

DOES THE LANDSCAPE OF DOURO WINE REGION AFFECTS THE COMPLEX OF ANTAGONISTS OF THE GRAPE BERRY MOTH?

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While most vineyards in the world are nowadays typically extreme monocultures with little remaining native vegetation and a suite of introduced weeds, whose provision of ecosystem services is as a result at a low level, the Douro Wine Region offer strong potential from this standpoint due to the occurrence of a significant area of non-crop habitats (e.g. woodland remnants, grasslands, edges with natural vegetation and dry stone walls). The objective of this study is to investigate the effects of the landscape of this region on the complex of antagonists of the grape berry moth, *Lobesia botrana* (Denis & Schiffermüller). The study is being carried since May 2010, in three pilot farms, i.e. Quinta das Carvalhas (Real Companhia Velha), Quinta de S. Luíz (Sogevinus Vinhos SA) and Quinta do Seixo (SOGRAPE Vinhos SA). In the first year, the landscape was categorised in habitats according to its use and digitised by means of a geographical information system (GIS). Next, a detailed inventory of the plant communities from potential ecological infrastructures i.e. woodland remnants, grasslands, edges with natural vegetation was done, and the arthropods populations were sampled by suction sampling and pit-fall traps. All captured individuals are being sorted and identified under binoculars until Orders, Families or species taxa and the total number of each taxon recorded. Each taxon is further being classified by its trophic role based on personal observation and literature review. Moreover, *L. botrana* larvae and pupae are being sampled and incubated in the laboratory for quantification of the rates of parasitism as well of fungal infection. Our interest for understanding the landscape effects on *L. botrana* natural antagonists arise from prospects of giving first inputs for landscape-based conservation biological control of this key pest of vineyards.

Key-words: landscape ecology, GIS, *Lobesia botrana*, conservation biological control

Acknowledgements:

This work is part of the PhD thesis of the first author. Partially funded by ADVID and by QREN (European Fund for Regional Development), through the POFC (Operational Program for Competitiveness Factors).