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Morphological changes in alpine rivers following the end of the Little Ice Age

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Abstract

This work investigates the channel changes of Alpine rivers from the end of the Little Ice Age (1850s) to the 1950s, with the aim to determine the possible role of climatic variations occurred in this period before the onset of anthropic pressures (i.e., dams, check-dams, bank protections, and gravel mining). The research was conducted on 17 river catchments of South Tyrol (northern Italy), glaciated and unglaciated. A multitemporal GIS analysis approach was adopted to assess the morphological changes (in terms of channel width and pattern) from three different sources:

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