

**Figure S1.** Filtered invertebrate assemblage level summed  $z$  scores. The filled circles denote the magnitude of the summed  $z^-$  scores for decreasing taxa abundance with increasing  $\text{PO}_4\text{-P}$  concentration and the opened symbols are for  $z^+$  taxa with increasing abundances with increasing  $\text{PO}_4\text{-P}$  concentration. Solid and dashed lines without circles are the cumulative frequency distributions (CFDs) of sum ( $z^-$ ) and sum ( $z^+$ ) maxima across bootstrap replicates (Baker et al., 2015; Richards et al., 2018).

