European Non-Wood Forest Products (NWFPs) Network

Cost Action FP1203

Workshop and MC Meeting Lisbon, 20-21 June 2013, Field Trip – Companhia das Lezírias

Companhia das Lezírias

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The cork oak in Portugal

According to the 5th National Forest Inventory, the cork oak (*Quercus suber*) is the second most abundant forestry species in Portugal with nearly 737.000 ha (23% of the Portuguese forest area), mainly in the southwest.

This oak is cultivated for its bark, the cork, but it usually constitutes a specific agro-forestry system called *montado*, very important in terms of forage production and biodiversity conservation. The acorns are consumed by sheep, cattle and pigs as well as by the wildlife.

Virgin cork (or 'male' cork) is the first cork cut from generally 25 year old trees. Another 9 years is required for the second harvest, and a tree can be harvested twelve times in its lifetime. Cork harvesting is entirely done without machinery.

Portugal produces some 90.000 tones of cork which represents 54% of the world production, 850 M€ and 3,4% of the total Portuguese export.

Even if 80% of cork is used for stoppers, this material is used in a great variety of applications, from building construction to spatial aircrafts.

The main challenge for this tree is the replacement of cork stoppers by synthetic ones, that can reduce the economic importance of this tree with severe consequences in the economy and biodiversity of the Mediterranean region.

The cork oak at Companhia das Lezírias

Here we have one of the biggest continuous areas of cork oak in Portugal, with 6.700ha.

The management of the cork oak groves is a daily concern, from the installation by direct seeding, to the final cut when the tree is dead.

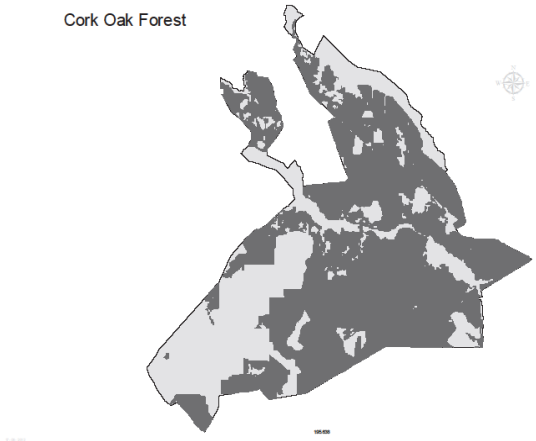
The harvest has place during summer time in mixed areas, meaning trees with different ages.

“Companhia das Lezírias” (CL) produces cork every year in a very variable quantities. In Portugal is not allowed harvest cork with less than nine years of growth. However, CL is implementing a plan to reduce the differences of annual quantities of cork production, and each year asks to national authorities to harvest cork with 8 years of growth.

Productivities are also very variables. In average, the annual productivity may reach 1.125 ton (600 - 1.845 ton) and the average productivity per hectare is 0,99 ton (0,18 - 1,725 ton).

The cork production represents 21% (1.130 M€ in 2011) of “Companhia das Lezírias” sales.

All cork oak groves are under organic production. That includes 3.050 ha of enriched pastures. The cork oak understory is used to raise 2.350 cows during fall and winter time.



The Stone pine in Portugal[1]

Stone pine (*Pinus pinea*) covers an estimated area of 175,742 ha in 2010. Presents the largest increase in total area since 1995 (+43%). Portugal has the second largest area of *Pinus pinea* after Spain. Two countries accounts for approximately 75% of all stone pine stands.

The species is well adapted to the high temperatures and drought characteristic of Mediterranean climates and is less sensitive to diseases and pests than other Mediterranean pines and particularly to the pine wilt nematode, Bursaphelenchus xylophilus.

It is not a fast growing species, nor is its timber very valuable. Its value comes mainly from its nuts which are the most important edible product of Mediterranean forests. In 2011, cone/nut production represented 22 million euros. Production by stone pine in Portugal is high; at on average 193 kg of cones per ha in 2006, compared with 124 kg/ha in Spain. Mechanical harvesting of cones has modernized cone collection and increased economic interest even if it is far from generalized.

Nut weight/cone weight ratios depend upon the precipitation from late Spring to early Summer of that year. Good cone initiations to a good harvest in the 3rd year occur when there are neither extreme temperatures nor extreme droughts (Calama et al. 2007a).

[1] Found this and more detailed information at www.pinuspinea.com .

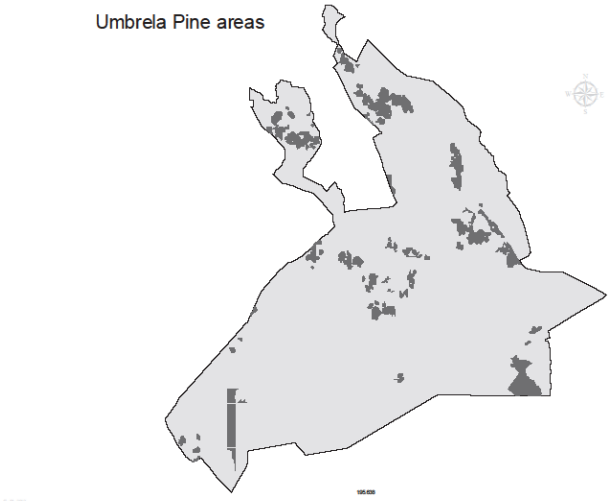
In Portugal, the positive effects of irrigation and fertilization of this species have been demonstrated in an unquantified manner on golf course greens where nut yields are higher than in unmanaged neighboring stands.

In Portuguese stone pine stands grafted material has been used to create productive plantations. This technique anticipates the cone/nut production.

The Stone pine at Companhia das Lezírias

Stone pine covers more than 650 ha of moorland. About 35% of this area are plantations. It appears everywhere, associated with other more representative species like cork oak and atlantic pine, or in pure stands, mostly in extreme conditions, namely winter flooded areas. None of our stands presents grafted trees.

Every year, “Companhia das Lezírias” consults the market and sells the cone production on the tree. The buyers are, usually, Portuguese, Spanish or Italian. The harvest is done manually. The cone production is very variable between 10 t (2012/13) and 800 t (2010/11). However the overcome is not proportional to the production and stays between 12-300 thousands euros.



Maritime pine in Portugal

Until 2010, maritime pine (*Pinus pinaster*) was the main tree species in Portugal. However, according to the latest National Forest Inventory (NFI6), eucalyptus (*Eucalyptus globulus*) is now the main tree species followed by maritime pine which covers an area of 714.445 ha.

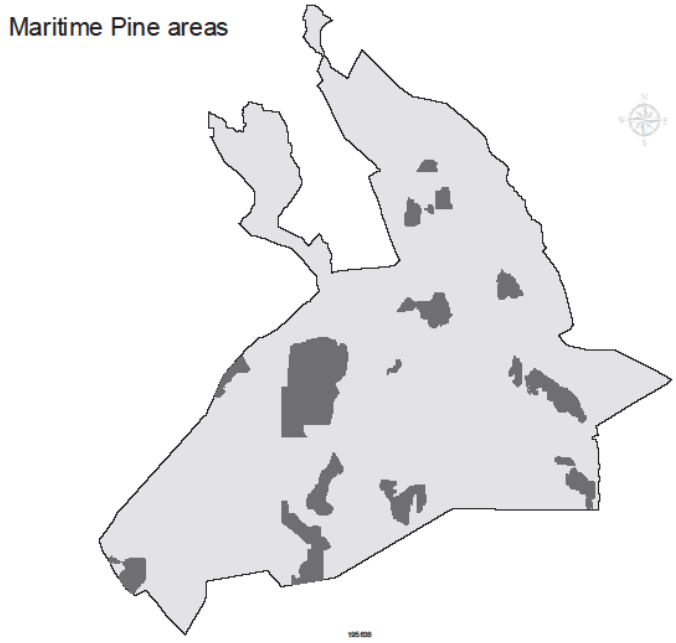
This species, particularly well adapted to coastal regions of Atlantic influence, was used to fix the coastal sand dunes but also to forest the inland mountains of north and central Portugal. For being a pioneer species it regenerates easily having sometimes an invasive behaviour.

It is the base of several particle board, fibreboard, corrugated cardboard furniture and sawmill industries, although the productivity of stands and the quality of wood are poor due to the lack of proper management in most of its forest area. Until the 90’s, this species was the base for some chemical industries due to resin extraction. Nowadays, this activity is regaining importance.

Maritime pine at Companhia das Lezírias

Maritime pine covers around 1.000 ha, as pure or dominant specie, being found just about everywhere in “Companhia das Lezirias” area. It is used for wood production, while at the same time, some of the stands are important for the safety and protection of pigeons, the most important game species in “Companhia das Lezirias”.

Despite resin was explored until the 1990s, it was discontinued due to the damages caused to the trees and the dangers inherent to extraction. Over the past year, some contacts have been made by some companies which are interested in retaking this activity.



Hunting in Portugal

Hunting in Portugal has been developing as an organized activity of economic importance since the late 80’s. Despite game species don’t have an owner from the legal point a view, the State grants to companies or hunting associations the land use planning and the exploitation of game in game hunting sites, which are over 2 thousand.

Only touristic hunting sites are allowed to sell the game. The hunting season, the game species to hunt, how and how much to hunt are annually defined by the State. Some of these aspects are regulated by the hunting site’s management plan, which has to have been previously approved by the State. In many cases, landowners do not profit from having their lands integrated into hunting zones, except for avoiding having their property invaded by unauthorized hunters.

Hunting at Companhia das Lezírias

“Companhia das Lezírias” is divided into three hunting sites, of which only the touristic hunting site is managed by the company.

With an area of 8.500 ha, pigeon is its main game species. Wildbore, rabbit, hare, fox, woodcock and snipe are also fairly hunted, whereas hunting for ducks, partridges, turtle doves and thrushes is less common.

Hunting is mainly intended for national hunters. Each year, 1.200 to 2.000 hunting trips are organized. Despite the crisis, its profits still reach around 100 thousand €.