

Density Effects on *Lonicera maackii* Leaf Flushing Rates

PRESENTERS:

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BACKGROUND: Honeysuckle is an invasive species whose adaptations of early leaf flushing rates and deep root systems make it hard for native species to compete with. However, it can suffocate itself out sometimes in huge patches. We were interested in seeing how the flushing rates of leaves are different in high density compared to low density areas sampled within and surrounding the ERA in Old River Park.

METHODS

- Marked 10 honeysuckle plants inside and outside the ERA with regards to low and high honeysuckle density areas.
- Measured bud length of the selected plants for a period of 5 weeks.
- Counted all woody stems that fell within a 5 meter diameter of marked honeysuckle plant.
- Collected data analyzed with Excel and R.



Figure 1 (Left) and 2 (Right): A sampled tree from the outside of the oxbow at the ERA (left) and a sampled tree from the inside of the oxbow at the ERA (right).

Stand density did not have a significant effect on *Lonicera maackii* leaf flushing rates.

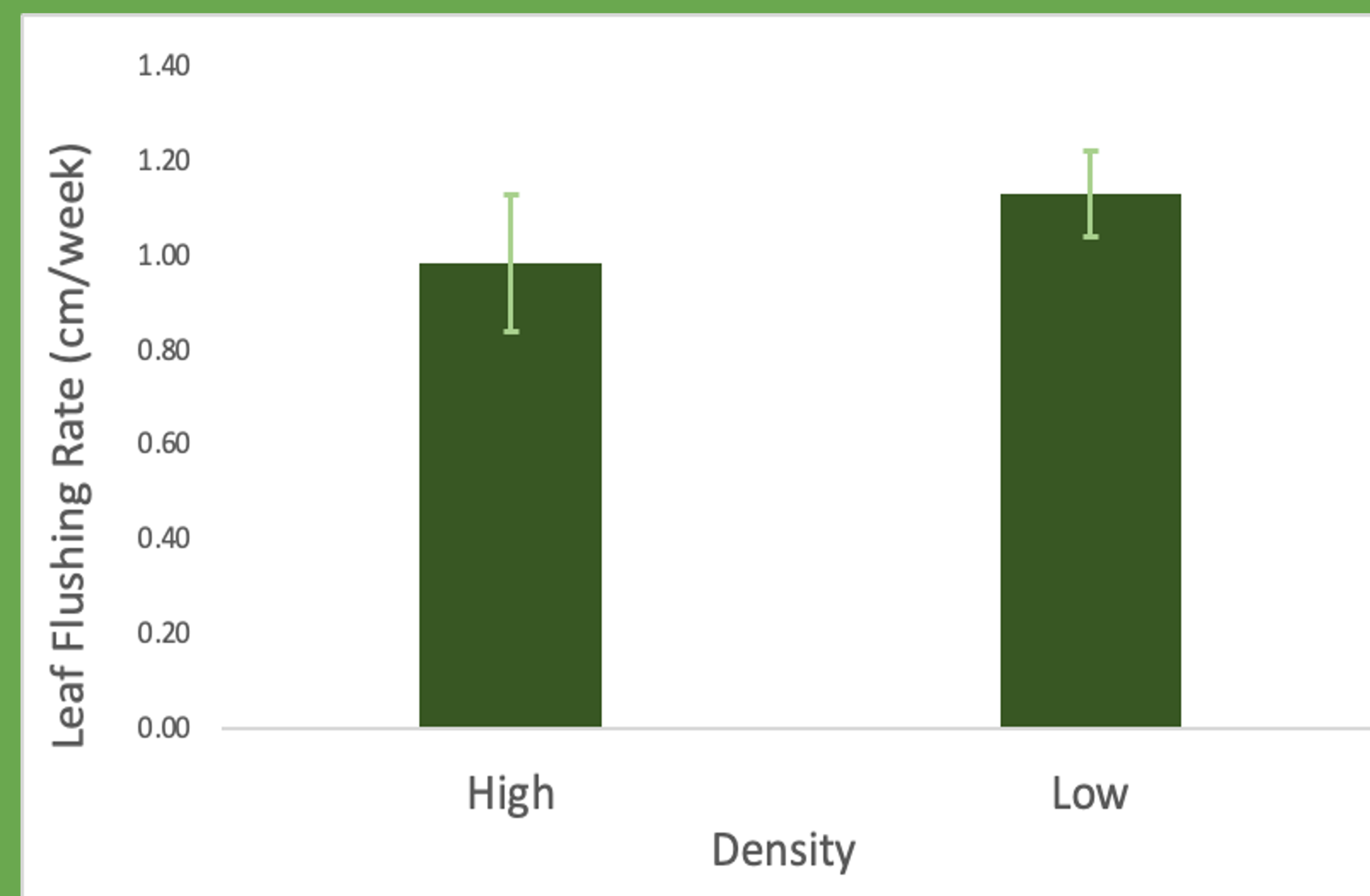


Figure 3: The flushing rates of leaves of honeysuckle trees at two densities inside the oxbow at the ERA.

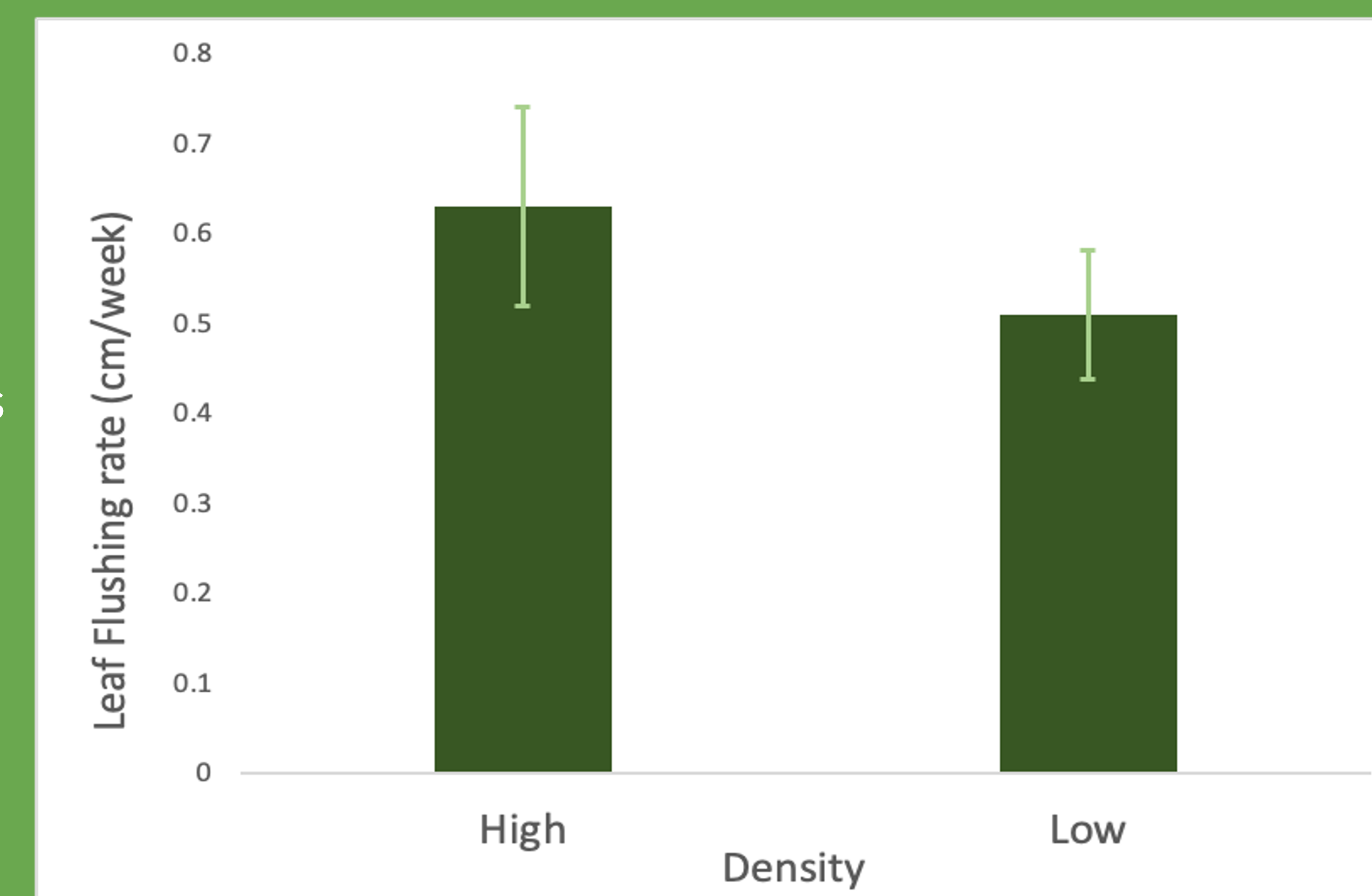


Figure 4: The flushing rates of leaves of honeysuckle trees at two densities outside the oxbow at the ERA.



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DISCUSSION

There does not seem to be a significant difference between the leaf flushing rates of trees at higher or lower stand densities. It should be noted that *Lonicera maackii* outside of the oxbow were surrounded by larger, more mature trees while those inside the oxbow were not. In the future we should consider basal area as well as density, and there should be more continuous sampling periods.

ACKNOWLEDGEMENTS

Thank you to Dr. Prather and Stephanie Murray for supplying us with the necessary materials to complete this project and guidance along the way. Thank you to the members at Old River Park for allowing us to collect data within the ERA.

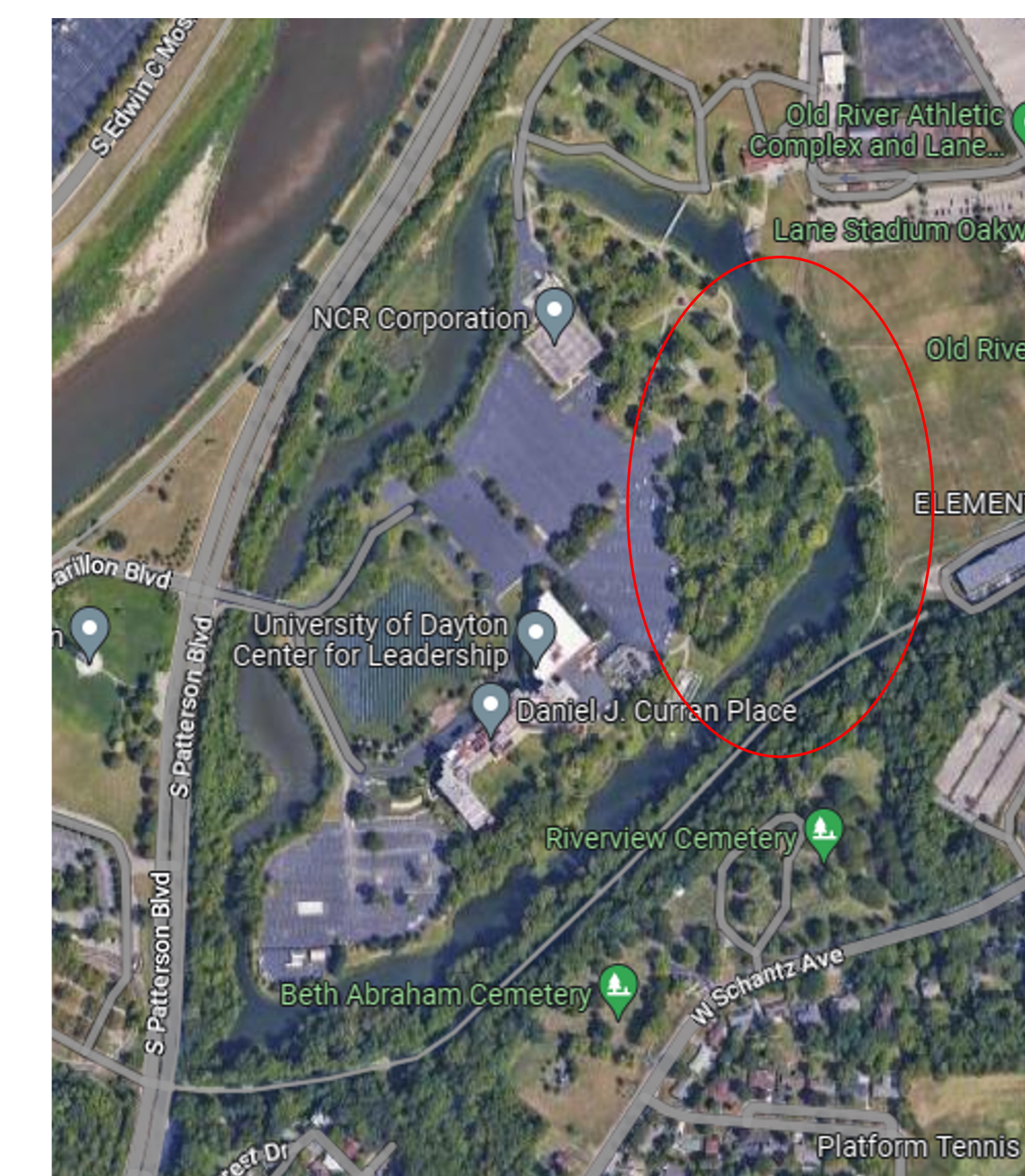


Figure 5: Map of Old River Park. Environmental Research Area circled in red where data collection took place.