

## DYNAMIC OF PREDATORS IN AN ECOLOGICAL OLIVE GROVE IN TRÁS-OS-MONTES (NORTHEAST OF PORTUGAL)

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There is a vast diversity of arthropods that live in the canopy and have critical roles in functioning of the ecosystem. In this situation, the predators play an important role in the control of phytophagous populations. Therefore, the study of species' dynamics is of fundamental importance to the management and preservation of biological diversity. With this work we aimed to identify the principal groups of predators in ecological olive grove, to study the dynamic of population and correlate the abundance of predators with the occurrence of the main olive pests. Between April and November of 2002, canopy arthropods were sampled in an olive grove in ecological production since 1991, near Mirandela (Northeast of Portugal).

Weekly, five samples of ten small branches were collected by the beating technique from ten olive trees selected randomly. The individuals captured were counted and identified till order (Aranea) or family (Chrysopidae, Coccinellidae, Formicidae, Miridae and Anthocoridae). Results showed that the principal group of predator were the ants representing 60% of the total, followed by Aranea. Miridae and Coccinellidae represented 10% of the total captured individuals. Chrysopidae were the less abundant predators. Ants were abundant from the end of spring to the beginning of summer, which coincided with the larval stages of the olive moth. Coccinellidae were abundant in summer, which is in agreement with the first larval stages of the black scale (*Saissetia oleae* Oliv.). Spiders were captured equally during all the sampling period except at the end of summer and beginning of autumn, which captures increased.

**Key words:** Olive pest management, predators, natural control

This work was partially financed by the project AGRO 236 "Protecção contra pragas em Olivicultura Biológica"