

COMMONNESS AND RARITY OF PALMS ALONG AN ALTITUDINAL GRADIENT OF SOUTHEASTERN BRAZILIAN ATLANTIC RAIN FOREST

Theme: Biodiversity conservation indicators

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One important question to biodiversity conservation is to understand the species distribution patterns. In general it is well known that many species are rare and relatively few species are common. In this sense, the present study investigated what distribution pattern the palm species of the Atlantic rain forest assume along an altitudinal gradient. The surveys were conducted in 3 phytophysionomies (lowland, submontane and montane), in Atlantic rain forest, Serra do Mar, São Paulo State-Brazil. It was adopted the concept of commonness and rarity based on density and also the range of distribution (wide-spread or restricted) was adopted based on the numbers of vegetation zones where the species occurs. In these areas 10 palm species and six genus occurred. The palms *Euterpe edulis* and *Geonoma gamiova* were common and wide-spread, they were found in all studied phytophysionomies. *Syagrus pseudococos* and *Geonoma elegans* were common and restricted, they didn't occur in the montane forest. *Attalea dubia*, *Astrocaryum aculeatissimum* *Bactris setosa* and *Geonoma pohliana* were rare and wide-spread, while *Bactris hatschbachii* and *Geonoma schottiana* were rare and restricted. So far the studies indicate that the differences in patterns of distribution may involve ecological tolerance, dispersal capability and evolutionary history or it may be associated with different life-forms. However, it was not observed relationship between size of palm and the pattern of distribution. The size and quantity of seeds could contribute in species occurrence, establishment and persistence in a wide variety of habitats. In conclusion, the numbers of rare palm species were greater than common species, in agreement with the initial hypothesis.