

Chitinozoans and acritarchs from the Ordovician of the Skibno 1 borehole, Pomerania, Poland: implications for stratigraphy and palaeogeography

WRONA, R.*, BEDNARCZYK, W. S.** & STEMPIEN-SALEK, M.**

**Polska Akademia Nauk, Instytut Paleobiologii, ul. Twarda 51/55, PL-00-818 Warszawa, Poland.*

wrona@twarda.pan.pl

***Polska Akademia Nauk, Instytut Nauk Geologicznych, ul. Twarda 51/55, PL-00-818 Warszawa, Poland.*

wbednarc@twarda.pan.pl

mstempie@twarda.pan.pl

ABSTRACT: Biostratigraphic results of this palynological study agree with those of previous research on graptolites from the Ordovician of the Skibno 1 borehole in the Koszalin - Chojnice Structural Zone, Polish portion of the Pomerania Terrane. They indicate that the investigated core interval can be attributed to the uppermost Llanvirn (Llandeilo) - lower Caradoc, and correspond to the *teretiusculus* and *gracilis* through the *multidens* graptolite biozones. Recovered chitinozoan species, including *Belonechitina robusta*, *Conochitina chydaea*, *C. dolosa*, *Lagenochitina* aff. *capax*, *Spinachitina bulmani*, and the index species *Laufeldochitina stentor* are restricted to the upper Llanvirn - lower Caradoc, the latter species delimits the *stentor* chitinozoan biozone (upper Uhaku and Kukruse stages). The following identified acritarchs are regarded as biostratigraphically significant: *Goniosphaeridium splendens*, *Ordovicidium elegantulum*, *O. heteromorphicum*, *O. nanofurcatum*, *O. nudum*, and are characteristic for the Caradoc. The presence of conodont *Scabbardella altipes* and ichnofossil *Alcyonidiopsis pharmaceus*, both characteristic of high palaeolatitudes, as well as lithological similarities between the investigated strata and their equivalents from Rügen indicate that Pomerania could have been situated at relatively high latitudes during the upper Llanvirn to lower Caradoc. These observations together with palynological results support a hypothesis that Pomerania was a terrane derived from Avalonia and accreted to the margin of the East European Craton.

<http://www.geo.uw.edu.pl/agp/table/abstracts/51-4.htm#S2>