



Correction to: Disentangling the impact of nutrient load and climate changes on Baltic Sea hypoxia and eutrophication since 1850

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In Fig. 12, the data of hypoxic area from the sensitivity experiments TAIR1 (dark green solid curve) and WIND (magenta solid curve) displayed in the lower right panel were wrong. The corrected Fig. 12 is shown below.

In Sect. 3.2 (Results of the sensitivity experiments) the sentences “In REF, TAIR1, WIND and RUNOFF hypoxic areas increase considerably between the 1950s and 1970s and the temporal evolutions differ first after the 1970s slightly. In OBC, FRESH and TAIR2 and in CONST the rise in hypoxic area occurs about 5 years earlier and

about 10 years later, respectively. In CONST, hypoxic area decreases again after the maximum in the 1970s.” should be replaced with “In REF, TAIR1, and RUNOFF hypoxic areas increase considerably between the 1950s and 1970s and the temporal evolutions differ first after the 1970s slightly. In (1) OBC, FRESH and TAIR2 and in (2) WIND and CONST the rise in hypoxic area occurs about 5 years earlier and about 10 years later, respectively. In WIND and CONST, hypoxic area decreases again after the maximum in the 1970s.”

In Table 4 the cell text for hypoxic area in TAIR “like REF” should be replaced with “smaller than REF”. The corrected Table 4 is shown below.

The original article can be found online at <https://doi.org/10.1007/s00382-018-4296-y>.

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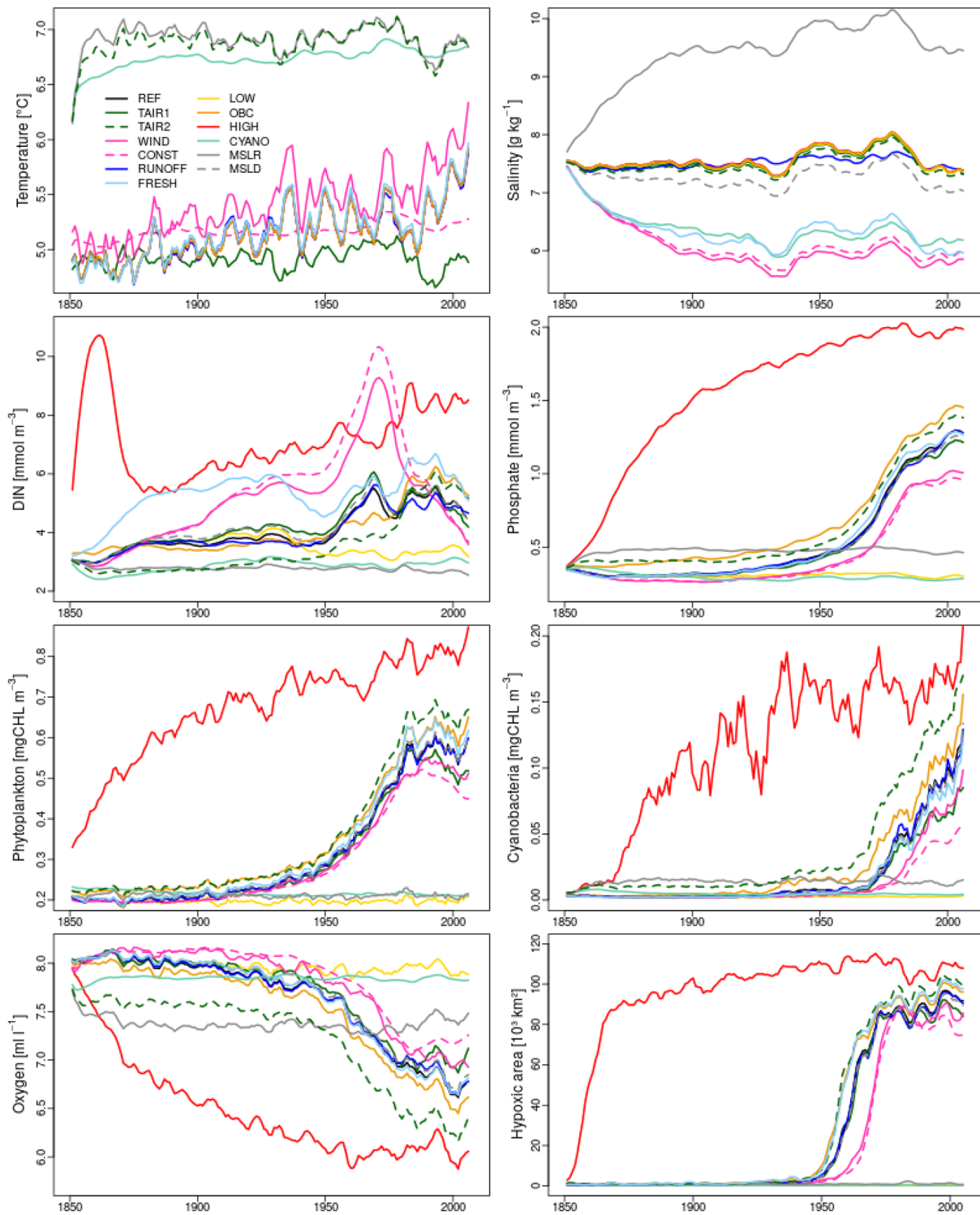


Fig. 12 4-year running mean, volume averaged annual temperature (in °C), salinity (in g kg⁻¹), DIN (in mmol N m⁻³), DIP (in mmol P m⁻³), phytoplankton concentration (in mg CHL m⁻³), cyanobacteria concentration (in mg CHL m⁻³) and dissolved oxygen concentration (in mL O₂ L⁻¹), and hypoxic area (in km²) (from upper left to lower right): REF (black solid), TAIR1 (dark green solid), TAIR2 (dark green dashed), WIND (magenta solid), CONST

(magenta dashed), RUNOFF (blue solid), FRESH (light blue solid), LOW (yellow solid), OBC (orange solid), HIGH (red solid), CYANO (turquoise solid), MSLR (gray solid), and MSLD (gray dashed). Note that the temperature curves of REF, RUNOFF, LOW, OBC, HIGH, and MSLD are on top of each other. Similarly, the salinity curves of REF, LOW, OBC, and HIGH are indistinguishable

Table 4 Brief summary of the results of the sensitivity experiments (see Sects. 4.2, 4.3 and 4.4 of the discussion)

Experiment	Temperature	Salinity	DIP	Phytoplankton	Cyanobacteria	Oxygen concentration	Hypoxic area
Removed centennial or decadal variations in hydrodynamical drivers (4.2)							
TAIR1	Cold	Like REF	Like REF	Lower than REF	Lower than REF	Higher than REF	Smaller than REF
WIND	Trend	Low	Lower than REF	Lower than REF	Lower than REF	Higher than REF	Smaller than REF
CONST	Cold	Low	Lower than REF	Lower than REF	Lower than REF	Higher than REF	Smaller than REF
RUNOFF	Like REF	No decadal variations	Like REF	Like REF	Like REF	Like REF	Like REF
MSLD	Like REF	Slightly lower	Like REF	Like REF	Like REF	Like REF	Like REF
Modified biogeochemical drivers on centennial time scale (4.2)							
LOW	Like REF	Like REF	No increase	No increase	No increase	No decrease	No increase
OBC	Like REF	Like REF	Higher than REF	Higher than REF	Higher than REF	Lower than REF	Larger than REF
HIGH	Like REF	Like REF	Strong increase	Strong increase	Strong increase	Strong decrease	Large increase
Future climate conditions (4.3)							
TAIR2	+2 °C	Like REF	Higher than REF	Higher than REF	Higher than REF	Lower than REF	Larger than REF
FRESH	Like REF	Low	Like REF	Higher than REF	Like REF	Like REF	Larger than REF
Pristine nutrient loads (4.4)							
CYANO	+2 °C	Low	No increase	No increase	No increase	No decrease	No increase
MSLR	+2 °C	High	Slight increase	No increase	Slight increase	Higher than REF	No increase