



The William L. and Ruth D. Nutting Research Grant supports graduate student research in the field of basic termite biology. It offers funding to a student whose proposed research shows the greatest potential to increase our understanding of this important group of social insects, with an emphasis on projects with clearly identified hypotheses that address specific biological questions.

The 2021 winner of the Nutting Research Grant is **Zach Balzer** who will receive \$2,500 to support his research.

Zach received both his BSc and MSc in Biology from the University of Saskatchewan, and he is currently a PhD student at Western University in the lab of Dr. Graham Thompson. Zach's research project is titled, "Molecular analysis of kinship and invasiveness in a northern population of urban-dwelling termites." His project is focused on understanding how population bottlenecks may impact an invasive species, *Reticulitermes flavipes*, establishing in new ranges. First, Zach plans to use behavioral experiments to disentangle potential genotypic vs. environmental effects on behavior. Second, he plans to use this information to construct social networks within colonies. Finally, he plans to use a SNP genomic approach to compare invasive and non-invasive termite populations. Together, Zach's work will advance our understanding of why some populations are invasive and some are not from both a genetic and behavioral perspective. The committee was impressed with the ambition associated with the project, as well as the expertise Zach demonstrated in his proposal.

Sincerely,

The Awards Committee:

Sarah Bengston, Kaitlin Baudier (Co-Chairs)

Rachelle Adams, Floria Mora-Kepfer Uy, Olav Rueppell, Qian Sun