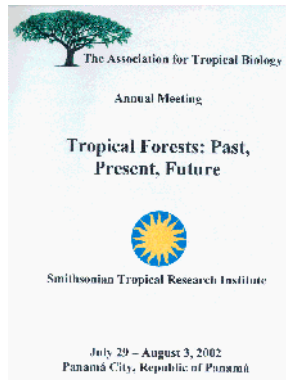


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LEPONCE M¹, L THEUNIS¹, Y ROISIN², JHC DELABIE³. ¹Institut royal des Sciences naturelles de Belgique, ²Univ Libre de Bruxelles, Belgium, ³CEPLAC, Brazil. Maurice.Leponce@naturalsciences.be. **Small-scale spatial distribution of ground living ants in a subtropical dry forest.**

Nowadays leaf litter ant biodiversity studies usually follow the ALL protocol: 1m² litter samples are taken every 10m along a 200m transect. In a subtropical dry forest of the Argentinian Chaco, we studied whether this sampling procedure was adapted to the ants' small-scale distribution patterns. We submitted a 200m transect to an 8-fold oversampling, by leaving only 0.25m between successive 1m² quadrats, and we evaluated the effect of the number of quadrats and of the distance between them on diversity parameters (species richness, evenness, and Shannon's H). Sixty-six species were collected, half of them were present in only one or two samples. Common species were generally positively associated. Species richness was positively correlated with leaf litter quantity and density of ground bromeliads. Evenness was negatively correlated with the number of samples but independent of the sampling interval. For a given number of samples, species richness and H increased up to an interval of 10m, then leveled off. In conclusion, twenty samples distant of 10m were generally sufficient to predict with little error species richness for 160 samples and to collect locally frequent species. However, high variability in species abundance at a 9 months interval emphasizes the need to express species richness relatively to abundance by rarefaction methods.