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Modeling of Baltic Sea ice cover using CESM model

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The Community Earth System Model (CESM) is a fully-coupled global climate model that provides state-of-the-art computer simulations of the Earth's past, present, and future climate states. It has been used to analyze ice cover of the Baltic Sea with a 9 kilometers horizontal resolution. For modeling ice CESM is using CICE4, which is the latest version of the Los Alamos Sea Ice Model, sometimes referred to as the Community Ice CodE. The model was forced by ECMWF atmospheric data (ERA 40 reanalysis). 40-years hindcast scenario was performed. Anomalies of ice extension, ice thickness and ice area of the whole Baltic Sea are presented.

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