



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 2020 winner of the Nutting Research Grant is Chris Albin-Brooks who will receive \$2,500 to support his research. Chris received a BA in Psychology from The Ohio State University and is currently a PhD candidate in the laboratory of Dr. Jürgen Liebig, at Arizona State University. Chris's research project is titled, "Establishing the olfactory capabilities of a lower termite." Chris aims to characterize the peripheral chemosensory capabilities of the dampwood termite, *Zootermopsis nevadensis*. He hypothesizes that a reduction in the number of odorant receptors in termites (relative to cockroach ancestors) is compensated by the detection of a greater breadth of hydrocarbons, while reducing their ability to discriminate between hydrocarbons of similar size and structure. His ambitious project uses a broad range of techniques including single sensillum recording, conditioned stimuli, and cloned odorant receptors to reveal the poorly understood sensory space of termites. Chris has already generated one *Z. nevadensis* transgenic fly line and has successfully conducted single sensillum recording on transgenic fly lines with ant odorant receptors. The awards committee agrees that the results of Chris's research will provide a valuable point of comparison with the ORs of other social insect species and offer critical insights into the sensory capabilities of termites.

Sincerely,

The Awards Committee:

Christina L. Kwapich, Jürgen Liebig (Co-Chairs)

Rachelle Adams, Kaitlin Baudier, Sarah Bengston, Floria Mora-Kepfer Uy