Farming model changes and their rationale after experimental trials and 7 years project history farming *Holothuria scabra* in sea pens in South-West Madagascar

T. Klückow, B. Parker, A. Donah
Blue Ventures Conservation, Madagascar
Blue Ventures, Madagascar
Conservation, Blue Ventures Conservation, Madagascar
[timothy@blueventures.org](mailto:timothy@blueventures.org)

Community-based farming of *H. scabra* in sea pens has shown to have considerable economic potential for communities along Madagascar’s sheltered southwest coastline. Marine conservation organization, Blue Ventures Conservation, has initiated and developed one of the longest running of these farming systems in the community of Tampolove, which has been under continuous production since 2009. Experimental trials over 6 months in 2016 investigated the need for protective nurseries for juveniles <50 grams, the effect of handling stress on growth and survival, carrying capacity of the site sediment, whether the lack of fallow periods was limiting the potential growth or survival of stocked animals, and whether the addition of ground Sargassum sp. improved the growth rate. Also investigated was the growth of fast growing animals, or shooters, compared with the runts and therefore the potential for bloodstock selection strategies to increase farm productivity. A novel stocking strategy was developed to ensure maximum utilization of the sediments carrying capacity, whilst farm-lease systems were developed to ensure essential best practice aquaculture guidelines were adhered to by project participants. Increased security infrastructure and community security scheduling sought to ensure that chronic theft of mature animals was abated. Additional farm design improvements included the use of 316 stainless steel cable to hold farm netting in place and allowing pen netting to remain firmly fixed, allowing for easier cleaning and decreased amortization of capital infrastructural costs. The results of these experimental trials and farming strategy improvements will be used to inform the development of an improved *H. scabra* farming model for communities in southwest Madagascar.