

This application to the GRAC Travel Grant is to obtain funding to attend and present at the Entomological Society of America (ESA) Annual Meeting 2024 in Phoenix, Arizona in November. This is an important opportunity for my graduate career in the sciences as it will allow me to present my PhD thesis final chapter for the first time at a national conference. Furthermore, I am a co-organizer for the first time of one of the meeting's Section Symposium entitled "Expanding the Future of Cecidology: The Ecology and Evolution of Shrub- and Herb-galling Insects".

I will be presenting as part of the symposium I worked to organize and propose. In my talk entitled "Co-diversification of a desert-adapted gall inducer clade with its host plant in the west", I will share results from my study on the evolutionary history of nine gall-inducing fly species and their host plants across western North America. Galling insects are important specialist herbivores that represent an extremely diverse lineage of animals. One theory for such an expansive species radiation is that these gallers are co-diversifying alongside differentiation that occurs among populations of their host plants. To test this hypothesis, I have collected and sequenced over 500 paired samples of insects and their host plants, and am working to create co-phylogenies and other population genetic analyses.

The ESA Annual Meeting is the premier North American conference for insect research, and despite the top-rated biodiversity of New Mexico and the southwest (1,2), members from this region are the least represented (3). I value having the opportunity to attend this professional conference as a presenter as it will be an important steppingstone in building my skills in science communication. As a doctoral candidate approaching the final semester of my grad school experience, this conference will also allow me to hear from and network with those in my field

who may be future employers or collaborators to support my post-graduation goals. Participating in this conference with a national reach will be vital in ensuring my success as a biologist.

Literature Cited:

1. Danks, HV. 1994. *Regional Diversity of Insects in North America*. American Entomologist 40(1): 50–55.
2. Stein, BA. 2002. *States of the Union: Ranking America’s Biodiversity*. Arlington, Virginia: NatureServe 1-25.
3. Entomological Society of America. 2022. *Entomological Society of America 2021 Annual Report* 1-11.

Budget

Expense Description	Funding Requested	Total
ESA Student Member Registration	PI’s start-up funds	\$270
Driving round-trip to Phoenix, AZ from Albuquerque (IRS standard mileage rate \$0.67 per mi for 840 mi)	Museum Research Traineeship fund	\$562.80
Lodging in Phoenix, AZ for 3 nights	GRAC Travel + GPSA* Research Grant + student’s own funding	\$735 (150+585)
Total Needed		\$1567.80
Total Requested from GRAC Travel		\$150

*Graduate and Professional Student Association

My expenses for presenting at ESA’s Annual Meeting 2024 will include registration, gas, and lodging. Registration is required for all presenters, and I was able to get a discounted rate for being a student member and registering before the “early-bird” deadline. My registration receipt will be submitted separately in a non-anonymous document. Mileage estimation was made using Google Maps and lodging estimation was made by selecting the lowest conference-discounted hotel negotiated by ESA. **In this application, I am requesting the Travel Grant maximum amount of \$150 to only be used as partial reimbursement of lodging expenses, and for no other expenses.**