**Grading of Research Grant Proposal**

I will grade your projects on the same criteria that NSF panelists use to judge proposals (with some slight modification). These criteria are copied below with *italicized* *annotations* on how I will specifically apply them to your proposals. My additional criteria are also described.

**My Criteria**

1. **The project must primarily use existing museum specimens**, including study skins, skeletons, fluid specimens or tissues. Additional **field collecting** may be proposed, but it **should not constitute more than 40% of the organisms you intend to use** in your study. That is, if you are planning to resurvey historical sites, you can’t add more than 40% more new, previously unsampled sites. If you are planning to compare population genetic structure in a species from 80 years ago with what exists today, your current field collection should include the same number of individuals as what exists as historical specimens for that species.
2. **The writing must be absolutely clear and well-organized without typos and grammatical errors.** All figures will be well-labeled. The cited literature will follow the bio-cite recommendations.

**NSF Criteria**

1. **Intellectual Merit:** The intellectual Merit criterion encompasses the potential to advance knowledge; and
2. **Broader Impacts:** The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

**The following elements will be considered in the review for both criteria:**

1. What is the potential for the proposed activity to
   1. advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and

*🡪You should have identified a gap in knowledge and justified it as such with a strong background section describing the status of the field and a project description that identifies the gap (minimum of 5 citations, only one of which can be a review article, 3 or more should be published since 2009). This does not have to be a life-changing field-altering gap. But it must be something no one else has published. If I can do a quick search to find a paper that does exactly what you propose, that is bad news.*

* 1. benefit society or advance desired societal outcomes (Broader Impacts)?

How well does the activity advance discovery and understanding while promoting teaching, training, and learning? How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)? To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships? Will the results be disseminated broadly to enhance scientific and technological understanding? What may be the benefits of the proposed activity to society?

🡪 *This may be difficult for many researchers, but with your background on the important role museum’s and their collections play, and your understanding of public engagement, you will probably have an easier time of addressing this element than most researchers do. You may propose to digitize your specimens as part of the project, involve citizen scientists, create a module for use in undergraduate classrooms, purchase equipment that will be used in undergraduate classes etc.* ***Making a logical connection between the intellectual value of your work and the societal value will be a critical component of your proposal and grade.***

1. To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?

*🡪I’m not going to hold you to this level for the design of your research project. You can absolutely do the exact same study as someone else, just in a different organismal group. No problem there.* ***However, I will expect that you have found a creative way to address Broader Impacts that is not just focused on your own training****.*

1. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?
2. 🡪*Yes. And this applies to both intellectual merit and broader impacts. Do not propose a half-baked idea. Think the project through, including broader impacts. Talk it through with me, your colleagues and other faculty ahead-of-time. The methodology you propose should be appropriate to answer your proposed research question. The broader impacts should be achievable based on your proposed activities.*
3. How well qualified is the individual, team, or institution to conduct the proposed activities?

*🡪Nope. You don’t have to justify your qualifications.* ***I’m only going to check that you have found that the necessary specimens exist to conduct your research.***

1. Are there adequate resources available to the PI (either at the home institution or through collaborations) to carry out the proposed activities?

*🡪Similarly,* ***I’m not going to dock you if the cost of the project seems exorbitant****. Of course, you want to remember one of the principles of participation from Nina Simon, that the best exhibits/projects are those that don’t cost much☺*