The palm Euterpe oleracea is a dominant and promising species in flood plains of the Atrato river, Choco region of Colombia. We assessed the population dynamics of this species through growth rates, mortality and recruitment patterns for a period of two and a half years. Dynamic rates were compared among mixed and pure flood plain palm forests. These forests types were associated to different flooding regimes. Trees and palms were thinned in a portion for each forest type, the rest was left undisturbed. We used projection matrices to follow population trends. Thinning increased the transition probability of smaller individuals, but decreased it for larger individuals, as is typical of light demanding species. Thinning also increased mortality rates in almost all size classes, but did not affect recruitment rates. Under natural conditions, the E. oleracea populations are in equilibrium in pure and mixed forests. Thinning increased population growth in both forest types, suggesting the role played by density-dependent processes on the population size of this species.

Abstract

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Keywords

Population dynamics, Euterpe oleracea, demography, matrix models, sustainability, Choco Biogeografico.