

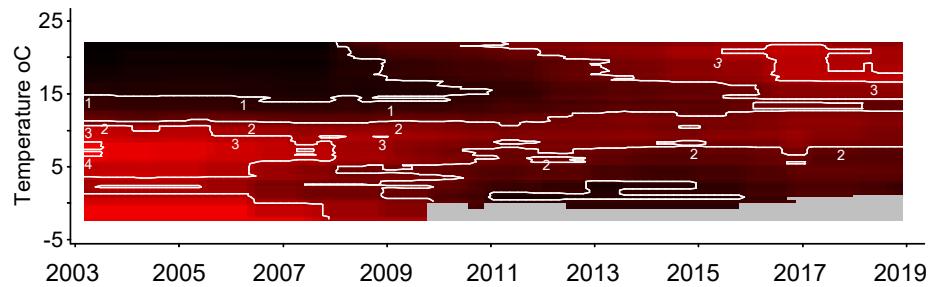
Supplement of

A regional evaluation of the influence of climate change on long term trends in chlorophyll-a in large Italian lakes from satellite data

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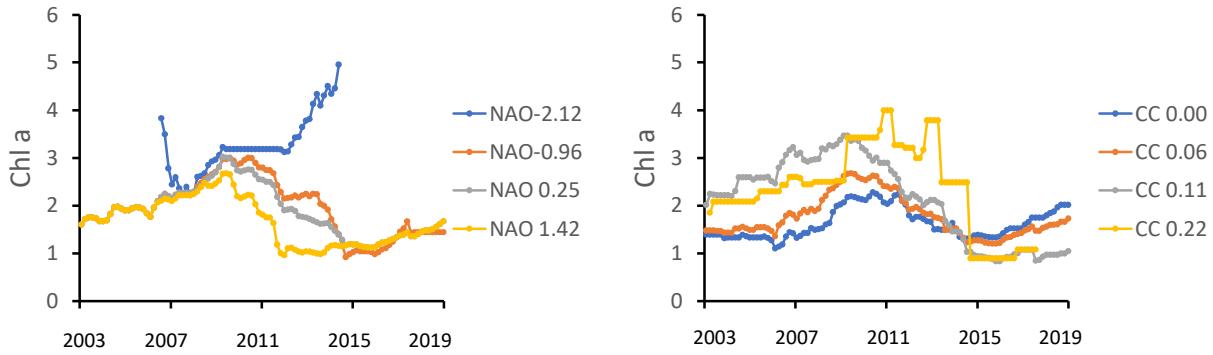
Figure S1. Model results (see Table 1, Como NI) for chlorophyll-a ($\mu\text{g l}^{-1}$) contour lines) with year and $^{\circ}\text{C}$ for Como with imputed data removed. Grey areas are outside model range.

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Table S1. Results of NPMR (Non-Parametric Multiplicative Regression) models for Chlorophyll-a (Chl-a; n = 192, 2003-2018). xR² = cross-validated R²; Ave. size = Average neighborhood size; Tol. = Tolerance; Sen. = Sensitivity. DJF_EA = December, January February mean Eastern Atlantic values, Wind = wind speed. Como NI = analysis run with removal of imputed values (n = 133).

Lake Chl-a	xR ²	Ave. Size	Variable 1	Tol.	Sen.	Variable 2	Tol.	Sen.	Variable 3	Tol.	Sen.	Variable 4	Tol.	Sen.
Como	0.44	11.40	Time	34.38	0.41	Wind	0.47	0.14	$^{\circ}\text{C}$	4.64	0.32	DJF_EA	1.89	0.16
Como NI	0.39	9.9	Time	56.7	0.31	Wind	Not included		$^{\circ}\text{C}$	2.44	0.53	DJF_EA	1.88	0.23

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40 **Figure S2.** Lake Maggiore response curves for chlorophyll-a ($\mu\text{g l}^{-1}$) with DJF NAO and cloud cover.

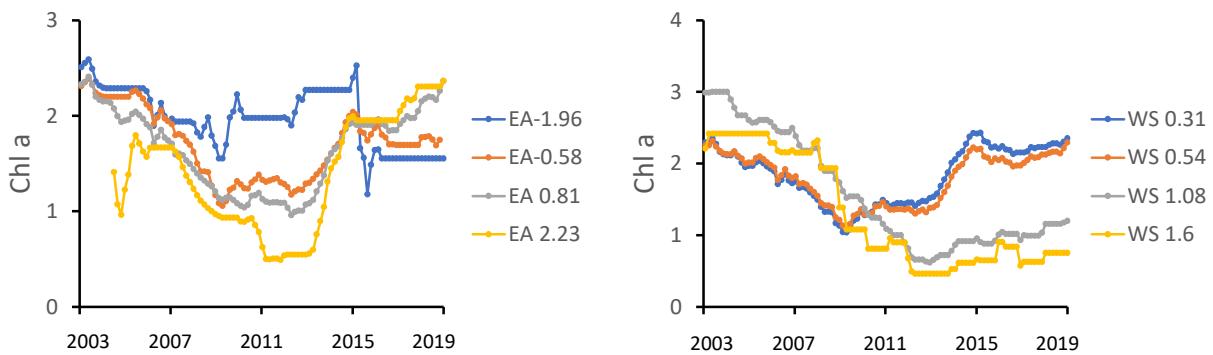


Figure S3. Lake Como response curves for chlorophyll-a ($\mu\text{g l}^{-1}$) with DJF_EA and wind speed (WS).

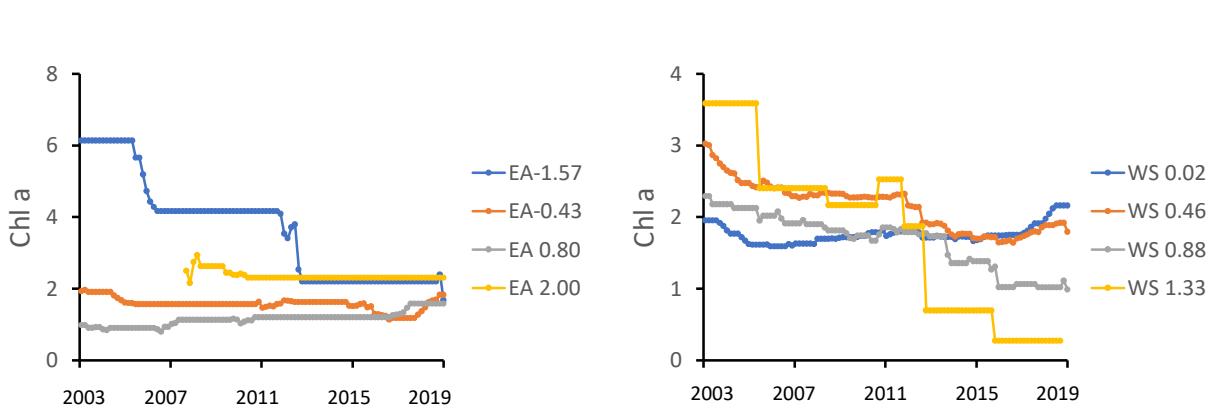


Figure S4. Lake Iseo response curves for chlorophyll-a ($\mu\text{g l}^{-1}$) with DJF_EA and wind speed (WS).

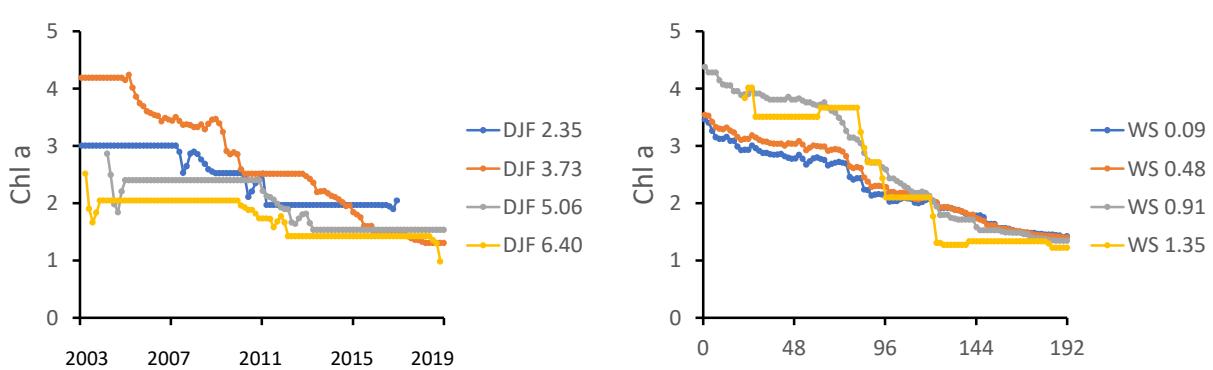


Figure S5. Lake Garda response curves for chlorophyll-a ($\mu\text{g l}^{-1}$) with DJF_°C and wind speed (WS).