

Climate reconstruction from tree-rings from broadleaved species from old-growth temperate rainforests in Northeast Turkey

Co-PIs: Dario Martin Benito, *Postdoctoral Research Scientist*, Neil Pederson, *Lamont Assistant Research Professor. Tree-ring laboratory, LDEO*

Abstract – Our proposal aims to reconstruct historical drought dynamics using tree-ring proxies from broadleaf species (beech and oak) in temperate rainforests of northeastern Turkey (NET). This region is home to a unique temperate rainforests that comprises some of the last patches of old-growth forest in Eurasia. Despite the existence of several tree ring width chronologies and dendroclimatic reconstructions for Turkey, paleoclimate records from NET area are scarce. This region of wet climate, surrounded by much drier and even desert lands, is poorly represented in previous reconstructions. These reconstructions are essential to investigate the potential impact of climate change on these areas of high biodiversity. Currently anthropogenic threats to these forests (e.g. logging, hydroelectric projects) make our collection urgent and timely relevant.