Project Updates: March 2017

Until the present, dendrochronological analyses of Scleronema micranthum trees located at the edge were realised. The growth rings of S.micranthum are delimited by distended tangential rays, touching bands of apotracheal parenchyma (Figure 1). Preliminary crossdating and chronology construction for the species on the edge confirm the annuity of the growth ring. Revealing that S. micranthum trees at the edge had a mean radial increment of 0.18 cm/year and mean age of 81 years (104 max - 58 min). Indicating that they were present in the year of isolation of the reserve 3304 - Fazenda Porto Alegre in 1983. From the historical record of area isolation, a reduction of annual radial increment in the growth rings corresponding to the years 1983 and 1984 can be verified (Figure 2). Demonstrating that edge effects influenced the growth dynamics of these individuals, promoting a reduction of the width of the growth ring and probably reducing the biomass fixed in the wood. Effects that exerted major influences in the first two stages of edge evolution: 1) initial isolation (less than one year) and 2) edge closure (one to five years). We hope from a dendrochronological perspective to reveal how the edge effects are influencing the life trajectory of terra firme trees in the Brazilian Central Amazon, providing new information and guidance in order to understand these changes.

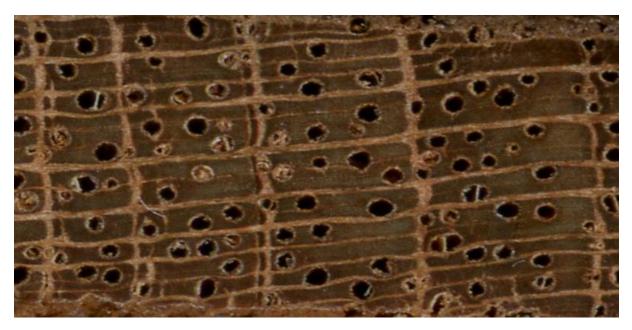


Figure 1. Transversal section of *Scleronema micranthum* wood revealing the annual growth rings delimited by distended tangential rays, touching bands of apotracheal parenchyma.

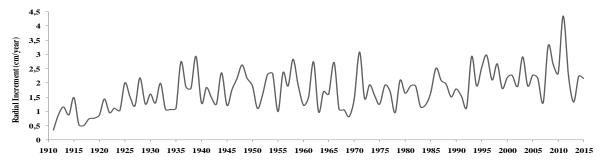


Figure 2. Mean annual radial increment of *Scleronema micranthum* individuals located at the edge. Fazenda Porto Alegre - Reserva 3304.