

Coyote Culture: Integrating Ecosystems' Non-material Values into Policy through Education
Final report on Jeffords grant awarded to Dr. Rachelle Gould
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When environmental policies fail to recognize and address the non-material values that people derive from ecosystems, landscapes, and species, conflicts centered on these values go unaddressed and can lead to polarization and unjust outcomes. In the funded project, we aimed to characterize non-material values related to coyotes in Vermont's landscape—a very contentious issue. (A public debate over whether and how to regulate human interactions with the state's population of Eastern coyotes (*Canis latrans var*) has intensified since legislation banned coyote killing contests was passed in 2018.) We employed a highly novel “social citizen science” approach that involved educational and community-based activities with over 100 Vermont high-school students. Our partners include the Vermont Department of Fish & Wildlife, Vermont Trappers Association, and Vermont Folklife Center, and they are currently helping to position this work for immediate impact at the state level, in the tradition of community-engaged research.

We applied for funds to support coding stories collected by citizen scientists, and then develop policymaker workshops to share those results with Vermont policymakers. We are currently engaged in coding stories, but we decided to forgo the policymaker workshop largely because of the immense complications introduced to this project by COVID. In addition, the lead PhD student on this grant is now working full time as the outreach coordinator for the Vermont Department of Fish and Wildlife, so when the results are complete, we have a direct line to the agency and to its outreach channels.

Highlights of our project accomplishments and findings to date are:

- From 2019-2021, we worked with over 100 students in multi visit interactions to teach them about coyotes, train them in community based science, and then help them to analyze their data. We collected data about the educational experience.
- the students with whom we worked gathered qualitative data via structured interviews [n=122] from towns across the state to examine a wide suite of benefits, and the over-arching values, Vermonters associate with coyotes.
- Interviews provided insight into the specific benefits from nature at play in human-coyote interactions. Interviews also demonstrate the prevalence of broad value orientations around coyotes in our sample: instrumental, intrinsic, and relational.
- Our results highlight considerable diversity and “messiness” of experiences and values Vermonters associate with this ecologically significant and politically contentious species.

Advocates and wildlife managers identify the public's wildlife values as central to the debate surrounding coyotes in Vermont. Yet although some data on wildlife value orientations at the statewide scale are available, no dedicated study on Vermonters' experiences with or values around coyotes exists. This project is very close to providing such a policy-relevant dataset. The Department of Fish and Wildlife and other state agencies are eagerly awaiting our results, which we plan to submit for publication in a peer-reviewed journal this summer (August 2022).

Beyond the environmental policy and education outcomes from this work, we the project has yielded additional civic benefits (e.g., it created, via our student citizen scientists, substantive cross-generational dialogue about contentious, meaningful issues). It will also serve as proof-of-concept for a creative “social citizen science” approach to addressing polarizing policy issues through combining research and educational efforts to address and inform those policy issues; we have plans for a second peer-reviewed article that will offer reflections and lessons learned to facilitate broader uptake of this technique.