Abstract

The reproductive phenology, germination, mortality and survivorship of plants of Rhizophora mangle L. up to their first flowering were studied. A continuous production of flowers and propagules along the year was observed, with a marked seasonality between the dry and rainy seasons. The annual production of flowers and propagules was of 101.7/m² and 2.1/m², respectively. The interval from flowering through maturation of propagules was 357 (DS 33) days, of which 226 (DS 29) days comprised propagule development. Out of 2 043 marked flowers, 394 propagules were obtained, the flowering stage and the dry season being the most critical, during which up to 45% of the flowers initially formed were lost (Spearman test). Germination took place at 17 (DS 5) days after establishment, with a 96% success, reaching eventually the flowering stage 16% and 28.5% of the plants planted in shade and full sun, respectively (Log-rank test) The first flowering was recorded at 58 and 73 months respectively. The best development was reached in plants exposed to full sun. The influence of tides was a decisive factor, while the appearance of branches and aerial roots determined the survivorship of the plants in each site.

Keywords

Seasonality, phenology, germination, mangrove, propagules, survivorship.