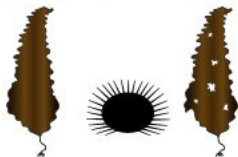


Trophodynamic Shifts in the Arctic:

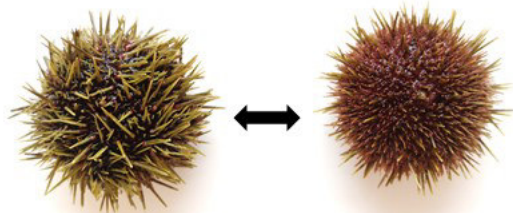
Biochemical Capacities and Limits of Benthic Marine Invertebrates

Sea urchins are the main grazers and benthic key species in arctic fjord systems. These ecosystems are exposed to pronounced seasonality and continuous warming due to climate change. Studying the behavioural and physiological responses of sea urchins and their adaptive potentials will demonstrate which properties will be adverse or beneficial in a warming arctic.

How is the grazing behaviour of sea urchins influenced by temperature or the C/N ratio and deterrents of algae?

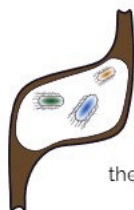
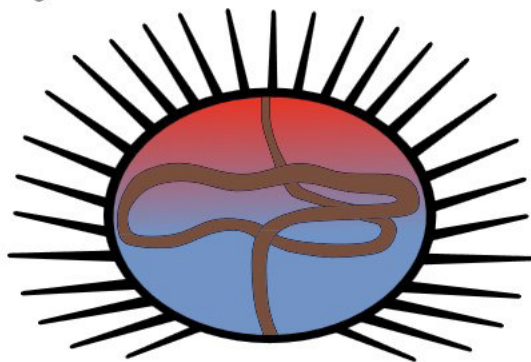


Do digestive capacities differ between the two most frequent arctic sea urchin species?



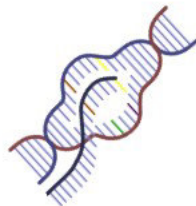
Strongylocentrotus droebachiensis

Strongylocentrotus pallidus



How is the composition and what is the function of the sea urchin microbiome?

Are adaptive characteristics genetically determined?



How is the metabolic performance under thermal stress?

