

**Conveners:**

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**Title:**

Perspectives through palaeoscience for a sustainable future of the Carpathian environments

**Session description:**

Palaeoscience has advanced the understanding of present-day vegetation composition and structure, landscape dynamics and disturbance regimes by unlocking information from natural archives of past climate and environmental change. Disentangling the complex interplay between climate, humans and the environment over timescales ranging from decades to millennia is essential to establish adequate baselines to predict potential environmental threshold responses under future scenarios of climate variability and anthropogenic disturbance.

This session invites contributions from the broad field of palaeosciences that focus on different types of archives (lake sediments, peat, soils, cave records, glacial deposits, tree rings, ice, documentary evidence) to investigate patterns and drivers associated with the evolution and preservation of the Carpathian environments throughout Late Glacial and Holocene. Relevant work may include palaeoecological studies of vegetation and land-use history, palaeoclimate reconstructions that elucidate the natural climate variability, reconstruction of past disturbance regimes (e.g., fire, bark-beetle outbreaks, forest clearance, palaeogeomorphic processes) linked to ecosystem changes or turnovers, and innovative bio/geochemical proxies that open new windows on the development of present-day Carpathian environments.