

QTAG Report 2018-2019

Ogden College of Science and Engineering

OCSE QTAG Committee:

Ali Er – Physics and Astronomy

Uta Ziegler – School of Engineering and Applied Sciences

Philip Lienesch – Biology

Leslie Baylis – Psychological Sciences

Bangbo Yan - Chemistry

In 2018-2019 OCSE had 14 QTAG projects approved for funding. The total recommended funds totaled \$29,305. Six departments (Agriculture, Biology, Geography and Geology, Physics and Astronomy, Psychological Sciences and the School of Engineering and Applied Sciences (SEAS) in Ogden College) received at least one QTAG. Common threads run through these greatly diverse projects including student engagement, development of collaborations (local, regional, national, and global), outcomes in terms of publications with student co-authors, and use of results of the QTAG project to springboard to additional funding.

At the end of the academic year, the QTAG committee recommended revision of the OCSE QTAG guidelines to help clarify favorable aspects of QTAG projects, in an effort to make the QTAG application process more efficient and to increase the probability of funding in the first application cycle. These new guidelines have been drafted and are undergoing review by both current and prior QTAG committee members. The revised guidelines will be posted/implemented Fall 2019.

The most common issues observed by the committee that potentially resulted in a decline were:

- A request for travel funds for the faculty member or for students to present work rather than conduct research, and/or
- A request to hire a student worker with no clear immediate need
- A timeline that did not fit the prescribed 3-month QTAG timeframe.

In the first case, faculty members were advised to seek travel funds through the normal channels (department and college) and to resubmit the QTAG application to focus on research activities. In the latter cases, faculty were asked to resubmit or to either make minor adjustments or to modify the timeline (without a resubmission) to meet the requirement provided. The committee felt an adjustment of the project requirements and description, from an Ogden perspective, would serve to address these issues.

The committee members (Ali Er, Leslie Baylis, Uta Ziegler, Philip Lienesch and Bangbo Yan) worked diligently to thoughtfully review the QTAG applications each month. It was inspiring to me to view the full impact and benefits for the faculty members and students of Ogden College resulting from the QTAG program.

Submitted by:
Cathleen Webb, Associate Dean for Research, OCSE

Although no formal final report is required, the recipients of the OCSE QTAGs were encouraged to submit photos, videos, brief summaries, etc. A few summaries are provided.

From Chris Groves (Geosciences):

Late last year I was awarded a QTAG grant to support travel to San Francisco, California to attend a January 2019 training workshop associated with my participation on the Mammoth Cave Area Biosphere Reserve Advisory Council, which operates under the auspices of the United National Educational, Scientific and Cultural Organization (UNESCO). Although the planned group was smaller because of the US government shutdown underway, the UNESCO team from Paris made the trip and the activity went on with several Biosphere Reserves around the country represented. An outgrowth of the trip is that I have been invited to serve on the US Working group for UNESCO's Man in the Biosphere Program.

From Farhad Ashrafzadeh (SEAS):

Both development systems for aerial and terrestrial autonomous vehicles were purchased by QTAG fund and the systems were programmed, simulated, and made fully functional. The research outcomes of this phase of the project were presented at 2019 WKU SRC in the form of two posters.



From Elizabeth Lemerise (Psychological Sciences):

The data collection for our project is complete -- the QTAG funds helped us give teachers an honorarium for filling out measures for us.

From Jennifer Gill (Agriculture)

The 2019 QTAG allowed a Gatton Academy student, Gabriella Lynn (17 years old), to present her research, "A new model for quantifying hoof pressure distribution using Fujifilm" at the 2019 Equine Science Society week-long research symposium in Ashville, NC. She was a finalist at the conference and had her abstract published in the 76th volume, May 2019 Journal of Equine Veterinary Science. Gabriella will continue on with her research using a FUSE grant that was awarded May 2019.

From Bruce Schulte (Biology):

QTAG Funding was provided in summer 2018. Project concluded Fall 2018.

I applied and received a QTAG for \$3000 to work on the project "Conservation Applications of the Landscape of Fear of African Elephants in Zambezi National Park, Zimbabwe." This project was originally designed to be conducted in the Mosi-oa-Tunya National Park Zambia but the Zambian government held up the permits through our collaborators at ALERT (African Lion and Research Trust) so we had to move it across the Zambezi River to Zimbabwe where ALERT had all permits in place. I had never studied elephants in Zimbabwe and was not familiar with the Zambezi National Park or the human elephant conflict (HEC) ongoing in Victoria Falls. My graduate student, Brigit Rooney, was scheduled to be in Zambia (now Zimbabwe) from late July through the end of October 2018. She also was not familiar with this landscape nor with the details of collecting behavioral data on African elephants in the field. Thus, my QTAG had the following objectives:

- 1) Train Ms. Brigit Rooney in field procedures
- 2) Make any modifications in the research proposal necessary given the change in location.
- 3) Make contacts and affirm relationships with the field personnel from ALERT from the Zimbabwe station.
- 4) Start discussions for longer term research plans in Zimbabwe.

Each of these goals was met. I arrived a few days before Brigit and had meetings with the field personnel. Brigit and I went into the field every day we were together and observed elephants each day. We made very good progress in her training and in re-aligning the project to the new landscape. I set up a meeting with other researchers in the area including Victoria Falls Wildlife Trust (Roger Parry), doctoral student Malvern Karidozo, local elephant researcher Jake Le Breton, and the Chief Executive Officer of

ALERT Dr. Norman Monks. I now have a good feel for the locality and the players. Brigit is in good stead for completing her MS thesis research. The QTAG support was invaluable to achieve these goals.

I am very appreciative of the support.

A photo of elephants crossing the road by Brigit Rooney.

