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The Gross Symposium 2:
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Walter Gross 1903 - 1974

FIELD TRIP GUIDEBOOK

Rīga 2003

Stop 14. Kaugatuma cliff

The 2,5 m high Kaugatuma cliff is situated on the western coast of Sörve Peninsula, some kilometres southward from its neck and about 100 metres from the sea. Rocks of two different facies types in the regressive succession can be seen representing the middle part of the Äigu Beds of the Kaugatuma Stage. Section (Fig. 12) from the base 1 upward:

1. 0,5+ m – Greenish-grey unsorted skeletal medium-nodular argillaceous wackestone of open shelf origin. Skeletal debris consists mostly of echinoderm and brachiopod fragments. Ostracodes, trilobites, gastropods, bryozoans and fishes are not so common. Upper boundary of the bed is a quick transition within a mesocyclite.
2. 1,5+ m – Yellow-grey coarse-grained wavy-bedded crinodal grainstone of forereef origin. Grain size and sorting degree of skeletal debris vary from bed to bed. Some bedding planes show erosion marks. In this part of the section big colonies of *Syringopora blanda* (0,30 m in diameter), massive tabulate corals and stromatoporoids occur. Because of the presence of *Crotalocrinites rugosus* columnals in this rock local people call it 'ring-rock'. At Kaugatuma drift beds one inclined in the northern direction and the lower argillaceous wackestones are exposed for 0,5 km southward on the beach. From this point many fossils have been collected, including trilobites by Reet Männil: *Prostus nisszkowskii*, *Calymene schmidtii*, *C. kaugatumensis*, *C. dnestroviana*, *Acasta dayiana* and *Eophacopa helmuti*.

From the cliff the following vertebrata remains have been found (T. Märss): *Nostolepis striata*, *Gomphonchus sandelensis*, *Poracanthodus porsus*; from the lower part only – *Thelodus parvidens* and from the top *Nostolepis gracilis*.

According to V. Nestor (pers. comm.) most of chitinozoans identified from the section belong to the wideranging species (*Angochitina ancyrea*, *Eisenackitina lagenomorpha* etc.) only *Eisenackitina filifera* from the bed 2 is characteristic of the upper Äigu Beds.

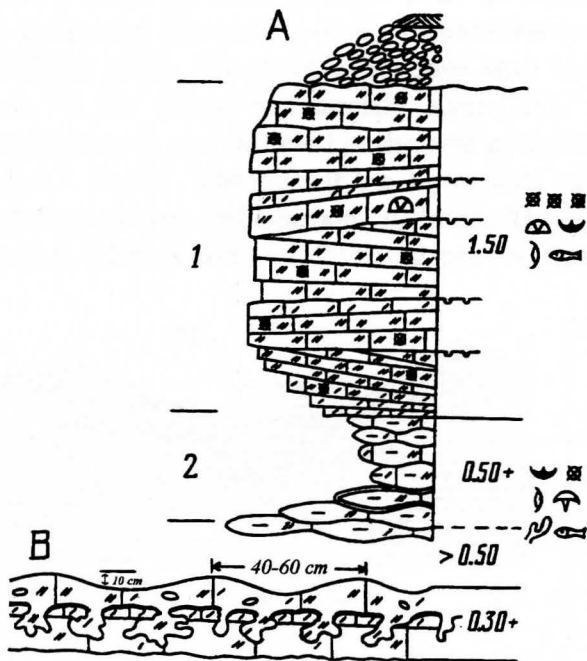


Fig. 12. (A) The Kaugatuma cliff section: Upper Äigu Beds of the Kaugatuma Stage. For legend see Fig. 8. (B) Ripple marks exposed at the present sea level.

About 1 km south of the cliff large east-west directed well-preserved Silurian ripple marks are exposed on a 200 m long seashore, observable only during the low stand of the sea level. Ripple marks are best preserved in a 3-cm thick interval of the section, immediately underlying the basal part of the cliff. Distance between the rounded crests is 40-60 cm (max up to 80 cm), height up to 10 cm. Under the uneven discontinuity surface that forms the base of this ripple mark bed, up to 10 cm of dark-grey unsorted skeletal packstone is exposed (Einasto, 1990).