Project Update: August 2016

The project is being successfully developed with two fieldwork sessions (and a third one forthcoming), intense herbarium work, cooperation with other scientists and conservation organisations. The main issues are described below:

1. **Fieldwork:** the first took place from October-November 2015 where five relict forests were visited: Espíndola, Cuyas, Aypate, Mijal and Canchaque; the relict forest of Espíndola is first reported here. The second one was in March 2016 where Mijal and Canchaque were visited again. A third one is going to be done in the next month in order to share the information with communities related to the relict forests. For this purpose, we are in contact with an NGO, community leaders and delegates of the Ministry of Culture.

2. **Ecosystem state (fig. 1):** in general, relict forests display a high degradation degree (with exception of Espíndola that shows a slightly lower degree). However, richness of Melastomataceae is high. The common objective for logging and forest destruction is the change of land use with agriculture purposes.

Figure 1. Forest with the highest degradation degree found in Aypate (Ayabaca). Note the portion of secondary forest above the burned area.

3. **Melastomataceae richness and distribution:** five genera of melastomes (*Axinaea, Brachyotum, Centradeniastrum, Miconia* and *Tibouchina*) with 16 species were found in the relict forests of Piura, two of them are new species for science, one is a new report for Peru, one is endemic to Peru, and a genus (*Centradeniastrum*) is first

reported for Piura here. In spite of the degradation rate, richness of melastomes is still quite high and almost exclusively in disturbed environments (like secondary forests or shrublands). Besides, all of the species are taxonomically little known due to complex diversification processes.

4. **Community involvement (fig. 2):** we worked with local people in all of the visited forests. As part of the work, we talked to them about the use they give to forests and the importance of the uniqueness of relict forests. Besides, they brought us the local names of the plants and the frequency of logging, fire or other actions. At the end of the day, they knew how to collect flowering plant, as well as the importance of doing research and their involvement.

Figure 2. People that participated in the fieldwork in Mijal (left) and Cuyas (right).

5. **Scientific cooperation:** in the first fieldwork, two Peruvian young botanists participated: Elluz Huamán collected ferns (with emphasis in *Polystichum*) with the aim to describe patterns of diversification in relict forests, and Marco Cueva searched for Solanaceae (especially, *Lycianthes*) with a similar purpose. The second fieldwork was taken with Fabián Michelangeli and Maria Gavrutenko (both from the New York Botanical Garden) in cooperation with the project "Taxonomy, Systematics, Evolution and diversification of Melastomataceae in Peru". In a similar collaboration, it was possible to visit the NY, F, US and MO herbaria in the USA to complete the accurate identification of all the species we found.

6. **Short-term forthcoming plans:** currently, the material needed to share our results with communities is being prepared in coordination with the NGO Naturaleza y Cultura Internacional. In addition two scientific publications are being prepared together with a master thesis.