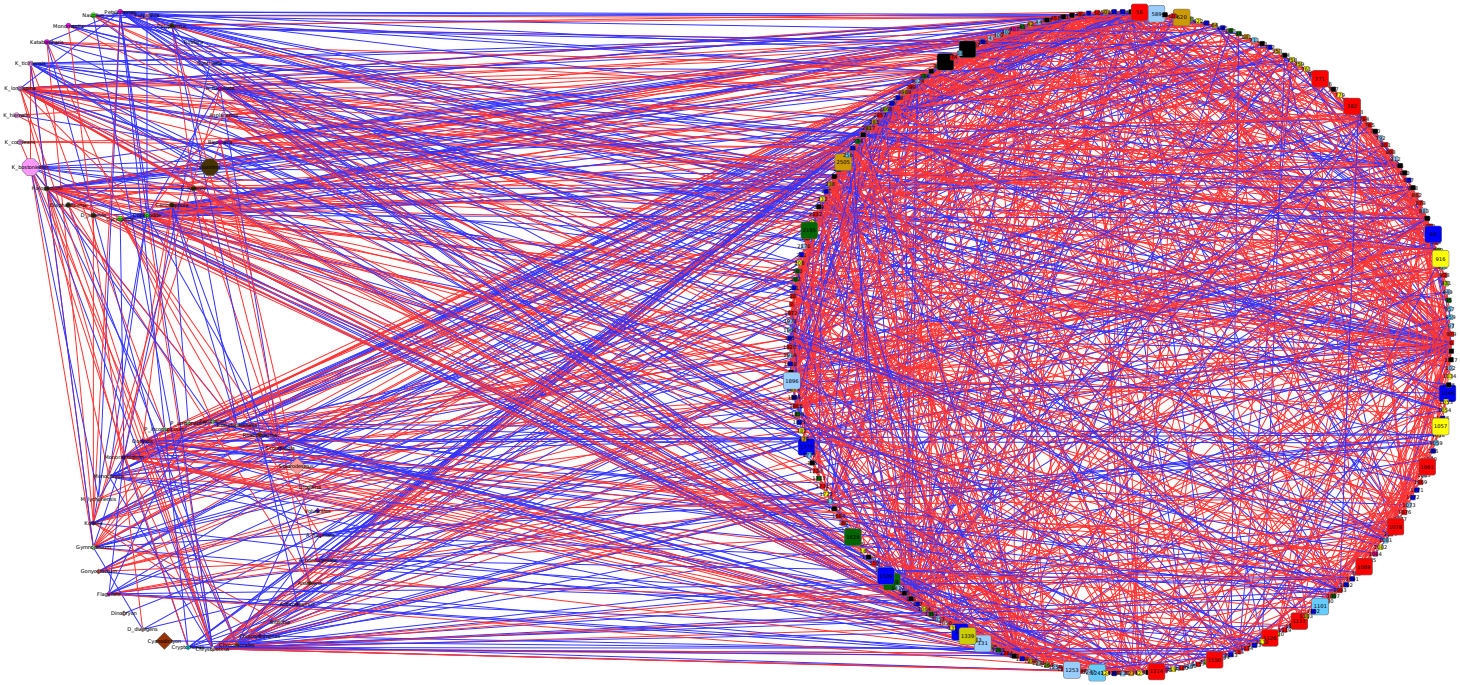
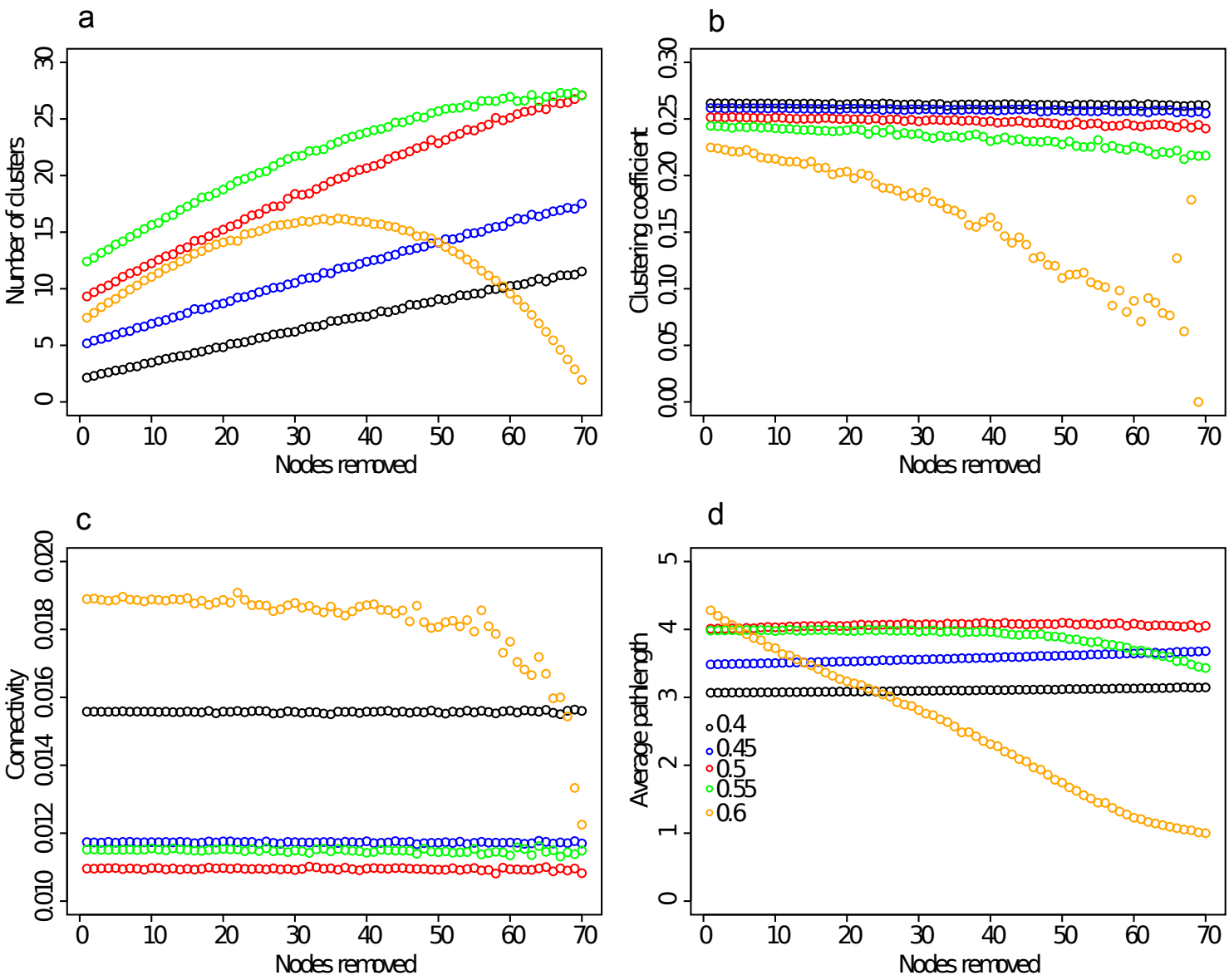
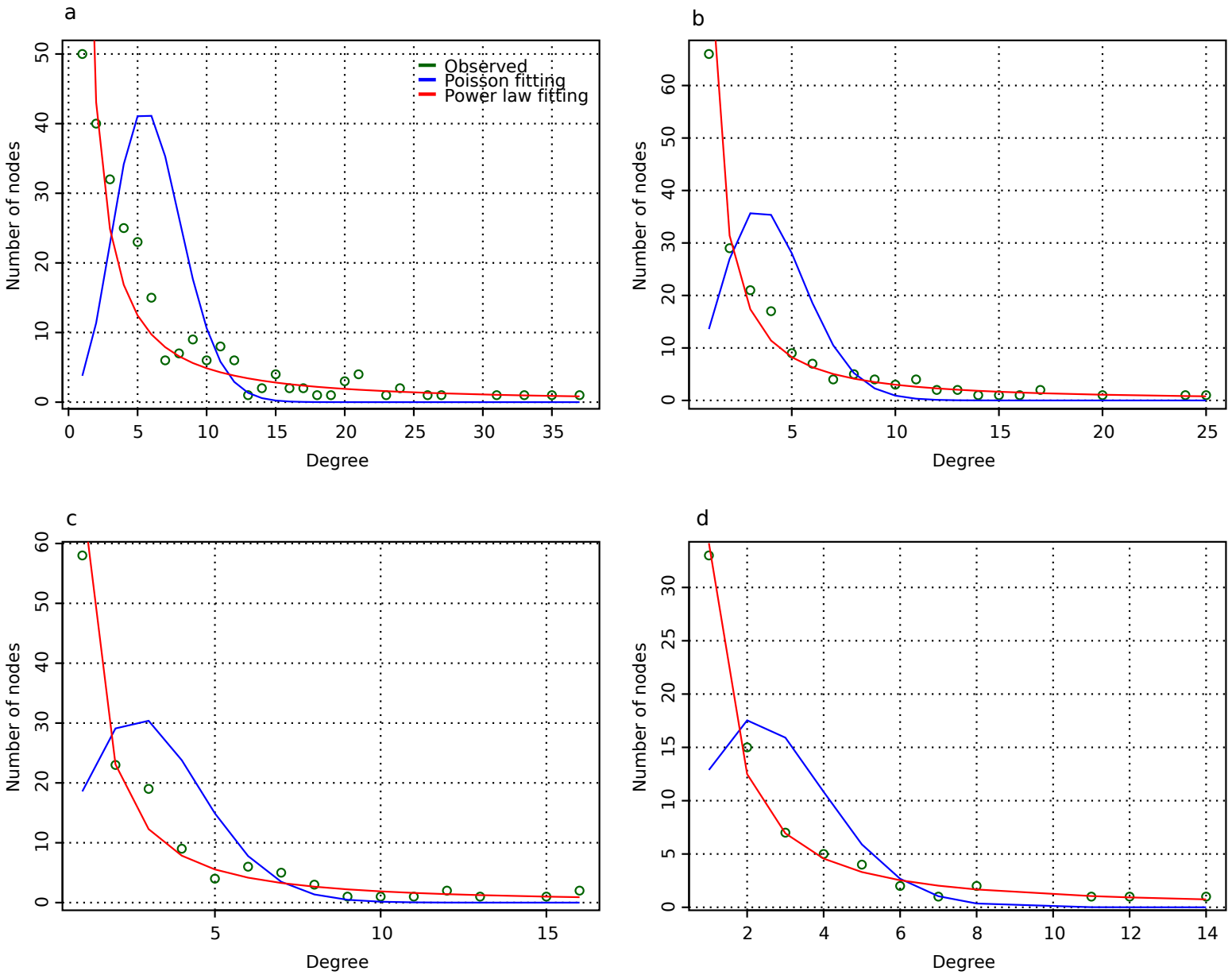


Supplementary figure 1 An edge-weighted, spring embedded network in which nodes correspond to bacterioplankton (squares), zooplankton (diamonds) and phytoplankton (octagons) taxonomic units. Nodes are colored based on thier taxonomic annotations as in Figure 1. The position of the nodes is independent of their properties of the characteristic matrix generated by MINE as nodes with higher betweenness are closer to the center whereas nodes with a low betweenness are on the periphery of the graph. Edges corresponding to a MIC > 0.4 are shown. Node size reflects the abundance of each taxonomic unit.



Supplementary figure 2 The impact of change of MIC cutoff to (a) number of clusters, (b) clustering coefficient, (c) connectivity and (d) average path length after random removal of up to 25 % of nodes. Values are averages of 1000 iterations.



Supplementary figure S3 Fit of the degree on nodes to the power-law distribution with (a) 0.45 MIC cutoff (R^2 = 0.85, $p < 0.001$), (b) 0.5 MIC cutoff (R^2 = 0.94, $p < 0.001$), (c) 0.55 MIC cutoff (R^2 = 0.88, $p < 0.001$) and (d) 0.6 MIC cutoff (R^2 = 0.94, $p < 0.001$).