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CHARACTERIZATION OF THE DIVERSITY OF POLLINATING INSECTS AND THEIR INTERACTIONS WITH THE FLORA OF THE “AGRO FORÊTS POUR LE DÉVELOPPEMENT DE KIPUSHI” (AFODEK) PERIMETER

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ABSTRACT

Forest ecosystems are facing worldwide disturbances that make them fragile due to their anthropization. This progressive degradation leads to a progressive drop in biodiversity, while they provide nature and man with indispensable ecosystem services such as plant pollination. The present work had the objective of characterizing the diversity of wild bees and other pollinating insects, as well as the interactions maintained with the flora of the Agroforests for the Development of Kipushi (AFODEK). Rigorous sampling led to statistical analyses of community biodiversity for insects and hosts.

The results of this study showed that the AFODEK perimeter has a high abundance of insect pollinators with inseparable interactions and a specific richness distributed according to the location of the agroforestry plots. A total of 30 species of pollinators are observed, including 3 families of bees (Halictidae, Megachilidae, Apidae); one family of wasps (Crabonidae) and another family of Hymenoptera not yet determined. Extrapolation of the observed species richness could potentially bring it up to 52 species (41.99 ± 9.64 according to Chao). The abundance rank is dominated by the carpenter bee "*Xylocopa albiceps*". Diversity is found to be higher at sites Y and H, where there is a high probability of encountering a new species at each observation. Contrary to the sites with low probability of new species, there is a low regularity of Piélou in these sites. It is noted that the majority of pollinators in the area are generalists attributable to the "polylectic" category, with the exception of a few mono- and oligolectics. There is every reason to believe that the agroforestry developed in this perimeter has a probable impact on the general biodiversity.

Key words: Diversity, Pollinators, Flora, Interaction, AFODEK