



Multifuncionalidad, conservación y empleo rural  
en el territorio del sur de Europa a través de la  
extracción de la resina

Multifonctionnalité, conservation et emploi rural  
dans le territoire du Sud de l'Europe au moyen de  
l'extraction de la résine

Multifuncionalidade, conservação e emprego rural  
no território do sul da Europa através da  
extração da resina

**Dimitris Tsympinas**

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COFINANCIA:



SOCIOS:

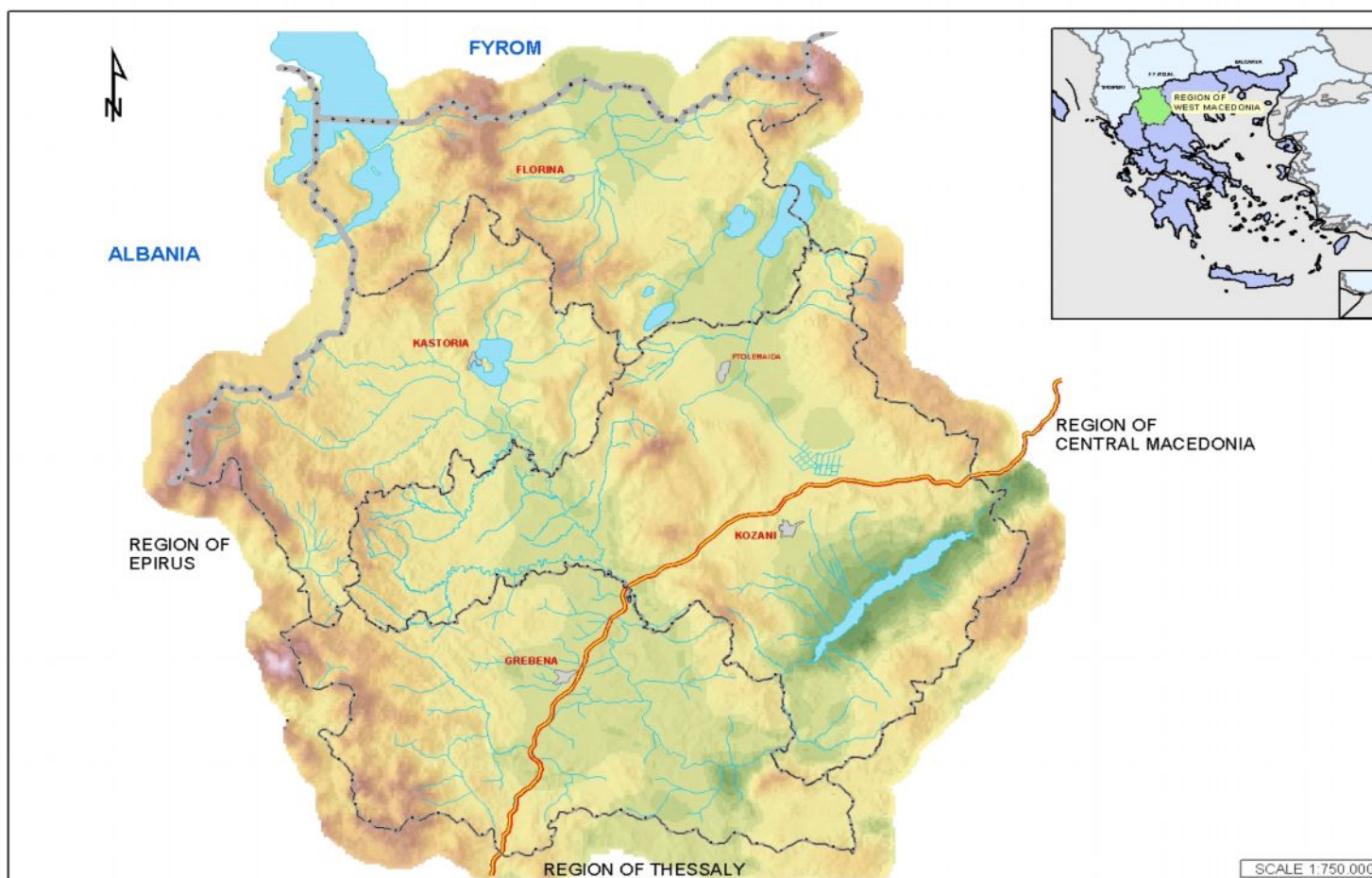


ASOCIADOS:





# PRESENTATION OF THE REGION “WESTERN MACEDONIA”



Soria, Spain, 13-14th April 2011

By Dimitris Tsimplinas



# REGIONAL FOREST SITUATION

## Importance of the forest cover, forest types and forest ownership

### Forest types

- Mixed oak forests of *Quercus pubescens*, *Quercus petraea*, *Quercus macedonica*, *Quercus sessiliflora*, *Quercus conferta*, *Quercus cerris*
- Broad leaved forests of *Fagus silvatica*, *Castanea sativa*, *Platanus orientalis*, Broad-leaved maintaining their leafage
- Coniferous forests of *Pinus halepensis*, *Pinus sylvestris*, *Pinus nigra*, *Pinus leucodermis*, *Abies borisi regis*
- Mixed forests of *Pinus sylvestris*, *Pinus nigra*, *Abies borisi regis*

### Forest ownership

- Public forests: 73% (225.714 ha)
- Private forests: 27% (83.688 ha)











## Resin: the tear of the pine

- The production of resin applied consistently and continuously in Greece for two and a half thousand years.
- Today in Greece, the production of resin is extracted from living pine trees (mainly *Pinus halepensis* and to a lesser extent *P. brutia*, *P. nigra* and *P. leukodermis*).





””””

Pinus nigra



Pinus leukodermis



””  
eu





# Harvest of resin

Currently, the only method used is decortication.  
Specific tools are used for the cutting of the tree bark



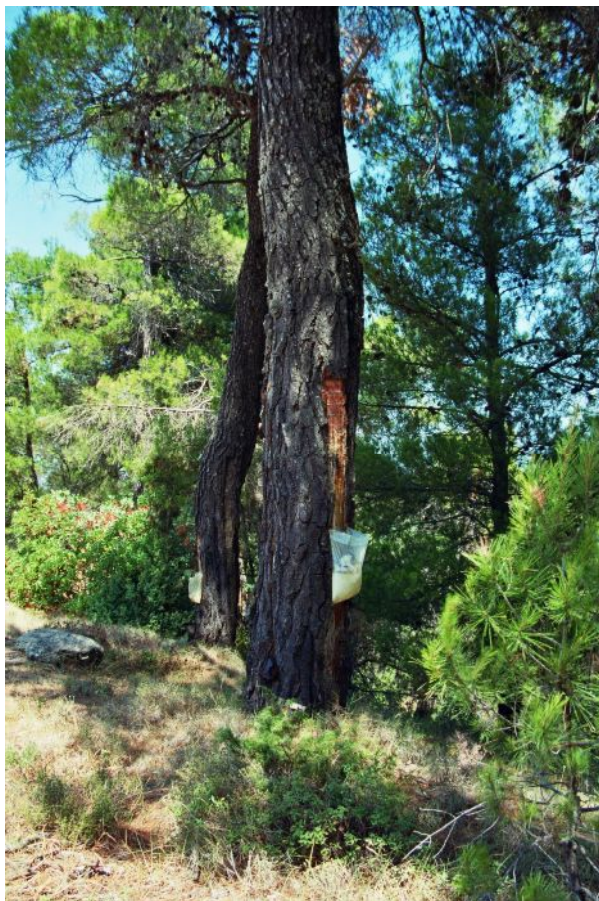
Then, a paste of sulfuric acid is put on the bark



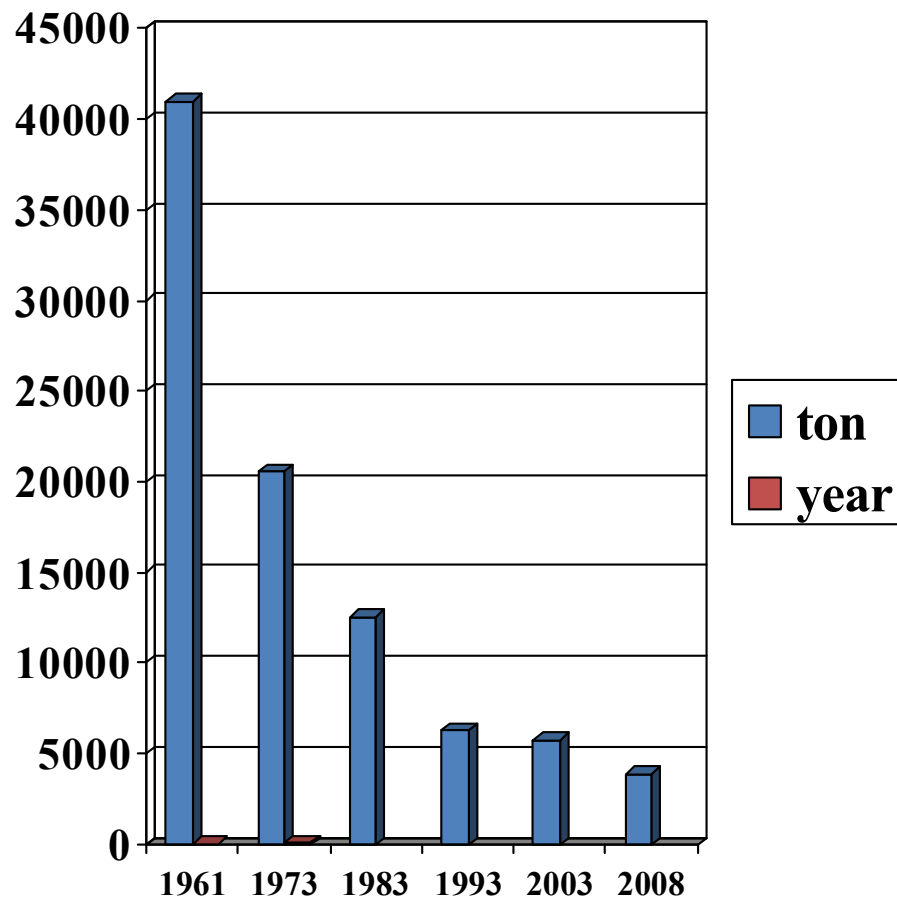


The extracted resin is transferred from the bark to the metal or plastic container





# PRODUCTION IN GREECE



- 1961 : 41.000 ton
- 1973: 20.587 ton
- 1983: 12.558 ton
- 1993: 6.265 ton
- 2003: 5.761 ton
- 2008 :3.901 ton



This declining trend may be attributed to

- The lack of integrated forest management and protection plans and the decreasing area of pine forests (due to the forest fires)
- the extremely harsh conditions of work
- the change in the professional employment of young people and the very low prices for resin and resin products.





Innovative methods of tapping of the trees and improvements in resin collection, transport and processing operations appear to be promising factors for the reversing of the declining trends in resin production.

In addition, it seems necessary for the state (and the resin workers, where applicable) to promote the improvement of the resin ability of the forests, the training of the resin workers and, of course, to facilitate new investments in production of further processing of the resin to high added-value products.





- Similar to the trends in the production of resin, the number of processing installations for the production of turpentine and rosin from gum resin has followed a continuously declining trend .
- Only four resin processing installations are in operation today in the country, out of the 30 or more which existed in the past.







## RESIN PRODUCTS

- The main products from the primary processing of resin, the *turpentine* and the *rosin*, consist of many rare, and, in many cases, valuable constituents.
- However, only the rosin is subjected to some further processing, whereas the turpentine is used almost exclusively as a solvent.





# RETSINA



- **Retsina** is the best known traditional Greek wine.
- Retsina is produced by the addition of the natural resin extracted from *Pinus halepensis* during fermentation of white and, in rare cases, of rosé wines. Having left only its aroma in the wine, the resin is then removed.





# PROBLEMS

- The existing processing plants employ quite old equipment and their technological standards are long ago out-fashioned.
- As a result, their processing capacity is limited and the quality of products is not the best possible .
- If the production of resin is stopped, this specific knowledge will extinct for the next generations.
- Resin production is also a preventive factor for forest fires





## ENCOURAGING INDICATION

- An encouraging indication for better days of the sector in the future, may be the fact that, in the developed countries, turpentine is used as a raw material for fractionation and value-added derivative manufacture and to a lesser extent as a solvent. Most of the rosin is used in a chemically modified form rather than in the raw state in which it is obtained .





***GRACIAS !!!***





**Gracias  
Grâce  
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COFINANCIA:



SOCIOS:



ASOCIADOS:



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RESCOLL



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CIUDAD DE CAUCA  
(Sogamoso)