

South Florida Slash Pine (*Pinus elliottii* var. *densa*) is reported to have bimodal stem growth which is related to the fluctuation of rainfall and temperature in the South Florida's peculiar sub-tropical climatic conditions. Tree cores from nine study sites were analyzed and the growth patterns were studied both qualitatively and quantitatively.

Annual ring formation in South Florida Slash Pine has been reported even though the stem growth appears to be a continuous process that lasts about ten months of a year. Intensive study of the characteristics in the annual rings of this species revealed two types of false rings in the wood. The first type is a kind of usual false rings formed in the springwood portion of the annual ring. The second type, which was specific for this pine

species, was in the latewood portion of the annual ring. Comparing tree-ring characteristics with variation of the climatic conditions we could develop models that explain ecophysiological factors affecting the tree-ring formation.