Mazzolli, M. 2006. Species richness as guidelines for conservation efforts? South-american Congress of Mammalian Zoology, 5 to 8 october, 2006. Gramado, RS. Pg 134.

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Species richnesss (SR) have been utilized as sinonimous of environmnetal integrity, justifying investments in research and conservation in areas with greater richness. However, it has already been demonstrated that SR may reduce, mantain, or even increase after forest fragmnetation, sounding as an alert on the use of SR as a unique guidline for conservation and restoration. These results have been here corroborated with a study of mammalin community (>1kg). A removal method M_{bh} in software CAPTURE was used to estimate SR ($\hat{N}$) using a probabilist approach, in contrast with observed SR (R). SR was superior ($\hat{N}$ =19) in one of the plots with ≈ 10% native forest, in contrast with results from indicator species, which indicated superior environmental integrity in the plot with que 38% native forest extent ($\hat{N}$ =13) (Mazzolli, this volume). Results from one of the parcels show that richness and species composition varies according with the sampling strategy used, indicating that comparisons of SR using distinct sampling methods may produce biased results. Sampling strategies and their respective results of SR were camera-trapping ($\hat{N}$ =11), track records ($\hat{N}$ =6), line transect ($\hat{N}$ =7), and combined estimation ($\hat{N}$ =15). This is reinforced by the fact that 9 exclusive species were recorded opportunisticaly, not observed by employing standard methods, increasing the number of recorded species from 15 to 24 species. Other source of SR variation were the difference, in the same plot, between observed (R=15) versus estimated richness ($\hat{N}$ =19), considering standard methods of sampling. Results suggest caution in the use of SR for guiding policies and action aiming conservation, as SR does not always equals environmental integrity. It is sugested that, instead, comparisons of original and current SR be employed for that end. It is also recommended, based on results, avoiding SR comparisons between studies that have employed unequal sampling strategies, as well as estimation of SR from a limited array of sampling methods, and from list of observed species in contrast with estimated richness.