

Summary of 2022 Outreach with Minneapolis Parks & Recreation

Biocontrol of Japanese Beetle (JB) with a specialist soil-inhabiting pathogen

Dear collaborators,

In September 2021 we received a 3yr LCCMR grant to survey the Twin Cities for a specialist soil-inhabiting pathogen called *Ovavesicula*. The low number of JB along the East Coast was correlated to the abundance of this pathogen in research papers. We are distributing this pathogen in MN to reduce JB numbers. In addition, we are performing research on the transmission of the pathogen to JB grubs and adults.

In summer 2022 we visited 44 sites around the Twin Cities and collected beetles 4 times from July to September. In total, we collected 77,326 JBs from 44 sites. We processed the beetles and counted spores in each beetle. Also, we processed the beetles and ran qPCR on them to detect the pathogen. Only 8/44 sites were infected with the pathogen.

Thank you for the support and help.

2022 LCCMR Japanese Beetle (JB) Biocontrol Table at Minneapolis Monarch Festival

Lake Nokomis (09/10/22)

- For this event we put together a table displaying bulletins & “Think IPM” posters that identified ongoing research on JB and informed the public about pollinator conservation, integrated pest management (IPM), and natural biocontrol methods. The large double-sided posters included a QR code for a direct link to further in-depth information included on our lab’s website. JB trap displays and additional information were also made available for viewing/reading. Krischik Lab Director Dr. Vera Krischik, Post-doc Researcher Dr. Carrie Deans, Lab Supervisor Cody Prouty, and UG Researcher Kyle Murley were present to answer community questions and increase the accessibility of our research. We’d like to acknowledge MaryLynn Pulscher, Manager of Environmental Education for MPRB, for providing the connection to tabling at the Minneapolis Monarch Festival.





Double-sided “Think IPM” poster displayed at Lyndale Park Gardens

- Installation of our “Think IPM” poster provided public learning opportunities outside of our in-person demonstrations. Our goal here was again to increase overall awareness of IPM and best management practices (BMP) to emphasize the importance of our current research on JB. This includes informing the public of notable problems caused by the presence and chemical treatment of invasive species such as JB. Many are unaware of the non-target effects on beneficial species that can lead to both higher invasive species populations and lower overall biodiversity. Successful IPM includes cultural change as a factor in maintaining biodiversity and decreasing non-target effects of pest management, making increasing public awareness/knowledge crucial for a systemic shift in favor of natural biocontrol methods and biorational pesticides over traditional chemical pesticides. We’d like to acknowledge MPRB staff Robin Smothers, Media Relations and Social Media Manager, and Kaitlin Ryan, Horticulture Supervisor, for their assistance in the creation and display of the “Think IPM” poster.



Special Thanks and Acknowledgements

- We'd like to extend our gratitude once more to MPRB staff Robin Smothers - Media Relations and Social Media Manager, Kaitlin Ryan - Horticulture Supervisor, and MaryLynn Pulscher - Manager of Environmental Education for their work in assisting the facilitation and completion of our 2022 outreach events with Minneapolis Parks. Their contributions and commitment to this partnership have been greatly appreciated by our team.