388. CHARACTERIZATION OF PHENOLOGICAL PHASES OF A CRABWOOD POPULATION (*CARAPA SPP.*) IN THE AMAZON ESTUARY FLOODPLAIN FOREST.

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A study was designed to correlate crabwood phenology, rainfall and seed production. The experiment was located at the Area of Environmental Protection of Fazendinha, a 137 ha floodplain ecosystem situated at Macapá, Amapá, Brazil (00°03'04''S; 51°07'42''W). After a complete inventory, we randomly selected 30 productive trees for phenology observations. To quantify seed production, the total crown area of the tree was enclosed in a net. The data collection was conducted every 15 days from October 2009 to December 2010. We applied Augspurger's (1983) test of synchrony for flowering. Occurrence of buds was negatively correlated with precipitation (r=-0.72). The flower bud phenophase occurred mainly in November 2009 (83%) and December 2010 (90%), and was negatively correlated with rainfall (r=-0.72). The same pattern was observed for flowers in anthesis, with a correlation of r=-0.69 and peak production in November (70%) and October (76%). Flowering during the dry period may be a reproductive strategy for tropical species since intense rainfall can destroy the floral structure, especially for *Carapa* sp. which has small and fragile flowers. The population had a low index of synchrony (zp=0.42), indicating asynchronous flowering. There was peak production of fruits in March 2010 (93%), with the majority of dispersal occurring in April 2010 (93%). Both phenophases occurred during the rainy season, as indicated by a positive correlation between rainfall and new fruits (r=0.70) and mature fruits (r=0.91). This is consistent with water dispersion of seeds in floodplain forests. Seed quantification indicated differences in seed production between individuals. Individual annual productivity varied from 46 to 2,153 seeds. In spite of some superproductive trees, total production depends on the total number of trees as seen in the positive correlation (r=0.92) between total monthly production and the percentage of trees dispersing seeds.

Keywords: Floodplain forest, reproductive phenophases, crabwood seed production
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