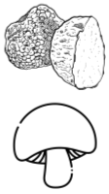
FOREST4EU

ITHub 4 – Non-Wood Forest Products



FOREST4EU partner: SOLUTOPUS

OG: PLATISOR

OG's country: Portugal

Type of Innovation: technological

Methods for managing cork oak forests with platype attacks from the Sor region (process and technique)

Introduction

Cork oak forests (*Quercus suber*) are very complex and delicate ecosystems, characteristic of the Mediterranean Basin, with great economic, social and ecological value. The worsening of its health status and its relationship with biotic factors was verified: it is closely associated with complex patterns in which pests (e.g. *Platypus cylindrus, Coroebus undatus*) and diseases (e.g.: *Phytophtora spp, Biscogniauxia mediterranea, Botriosphaeria stevensii* and *Ophiostoma spp*) are determining factors for the death of cork oaks.

A population increase of the insect Platypus cylindrus (platype) was observed and, consequently, its damage to the cork oak. It is an endemic species that mainly attacked dead or very weakened trees and currently contributes to the mortality of thousands of green trees. The most likely hypothesis suggests the fact that started attacking healthy trees because of current more aggressive behaviour for having established new symbiosis relationships with fungi or bacteria, some of them do not endemic.

Project's development and results

The project objectives were:

1. Know the factors related to the spatial/temporal distribution of attacks platypus;
2. Know the bioecology of the platypus in the region;
3. Look for alternatives to existing means of control (biological and chemical);
4. Seek to increase the effectiveness of the technique for capturing adult insects using traps with chemical attractants currently sold.

The Tasks performed were: Identification of properties and characterization of plots with Platypus attacks; Evaluate the relationships between the occurrence of the platype and the different characteristics of the trees that allow a successful attack from the platypus; learn about the bioecology of the platypus in the region; field essays and technical experiments with several products and techniques, analysis of the results.

The plots were defined according to the presence of the pests, diseases and insects, contextualized within the regional picture. The fact that historical records reveal the strong presence of the plague throughout the region

allowed the simplification of the choice of properties that were eligible for enforceability of the proposed work. With this precondition, 3 properties were immediately identified with cork oak stands and with characteristics apparently suitable for testing accomplishment. 6 experimental plots were installed in the field with the aim of carry out a detailed study of its health evolution, with the evaluation of 16 variables during the entire duration of the project, as well as carrying out the tests foreseen in the remaining phases.

Partial results were obtained for the various tasks, related to the attack strategy of the platype: anticipating, plots determination, yeld records, cork extraction, observation of leaves and dry branches, presence of other biotic and abiotic agents, etc.

Figure 1. Platypus cylindrus

Figure 2. Damaged cork oak tree

The information presented in this factsheet was developed by the FOREST4EU partner, drawing on the innovations and knowledge generated by the indicated operational group with their explicit authorization.

Further information

https://www.aflosor.com/

https://inovacao.rederural.gov.pt/grupos-operacionais/13-projectos-groupos-operacionais/135-platisor-metodos-para-a-gestao-do-montado-de-sobro-com-ataques-de-platipo-da-regiao-do-

Funded by the European Union

Funded by the European Union (Grant n. 101086216). Views and opinions expressed are however those of the authors only and do not necessarily reflect those of the European Union or REA. Neither the European Union nor the granting authority can be held responsible for them.