

Project Update: March 2023

Preliminary results

In the implementation of the seagrass restoration project in the two villages at Ranobe bay (Ifaty and Beravy), south-west of Madagascar, three campaigns of monitoring were conducted from January to March 2023. Every month, the campaign took place over 4 days over a period of 2 days per site. The monitoring of the site consists of evaluating the survival rate and the growth of plants and also the physico-chemical parameter of seawater.

At this update, I show you the results of survival rate of plants after 7 months of planting. The survival rates of plants vary depending on the technique used during the planting of shoots. The method with sediment has a higher survival rate with 73.44% in Ifaty and 83.33% in Beravy. Thereby, the two other techniques (method by using staples metals and method by using wire mesh) in the two sites have a survival rate ranging from 18.93% to 31.69% (see at the table below). And the data relating to plant growth and the physico-chemical parameters of the environment are currently being processed.

The survival rate of the transplant after seven (07) months of planting

Sites	Method with sediment	Method by using staples metals	Method by using wire mesh
Ifaty	73.44 %	20.58 %	18.93 %
Beravy	83.33 %	31.69 %	19.34 %

Upcoming activities

Monitoring of physico-chemical parameters, growth, and the organisms associated with the site of restoration.

To continue the data collection, a campaign of 4 days will be carried out in the next month in order to complete the data that I have already obtained. This campaign also consists of monitoring the physico-chemical parameters of seawater, the growth of the transplants and the survival rate of the transplants after 8 months of plantation. Monitoring of molluscs, fish and macro-invertebrates will be carried out again. In addition, awareness-raising meetings with local communities will also be conducted during this campaign to show them the results of this study.

Valuation and analysis of the data from this study.

All the data obtained during this study is currently being processed and analysed in order to produce a scientific report. This stage will be concluded by June 2023 before publishing the results of this study. Finally, I am awaiting a series of master's defences that will be scheduled for September 2023 at the Institut Halieutique et des Sciences Marines (IH.SM), University of Toliara Madagascar. At this moment, I will present the results of my research.



The canopy height was measured taking into account the maximum leaf length for each planting unit. 10% of the transplanted plants were selected for monthly monitoring of the canopy measurement. The measurement was made with a ruler from the basal meristem to the tip of the longest leaf.



Seagrass planted by methode with sediment after 06 months of plantations; Top: At Ifaty and Bottom: At Beravy



Seagrass planted by U-staple method after 07 months of plantation: Top at Ifaty and Bottom at Beravy



Seagrass planted by wire mesh (Bambous) after 07 months of transplanting; Top at Ifaty and Bottom at Beravy

Some pictures of fauna (Seahorses, fishes, echinoderms, crustaceans and molluscs) encountered during the campaigns of monitoring.









