Llandovery-Wenlock Boundary Interval in the Graptolite-rich Sequence of the Barrandian Area (Bohemia)

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In the Barrandian area continuous sections through the graptolite-rich Llandovery-Wenlock boundary strata have been examined bed by bed. *Stom. grandis, Cyrt. insectus, Cyrt. centrifugus,* and *Cyrt. murchisoni* zones have been studied and 43 graptolite taxa have been found in this interval. Graptolite taphocenoses account for gradual increase in species diversity, without any prominent radiation and/or extinction events.

Despite this statement several well determinable species of promising correlative potential appear at about the base of the *insectus* Zone (*M. kolihai*, *M. kodymi*, *M. pseudocultellus*, *Mcl.basilica*, *Mcl. chuchlensis*, *Cyrt. insectus*, and *Ps. giganteus*). The base of the succeeding *centrifugus* Zone lacks such distinct faunal change.

The base of the Wenlock Series was formally placed at the base of the *centrifugus* Zone. Graptolite evidence of the *centrifugus* Zone, however, is insufficient in the type area, being based on the presence of *Pr. watneyae* and *Mcl.* aff. *vomerina* the stratigraphic range of which is not well known.

In general the graptolites are neither common and diverse in the type Wenlock area and precise correlation with graptolite-rich sequences is difficult. Graptolite zones equal to the *grandis* and *insectus* Zones of Bohemia, for instance, have not yet been recognized in Britain.

According to the graptolite successions elsewhere (Bornholm, Arctic Canada, China, Poland) Cyrt. insectus occurs along with or in the lower part of stratigraphic range of Cyrt. centrifugus. In the Barrandian area Cyrt. insectus clearly precedes Cyrt. centrifugus. Here the first Cyrt. insectus is accompanied by a distinct change in the associated graptolite fauna as opposed to a very minor change at the base of the centrifugus Zone. The faunal change at the base of the insectus Zone in Bohemia is comparable with that observed at the base of the centrifugus Zone where the insectus Zone is not recognized. That is why in Bohemia the base of the Wenlock Series is placed traditionally at the base of the insectus Zone.

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