

Intellectual Merit Criterion

Overall Assessment of Intellectual Merit

Very Good

Explanation to Applicant

The proposal is written quite clearly and convincingly. The applicant has an array of different research experiences, including field and molecular, that will contribute to successful completion of the proposed project. The applicant does not seem to have the strongest background in more sophisticated chemistry techniques, which are proposed for the project work.

Broader Impacts Criterion

Overall Assessment of Broader Impacts

Excellent

Explanation to Applicant

The applicant's work with ESA SEEDS and blogging is very impressive. Demonstrates leadership and commitment to work with underrepresented groups and suggests that applicant is well positioned to carry out broader impact objectives. The applicant is writing for public (publication submitted) and has presented at national/international conferences, which is excellent. I am impressed with the fact that the applicant is already thinking about, and making substantive progress towards (e.g. SEEDS work), systems transformations and plans to continue to do so through additional broadening impact efforts. This is rare for someone at this stage.

Summary Comments

Overall, I think the applicant has strong potential to not only be successful in graduate research and beyond, but also an important contributor to shaping the scientific community.

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Explanation to Applicant

Strengths: This application proposes a plan of research addressing the fascinating intersection of socioeconomic status and wildlife ecology and physiology. The idea is novel and has far-reaching implications. In addition, it uses existing infrastructure to sample coyote blood, hair, and faeces from the study sites of interest, suggesting that it has a high chance of success and publication. Weaknesses: The proposal could use another metric of stress in aim 1.

Broader Impacts Criterion

Overall Assessment of Broader Impacts

Excellent

Explanation to Applicant

The applicant has, frankly, amazing initiative in forming groups and chapters to promote science to others and to encourage URM to join and remain in STEM fields. In addition, he is active in a urban ecology blog, which should perhaps not be listed under publications, but is impressive nonetheless. His research is also intensely synthetic and will have implications in several fields and to society in general.

Summary Comments

This is an extremely strong applicant. He has prepared himself broadly in research and coursework, as well as expending a lot of energy on outreach, education, and support of underrepresented groups. I recommend this proposal for a fellowship award.

Intellectual Merit Criterion

Overall Assessment of Intellectual Merit

Very Good

Explanation to Applicant

The applicant has a good academic record (3.39/4.0) at Florida State University but not as competitive with the overall applicant pool. The applicant's research training and experience has prepared applicant for future graduate program and develop into an independent researcher. The applicant has been involved in two diverse research experiences resulting several presentations and is presently writing a first-authored manuscript to be submitted soon. The applicant research proposal is solid and addresses an interesting and important topic: the influence of urbanization on coyote oxidative stress and diet. The applicant has very good letters of recommendation to attest to the applicant's research potential, aptitude for research in the field, intellectual merit, and good communication skills.

Broader Impacts Criterion

Overall Assessment of Broader Impacts

Excellent

Explanation to Applicant

The applicant provides an in-depth research plan as well as explains the potential impact on a broader audience. The applicant has demonstrated a strong commitment to maximizing the broader impacts of science by participating in various mentoring, leadership and outreach opportunities as an undergraduate to build a support network for the next generation of students to diversify ecology. The applicant created green programs toward conservation and is the co-founder of SEEDS (Strategies for Ecology, Education, Diversity and Sustainability) to increase diversity within ecology and enhance diversity in biology. In addition, the applicant created a mentor system within the SEEDS and has mentored other undergraduate students and has participated in several flagship programs. The applicant has produced several blog posts for the internationally recognized website addressing urban evolution for the scientific community including the lay audience and is working with a first-grade teacher to spark the interests in wildlife and urban ecology for students. The applicant's future plans to continue to develop educational tools and outreach programs with K-12 educators and researchers into the classrooms and communicating science for public and academic audiences. The applicant has demonstrated a multiply-faceted interest in developing a real broader impacts relationship in general with students and the community.

Summary Comments

The candidate has a good academic record. The applicant aims to study the consequences of urban system on wildlife physiology and investigate the effect of urbanization on coyote oxidative stress and diet. The applicant's letters of recommendation describe a young scientist who has multiple skill sets and is very insightful. Based on this application, the applicant has a distinguished record of helping students and the community to become excited about ecology and conservation. The applicant has great aptitude for graduate studies and the potential for success and encouraging science literacy in the community. The applicant has the intellectual and experimental abilities, motivation and strong support letters to be a strong candidate for this Graduate Research Fellowship. The applicant's discussion of broader impacts of his research work from the perspective of his research and outreach in the community are well-documented. The applicant has a strong interest of promoting scientific engagement into the classroom and the community. The applicant will be a great role model for younger students.

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