

FELLOWSHIP BRIEF

From Fields to Future: A Multispecies Ethnography of Regenerative Farmers' Experiences of Climate Change

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The Need.

Across the Southwestern United States, the already pervasive effects of climate change foreshadow a bleak future for farmers. If you google “climate change and agriculture in Colorado,” you’re likely to find a number of alarming headlines which show that drought is actively threatening the livelihood of farmers. This is supported by quantitative research which shows that—due to anthropogenic climate change—the Colorado River Basin has 10% less water available today than it did in the 1950’s, which is equivalent to the volume of Lake Mead. Studies predict an additional 20% decline in surface runoff by 2050. Because 85% of the region’s croplands are irrigated, competition among farmers for water is likely to increase as the effects of climate change become more profound. And yet, while there is extensive quantitative research on the environmental impacts of climate change on agriculture, there is a deficit of qualitative research to connect abstract statistical data to the lived experiences of farmers.

The Project.

Julia’s fieldwork took place across the three river basins of southwest Colorado, the Gunnison, Rio Grande, and San Juan. The town of Gunnison is home to Julia, so she came to this research with established relationships in the field and a vested interest in the agricultural future of the region. Julia’s methodology was rooted in multispecies ethnography, which is a form of research and writing that is attuned to the interdependence of human and non-human life. Multispecies ethnography challenges Western epistemologies to think beyond anthropocentric human/nature binaries, which often structure exploitative relationships to nature, and position humans as not only apart from nature, but above it. Julia conducted 16 semi structured interviews, and five unstructured interviews. In accordance with multispecies ethnography, all interviews were conducted on-farm, so that the research was not only about plants but with them. To further engage with non-human beings assembled in farms, Julia conducted 88 hours of on-farm participant observation by doing all sorts of farm work, including planting, weeding, milking goats, pruning raspberry canes, etc. Lastly, Julia conducted a post fieldwork qualitative survey to supplement her interview data.



Fig. 1: Intercropped rows in the San Juan River Basin of Colorado. Credit: Julia Jacobson.

The Findings.

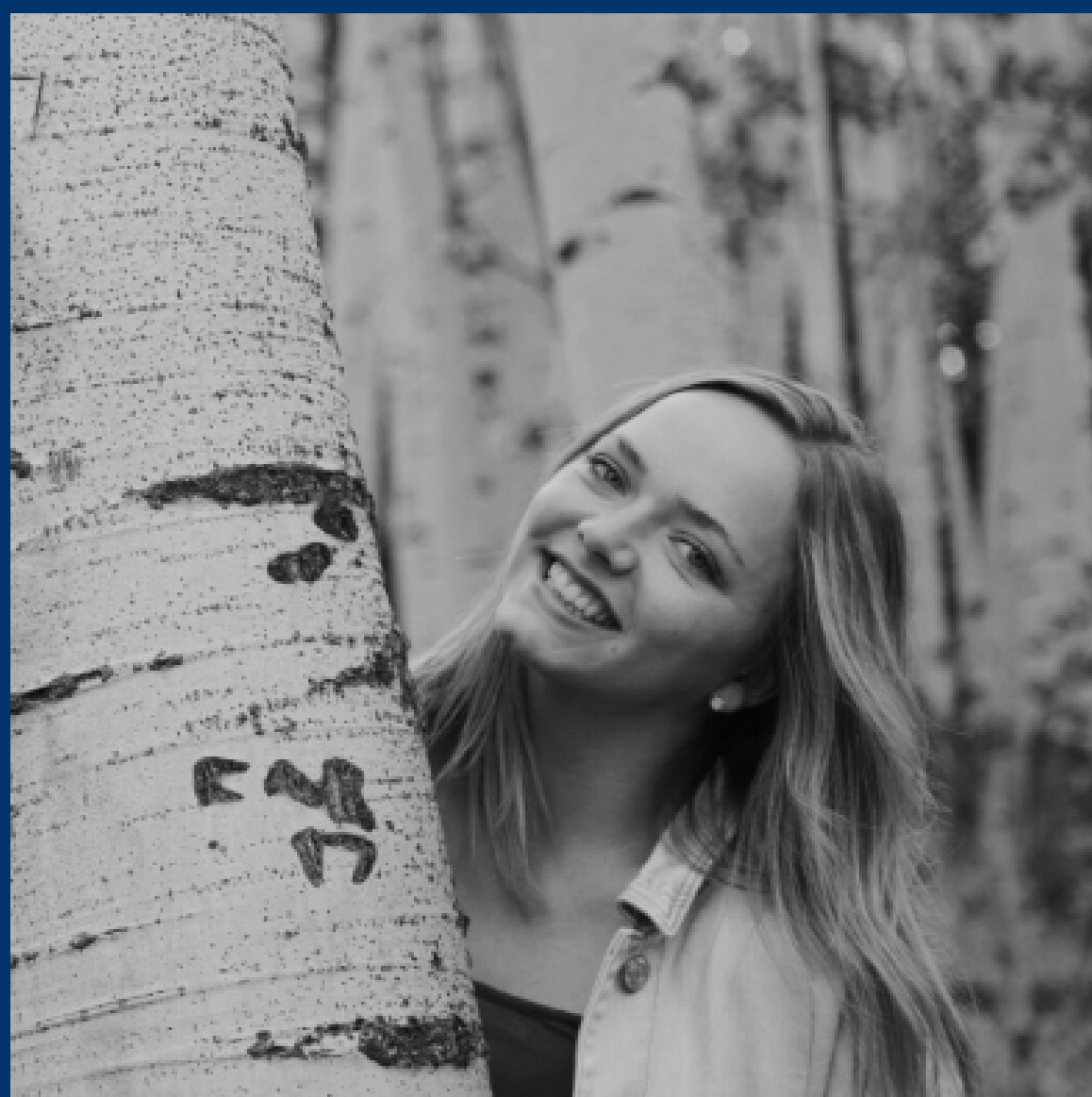
Findings from Julia's research include:

1. Soil, ecological, and human health are primary motivations for regenerative farming, which I view as a material manifestation of more-than-human relationships.
2. Regenerative farmers struggle to profit in capitalist markets because their full ecological and social value is not monetized or incentivized.
3. Climate change is actively exacerbating the economic risk regenerative farmers face each season. Increasingly unpredictable weather was of the greatest concern to regenerative farmers. For many farmers, drought was of lesser concern because farmers felt secure in their water rights.

Julia's research concluded that regenerative farmers are challenging human/nature binaries by intentionally cultivating more-than-human assemblages. In their everyday interactions with plants, animals, pollinators, seeds, water, etc., they attend to the agency of non-human others. Regenerative farmers diversify crops in place of crop insurance, creating climate resilience. Together, farmers and non-humans generate social-ecological benefits like increased soil-productivity, carbon sequestration, water retention, and local food security, to name a few.

The Impact.

This research is intended to complement quantitative studies regarding the impacts of climate change on regenerative agriculture. Whereas many quantitative studies focus on the impacts of drought, this research reveals that unpredictable weather is currently of greater concern to regenerative farmers. Additionally, it shows that the most ecologically sustainable form of food production is not financially sustainable in capitalist markets. Regenerative farmers demonstrate more-than-human relational ethics necessary to address the climate crisis. Yet, they are vulnerable to the economic risk of climate change embedded in its environmental impacts. With little to no access to crop insurance – which is offered to a limited number of commodity crops – regenerative farmers often bear the full economic risk of crop failure. The farmers that participated in Julia's research told a story of financial hardship. Creating institutional, financial support for regenerative farmers is of the utmost importance. Julia's findings can be used to inform future Farm Bills, crop insurance regulations, and water management in the Upper Colorado River Basin.



The Student.

Julia Jacobson, Western Resource Fellow | Julia is a Master of Environmental Science student interested in the intersections of multispecies interactions, food, and community. Her research aims to understand how farmers in southwest Colorado are experiencing and responding to climate change. Prior to coming to the Yale School of the Environment, Julia worked as an environmental journalist and educator in her hometown of Gunnison, Colorado. She holds a B.S. in ecology and evolutionary biology and a B.A. in English literature from the University of Colorado at Boulder. In her freetime, Julia enjoys skiing, rafting, hiking, gardening, and all things outside. [See what Julia has been up to.](#) | [Blog](#)