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Reproductive Phenology: Lauraceae family in the Brazilian Atlantic Forest

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The Lauraceae family has 50 genera and about 3,000 woody species, distributed throughout the tropical regions, mainly in the forests Central and South America. Numerous species are rich in aromatic substances and the vast majority is of economic importance (wood, essential oils and edible fruits) and/or phytosociological due to their large representation and wide geographical distribution. The degree of importance of the Lauraceae in remnants of Atlantic forest of the southern states of Brazil, mainly in the Forest Mixed, makes the family occupies a prominent place among those with the greatest richness, however many species of this family are in the process extinction. The study aimed to investigate the reproductive phenology of three species of the Lauraceae and correlate them with climatic variables. During the six years, were (Embrapa Forest) monitored reproductive phenology of species: canela branca (Nectandra lanceolata Nees), canela imbuia (Nectandra megapotamica - Spreng) and canela guaicá (Ocotea puberula) in areas of the Rain Forest, State of Parana - Brazil (250 17 ’30 "S and 490 13’ 27" W). The observations of the phenological phases of flowering and fruiting, were taken twice weekly from 2004 to 2010, 15 trees of each species. At flowering observed phases: the differentiation of bud, early flower bud formation, elongation of the stamens, fully open flower, anthesis, the stamens start of the fall and early fall of stigmata. In fruit: the early formation of the fruit, green fruit, ripe fruit and dispersing seeds. The data were analyzed and determined the Pearson correlation coefficients (x2) to check the frequency of occurrence of phenological phases, with gamma distribution. It was observed that during the six years of Nectandra lanceolata flourished in the period from May to October (163 days - winter/summer) and fruiting occur from December to February (64 days - summer). The Nectandra megapotamica flourished in the period from February to April (66 days - autumn/ winter), with peak flowering in March and fruiting period from October to November (65 days - spring). For Ocotea puberula, flowering occurred from September to December (105 days - spring), with peak flowering in October and fruiting from January to March (73 days - summer), with peak fruiting in months February. Over the past two years, due to higher temperatures during flowering, a reduction in the number of flower buds and anticipation of anthesis for the two Nectandra.