

## Sediment P-concentration and P-release

Supplementary Material 3, Table 1: Sediment P-release and sediment P-concentration during hypertrophic conditions.

Parameter	rates and concentrations	sampling and data source
P-release from sediment	aerobic: TP, 2.5 mg m <sup>-2</sup> d <sup>-1</sup> anaerobic: TP, 5.5 mg m <sup>-2</sup> d <sup>-1</sup>	average of monthly release rates, April-December 1994, n = 16, (Dokulil et al., 1995)
PO <sub>4</sub> -P sediment concentration	5cm surface water layer above sediment: PO <sub>4</sub> -P, 0.062 mg L <sup>-1</sup> sediment core, 0-20cm depth layer, interstitial water: PO <sub>4</sub> -P, 0.084 mg L <sup>-1</sup>	means of 16 sediment cores, February and October, 1994, (Ripl and Wolter, 1995)

## METHOD

Release of phosphorus from sediment was elucidated during the hypertrophic state in 1994. Since the sediment surface was anoxic, especially in summer, the potential of P-release (Dokulil et al., 1995) and the P-content of surface sediment (Ripl and Wolter, 1995) was studied. The net release rate for phosphorus (and nitrogen) was measured from sediment cores taken by monthly sampling intervals from three sampling sites along transects. During an incubation time of nine days, cores of a duplicate set were treated in the lab either by aeration or under anoxic conditions (Dokulil et al., 1995; results see table 1). The sediment mapping study by Ripl and Wolter (1995) in October and November 1994 served as spatial assessment of the sediment quality in advance of sediment treatment used for chemical phosphate precipitation. Sediment cores of 30-40 cm length were chemically analyzed, including measurements of phosphate concentration of the water layer above sediment surface and of the interstitial water (Table S1). More recent sediment analysis in 2004 refers to the stage of successful re-introduction of macrophytes (macrophyte biomass development see Fig. 3E) and is described in greater detail in Riedler and Donabaum (2018).

## RESULTS

Results of phosphorus chemistry of the sediment is given in Table S1. Monthly averages of the release of phosphorus (as TP) during hypertrophic conditions in 1994 were 2.5 mg m<sup>-2</sup> d<sup>-1</sup> for aerobic sediments, and were twice this high for anaerobic sediments. The concentration of phosphate of the interstitial water was lower than 0.1 mg L<sup>-1</sup>. The sediment surface layer concentration of phosphate was about 75% of the interstitial water.

## REFERENCES

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