

## CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

## <u> Tercer Ejercicio - Idioma</u>

Late Holocene vegetation dynamics on an Atlantic–Mediterranean mountain in NW Iberia:

Detailed studies on the late Holocene vegetation dynamics of the mountains of NW Iberia are rare. Furthermore, the impact of human activities and changes in fire activity on the natural vegetation are not well-known over these areas. In order to improve the knowledge on these topics, pollen and charcoal analyses were conducted on two new sedimentary sequences from the Teleno Mountains. Between ca 4500 and 3200 cal yr BP, Pinus type sylvestris and Betula dominated the forests that covered the uplands of the Teleno Mountains. At this point this pine-birch forest was replaced with heathlands and grasslands, which persisted during all the Iron Age and the Roman period until ca 1500 cal yr BP. This abrupt deforestation process could be caused by fire, grazing, and/or mining activities linked to the exploitation of the metal resources of these mountains. Around 1250 cal yr BP a *Betula* forest established in the uplands of the Teleno Mountains, probably following a decrease in human activities. The gradual rise in regional population density since ca 300-200 cal yr may be linked to the increase in fire activity that triggered the replacement of birch forest with heathlands. Lastly, the extent of the Pinus pinasterdominated forests in the lowlands is an illustrative example of how the economic activities of the local human population have controlled the vegetation cover in this area, as it is very clear in the pollen record the recovery of natural P. pinaster forests since ca AD 1900 associated to the start of resin exploitation.