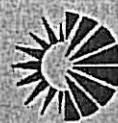


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IFOAM SEAE



SIERRA DE SEGURA
ASOCIACION PRODUCTORES
DE LA SIERRA DE SEGURA

CHRYSOPIDS AS NATURAL CONTROLLING AGENTS OF THE OLIVE MOTH, *PRAYS OLEAE* (BERN.), IN NORTH-EASTERN PORTUGAL

CIENCIA Y TECNOLOGÍA

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ABSTRACT

Chrysopids (Neuroptera, Chrysopidae) are considered to be important predators of the olive moth, *Prays oleae* (Bern.), as they feed greedily upon eggs, larvae and pupae of the phytophagous. To obtain knowledge on the species of chrysopids occurring in the olive agroecosystem in north-eastern Portugal and on the role of these beneficials in controlling *P. oleae*, a study was carried out in an olive grove typical of the region, in the period of 1993 to 1998. Periodic samples of adult chrysopids were taken using McPhail traps baited with a 4% aqueous solution of biammonium phosphate and that of larvae by beating one hundred branches, two per tree on each of 50 randomly selected trees of the grove. Predatory activity of chrysopids on *P. oleae* eggs was measured by inspecting samples of leaves, flower clusters and fruits.

Six species of chrysopids were identified: *Chrysoperla carnea* (Steph.) *Mallada flavifrons* (Bauer), *M. prasina* (Brumcister), *M. picteti* (McLachlan), *Nineta vittata* (Wesmael) and *Rexa lordina* (Navas). The most abundant were *Chrysoperla carnea* (Steph.) which represented about 54 % of the total captured, followed by *Mallada flavifrons* (Bauer) which accounted for 24,0 % of total. The main period of adult catches occurred between July and October. The rate of *P. oleae* predated eggs varied between 5% and 34%, the lower value corresponding to the antophagous generation, and the higher to the carpophagous.

key words: predation; natural control; chrysopids; *Chrysoperla carnea* (Steph.).

Soil arthropod diversity in relation to weed diversity in organic and conventional agroecosystems

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Key words: Maize, olive-groves, Shannon index, soil arthropods, vineyards, weeds

Abstract

There are indications that plant diversity can influence soil arthropod abundance and diversity in terrestrial ecosystems. This study was conducted to investigate the relationships between weed and soil arthropod diversity in organic and conventional olive-groves, vineyards and maize fields. For weed sampling the fields were divided into five equal rectangles and one sample was obtained from each rectangle. Soil arthropods, were sampled by pitfall traps. For both, weeds and soil arthropods, Shannon's diversity index was calculated. Weed diversity indices were lowest in conventional vineyards and conventional and organic maize. The highest diversity indices for soil arthropods were found in organic vineyards and the lowest in conventional maize. A positive trend was found between diversity indices for weeds and soil arthropods.