

## Project Update: July 2017

### Summary

Conciliating the use of natural resources and the conservation of tropical forests is a major challenge with environmental and economic consequences. The assessment of the impact of extractive activities on plant populations is of great importance to define strategies for the conservation of tropical forests. We propose to continue the study of açai palm tree in the Brazilian Amazon. Their fruits are of great importance to the local and regional economy. We expect shed light on the ecological need for management of the species and contribute with decision making on management actions, planning and zoning in protected areas.

1. Monitoring of the fruit production - Data is being collected.
2. Experiment on açai germination - Data will be collected in 2018.
3. Monitoring of the plants - Data is being collected.
4. Interview the inhabitants – Data will be collected in September of 2017.
5. Environmental variables - Data is being collected.

I conducted a field expedition between February and April 2017 for data collection. During this period:

- I performed the update of the worksheets for the data collection of the monitoring of the production of fruits and recollection of the worksheets already filled by the monitors. There are 31 açai trees being monitored monthly on terra firma and 34 in the floodplain.
- The experiments will be installed in the next expedition of 2018, between January and February and will last 6 months.
- The monitoring of the marked açai plants in the plots is occurring once a year, between February and April. In 2017, 1264 new plants were registered in the plots, as new recruitments. Of the 4073 plants scheduled in 2016, 730 died. We will still carry out detailed analyses regarding the births and deaths of plants and seek to better understand what factors favour plant establishment.
- The interviews will be conducted between August and October 2017.
- Parallel to the monitoring of the plants in the field is being carried out the mapping and height measurement of trees (more than 10cm in diameter) that are located within the plots. With these measurements it will be possible to estimate a measure of luminous intensity that each açai individual is receiving (according to Lieberman *et al.*, 1995). The topography will be estimated from the geographical position, and for the plots of the floodplain areas, the flood quota of each plot will be measured. For the calculation of the distances of the plots to the nearest communities, satellite images and appropriate GIS programs will be used to estimate the distances.



Acai, Fruits, Processing and Seedlings.