

Mangrove canopy density of Sungai Merbok Forest Reserve, Kedah from Landsat TM.

ABSTRACT

A study was conducted to analyse mangrove canopy density in Sungai Merbok Forest Reserve, Peninsular Malaysia using normalized difference vegetation index (NDVI) technique from Landsat TM data. Different mangrove canopy densities were produced by digital image processing. NDVI output from vegetation image was transformed into the density slice model and reclassified to produce new image value that led to the formation of different canopy density class. Ground verification was also made to support density classification accuracy. Approximately 82% of the mangrove density was classified correctly. Mangrove canopy density was classified into three NDVI levels namely high (0.52), medium (0.33) and low (-0.13). Remote sensing data can be a useful for the management of coastal vegetation such as mangroves which is found on a large scale in Malaysia.

Keyword: Mangrove; Canopy density; NDVI; Remote sensing.