

## Last 2 ka climate change at Ilgaz site North Anatolian fault systems

Toshihiko Sugai<sup>1\*</sup>

<sup>1</sup>Graduate School of Frontier Sciences, Univ. of Tokyo

At the central part of the North Anatolian Fault systems, across the 1943 rupture segment, surface sediment at around 1500 m asl was obtained from Ilgaz trench wall (Sugai et al.,2000). Pollen analysis and AMS 14C dating coupled with facies analysis and geomorphic investigation revealed last 2k paleoclimate change. At Medieval Warm Period (9C-11c AD), alternation of well-sorted reverse grading thin gravel bed with lots of pine cones and thin humic silt bed developed well, suggesting that conifer forest was dominant land cover and a sheet flood of melted snow occurred repetitively under warm humid climate conditions. In contrast, in Little Ice Age (17c-19c AD) peat layer with poor sorted angular gravels deposited and herbaceous pollen was dominant. This implies that the study site was under periglacial environment and above or near the timber line.

Keywords: paleoclimate, Medieval Warm Period, Little Ice Age, pollen analysis, North Anatolia, AMS radiocarbon dating