

Mangroves beyond their distribution. Is it a case of invasion at Nahoon Estuary, South Africa?

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Abstract

The southern distributional limit of mangroves in Africa is reached at Nahoon Estuary in South Africa. However, the original stand of mangroves at this estuary was planted from material collected at Durban Bay in the 1970's. Further expansion of the mangroves at Nahoon Estuary was a result of natural dispersal of propagules from the planted trees. The species planted here are *Avicennia marina*, *Bruguiera gymnorhiza* and *Rhizophora mucronata*. The latter two species are restricted to population numbers less than 50 individuals for *B. gymnorhiza* and less than five individuals for *R. mucronata*. The spread and growth of *Avicennia marina* has not been previously documented at this estuary and this study is expected to provide insight into the rate of spread, the competitive interactions between this species and naturally occurring salt marsh species. In light of the pressures of climate change, it is expected that mangroves may migrate from tropical to temperate regions, as well as on a local scale landward. Predictions are that as mangroves move there will be localized competition between the mangroves and the salt marsh as they occupy the same habitat. This would result in competition for resources between salt marsh species and mangroves, causing either the eradication of the salt marsh in these areas or a change in species composition and biodiversity.

Keywords

Avicennia marina, competition, temperature, salt marsh