

THE STUDY ON THE WATER ENVIRONMENT IMPACT ON THE GROWTH CHARACTERISTICS OF *Avicennia officinalis* IN THE MANGROVES FOREST OF WESTER SEA OF VIETNAM

Thai Binh Hanh Phuc, Thai Thanh Luom

Summary

The results of the study on the water environment impact on the growth characteristics of *Avicennia officinalis* L. gave the results: Salinity in the whole area ranged from 3.88‰ to 13.18‰ (June) and from 6.19‰ to 19.76‰ (December); the pH of water is from 6.13 to 7.54 (June) and from 6.97 to 7.50 (December); TSS from 196.89 mg/l to 376.71 in June and 81.93 mg/l to 156.01 mg/l in December. Considering the average results in the whole salinity range from 5.03‰ to 16.47‰, the pH from 6.55 to 7.52, the TSS from 160.12 mg/l to 226.36 mg/l . On the impact of water environment on the growth of *Avicennia officinalis* L. . Salinity does not affect salinity, but salinity is inversely related to height, stem diameter, canopy area, plant growth. pH does not affect density and height but affects stem diameter, canopy area and growth; TSS influenced the height, no effect on density, stem diameter, canopy area and growth level of *Avicennia officinalis* L. . This study helps to understand the water environment characteristics, growth characteristics and their interactions in each sub-region, as a basis for planning, forest protection and development planning as well as development economic and social in the region.

Key words: *Water environment impact, growth characteristics of Avicennia officinalis L., mangrove forest, western coastal ecosystem.*