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Title: *Tidal glaciers retreat – loss of specific marine habitat in Arctic ?*

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The well documented melting of tidal glaciers on Svalbard leads in many cases to the retreat of ice on land and loss of tidal water front (glacial bay). This habitat is known to be of high importance for foraging seabirds and sea mammals. Locally induced upwelling together with the turbulence mixing of freshwater outflow with marine water creates a hydrological trap for plankton. The stenohaline, marine organisms are dying massively and sink to the sea bed, to become a food of specialised benthic carnivores. The glacial bay sea bed is generally impoverished in species richness and biomass, yet, cold water species may find a refugium and rich food resources here. Some of the specific physical functions of the glacial bay might be reproduced by river mouth (fresh and sea water mixing, estuarine circulation) other (sedimentation regime, upwelling) are not likely happening in small river deltas on Svalbard. Presentation shows possible scenarios for the evolution of marine biodiversity and top predators survival connected with glacial fronts on Svalbard.