

**Mortality Factors of Black Mangrove Propagules in the Lower Laguna Madre –
Evidence of a Fungal Pathogen**

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Abstract. During November, 2013 two different groups of propagules (reproductive structures) were collected from a natural stand of black mangrove (*Avicennia germinans*) located on South Padre Island, Texas. One group consisted of abscised propagules collected from the ground while the other group consisted of immature propagules attached to plants. The pericarp was removed in the lab and the propagules were rinsed in 25% salt water. Within a period of 10 days, most of the propagules collected from the ground had developed what appeared to be dark lesions (100%) and/or a whitish fungal mycelium (83%), which was not evident in the group collected from plants (0%). When planted in potting soil, mortality of propagules within the group of abscised propagules (collected from ground) approached 100% within a period of three weeks postplanting, whereas 60% of those in the second group (collected from plants) survived and produced well-developed root systems, even though a small percentage were apparently contaminated or infected by the unidentified fungus (40%). Studies are currently underway to identify the fungus and to evaluate its spatial distribution and ecological impact on black mangrove populations in the Lower Laguna Madre ecosystem.