



**Supplementary Figure 1** I Distance-based redundancy (dbRDA) plot illustrating the DISTLM model exploring the relationship between megafauna community composition and environmental variables (vectors). Environmental parameters included in the analysis were: depth (m); sediment type (categorical variable determined by the mud and carbonate content, indicated as vectors); average net primary production (avNPP); seasonal variation index (SVI) and annual trawling pressure (TP; h.cell¹.y¹¹). MdS1: medium sand; FiS1: fine sand; MS1: muddy-sand with <30% carbonate content; MS2: muddy-sand with 30–50% carbonate content; SM2: sandy-mud. Closed symbols: 2013 segments; Open symbols: 2014 segments.