

Supplementary Material

Drivers of macrophyte and diatom diversity in a shallow hypertrophic lake

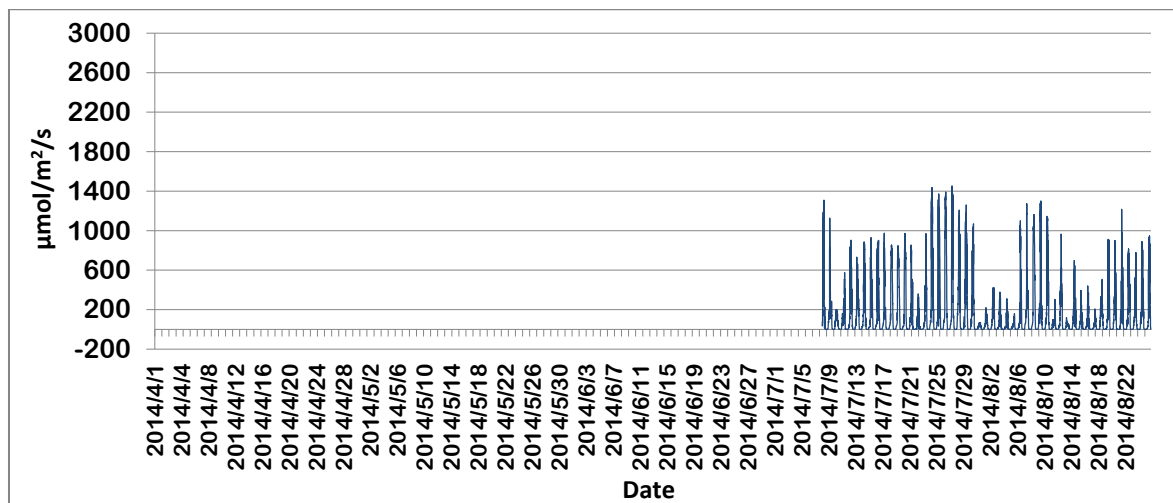
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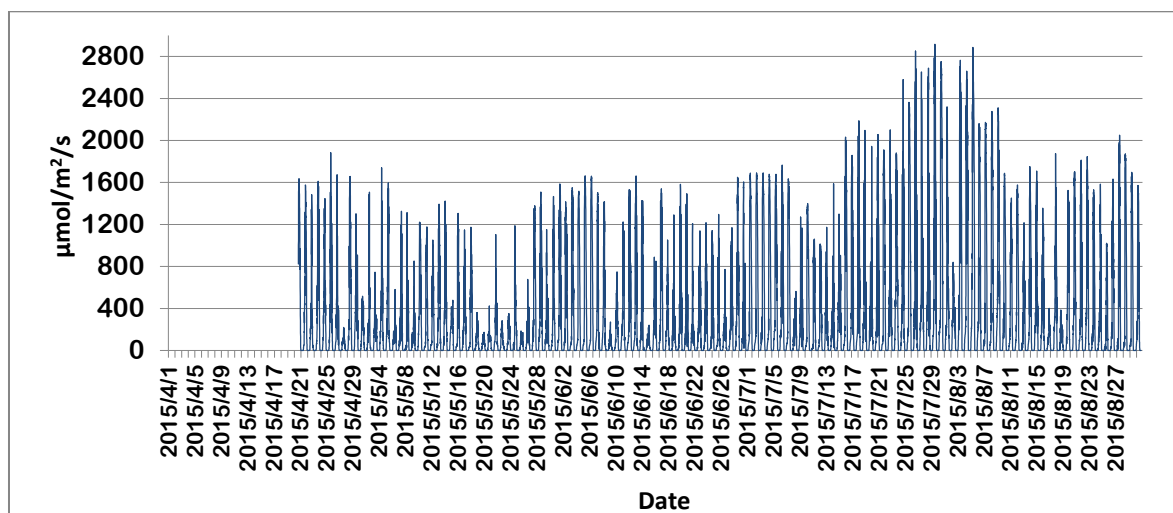
Figures S16–S22. Line graphs documenting a course of selected environmental factors in the Dehtář fishpond during four growing seasons (2014–2016, 2019). Three automatic sensor stations with a recording interval of 10 minutes were used. In the case of dissolved oxygen concentrations in water and water temperatures, measured at all three sites (Babický Stream Bay – BSB, Dehtářský Stream Bay – DSB, and Fishpond Dam – FD), the data are displayed separately for each monitoring station. Air temperatures and wind were measured only at BSB (but in 2019 the wind sensor was moved to FD) and photosynthetically active radiation (PhAR) only at FD. Only the data from the sensors of oxygen concentrations, water temperatures and PhAR from the depth of 0.3 m are presented. The data available from the depth of 1.5 m from FD were omitted here because they showed the same trends as the data from the sub-surface sensors but the sensors exhibited higher amount of failures. Values missing due to a later sensor installation, damage or erroneous operation are displayed as an empty space in the graphs.

Because of the threat of damage to sensors during winter, particularly in the period with low water levels after fish harvesting, the stations operated only from (April) May to September (October) and for the rest of the year have been stored in the lab. Yet, in 2019, the year which we used for the comparison with the period of 2014–2016, some of the sensors were already non-functional and had to be removed; therefore, the data on PhAR, air temperature and precipitation are not available for this year. Moreover, new sensors for DO concentrations could not be installed earlier than at the end of the growing season. For this reason, the above parameters were not evaluated for 2019.

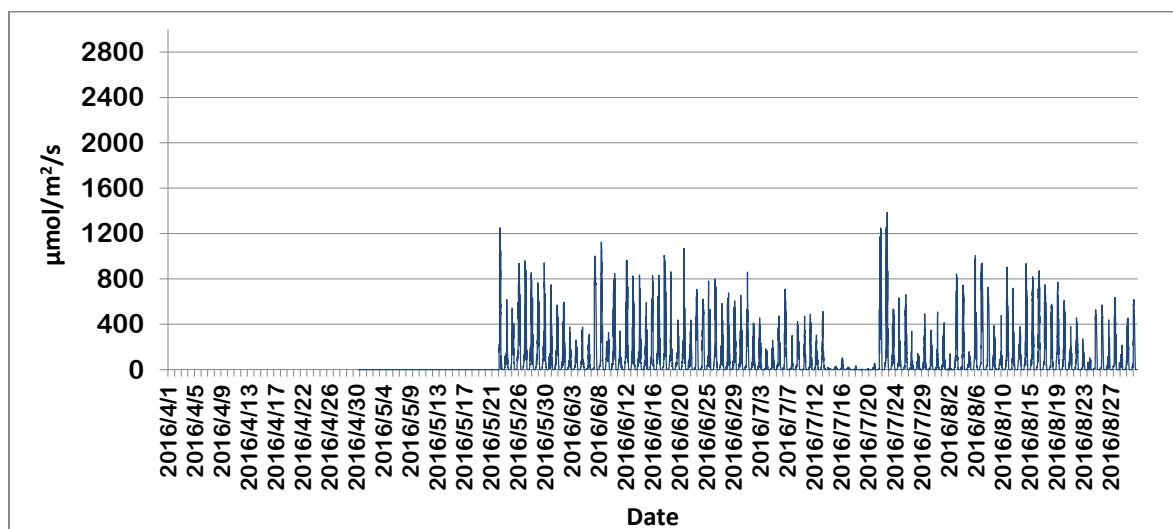
Figure S16. Course of photosynthetically active radiation (PhAR) in particular growing seasons: **(a)** 2014, **(b)** 2015, **(c)** 2016. No data are available for 2019.



(a)

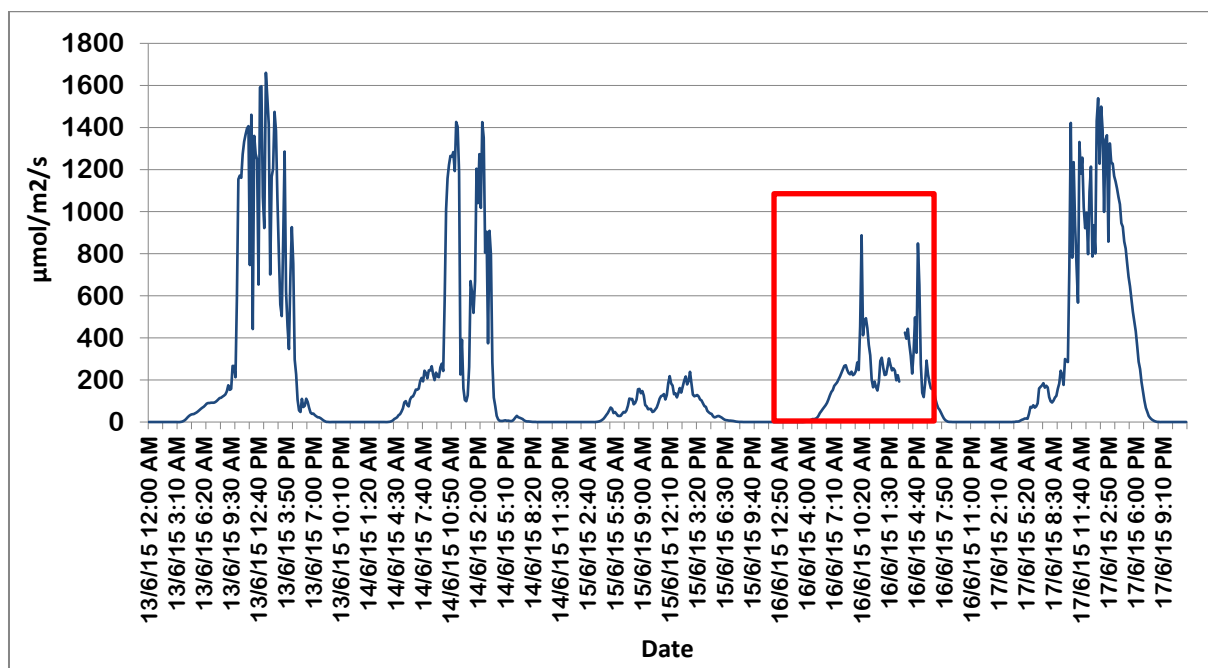


(b)

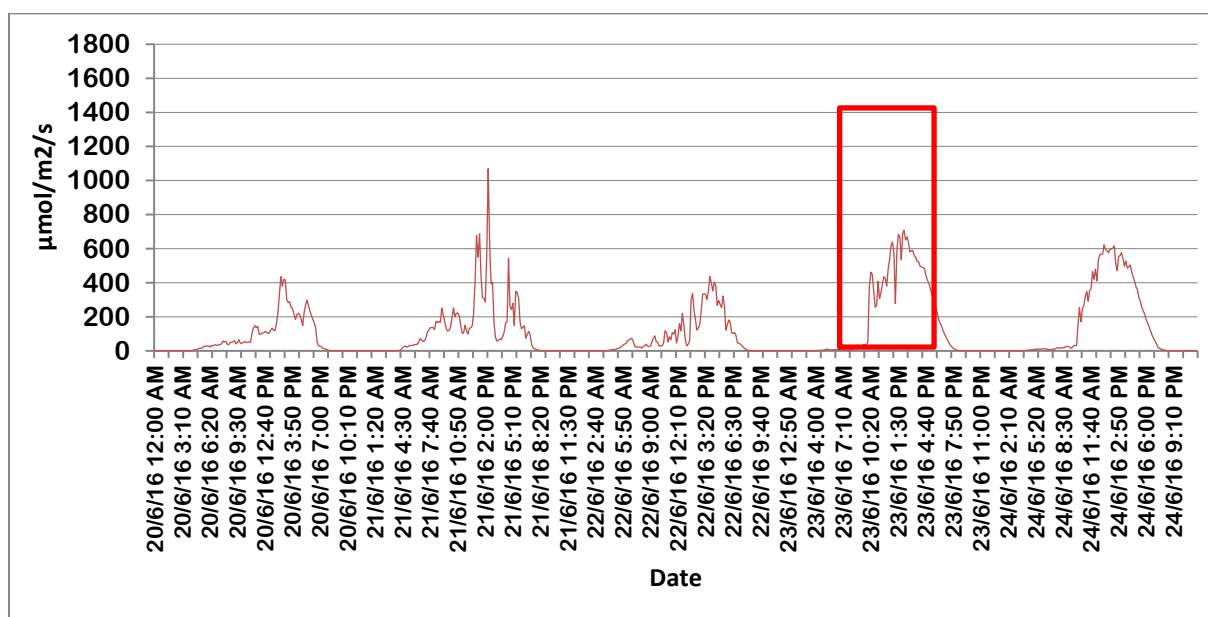


(c)

Figure S17. Course of photosynthetically active radiation (PhAR) five days around diatom sampling. The time of diatom sampling is marked by a red rectangle: **(a)** 2015, **(b)** 2016. No data are available for 2019.

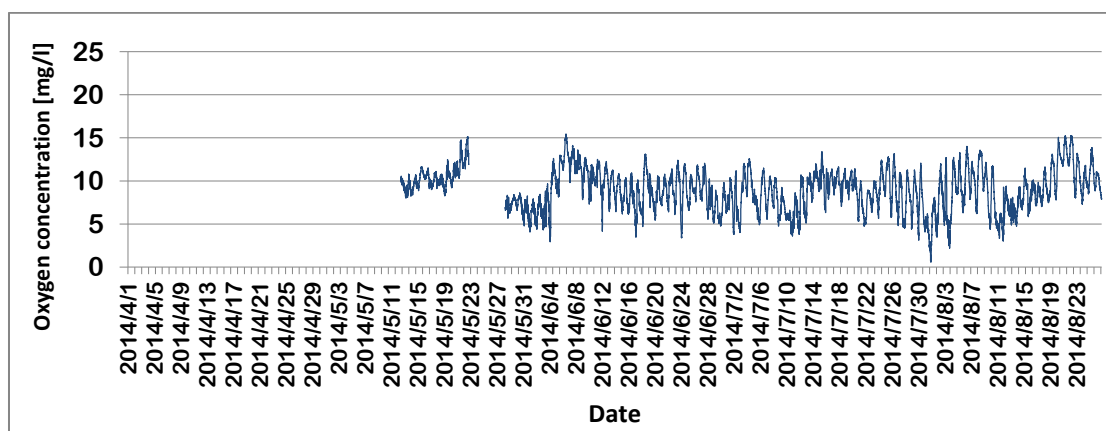


(a)

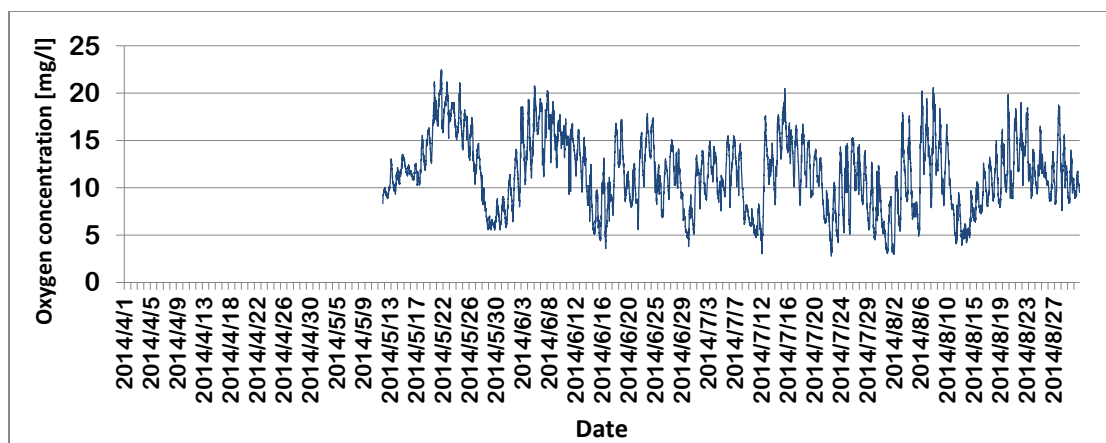


(b)

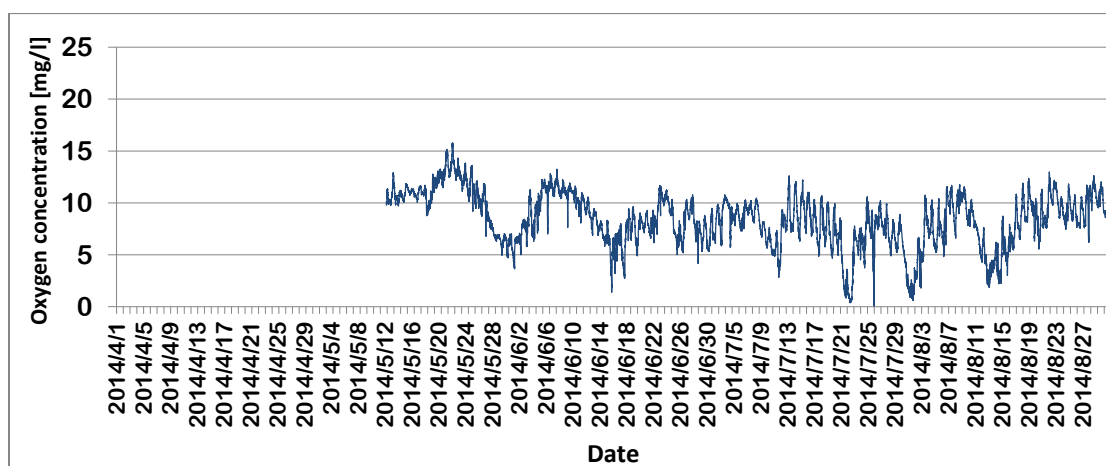
Figure S18. Course of oxygen concentrations in particular growing seasons: **(a)** 2014 – BSB, **(b)** 2014 –DSB, **(c)** 2014 – FD, **(d)** – 2015 BSB, **(e)** 2015 – DSB, **(f)** 2015 – FD, **(g)** 2016 – BSB, **(h)** 2016 – DSB, **(i)** 2016 – FD (this station did not operate due to technical problems in the beginning of August 2016 but oxygen concentrations were verified by the multiparametric probe). No data are available for 2019.



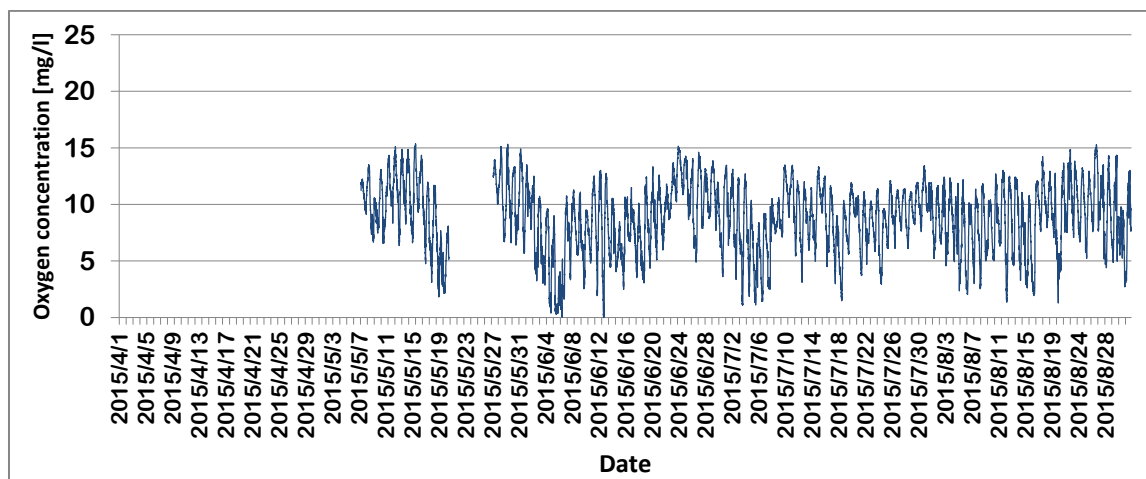
(a)



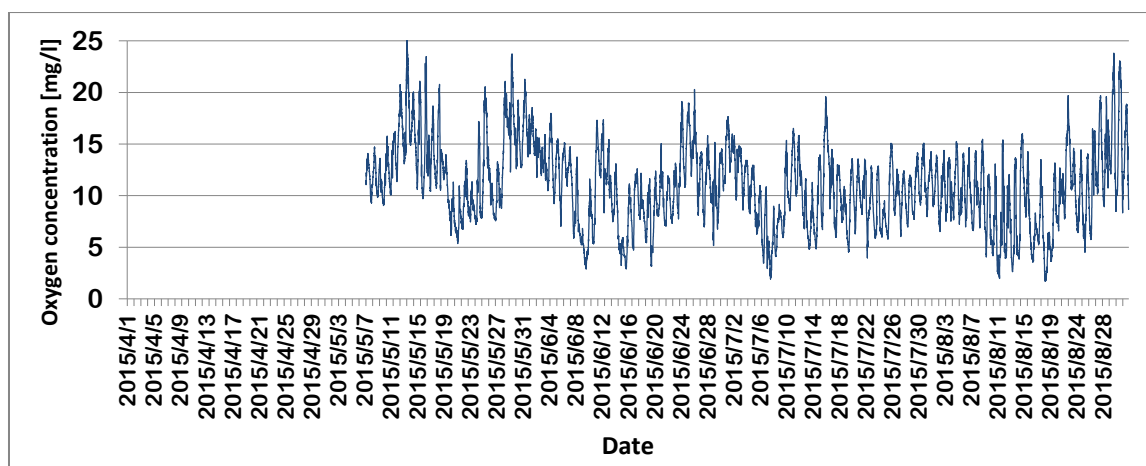
(b)



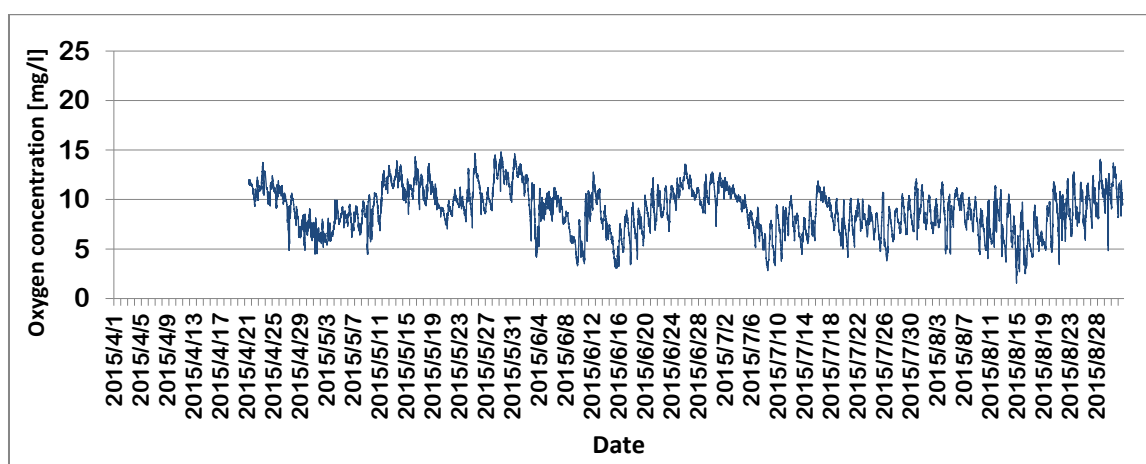
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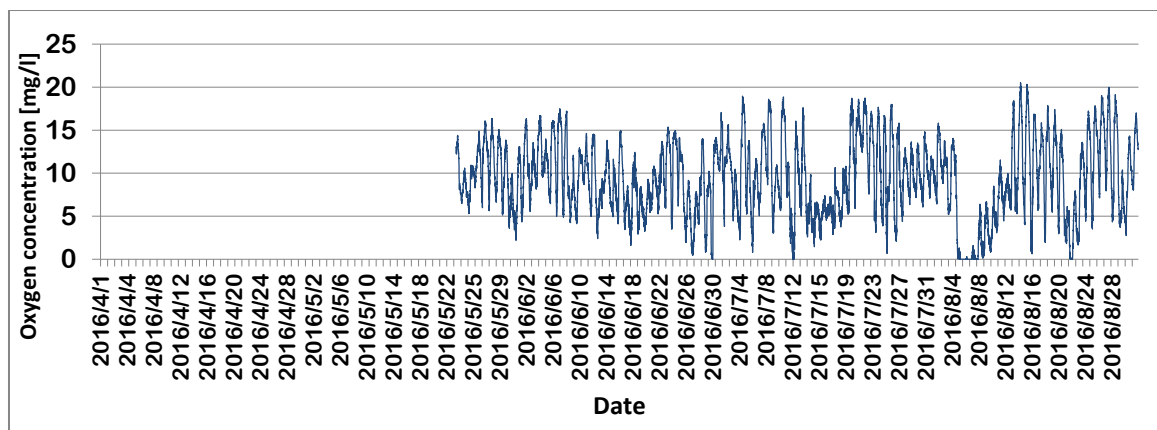
(d)



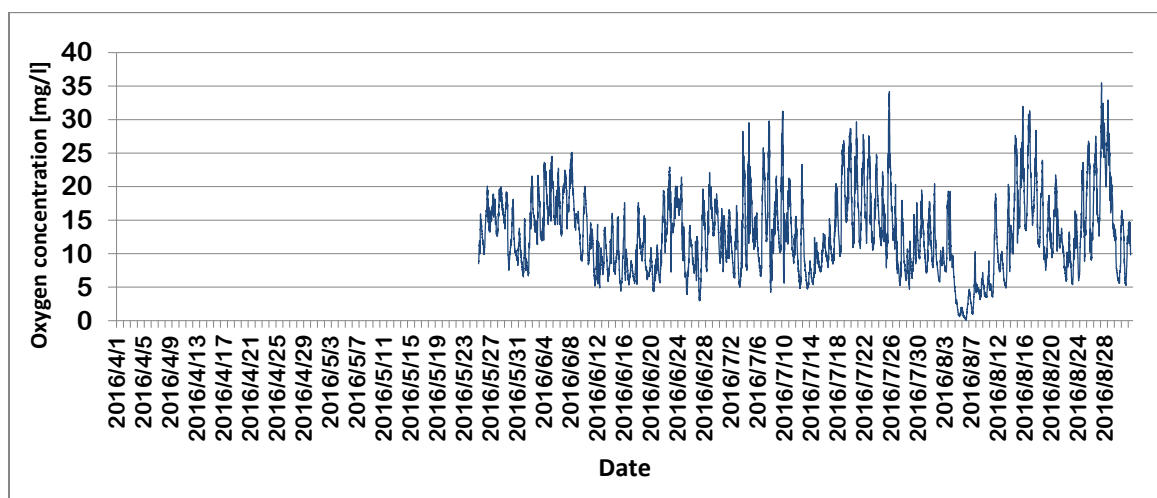
(e)



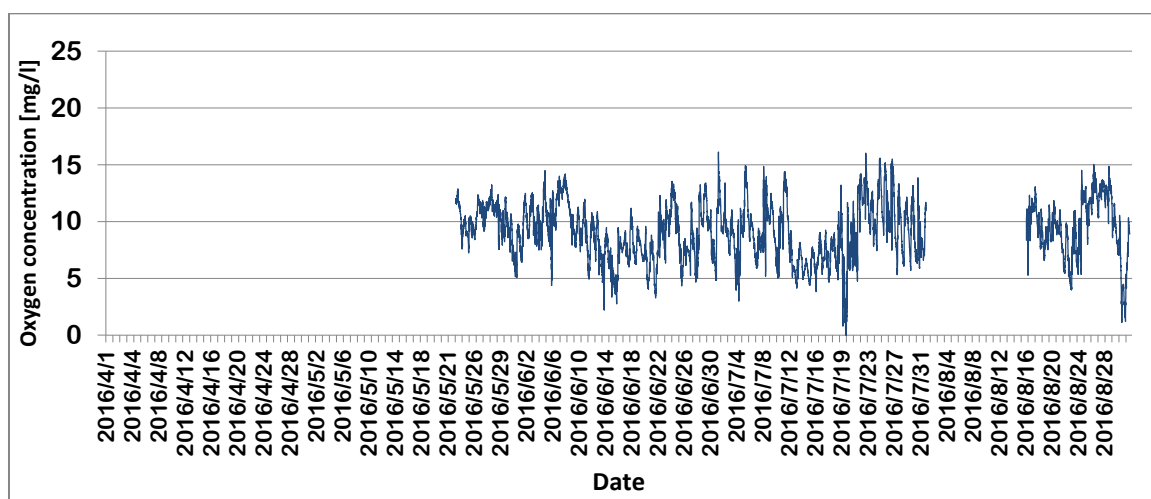
(f)



(g)

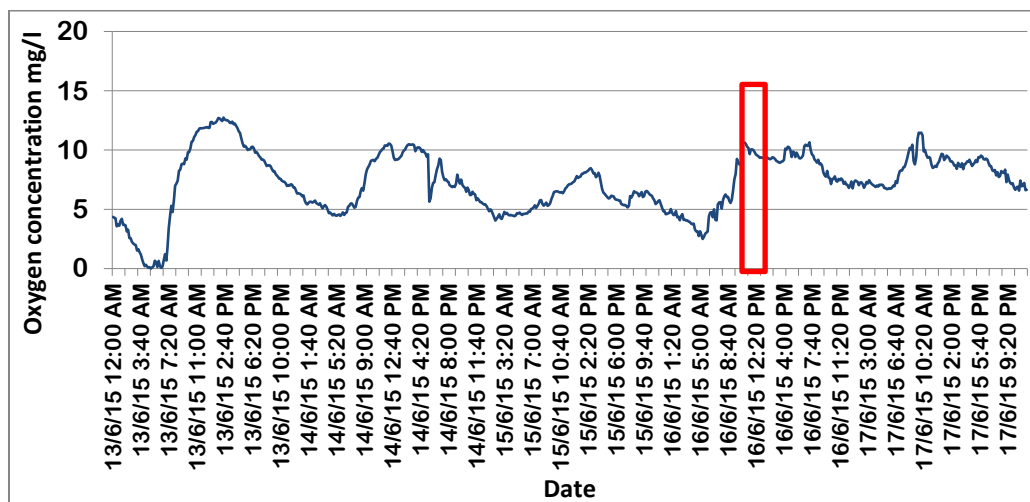


(h)

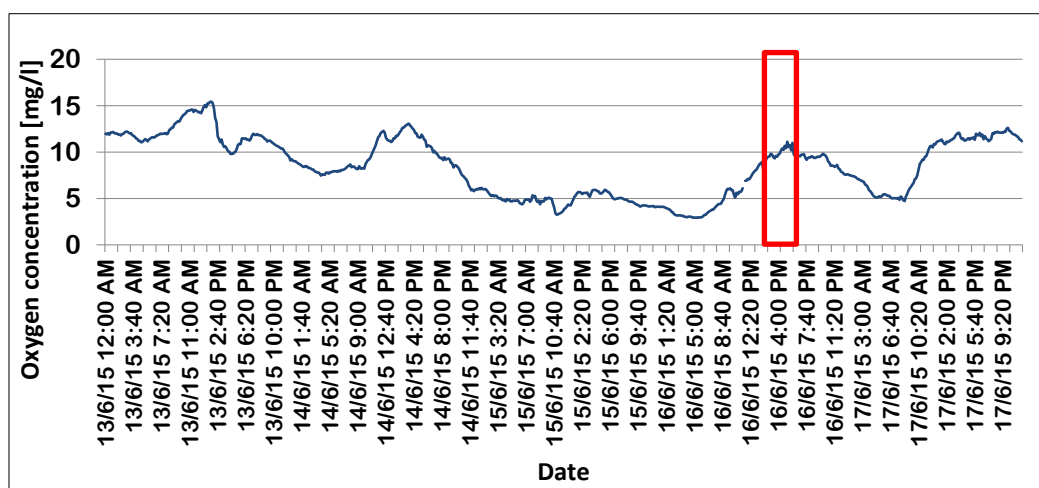


(i)

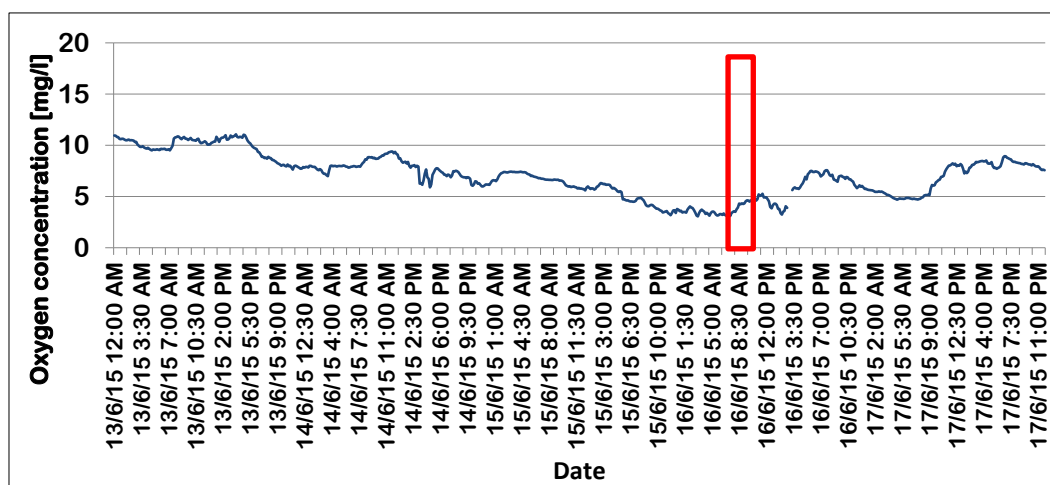
Figure S19. Course of oxygen concentrations five days around diatom sampling. The time of diatom sampling is marked by a red rectangle: **(a)** 2015 – BSB, **(b)** 2015 – DSB, **(c)** 2015 – FD, **(d)** 2016 – BSB, **(e)** 2016 – FD. No data are available for 2019.



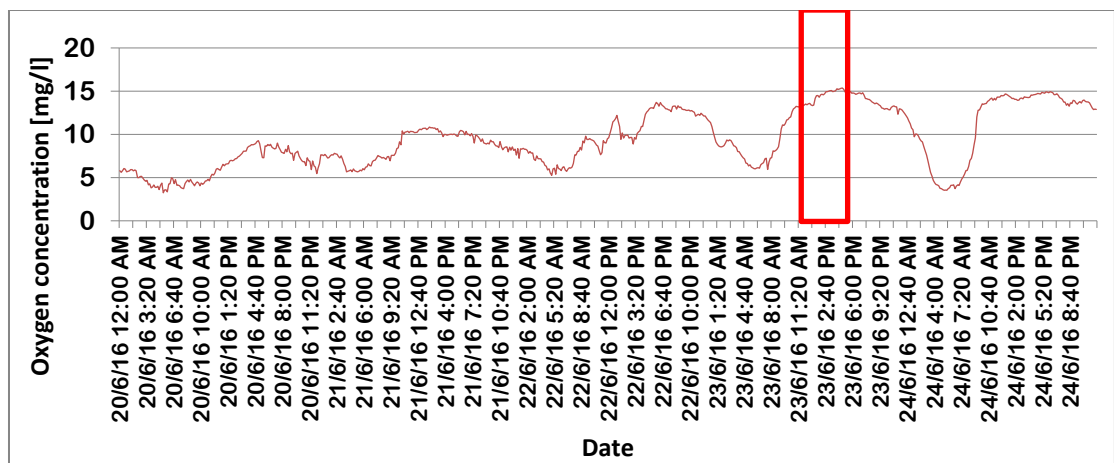
(a)



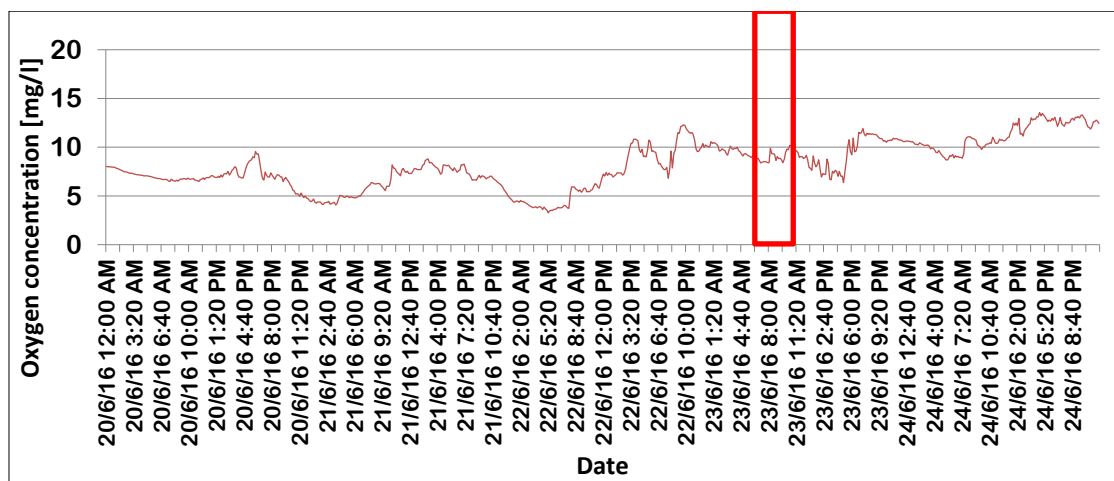
(b)



(c)

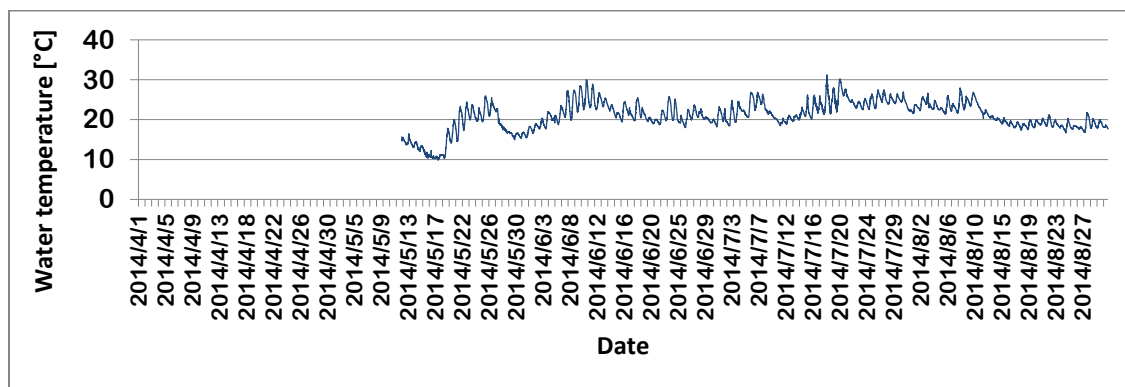


(d)

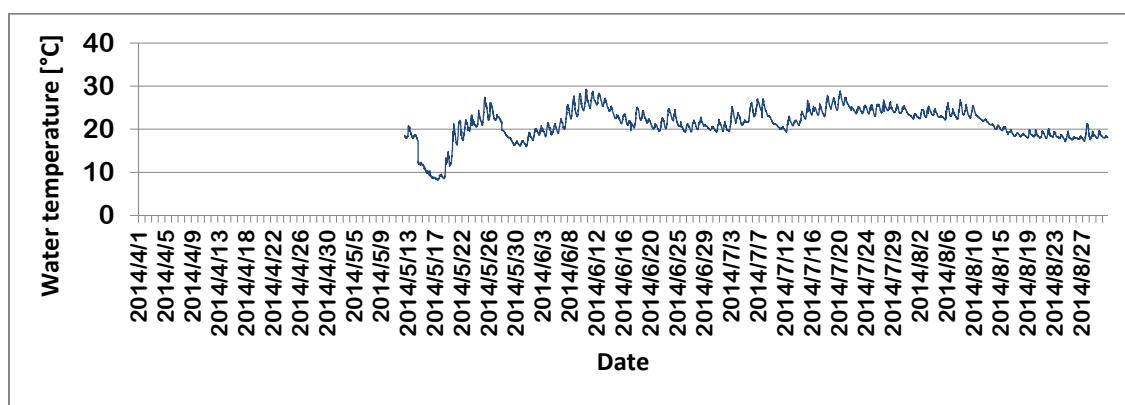


(e)

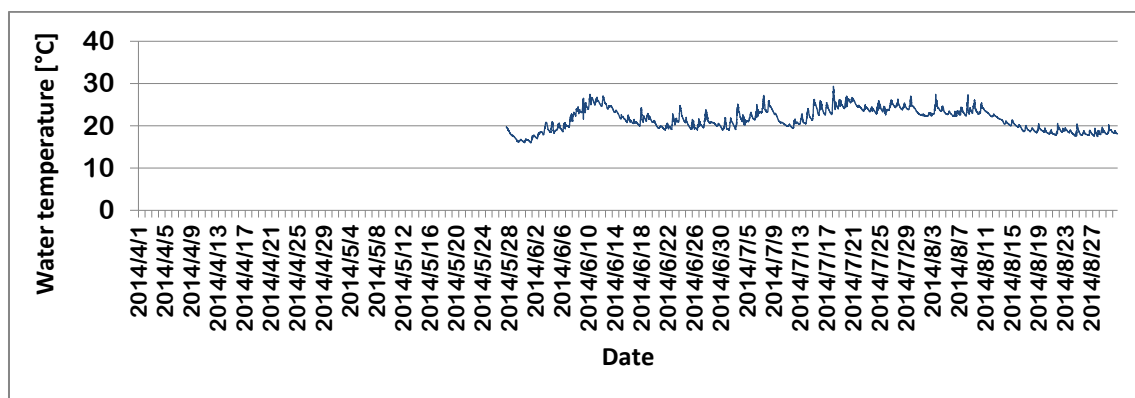
Figure S20. Course of water temperatures in particular growing seasons: (a) 2014 – BSB, (b) 2014 –DSB, (c) 2014 – FD, (d) – 2015 BSB, (e) 2015 – DSB, (f) 2015 – FD, (g) 2016 – BSB, (h) 2016 – DSB, (i) 2016 – FD, (j) 2019 – FD (No data are available for BSB and DSB in 2019).



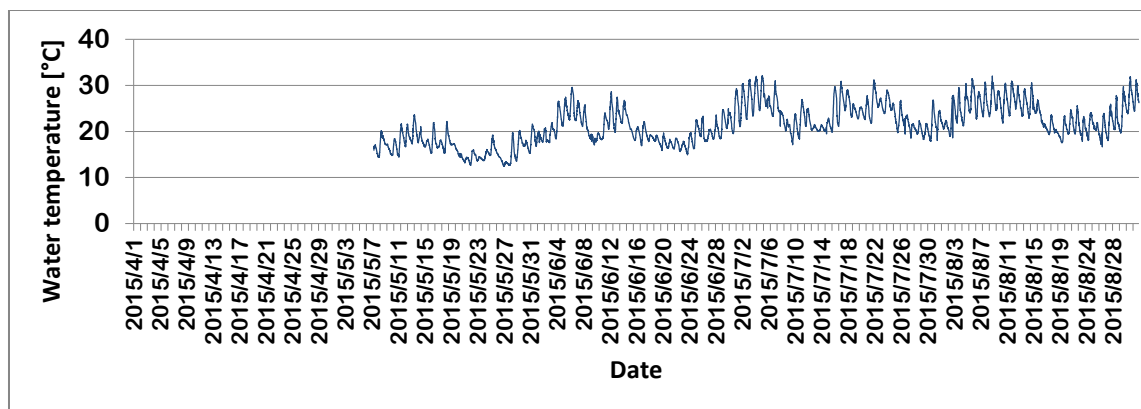
(a)



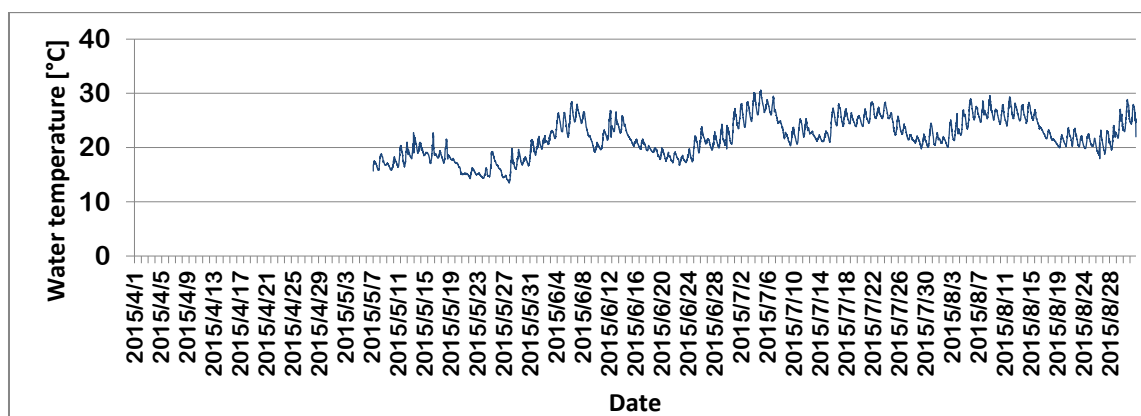
(b)



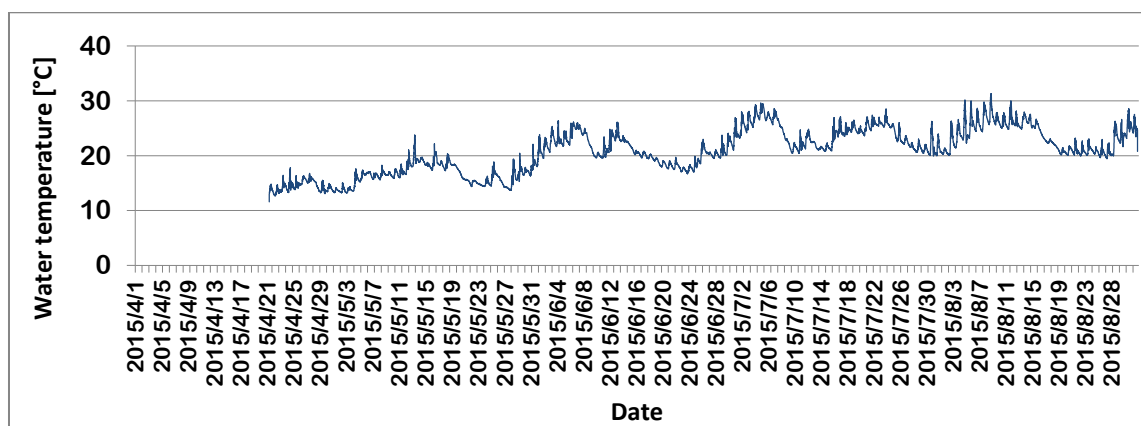
(c)



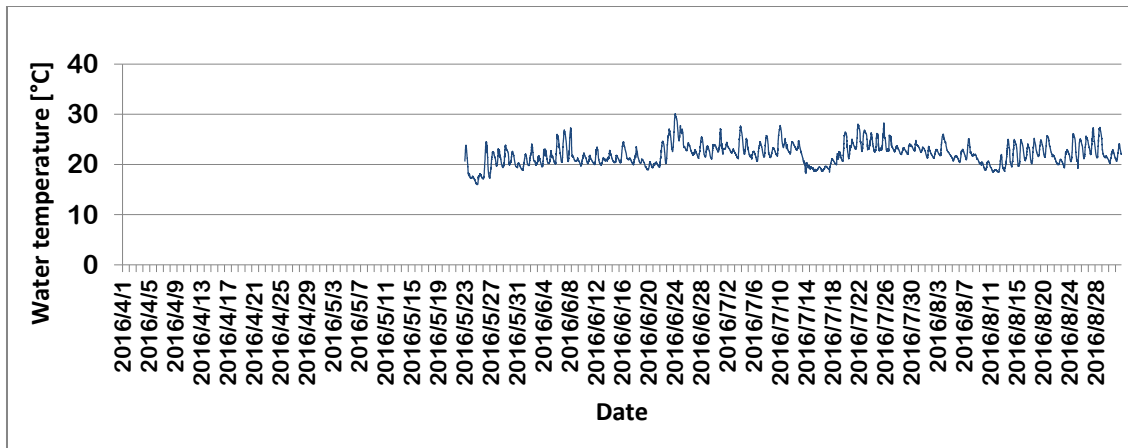
(d)



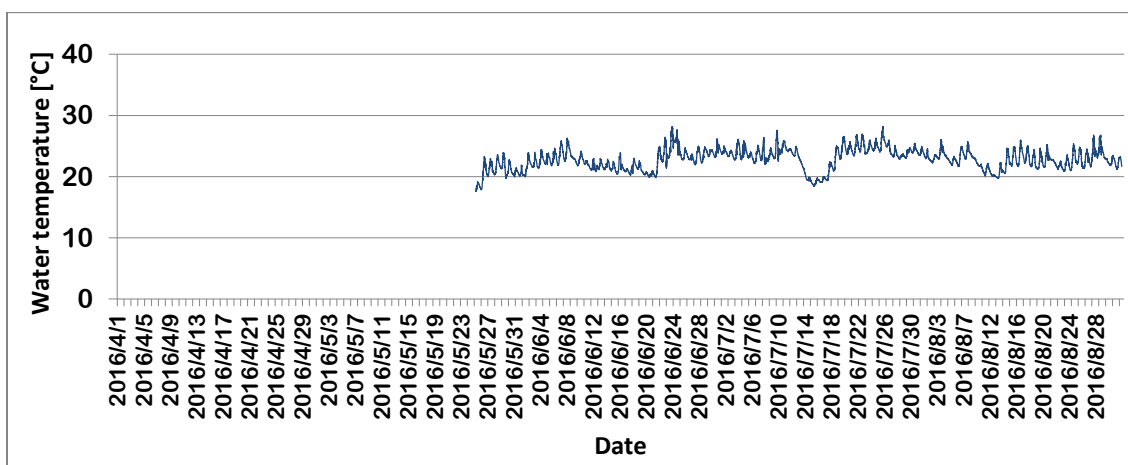
(e)



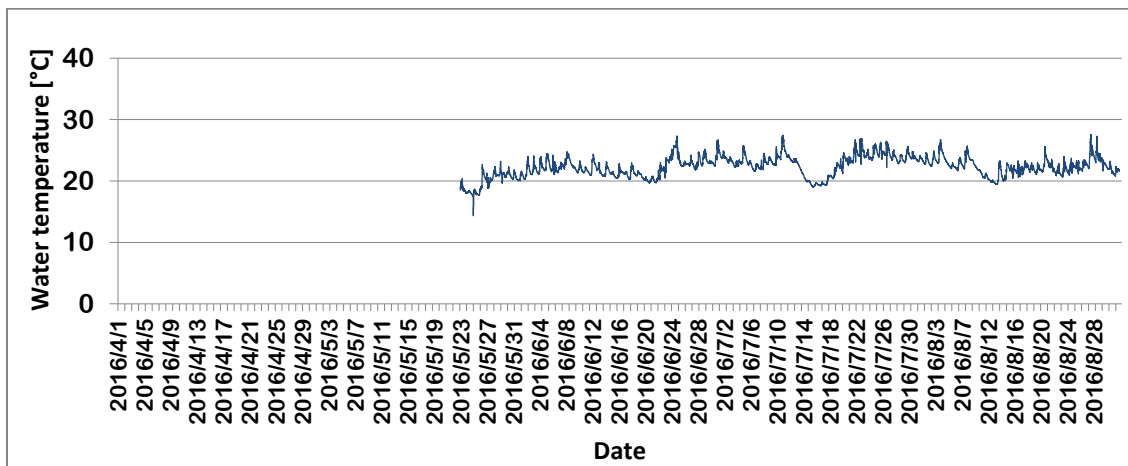
(f)



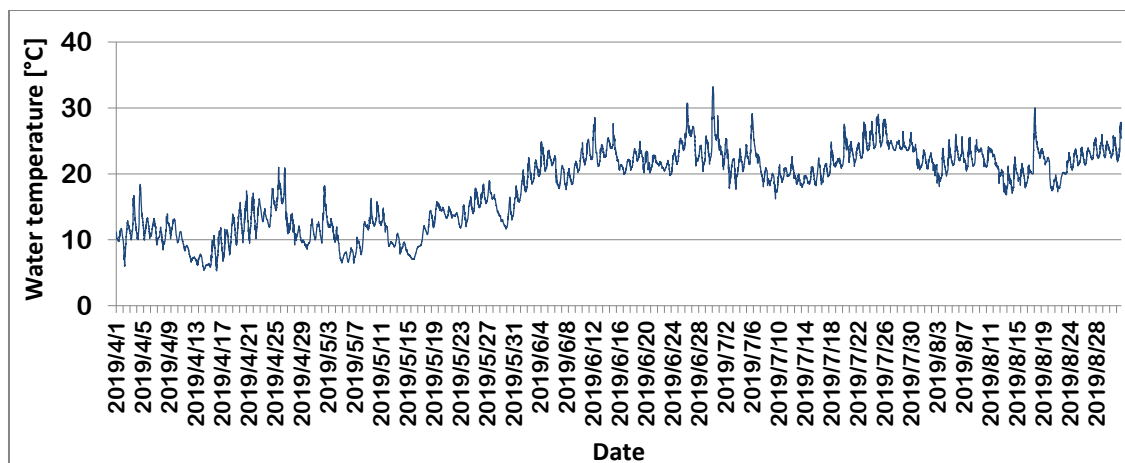
(g)



(h)

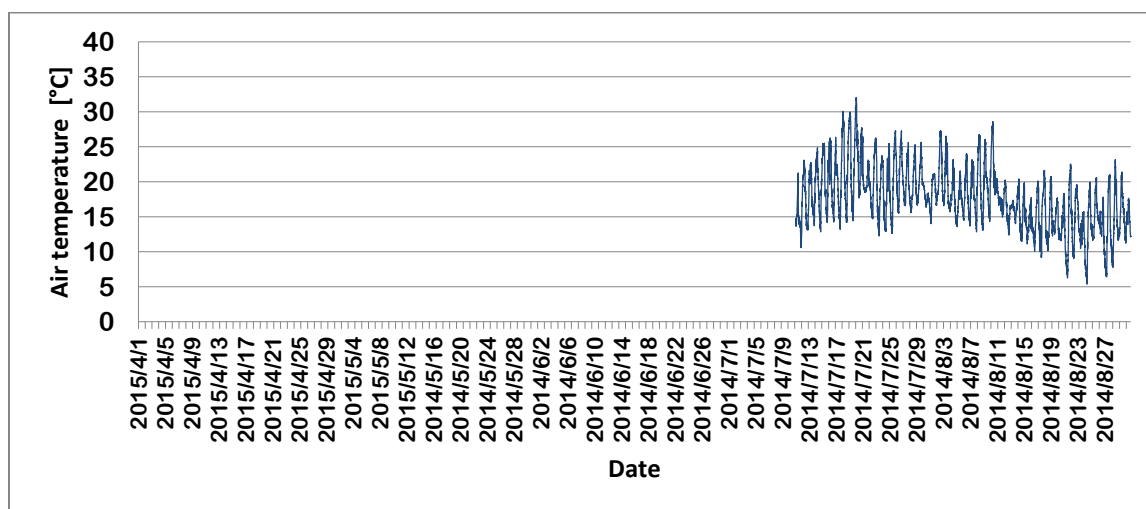


(i)

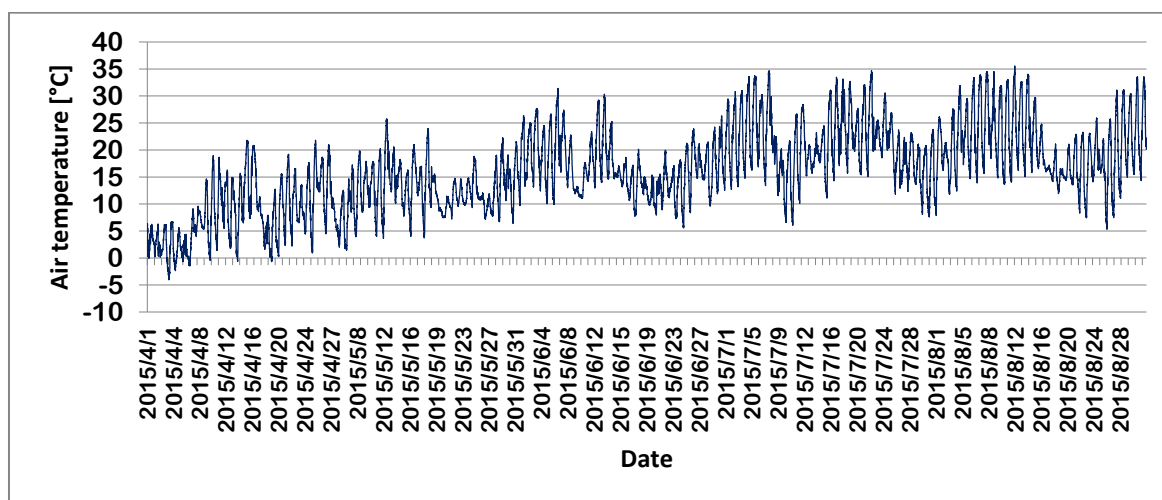


(j)

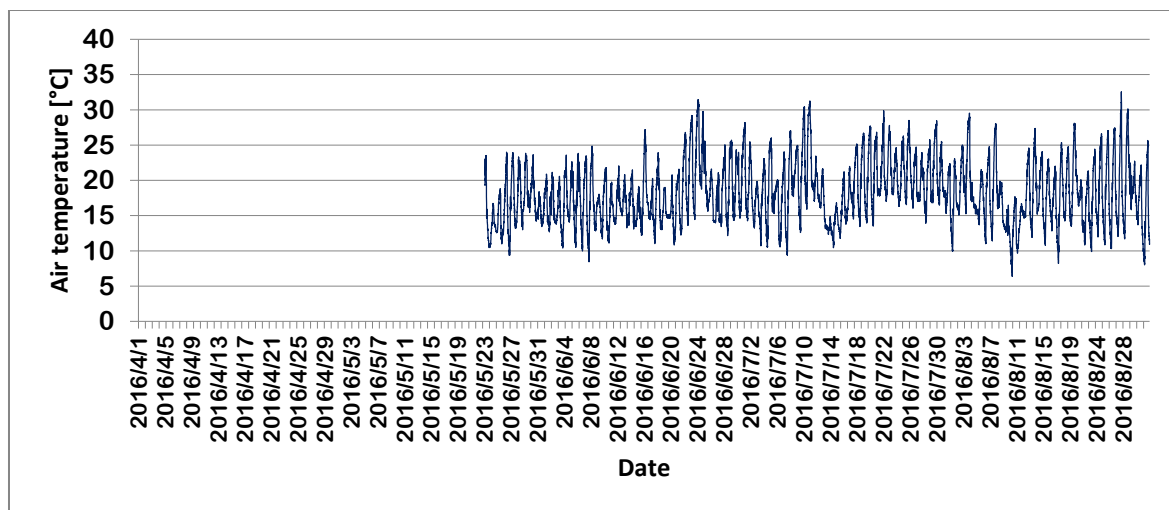
Figure S21. Course of air temperatures in particular growing seasons: **(a)** 2014, **(b)** 2015, **(c)** 2016. No data are available for 2019.



(a)

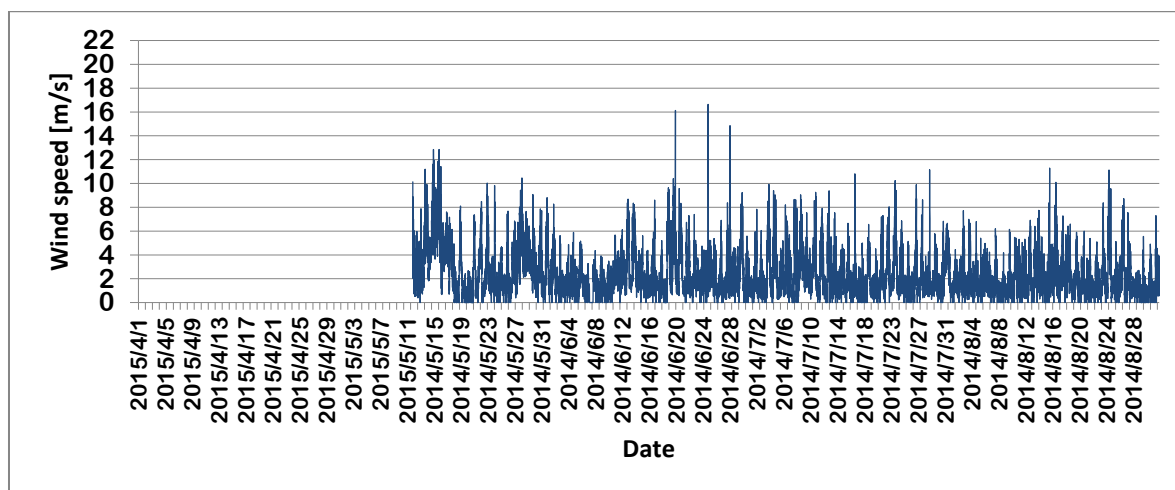


(b)

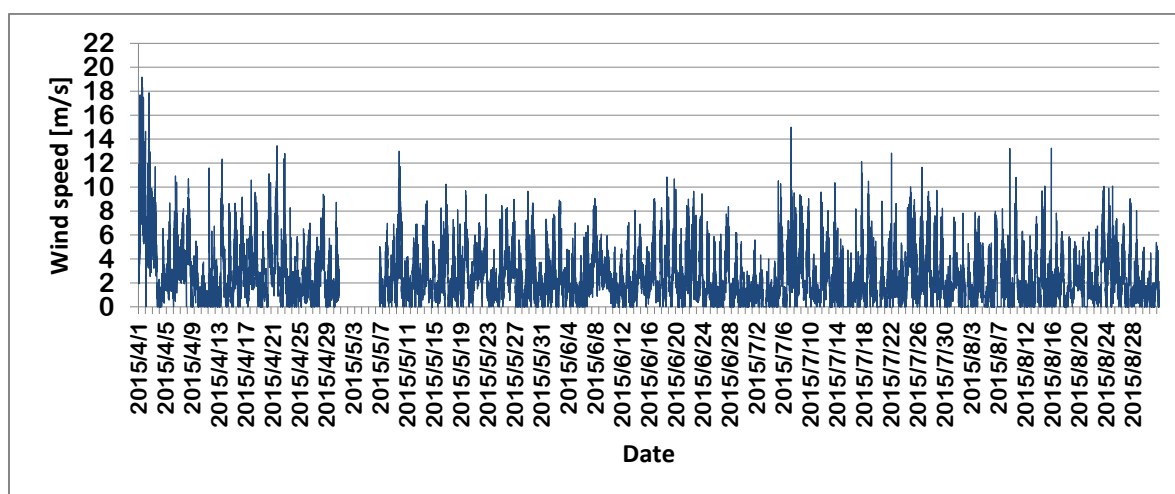


(c)

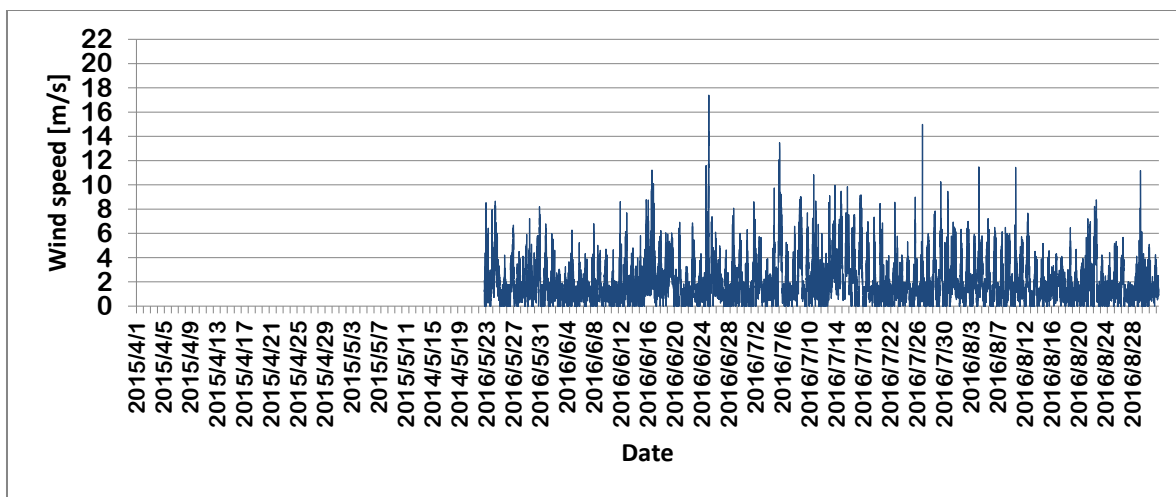
Figure S22. Wind speed course in particular growing seasons: (a) 2014, (b) 2015, (c) 2016, (d) 2019



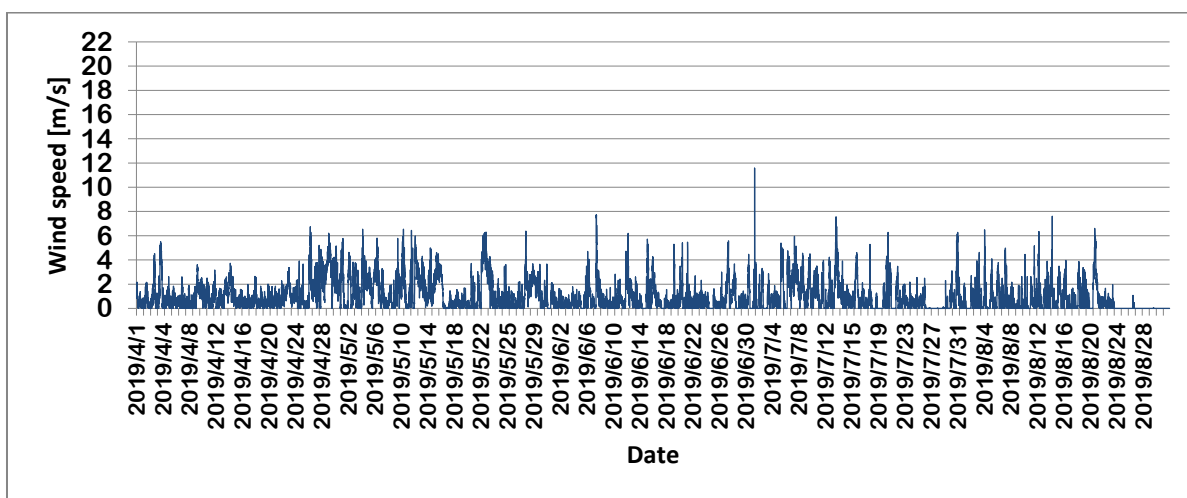
(a)



(b)



(c)



(d)