



GIS-modeling of an ice-dammed lake in the Lake Onega depression ca 14500-12500 Yrs BP

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Palaeogeographical reconstructions of the Onego ice-dammed lake development ca 14500-125000 yrs BP were based on the GIS approach. The palaeo-water-level surfaces were interpolated using a point-kriging approach. 14500-14000 Yrs BP: An ice-dammed lake occupied the southern part of the Lake Onega depression. The level of this lake was at 130-120 m a.s.l. and was controlled by a threshold of the water divide between the River Oshta and River Oyat', with discharge southwestward into the Oyat' basin. The surface area of the ice-dammed lake was 3500 sq.km. 14000-13300 Yrs BP: When the ice melted away from the mouth of the River Svir, the lake level dropped to 85-80 m a.s.l. and runoff was directed into the Lake Ladoga - easternmost part of The Baltic Ice Lake at that time. 13300-12500 Yrs BP: As the glacier retreated from the Lake Onega depression, the ice-dammed lake was occupied it and reached the maximum sizes (the surface area was 33000 sq.km). The new threshold in the northern part was opened and runoff was directed into the White Sea basin. During the conference new digital paleogeographical maps of the Onego ice-dammed lake will be presented. The study has been financially supported by the Russian Science Foundation (#14-17-00766).