# Supplementary material

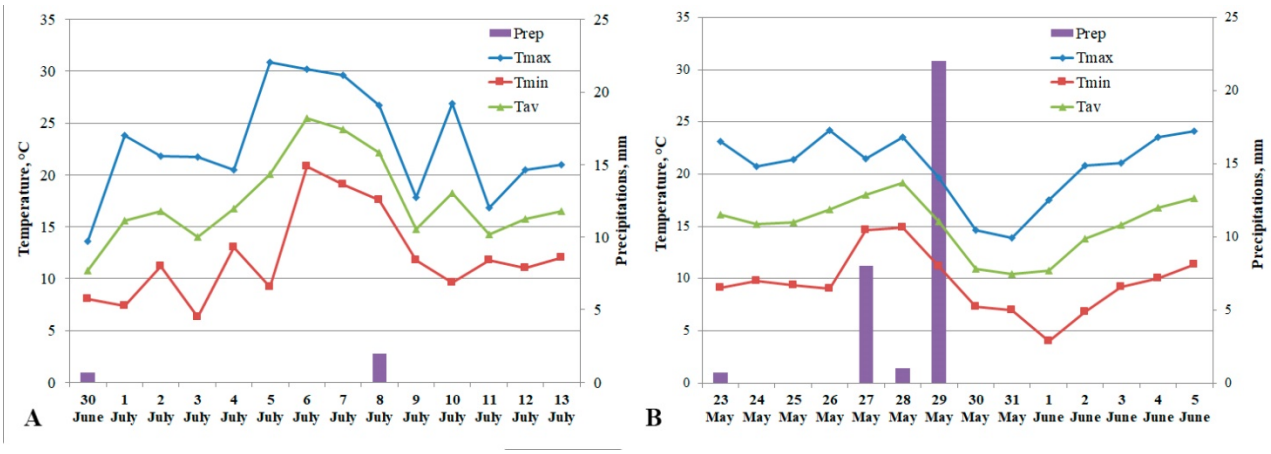


**Figure S1.** Meteorological condition in Moscow (A) and Murmansk (B) in the summer of 2021 are two weeks prior to the sampling.

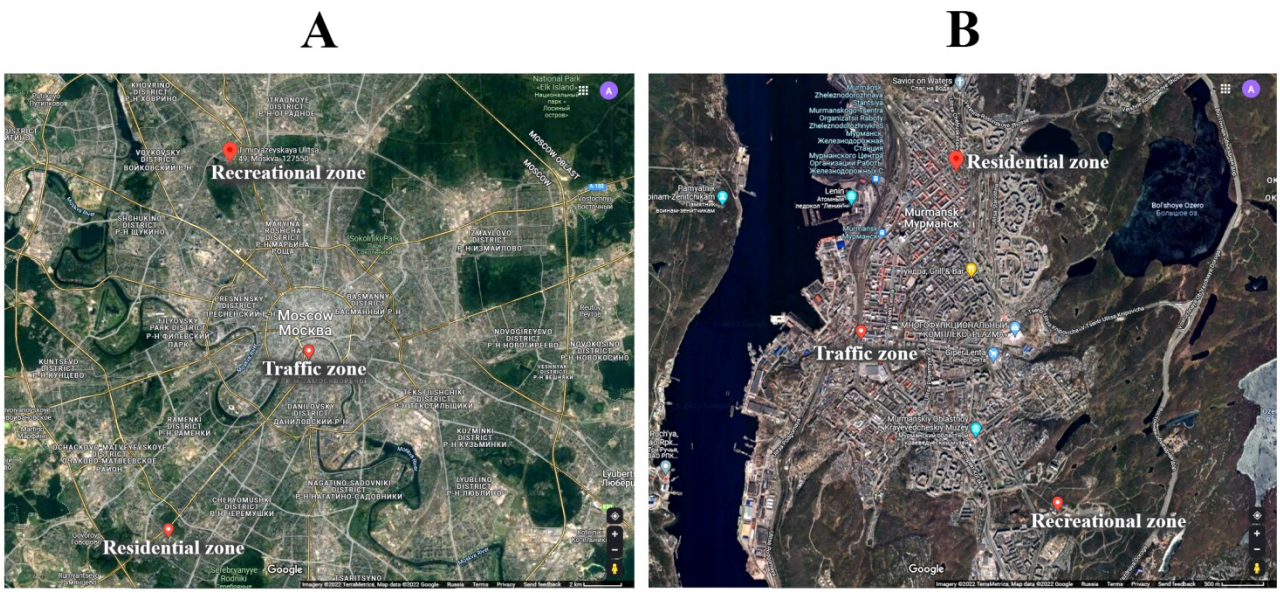


**Figure S2.** Overview of the three urban sites (Traffic, Residential and Recreational zones) of Moscow (A) and Murmansk (B).

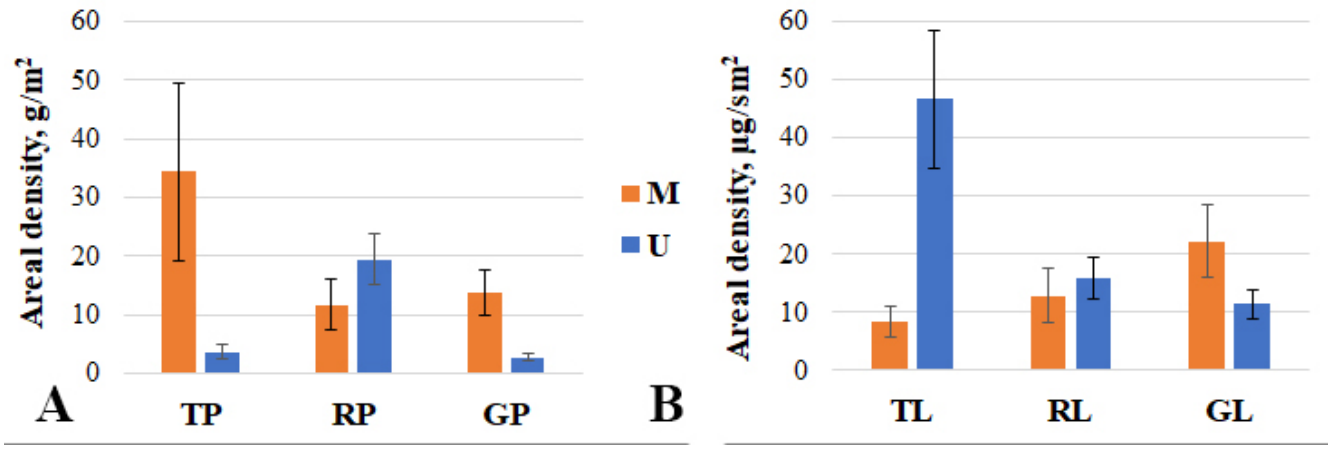


**Figure S3.** Areal density of collected dust from road and leaf surfaces. M – Moscow, U – Murmansk. TL – leaf dust collected in traffic zone, RL – leaf dust collected in residential zone, GL – leaf dust collected in recreational zone.

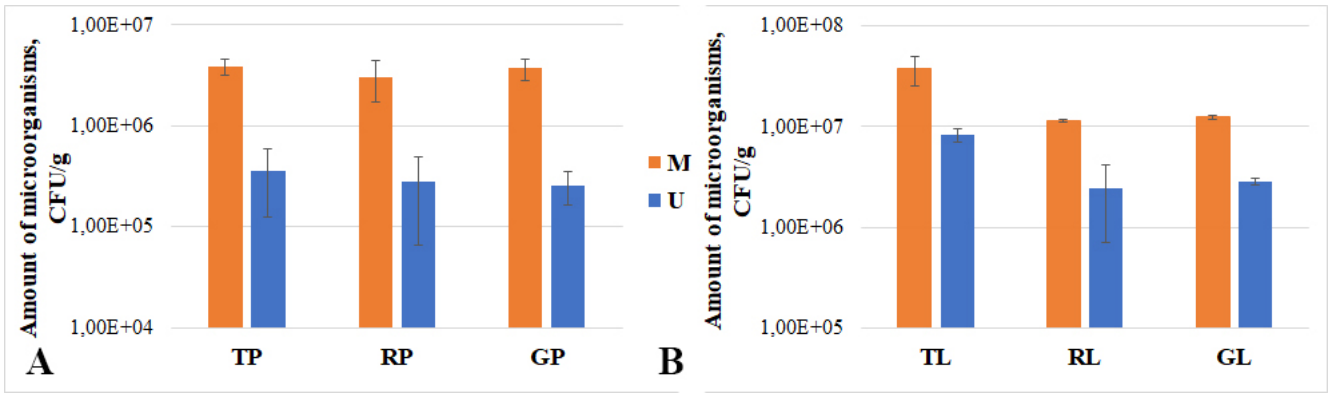


**Figure S4.** Amount of microorganisms of Murmansk (U) and Moscow (M) biotopes dust. TL – leaf dust collected in traffic zone, RL – leaf dust collected in residential zone, GL – leaf dust collected in recreational zone.

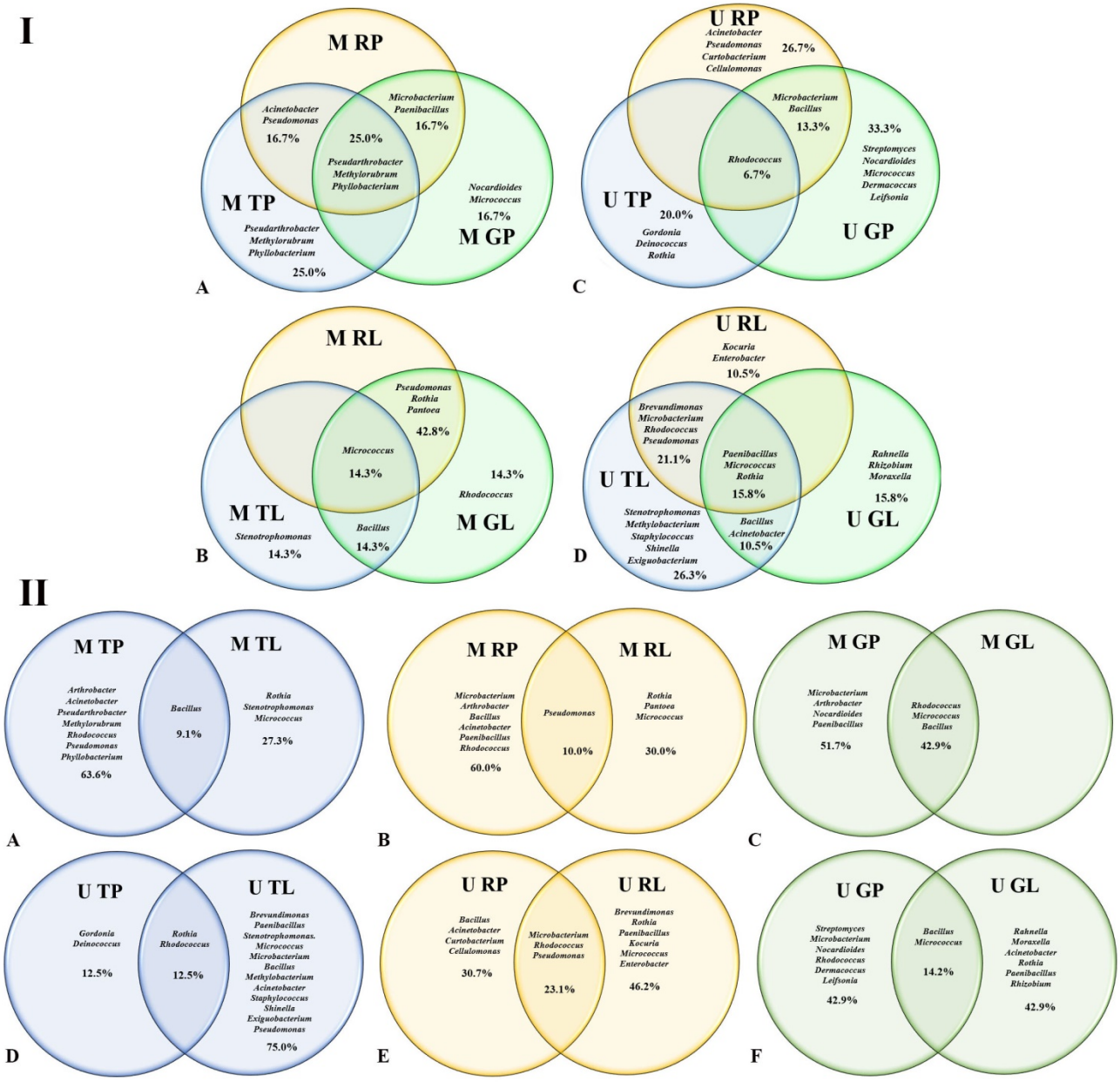


**Figure S5.** Venn diagram of common genera of bacteria-degraders found in biotopes (I) and functional zones (II) of Moscow and Murmansk. M TL – leaf dust from Moscow traffic zone, M RL – leaf dust from Moscow residential zone, M GL – leaf dust from Moscow recreational zone, U TL – leaf dust from Murmansk traffic zone, U RL – leaf dust from Murmansk residential zone, U GL – leaf dust from Murmansk recreational zone. Coincidences of community membership between the studied sites are indicated by overlap in the diagram.

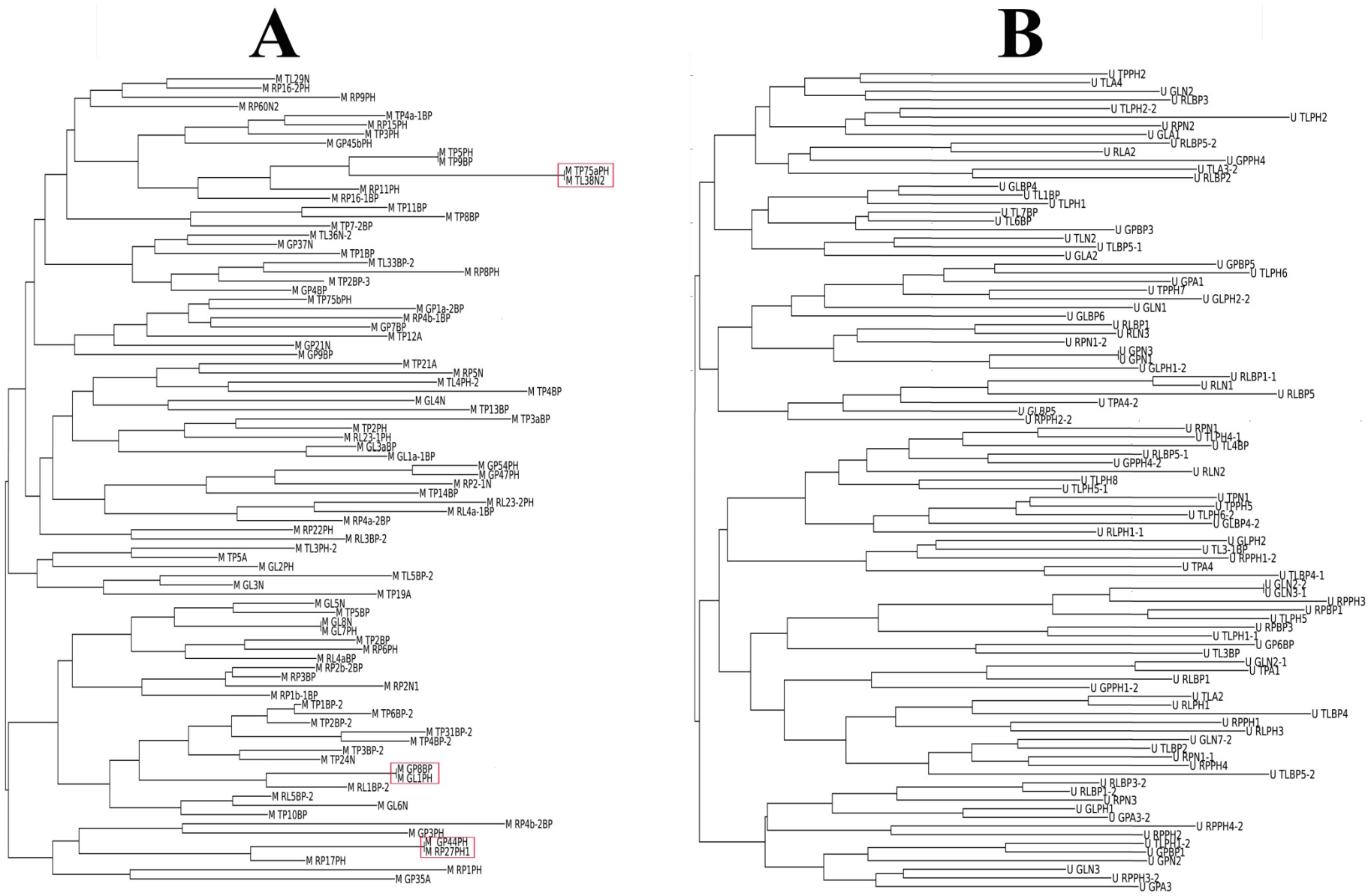


**Figure S6.** Phylogenetic trees of strains-degraders isolated from road and leaf dust of Moscow (A) and Murmansk (B), computed by PyElph software using Neighbor Joining method. Red rectangles indicate closely related strains-degraders isolated from different biotopes or functional zones.

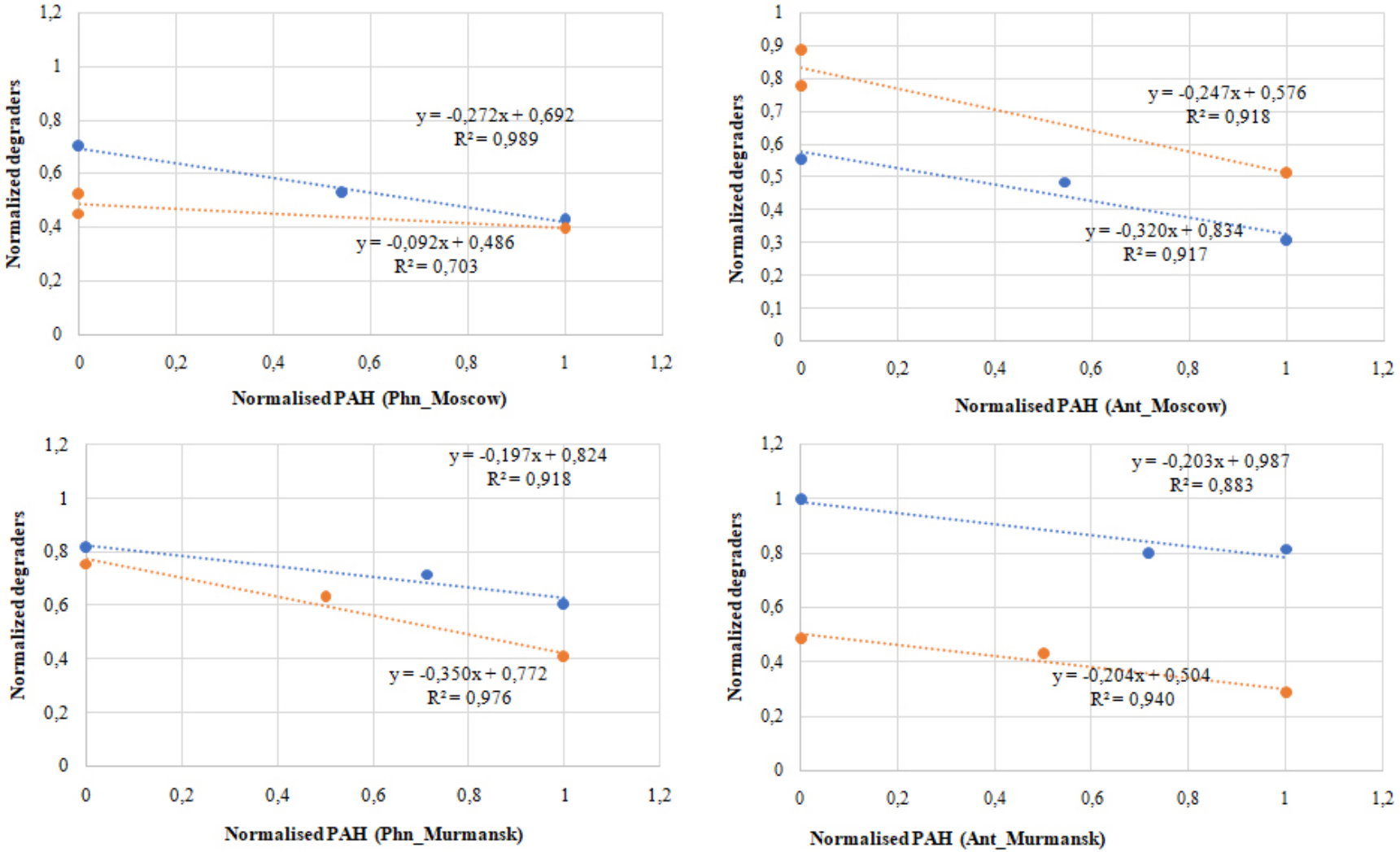


**Figure S7.** Linear regression analysis between normalized PAH (Ant-anthracene and Phn-phenanthrene) and normalized amount of *Micrococcus* degrader in the three urban sites of Moscow and Murmansk of leaf (blue) and road (orange) dust. Statistical significance of R-squared coefficient was reported ($p < 0.05$).