

Intra- versus inter-specific interactions of *Macrolophus pygmaeus* and *Nesidiocoris tenuis* foraging on an aphid population

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The nature of antagonistic/synergistic interactions among predators sharing prey patches has been most widely reported to play a major role in biological control. This study focuses on the effects of prey availability and supplementary plant resources (eggplant leaves with or without flowers) on the predation rate of two omnivorous predators: *Macrolophus pygmaeus* and *Nesidiocoris tenuis* (Hemiptera: Miridae) when foraged alone or together under different prey density levels. Intraspecific interactions were tested by introducing a conspecific pair of each species into a dish with an eggplant leaf where aphid nymphs were present with or without a fully bloom eggplant flower and interspecific interactions were explored by using a heterospecific pair of one individual of *M. pygmaeus* and one of *N. tenuis*. As prey, 2nd instar *Myzus persicae* nymphs were offered at densities of 4, 12, 20, 24, 32 and 40. Prey consumption was recorded after 24h. Functional responses of each predator species were evaluated. A multiplicative risk model was used to predict the combined-predator effect from the individual predators. According to the outcomes, intra- and inter-specific interactions were found comparable.

Keywords: biological control, intraguild interactions, omnivory, eggplant.

Acknowledgements

This project is co-funded by the European Union - European Social Fund (ESF) & National Sources, in the framework of the program "HRAKLEITOS II" of the "Operational Program Education and Life Long Learning" of the Hellenic Ministry of Education, Life Long Learning and Religious Affairs.