of the target species.

#### **Reporting:**

Provision of two individual reports for each species by filling in information and data in the survey questionnaire available at:

[https://www.surveymonkey.co.uk/r/GTC\\_reporting](https://www.surveymonkey.co.uk/r/GTC_reporting)

Schedule for filling in the reporting form:

- Mid-term report: by **30 June 2018**;
- Annual report containing a synthesis of the work undertaken and achievements made including photographic material: by **15 January 2019**.



**Datos bancarios**

**Moneda:** Bolivianos  
**Nombre del banco:** Banco Unión S.A.  
**Señas del banco:** Av. Camacho 1416, La Paz-Bolivia  
**Nombre de la cuenta:** Universidad Mayor de San Andrés  
**Número de la cuenta:** 1-4696388  
**Código SWIFT:** BAUNBO22  
**Código IBAN:**