

*Studia breviora**Boundaries of the Silurian System in Bulgaria by graptolites*

Graptolite-bearing sedimentary formations have been studied in the Sofia part of the Stara Planina Mountains. A continuous graptolitic sequence is found in the section above the grey-greenish undistinctly bedded slates of Cerecel Foramtion within the Svoge Anticline (Спасов, 1960). The graptolitic facies develops in sediments which are not subdivided into formal lithostratigraphic units, i. g. the lidite formation (40 m), the graptolitic slate formation (80—100 m), the banded slate formation (200 m) and the dark siltstone formation (no more than 100 m) (Бончев, 1906; Иванов, 1983).

Due to the lack of paleontological evidence, the boundary between the Ordovician and Silurian in Bulgaria was traced on the basis of general geological considerations. For the first time in Bulgaria the Ordovician-Silurian boundary is proven with paleontological data. This boundary is traced in the lidite formation, 1-2 m above the top of the sandy unit in the Saltarski dol (Batulija) and Morugov dol (Šuma). The dark, thin bedded, silicified slates, interbedded by dark slates contain the following graptolite species: *Climacograptus normalis* Lapworth, 1877; *C. miserabilis* Elles & Wood, 1906; *C. medius* Törnquist, 1897; *C. trifilis* Manck, 1923; *Parakidograptus acuminatus* (Nicholson, 1867); *P. praematurus* (Davies, 1929); *Akidograptus ascensus* Davies, 1929; *Glyptograptus persculptus* (Salter, 1865) *Diplograptus modestus* Lapworth, 1876. These taxa determine the uppermost Ordovician graptolite *Glyptograptus persculptus*/*Parakidograptus acuminatus* Interval-zone and the lowermost Silurian *Parakidograptus acuminatus* Range-zone. The Ordovician-Silurian boundary is marked by the first appearance of *P. acuminatus* and coincides with the base of *Parakidograptus acuminatus* Range-zone.

The Silurian-Devonian boundary is traced in the dark siltstone formation in the areas of the villages Cerecel, Vlado Tričkov, Ogradište. The dark, thinly bedded siltstones contain the graptolite species *Monograptus transgrediens* Perner, 1899; *M. uniformis* Přibyl, 1940, *Linograptus posthumus* (Richter, 1875). The former is index species for the uppermost Silurian graptolite zone — *Monograptus transgrediens* Range-zone. This zone is established for the first time in Bulgaria. The Silurian-Devonian boundary is marked by the first appearance of *M. uniformis* and coincides with the base of *Monograptus uniformis* Range-zone.

References

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