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Palaeoenvironmental records of the last 13 ka in Lesser Caucasus: First data from Paravani lake (Djavakheti, Georgia).

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Located in the steppic grasslands of South-Transcaucasia in the Samsari-Djavakheti volcanic plateau, the Paravani Lake (2073 m a.s.l, 41°27'N 43°48'E) is the largest lake of Georgia (37.5 km^2, 2-3 m depth). The lake has a high potential to reconstruct palaeoclimatic and palaeoenvironmental conditions in Caucasus that currently lack of long continuous records.

The volcanic range (up to 3000 m, 400 to 10 ka in age) located in the western part of the lake was covered by an ice cap (50-100 m) during the last two glacial periods as attested by the presence of numerous and well preserved glacial morphology and associated deposits. For example, moraines are found all around the Paravani Lake thus suggesting that the ice cap reached the lake level during the coldest events.

In 2009, a first sediment core was extracted from Paravani Lake. Ten radiocarbon dates show that the core covers the last 13 ka period. The multi-proxy analysis performed on the sediments has allowed us to characterize an original evolution of the vegetation in relation to the post-glacial climatic variations and the dynamic of the Samsari-Djavakheti glaciers.