



**Figure 1 - figure supplement 3. An increase in frequency of joint zeros is associated with positive ASV-ASV correlations across four methods.** ASV-ASV pairs with a high frequency of joint absences (zero-abundance observations) are more likely to be estimated as positively correlated by four methods: **(A)** *basset*, reporting Pearson's correlation; **(B)** *basset*, reporting proportionality ( $\rho$ ; see Quinn et al. 2017); **(C)** COAT (see Cao, Lin, & Li, 2019); or **(D)** SparCC (see Friedman & Alm, 2012). The vertical dashed line in all panels shows a 0.05 cut-off for the proportion of joint zeros, the cut-off used in the main text.