



The Robert L. and Louise B. Jeanne Social Wasp Research Grant supports graduate student research on any aspect of the basic biology of social wasps. It is given annually to a student whose proposed research shows the greatest potential to make a substantive contribution to our understanding of social wasps.

The 2020 winner of the Jeanne Grant is **Meghan Barrett**, who will receive a \$2,500 grant to support her research. Meghan received her bachelor's degree Biological Sciences and in English/Creative Writing at the State University of New York at Geneseo, and is currently a PhD candidate in the laboratory of Dr. Sean O'Donnell, at Drexel University. The title of Meghan's project is, "The impact of adult nutrition on dominance and brain plasticity in a Neotropical paper wasp, *Mischocyttarus pallidipectus* (Hymenoptera: Vespidae)." Meghan's work focuses on a monomorphic, social wasp species with flexible caste determination. She aims to determine if adult nutrition can cause rapid neuroanatomical shifts associated with dominant behavior and ovarian development in *M. pallidipectus*. To test her idea, Meghan will travel to Costa Rica to hand-feed subordinate wasps with diets of varying quality, before returning them to their colonies. Later, she will perform histological sectioning their brains to look for changes in neuroanatomy, particularly the mushroom bodies. The awards committee was particularly impressed by Meghan's ability to combine detailed field manipulations with quantitative analyses of neuroanatomy, with which she has extensive experience. Her work explores the fundamental principles of reproductive dominance in animal groups and addresses an important gap in our knowledge about diet, brains, and behavior in social wasps.

Sincerely,

The Awards Committee:

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

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