



Supplement of

Analyses of sea surface chlorophyll *a* trends and variability from 1998 to 2020 in the German Bight (North Sea)

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Figure S1: Definition of offshore and coastal areas, based on the isobath of 30 m.



Figure S2: a) SST anomalies significance trends calculated by the modified Mann Kendall trend test. b) Linear trends of SST anomalies (°C per year). Trends are significant for all grid cells.



Figure S3: Seasonal cycle of Chl-a averaged for areas above the isobath of 30m (coast), areas below 30m (offshore) and HRTS.



Figure S4: First and second EOF spatial pattern (top) and PC temporal modes (bottom) of monthly climatological means of Chl-a. Dashed thin line superimposed by the PC lines is the Chl-a spatially averaged at the study area. March-April period (green shaded) and August-September (pink shaded).



Figure S5: Spatial averages of Chl-a anomalies in coastal waters (a) and offshore (b) for the months March, April and May. The NAO index winter mean (December, January, February) is the black thin line.