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Bioconstructional Bryozoans from the Southern Ocean – ecosystems to monitor and protect

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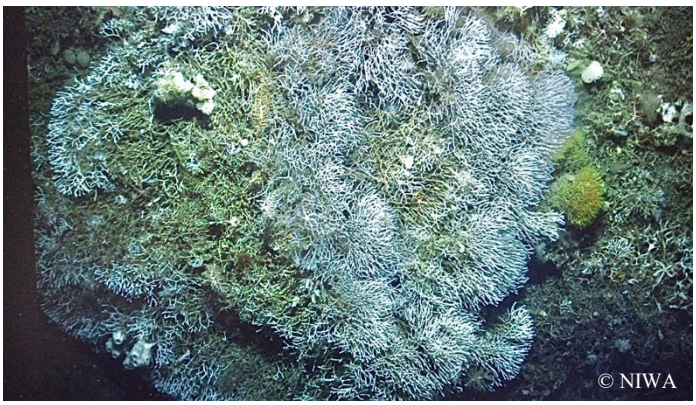

Plants and animals creating the physical structure (i.e., bioconstruction) are key elements to maintain biodiversity and influence ecosystem processes. Structurally complex, these calcifying ecosystems promote habitat complexity, higher macroinvertebrate population density and species richness, thus providing important Ecosystem Services. Potentially vulnerable to the climate change drivers, which can alter their physiology and structure, associated community composition, production, and diversity, bioconstructions are considered 'Vulnerable Marine Ecosystems'. Forgotten bioconstructors, such as bryozoans, have important functions within VME of the Ross Sea where changes are occurring very fast. Acting as framework builders, being environmental proxies and having complex biomineralization strategies, bioconstructional bryozoans provide a contribute to mitigating climate change effects on VME diversity. Focused on Antarctic bryozoans, the two PNRA projects (Iceclimalizers and Bioross) will be presented to provide insights on bryozoan's importance, functions and protection under the future Southern Ocean.