International demand for mangrove mud crab, *Scylla serrata*, has been growing exponentially since 2010, resulting in increased exploitation of this species in Madagascar. Both are expected to grow further, increasing pressure on crab stocks and associated mangrove habitats; particularly in the Menabe region of Madagascar, where catches have fallen from 3.5 to 1.8 kg/hour/fisher between 2011 and 2016. The management objectives for the communities who are depend on these crabs for food and income is clear: to stop the decline of crab stocks. Since 2011, inspired by the successful temporary closures for octopus in the Southwest of Madagascar, a dozen motivated villages have mobilized and organized temporary mangrove closures in addition to national seasonal closures for crab that are not yet well-established.

This study presents an analysis of the impacts of seven years of community-led temporary closures on fisheries and the perception of these closures by communities. We hypothesized that when closure areas are re-opened to fishing, catch rates are higher and crabs are larger when compared to harvests from continuously open mangrove areas. We also explored why communities want to continue closures 7 years after the first pilot and the main social obstacles for greater participation.

Over the past 7 years, communities have organised more than 49 closures, each lasting 3 to 5 months and covering between 10 and 135 ha of mangroves. We observe significant effects of closures on catches when comparing the 30 days before closure and the 30 days after reopening. Across all seven closures sites, overall crab landings (kg) increased significantly following reopening. Mean crab landings increased from 7.4 kg in the 30 days before closure to 8.4 kg in the 30 days after reopening, a 15% increase. Additionally, crabs had a 6% larger carapace length. Between 2011 and 2016, however, catch per unit effort (CPUE) and carapace length in closure areas still declined steadily and significantly every year. Control sites also declined at the same rate. Thus, closures have not yet demonstrated their potential role at counteracting long-term declines in the fishery.

In addition to the short term benefits of these closures we also wanted to explore and characterize further the ownership of this management we observe from communities. In 2018, we conducted twenty-nine focus groups (with groups of crab fishers, fin-fish fishers,
and women) in the ten villages where closures occurred to investigate people's perspectives of the closures.

We found strong initial motivation to conduct closures, and most groups expressed the desire to continue with closures in the future. Communities were most motivated by the desire to increase the productivity of crab and fin-fish catches. All groups believed they had gained advantages from the closures, noting increased catches in all villages. However, motivations for enforcement were low due to fear of revenge from poachers, and thus incidences of poaching were reported to have risen over time. Participants suggested that the biggest beneficiaries from the closures were the poachers who break into the reserve and catch the most.

Our research shows that temporary mangrove closures have lead to significantly increased crab catches and increased average carapace length of crabs, but only in the short term following these closures. Additionally closures appear to have built some community support for fisheries management in general in these villages. However we stress that these closures are not a 'silver-bullet' and there is a need to build on this initial support by further investigating possibilities for community fisheries management and to address the wider issues that exist, particularly around surveillance and enforcement.