

## **A new seepage site south of Svalbard? Results from Eurofleets-2 BURSTER cruise**

Renata Giulia Lucchi (1), Caterina Morigi (2,3), Anna Sabbatini (4), Adriano Mazzini (5), Martin Krueger (6), Cinzia De Vittor (1), Vedrana Kovacevic (1), Davide Deponte (1), Graziani Stefano (7), Manuel Bensi (1), Leonardo Langone (8), and Scientific Party of Eurofleets2-BURSTER\* (9)

(1) Institute of Oceanography and Experimental Geophysics (OGS), Trieste, Italy, (2) Department of Earth Sciences, University of Pisa, Italy, (3) Geological Survey of Denmark and Greenland (GEUS), Denmark, (4) Department of Life and Environmental Sciences, Polytechnic University of Marche, Italy, (5) Centre for Earth Evolution and Dynamics (CEED), University of Oslo, Norway, (6) Federal Institute for Geosciences and Natural Resources (BGR), Hamburg, Germany, (7) University La Sapienza, Rome, Italy, (8) Institute of Marine Sciences, National Research Council (CNR) Bologna, Italy, (9) University of Tromsø, Norway; University of Parma, Italy; University of Barcelona, Spain; Adam Mickiewicz University, Poznań, Poland; Spanish Institute of Oceanography, Malaga, Spain; Lomonosov Moscow State University, Russia; AWI, Germany; Nanovision S.r.l., Milan, Italy (<http://www.nanovision.it>)

The oceanographic and environmental characteristics of the Kveithola Glacial Trough, located south of Svalbard, have been investigated during the Eurofleets2-BURSTER project onboard the German icebreaker Polarstern (expedition PS99-1a, June, 19–20, 2016). The inner part of the glacial trough contains a complex sediment drift that deposited under persistent bottom currents, active in the area after Last Glacial Maximum. Notwithstanding the highly dynamic environment depicted from the morphological and structural characteristics of the Kveithola sediment drift, previous studies indicated the presence of an apparently “stagnant” environment with black anoxic sediments and absence of bottom current related sediment features. We present the preliminary results from the new dataset that includes micropaleontological, geochemical and microbial analyses of multi-core sediments; morphological analyses of sea floor sediments with benthic camera (Ocean Floor Observatory System); acoustic analyses of the sub-bottom record, and oceanographic analyses of CTD-Rosette sampling, all together indicating the possible presence of a new seepage site in the Arctic area south of 75°N Latitude.

\*Bazzaro, M., Biebow, N., Carbonara, K., Caridi, F., Dominiczak, A., Gamboa Sojo, V.M., Laterza R., Le Gall, C., Musco, M.E., Povea, P., Relitti, F., Ruggiero, L., Rui, L., Sánchez Guillamón, O., Tagliaferro, M., Topchiy, M., Wiberg, D., Zoch, D.