

Hanging climate and reforestation

January 10, 2016



For the past six years, researchers at the Universitat Politècnica de València (Polytechnic University of Valencia, UPV) have been studying the performance of twelve Aleppo pine varieties native to different regions of Spain in reforestation campaigns across three national forest areas. Different varieties or genotypes have different levels of resistance to cold and drought, which influence how well they perform in a given geographical region, and researchers wanted to find out which varieties worked best and where.

To do so, the different national varieties or genotypes were used to repopulate forest areas in La Hunda, Valencia (as the control region), in the drier Granja d'Escarp, Lleida, to the north and further inland in Tramacastiel, Teruel, where the climate is much cooler.

"The varieties from Inland Levante and La Mancha performed the best overall, while those from further south seem to be perfect for reforestation efforts in regions already

affected by climate change," observes Antonio del Campo, researcher at the UPV's Institute of Water and Environmental Engineering (IIAMA).

Broadly speaking, varieties from central Spain work well in Valencia, on the east coast, while those from Valencia perform well up in Lleida.

Fellow researcher from the University's Institute for Plant Molecular and Cellular Biology (IBMCP), José Miguel Mulet, tells us: "What works now in the dry environments in the south-east will become, and indeed already is, ideal for the central Aleppo pine habitat area (central to eastern Spain). We are seeing a progressive colonisation from south to north."

In a context of climate change, it is perhaps not surprising that 'outsider' varieties perform better in a given region than local varieties, but this idea needs to be incorporated into national reforestation policy in order for efforts to be successful on the long-term.

Source:

<http://www.enn.com/ecosystems/article/49272>