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Sea-ice Changes in the Sea of Okhotsk and the North Atlantic Oscillation

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The North Atlantic Oscillation (NAO) is the dominant mode of atmospheric variability in the North Atlantic sector. It has significant impacts on temperature and precipitation not only in Europe, but also in North America. Different forcing factors, such as Arctic sea-ice changes, have an influence on the NAO. Here, we will show that sea-ice conditions in the Sea of Okhotsk have an important impact on the NAO. Our conclusion is based on observations and simulations with an atmospheric general circulation model (AGCM) forced by specified anomalous sea-ice concentrations in the Sea of Okhotsk. Changes to the NAO sign observed in late winter, February, could be related to the remote changes in sea ice in the Sea of Okhotsk in January.