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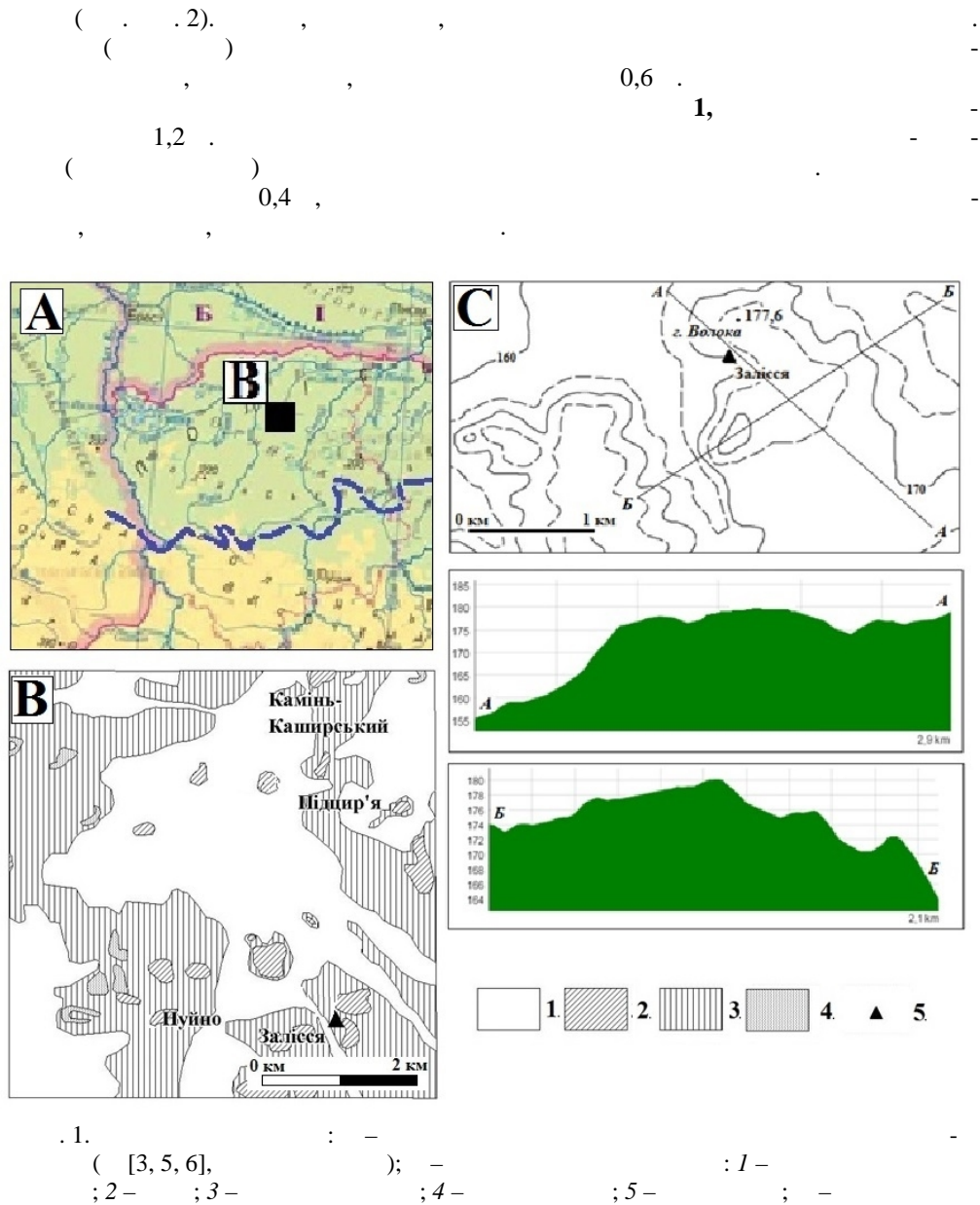
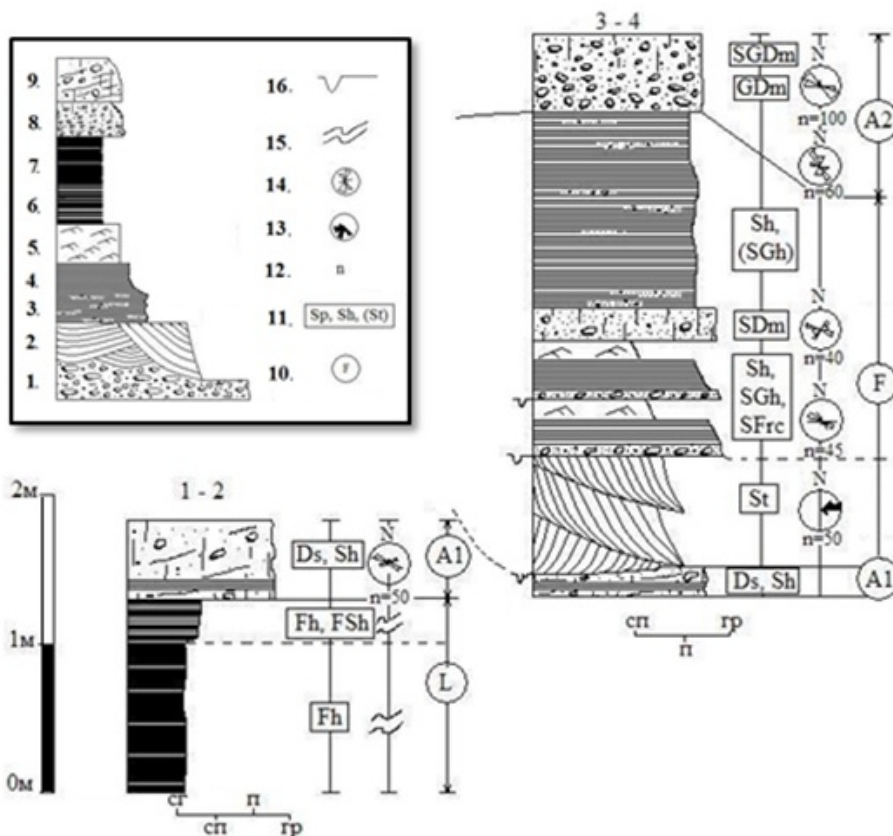


Fig. 1. Study area: 1 – limit of the maximum spread of Dnipro glaciation (by [3, 5, 6], as amended); B – main elements of the relief: 1 – river valleys and swamps; 2 – mounds; 3 – moraine plain; 4 – aeolian forms; 5 – section of mound; C – morphology of the represented form and location of the section



1 – (Gm, GSm); 2 – (St); 3 – (SGH); 4 – (Sh); 5 – (SFrc); 6 – (FSh, Fh); 7 – (Fh); 8 – (SGDm); 9 – (SDm, Dm); 10 – ; 11 – ; 12 – ; 13 – ; 14 – (); 15 – (); 16 –

Fig. 2. Synthetic sedimentary section of deposits of the same (section Zalissia):

1 – massive gravel (lithofacies Gm, GSm); 2 – sand with trough cross-stratification (lithofacies St); 3 – gravelly sand with horizontal stratification (lithofacies SGH); 4 – sand with horizontal stratification (lithofacies Sh); 5 – silty sand with climbing ripple cross-lamination (lithofacies SFrc); 6 – sandy silt and silt with horizontal lamination (lithofacies FSh, Fh); 7 – silt with horizontal and indistinct lamination (lithofacies Fh); 8 – massive gravelly diamicton with tightly enclosed grain matrix (lithofacies SGDm); 9 – massive matrix-supported diamicton (lithofacies SDm, Dm); 10 – symbol of lithofacies complex; 11 – symbol of lithofacies association; 12 – measurement number; 13 – textural elements orientation diagram; 14 – clast fabric in diamicton; 15 – folds; 16 – erosional surface

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CONDITIONS OF FORMATION OF KAME NEAR ZALISSIA VILLAGE (VOLYN POLISSIA)

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This work is an attempt to explain the morphology and geological structure of glacial forms located within the frontal area of the first post maximal stage of Dnipro Glaciation near Zalissia (Volyn Polissia). We tried to explain their origin and conditions of formation. The research included morphological and morphometric methods and method of lithofacies analysis.

Presented kames form isolated and semi-isolated hills. They mostly have an irregular shape, slightly elongated, subparallel of the ice frontal zones.

The geological structure of the forms was studied in a large sand quarry and in several unrepresentative small outcrops of anthropogenic origin. They are located near the village of Zalissia.

This research revealed that fine-grained sediments dominate in the geological structure of these forms. Texture and lithological features of the deposits of Zalissia section helped to identify a few lithofacies complexes in their composition. Thin horizontally layered glaciolacustrine sediments are lying at the base of the form. They are covered with the unsorted detrital deposits (diamicton). Mainly fine and middle sandy deposits of the fluvioglacial complex occur higher in the section. They are rhythmically constructed. Geological structure of section is finished by a layer of unsorted gravel and pebble ablative deposits with mainly sandy filler.

Texture features of the deposits of this section make it possible to conclude that their accumulation took place in zones of increased fracture in the body of inactive, dead ice. Sedimentation was carried out in conditions of low-energy glaciofluvial streams and stagnant basins, occasionally interrupted by the accumulation of ablation masses. Such a combination of different deposits may indicate that the formation of this form could take place in the deepenings on the surface of the ice, possibly in large thawed patches, which reached the glacial bed. The thawed patches lay on the intersections of large cracks. The formation of cracks is a consequence of the uneven block movement of the ice masses in front of the barrier in the form of glacial bed elevation. Cracks had a constant tendency to expand as a result of increased ablation processes. These forms are identified as kames based on the detected sedimentological features.

Key words: Volyn Polissia, kame, lithofacies analysis, sedimentation, glaciofluvial and glaciolacustrine deposits.