

Short Communication

Establishment of thermophilic phytoplankton species in the North Sea: biological indicators of climatic changes?

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Since the beginning of the 20th century, 16 non-indigenous phytoplankton species have become an integrated part of the pelagic system of the North Sea. Among them, 10 thermophilic species were first recorded during the last decade, assumed transported by currents from southern regions. It is suggested that the relatively mild winters during recent years may have been an important factor for their successful establishment. The permanent colonization of the North Sea by species from lower latitudes may be a biological signal for subtle changes in climate. This issue may be clarified by the analysis of resting stages of plankton organisms in bottom sediments.

Keywords: climate change, German Bight, immigrants, North Atlantic Oscillation index, North Sea, phytoplankton, temperature.

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