Impact of *Xylella fastidiosa* on street trees in Washington, D.C. and possible management considerations.

In 2012, we conducted a survey of Bacterial Leaf Scorch (BLS) within Washington D.C. This survey comprised 18 genera of street trees located within 95 different sampling sites throughout the city. Samples collected included trees with characteristic BLS symptoms and neighboring asymptomatic trees. In addition, we also have collected asymptomatic foliage from symptomatic trees. Six genera including *Quercus palustris*, *Q. rubra*, *Q. phellos*, *Platanus occidentalis*, *Ulmus americana*, and *Morus rubra* were found to be positive for *X. fastidiosa* using ELISA. *Q. palustris* and *Q. rubra* had the highest ELISA readings. Within infected trees, the asymptomatic foliage of *M. rubra*, *Q. palustris*, *Q. rubra* and *U. americana* gave significantly higher ELISA readings than the negative controls, suggesting a bacterial presence in the asymptomatic region of an infected tree. As intuitively expected, symptomatic foliage had higher ELISA readings than the asymptomatic foliage within an infected tree. Interestingly, asymptomatic trees neighboring an infected tree were generally free of *X. fastidiosa*. The only exceptions occurred with *M. rubra* and *Q. palustris* (out of 15 genera tested). This suggests that both *Q. palustris* and *M. rubra* may have the presence of the bacteria without expression of symptoms. Higher ELISA readings positively correlated with an increased level of crown dieback. Scorch rating was positively correlated with higher ELISA readings for *Q. rubra*. Our data provides evidence that pruning to remove infected branches off *Q. palustris*, *Q. rubra*, *M. rubra*, and *U. americana* might not eliminate the presence of *X. fastidiosa* within the crown of the tree. However, with *P. occidentalis*, pruning might be an option because asymptomatic foliage was generally ELISA negative. Molecular analysis using PCR is underway to further ascertain the absence of the bacterium on asymptomatic samples collected.