Permian bryozoans from the Canadian Arctic (Sverdrup Basin) – a preliminary report

Hans Arne Nakrem[1], Benoit Beauchamp[2], and Charles M. Henderson[2]

[1]*University of Oslo, Norway*
[2]*University of Calgary, Canada*

Bryozoans are among the most diverse and most common fossils in Carboniferous and Permian rocks of the present day Canadian Arctic (the Sverdrup basin). Here, as well is in Svalbard and Greenland, bryozoans are known to form small to medium sized reefs and bioherms, and they are distributed in large numbers especially in the carbonate rocks in these areas. The upper Paleozoic succession of the Sverdrup Basin, which is up to 5 km thick, is characterized by eight long-term sequences bounded by major unconformities at the basin margin, passing basinward into correlative conformities.

A significant collection of petrographic thin sections has been studied (originally prepared for various MSc and PhD studies during the last 25 years). Some samples have been thin sectioned for the current study to obtain oriented views of the bryozoans. Due to preservation problems (dolomitization and silicification) acetate peels did not provide good enough results.

The following formations (and their ages) have been studied: Raanes Fm. (Sakmarian), 27 genera; Great Bear Cape Fm. (Artinskian) > 35 genera; Sabine Bay Fm. (Kungurian) <10 genera; Assistance Fm. (Roadian – lower Wordian) 15 genera; Van Hauen Fm. (Roadian-Wuchiapingian) 5 genera; Trold Fiord Fm. (Wordian-Wuchiapingian) 16 genera; Degerböls Fm. (Wordian-Capitanian) 7 genera; Lindström Fm. (Wuchiapingian), 14 genera.

The generic composition is similar to time-equivalent units of Greenland, Svalbard, Novaya Zemlya and northern Russia, but also to Tethyan faunas during the Early Permian. Some rather common genera in Svalbard and Russia (e.g. *Coscinium* and "*Ascoporella*", *sensu* Morozova & Kruchinina (1986)) are absent in the investigated material from the Sverdrup basin. Some genera have an older first occurrence in the Sverdrup basin (e.g. *Permoheloclema*, *Primorella*, *Clausotrypa*) as compared with the Svalbard area, whereas others found in the Sverdrup basin (e.g. *Spinofenestella*, *Phragmophera* and *Stenophragmidium*) are absent from the Svalbard/Russian equivalents. It should also be noted that the youngest Permian faunas of Svalbard are older than the youngest Permian faunas of the Sverdrup Basin. The distribution revealed so far will be presented in paleobiogeographic and biostratigraphic contexts.

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