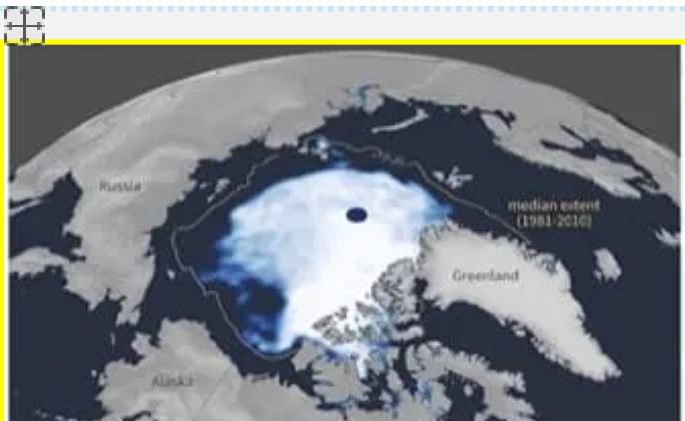




Modeling Seasonality of River Discharge in Pan-Arctic Watersheds with Ring Width and Tracheid Anatomical Parameters

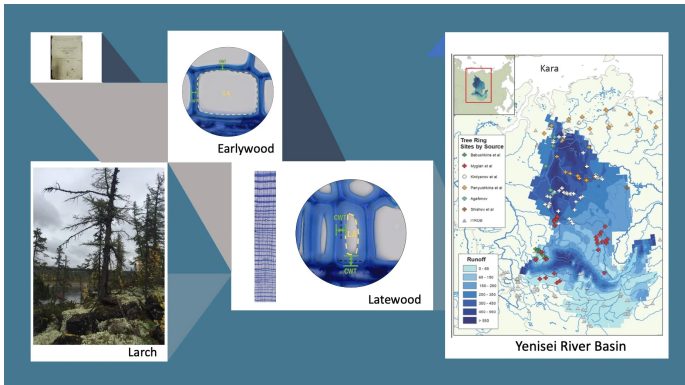
Irina Panyushkina, Richard Thaxton David Meko
Laboratory of Tree-Ring Research, University of Arizona USA

Arctic Amplification



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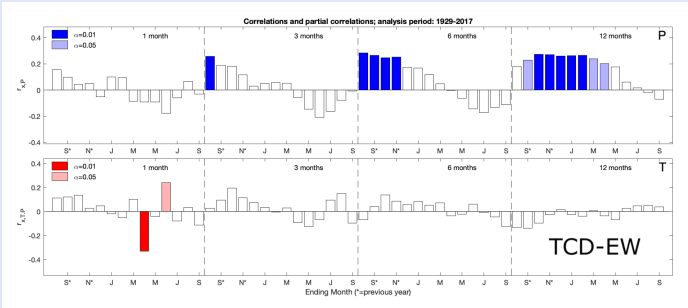
Tree Rings from Yenisei River Basin



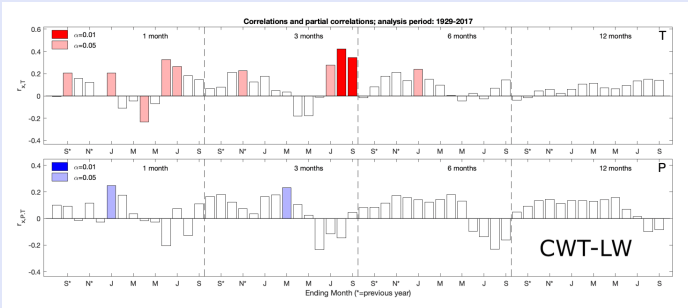
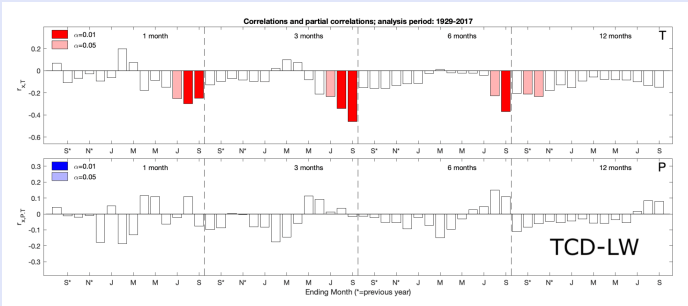
The historical network of tree-ring width chronologies (Right map) is updated to 2019/2020 as well as the hydrological observations. A new type of tree-ring record is developed from measurements of the

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Climate Signal of Cell Dimensions



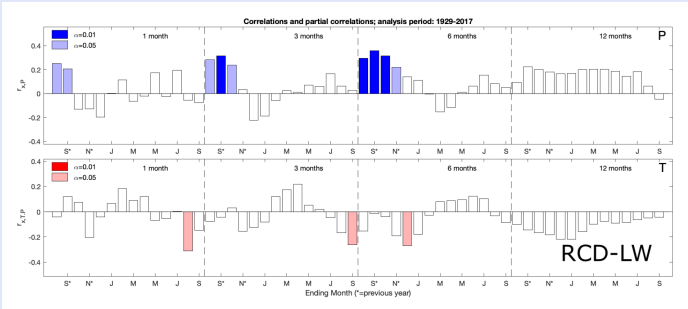
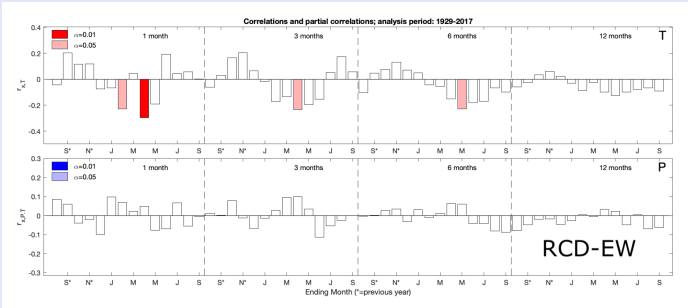
The intra-parameter pattern of climate response per ring. Correlation between air temperature (red), precipitation (blue), and cell dimensions. Climate data from the Turukhasnsk station, 1927-2017.



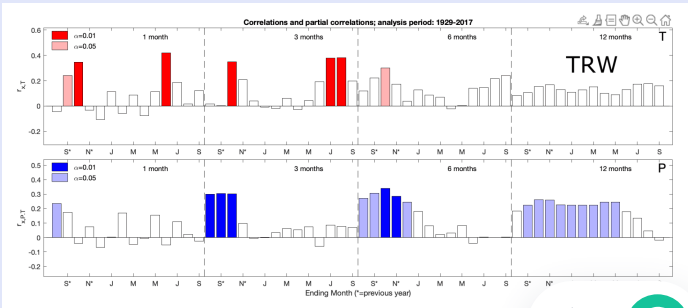
The climatic signal is recorded throughout the entire ring and each cell parameter has a specific zone

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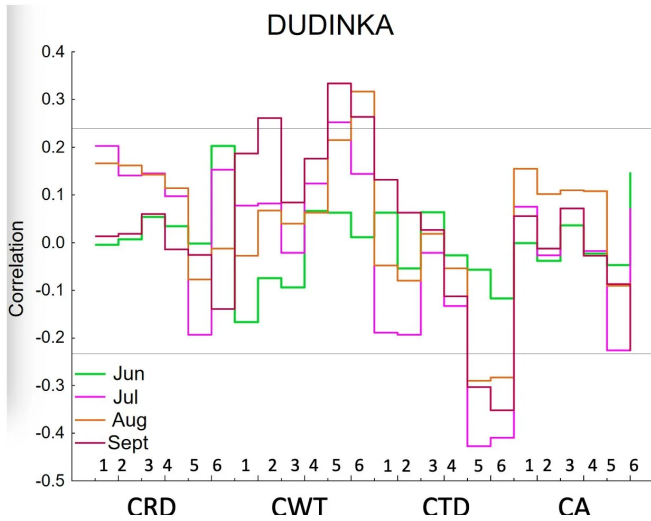
Climate Signal Segregation



MIR site chronology from tree-ring widths (TRW) demonstrates the mixing Temp-Precip signal in the lower reaches of the Yenisei River.

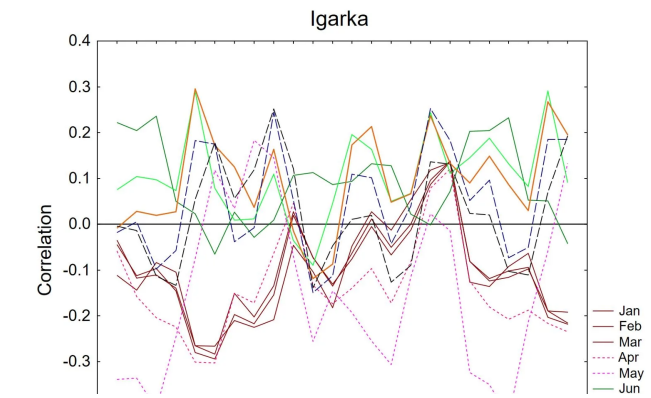


Yenisei Water Temperature



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Response to the Yenisei Discharge



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