

Supplemental Information 3: Planktonic dynamics in Lake Kleiner Gollinsee

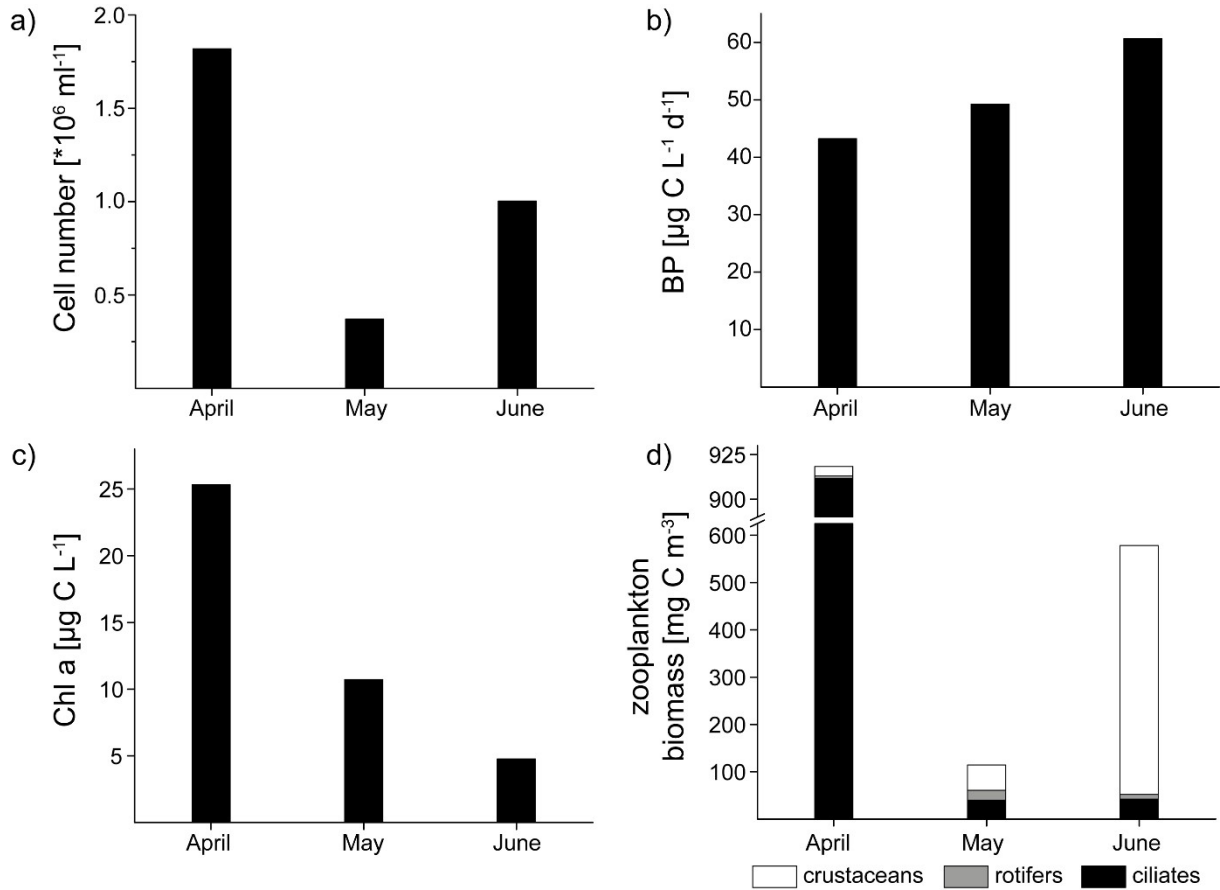


Figure 1. Plankton dynamics in Lake Gollin in April (6. Apr. 2010), May (4. May 2010) and June (1. Jun. 2010): a) bacterial cell number via epifluorescence microscopy; b) bacterial production via ^{14}C leucine incorporation; c) chlorophyll a concentration; and d) zooplankton biomass in the pelagic zone from Brothers et al. (2013), Hilt et al. (2015), and Lischke et al. (2016).

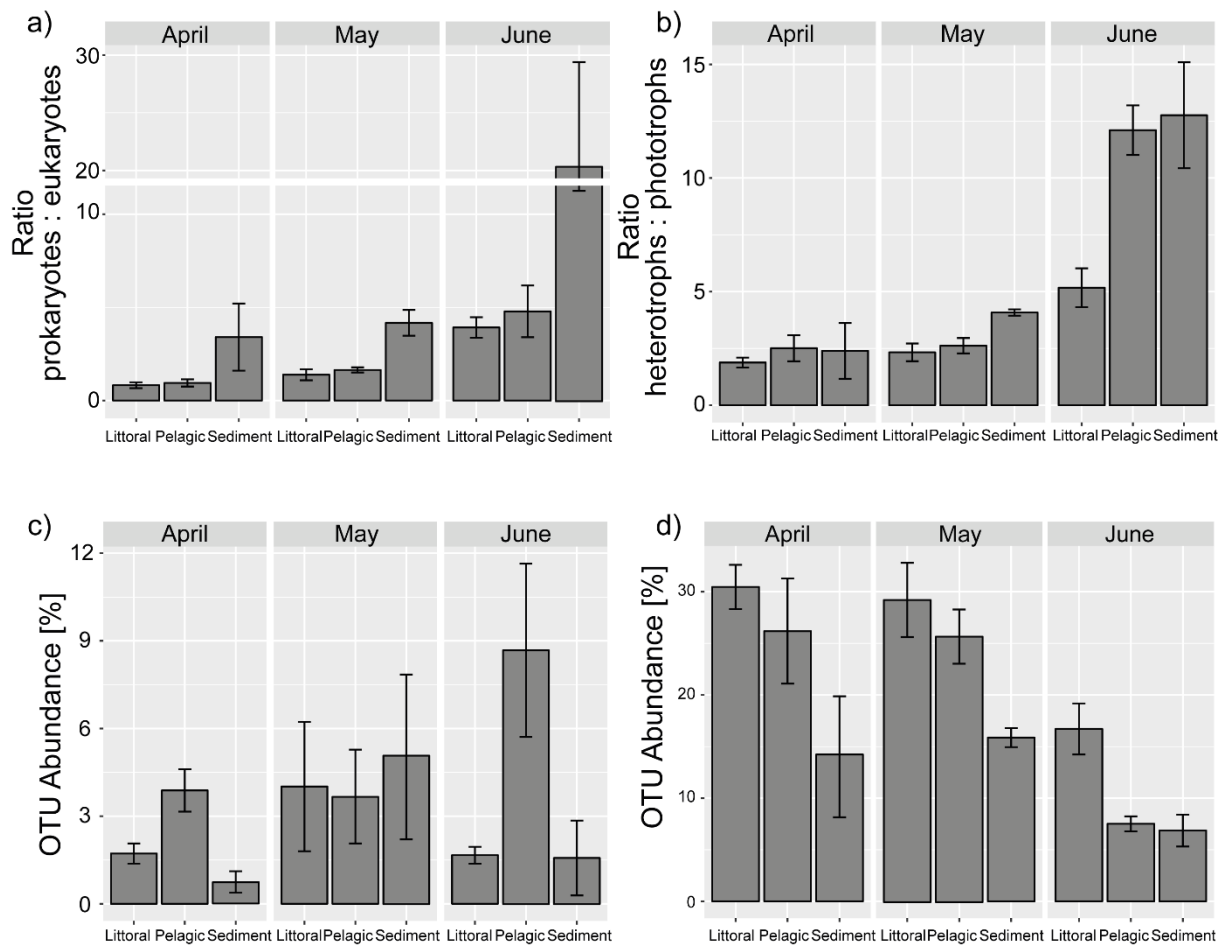


Figure 2. Variations in the ratio of a) prokaryotes : eukaryotes, b) heterotrophs : phototrophs, and OTU abundances of c) zooplankton excluding ciliates, and d) phytoplankton in Lake Gollin in April (21. Apr. 2010), May (19. May 2010), and June (16. Jun. 2010) in the littoral, and pelagic zone and above the sediment (mean \pm standard deviations). The data were calculated based on the number of sequences assigned to prokaryotes (Archaea and Bacteria) and eukaryotes, and to heterotrophic organisms (all organism classified below the domain level, but the groups mentioned under phototrophic organisms) and phototrophic organisms (all eukaryotic algae, Cyanobacteria, chloroplasts, Chlorobiales). For zooplankton all Metazoa data were summarized and for phytoplankton all algal data.

References

Brothers SM, Hilt S, Attermeyer K, Grossart HP, Kosten S, Lischke B, Mehner T, Meyer N, Scharnweber K, Köhler J. (2013). A regime shift from macrophyte to phytoplankton dominance enhances carbon burial in a shallow, eutrophic lake. *Ecosphere* 4(11): 137. <http://dx.doi.org/10.1890/ES13-00247.1>

Hilt S, Wanke T, Scharnweber K, Brauns M, Syväranta J, Brothers S et al. (2015). Contrasting response of two shallow eutrophic cold temperate lakes to a partial winterkill of fish. *Hydrobiologia* 749: 31-42.

Lischke B, Weithoff G, Wickham SA, Attermeyer K, Grossart HP, Scharnweber K et al. (2016). Large biomass of small feeders: ciliates may dominate herbivory in eutrophic lakes. *J Plankton Res* 38(1): 2-15.