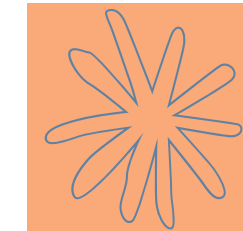


THE BIODIVERSITY OF INSECTS ON GLENDON CAMPUS

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Abstract



Insect species are crucial to the integrity of forest ecosystems. We sought to determine the effects of urbanization on insect populations among the different niches Glendon offers. We hypothesized that insect abundance and biodiversity would be lowest in the most urban environments and highest in natural ones. As predicted, we found highest insect mass in untouched forests and unexpectedly, the least abundance near a humid, aquatic environment.

Research Question

- Our field course concluded with a group research project on an independent topic, applying skills learnt
- We asked: "How does urbanization impact insect abundance and biodiversity at Glendon campus?"



Image 1: Millipede under microscope analysis (Source: M. Vonica)



Methodology

- Installed four pitfall traps in each of three different environments on campus –
 - (1) in a secluded forest;
 - (2) near the road;
 - (3) by the Don River.
- Collected data daily over one week
- Identified insect specimen using microscope analysis.
- Used statistical analysis to assess reliability



Image 2: Pitfall trap

Conclusions & Findings



- Highest biodiversity and abundance of insects in the secluded forest environment.
- Lowest biodiversity and abundance in the environment near the Don River
- Significant evidence that sheltered forest habitats are best suited for insects

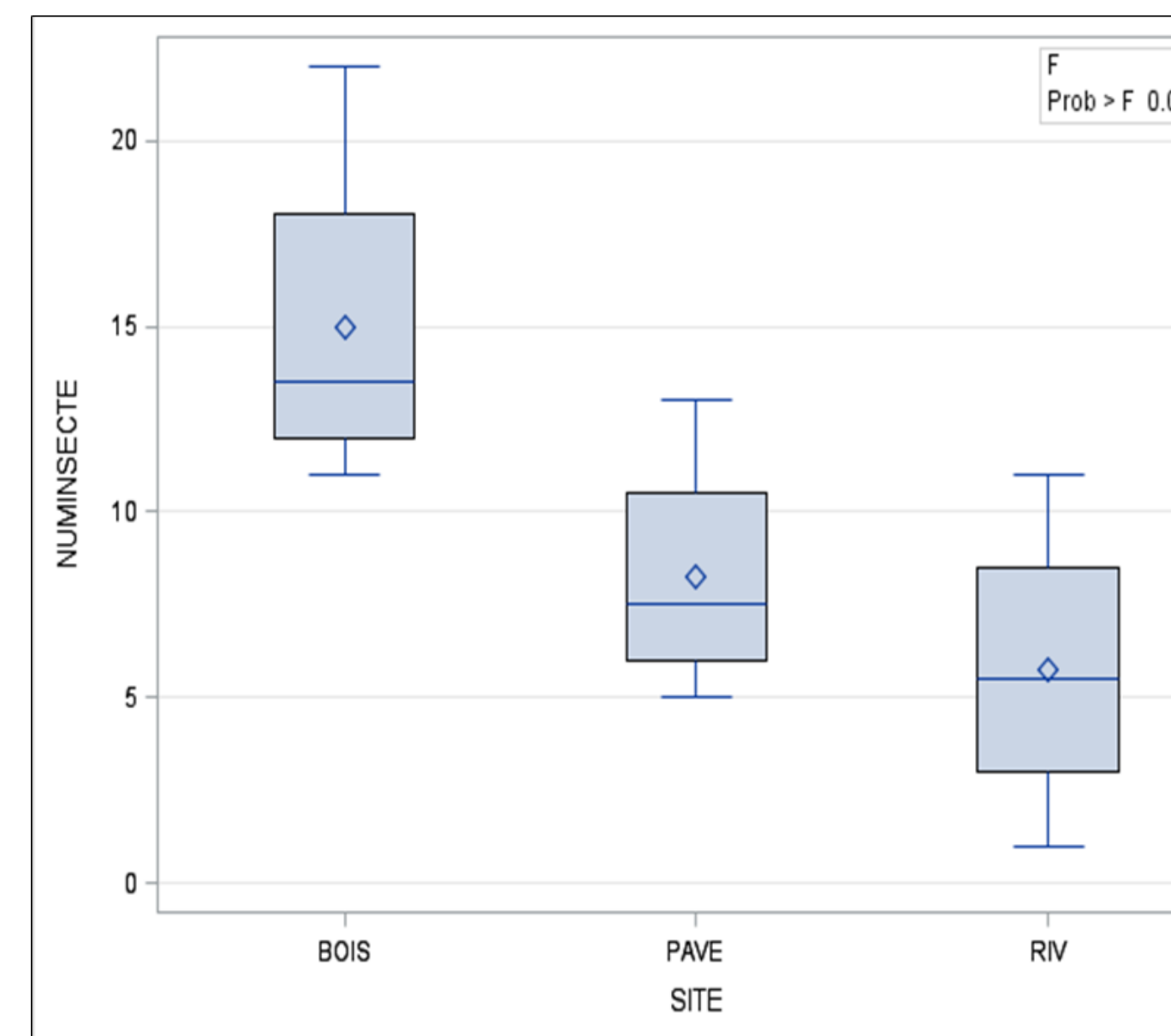


Figure 1: Abundance of insects among three sites

Implications



Small scale

- 1 Understand how environmental niches affect insect population abundance and diversity.
- 2 Strengthen the importance to preserve natural environments in cities.

Large scale

- 1 Acquired crucial research skills necessary for a career and higher education.
- 2 Gained collaborative skills working with classmates to create research paper

Future Steps

1
Have patience in the research process. Constructing independent research projects require more effort and time

2
Embrace challenges: learning outside the classroom means thinking outside the box.

3
Apply research skills to other projects: actively look for other opportunities to strengthen your knowledge.