

Active microbial groups in oceanic crust

BETH N. ORCUTT¹, TIM D'ANGELO¹, JACQUELINE M. GOORDIAL¹, ROSE M. JONES¹

¹Bigelow Laboratory for Ocean Sciences, 60 Bigelow Drive, East Boothbay, ME, 04544, USA; borcutt@bigelow.org

Although oceanic crust comprises a large and varied habitat for subsurface life, the structure, function, and dynamics of microbial communities living on rocks in the subsurface are poorly understood. Through incubation and enrichment experiments, fluorescent labeling techniques, and flow cytometric sorting to concentrate cells, we are learning about identity, functional potential and growth characteristics of microbes from various oceanic crust environments. We will present new data from samples collected from the actively serpentinizing subsurface of the Atlantis Massif and from the cold and oxic basaltic crustal subsurface on the flanks of the Mid-Atlantic Ridge at North Pond.