

PALEOGEOGRAPHIC RECONSTRUCTION OF SEGRINO LAKE AREA: SOUTHERN ALPS, NORTHERN ITALY

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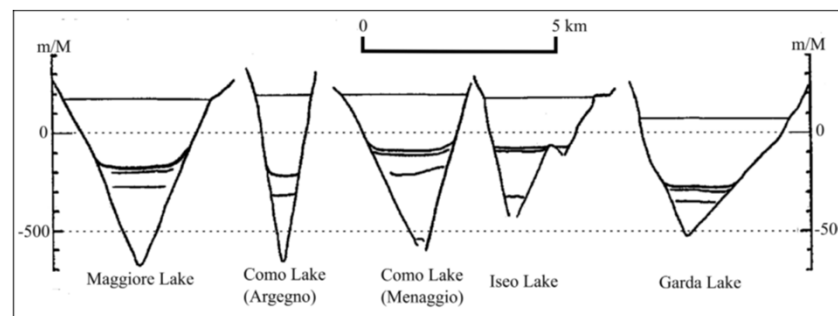
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SESSION GM 7.3

Mountain glaciations: developments in geomorphology, geochronology, and palaeoclimatology

Introduction

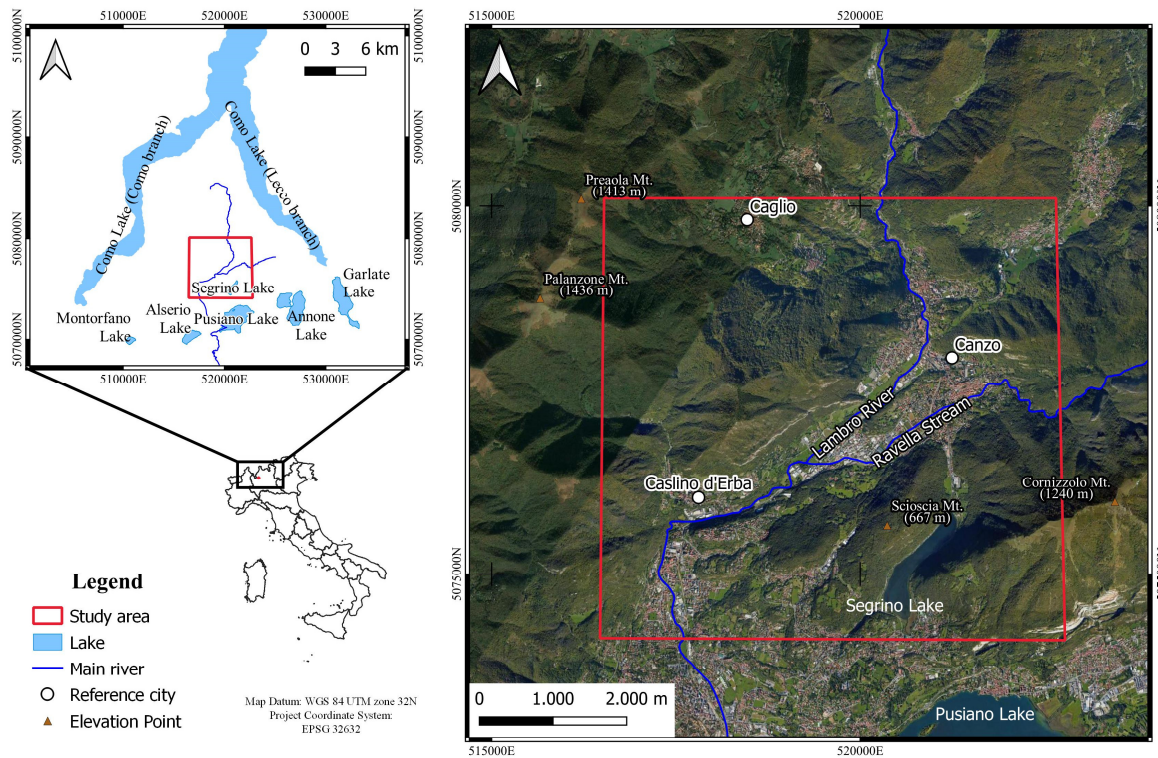
Several authors hypothesized the **glacial origin** of Segrino Lake due to the morainic block formed during the Last Glacial Maximum (LGM), such as *Tonolli, 1964* and *Bianchi et al., 2003*.



Finckh, 1978 & Cazzini et al., 2020

The work here proposed want to re-evaluate the origin of the Segrino Lake and the lower Triangolo Lariano area.

Study area



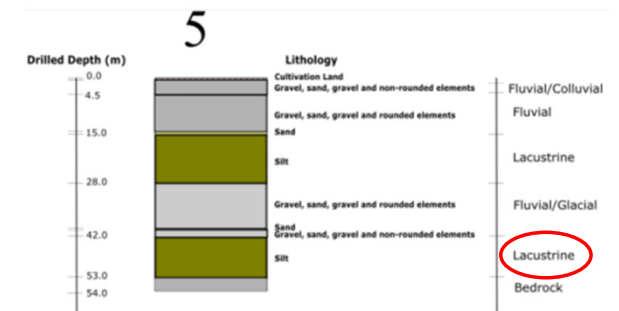
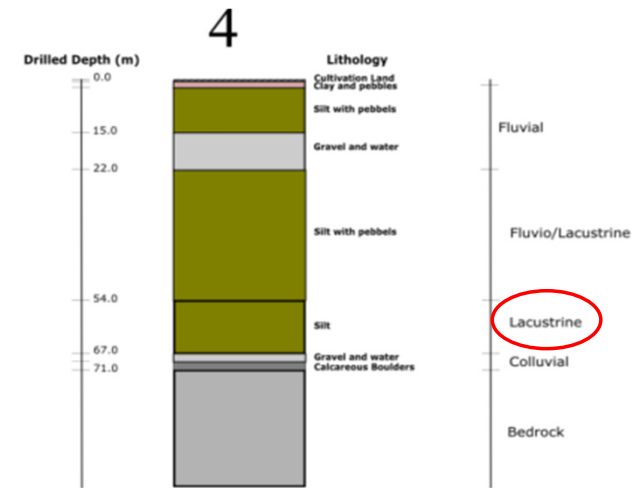
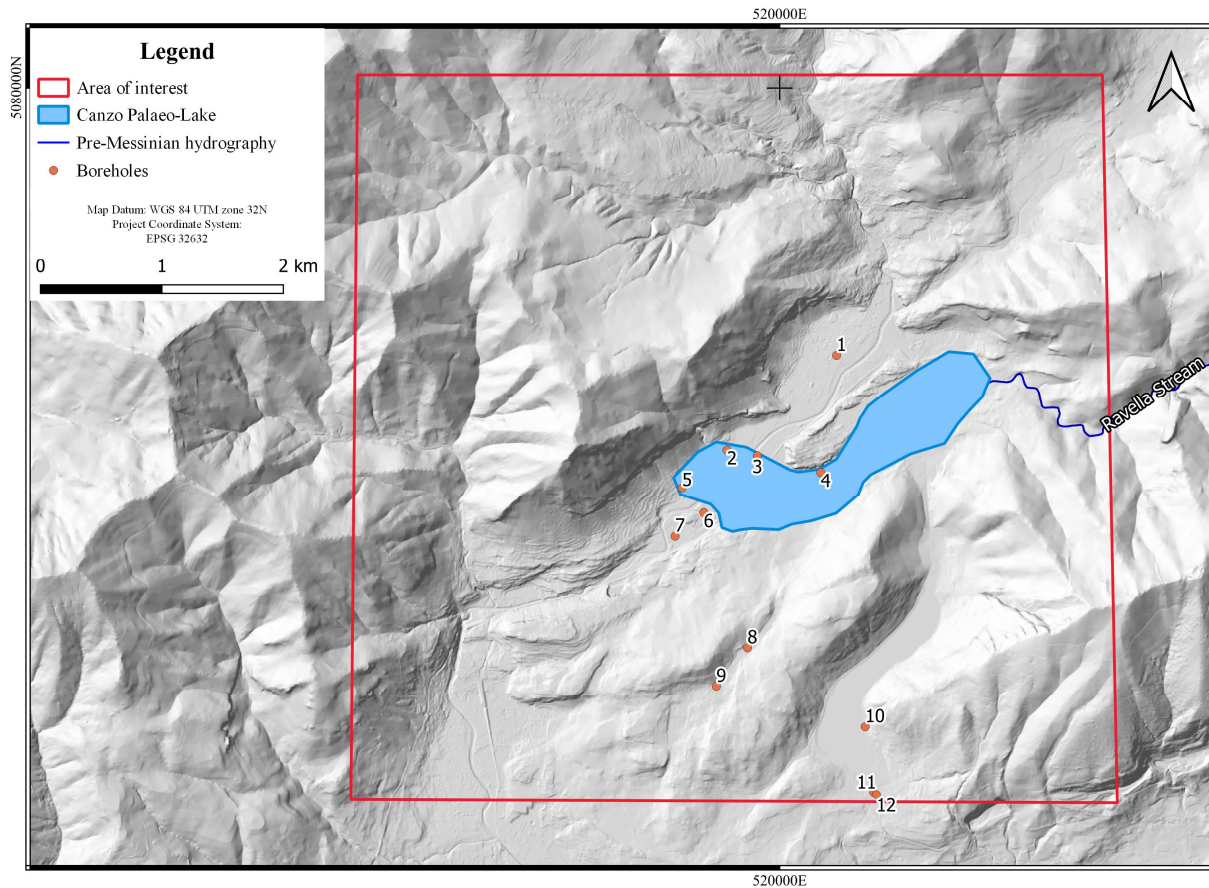
The Segrino Lake is in the South-East of the Triangolo Lariano area, and covers **0.38km²** with a medium depth of about **3.17m** (Genoni *et al.*, 2018).

Methodology

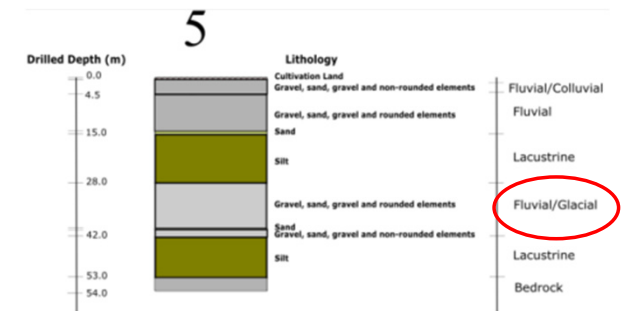
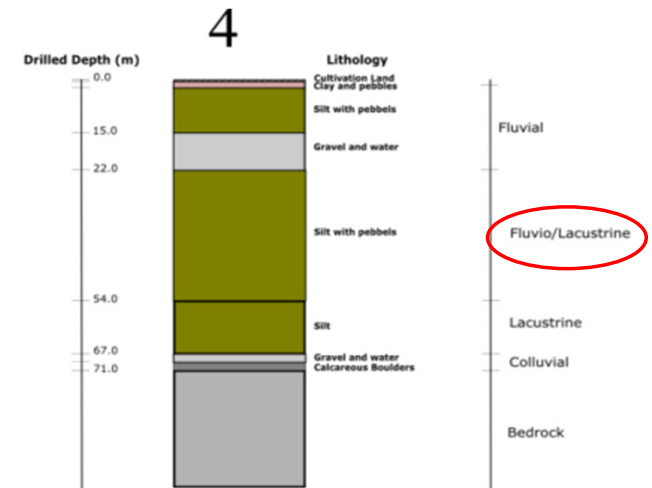
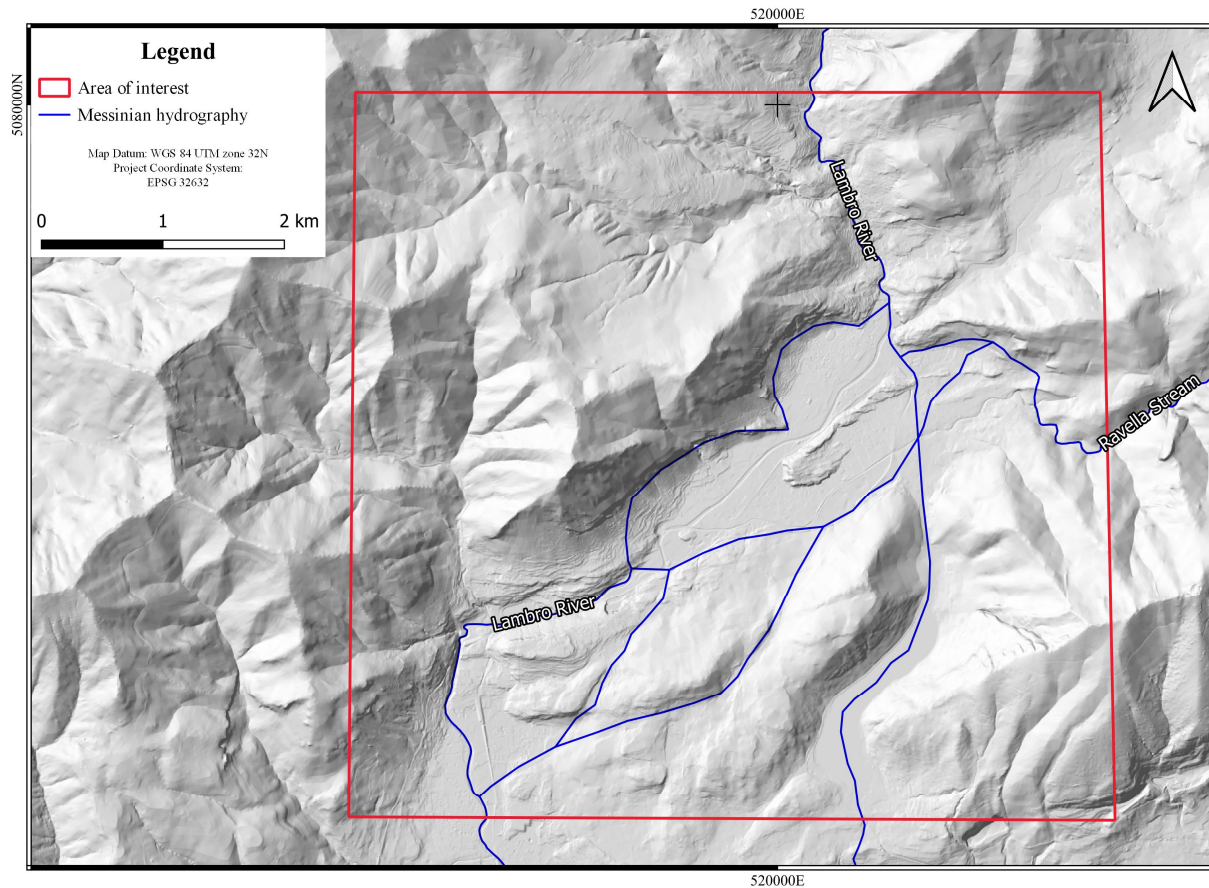


- **Orthophoto** (www.geoportale.regione.lombardia.it) investigation.
 - **DEM analysis:** (www.geoportale.regione.lombardia.it).
 - **Well log interpretation:** (www.geoportale.regione.lombardia.it).
- **Geological Map Sheet n.075** – ISPRA, CARG (www.isprambiente.gov.it).

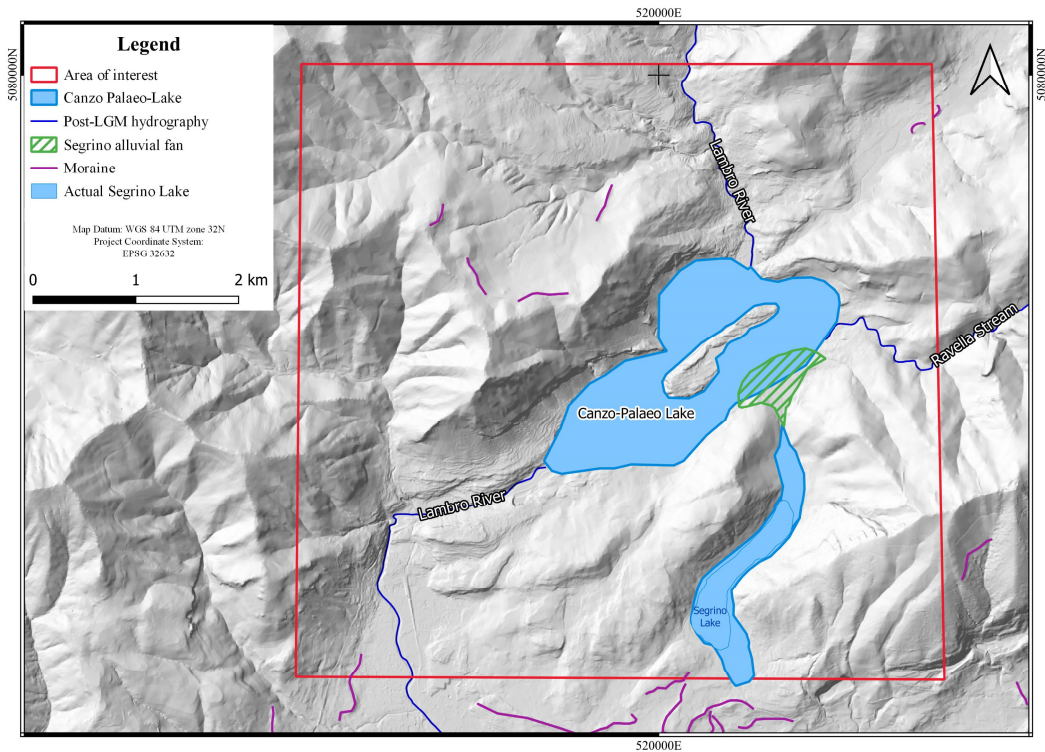
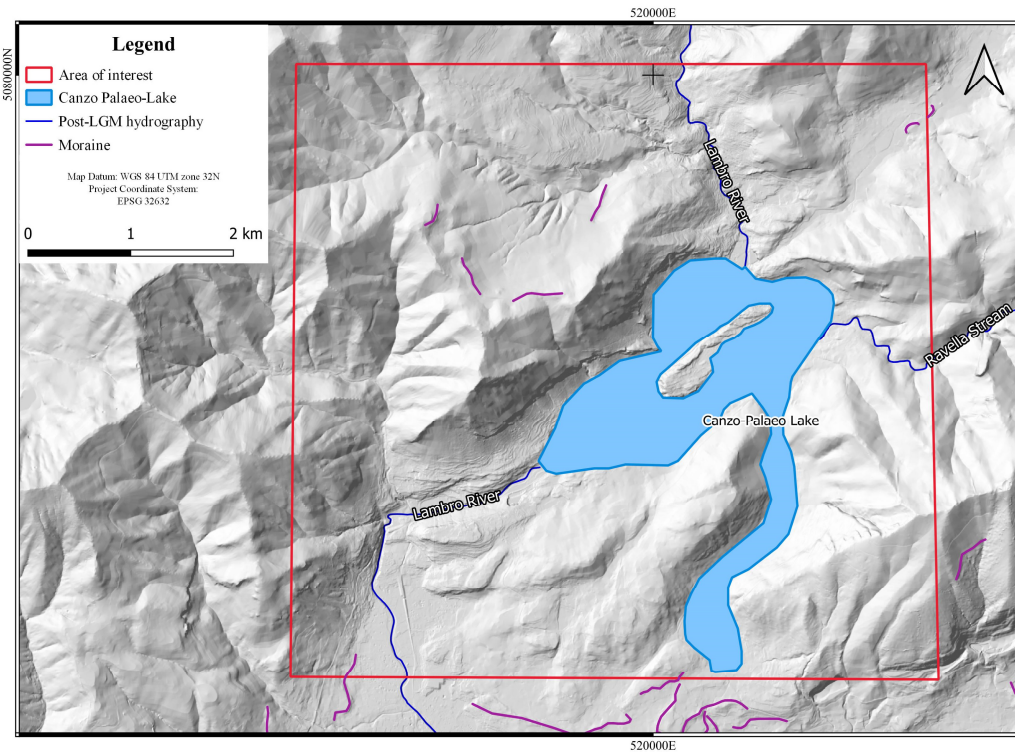
Results: Pre-Messinian Age



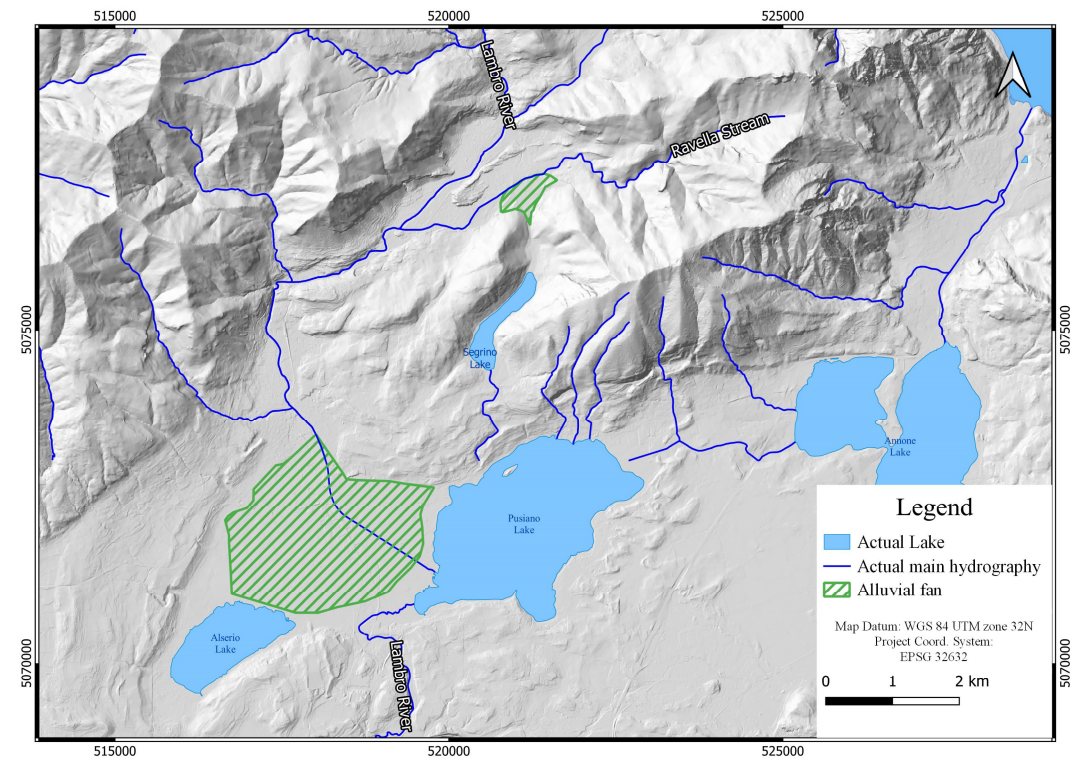
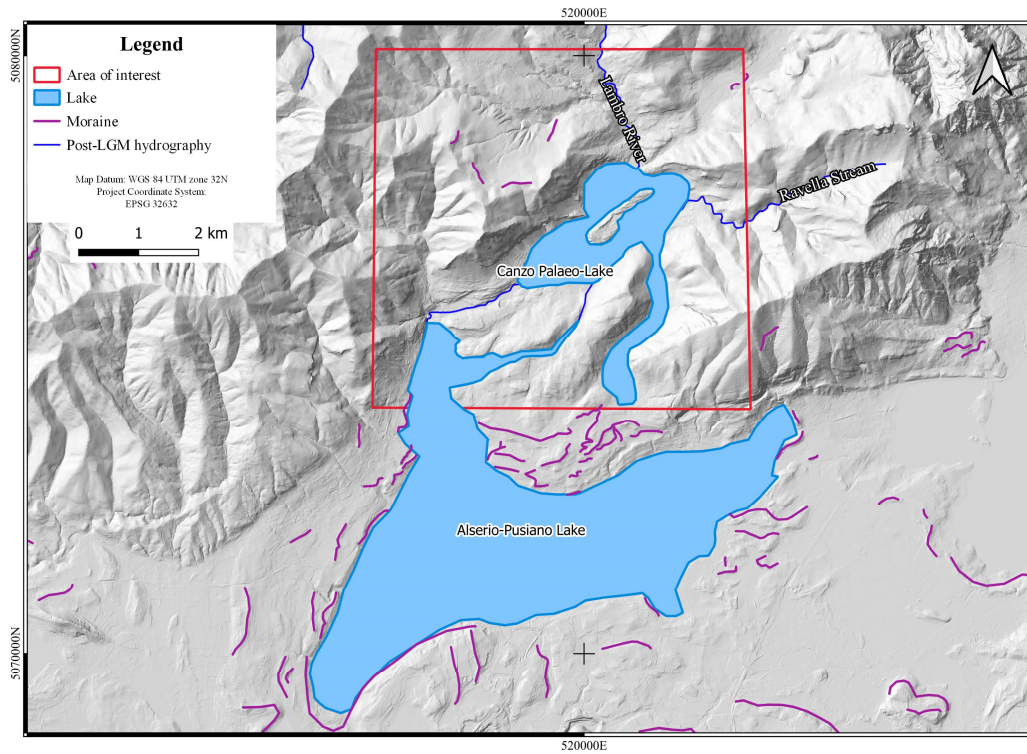
Results: Messinian Age



Results: post-LGM Age



Moreover, the Southern part's drainage reversed from South to North forming an alluvial fan.



Conclusion

- **Fluvio-glacial origin** of Segrino Lake, due to Lambro or Ravella riverbeds.
- Possibility of **seismic observations** to confirm the hypothesis.
- Possibility of **sediment date** to confirm the ages and the steps.





Thanks for your attention!



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