



## **Towards a More Saline North Atlantic and a Fresher Arctic Ocean Under Global Warming**

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Coupled atmosphere-sea ice-ocean climate models forced with increasing greenhouse gas concentrations predict enhanced evaporation in the tropics and enhanced precipitation in the extra-tropics. The additional precipitation and continental run-off into the North Atlantic and Arctic drainage regions, and melting of Arctic sea ice and glaciers, have led to the expectation of a gradual freshening of the northern North Atlantic, with a weakened Atlantic thermohaline circulation as a result. Here we use a state-of-the-art climate model to demonstrate that the North Atlantic may become more saline despite increased precipitation, melting of sea ice and glaciers, and a significantly fresher Arctic Ocean.