

EXTENSIVE SEEDLING AND SEED PREDATION AS A
CAUSE FOR THE DECLINE OF THE SONNERATIA ALBA
POPULATION IN THE NEGOMBO LAGOON

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A feature of great significance for the survival of the mangrove species Sonneratia Alba J.Sm in the Negombo Lagoon, namely, its very poor regeneration was studied. Despite the presence of a few mature trees which flower several times a year producing numerous fruits each containing hundreds of viable seeds, no seedlings could be seen during any time of the year. A high germination percentage of over 80% is observed in the laboratory for freshly collected seeds.

Seedlings were raised for about three weeks in unperforated shallow clay pots containing mangrove mud. These were placed at a number of sites in the field with the plants in some containers covered with wire mesh and an equal number left unprotected. The rate of predation was evaluated during the next few days. Seed predation was tested in a similar manner.

At most sites, there was 100% predation of both seedlings and seeds within 24 hrs when they were not protected by a mesh in contrast to no predation when they were protected by the mesh. At sites far away from mature S.alba trees the rate of predation was slower and took about 7 days to reach 100% predation. The organism responsible for the predation of seedlings was recognized as a crab. Two metre pieces of twine attached to the plants as markers were found dragged into holes at most sites. In a subsequent experiment the crab was actually observed eating the plants within hours of placing the plants in the field. Attempts to capture the crab and identify it are in progress. The organism predated the seed is not known yet.

It was concluded that the poor regeneration of S.alba in the Negombo Lagoon is mainly due to heavy predation by mangrove fauna.

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