

Project Update: January 2018

These are the activities that we developed since we got The Rufford grant:

- From August to October 2017 we finished the collection of seeds to sow in the degraded forests and in the common garden experiments. We collected 2469 seeds of Cebil Colorado (*Anadenanthera colubrina* (Vell.) Brenan), 2500 seeds of Palo borracho (*Ceiba Chodatii* (Hassl.) Ravenna), and 3600 of Jacaranda (*Jacarandá mimmosifolia* D. Don).
- We built a germination chamber in which we grew 72 seedlings of Jacaranda, 60 seedlings of Cebil Colorado, and 100 seedlings of Palo borracho. Then, these plants were taken to the greenhouse until they obtained the required dimensions for transplant at our study area.
- The Secretary of the Environmental Office from Salta province donated to our project 56 Jacarandas, six cebiles colorados, and 11 palos borrachos.
- During November we installed a germination experiment under controlled climatic conditions on the campus of the National University of Salta; which is called "common garden experiment". To develop this activity, five students from this university collaborated with us. We built 40 plots for sowing seeds from Cebil Colorado, Palo borracho y Jacarandá; we applied different treatments to these plots: light restriction, precipitation restriction, and herbaceous seeds addition. We expect to have preliminary results by the end of the rainy season, approximately in March 2018.
- Using the The Rufford grant we bought 36 temperature and irradiance monitors, 1 thermo-hygrometer, and a pH and soil moisture controller. This equipment is going to be used to monitor environmental conditions in both the experimental planting plots and in our study area.
- Recently, the people in charge of the Campo Alegre Reserve in La Caldera-Salta Locality showed interested in our project. Due the reserve presents the same fire problem as the hills located at the east of Salta city (our study area) we have been invited to plant trees and seeds in the reserve area.
- Finally, during the first days of January 2018 we have been planting 108 seedlings of Jacarandá in the Campo Alegre Reserve, and 216 plants of Cebil colorado and Palo Borracho in our study area. For the Campo Alegre Reserve activities we had the collaboration of the park ranger, students of the biological sciences career, students of the environmental engineering career, and members of the climbing and mountaineering club "Janajman".



Jacaranda plantlets in the germination chamber.



Fruits and seeds of Palo borracho obtained during the harvesting campaigns.



Left: Measurement of jacaranda plants before being taken to the field. Right: Trees transportation to the top of the slopes of the Campo Alegre reserve.



Breeding of Cebil Colorado in nursery.



Breeding of Palo Borracho in nursery.





Sowing plots installation, common garden experiment at National University of Salta. There are structures with restriction of lighting conditions, structures with polycarbonate channels for control of precipitation, and control treatments (without structure).



Trees planting in a burnt patch.



Students from the National University of Salta and members of the Janajman Club planting trees.



Jacaranda trees on the burned slope of the Campo Alegre Reserve. We planted the trees under a grass nurse and we used different treatments to reduce the amount of

shadow: at the left of the flag without nurse protection, at the right of the flag with 50% of nurse protection; and behind the flag 100% of nurse protection.



Jacarnda trees on the burned slope of the Campo Alegre Reserve. We planted the trees under a woody nurse and we used different treatments to reduce the amount of shadow. The photograph only shows two treatments: 100% cover (sowing under nurse) and 50% cover (sowing at the edge of the nurse).