

Sabbatical Report - Fall 2015

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During my semester-long sabbatical, I engaged in several research-related endeavors, which I summarize in this document.

1. I presented or submitted the following:

Jaffe, K.E. (2015) Applied animal behavior: University-zoo collaborative research that enhances the welfare of captive animals and the academic experience of students. Presented at the SSU Biology Colloquium, December 8, 2015. (oral presentation)

Wilson, P.*, **Jaffe, K.E.**, Minier, D. (abstract submitted; under review) Reward predictability and activity levels in captive lemurs. For presentation at The American Behavior Management Association Annual Meeting in Tampa, FL, April 17-22, 2016. (oral presentation)

Jaffe, K.E. (submitted; under review) *Chlorocebus aethiops* (grivet monkey). In: *All the World's Primates*. (N. Rowe and M. Myers, eds.). Pogonias Press.

Jaffe, K.E. (submitted; under review) *Chlorocebus cynosuroides* (malbrouck monkey). In: *All the World's Primates*. (N. Rowe and M. Myers, eds.). Pogonias Press.

Jaffe, K.E. (submitted; under review) *Chlorocebus pygerythrus* (vervet). In: *All the World's Primates*. (N. Rowe and M. Myers, eds.). Pogonias Press.

Jaffe, K.E. (submitted; under review) *Chlorocebus tantalus* (tantalus monkey). In: *All the World's Primates*. (N. Rowe and M. Myers, eds.). Pogonias Press.

Kassie, A. & **Jaffe, K.E.** (submitted; under review) *Chlorocebus djamdjamensis* (bale monkey). In: *All the World's Primates*. (N. Rowe and M. Myers, eds.). Pogonias Press.

Galat-Luong, A., **Jaffe, K.E.** & Galat, G. (submitted; under review) *Chlorocebus sabaeus* (green monkey). In: *All the World's Primates*. (N. Rowe and M. Myers, eds.). Pogonias Press.

2. I worked on my *History of Biological Anthropology* book proposal. Based on the books and articles I read, I came to the conclusion that my original idea and organizational framework of this book will not work as I envisioned. During my sabbatical I began re-organizing the conceptual framework and table of contents with the hope that I can submit the proposal in the near future.

3. I applied for and received the following:

Research Associate status at Oakland Zoo. This partnership status provides me with additional research support, including access to Oakland Zoo personnel and potential research funds.

Two **SOURCE (SSU Office of Undergraduate Research and Creative Experiences) Awards**, to support undergraduate research assistants on my on-going mandrill and lemur projects.

4. I concluded the **Squirrel Monkey 'Retirement' Project** at the San Francisco Zoo and wrote and submitted my *International Primatological Society* Captive Care Grant final report. This report will appear in a 2016 *IPS* Bulletin.

5. I oversaw the successful implementation of the enrichment phase of the **Mandrill Enrichment Project** at the San Francisco Zoo. During Fall 2015, I met with the two undergraduates collecting data on the mandrill project on a bi-weekly basis. Data analysis will commence in Spring 2016.

*Graduate student collaborator

6. I obtained funding for, and oversaw the implementation of, the enrichment phase of the **Lemur Smart Feeder Project** at Oakland Zoo (click on highlighted links for additional information).

a. August 15-September 16, 2016: My graduate student, Penny Wilson, and I worked to secure \$2560 in funding for the materials and supplies needed to build eight smart feeders (Fig. 1). As the first SSU faculty member to use [Experiment.com](#) to mount a successful crowdfunding campaign, I was intimately involved in all aspects of the campaign. In addition to writing the [Lemur Smart Feeder Project Summary](#) with Penny I created several 'Lab Notes' documenting the project and its progress, including a discussion of the [Importance of University/Zoo Collaborations](#), and videos (which I made and edited myself) of [the smart feeder prototype](#), and [the lemurs using the prototype](#) (Fig. 1). I took the lead in using social media to advertise our campaign, including creating and maintaining the [Researchers4OZLemurs](#) Twitter feed, which I used to discuss primates, animal behavior, enrichment and conservation. Lastly, I interviewed by KGO, KCBS and [KRCB](#) radio regarding the project.



Fig. 1: Lemurs investigating the smart feeder prototype on 8/30/15 (KE Jaffe)

b. September 11-22, 2015: Once our campaign met its funding goal, I oversaw the [building](#) (Figs. 2 & 3) and [installation](#) (Figs. 4-6) of the smart feeders in the exhibit.



Fig. 2: The PVC pipes that hold the lemur diet (KE Jaffe)



Fig. 3: The smart feeders' designer and builder puts a feeder together. (KE Jaffe)



Fig. 4: OZ staff install a smart feeder. (KE Jaffe)

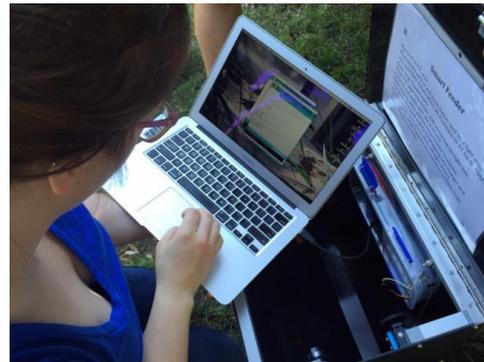


Fig. 5: Penny Wilson programs an Arduino board. (KE Jaffe)



Fig. 6: Sept. 21, 2015: Three of the eight smart feeders installed in the Oakland Zoo lemur exhibit (KE Jaffe)

- c. September 23, 2015-December 22, 2015: I oversaw data collection during the enrichment phase of the Lemur Smart Feeder Project by one graduate and two undergraduate students. Data analysis will commence in January 2016.
 - d. As a result of networking on Twitter during the crowdfunding campaign, I ‘met’ (electronically), Fortune Magazine journalist Stacey Higginbotham. On December 7, she interviewed me for her article on women in science titled [*Hack a Hairdryer was Sexist, But it Also Might Have Worked*](#). I would not have met Stacey or been interviewed for this article without the crowdfunding campaign on Experiment.com.
7. I initiated two new applied research projects in collaboration with the Oakland Zoo (OZ):
- a. **Hamadryas Social Stability Project.** In preparation for this project, I held several phone and in-person meetings with OZ personnel, met bi-weekly with the graduate student working on the project, and began teaching myself Social Network Analysis, a method of investigating social structures through the use of network theory. Network theory uses graphs as a representation of symmetric (e.g., proximity measures) or asymmetric (e.g., grooming, dominance) dyadic interactions. We will use social network analysis to better understand social stability (or instability) in a group of hamadryas baboons with the addition of two new juvenile males.
 - b. **Chimpanzee Enrichment Project.** This project will study how to use behavioral enrichment to enhance the engagement and activity levels of the OZ chimps while reducing, as much as possible, inter-individual competition. In preparation for this project, I held several phone and in-person meetings with OZ personnel, met bi-weekly with the graduate student working on the project, and read several articles on chimpanzee enrichment.

Cc: Margaret Purser, Anthropology Department Chair
Melinda Barnard, Associate Vice President of Faculty Affairs
John Wingard, Dean of Social Sciences
Greta Volmer, Chair of the University Retention, Tenure and Promotion Subcommittee