OBSERVACIONES SOBRE LA VARIACION ESPACIAL
Y TEMPORAL DE HORMIGAS EN UN BOSQUE DEL CHOCO
COLOMBIANO (ARUSI)

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RESUMEN

Fueron examinadas las variaciones espaciales y temporales de hormigas en un bosque muy húmedo tropical del centro costero del Chocó biogeográfico, mediante cinco muestreos mensuales, usando trampas cebadas de atún en tres estratos a lo largo de un transecto. De un total de 25 morfoespecies de hormigas, hubo predominancia de seis de ellas (Camponotus sericeiventris, Megalomyrmex sp. M. sp. 2, Pheidole sp., Azteca sp. y Gnamptogenys sp.) tanto a nivel espacial como temporal. A su vez, estas especies se distribuyeron de manera agregada a lo largo del transecto, con una marcada estabilidad temporal. Este resultado, sumado al hecho que, en promedio cada cebo fue monopolizado por una sola especie de hormiga, sugiere que el modelo del «mosaico de hormigas», como mecanismo generador de biodiversidad podría estar operando en este sitio. Sin embargo, se requieren nuevos estudios que abarquen mayores escalas espacio-temporales para aclarar esta pregunta.

PALABRAS CLAVE: Hormigas, distribución espacial, fluctuación temporal. Chocó

SUMMARY

In order to determine space and time variations of ant assemblages in a Chocoan rain forest, monthly surveys were done in 1997. Ant-traps baited with tuna were distributed along a transect divided in three strata. A total of 25 morphospecies were found. From these, six species (Camponotus sericeiventris, Megalomyrmex sp. M. sp. 2, Pheidole sp., Azteca sp. y Gnamptogenys sp.) showed both temporal and spacial dominance. Further, these species were aggregately distributed along the transect with a high temporal stability. This result, in addition to the fact that each bait was monopolized on average by only one species, is highly suggestive that the “ant mosaic” model, a mechanism that generates biodiversity. should be operating in this site. New higher scale studies might clarify this question.

KEY WORDS: Anta, spatial distribution, temporal fluctuation, Chocó
An Ant Mosaic in the Colombian Rain Forest of Chocó
(Hymenoptera: Formicidae)

by
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ABSTRACT

We investigated the ant (Hymenoptera:Formicidae) distribution in a primary rain forest located in the central coast of the Colombian Choco. We sampled ants on 45 trees located in three 20mx45m plots, by means of visual search, tuna baits, and foliage shaking, once a month, for ten consecutive months. A chemical knockdown was done at the fifth month on three trees and the arthropod biomass was recorded. We found a total of 117 ant morphospecies from which three were catalogued as dominant and ten as subdominant. The most remarkable dominant species *Azteca instabilis* and *Crematogaster carinata* complex showed a clear exclusion pattern both in space and time throughout the ten months. The population fluctuation of these two ant groups in the border of their territory suggests pulses in the dominance of either of the groups of ants in time and possibly in space. Another dominant ant species, *Wasmannia auroptcutata* was apparently excluded from one plot by *Dolichoderus hispinosus* and *Azteca* sp. The knockdown technique revealed an ant biomass of 576 mg, which represented between 4% and 25% of all arthropod biomass. Two dominant ants, *C. carinata* and *A. instabilis*, and to a less extent *Dolichoderus hispinosus* contributed the majority of ant biomass in the samples. This is the first time that the ant mosaic is registered for Colombia and the relative importance of dominant ants is shown both spatially and temporally.

Key words: ant mosaic, tropical rain forest, Choco, Colombia, ant temporal distribution, ant spatial distribution.

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