

## Supplementary information

### Figure legends:

Figure S1: Unrooted maximum likelihood tree of 16S rDNA sequences affiliated with SAR11 and LD12. Sequences of Lake Zurich, Switzerland, are given in bold. Nodes with bootstrap support <50 % were collapsed into multifurcations. Probe LD12 is shown in bracket. The scale bar at the bottom refers to 0.01 % of sequence divergence.

Figure S2: Spatio-temporal changes of environmental conditions in Lake Zurich, Switzerland. A: conductivity, B: nitrate, C: phosphorus, D: dissolved organic carbon (DOC) concentrations, E: light intensities.

Figure S3: A: Relationship between LD12 abundance and light intensities in Lake Zurich (open circles, n = 490) and Thalwiler Waldweiher (grey triangles, n = 64). B: relationship between LD12 abundance and nitrate, C: DOC, and D: phosphorus concentrations in Lake Zurich (n = 490).

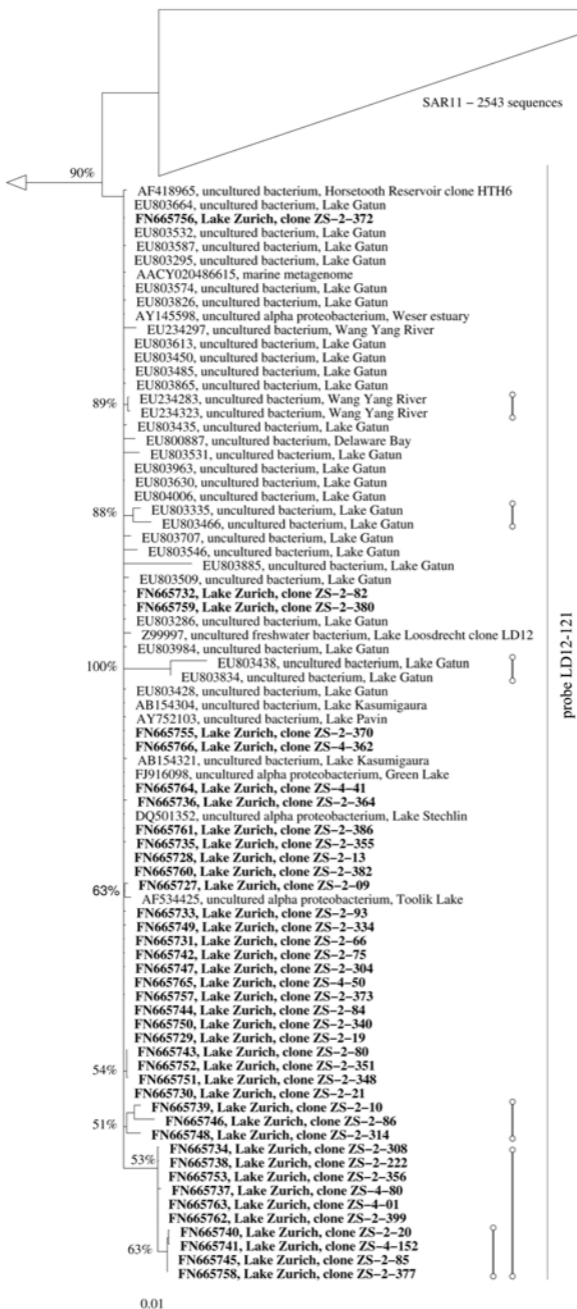


Figure S2

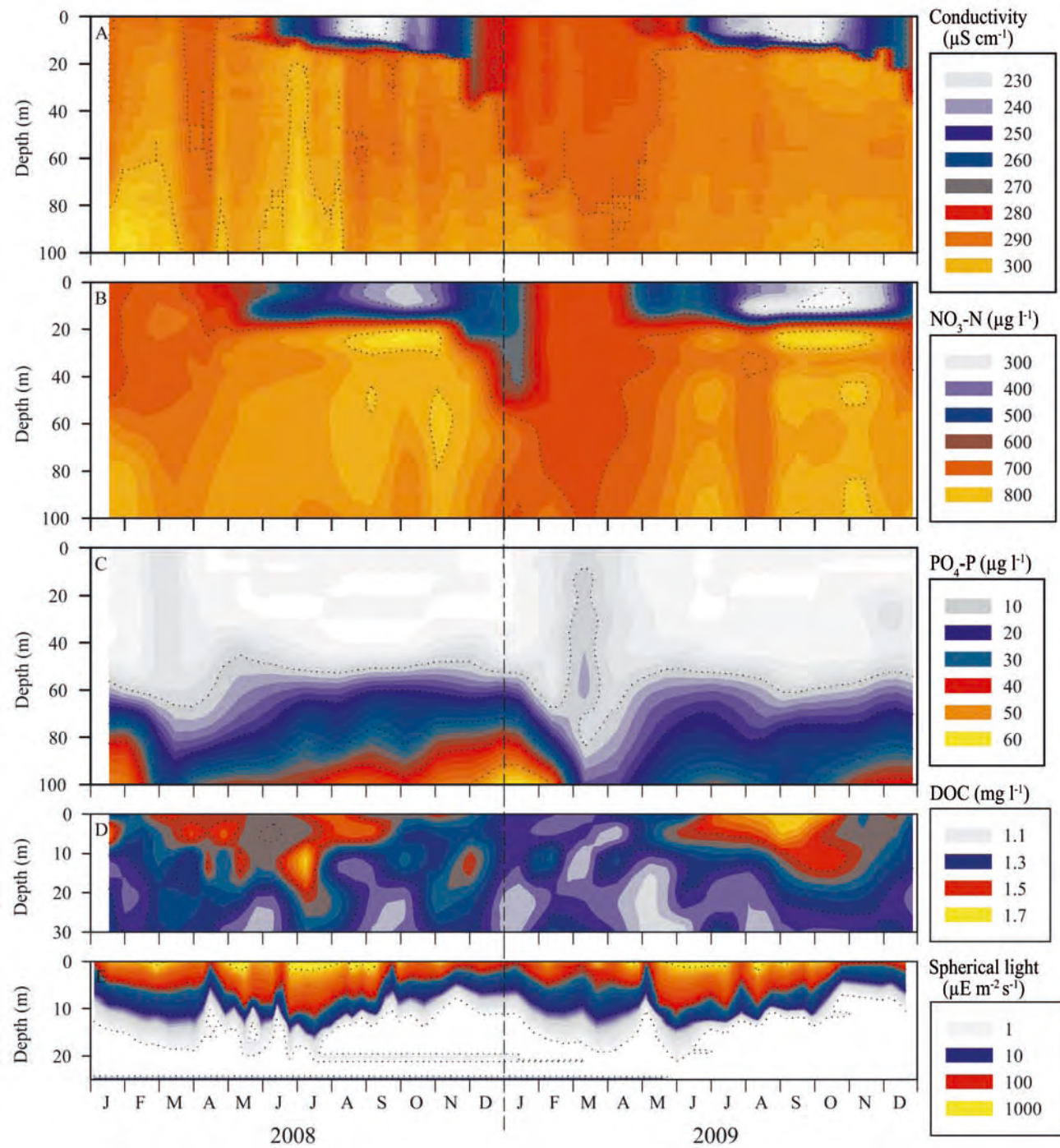


Figure S3

