



Sapienza Università di Roma
Dipartimento di Biologia Ambientale
Roma



Consiglio Nazionale delle Ricerche
Istituto per la Dinamica dei Processi Ambientali
Milano



HOLOCENE DYNAMICS OF TREE TAXA POPULATIONS IN ITALY

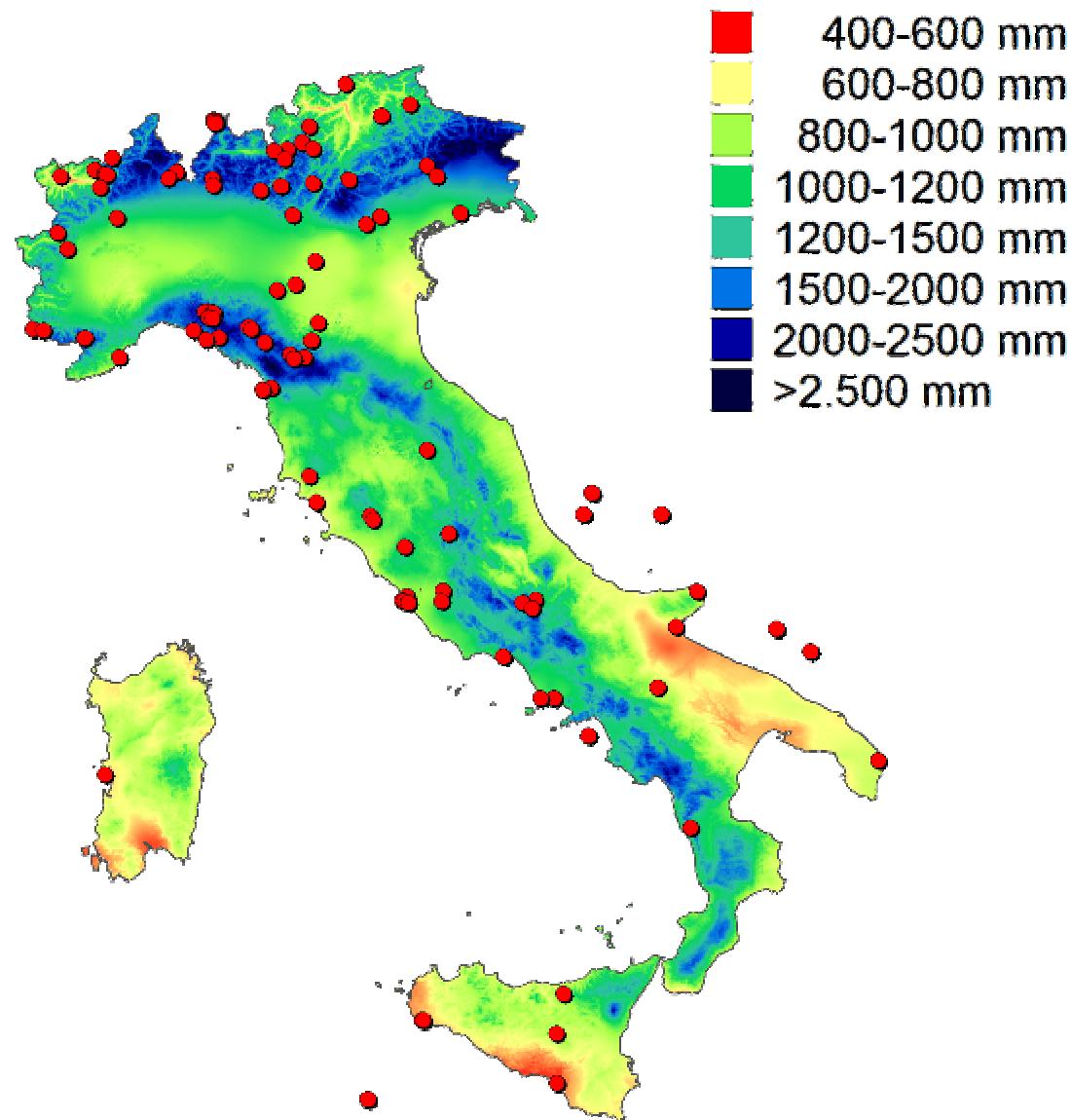
Magri D., Agrillo E., Di Rita F., Furlanetto G., Pini R., Ravazzi C., Spada F.

(published in Review of Palaeobotany and Palynology, 2014)

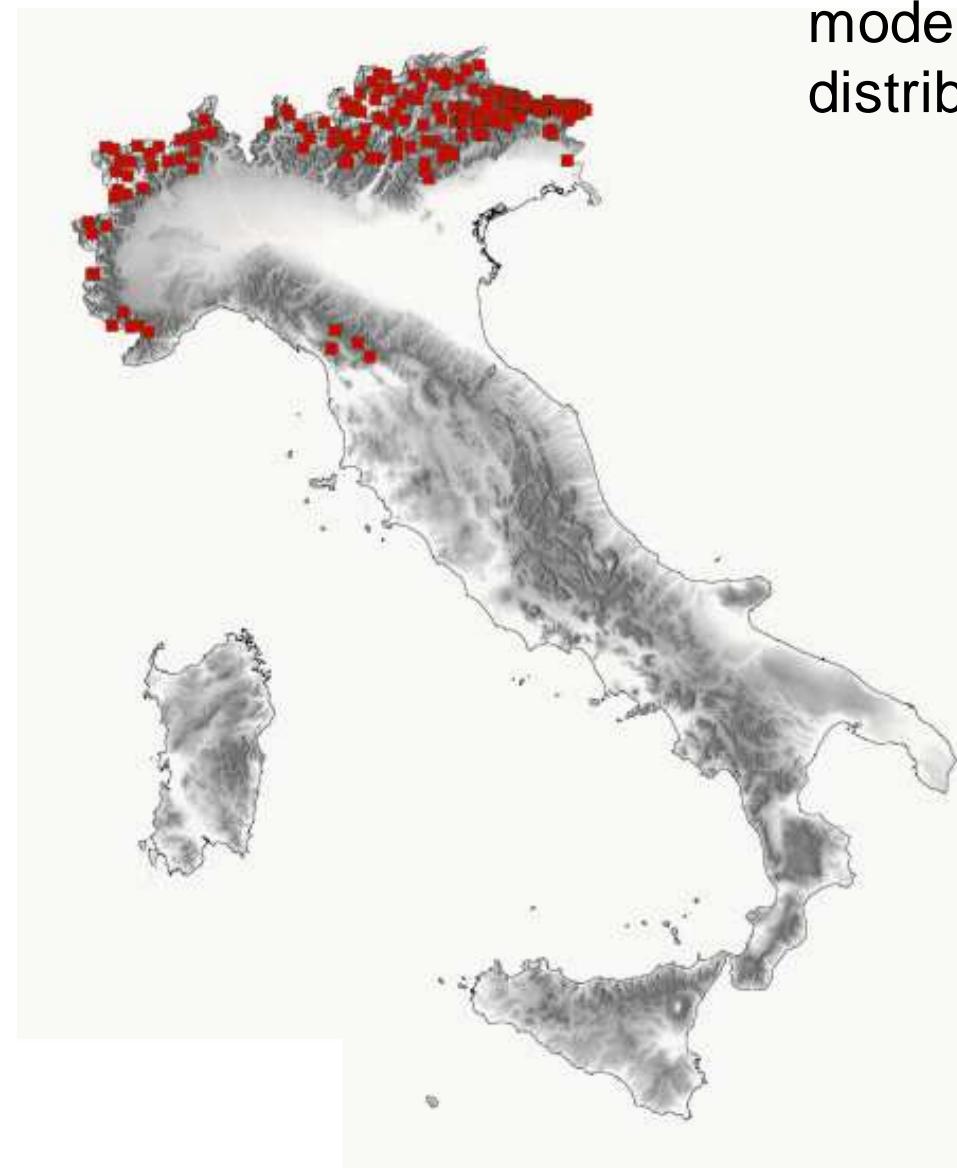


Padova 26-31 August 2014
9° EUROPEAN PALAEOBOTANY PALYNOLOGY CONFERENCE

Mean annual precipitation

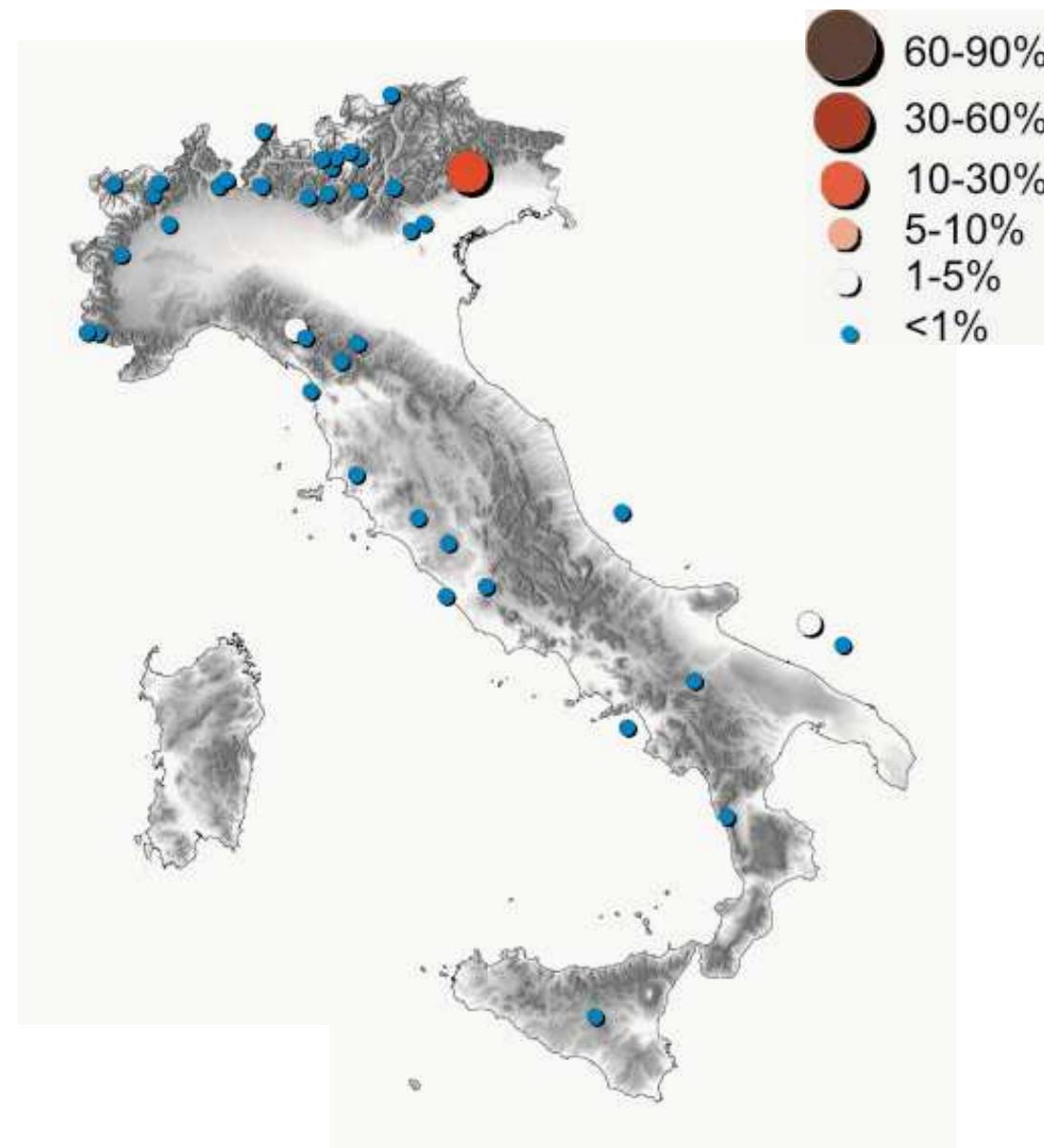


Picea

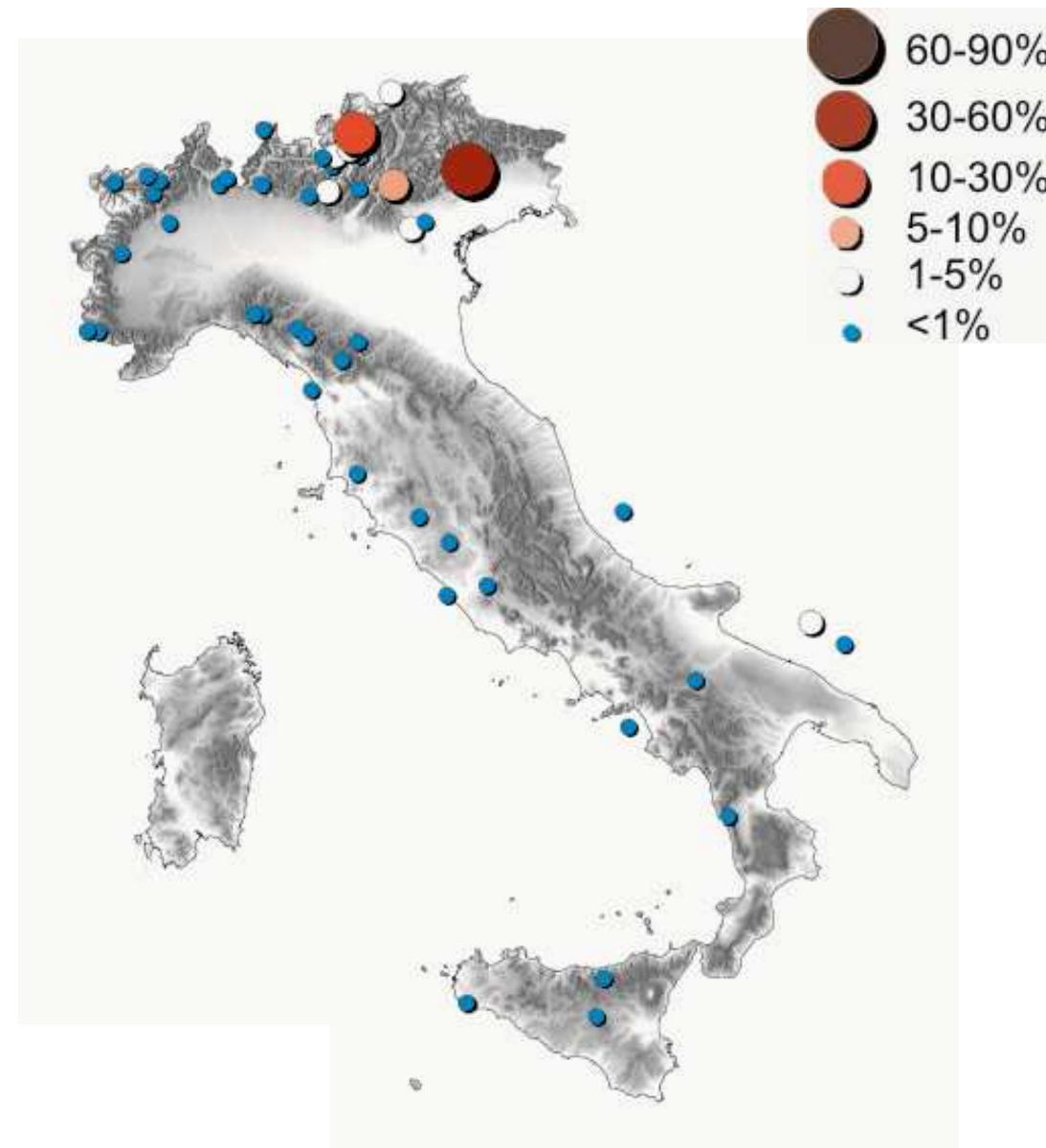


modern
distribution

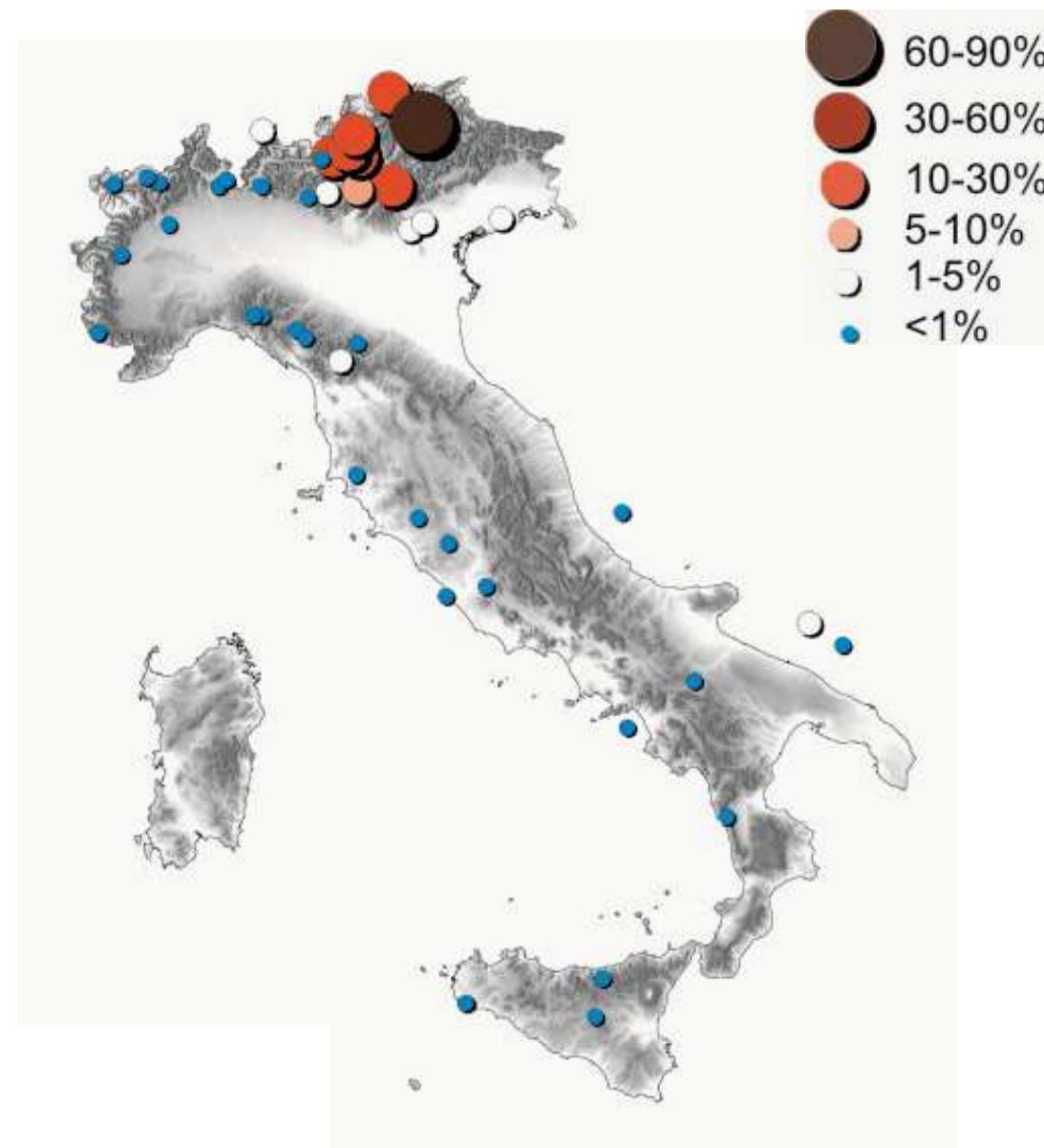
Picea – 11 ka



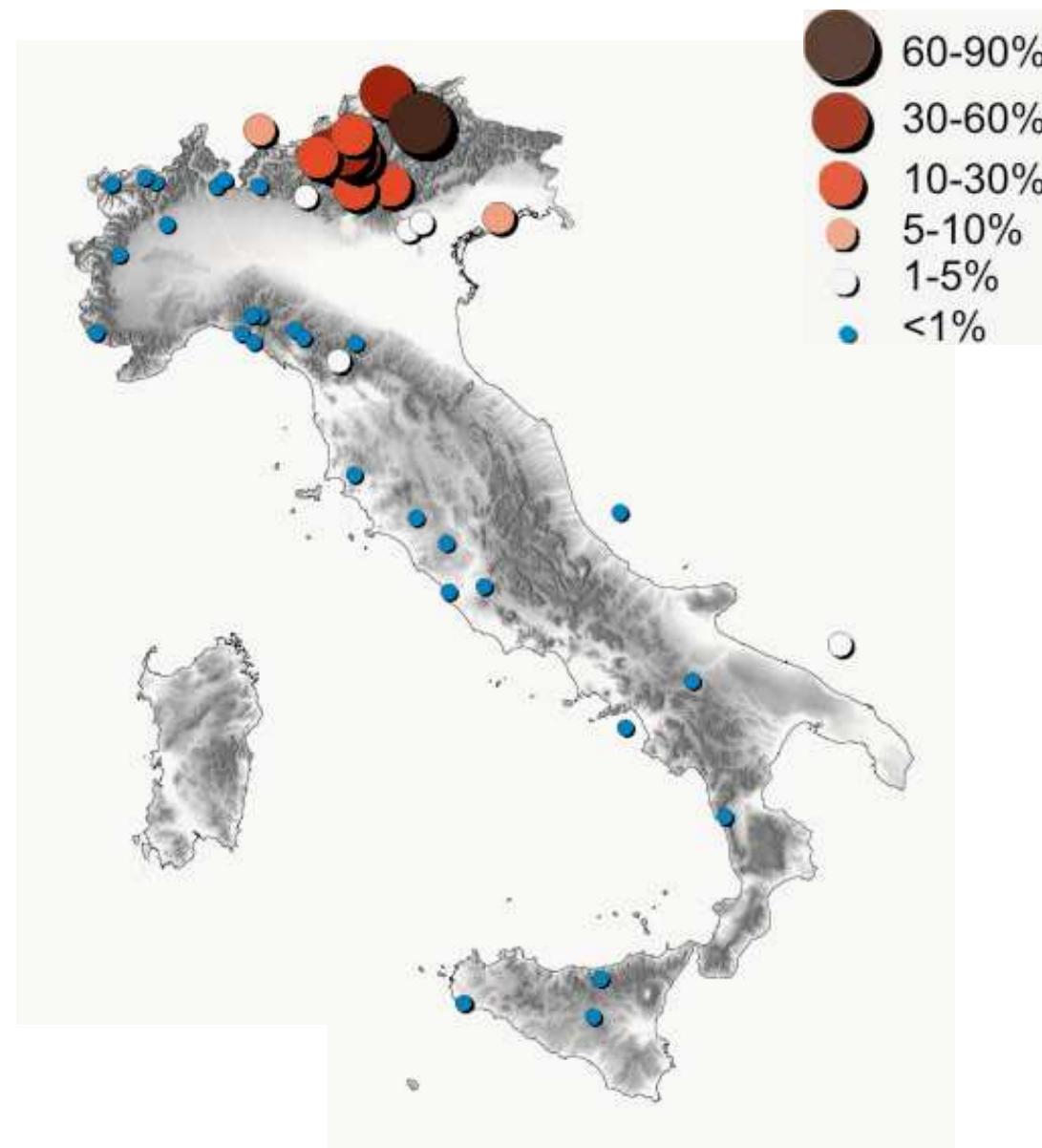
Picea – 10 ka



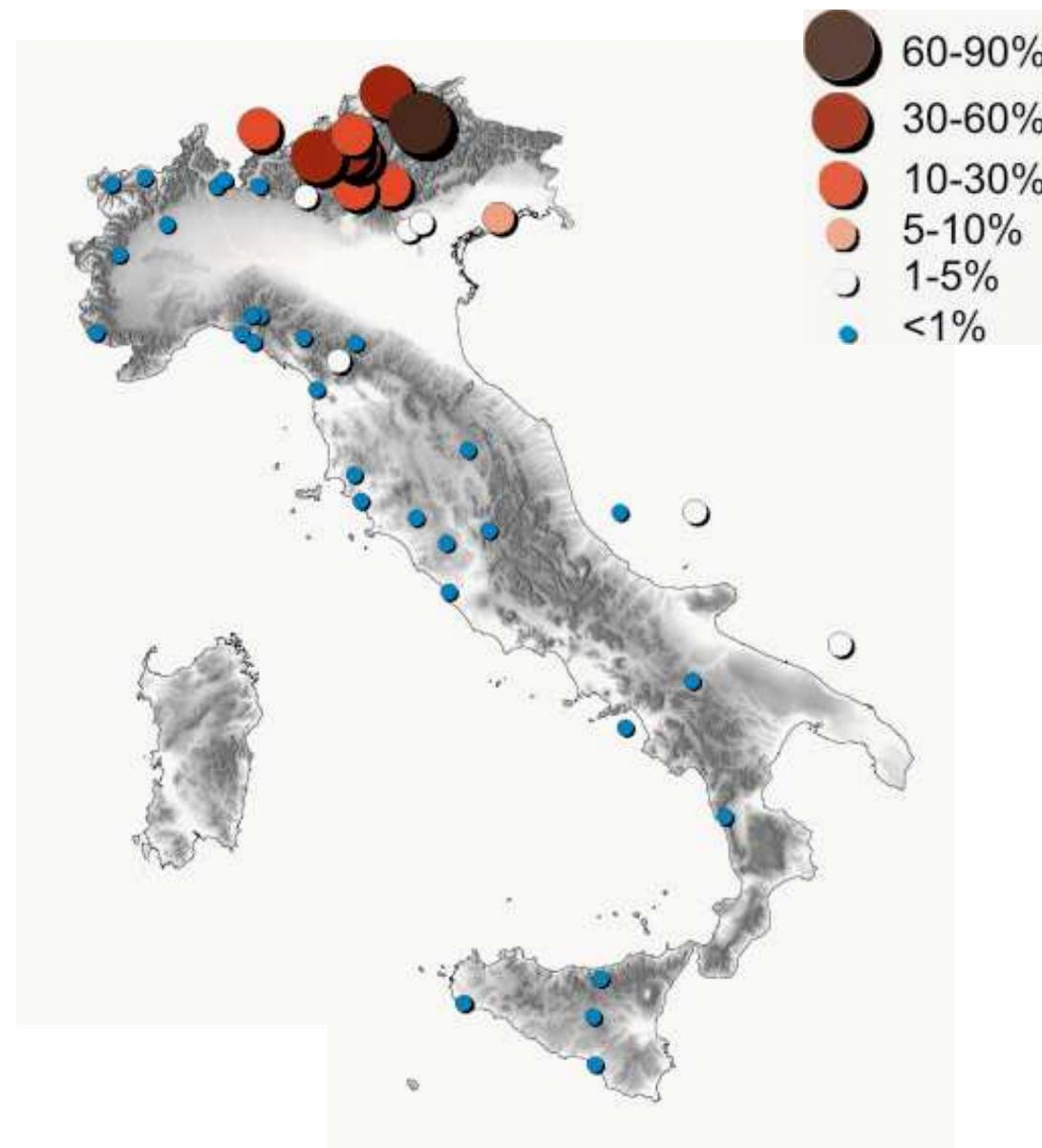
Picea – 9 ka



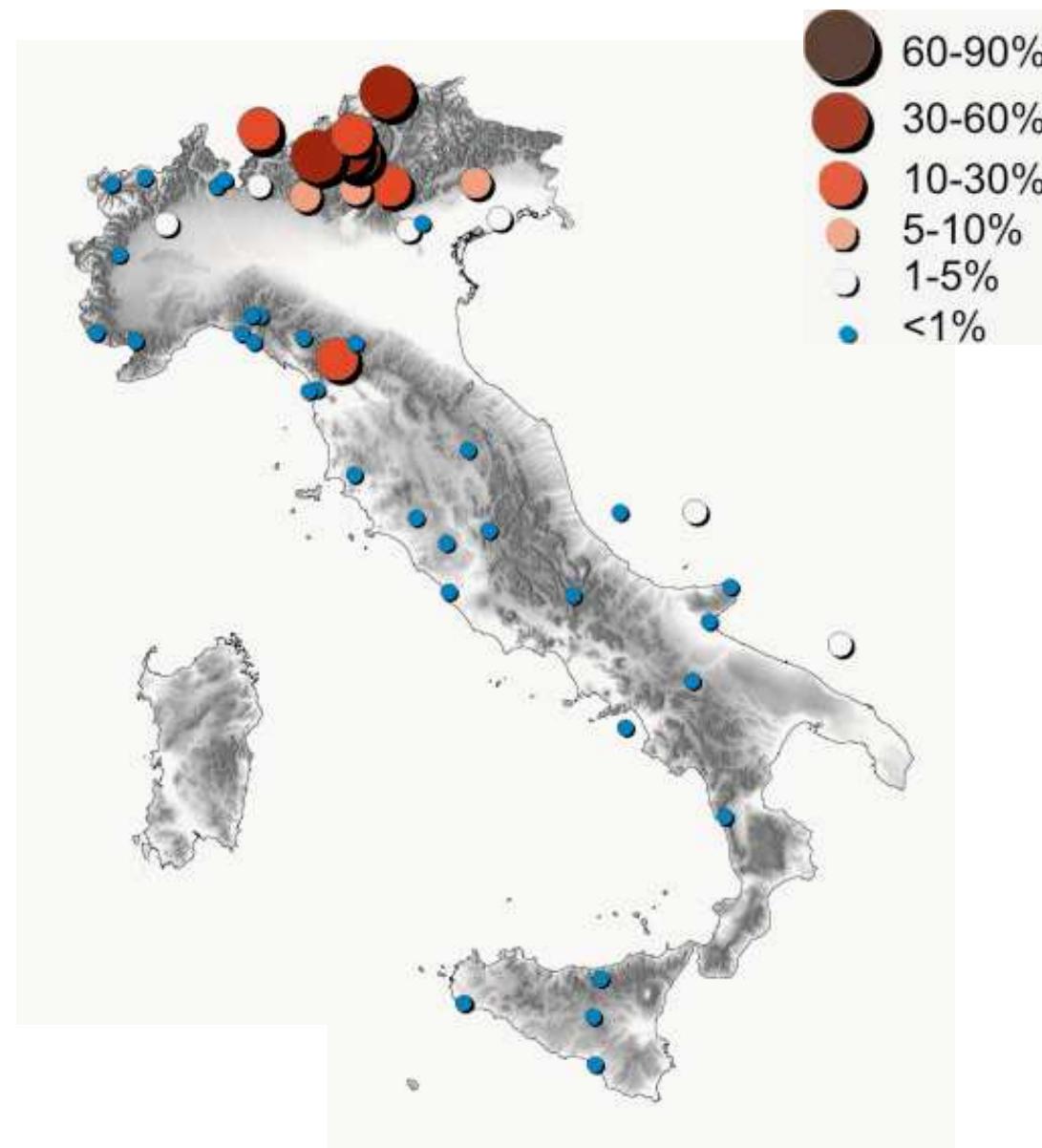
Picea – 8 ka



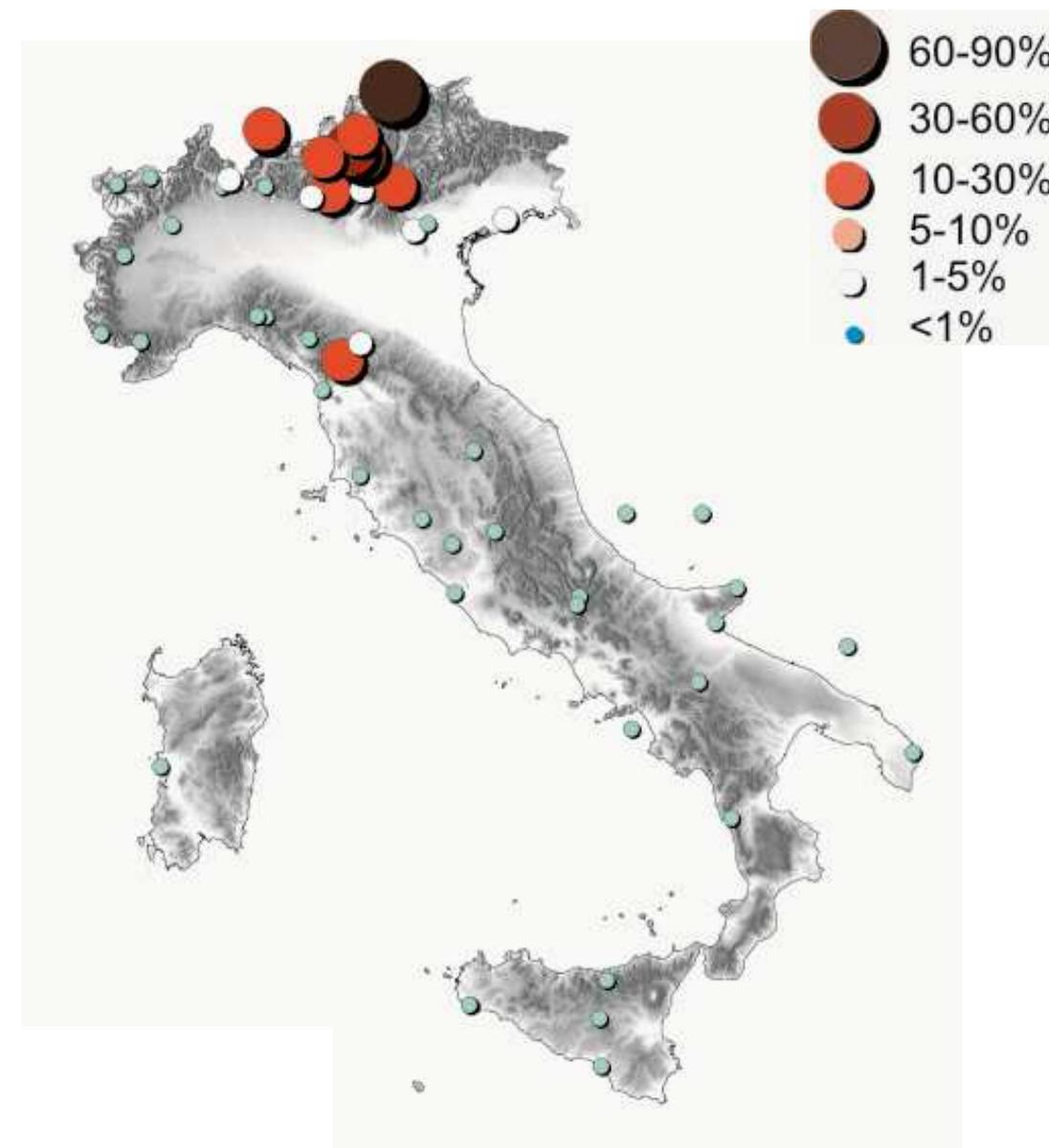
Picea – 7 ka



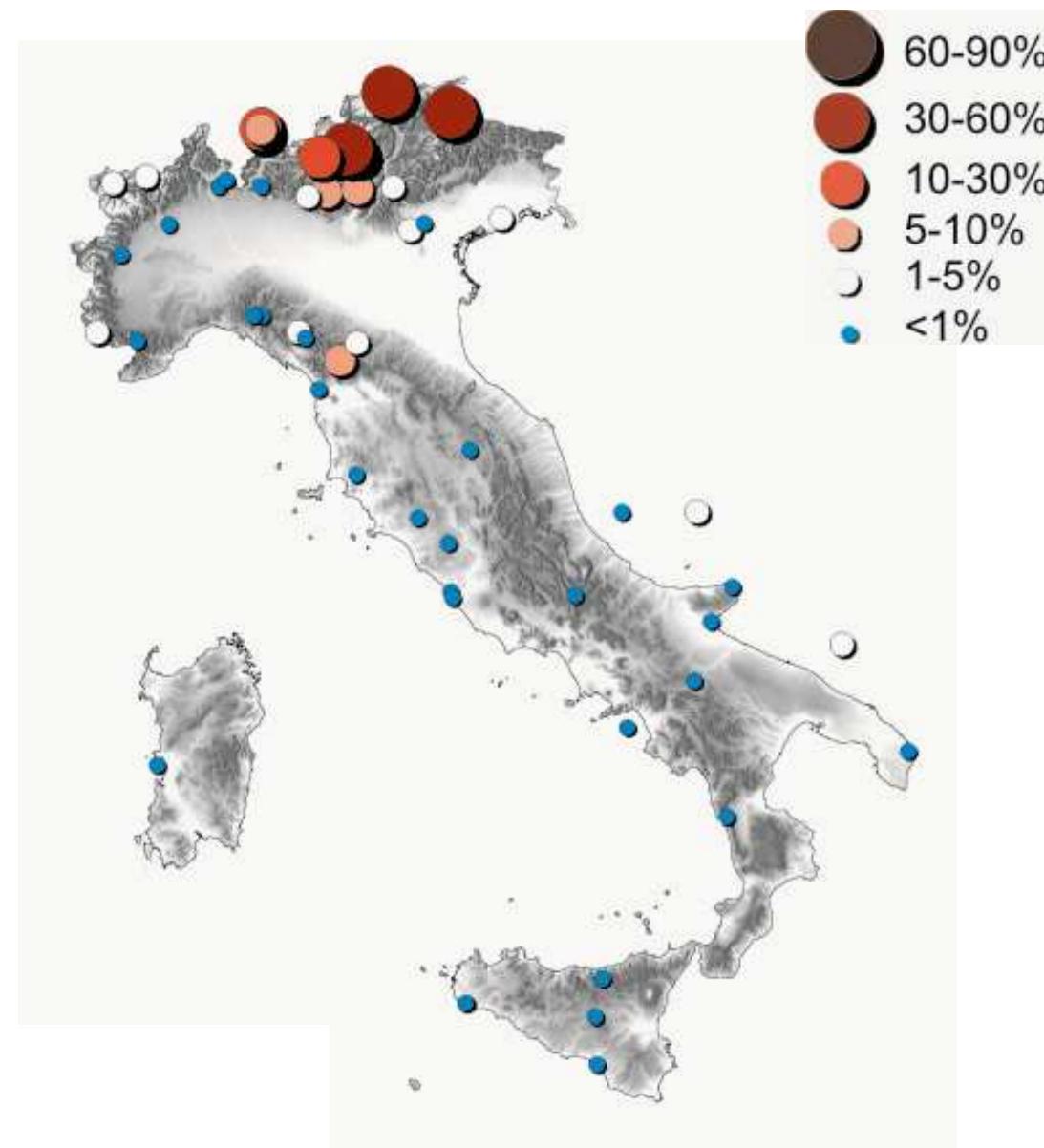
Picea – 6 ka



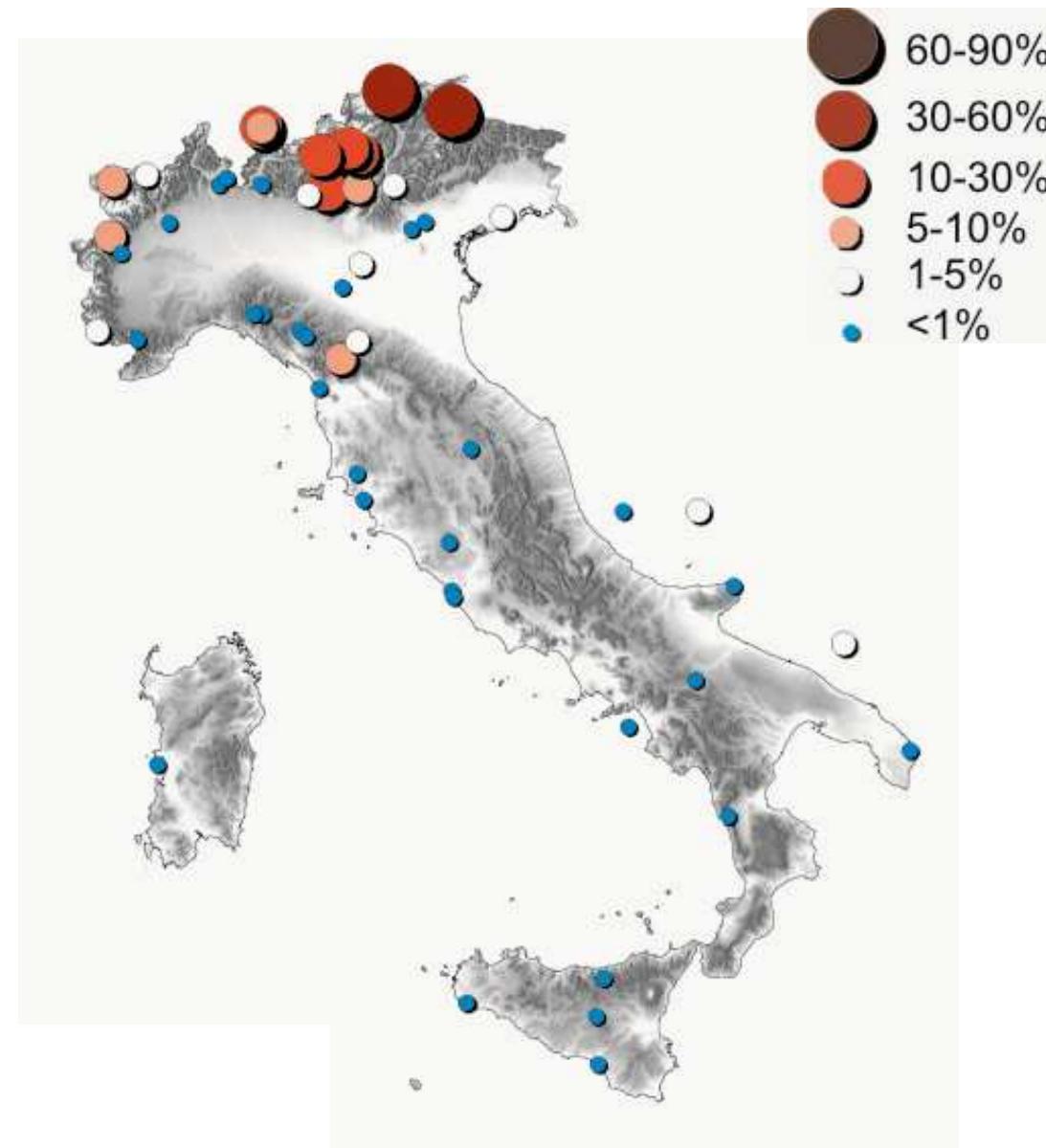
Picea – 5 ka



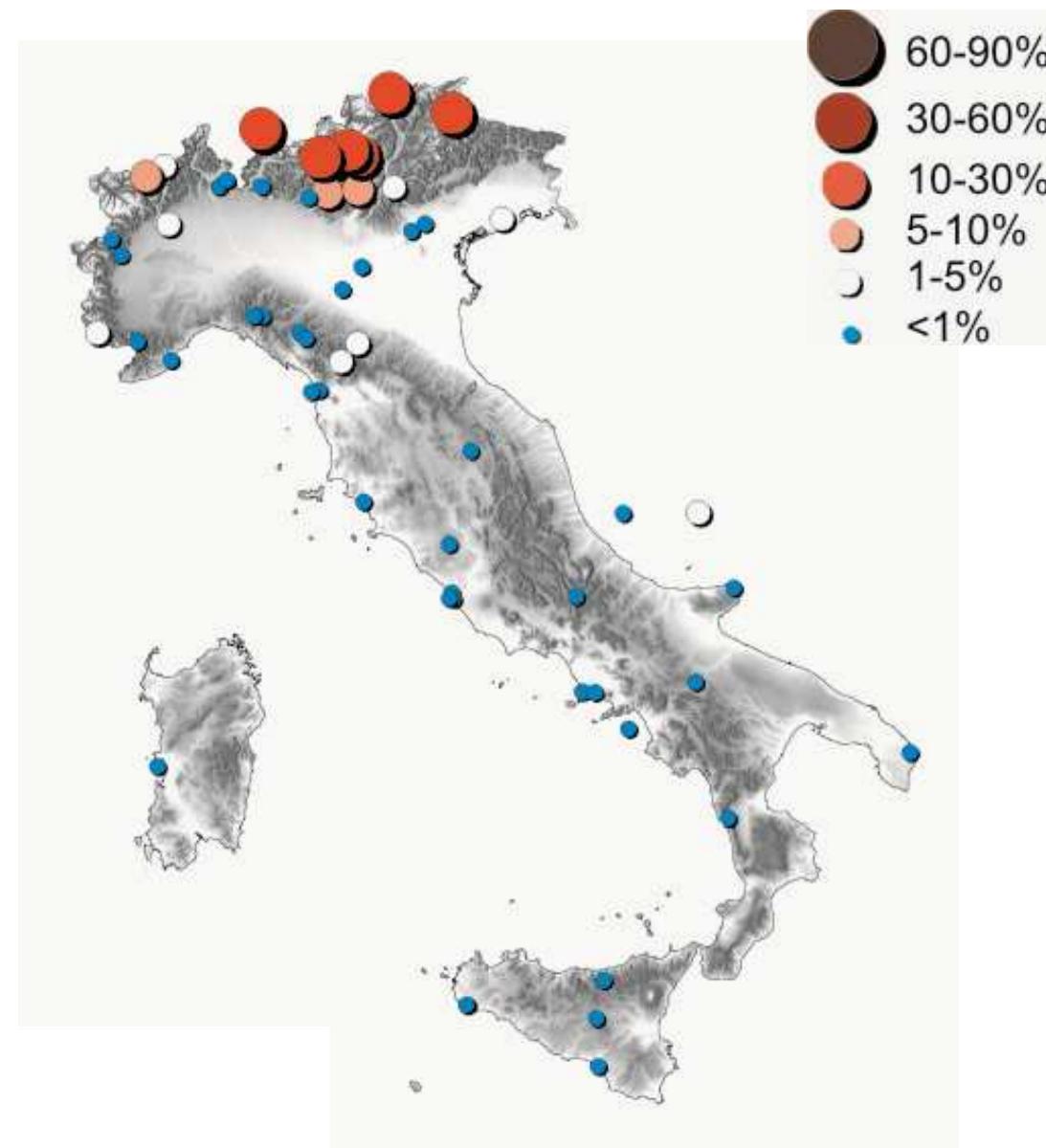
Picea – 4 ka



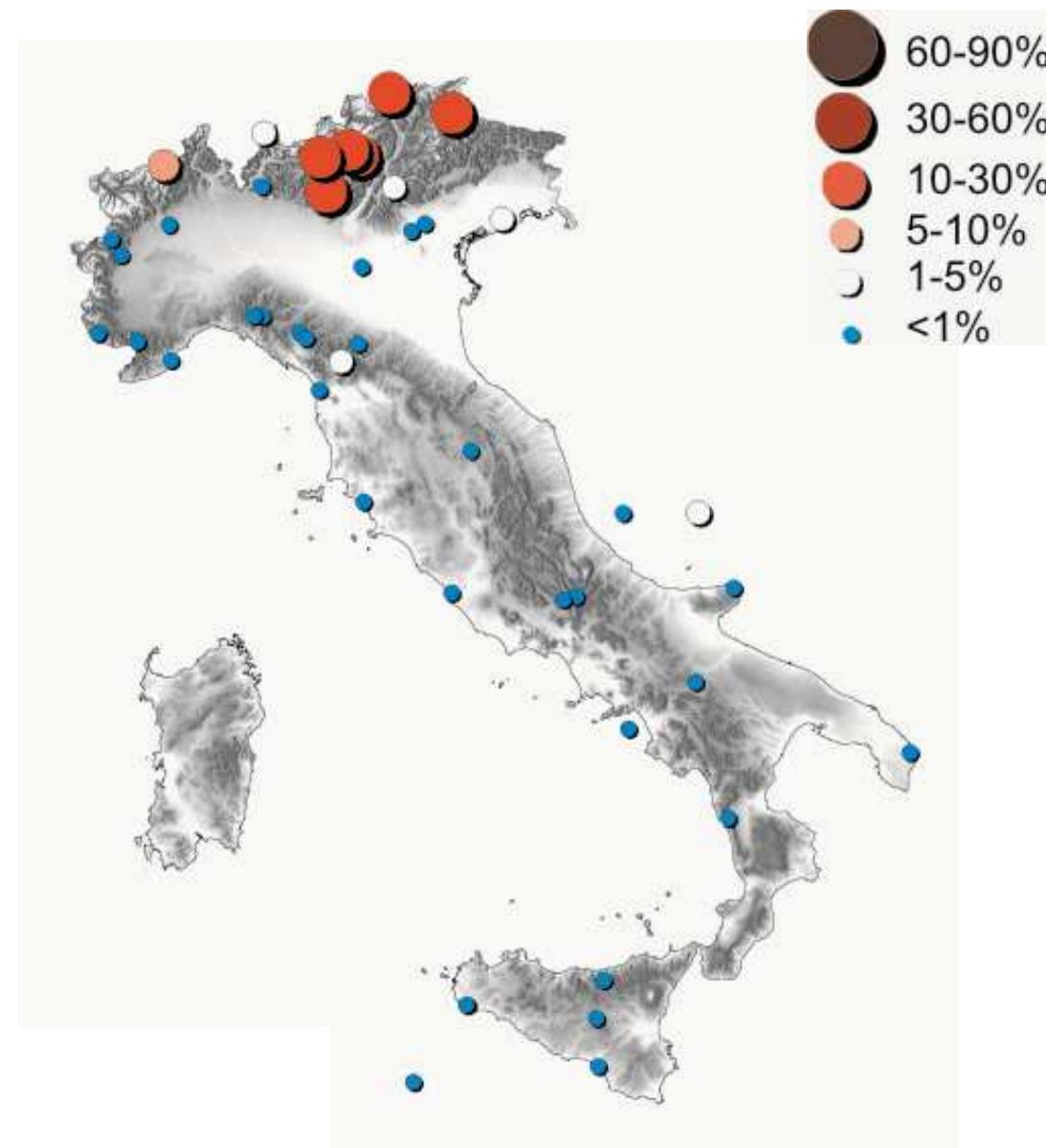
Picea – 3 ka



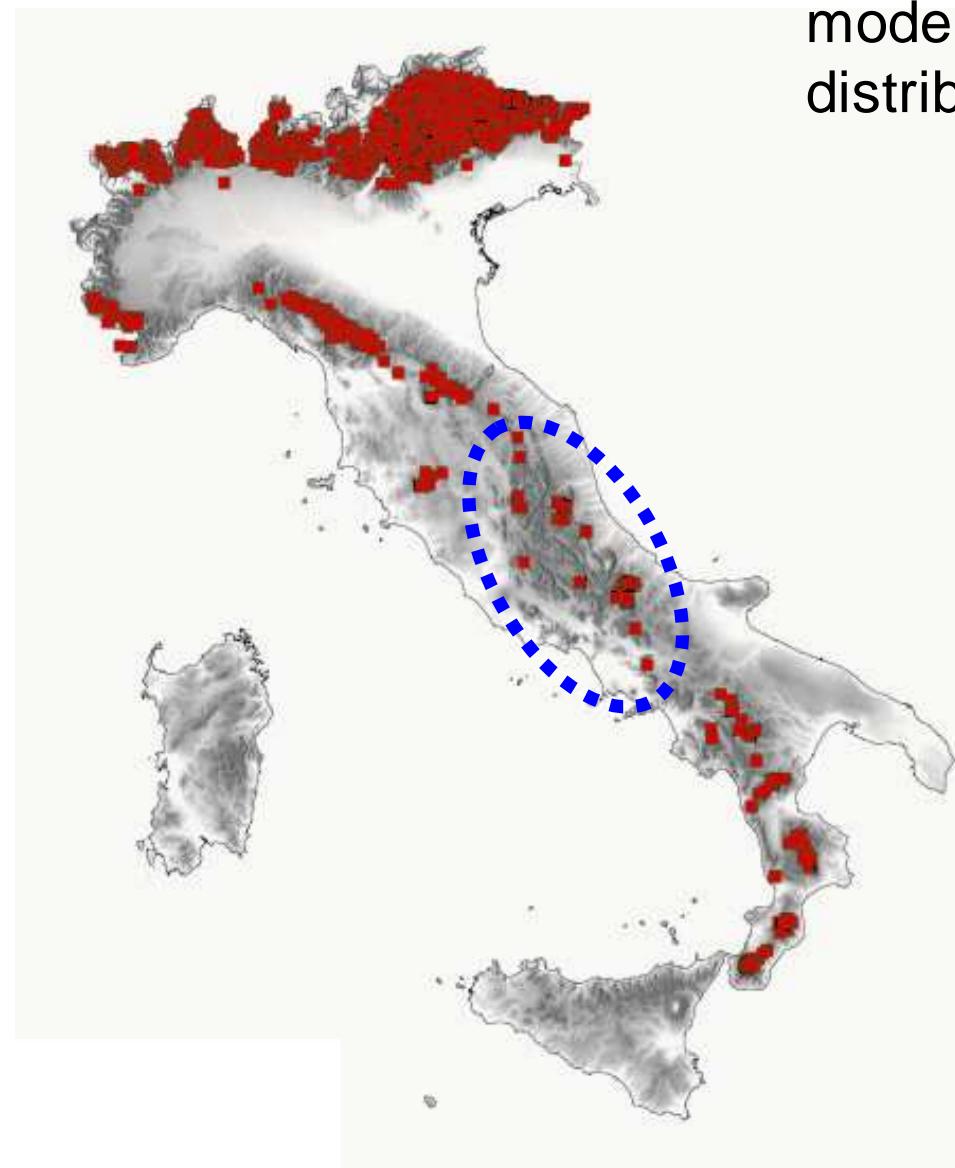
Picea – 2 ka



Picea – 1 ka

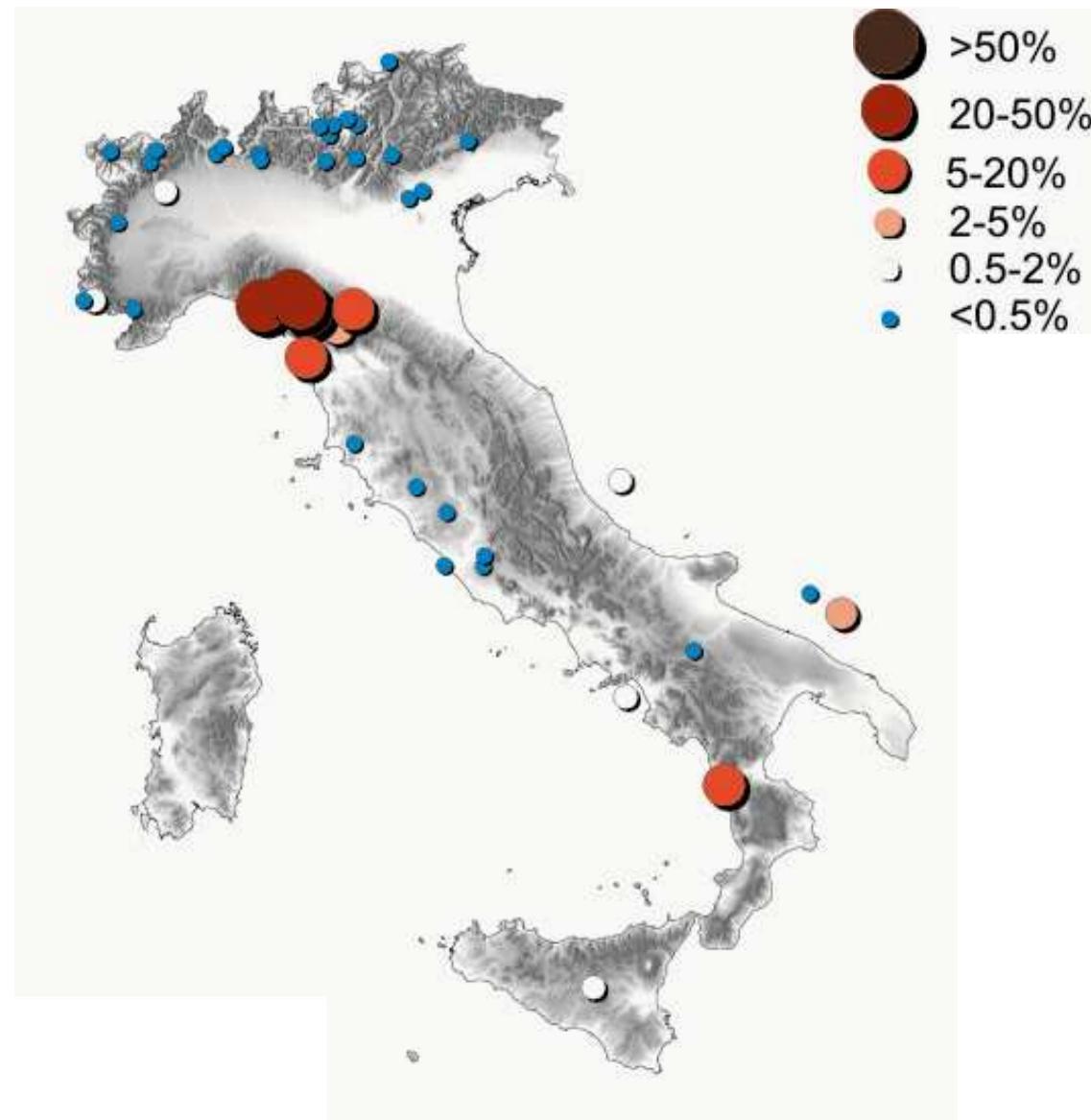


Abies

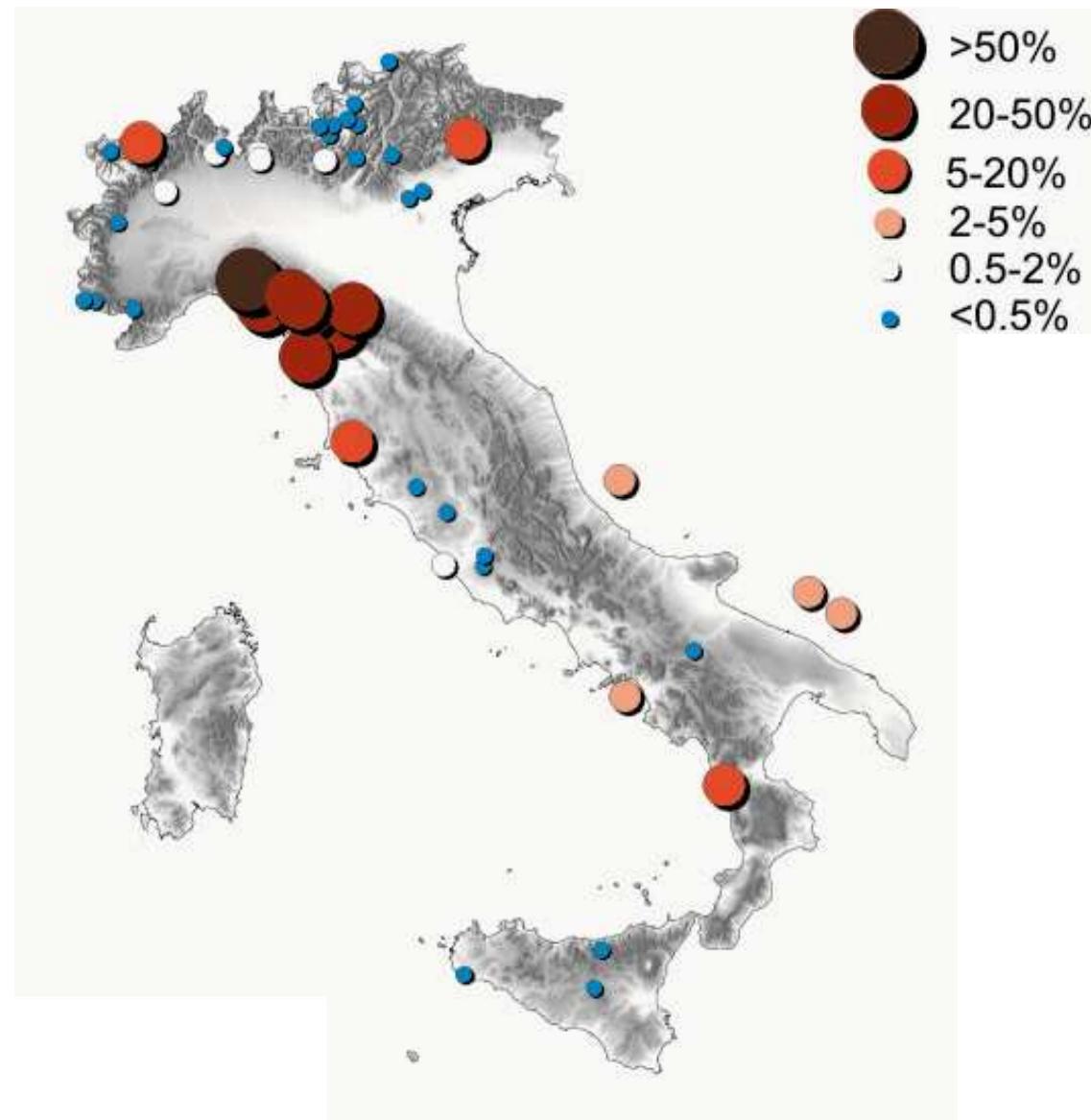


modern
distribution

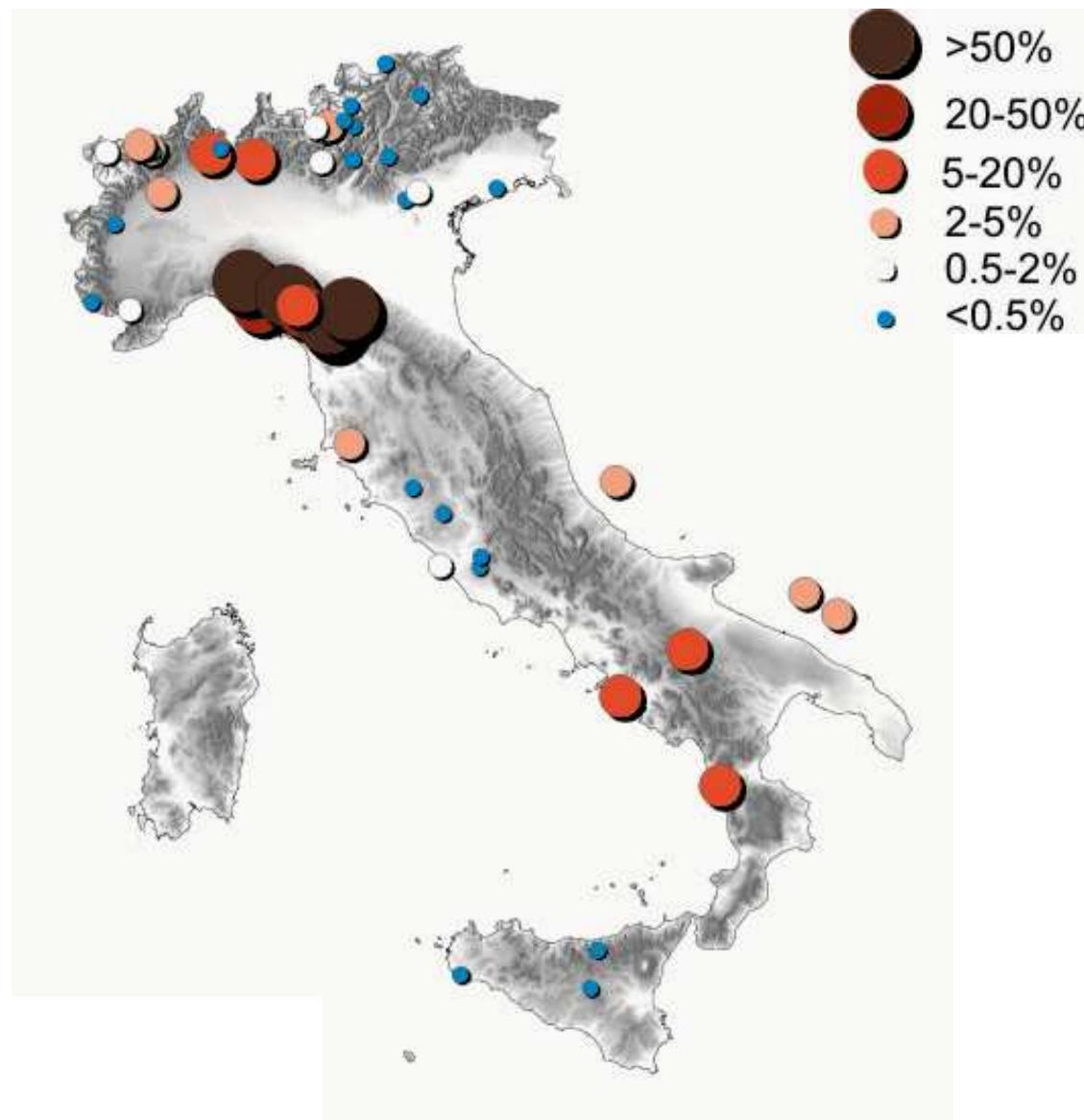
Abies - 11 ka



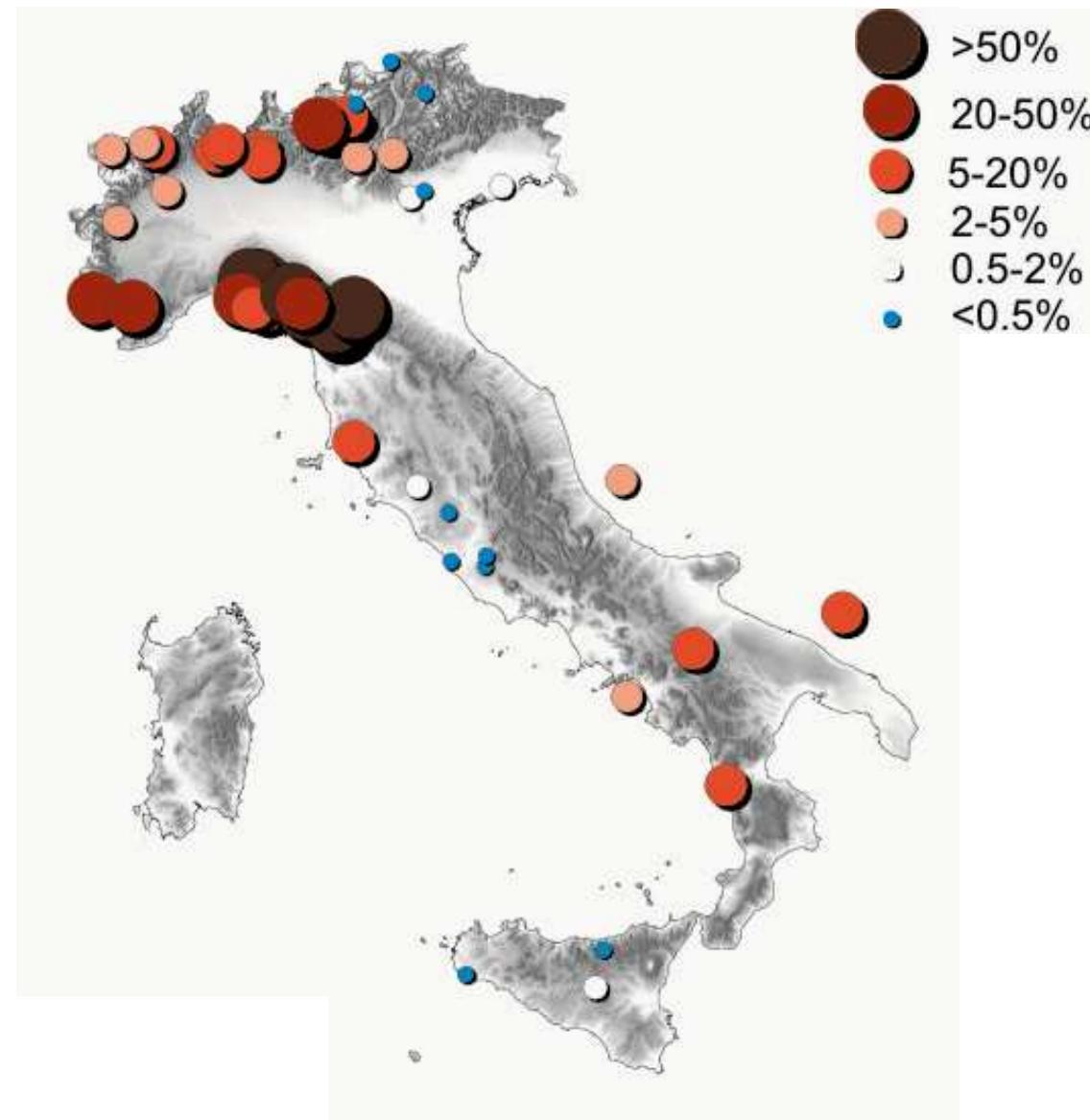
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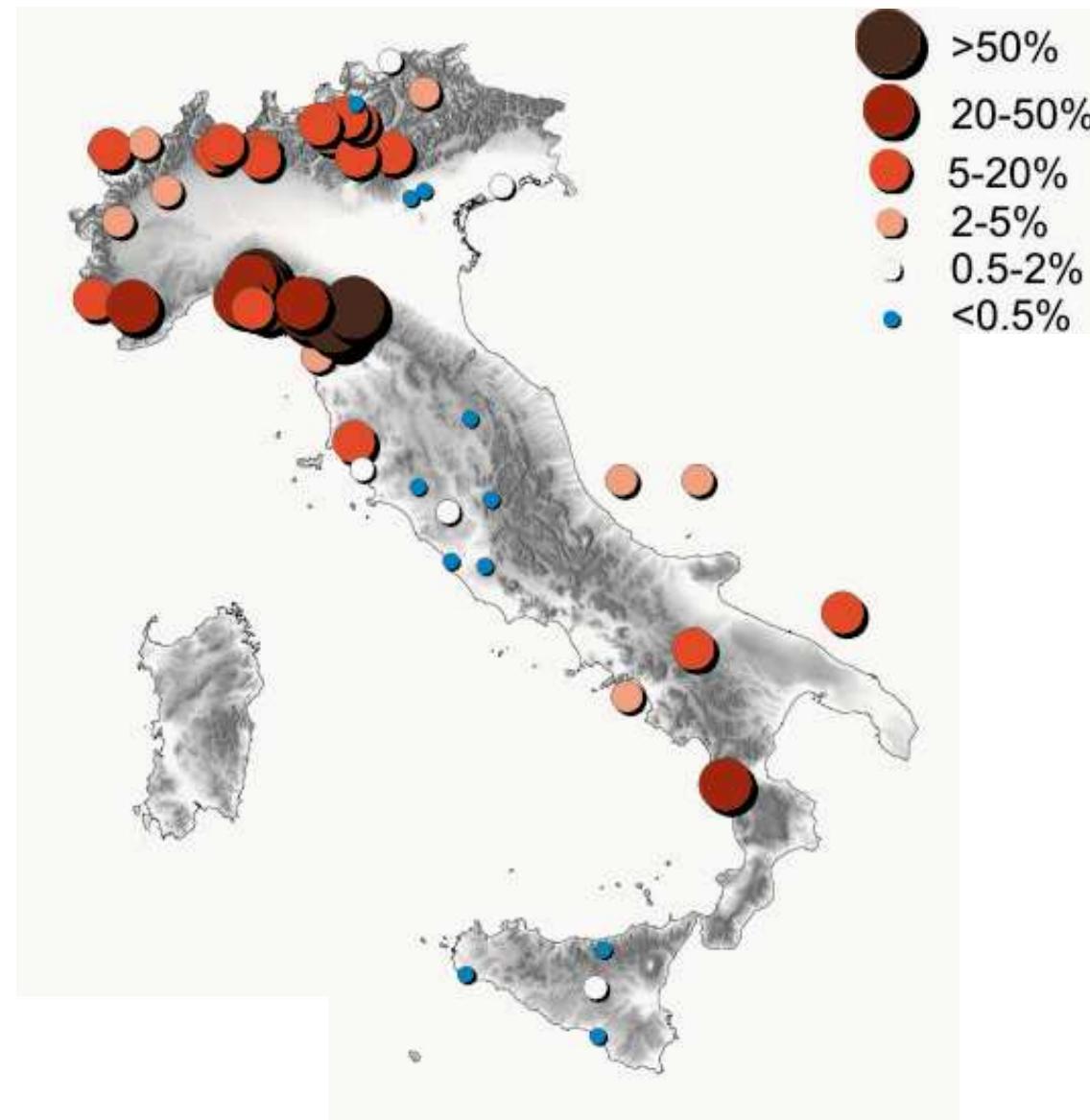
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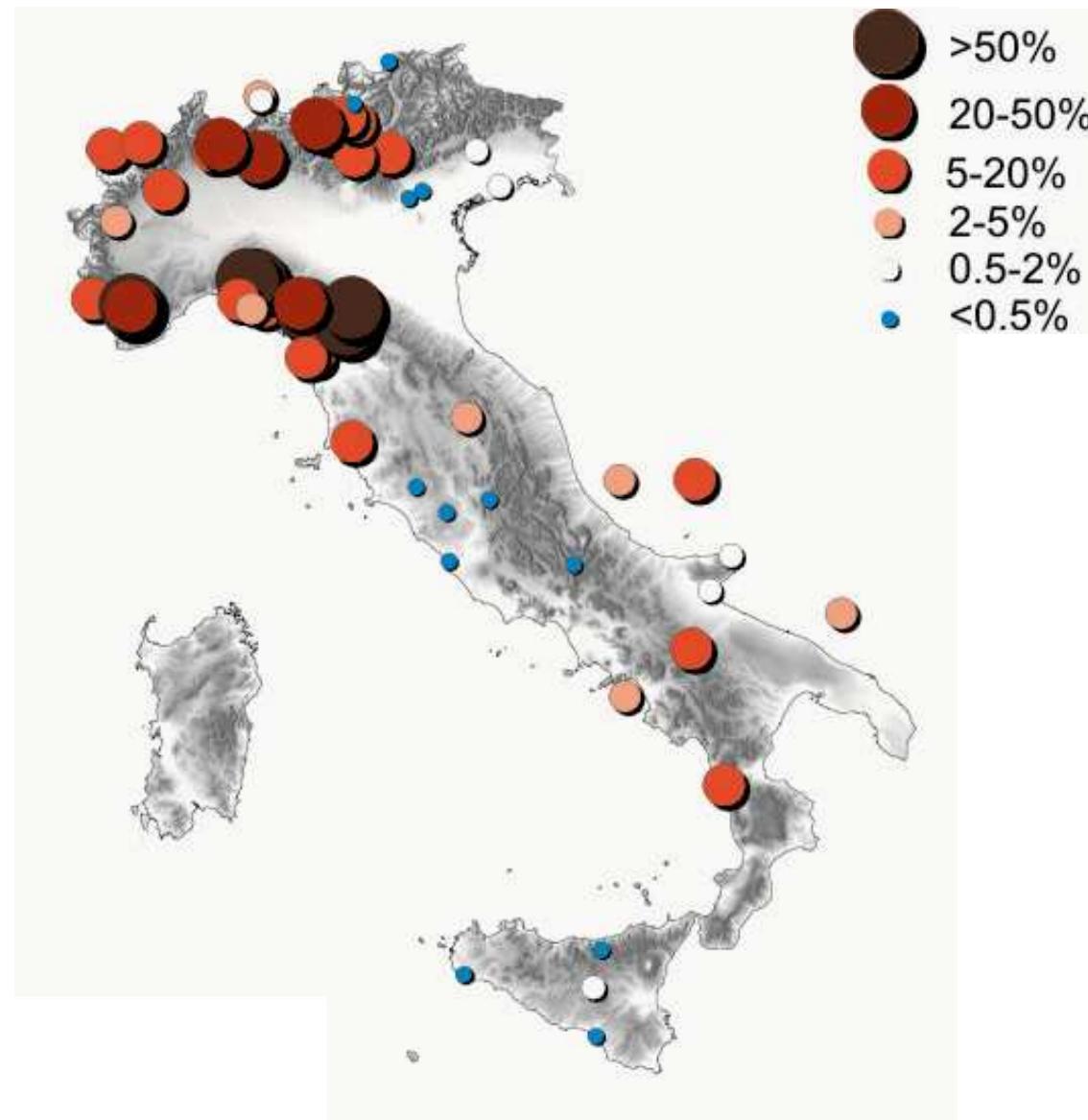
Abies - 8 ka



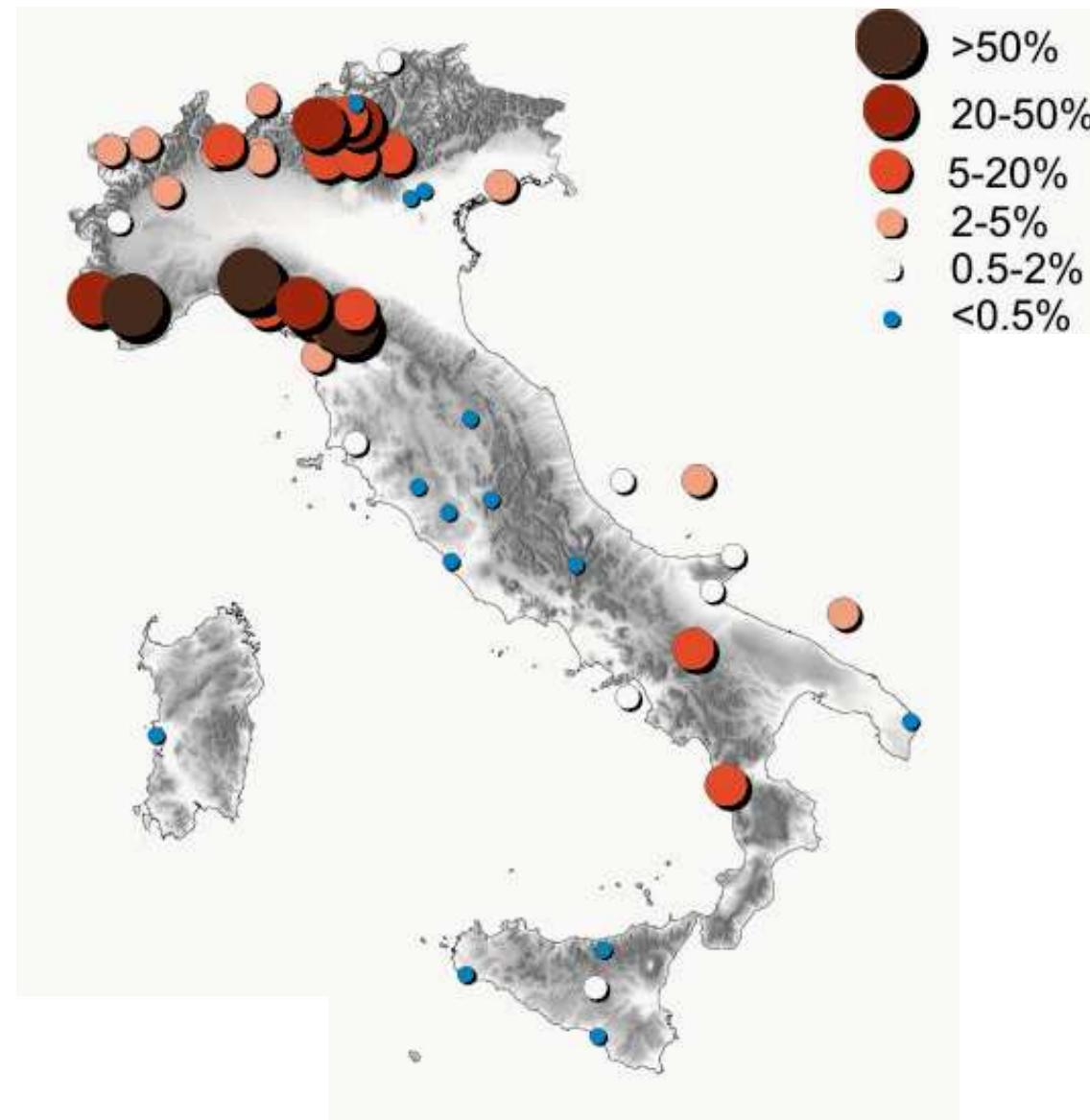
Abies - 7 ka



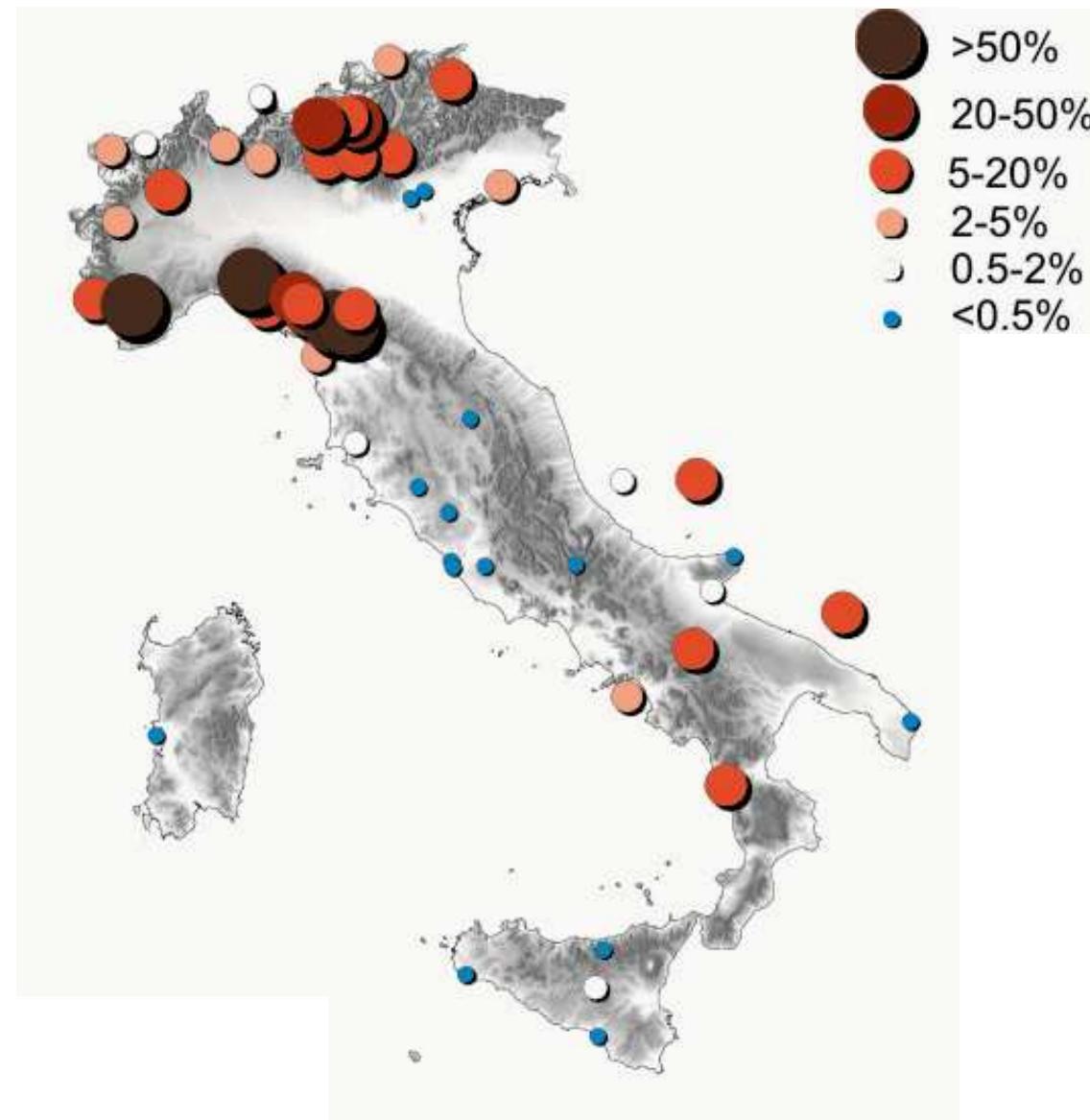
Abies - 6 ka



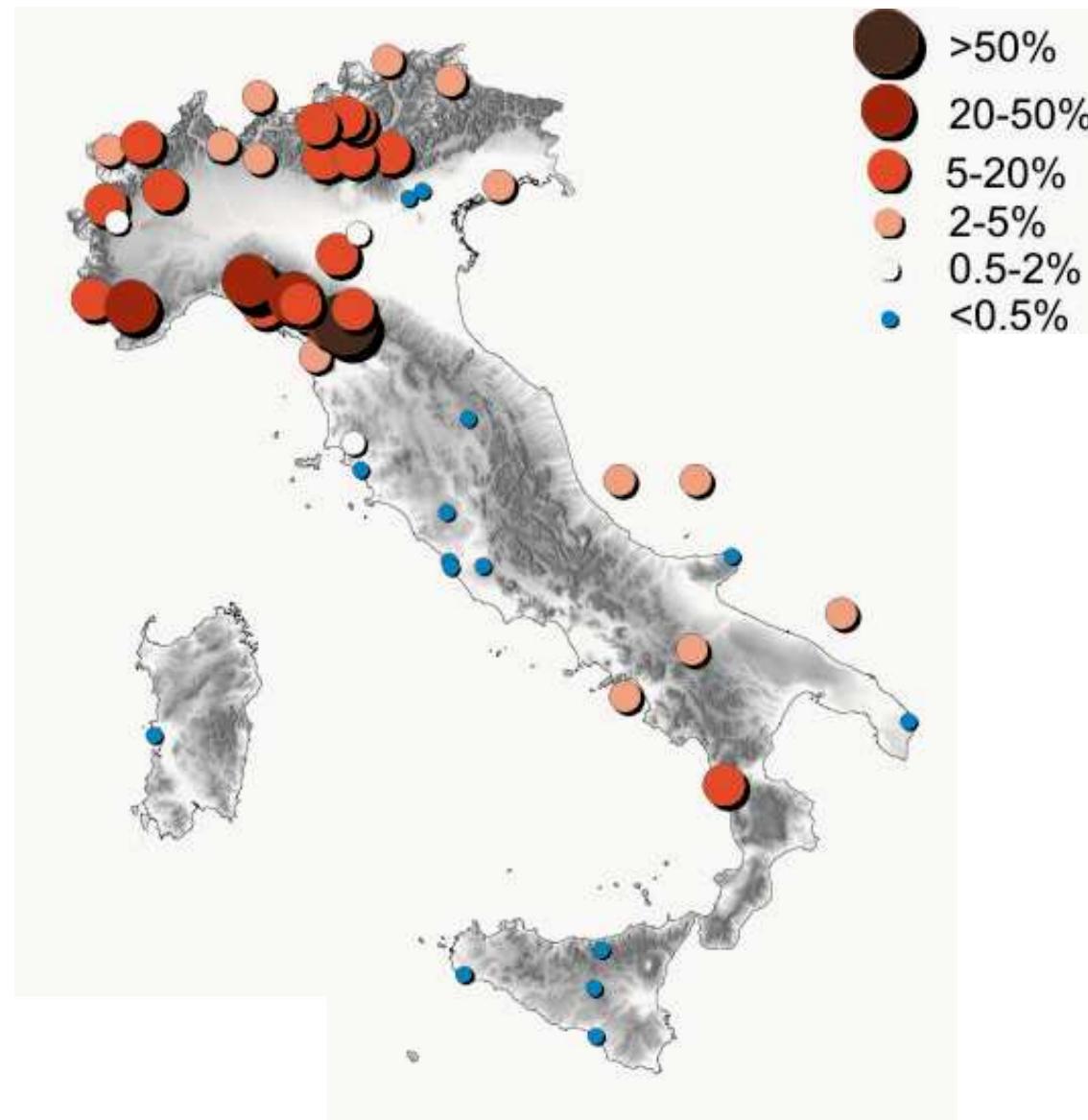
Abies - 5 ka



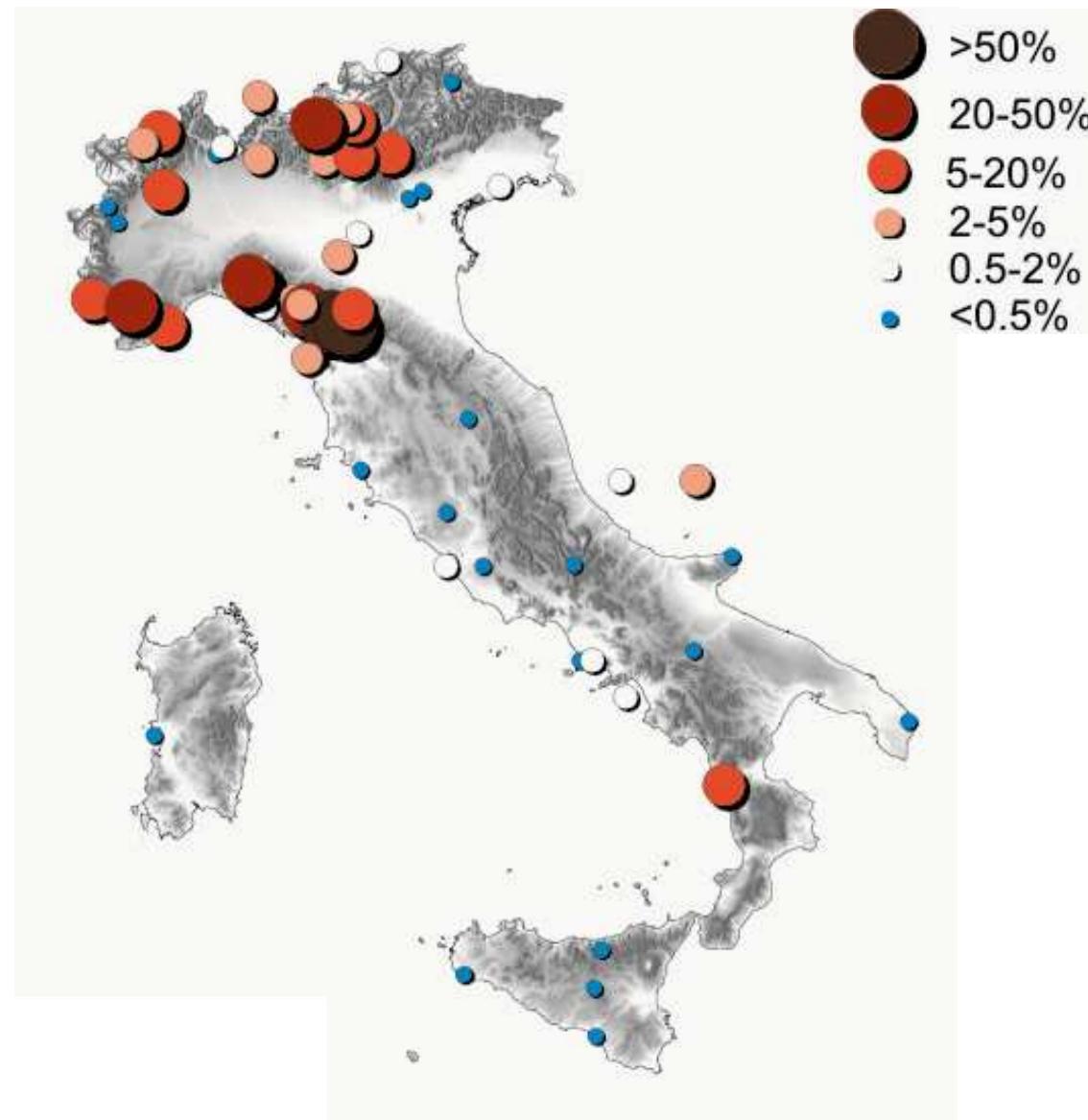
Abies - 4 ka



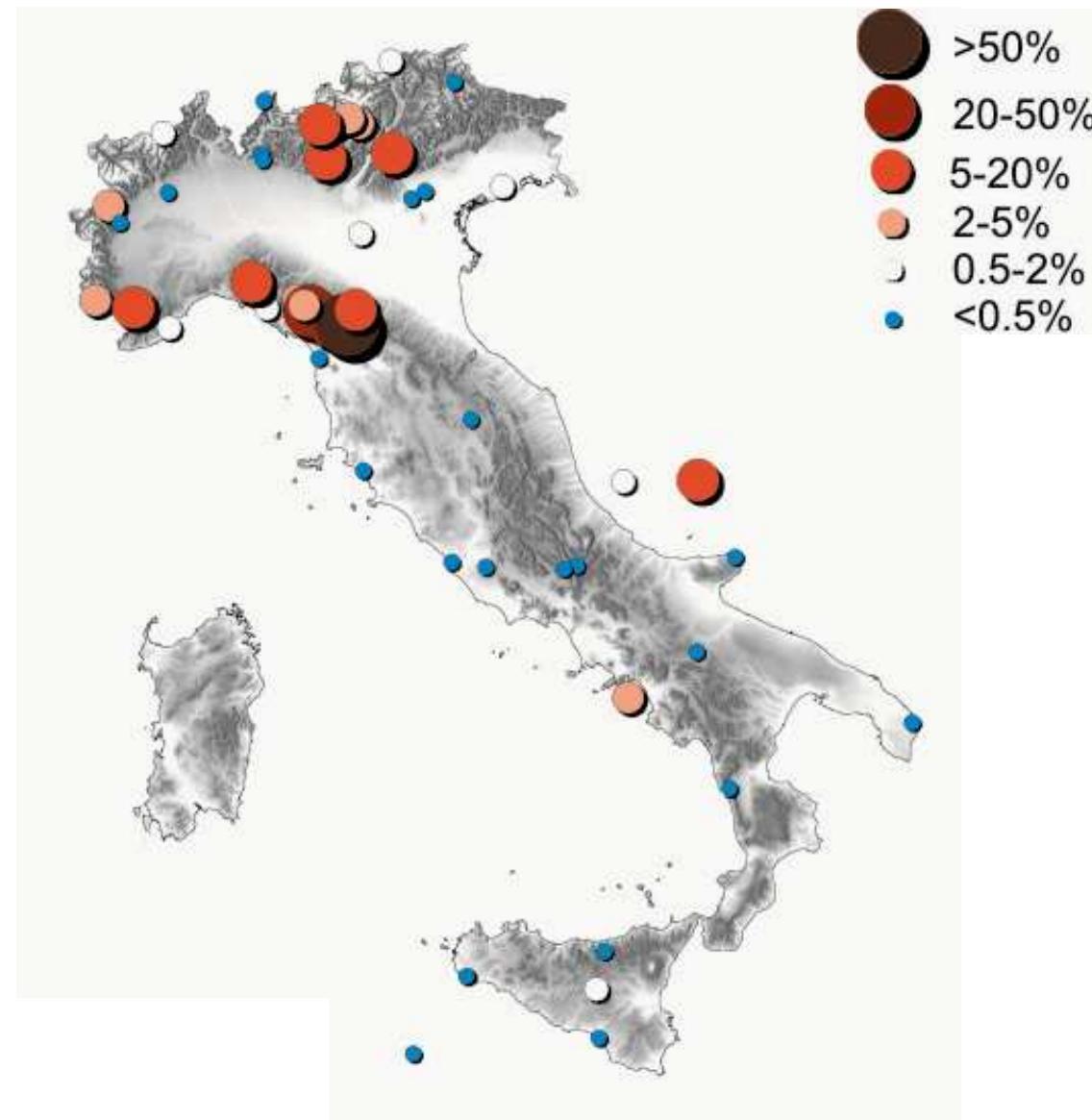
Abies - 3 ka



Abies - 2 ka



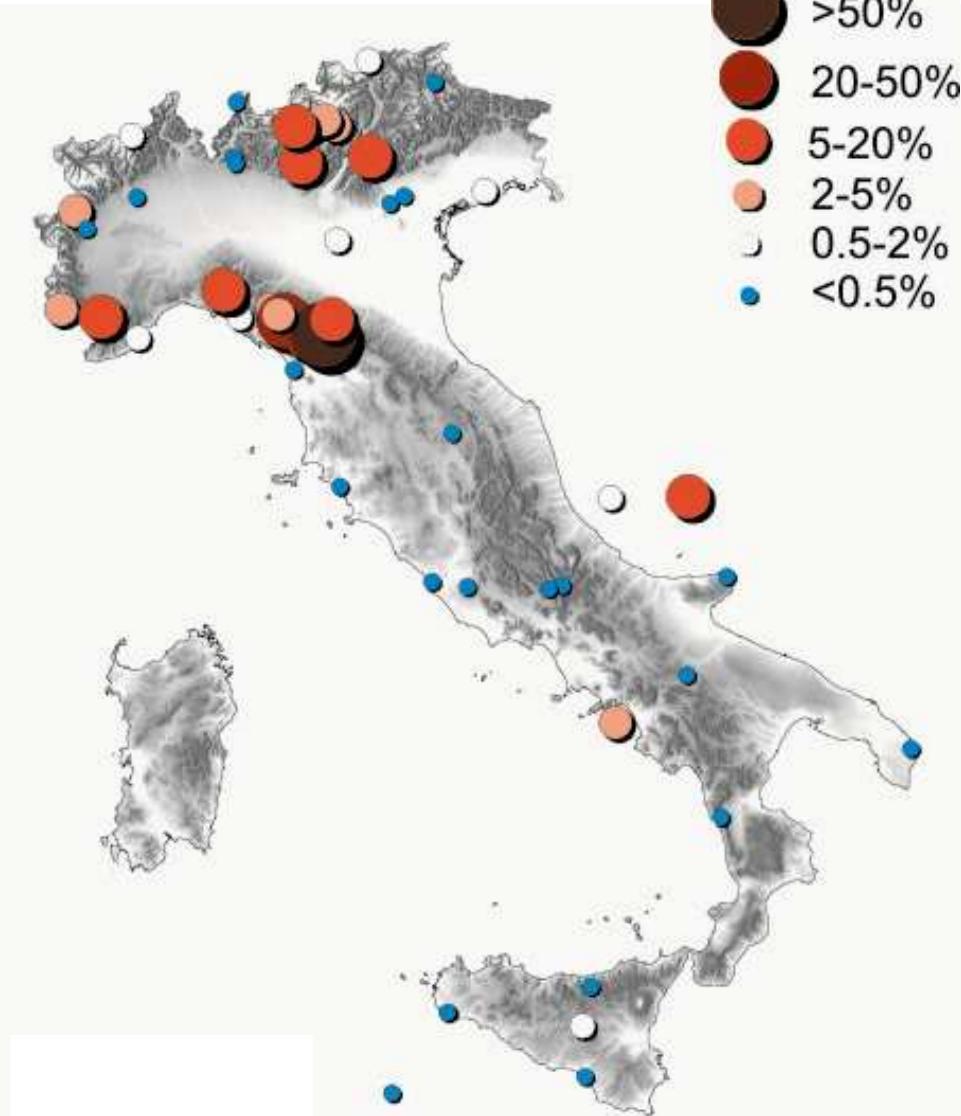
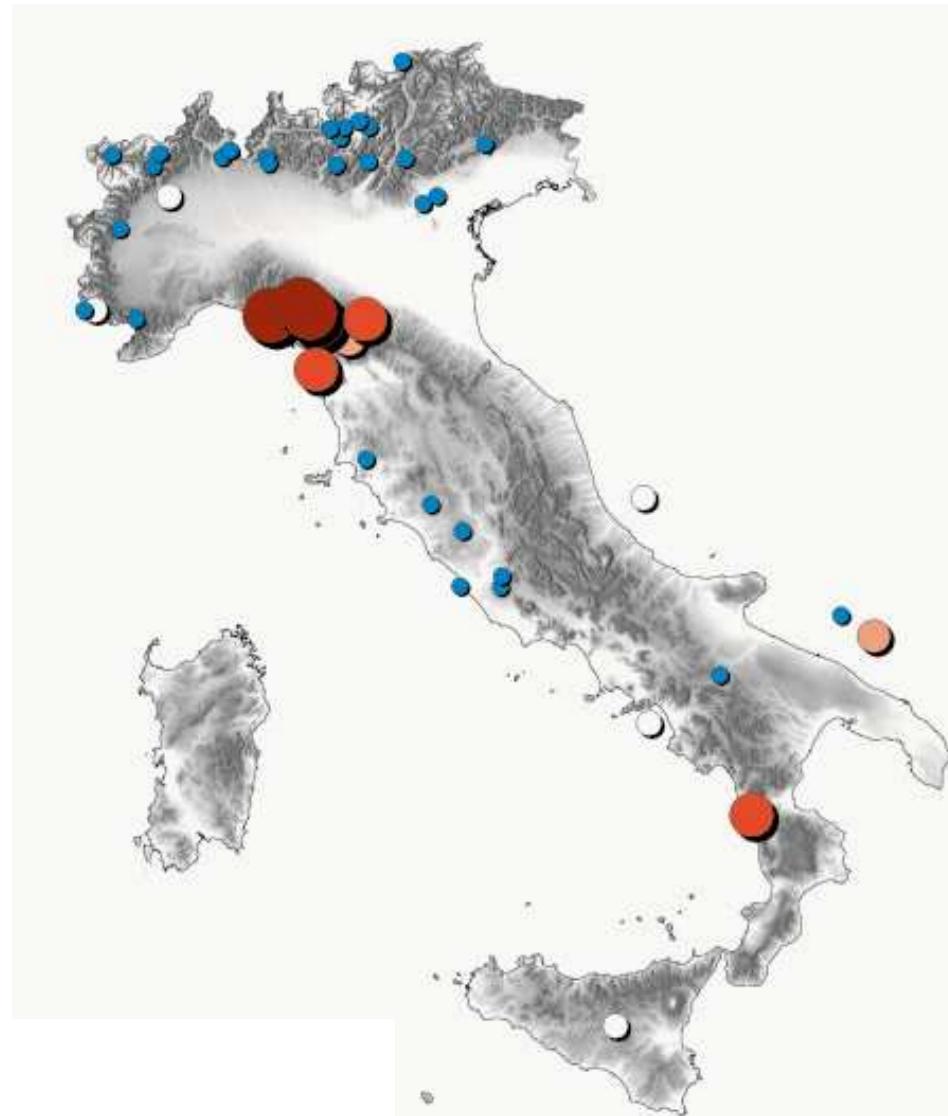
Abies - 1 ka



11 ka

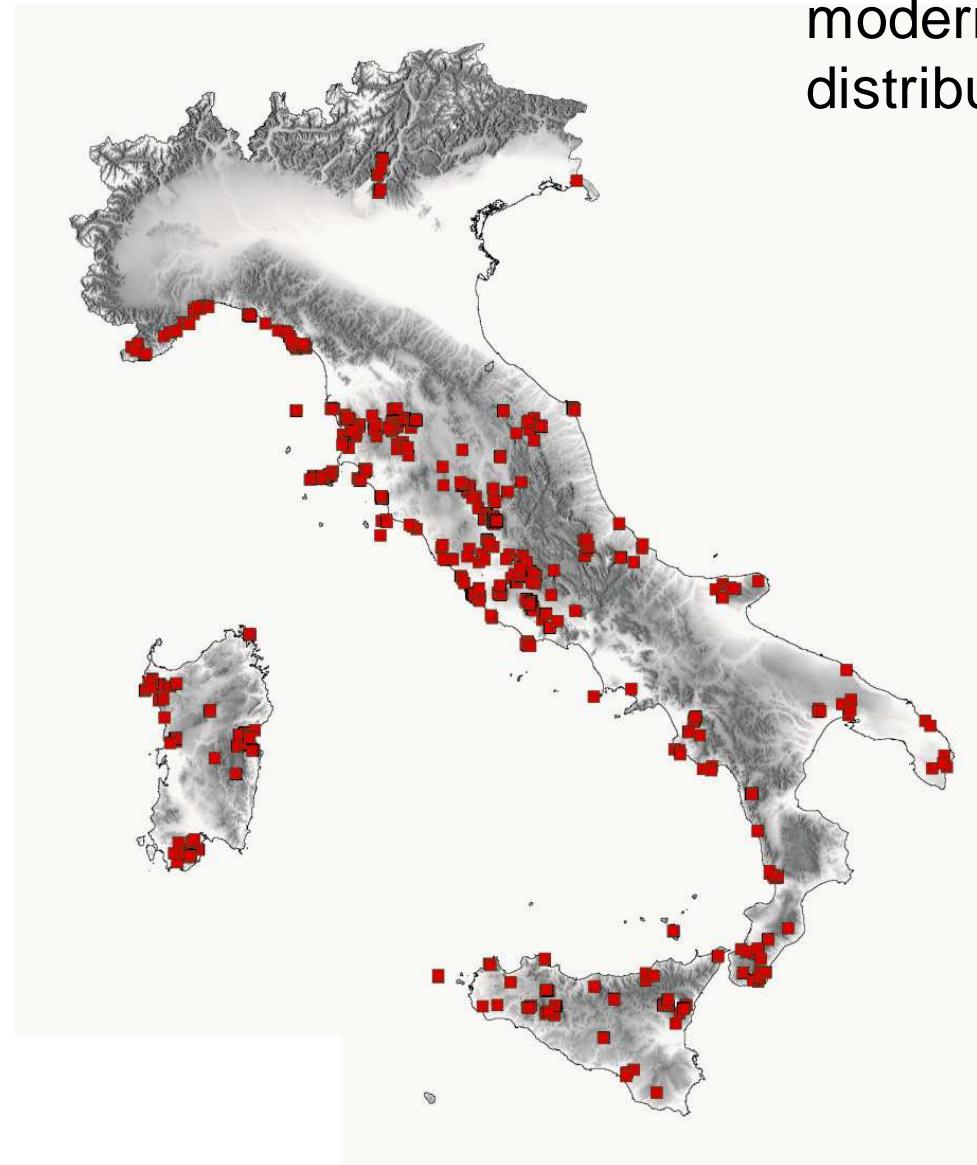
Abies

1 ka

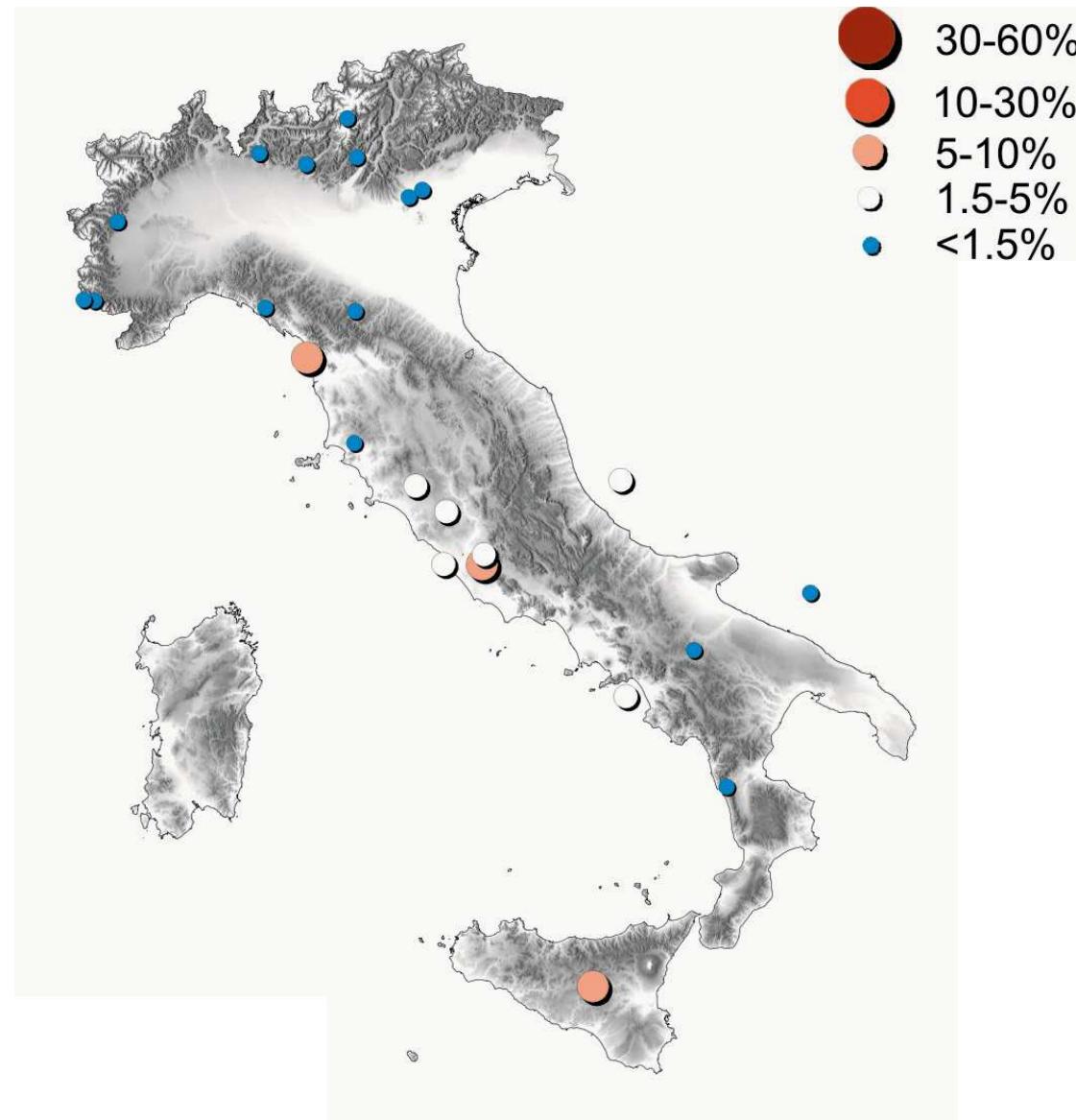


Quercus ilex type

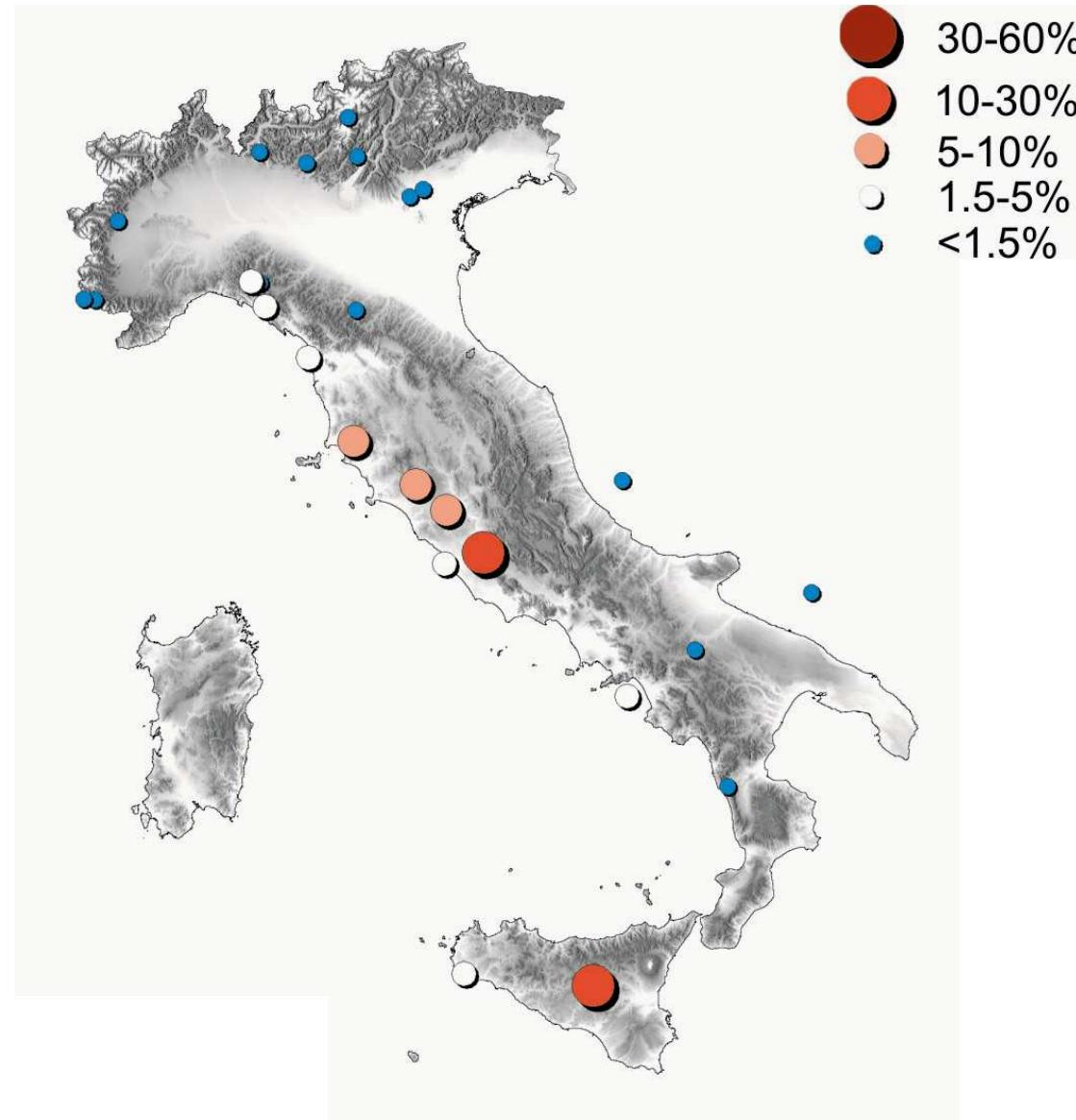
modern
distribution



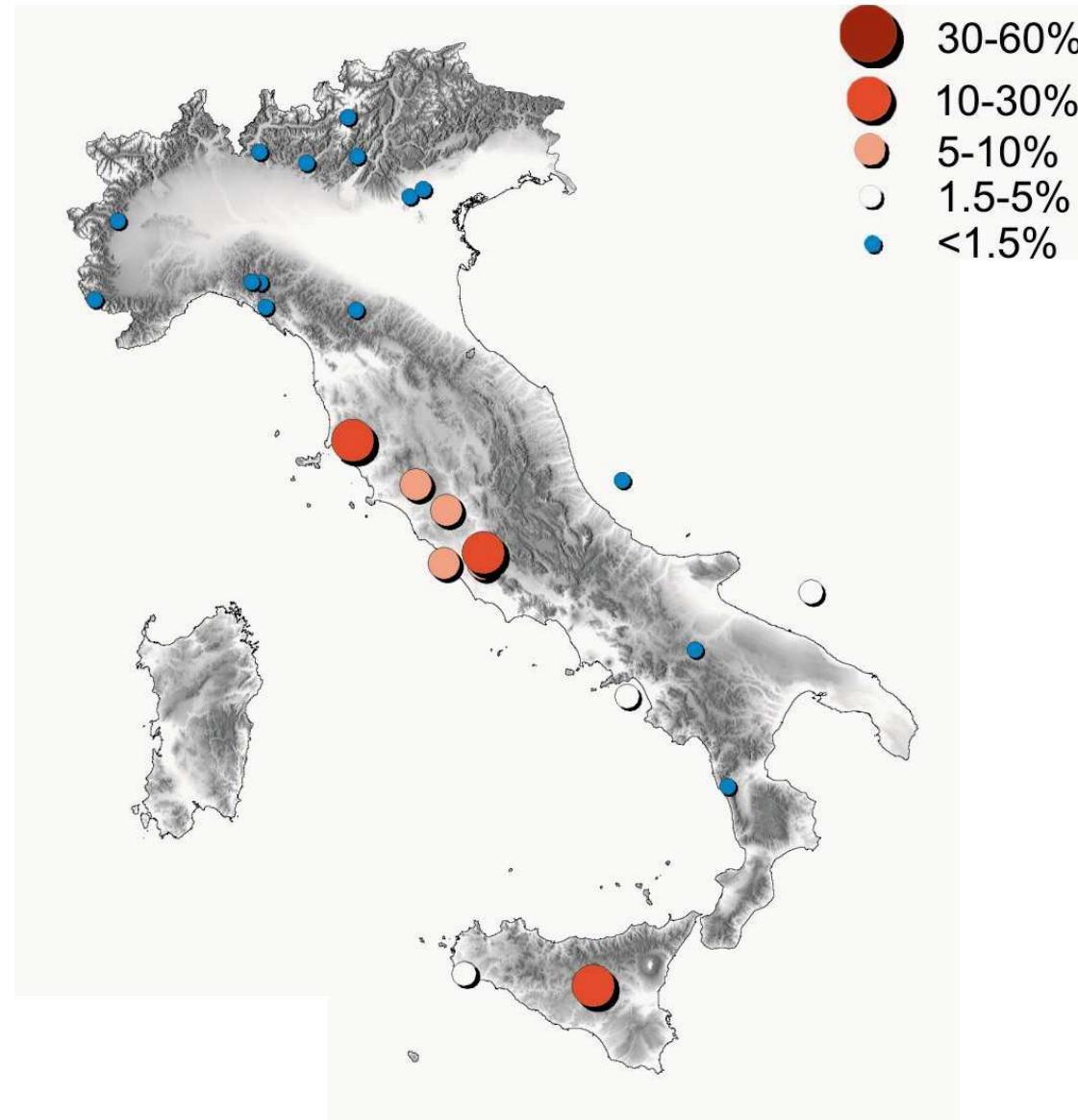
Quercus ilex type – 11 ka



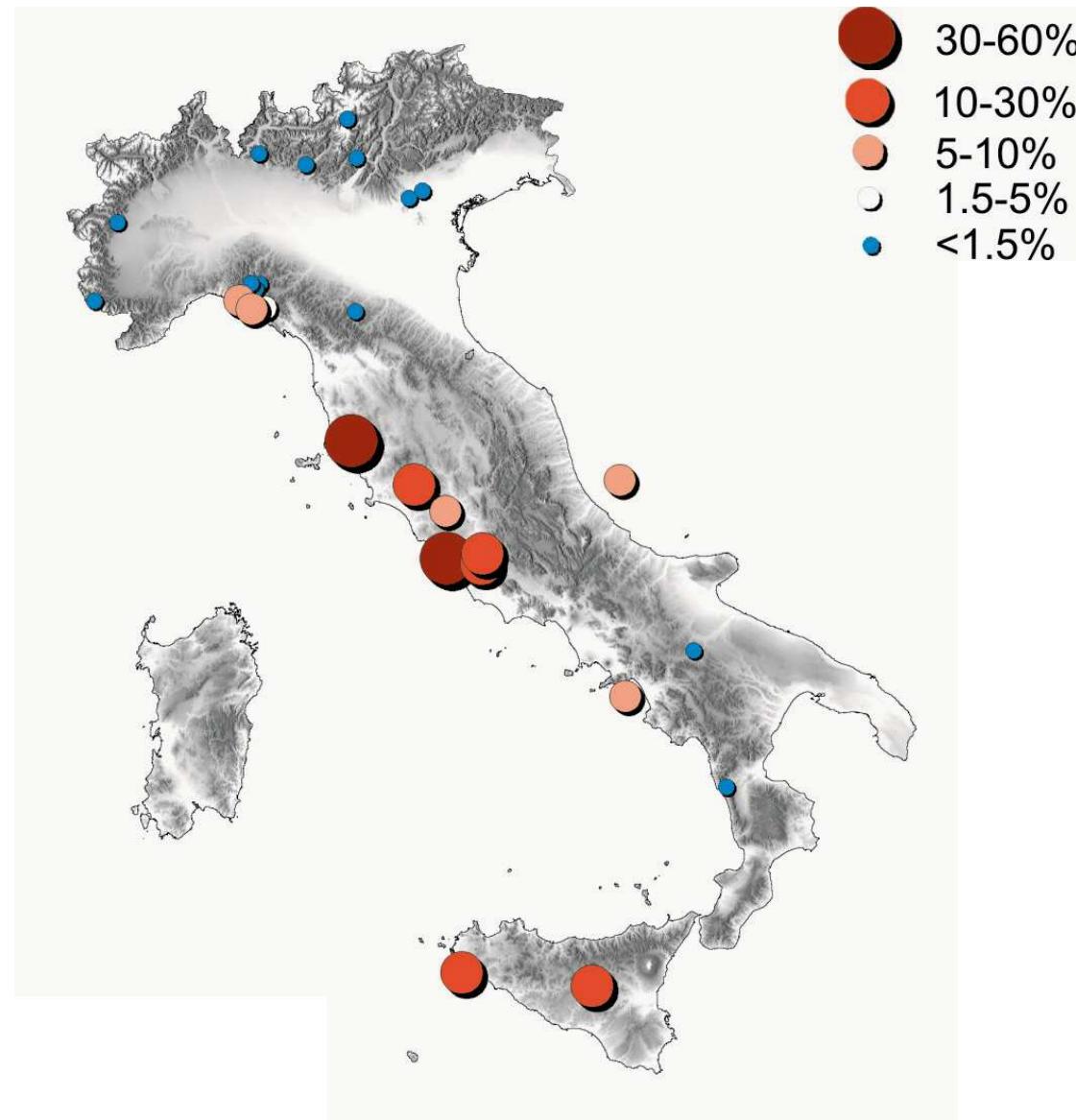
Quercus ilex type – 10 ka



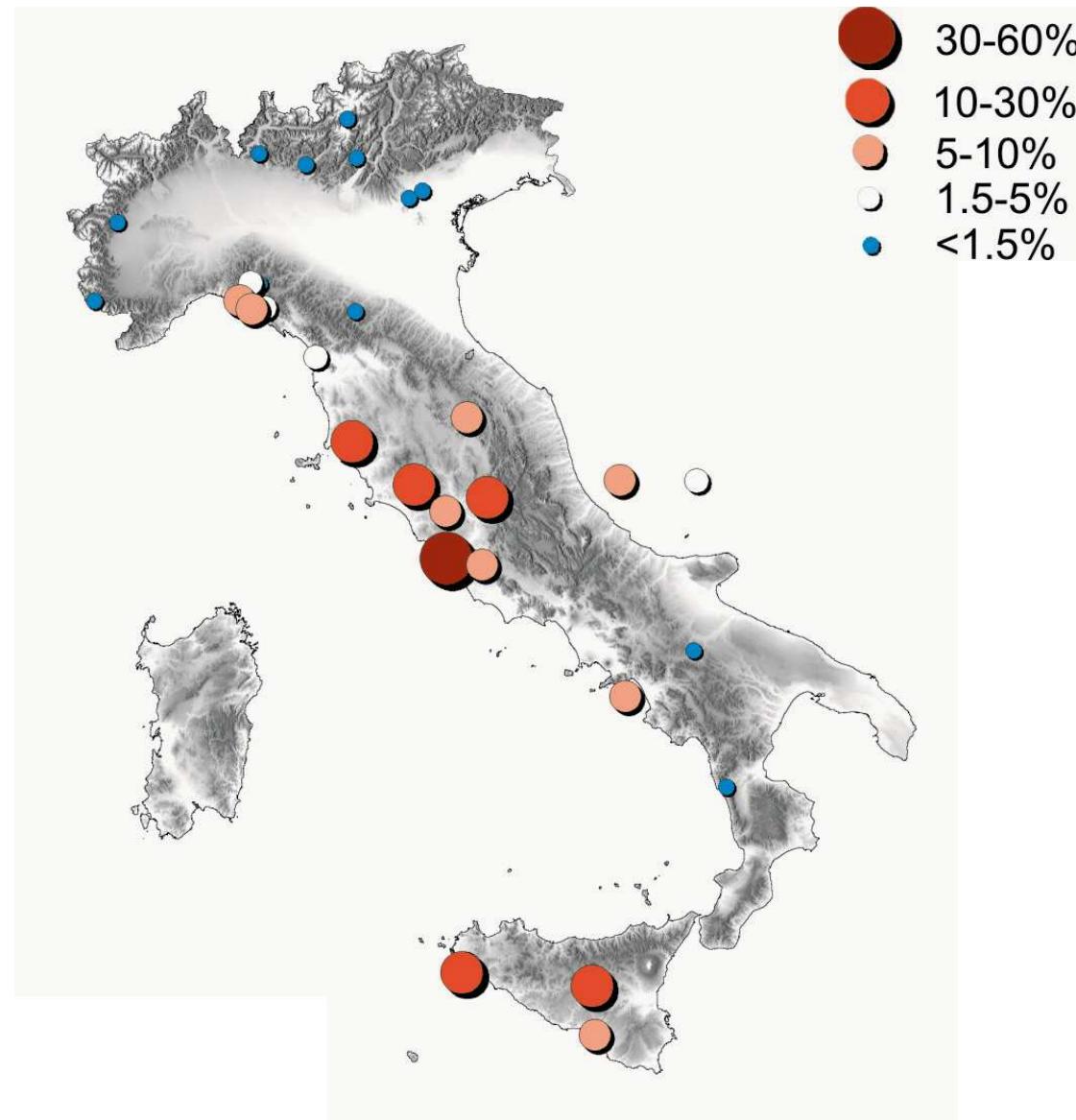
Quercus ilex type – 9 ka



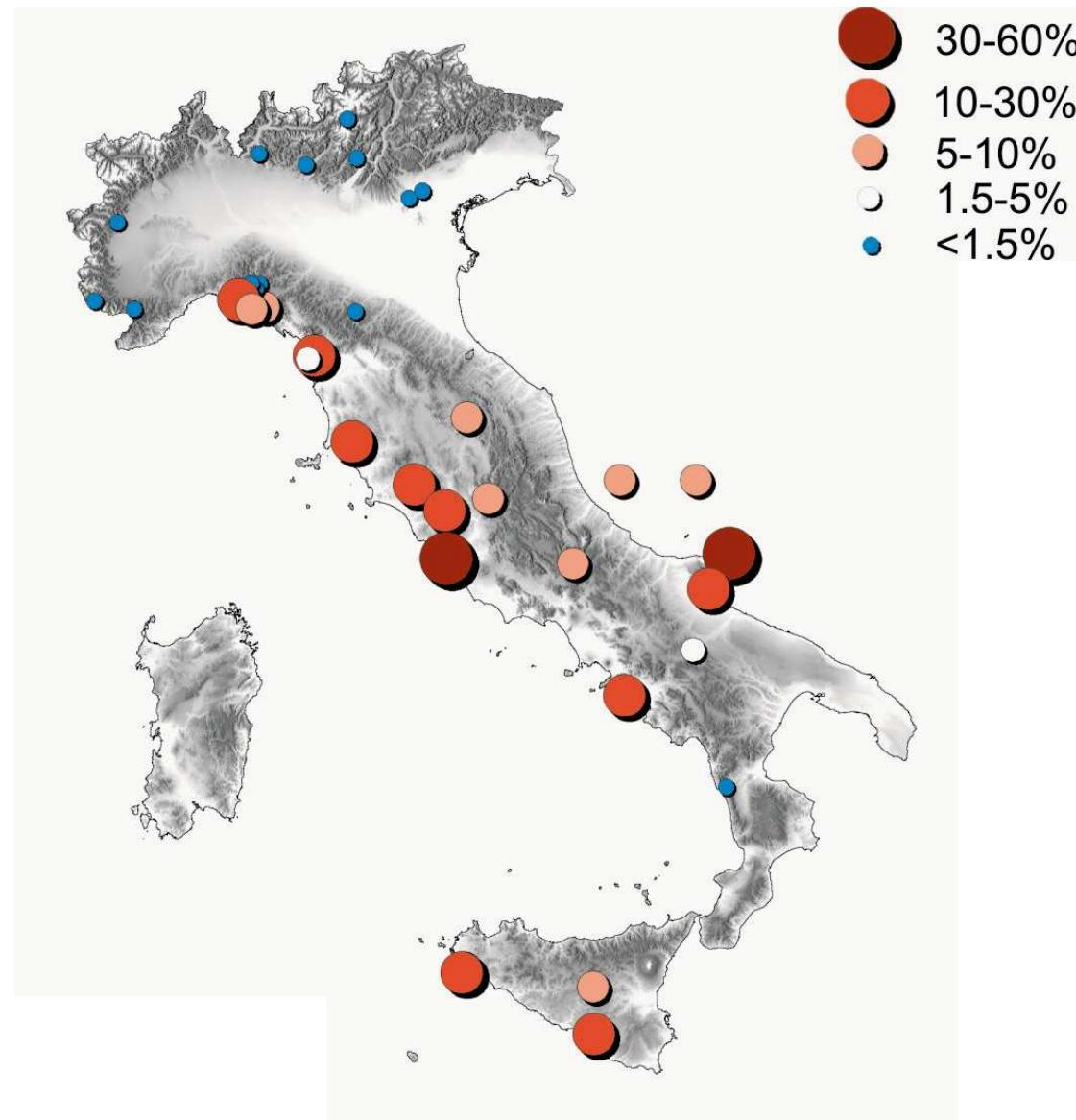
Quercus ilex type – 8 ka



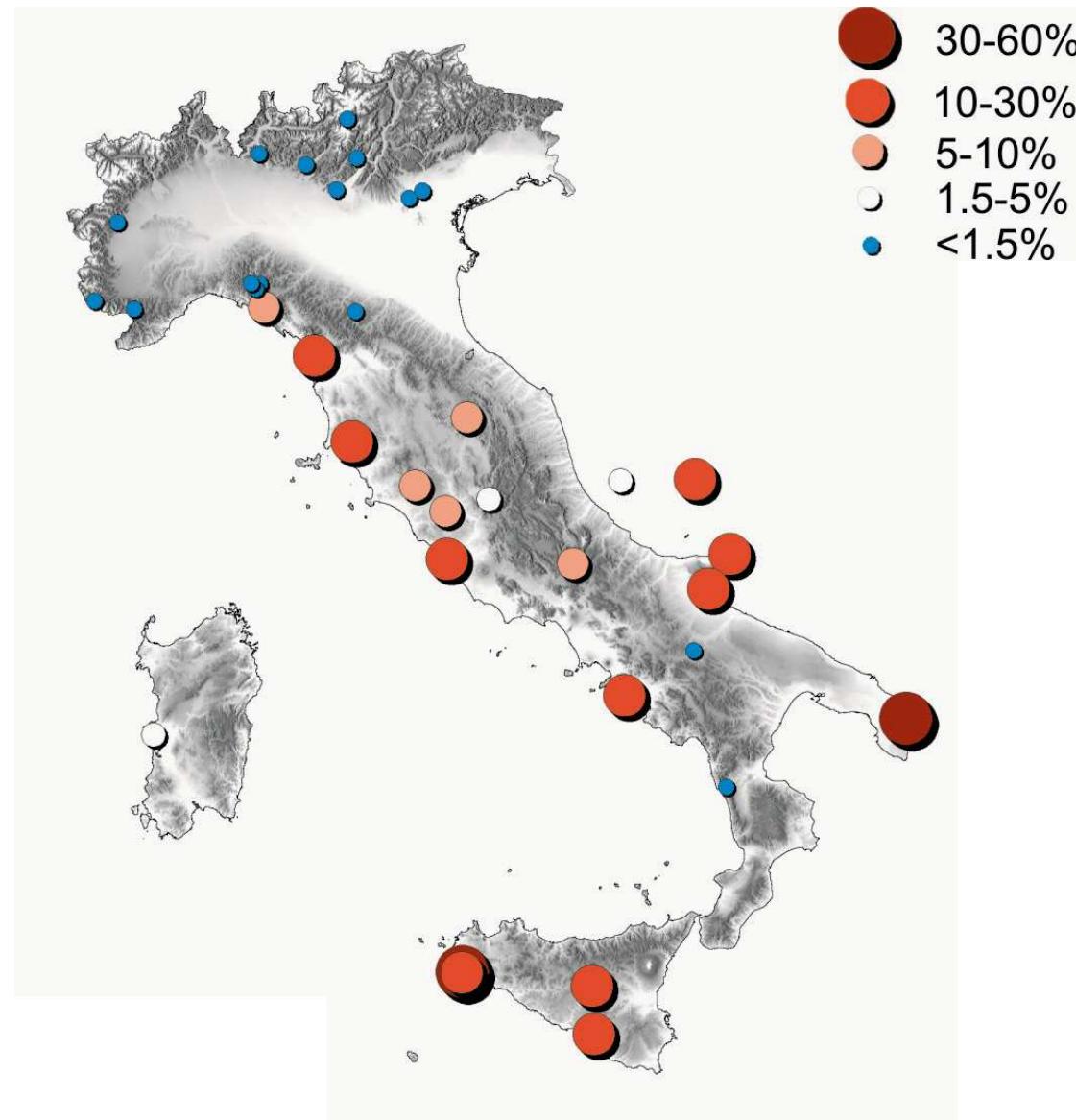
Quercus ilex type – 7 ka



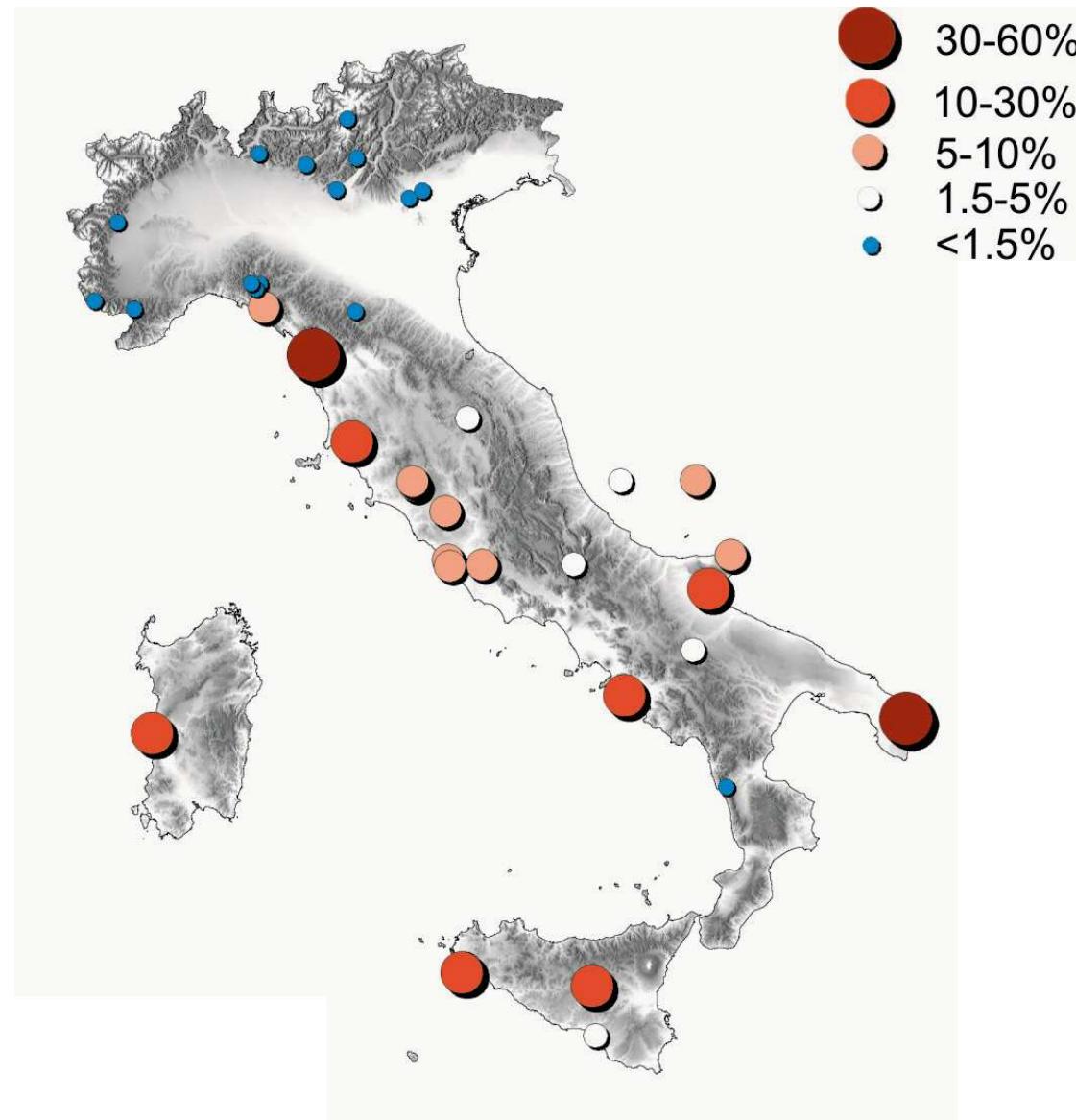
Quercus ilex type – 6 ka



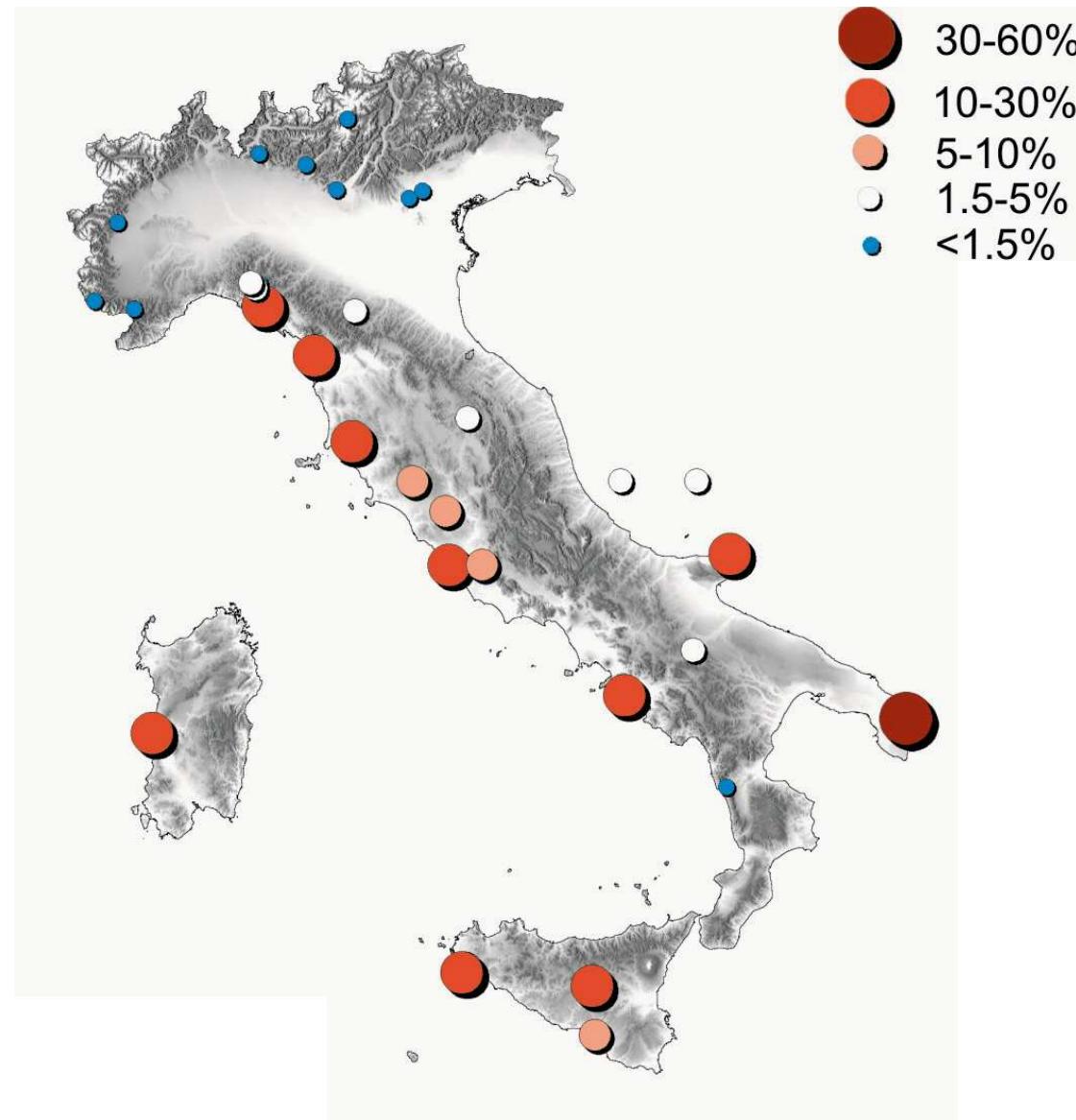
Quercus ilex type – 5 ka



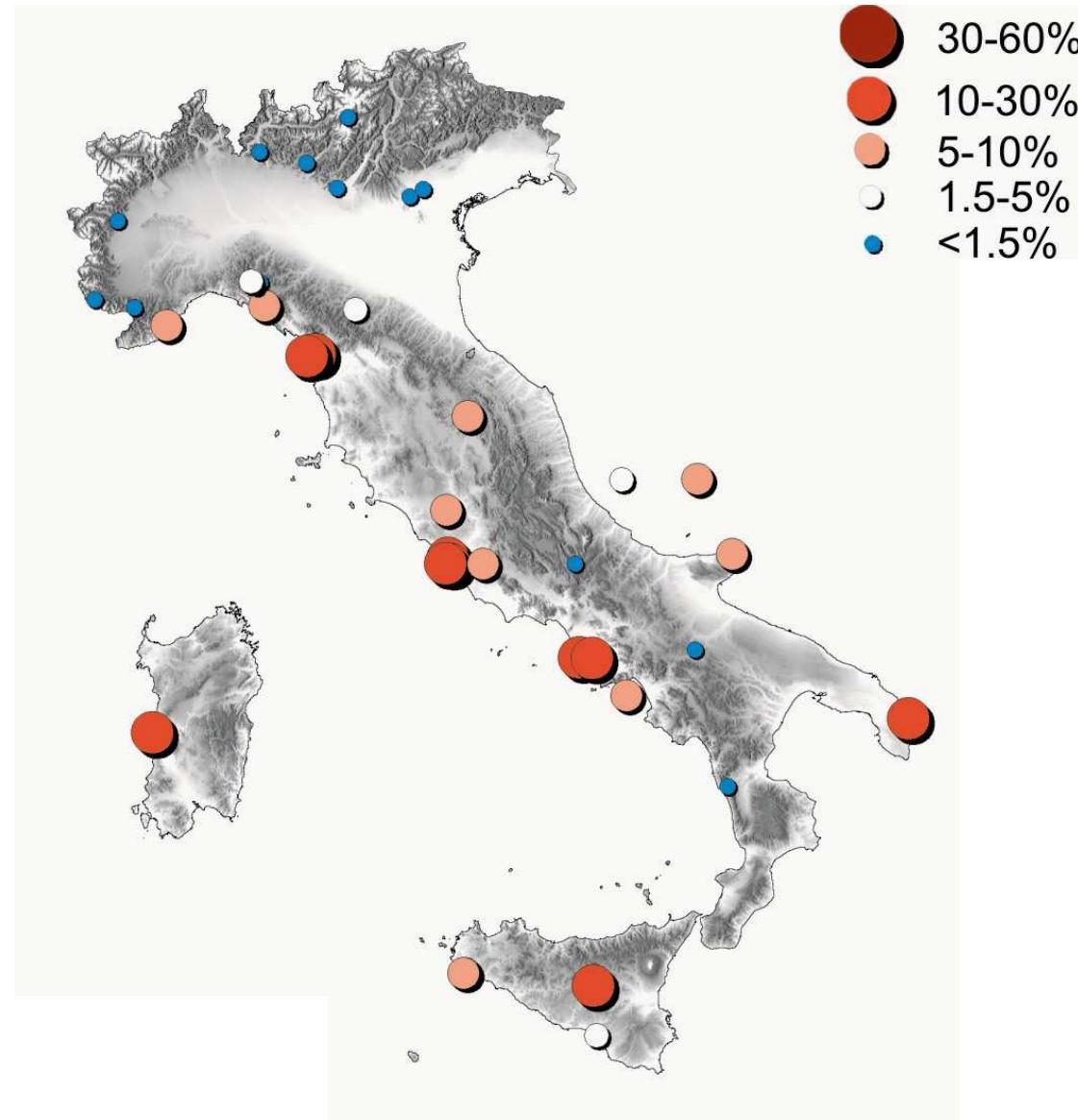
Quercus ilex type – 4 ka



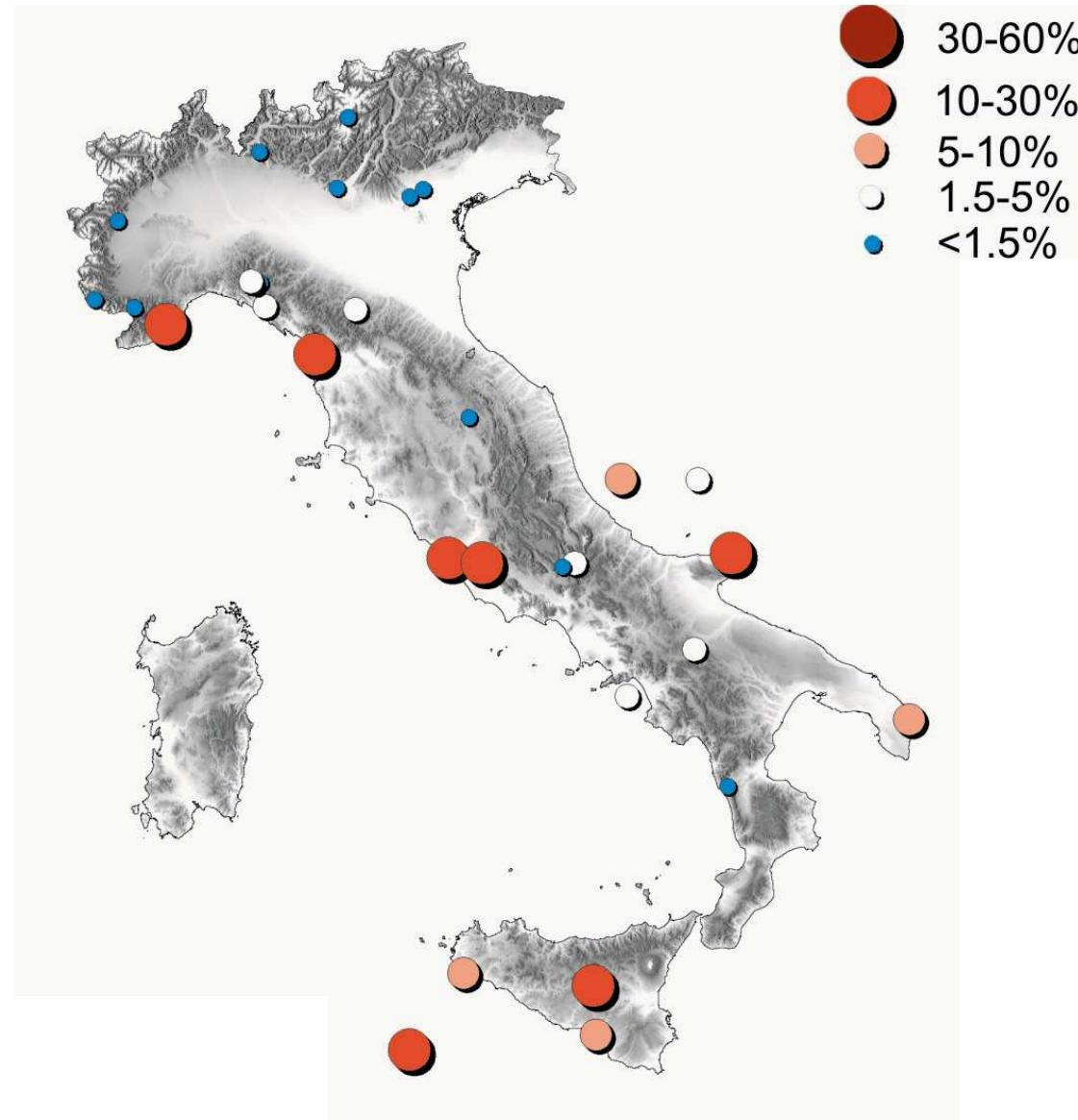
Quercus ilex type – 3 ka



Quercus ilex type – 2 ka



Quercus ilex type – 1 ka



Ecological insights

- ✓ a considerable progress of knowledge on the past vegetational features of Italy has been attained in the last few years
- ✓ complex patterns and discontinuous ranges of modern tree taxa can be traced back in time over several thousands of years
- ✓ Holocene spread of tree populations can be observed for some tree taxa
- ✓ some tree populations did not migrate at all and persisted in the same areas during the whole Holocene, simply increasing or decreasing their abundance
- ✓ this complexity urges not to simply frame the vegetation history in standard schemes of North-South differences of vegetation, often based on the comparison of pairs of selected sites, but to consider all the available records to reconstruct complex vegetational patterns

