Management intensity influence assembly processes of plant associated microbial communities across urban landscapes.

Introduction:

Methods:

Results:

48 samples were sequenced in total for both bacterial v4 16s rRNA and fungal ITS-2. Average sequencing depth of 31,415 16s reads and 36,832 ITS reads.

A room with art on the wall

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Across habitats and management intensities, we detected 12,365 bacterial/archeal and 3,721 fungal ESVs

Observed richness and Shannon diversity were not significantly impacted by management intensity in above ground habitats, leaves and thatch, of urban grasses (Figure 1A and B).

The richness of bacterial communities associated with the above ground portions, leaves and thatch, of urban grass is not impacted by the intensity of management regimens (Figure 1a).

12365 bacterial ESVs

3721 fungal ESVs

* Foliar bacterial richness is not impacted by management intensity
* Richness of bacterial communities residing upon thatch is no impacted by management intensity and in general higher than richness of the leaf habitat.
* Low intensity management has significantly higher bacterial richness on the than high intensity management and no management. Medium intensity has a similar richness as high and low.
  + Bacterial communities along the root surface on non-manged urban grass systems have significantly lower bacterial richness.
* In the rhizosphere med and low management have much higher richness than both high and non mangaged systems.
  + The non managed system has the lowest bacterial richness (Suprising with increase plant diversity I would expect more richness)

Discussion: