

THE IMPORTANCE OF OLIVE GROVES FOR WINTERING BIRDS IN THE MEDITERRANEAN REGION

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Agricultural ecosystems have often been found to support very high levels of ornithofauna diversity and have thus, been recognized as significant bird habitats in the Mediterranean. In the present study, we aim to evaluate the importance of olive groves for overwintering birds, both in mainland Greece and on the islands. Study areas were located on the island of Lesvos (NE Aegean) and the area around Arta in Epirus (Western Greece). Olive groves were studied in comparison to the most extensive natural ecosystems of each area, which were pine forests and phrygana (garrigue) in Lesvos, and phrygana only in Arta. Abundance, species richness and population density of birds were assessed by point-counts in all habitats and diversity indexes were calculated. We found that olive groves sustain high levels of bird species diversity, both in Lesvos and in Arta ($H'=1.87$ and 1.77 respectively). In addition, about half of the recorded species in Lesvos (10 species) were observed exclusively in olive groves; the respective value in Arta was much lower (3 species). Significant differences were observed in species diversity and density between olive groves and natural ecosystems, in both areas studied (post hoc tests, $p < 0.001$). Therefore, it seems that olive groves play an important role for birds overwintering in the islands, with olives being a valuable energy source for them at that time. On the other hand, birds overwintering in the mainland, where greater habitat heterogeneity could offer alternative food sources, don't necessarily rely heavily on olive groves.