

GIVETIAN AND THE BASE OF THE FRASNIAN IN THE BALTIC AREA

For the time being the number and names of the Devonian series and stages have been established, the boundary stratotypes selected and boundaries defined (Ziegler, Klapper 1985; House 1988; Oliver, Chlupač 1991; Crick 1992). The stage boundaries are defined by conodont zones. Graptolite, ammonoid and dacroconarid (tentaculite) zones have also been used for subdivision and correlation. The lower boundary of the Givetian is within the ***Polygnathus ensensis*** Zone at the first occurrence of ***P. hemiansatus***. The base of the Upper Devonian Series and Frasnian Stage is the base of the Lower ***P. asymmetricus*** conodont Zone defined by the first occurrence of ***Ancyrodella rotundiloba***. The Baltic upper Middle Devonian sequence consists mainly of vertebrate dominated terrigenous rocks and has not revealed conodonts or zonal invertebrates. The lower boundary of the Givetian is given according to the correlation with sections of the other subregions of the East European Platform and roughly coincides with the internationally accepted boundary (see Rzhonsnitskaya, Kulikova 1990). However, the position of the lower boundary of the Frasnian differs considerably on the whole platform. Three conodont zones, ***hermanni-cristatus***, ***disparilis*** and Lowermost ***asymmetricus*** are ascribed to the Frasnian. In the Baltic area the interval corresponding to these zones includes the Gauja and Amata stages. To avoid different dating of these units, the lower boundary of the Frasnian should be placed higher, at the base of the Plavinas Stage, i.e. at the base of the Snetnaya Gora Beds or b. This boundary was traditional in Baltic before the 50 s. The Snetnaya Gora Beds which carbonate rocks dominate in represent a rare unit containing fishes and articulated brachiopods, and conodonts.

The Abava Formation that is situated between the Burtnieki and Gauja stages is worth to be considered as a stage. It has yielded a specific fossil fish assemblage with ***Microbrachius*** and ***Watsonosteus*** of a very wide distribution (Scotland, France, Severnaya Zemlya, China). Thus, the Givetian in the Baltic area could include four stages: Burtnieki, Abava, Gauja and Amata.

References

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