



Figure 1. Morphological space of mesozooplankton Zooscan images. The four significant axes of the PCA performed on morphological variables are represented: PC1 and PC2 on the left, PC3 and PC4 on the right. Morphological variables (see details in Supp. Table I) are coloured according to their category (size-, transparency-, shape-, or complexity-related). PC1 is mostly related to circularity and size, PC2 to transparency, PC3 to shape complexity and appendages' visibility and PC4 to homogeneity in grey colour of the organisms. For each factorial plane, morphotypes are represented according to their coordinates in the morphological space: 15-by-15 grid was defined and 5 images close to the factorial plane considered were randomly selected, aligned and superimposed at each node of the grid for visualisation. Carbon export is represented on both panels as a supplementary quantitative variable (black arrow) and the sample time (Day or Night) is also represented on both panels as a supplementary qualitative variable (dark square).