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Endowment Committee
1088 Academic Surge
Department of Wildlife, Fish, and Conservation Biology
University of California, Davis
Davis, CA 95616

Dear Colleagues,

I am thrilled to enthusiastically recommend Violet Wu for the Lloyd W. Swift Summer Research Award through the Department of Wildlife, Fish, and Conservation Biology at UC Davis. In Spring 2020, I began working with undergraduates, other graduate students, postdocs, and my advisor, Daniel Karp, to explore the combined effect of habitat loss and climate change on bird nesting success, utilizing an extensive dataset consisting of hundreds of thousands of nesting observations across the U.S. Our analyses suggest that in agricultural environments, increasingly frequent temperature spikes are substantially reducing bird nesting success. Yet no such effects occur in natural, closed-canopy habitats (*i.e.,* forests).

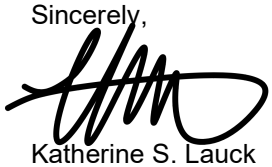
Violet is interested in developing an independent, student-driven research project seeking to understand the role of parental feeding in mediating the effects of temperature spikes in anthropogenic and natural environments. To do so, she will partner with the Museum of Wildlife and Fish Biology and Katia Goldberg, another undergraduate working in this system, to deploy thermal sensors in active nest boxes throughout the 2022 nesting season. Then, she will place Raspberry Pi-based motion-activated cameras at a subset of nests to capture video of parents bringing food to their young. Specifically, In February and March, Violet will receive training from master bander Daniel Karp in how to measure and band birds. Then, for 10 hours per week during Spring quarter and full time in early summer (*i.e.,* until July 31, the end of the nesting season), Violet will work directly with Katia and myself to deploy thermal sensors, monitor nests, and collect thermal and video data. Following her field season, Violet will work with myself to conduct basic statistical analyses. She will then prepare a report detailing her findings.

Violet brings to bear an impressive research background that will help her tackle this ambitious project, as well as volunteer experience with bird handling. She spent three months studying desert animals with the CA Ecology and Conservation Program contributed to a scientific publication. She has also worked with two graduate students to code scientific articles and build a large database of primate traits. She has worked with graduate students in the Yang lab to study melanization in monarch caterpillars. Finally, she volunteers at the CA Raptor Center, where she has already developed bird handling skills that will serve her well during this project. Leading her own research represents the next step in her career trajectory. In doing so, Violet will be trained in new field skills, statistical analyses, and scientific writing.

I will be using my own funding to purchase the requisite camera equipment for this project, but do not have enough funding to pay Violet's salary. As such, the Swift funding would be pivotal to her ability to execute this work. I find her proposal to be extremely exciting, novel, and of timely importance to conservation science. As such, I would be thrilled to work with Violet to write up her results and potentially publish the resulting product if she so desires. I will also ensure a thank you note is written. In summary, I strongly believe that receiving a Swift Summer Research Award would help launch Violet on what is sure to be exceptional career in conservation science and cannot imagine a better candidate for the award.

Please feel free to contact me with any questions or concerns.

Sincerely,



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