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Model of the annual phytoplankton cycle in the marine ecosystem- assimilation of monthly satellite chlorophyll data for the North Atlantic and Baltic

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Abstract

An annual-cycle model for the phytoplankton-zooplankton-nutrients ecosystem is presented for the North Atlantic and Baltic Sea. Satellite-derived surface chlorophyll data assimilation in the ecosystem model are discussed, and a number of methods of fitting model dynamics to the data are proposed. Statistical analysis of simulation results yields the main types of annual chlorophyll and primary production variability.