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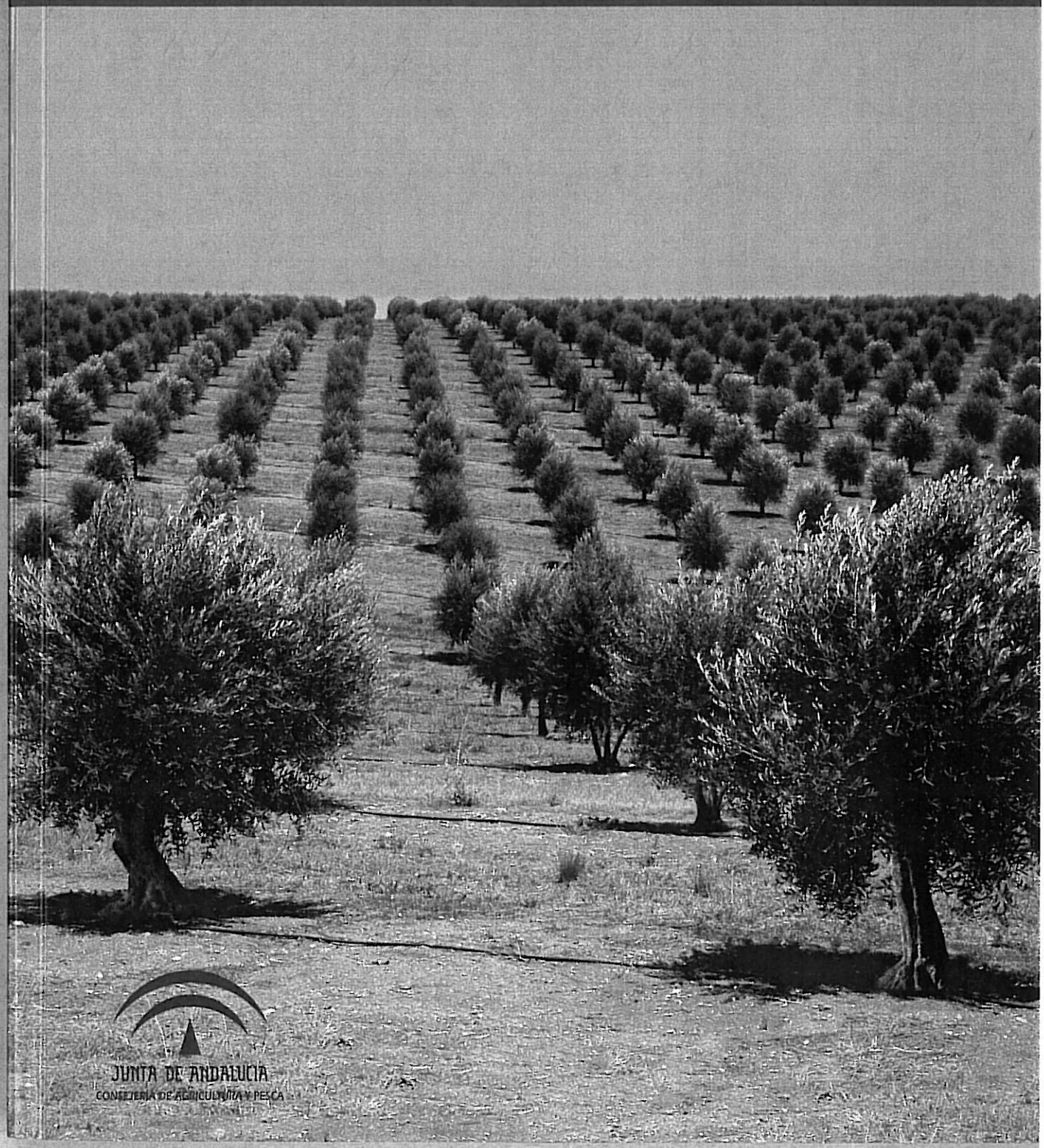

JUNTA DE ANDALUCIA
CONSEJERIA DE AGRICULTURA Y PESCA

O 38. INFLUENCE OF THE DAY PERIOD ON THE ABUNDANCE AND DIVERSITY OF SOIL ARTHROPODS IN OLIVE GROVE ECOSYSTEM

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On soil food webs, arthropods are part of important functional groups. Recognize these arthropods and understand its function in the ecosystem as well as the period of the day in which they are actives, is essential to understand their roles. In the present work we intend to study the soil arthropods diversity as well as the period of the day that are actives in three olive groves from the Northeast of Portugal. Particular emphasis was given to the generalist predators that can attack olive fruit fly pupae in soil. The work was carried out during the spring of 2006 and at a bi-weekly basis 25 pitfall traps/grove were put during 12 hours both on day period (from 7:00am to 7:00pm) and on night period (from 7:00 pm to 7:00 am). The collected individuals were sorted and identified. Five classes of arthropods were found: Chilopoda, Malacostraca, Entognatha, Insecta and Arachnida. Captures were numerically dominated by springtails. Arachnida and Insecta classes represented about 20.4% and 9.0% respectively from the total captures. Among the predatory arthropods, the most representative groups were Aranea and Opiliones from arachnids and Formicidae, Carabidae and Staphylinidae from insects. On Formicidae, *Tetramorium semilaeve* Andre 1883, *Tapinoma nigerrimum* (Nylander 1856) and *Crematogaster scutellaris* (Olivier, 1792) were the most representative ant species. Arthropods have demonstrated preference for the day, with 74% of the total individuals recovered in this period although richness and similarity have been similar between periods.

KEYWORDS: OLIVE GROVE, SOIL ARTHROPODS, DIVERSITY, DAY PERIOD, PREDATORS