

Publication

Ant Diversity in Dominant Vegetation Types of Southern Cameroon

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Ants have been shown as particularly affected by land disturbance through deforestation and conversion of forest to agriculture. The effect of land use change on ant diversity in the Congo Basin is not well known. We conducted intensive sampling along a gradient of increasing vegetation disturbance to test the effect of habitat disturbance on ant diversity and Functional Groups composition. Sampling was conducted in 30 plots (5 study sites \times 3 habitat \times 2 plots/habitat), replicated six times in 1 year. In each plot, ants were monitored with pitfall traps, quadrats and baits. We recorded 237 ant morphospecies grouped in 10 subfamilies and 43 genera. *Myrmecaria opaciventris* was the most abundant species followed by *Anoplolepis tenella*. Forest had greater ant diversity compared with fallows and mixed-crop fields. Functional groups were dominated by Opportunists, followed by Omnivorous Arboreal Dominants and Generalized Myrmicinae. Their composition was not affected by the disturbance, but occurrence of Specialist Predators decreased with increasing disturbance. Occurrence of Generalized Myrmicinae, Opportunists and Subordinate Camponotini increased with disturbance. These results indicate that forest conversion into mixed-crop fields reduce ant diversity. It can also increase abundance of species with generalized diet that predominates where stress and disturbance limits other ants.

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