Policy to Share, Use and Publish Data of the Madidi Project

March 2018

I. Summary Description of the Madidi Project

The Madidi Project is a collaborative research effort to document and study plant biodiversity in the Amazonia and Tropical Andes of northwestern Bolivia. The project is currently lead by the Missouri Botanical Garden (MBG), in collaboration with the Herbario Nacional de Bolivia. The management of the project is at MBG, where J. Sebastian Tello (sebastian.tello@mobot.org) is the scientific director and Olga Martha Montiel (olgamartha.montiel@mobot.org) is the administrative director. The directors oversee the activities of a research team based in Bolivia. MBG works in collaboration with other data contributors (currently: Manuel J. Macía from Universidad Autónoma de Madrid [manuel.macia@uam.es] and Gabriel Arellano [gabriel.arellano.torres@gmail.com]), with a representative from the Herbario Nacional de Bolivia (LPB; Mónica Moraes [monicamoraes45@gmail.com]), as well as with other close associated researchers from various institutions. For more information regarding the organization and objectives of the Madidi Project, you can visit the project's website.

II. Summary Description of the Data

The core dataset of the Madidi Project consists of a *network of* ~500 *forest plots* distributed in and around the Madidi National Park in Bolivia. This network contains 50 permanently marked large plots (1-ha), as well as 446 temporary small plots (0.1-ha). Within the large plots, all woody individuals with a dbh \geq 10 cm have been mapped, tagged, measured and identified. Some of these plots have also been re-visited and information on mortality, recruitment and growth exists. Within the small plots, all woody individuals with a dbh \geq 2.5 cm have been measured and identified. Each plot has some edaphic and topographic information, and some large plots have information on various plant functional traits. Finally, we have leaf tissue samples for many species of trees that are ready for DNA extraction and analysis.

There are currently *three data contributors*: the Missouri Botanical Garden, Manuel J. Macía and Gabriel Arellano. Each data contributor retains full rights over a portion of the dataset. However, the Madidi Project data are treated and organized in a single database. All data from the 50 large plots, functional traits and leaf tissue samples belong to MBG. Among the small plots, data from 332 plots belong to MBG, data from 60 belong to Macía and data from 54 to Arellano. All these data are stored in Tropicos (http://www.tropicos.org/Project/MDI), the botanical database of MBG. The geographic distribution of the plot network can be found in this google map. For more information, you can contact the data contributors or visit the project's website.

III. Guidelines for Data Requests

To request data from the Madidi Project, the **lead researcher** (i.e. scientist or student leading the proposed research) needs to complete and submit a *data request form*. You can find a copy of the form at the end of this document or using this <u>link</u>. This document needs to be sent in a single e-mail to a reviewing committee formed by representatives of all data contributors: J. Sebastián Tello (sebastian.tello@mobot.org), Manuel J. Macía (manuel.macia@uam.es) and Gabriel Arellano (gabriel.arellano.torres@gmail.com). Data requests are normally granted if mutual benefits can be established and conflicts of interests are avoided.

The Madidi Project is willing to collaborate with researchers seeking data for multiple different types of project. The **type of collaboration** needs to be mentioned when requesting data:

- 1. **Specific manuscript.** When data are requested for a manuscript, data shared by the Madidi Project can be used exclusively for the specific manuscript described at the moment of data request.
- 2. Thesis/dissertation project. When data are requested for a thesis or dissertation project, an initial request can be approved and data will be shared for the development of methods and ideas.
- **3.** Larger collaborative dataset. When data are requested for larger datasets used for research groups or collaborations, an initial request can be approved and data will be shared for the development of datasets, methods and ideas.

Importantly, in the case of thesis/dissertation projects and larger collaborative datasets, the lead researcher needs to submit specific data requests for each resulting manuscript (see "Specific manuscript" and point five of terms and conditions).

IV. Terms and Conditions for Data Use

Upon receiving approval on a data request, all data users (external or internal to the Madidi Project) need to agree and follow the terms and conditions described in this document.

- **1.** *Communication.* The lead researcher needs to maintain communication with each one of the data contributors that have provided information.
- **2.** *Limitations to use.* Data can be used solely for addressing the objectives specified at the moment of data request. If questions/hypotheses of the proposed research change significantly, a new data request will need to be submitted and approved.
- **3.** *Non-transferability.* No data can be transferred to a third party. Only the lead researcher can use the dataset.
- **4.** *Collaboration.* In case of larger collaborative datasets, at least one researcher from each of the data contributors needs to be invited to participate in the collaboration.
- **5.** *One data request per manuscript.* In case of collaborative datasets or thesis/dissertation projects, new data requests need to be made before specific manuscripts can be written and published.

- **6.** *Authorship guidelines.* In case of manuscripts, the lead researcher will follow the guidelines for authorships described below.
- 7. *Copies of products.* Data contributors need to be informed of all products created using data from the Madidi Project. Physical or electronic copies of such products need to be shared with the data contributors whenever possible.
- **8.** *Acknowledgements.* The Madidi Project and its funding sources need to be mentioned in manuscript acknowledgements, websites or other dissemination materials intended to promote research or conservation activities.

V. Guidelines for Authorships

Our primary goals with these guidelines are (a) encourage participation in manuscripts by interested scientists, (b) grant opportunities of authorship to the data collectors, and (c) ensure that each author has made sufficient contribution to warrant authorship.

- 1. The **lead researcher needs** to make sure they have the *appropriate rights to use and publish* using data from the Madidi Project. Access to data does not imply a right to publication. Such rights can only be granted after data requests have been approved by the data contributors (see above).
- 2. The lead researcher should offer data collectors an opportunity for co-authorship. The lead researcher will receive a list of members of the Madidi Project that (a) have *contributed significantly to the collection of data* (e.g. fieldwork, lab work, taxonomic work, data-basing, funding) and (b) have been recently active with the project (within the last 3 years). These data collectors must be included among the *potential* co-authors for the publication.
- **3.** The **lead researcher should** solicit *opt-in authorship* by circulating a manuscript proposal or a draft of methods/results among all potential co-authors.
- **4.** Data collectors and other potential co-authors should signal their *intention to opt-in* by responding via email to the lead researcher.
- **5.** The **lead researcher should** keep an email list of co-authors and communicate regularly about progress including sharing drafts of analyses, figures and text as often as is productive and practical.
- 6. The lead researcher should request comments and changes by circulating complete manuscript drafts among co-authors. Given the wide variety of ideas and suggestions provided on each paper, co-authors should recognize that the final decisions belong to the lead researcher.
- 7. Data collectors and other potential co-authors should understand that *authorship must be earned through a substantial contribution*. Contributing to data collection gives members of the Madidi Project an opportunity for authorship in publications. However, this might not be enough. Potential co-authors that have decided to opt-in need to contribute to at least two of the following roles in manuscript production to be granted authorship: (a) collected data, (b) developed and framed research questions, (c) analyzed data, (d) contributed to data analyses, (e) wrote paper or (f) contributed to paper writing.

- 8. It is the responsibility of **the lead researcher** to decide what it means to make a meaningful contribution to each of the above categories and decide which authorships are justified. Authors can contact the Madidi Project directors about any conflicts.
- 9. All potential co-authors should approve a final manuscript version before submission.
- **10.** Any **potential co-author** that has not responded *within 4 weeks* to e-mails requesting optin authorship decisions, manuscript comments or reviews, or manuscript approval before submission, will waive their rights to be included in the authors list. Fieldwork and other important reasons for not responding need to be considered. Auto-reply can constitute a valid postponement of the time limits.
- **11.** The **lead author should** include among the acknowledgements any of the data collectors that (a) have decided not to opt-in or (b) have been removed from the author list for not contributing significantly to manuscript production. The **lead author should** also include among the acknowledgements the funding sources of the Madidi Project.

Data Request Form

March 2018

By submitting this form, the lead researcher has agreed to the terms, conditions and guidelines described in the *Policy to Share, Use and Publish Data of the Madidi Project*. If you need access to this policy or have any other questions regarding the Madidi Project and its data, visit the project's <u>website</u> or contact the project at <u>proyectomadidi@gmail.com</u> or <u>sebastian.tello@mobot.org</u>.

In this document, provide information regarding your data request. Please, be brief but specific.

1. Lead researcher

Name, affiliation and contact information of person requesting the data

2. Main collaborators

Names, affiliations and contact information

3. Preliminary title

4. Type of collaboration

Choose one (definitions and details in the Policy to Share, Use and Publish Data of the Madidi Project document)

Individual manuscript
Thesis or dissertation
Larger collaborative dataset
Other

If other, please explain:

5. Project description including research questions or hypotheses and main methods

Between 200 and 1,000 words

6. Data requested

No more than 1,000 words

Mark the data needed

- □ Species abundances in 0.1-ha plots
- □ Species abundances in 1-ha plots
- \Box Re-surveyed 1-ha plots
- □ Non-anonymized species data (if not checked, species names will be replaced by species codes)
- □ Plot soil/topographic data
- \Box Functional trait data
- \Box Leaf tissue samples

Briefly explain why these data are needed and any other details of the data requested (e.g. elevational range or taxonomic group):