

Propagule predators in Kenyan mangroves and their possible effect on regeneration

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Abstract. Grapsid crabs can play a considerable role in the predation of mangrove propagules and possibly are a threat to the regeneration of mangroves, whether natural or artificial. Experiments consisting of artificial plantation of mangrove juveniles were set up in Gazi Bay (Kenya). Grapsid crabs, particularly *Neosarmatium meinerti* in the most landward fringe and *N. smithii* and *Sesarma guttatum* in the middle fringe of the mangrove forest, were found to be a regeneration-limiting factor. Almost 100% ($n = 40$) of the landward plantations were cleared. There was a slight initial preference for *Rhizophora* propagules lying horizontally on the mangrove floor, which simulates the position of a stranding propagule. In Mida Creek (Kenya) the snail *Terebralia palustris* was observed predating mangrove propagules. This study shows that crabs may affect the regeneration potential of mangroves, and snails might also be a factor in predation. A need to actively search for ways to protect re-forestation plots from predators of mangrove tree juveniles is necessary.

Extra keywords: mangrove, regeneration, predation, crabs, *Terebralia palustris*, Kenya

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