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Program, Asbtracts
And
List of Participants

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DYNAMICS OF THE UPPER TREELINE UNDER THE INFLUENCE OF CLIMATE CHANGES IN THE POLAR URAL MOUNTAINS, RUSSIA

(Poster 75)

On basis of large-scale mapping of forest-tundra ecosystems on the eastern macroslope of Polar Ural Mountains and using direct and indirect evidences (mapped and dated wood remnants, longevity and calendar life span of dead and living trees, density and age structure of stands, variability of ring-widths and ring-width indices, old photographs, geobotanical descriptions) a detailed reconstruction of climate dependent changes of the upper treeline was carried out. Significant shifts of the upper treeline took place during the last 1350 years. The highest altitudinal position of treeline has been observed at the middle of the thirteenth century and the lowest position at the end of the nineteenth century. Climate favorable for tree growth and regeneration is marked from 1920ties up to the present. During this period the younger larch generation formed and the upper borders of light and closed forests have raised up to 60-80 m in altitude and up to 1.0-1.5 km along the gentle slopes. The treeline shifting is mainly connected with summer temperature fluctuations.

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