

Spherical brown spinous cysts from the northern North Atlantic and Arctic Ocean

Michael Schreck¹, Jens Matthiessen², and Nam Seung-II¹

¹ *Korea Polar Research Institute, Incheon, Korea*

² *Alfred Wegener Institute for Polar and Marine Research, Bremerhaven, Germany*

Spherical brown spinous cysts are a conspicuous component of modern and Holocene dinoflagellate cyst assemblages from the Atlantic sector of the high northern latitudes. They are particularly abundant in shelf environments and dominate assemblages in the Kara and Laptev seas where light penetration into the water column is strongly reduced due to extensive suspension load in river plumes that also cause pronounced gradients in sea-surface salinities in estuarine and prodelta environments. On the other hand, they may be also abundant in fjord and shelf environments such as the East Greenland fjord system without any large fluvial input. Although the taxonomy of the major species has been revised and a new species described some years ago, only the biogeographic distribution of *I. minutum* is quite well established whereas records of *I. ? cezare* and *Echinidinium karaense* are still rare.

Therefore, material from the Arctic Ocean and Greenland seas will be presented in this workshop to stimulate discussions on these potentially useful paleoenvironmental indicators.