SUMMARY

Influence of the ecological intensification of the cultivation of chayote (*Sechium edule* Jacq.) on the diversity of Staphyloids (Coleoptera: Staphylinidae)

Expansion and subsequent intensification of agriculture has impacted severely on human-use landscapes, reducing biodiversity and the ecosystem services provided by it. Ecological intensification of agriculture is a novel series of alternative practices of agricultural production. This study evaluates the influence of some ecological intensification practices (such as the use of organic fertilizers, alternative weed management and agroforestry) of 15 plantations of chayote (*Sechium edule* Jacq.) on the abundance and number of associated staphylinid species (Coleoptera: Staphylinidae) in central Veracruz, Mexico. Samplings were performed installing traps bimonthly during 2018. Diversity of staphylinids was composed of 1,905 individuals distributed in 112 species, 52 genera, 20 tribes and 10 subfamilies. Abundance was significantly and positively influenced by the use of organic fertilizers and the diameter at breast height of the trees that form the living fence, while negatively by the shade produced by trees that form the living fence. Species number was influenced significantly and positively by abundance and shade produced by the trees that form the living fence and the alternative management of weeds. Agroforestry indicator practices were the most important for the abundance and species number of staphylinids. Probably, agroforestry practiced in the chayote crop provides resources and conditions for this beetle group. Therefore, implementation of diverse agroforestry practices in the chayote crop may be a viable strategy for the maintenance of biodiversity and ecosystem services that it provides.

Key words: Agroecology, biodiversity, agroecosystem, Staphylinidae