CURRIMJEE FOUNDATION CORAL FARMING REPORT: APRIL 2025

The coral nursery in the lagoon of La Cambuse, Mauritius, was established in 2021 as part of ongoing efforts to restore and conserve the island's fragile marine ecosystem, which have been significantly impacted by climate change, pollution, and coastal development. This report presents the results of biodiversity assessments conducted at the coral nursery in La Cambuse up to now. The purpose of these assessments was to evaluate species abundance, diversity, and ecological trends within this ecosystem.

Key findings:

Species Richness and Abundance: A total of 62 species were recorded in April 2025, comprising fish, seaweeds, echinoderms, molluscs, seagrass and annelids. Eight new species of fish and one new species of seaweed were documented. Fish were the most abundant in the coral nursery. Trends in Fish Abundance: Over the period, fish species were the most dominant, with seasonal fluctuations observed. There was a peak in fish abundance in December 2023, followed by a decline in the subsequent months, particularly in early 2024. A recovery from March 2025 was noted, possibly due to environmental factors such as temperature, food availability, and breeding cycles. Ecological Role of Species: Fish were found to be crucial indicators of biodiversity, with their diverse ecological roles spanning multiple trophic levels. Echinoderms, such as sea urchins and sea cucumbers, also played a vital role in maintaining ecosystem balance by controlling algal growth. However, the abundance of top predators and other groups such as annelids, molluscs, and enidaria was low, indicating either early stages of ecosystem development or environmental limitations. Biodiversity Indices: The biodiversity indices recorded for the coral nursery indicated a healthy and balanced ecosystem. The species richness of 4.00, evenness index of 0.91, and dominance index of 0.023 reflect a relatively high level of biodiversity and a stable distribution of species. The low dominance index suggests that no single species is overwhelming the ecosystem, contributing to its overall ecological health.

The coral nursery is in the early stages of ecological development but is progressing well towards a stable and biodiverse marine ecosystem. While some fluctuations in species abundance are expected during the initial phases, the positive biodiversity indices and species richness suggest the ecosystem is adapting and maturing as restoration efforts continue. Over time, fish populations are expected to stabilize and potentially increase, contributing to the long-term success of the coral restoration initiative.



Figure 1: Acropora sp. growing spider frame at La Cambuse coral nursery.



Figure 2: Pocillopora sp. and Acropora sp. on spider frame at La Cambuse coral nursery.



Figure 3: Acropora sp. and coral recruits on spider frame.



Figure 4: Coral recruits on spider frame at La Cambuse coral nursery.



Figure 5: Acropora sp. growing on spider frame at La Cambuse coral nursery.



Figure 6: Awareness sessions in schools