



## 7<sup>th</sup> Annual Rising Voices Workshop

**Converging Voices:  
Building Relationships & Practices for Intercultural Science**



**Wednesday, May 15 – Friday, May 17, 2019  
National Center for Atmospheric Research, Boulder, CO**



## Background

**[Rising Voices: Climate Resilience through Indigenous and Earth Sciences](#)** (Rising Voices) is a network of several hundred participants, including Indigenous, tribal, and community leaders, atmospheric, social, biological, and ecological scientists, students, educators, and other experts from across the United States, including Alaska, Hawai'i, and the Pacific Islands, and around the world. The program facilitates intercultural, relational-based approaches for understanding and adapting to extreme weather and climate events, variability, and change. It seeks to transcend the boundaries that often separate science from society and support a growing network of collaborators with diverse intellectual and cultural backgrounds. [Rising Voices](#) is co-administered by the University Corporation for Atmospheric Research / National Center for Atmospheric Research ([UCAR|NCAR](#)) and the Livelihoods Knowledge Exchange Network ([LiKEN](#)) in partnership with Haskell Indian Nations University, the Indigenous Peoples' Climate Change Working Group, and NOAA's Office for Coastal Management.

**At its core, Rising Voices aims to advance science through collaborations that bring Indigenous and Earth (atmospheric, social, biological, ecological) sciences into partnership, supports adaptive and resilient communities through sharing scientific capacity, and provides opportunities for Indigenous students and early career scientists through scientific and community mentoring.** Further, it helps Western-trained scientists expand their observational skills, research paradigms, capacity to apply and translate findings, and ultimately their science. It acknowledges the inherent value of Indigenous knowledge systems and Indigenous science, adaptive practices and processes, honoring them equally with Earth sciences. It envisions collaborative research that brings together Indigenous knowledges and science with Western climate and weather sciences in a respectful and inclusive manner to achieve culturally relevant and scientifically robust climate and weather solutions.

To date, participation in Rising Voices has occurred primarily through annual workshops, and an active listserv of over 550 members, who use it to share stories, updates, resources, and opportunities, coordinate follow-up projects, and ask questions. It has facilitated the creation of new and continued partnerships between Indigenous communities, scientists, academics, researchers, students, and government representatives.

*"We have to deal with the cultural climate change before we can deal with the physical climate change." – Dan Wildcat, Haskell Indian Nations University, May 16, 2019*

## 7<sup>th</sup> Annual Rising Voices Workshop

The [7<sup>th</sup> annual Rising Voices workshop](#) May 13-15, 2019 was held at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado. It was organized in partnership between UCAR/NCAR, the Livelihoods Knowledge Exchange Network (LiKEN), Haskell Indian Nations University, the Indigenous Peoples Climate Change Working Group, and the Indigenous Phenology Network, with funding support provided by the NOAA Office for Coastal Management, the National Science Foundation the North Central Climate Adaptation Science Center.

The workshop brought together 225 people across Indigenous and non-Indigenous



cultural backgrounds, scientific disciplinary, research and practitioner boundaries, ages, geographies, genders, languages, and knowledge systems around the theme of *Converging voices: Building relationships and practices for intercultural science*.

## Pre-workshop training offer: Community Health Maps

The day before the workshop officially began, a training was offered on Community Health Maps (CHM), a project of the National Library of Medicine (NLM). Kurt Menke and Sarah Reynolds from [Bird's Eye View GIS](#) led the training. Participants were introduced to the CHM program, which aims to empower community organizations in the use of low cost and open source mapping technology. This introduction included examples of how other organizations have used the CHM workflow. Participants then learned to build a data collection form in [Fulcrum](#) and use their smart phones to head outside and collect point data. They then downloaded the data they collected and used it to create an online map with the [Carto](#) platform. The workshop concluded with a brief introduction to QGIS, the leading open source desktop GIS software. For links to presentations given during the workshop: [Community Health Maps](#), [Fulcrum](#), [Carto](#), and [QGIS](#). To read further about the workshop, on Community Health Maps, please read this short piece on the Community Health Maps [blog](#).

## Evaluation

The evaluation process for the 7<sup>th</sup> Annual Rising Voices Workshop sought to assess the processes and outcomes salient to the tensions and opportunities that emerge in boundary organizations. Specifically, the evaluation examined how relationships, sovereignty, culture, and power operate in an event that seeks to cross the boundaries between Indigenous and Earth sciences. Through this evaluation process, which was done in partnership with Indigenous evaluators at Michigan State University, Rising Voices hoped to empower all participants to help direct the future of the program towards its goals of intercultural science, climate resilient communities, and Indigenous professional development. The evaluation report by K. Malulani Castro, Carla M. Dhillon, and Kyle Powys Whyte will be available on the [Rising Voices website](#) in Fall 2019.

## Day 1: Cultural protocol / Opening Ceremony

Rising Voices 7 began with an opening ceremony. This year's ceremony was led by Kalani Souza (Olohana Foundation) and Ava Hamilton (Arapaho). Rising Voices 7 participants took these initial moments together to offer tribute and gratitude to long-time Rising Voices ceremonial leader Jerry Fills Pipe, and to the ancestors, which now includes Rising Voices co-founder Bob Gough.

## Welcome to Boulder / Introduction to place

Ava Hamilton (Arapaho) welcomed everyone to the workshop. She opened up the day with gratitude for the land upon which we were walking. Hamilton gave recognition to the land we were on, that had been lived on for thousands of years by her ancestors and many others. She gave respect to all the people who called this place home and who came before us. She gave a charge to all gathered in the room that sparked inspiration for what we were all there to

accomplish: collaboration between peoples on climate action. In her closing remarks, she gave thanks to the land and shared hope for its protection.

Chris Davis, NCAR's Associate Director and Director of the [Mesoscale & Microscale Meteorology Lab](#), welcomed participants to NCAR and acknowledged that this was the biggest gathering of Rising Voices since its inception, and he is deeply respectful of the community and thanks our commitment as a group for intercultural collaboration. NCAR is known for innovation in atmospheric sciences, however Davis believes that the Rising Voices workshop creates real innovation not only in science but in how knowledge is approached and produced. He believes the co-creation of science creates a knowledge that is useful and forward-looking that depends on Indigenous, Western, and all societies coming together.

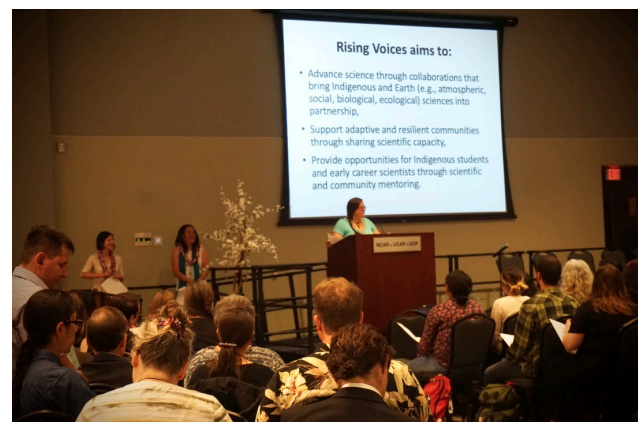
Following Hamilton and Davis' welcoming remarks, Heather Lazrus and Julie Maldonado, the Co-Directors of Rising Voices opened the workshop and offered thanks to all those gathered and to the workshop planning committee. They recognized Bob Gough, the co-founder of Rising Voices, who walked on in September of 2017.

Lazrus and Maldonado summarized the intentions of Rising Voices to give context to the many participants who had never been to one of the workshops before. Rising Voices aims to: advance science through collaborations that bring Indigenous and Earth sciences (atmospheric, social, biological, ecological) into partnership; support adaptive and resilient communities through sharing scientific capacity; and provide opportunities for Indigenous students and early career scientists through scientific and community mentoring. Participants viewed an [Introduction to Rising Voices](#) film, created by Lomikai Media and the Olohana Foundation.

Paulette Blanchard (UCAR Fellow), introduced the UCAR/NCAR Code of Conduct and the Rising Voices Guiding Ethics, explaining that this was not just a place for people to observe, take notes, and then publish work about it. This was a courageous space, one where people should observe the rule of free prior and informed consent, and we would all work hard to create a space that was collaborative and mindful. Blanchard recognized that Rising Voices has come a

long way in creating such a space, however, we are still trying to reteach the ways of academic and other institutions to do ethical research where they create partnerships with others rather than looking at them only as resources. The key words she invited participants to remember to guide their discussions throughout the gathering were respect, responsibility, and reciprocity. Paulette also reminded participants about the concept of White privilege, that we are here to support, listen to, and learn from each other, and that there is always room to improve.

Maldonado wrapped up the opening remarks by reminding us all that we have been having this conversation for over seven years. She asked that those of us who were entering the conversation this year ask questions and meet new people, and create a courageous space



Paulette Blanchard introducing the UCAR/NCAR Code of Conduct and the Rising Voices Guiding Ethics.

and time to have difficult conversations. This space was a place of convergence, so we must be constantly asking ourselves how we build relationships and practices for intercultural science. We must step outside of our roles and titles and be present with the people around us if we were to build meaningful relationships.

## Plenary Panel 1

### Indigenous value-based mentoring and education across generations, cultures, and knowledge systems



Rising Voices participants come together from across cultures, generations, regions, and ways of knowing.

The first plenary panel of the workshop, entitled “Indigenous value-based mentoring and education across generations, cultures, and knowledge systems,” concerned three central questions:

1. How do you approach mentoring and educating both Indigenous and non-Indigenous students?
2. What are the responsibilities and accountabilities in educating and mentoring Indigenous and non-Indigenous students?
3. How can students be supported to maintain their cultural, Indigenous identity, ethics, and responsibilities if entering into mainstream universities and institutions? Can these two worlds be brought together?

Participants learned from the experiences shared by Paulette Blanchard (UCAR Fellow, moderator), Chris Caldwell (College of Menominee Nation), Lesley Laukea (University of Hawaii), Michelle Montgomery, University of Washington-Tacoma), Neil Patterson Jr., (State University New York of Environmental Science and Forestry/ SUNY-ESF), and Dan Wildcat (Haskell Indian Nations University)

Michelle Montgomery, Associate Professor at the University of Washington-Tacoma, was first to speak. She shared her experiences as one of the first two Native faculty members at the University of Washington-Tacoma, and reflected that her goal is not only to decolonize narratives, but to acknowledge how narratives are told, who tells them, and who defines them. Montgomery pointed to the importance of critical reflective dialogue, which aims to call people into a conversation without “calling them out,” and creating safe spaces. She posed critical questions that educators must ask themselves and each other, such as how one can use White privilege to decolonize the classroom, and how your actions can be agents of change.

*“What lands are you on? If you know your students have a legacy of historical trauma, what are you going to do about it? How will you become the student?”*  
– Michelle Montgomery, University of Washington-Tacoma, May 15, 2019

Chris Caldwell, from the College of Menominee Nation, was next to share his thoughts. Caldwell, who advocated for reflection on the past as preparation for solutions of the future,



reflected on the words of Chief Oshkosk about following a path that will best support future generations. He advised the audience to consider a student as a professional, and to think of methods to help students develop as professionals. He also isolated the need for the decolonization process to create new relationships and structures that differ from the established mainstream institutions.

*“I wish to pursue the course that will be best for the children that will come after us.”  
– Chief Oshkosk, at a Menominee Council meeting, 1856*

Lesley Laukea, born and raised in Maui and an instructor and lecturer at the University of Hawaii, was similar in her desire to change narratives of only speaking English and not connecting to curriculum in the classroom. Laukea called for more languages, stories, and traditions to be included in educational settings, along with interactive natural activities that would require students to “get their feet dirty.” Inclusion of language and traditions is the missing link to building a bridge to understand cultural practices today. This calls for culture-based curriculum. There is a misconception of who owns the knowledge and who shares the knowledge that needs to be rectified.

Laukea’s experience has been as one of only two Native Hawaiian students at her University of Hawaii campus, separated into different departments and not allowed to teach certain topics. Her goal is to open pathways for others – Native Hawaiian and others alike – that want to make a change. She called for educators to not erase the bodies of students in their classrooms. Everyone must learn the history, historical traumas, and have a bidirectional exchange, allowing space to learn and listen. Laukea wants Indigenous students to understand that they have a place in academia and scientific fields, and hopes to create more safe spaces where youth feel comfortable to talk about themselves, their people, and find a “seat at the table.”

*“You are not there for yourself. You are there for your people, your family, your community. There are many different layers to being in a classroom.”  
– Lesley Laukea, University of Hawaii, May 15, 2019*

Next to speak was Neil Patterson Jr., of SUNY-ESF. Patterson first urged the audience to not be suspicious of curiosity in academic spaces, especially from non-Indigenous students and faculty. He also addressed immersion schools (a movement within communities to educate students with traditional knowledge) as an alternative to traditional western education narratives, and implored participants to “break free of those chains of a different epistemology.” Patterson’s final suggestion was to encourage Native students to embrace their language, and a reminder to mentors and teachers to remember that Native students often come in with trauma going on in their communities, they have lost people, they have lost their own language, and what is needed is to be supportive of their personal explorations of self and culture.

*“Learning your language is critical to who we are.”  
– Neil Patterson, Jr., SUNY-ESF, May 15, 2019*

Dan Wildcat, of Haskell Indian Nations University, spoke last. “I want you all to leave here as a teacher *and* a mentor,” he began, and launched into the importance of strong relationships in life and academia. Wildcat identified that listening is the most important role of a teacher, because it enables teachers to learn something from “the people who will make [them]

better human beings.” He called for all of us to model connectedness to your community, language, responsibility, to pay attention and listen, to share and show gratitude. He also spoke of the importance of allowing students space to grow and learn, to not get in their way, of supporting them as they tackle new endeavours without controlling or coddling them. One must recognize that students know something you do not know, and encouraged educators and others to build connections and your knowledge can become richer. Wildcat concluded with a call to action: he urged participants to be life-time students and life-time teachers, people wholeheartedly invested in wisdom and action, because “we have so much work to do that we don’t have to worry about which job is more important.”

*“Everyone should be a teacher. Live with respect to and for life.”  
– Dan Wildcat, Haskell Indian Nations University, May 15, 2019*

## Plenary Panel 2

### Relational Research: Intercultural science collaborations guided by ethical relationships and practices

The second plenary panel of the workshop, entitled “Relational Research: Intercultural science collaborations guided by ethical relationships and practices,” concerned three central questions:

1. How do you define and approach intercultural research and move from transactional to relational work?
2. Responsibility & Accountability: What are the responsibilities and accountabilities in intercultural work?
3. How does intercultural research guided by ethical relationships and practices further decolonization?

Workshop participants were engaged by the experiences of Althea Walker (Southwest Climate Adaptation Science Center, moderator), Dominique David-Chavez (Colorado State University & Native Nations Institute), Nicole Herman Mercer (US Geological Survey), Sara Herrin (Global Learning and Observations to Benefit the Environment Program/GLOBE-UCAR), Scott Ketchum (University of Oklahoma), and Heidi McCann (National Snow and Ice Data Center).

Nicole Herman Mercer defined intercultural work as using all knowledge systems that are important and relevant to communities. She pointed out that some relationships are transactional, albeit beneficial, but that foundation laid by transactional science helped her to come in and create relationships that were meaningful. She is not there to build a relationship with the community as a USGS researcher; she is there to build a relationship between people. It’s important to never over-promise what you can deliver on; if she drops the ball, she should be held accountable. Herman Mercer called critical attention to the practice of “Columbusing” knowledge, where non-Indigenous scientists are credited with “discovery” or something that has been understood by Indigenous Knowledge holders for centuries. It’s essential to be aware that the outside researchers do not own the data and knowledge they are provided.

*“In working with communities, it is not about building a relationship through your organization, but building personal relationships as a human being.”  
– Nicole Herman Mercer, US Geological Survey, May 16, 2019*

Sara Herrin discussed her work through an NSF-funded INCLUDES Project, which emerged from collaborations built through Rising Voices between representatives from NCAR and GLOBE/UCAR and participants from four communities in Hawai'i, Wisconsin, Arizona, and Alaska. Community members from each community are responsible for collecting, monitoring, storing, and sharing their data with tools and other assistance from NCAR. Through this process, Native students are trained to do Western science without being forced to separate their culture from their research, and Western scientists are trained on how to work with Indigenous communities. Herrin described her approach as trying to have relational transactions in which GLOBE/UCAR provided equipment, but also tried to make sure that the process was beneficial to the communities and not just about obtaining data. She expressed the need to bring conversation around White privilege into such work, and making connections from human to human.

*"I know that often times I am working with people who have a deeper understanding of these issues, and to remain humble is key."*

*– Sara Herrin, GLOBE/UCAR, May 16, 2019*

Scott Ketchum described how the transactional work is responsible for the helicopter research done in communities, getting the data for the grant, and then the communities get nothing in return. It is essential to make sure that the work is multidirectional, and beneficial for both sides. He talked about what it means to do research that is in service to the community and a focus on accountability and respect for all involved, moving away from colonial structures and instead towards sovereignty. With increasing extreme weather events, a key question becomes how do we collaborate, and for non-Indigenous researchers to understand how to interact with Indigenous communities and not come in with a "saving mentality." We have to teach upcoming researchers how to interact and understand Indigenous communities. Still a work in progress, need to get rid of the white savior/paternalistic attitude still. Have to create an understanding between people, have to understand that we are coming from their own points of nostalgia. Need to learn to negotiate those two things together. Power sharing. The responsibility comes first and foremost from respect for one another as humans. You are in service to the community. When you come into these things with responsibility, you understand that accountability comes from that. To the people who came before and the people who will come after, the owners who have yet to come.

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*– Scott Ketchum, University of Oklahoma, May 16, 2019*

Dominique David-Chavez articulated that Indigenous peoples have always been scientists and that there have always been intercultural exchanges between communities. The rural farmers she works with are all scientists. Their knowledge is valuable and often the historical context is not acknowledged. Diverse ways of knowing have always contributed to research and findings, but it is hardly ever acknowledged. The biggest barriers she has seen and worked through have been around different levels of relational accountability. If your family



is growing food on that land, you have a different level of accountability to that research than if not. There has been another conceptual barrier in thinking that Indigenous Knowledge is not science; yet many diverse scientific ways of knowing can be reflected within different languages, and cultural concepts.

She has found through her work a lot of Indigenous people saying that the national protocols and academic protocols do not stand up to nor protect the cultural protocols. Data sovereignty – the rights of Indigenous people in how they collect, hold, steward and work with the data and knowledge they have – needs to be respected and upheld. For her community, she works with a local advisory council to ensure that the research is appropriate to the needs and interests of the community. Having this review takes time, but often it increases data accuracy. In order to really hold accountability, you have to take the time and go through these steps. She's had to overcome people thinking her people were extinct and that all of the held knowledge was gone. David-Chavez expressed that we can find common ground and move forward, but first we have to learn our own histories.

*“We need to support leadership opportunities for Indigenous students and focus on building research around values, relationships, cultural protocols, and common language.”*  
– Dominique David-Chavez, Colorado State University

Heidi McCann reflected on relational work she has done in bringing different groups of Indigenous people together to collaborate with each other, and on how the community relationship is much more important to her than the relationship to the researcher. As a data scientist she works with Indigenous Knowledge, some of it is quantitative, a lot of it is qualitative. Part of the community relationship in her work includes developing a statement in her project work that deals with accountability. Just because she is an Indigenous person, it does not mean she knows about all Indigenous Nations everywhere; she also has to do her research and that's important to keep in mind. By doing that, relationships have turned from collaboration to personal. The transaction is not as important as the interpersonal, and you see the value when you become a part of that community.

*“The knowledge that I have gained as an Indigenous woman is not my own, it comes from my ancestors. I do not have the right to do what I want with it, I must go through a process with my Tribe. As a researcher you must understand that process. You do not own the knowledge but are stewards of it.”*  
– Heidi McCann, National Snow and Ice Data Center

## Plenary Panel 3

### Equity and Justice: How do our diverse identities contribute to science, education, and sovereignty?

The third plenary panel focused on the power and struggles of intersectionality in the context of climate change, and how our identities shape our work and the responsibilities and accountabilities in our work based on our identities. The panel's guests were Michelle Montgomery (University of Washington-Tacoma, moderator), Paulette Blanchard (UCAR

Fellow), Michael Chang (Climate Adaptation Specialist for the Makah Tribe), Adriana Garriga-Lopez (Kalamazoo University), and Melissa Watkinson (Washington Sea Grant).

Mike Chang commenced the discussion by first introducing the term intersectionality as an analytical framework for critical analysis of power structures and dynamics, including multiple



Mike Chang sharing concepts around intersectionality and knowledge.

facets such as gender, race, class, sexual orientation, age, dis(ability), and education. The term's origin is from feminist theory, used first in 1989 by scholar and advocate Kimberle Crenshaw. Chang shared a definition of intersectionality by feminist scholar Kathy Davis (2008:8): "The interaction between gender, race, and other categories of difference in individual lives, social practices, institutional arrangements, and cultural ideologies and the outcomes of these interactions in terms of power."<sup>1</sup> Considering the interwoven connections between intersectionality and climate change, Chang discussed how various socio-, political-, and economic factors already create hierarchies of privilege within societies; people with more privilege are able to be more resilient under climate change impacts and responses. For example, consider what it means for queer people to seek safety in emergency shelters during extreme events such as hurricanes.

He challenged the audience to consider the intersection of intersectionality and knowledge and the ways in which power structures influence knowledge and research production, application, and circulation. Intersectional identities affect how *we*, or individuals, operate within different spaces. For example, considering power structures, in the Western/Euro-centric view of "science" and "research", notions of peer review and what counts as peer review is valued over other concepts. There are a multitude of power structures to consider, such as gendered power structures that place whose priorities and values are addressed and whose are ignored or made invisible. The legacy of colonial-driven policies have long put some groups of people more at risk than others, and it's critical to consider how responses to climate and other stressors are felt differently within a community, and what are the institutional barriers and pathways that allow persons to adapt or not adapt? Interwoven within all of this is the many different levels of intersecting power: male-ness, White-ness; able-ness, Western-science-ness, etc.

*"Heteronormativity has largely erased many queer, trans, two-spirit peoples' experiences from the climate conversation, placing Indigenous science and knowledge always in relational constructs to "Western" science and knowledge."*

*– Mike Chang, Makah Tribe, May 15, 2019*

Following Chang's sharing of some of the key concepts and ideas that are the focus of the panel, Montgomery posed the following themes set of questions to the panelists to consider in their discussion: intersectionality and climate change risk and response capacities, intersectionality and knowledge, and our responsibility to equity and justice.

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<sup>1</sup> Davis, Kathy (2008) Intersectionality as buzzword: A sociology of science perspective on what makes a feminist theory successful. *Feminist Theory* 9(1)

The panelists were asked how diverse identities contribute to science, education, and sovereignty. To this question, Melissa Watkinson specified that she leads diversity and equity inclusion efforts in her organization in order to build authentic relationships among her colleagues and community members, and to reflect on ways to promote decolonization and resiliency. Ensuingly, she reflected on a question: What if you could only bring one or two aspects of your identity within a space? Watkinson then presented the idea that the ability to show up as your true, authentic self promotes decolonization and resiliency.

Watkinson shared part of her identities, talking about growing up in Washington and having family who are enrolled with Upper Skagit, and that she is enrolled as a citizen of the Chickasaw Nation; she embodies both the Chickasaw heritage and Coast Salish heritage, and that these multiple identities intersect with her climate work. She described growing up with having salmon and crab and other seafood with her family, that is how they came together, and that was her entry point into climate work.

*“We celebrated with food. Every time we met it was a spiritual opportunity but also just how we gathered and how we celebrated each other and being with each other. And then I started to see how when we started to go out and harvest sea foods, the decline of the availability of crab and other sea foods in the ocean. I think having those relationships is really a big core of who I am because I’m fortunate to be able to have been raised and embody both of those identities and heritages. I don’t pretend to know more than people who have close relationships to the marine resources and the ocean and the animals, and I hope to continue to learn and embrace their expertise. But I use a platform through my research with communities to uplift their knowledge and try to figure out with them to adapt in a culturally appropriate way to the changes that are happening.”*

*– Melissa Watkinson, Washington Sea Grant, May 15, 2019*

Adriana Garriga-Lopez proceeded to elaborate on resiliency in her field and home country, Puerto Rico. As an anthropologist, Garriga-Lopez emphasizes the realities of her people by telling stories of her community who are often misrepresented in mainstream media. She explained how after Hurricane Maria, queer and trans people were at risk of violence in shelters, denied services, and vulnerable in terms of not owning the land. In response, Garriga-Lopez helps establish food sovereignty and reclaim Indigenous and Black ancestral knowledge through queer and trans farming collectives.

Furthering the discussion of decolonization, Montgomery asked the panelists what decolonization truly meant to them. Garriga-Lopez expressed that decolonization means to her that we stop perpetuating the colonial violence that has been done to our communities and that we stop reproducing that violence against each other. She expressed how colonized people often internalize colonial logics and play those out against each other in ways that are violent and harmful and can lead to rejecting young people when they come out as queer, as trans, as gender non-confirming, and they have a really hard time of having spaces of acceptance and self-acceptance. She challenged the audience to consider the work we need to do to recognize that as a type of colonial violence. In working to better understand the entanglement of identities with patriarchal violence, heteronormative violence, and capitalist violence, she focuses on the ways in which our sources of our identity are our sources of strength. Garriga-Lopez works to pass on the tools to her students that they need to engage in science and with climate change



science from a place of power. But, she reminded those gathered, we need to also turn over the paradigm, which is a White, heteronormative, capitalist paradigm, to deal with climate change.

Paulette Blanchard brought forth the concept of a pluri-cultural system, one which is comprised of several worldviews, as an approach towards decolonization. We must engage with all of our knowledges, physical capacities, and emotions to address the conflicts we face in the world. However, these challenges become much harder to face when communities are at odds with one another.

*“The world is not black and white, why would we separate and fractionalize a holistic system? We will need all of our intelligence, education, physical capacity, emotional heart and soul, to address these issues and fill these gaps.”*

*– Paulette Blanchard, UCAR Fellow, May 15, 2019*

Chang recounted struggles between elders and younger generations on LGBTQ issues. The erasure of queer, trans, and two-spirit tribal members by community perpetuates an internalized colonial logic that reproduces violence against one another. Thus, Chang suggested we support spaces of acceptance that allow queer community members to step into the fullness of their being. He further reflected about the idea of Indigeneity being seen as a global concept. Yet, within Indigenous cultures across the world, they have their own conceptualizations, their own languages, their own words about describing gender and sexual fluidity.

Decolonization and liberation for queer communities are collaborative efforts within the panelists' work. As a concluding question, panelists addressed practical ways they educate people on decolonial work and LGBTQ issues. Garriga-Lopez stressed the importance of discussion about sexual diversity in all spaces. She reflected on a comment Watkinson shared earlier in the session about inviting people to put their preferred pronouns on their nametag. Garriga-Lopez noted how to ask people for their pronouns already queers the space, creating those practices of articulation of sexual diversity, of gender diversity, opens the space. You can both Indigenize and queer the space at the same time. Garriga-Lopez put forward the need to be willing to be brave, that while there is danger and risks, there is a need to be brave in order to transform the situation.

*“You just talk about it, in your community assessments, in your reports. Assume queer people are everywhere because they are truly everywhere, in every community.”*

*– Adriana Garriga-Lopez, Kalamazoo College, May 15, 2019*

Although this work is powerful, it is emotionally laborious work and consequently calls for strategies of self-preservation. Blanchard called upon the audience and allies to check on queer community members. She admitted that there is a mask that is always there due to generations of judgement and shame that strain the soul. Community serves as an impressive source of strength to help queer communities maintain their self-love.

*“We forget this labor wears thick on our souls, our hearts, our emotions. It's constant labor. You have to self-care...For those of us that are Native or Indigenous or that type of community, for me it's ceremony, it's spending time with my relatives, my non-human relatives.”*

*It's connecting with my extended relatives who are gender fluid. It's self-care and spending time reconnecting when our batteries are low.” – Paulette Blanchard, UCAR Fellow, May 15, 2019*

*“One has to give space for feelings, for sadness, for grieving, for anger, protesting and demanding things can also be healing...you also have to give space for joy, for play, for desire, for pleasure. All of those things can be regenerating, depending on what you need.”  
– Adriana Garriga-Lopez, Kalamazoo College, May 15, 2019*

A final question posed to the panelists asked about whether the term “two-spirit” is an Indigenous term or if it can be worn by those who are not Indigenous? Watkinson shared that she sees how much the term has been culturally appropriated. That even herself, as a queer Indigenous woman, has not come through the process of identifying as two-spirit because two-spirit can represent sexual identity as well as a gender identity, which varies among Native communities. There is a lot of responsibility that comes with adopting an identity as a two-spirit person. It's important to be accountable to the communities and the people who are two-spirit who have done the work and know the responsibilities; go to them to seek guidance to determine what those responsibilities are that one should carry if they go down that path.

Watkinson shared a part of her personal journey through the lens of her experience at Rising Voices. This was her fourth Rising Voices workshop in which she participated. The previous one was the first one since she had come out openly as a queer woman and was grateful to be here and that Rising Voices has been a space for healing, support, and love, enabling people to bring their true selves and full identities. She encouraged those gathered who are new to the space to find the love and healing that can happen and continue to be a part of this family.

*“Even just having this conversation about bringing our whole selves and our multiple identities and the intersectional and diverse experiences that we have, celebrating our differences really is a form of decolonization and we're in a space to talk about climate change and that in itself I find to be a practical but meaningful way to address [decolonization].”  
– Melissa Watkinson, Washington Sea Grant, May 15, 2019*

## NCAR's Mesa Laboratory

Rising Voices 7 participants spent the first afternoon of the workshop at [NCAR's Mesa Laboratory](#), developed adjacent to the foothills of the Rocky Mountains. The Mesa Lab, built in 1961 by architect I.M. Pei, holds NCAR's Visitor Center, which is open to the public and offers free exhibits about weather and climate, guided and self-guided tours, a gallery featuring local artists, an outdoor weather trail, and more. Participants had a variety of activities to choose from during their time at the Mesa Lab:

- Seminar with NCAR scientist Cindy Bruyère for a presentation and conversation about “The Future of



Workshop participants enjoying a meal together at the Mesa Lab.

Extremes”. Some questions raised during the seminar included the impact of weather and climate change on species, the effects of weather and climate on human and non-human species migration and relocation, shifts in geographic locations of severe weather events, and changes in intensity of extreme events and weather patterns, such as overlap of monsoon seasons with tropical cyclone seasons or snow and severe precipitation events occurring closer in time and space.

- Visualization Lab: A different "view" of scientific data with a demonstration of high-performance visualization of complex simulations on a large-format screen.
- Visitor Center exhibits: The interactive exhibits at the NCAR visitor center allow the public to explore weather, climate, the Sun-Earth connection, and the world-renowned architecture of the NCAR building. The exhibit includes the Climate Voices video monitor, displaying videos of people around the country sharing their personal experiences with the impacts of climate change. Several participants from the 3<sup>rd</sup> Rising Voices workshop are featured in this video.
- Walter Orr Roberts Weather Trail: The short trail was designed by NCAR’s founder, Walter Orr Roberts, and is a loop just north of the Mesa Laboratory main entrance.

We spent the early evening hours together with a pizza party at the Mesa Lab, and a time to share conversation, stories, and develop new and enhance existing relationships. For a reflection of one tribal student’s perspective of this time, read [Rising Together](#) by Jasmine Neosh.

## The 1<sup>st</sup> Annual Bob Gough “Climate Change is Inevitable, Adaptation is Optional” Public Symposium

The first annual Bob Gough Symposium was held the evening of May 15, 2019 at the Mesa Laboratory at the National Center for Atmospheric Research. Bob Gough, an attorney with graduate degrees in sociology and cultural anthropology, worked with American Indian Tribes on cultural and natural resource issues for over 40 years, served as the first director of the Rosebud Sioux Tribal Utility Commission (1993-1996), and as Secretary of the Intertribal Council on Utility Policy since 1994. He maintained a private law practice on Indigenous rights and conducted outreach activities to Native Alaskan and American Indian communities on behalf of the federal Wind Powering America program. Bob co-chaired the US Global Change Research Program’s (USGCRP) “Native Peoples/Native Homelands Climate Change Workshop” (NPNH) in 1998,

and served on the NPNH2 steering committee (2009); was a lead author on the 2014 Third U.S. National Climate Assessment’s Indigenous Peoples, Lands and Resources Chapter; and co-founded the Rising Voices movement in 2013.



[Bob Gough Public Symposium attendees.](#)



The Bob Gough Symposium was a celebration and reflection on and celebration of Bob, but an opportunity to discuss the issues for which he cared so passionately. The evening began with Kalani Souza, who presented the first annual “Bob Gough Award for Climate Justice in Action” to Chief Albert Naquin of the Isle de Jean Charles Biloxi Chitimacha Choctaw Tribe, for his leadership in community adaptation and resilience.

Next to speak were David Reidmiller (USGCRP) and Rachael Novak (US Bureau of Indian Affairs). Reidmiller, Director of the [Fourth National Climate Assessment \(NCA4\)](#), released in November 2018, shared updates on the National Climate Assessment, which was produced by volunteer experts to “assist the Nation and the world to understand, assess, predict, and respond to human-induced and natural processes of global change.” Reidmiller identified that public engagement and response to feedback are critical components of effective responses to climate change, and concluded with the firm belief that sharing knowledge can – and does – build climate resilience. Novak, the BIA’s Tribal Resilience Coordinator, followed, and discussed the three key messages from the NCA4’s [Tribes and Indigenous Peoples Chapter](#):

1. Indigenous Livelihoods and Economies at Risk (commercial and subsistence economies, self-determination and institutional barriers, infrastructure and the built environment).
2. Physical, Mental, and Indigenous Values-Based Health at Risk (interconnected social and ecological systems, cultural heritages and identities, physical and mental health).
3. Adaptation, Disaster Management, Displacement, and Community-Led Relocations (self-determination and institutional barriers, histories and shared experience engender distinct knowledge about climate change impacts and adaptation strategies).

Novak concluded her presentation with the assertion that traditional knowledge systems play a strong role in “advancing the understanding of climate change and in developing more comprehensive climate adaptation strategies.”

The next segment of the symposium was then, most appropriately, dedicated to the life and legacy of Bob Gough. Nikki Cooley (Institute for Tribal Environmental Professionals), Michael MacCracken (The Climate Institute), Shannon McNeeley (Colorado State University), Kyle Whyte (Michigan State University), and Dan Wildcat (Haskell Indian Nations University) were present to share their memories and moments with Bob.

All spoke of Bob with the utmost reverence and regard, and time passed gently with humorous recollections and tender illustrations of a truly beloved man. Nikki Cooley remembered the warmth and kindness in Bob’s voice, and recalled how he had once told her, “You’re a Native woman, don’t you ever feel inferior.” Mike MacCracken, who worked with Bob on the First National Climate Assessment, fondly recalled how Bob and the late Pat Spears (Lakota) convinced him of the need to hold the first Native



Friends and colleagues share stories of Bob Gough, who served as a mentor and influencer to many around the globe.

Peoples/Native Homelands workshop and include the findings of the workshop as an additional chapter in the First National Climate Change Assessment that was completed in 2000. Shannon McNeeley said, simply, that Bob was a nomad, that his heart and soul belonged in the Plains, and Kyle Whyte shared how Bob never wanted to be a hero, but “he just wanted to be there...to act...he was science, and justice, and law, and anthropology, all at one time.” Dan Wildcat shared last, and began with a funny anecdote about Bob’s love for extensive PowerPoint presentations. He concluded with the wisdom that “good human beings make you stronger, make you more confident...he made me feel stronger, he made me feel better. I think Bob makes me a better human being, and we need more people like that on the planet today.”

The evening came to a close as Lisa, Bob’s stepdaughter, shared stories of Bob, and audience members watched a video tribute to the man many of them knew and loved, and would agree was quite possibly the most interesting man in our world.

## DAY 2: Welcome to the Day

Juanita Pahdopony-Mithlo, Comanche educator, poet and artist, opened Day 2 of Rising Voices 7 with a poetry reading around the themes of friendship, allyship, protection, extraction, life-giving, sustainable resources, prayer, sacrifice, and healing.

*An important part of the healing medicine is the sacrifice. . .  
To carry out an important task – the friend would be required to  
Travel a great distance to our door for a single meal.  
All vegetables would be summoned to nourish, protect, and heal;  
The ritual soup would be served and the story be retold.  
No one predicted the healing of others at our table.  
– From The Healing Soup by Juanita Pahdopony-Mithlo*

## Plenary Discussion

### Reflections from Day 1 panels on intercultural science collaborations

The second day began with a reflection of panels and conversations from Day 1. Participants were welcomed up to the microphone to share their thoughts and feelings about the prior day’s discussions. Two of the main topics participants reflected on were their empowerment to reclaim their Indigenous roots and creation of valuable cross-cultural relationships.



Kalani Souza shares his wisdom and reflections with those gathered.

Many participants spoke on the momentum spurred by Rising Voices’ workshops to unify different sciences and knowledge systems. Because climate change is a complex issue with an even more complex solution, interactions between different perspectives are essential to reach our climate goals. Rising Voices facilitates this crucial intercultural communication and recognizes

Indigenous peoples as partners. A Hopi farmer, who came from a generation of corn farmers, referred to the workshop participants as a collective of diverse changemakers.

*“When I look at this room I see the diversity of corn, of people.  
Without diversity, we do not have sustainability.” – Michael Johnson, Hopi farmer*

Various Indigenous community members expressed their gratitude towards Rising Voices for offering a space where they can feel confident in their identities and engage with Indigenous knowledge in an empowered setting. It is not a space that exists in a vacuum, and there are layers of histories, traumas, violence, and privilege interwoven within the space that reaches far beyond the gathering room, which is intended to bring such conversations to the forefront and integrated within conversations of climate science and action. Kukuya Vidal, an elder with the Coalition of Indigenous Taino People United, asked those gathered for support for her community’s solidarity movement and recovery from the long-continuing repercussions, injustices, and adverse consequences her community continues to face from Hurricane Maria and the aftermath.

*“When we are getting ready to move somewhere else, bless the place before going, so that you have your welcome and are being welcomed into that place. Because there is life in those places, we are not discovering them, and we also need to respect that land and the life residing there.”  
– Debra Butler, University of Massachusetts-Boston*

One participant stated that the first day of Rising Voices was her first time being at a gathering with indigenous scientists just like her and it made her so proud to stand among them. The first day, Rising Voices was established as a unique place for people to honor their roots and respect where they came from, Mother Earth. Acceptance for oneself was a prevalent theme throughout the first day of panels, particularly in the panel on equity and justice. The first day of Rising Voices workshops provided a space to find family, be courageous, listen, and find love.



First-time and long-time Rising Voices participants.

## Working groups

### Building relationships and practices for intercultural science collaborations

Throughout the Rising Voices annual workshops, participants have dialogued in small working groups around the following climate-connected topics: **water, health and livelihoods, phenology, relocation/site expansion, and energy**. The working groups are comprised of people across scientific disciplinary, research and practitioner boundaries, Indigenous and non-Indigenous cultural backgrounds, ages, geographies, genders, and knowledge systems. The working group sessions at Rising Voices 7 were facilitated conversations to build relationships

and practices for intercultural science collaborations that asked participants to dialogue on the following questions:

1. How do you understand and approach intercultural scientific collaborations?
2. What are the responsibilities and accountabilities in partnerships for intercultural scientific collaboration? Who carries these?
3. What makes intercultural scientific collaborations more relational - as opposed to transactional or extractive?
4. Share positive examples and experiences about what has worked in intercultural scientific collaborations.
5. Building on these examples, experiences, and lessons learned, discuss and plan:
  - a) Opportunities for new or ongoing intercultural partnerships among breakout group members and/or others in the room
  - b) Opportunities for applying practices for intercultural science into already established activities

Most of the topics included 2-4 smaller groups covering each topic, except the relocation/site expansion group, which formed as one larger group. The discussions and reportouts from the working groups are included in Day 3 below.

## DAY 3: Welcome to the day

On the last day of the Rising Voices workshop, Everette Joseph, Director of NCAR, offered thoughts on the workshop and it's broader mission, offering reflections going in to the third and final day of the workshop. Joseph stated how NCAR is committed to facilitating intercultural collaborative projects and bring ideas into fruition. Intercultural collaboration is timely for NCAR as they search for innovative methods to connect the research that benefits society and makes communities more resilient. Joseph then went to admit that although NCAR strives to be impactful, they cannot do it from the Western science perspective alone, they need new paradigms and Rising Voices can help do that, it can help NCAR to understand how to bring the energy and ideas that arise from intercultural collaboration to life in meaningful projects. NCAR works to support the community in doing field experiments all over the world, and constantly learns how to work with Indigenous communities that build partnership and aim to not be extractive but rather locally beneficial. He asked those gathered how NCAR can better connect the research done through NCAR to benefit society, and how NCAR can support communities becoming more resilient? Joseph ended his welcome with warm regards and wishes for a productive workshop.

## Working Groups: Report Back, Action Items and Next Steps

### Water Groups

All three water groups, discussing issues related to water quality and quantity, echoed the same foundational sentiment that water is life, and should be treated with the utmost regard and urgency. They delved into the issues concerning data sovereignty, language and institutional barriers, and the ever-persistent tension between Western perspectives and traditional ecological knowledges. Participants were quick to identify that water must be perceived as a relative, as something alive, because if students can understand water, they can



understand how to address the issues surrounding its conservation and treatment. The groups conveyed a common message to reconnect with the sacred relationship to water, and to understand how to adequately and ethically balance Western science techniques with various Native understandings and knowledge about water. The groups also identified the need to appropriately address the interconnectedness of water access and management as a key to Tribal identity and sovereignty and to push for more legislation and legal action to assist this process.

Some of the characteristics of converging voices (intercultural scientific research) the water groups identified included a reminder of what it means to work in a place-based community and keeping an eye on the long-term (extreme events, heavier precipitation, aquifer declination, soil moisture), proceeding at a pace that is appropriate to the community and the priority being addressed. Start together with the “why” – to what end is the research being done? What is the shared vision of the outcome? Be prepared to get out of your comfort zone, take responsibility, and listen. Respect, sharing stories, and trusting relationships – both existing and new – are essential. It is critical to acknowledge the history and value of culture-based data acquisition, knowledge, and actions, including human and non-human considerations. Use your senses, sensitivity, mind, and spirit.

Listed below are draft steps participants discussed to approach water issues:

- Identify and document sources of existing knowledge, written and orally (elders, science journals, communities, water users, past projects)
- Team to bring it all together (how, where, what, success stories, etc.) and “study up” on what those sources of information are telling us
- Learn from success stories, place-based case studies
- Report back on results and share lessons learned at subsequent Rising Voices workshops, through written reports, stories, and identifying other opportunities to share
- Develop a longer-term project design and seek funding to continue and expand
- Establish training opportunities (how to document and tell the stories, bring in new people for funding and learning.)

Along with these steps, participants called on the importance of teaching project management skills to younger generations, and providing opportunities for work opportunities and intersections of knowledge and shared learning between youth and elders. Several “questions for research” included the cost benefit of invasive species, the impact of drought, the significance of collaborative knowledge, and how water events are exacerbated by climate change. Funding was another central issue, but participants were eager to brainstorm how to mobilize action without federal funding, or with more limited resources.

Some project ideas that emerged included developing protocols for understanding sources and reservoirs of water (hydrological cycle) in Tribal contexts, with ongoing work related to the Oglalla Aquifer potentially contributing to such an effort; a knowledge search of communities that have benefitted from vegetation and other natural resources as (resilience) barriers, conservation areas and water detoxifiers, and undertaking pilot projects that, for example, plant hemp near rivers and oysters along coastline to protect, detoxify, and provide economic benefits. Developing a “wisdom youth circle” using social media was another idea,

and was pitched as both an educational tool and as a method to generate attention and funding. The general conclusion of the water discussion was that while no single solution exists, especially in the context of different tribes, water must be prioritized, and with it, the need to collaborate and create sustainable solutions.

Rising Voices can be a space to support training programs, facilitate difficult conversations, translate language and meanings across disciplines and across communities, describe and present stories, work on fundraising, and share case studies. It is essential to include Indigenous voices at the table in positions of power, building alliances, allyship, and breaking down barriers. Additional critical elements discussed include:

- Recognize natural elements as member or a being that has legal rights as the five-fingered beings (humans) insert this into memorandums of understanding, contracts, and partnerships.
- Develop protocols to protect data while sharing best practices between tribes.
- Create guidelines of how to approach engaging tribes, similar to [Considering Traditional Knowledges in Climate Change Initiatives](#)
- Use cultural/traditional processes and institutions to defend or revise/re-do colonial processes that are set in.

## Health & Livelihoods Groups

The Health & Livelihoods groups came together for dialogue on individual, community, and cultural health (physical, mental, social, emotional, spiritual) and livelihoods as these connect to climate, weather, and water. The groups discussed the importance of food



Kaleb Proctor reports out to all participants about the dialogues in the Health and Livelihoods Groups.

sovereignty and that access to healthy, cultural, and traditional foods and activities, such as ceremonies and acts of gathering, is critical to Indigenous health; the effects from the loss of traditional subsistence species; the weather extremes as a result of climate change; the interaction of Superfund sites and cancer rates within reservations; and bridging the gap between mental, cultural, spiritual, and physical health.

Health has a different meaning to each person and just as there is a diverse nature of health and communities, so too are the impacts, stressors, and indicators diverse. Often, various Indigenous definitions of health incorporate the human connection with the

land or sea that the person inhabits. With that, comes health sovereignty, the inherent right to define and decide the interconnected identities in those spaces. In Western society, mental health is segregated from physical health, but the two cannot be separated. The abuse of drugs on reservations is an epidemic of physical and mental health, and many correlate the decline in Indigenous health to the destruction of the surrounding environment. The health of a society can be determined by the health of those most at risk, which is inherently connected to livelihood,

water, climate change, phenology, etc. Indigenous agency is necessary to build healthier, more resilient communities. Some ideas that emerged from this discussion include changing and challenging funding mechanisms to recognize the importance of relationships in program development, implementation, and sustainability.

Each person has their own definition and priorities around health; there is an issue of who controls health narratives and subsequent loss of cultural resources, identity, and health sovereignty. To initiate intercultural collaborations, it is first important to acknowledge each individual and community for who they are, from which you can then build understanding, then trust and relationships, and then consent to work with the communities. To do this work, we all carry a responsibility to one another. Everyone has layers of identity that we must recognize, and come together as a dynamic team and see one another as individuals. Reciprocity is key to making intercultural scientific collaborations more relational.

Strategies can be developed only once everyone has been heard through clear communication and understanding. Deep conversations are needed on data sovereignty, and developing structures of accountability in science. Indigenous communities live with accountabilities for their tribes every day, but science doesn't seem to have those same mechanisms.

Some of the key takeaways from the Health and Livelihoods groups included:

- We all come from different places and backgrounds, but we are here together as family and the emotion is palpable.
- Seeing and having the opportunity to build bridges, it's not really starting over in terms of Indigenous/non-Indigenous relationships, but a reckoning.
- The re-wording of science into knowledge, relationships, and connections is key; we all have our ways of knowing that will grow, and feeding that here and taking it home and cultivating it is important.
- Being around other people that are similar and like-minded is comforting and knowing you're not alone in your goals and values and orientations is important.
- The bonds built here are strong, this space is somewhere that allows for connection and sharing unlike anywhere else - not in family, or work, or elsewhere, because the space is designed to cultivate relationships and build bridges.
- We have to go to the roots of the structural inequalities that are causing their issues; can't just give people medicine if they are sick. We need to understand why they are sick.

*Science needs structures of accountability!  
– Health and Livelihoods Working Group*

Potential action items that emerged from the Health and Livelihoods groups include:

- Focus on relationships. We cannot grow or collectively do this together without focusing on cross-cultural relationships and connections, more so than intercultural scientific collaboration.
- Continue creating and funding spaces for listening and dialogue.
- Challenge funders/project officers to restructure funding mechanisms that will support the building of relationships and connections.

- Provide a space at Rising Voices for students who are struggling in their higher education institutions to receive mentoring to overcome barriers in higher education.
- Focus on education and training, such as bookmobile, youth learning to write grants, community gardens, farm to school programs.
- Hold ourselves **accountable and responsible** for the establishment of a robust, ongoing learning of cross-cultural relationship and connection building based on who we are and the spaces we occupy, especially institutions, agencies, and organizations.
- Identify approaches to multimedia science, including art, film, and other ways to communicate.
  - Intercultural science often leaves out critical voices, and people that communicate and learn differently; broaden science and integrate it throughout social media.
  - Include space for personal stories, understanding that is how some people communicate.
- Elevate and enhance awareness of existing successful programs and resources.
- Create a guide of resources for different needs.
- Cultural exchange of knowledges worldwide.
- Identify how to create a safe space: trigger warnings, safe space training when it comes to talking about these topics.
- Put together list of key terms, and resources on dialogue ethics.
- Have empathy. Compassion can lead to “savior” complex; empathy is more understanding of where someone is coming from and not appropriating.
  - “Indigenous people don’t care what you know until they know that you care.”

## Phenology Groups

The phenology groups’ discussions focused on the timing of natural events, in relation to climate and plant/animal lifecycles. Imbalance is baked into the language. Considering “intercultural”, a science culture is not the same as Indigenous cultures. Academic language has a power problem, and all communication is contextual. The word phenology itself is very “Westernized”. Some of the groups dialogued on Indigenous language options but acknowledged that it really depends on the particular group and who is being communicated with, e.g., elders, tribal members. There is no one word in any Indigenous language that translates phenology to encapsulate all of the value systems of what that word means to diversity of Indigenous peoples. Therefore, there needs to be flexibility in how we express priorities related to phenology.

In the past (and currently) data and information that Indigenous communities have shared with outside scientists has been used against them; this demands the critical need to always have informed prior consent when working with Indigenous communities. Any research that is done with a community has to be driven by that community to solve a problem that is specifically important for them. Any work done on tribal land should benefit the tribal community in a tangible and reciprocal way. In order to make sure that the tribe really is benefiting from this work, they recommended consulting with tribal elders, not just the tribal administration. It is also important to remember that not one person can represent the whole tribe and speak on behalf of them. Education can be the avenue to include the tribal community, especially the youth. One



strategy, for example, would be to partner with a tribal high school or college to guarantee student and community involvement. Some resources that were mentioned during this discussion that serve as good guidelines for this type of work are The Tribal Protocol by Karletta Chief from the University of Arizona and the Global Assessment of Indigenous Community Engagement in Climate Research by Dominique David-Chavez.

*“Our ancestors used to move with the river. We always found a way to adapt and persevere, and we always moved with the seasons. We do recognize climate change and have a resolution to support our efforts. Because we have that history of change, we can change also to fit the seasons as we always did.” – Annie Gutierrez, Gila River Indian Community*

For outside scientists to build relationships with Indigenous peoples, a number of Indigenous participants in the Phenology groups reminded the full group of the three words that were brought up during the opening remarks: respect, responsibility, and reciprocity. In order to build a relationship with a Native community, one must respect the traditions and the people, as well as their privacy, and take responsibility when mistakes are made. To overcome those mistakes through honesty and authenticity is a way to build trust between people. Lastly, they recommended showing up and being committed for the long-term, to ensure the community that the scientist or researcher coming in is not just self-driven.

Enact a social contract that outlines integrity, respect, and positive communication for a safe environment. Knowledge cannot be appropriated. There needs to be an understanding of equity, and people need to be okay with being called out when mistakes are made, receiving criticism as a gift to learn how to do better. In addition, people need to ask for forgiveness when needed. More of the burden lies with the White collaborators due to colonial histories and atrocities. We must recognize the pattern that exists of colonization. It does not come from one moment in time, but rather it is an equation of power. With great power comes great responsibility.

Additional action recommendations included:

- Establishing a space to access resources authored by Indigenous people, ask and answer questions, and show successes.
- Professional development or training for scientists to prepare them to enter a community.
- Create research “boot camps” but relationships need to be built first
- Changes to funding structures and requests for proposals to include a focus on process. This could be initiated through a letter from Rising Voices to the National Science Foundation.
- Considering land tenure, increasing understanding of laws, impacts of fragmentation, and human changes to genetic resources, new species, and movement as adaptation, and advocating for return of land.
- Integrating bigger phenology, Indigenous epistemologies, history, language, spirituality, healing, animals as well as plants, all relatives.

Key considerations for moving forward with the actions and recommendations is what is the process and accountability for taking these actions, and how do we evaluate the progress? A major challenge is overcoming the structural problem that the colonial-born scientific system

wasn't built for these types of intercultural collaborations. To enact this work requires pushback to make the system work for what we are all trying to do. One avenue is using networks like the Indigenous Phenology Network to connect all of the groups together to develop the movement.

## Energy Groups

The energy groups, with a focused discussion on a just transition away from fossil fuels to cleaner, renewable energy, detailed Indigenous perspectives of energy as well as the problems and potential solutions to realize equitable energy production for their communities. Overall, the groups discussed the political and social barriers to the solution of clean energy and a just transition. There is a deep assumption in the United States that capitalism will continue to rule our society, and that the externalities that are caused by capitalism will continue to be put upon marginalized Indigenous communities. Currently, there are issues surrounding consent and accountability when developing energy projects on and around indigenous land. There need to be more place-based solutions that identify a community's needs, and are equitable for the people on those lands. Centering Indigenous voices is the most important going forward. The importance of the rights of nature and Indigenous people must also be considered when developing energy projects. Remembering how we interact with each other, listening to whose voices are being heard, and realizing who is making the decisions as well as who is impacted by the decisions will contribute to a successful intercultural collaboration.

Indigenous people have a unique concept of energy. For generations, energy has been described as sun, light, fire, wind, water, and representations of spirits. Due to its venerable status, energy is not to be harvested or exploited but is meant to be in constant renewable motion happening all around us. Indigenous cultures emphasize the need to build relationships with the Earth who is considered a sacred relative. Oil is viewed as the blood of the Earth as it comes from hundreds of thousands of years of compression. It is not a resource for profit, rather a natural component of the land. Indigenous communities do not seize dominion over the Earth. The Energy groups stated that there is a need to decolonize how we think about resources, especially oil.

Participants detailed how the current state of energy extraction and production leave Indigenous communities impoverished and overburdened with climate impacts. Regarding the rate of extraction, the US does not have consent built into this practice. Energy industries often do not ask for consent to utilize resources on Indigenous lands and occupy their communities. This raises the question of who or what is worthy of legal consent. Collaborative agreements are important for the self determination of Indigenous peoples. A prevalent issue in their communities is however, how some Native nations are deeply engaged and involved in oil extraction. Because reservations and villages are often established (and pushed onto by colonial governments) on mineral rich lands, fossil fuel companies seek business within these communities and in turn, has resulted in the historical presence of this industry in native nations. Generations of oil extraction has led to, at times, an apparent disengagement by Indigenous communities' members who face immediate personal threats and often do not have the basic resources to survive. Climate change must be discussed in a manner that is sensitive to their real day-to-day problems and make a just transition perceivable and that is empathetic, as it calls for changing many of their livelihoods.

Given the above, one group proposed the idea of a Life Cycle Analysis done in a culturally appropriate way that considers all aspects of the life cycle. Not just meant to evaluate

environmental concerns, this analysis would examine how energy projects impact social systems and its cultural implications. Another suggestion was to partner with utility companies to change the business as usual approach. This would allow for communities to hold industry responsible and eventually, make it economically unsustainable to accept carbon-intensive projects. Partnerships between Indigenous communities and regional, national, and international administrations would allow for institutional and intentional inputs in these agencies.

This work starts in our communities from the ground up. Native skills in working with what you have are unparalleled and could be utilized for example, through training retrofits and renovation programs and skills for indoor environments to support people that want energy independence to work with their hands, not their mouths. We need to rely more on renewable resources where the benefit stays in the community. For example, Kalani Souza (Olohana Foundation) described how his team has been working to transform organic material into fuels with zero waste emissions; the system is housed in a 20-square foot container so it is transportable and can be placed in all communities.

We must enact a cultural climate change before dealing with physical climate change. Daniel Wildcat, a participant in the energy group who teaches at Haskell Indian Nations University, stated that he is working on composing an Indigenous Just Transition plan with students and community members. There are issues particular to Native communities that may only be properly addressed by specifying a plan by Native people for Native people on how to transition off fossil fuel energy to more sustainable options. Haskell is hosting an Indigenous Just Transition workshop in the fall, and invited participants to meet adjacent to that to do a SWOT analysis (strengths, weaknesses, opportunities, and threats) to move forward with an Indigenous agenda for clean energy.

The above calls for fundamentally changing the systems of energy in which we are immersed. Capitalism has suppressed Indigenous and other underserved and marginalized communities' voices. Indigenous-led energy projects counters the dominant narrative and practice. The rise of nature is inherently connected with the rise of Indigenous people; the rights of nature and Mother Earth are inherently connected with the rights of Indigenous people.

Three principles in moving forward with this work include:

1. Shift from the idea that we live in a world full of resources to living in a world full of relatives.
2. Counterbalance inalienable rights with inalienable responsibility you have to this Earth that you share with your relatives, to be a good human being.
3. Redefine progress: shift from focus on profit and convenience for humans to how can we promote systems of life enhancement on this planet, of all the life we share this planet with.

*“Wisdom resides in the hearts and minds of the people who recognize the ugliness in the world, but can still see the beauty in this planet.”*  
– Dan Wildcat, Haskell Indian Nations University

## Relocation/Site Expansion Group

The Relocation/Site Expansion group – comprised of community members, leaders, Indigenous scientists, elders and youth from Louisiana, Alaska, Hawaii, and Puerto Rico along

with concerned non-Indigenous scientists and researchers – focused on issues around communities working on community-led relocation, resettlement, or expanding into a new or ancestral site when adapting in place is no longer a viable option. The three central topics of discussion in the group were retention of cultural identity, language, and trust. The issue of identity was especially discussed, and participants immediately identified that adapting to a new location often resulted in a fundamental loss of identity. The group explored methods to prevent and mitigate such an attack on identity, and isolated the importance of:

- Community-led decision making; a balance between community projects, local organizations, and community input.
- Culturally sensitive studies/research.
- Strengthening relationships with groups involved in site expansion processes; both an emphasis on legal knowledge/preparedness and on the trust issues in the status quo.

On the topic of language, participants discussed how language is a powerful tool that can be used to the detriment or empowerment of Indigenous peoples. They cited the decades of work directed at incorporating Native languages into policy and government spaces, and the need to continue this push for inclusion, while keeping attention to ways that language can also be used against you. Language was described as a tool to self-identify, and as a mechanism to convey tribal values and determine the best practices for sustainable, low-carbon communities. The group issued a general call to listen to and defend the languages of communities experiencing resettlement and site expansion, and to advocate that Indigenous thought must be widely present in scientific publications.

Trust was another important discussion point, and focused around how resettlement/site expansion can be relational instead of transactional. The institutional colonial legacy runs deep; it is critical to have institutions that are trustworthy. Participants stressed the need to prioritize connection, transparency, and respect in the scientific community, and to think about data and data collection as shared and integrated understanding. Data is complicated and sometimes loaded with trauma and deceit. The group called for a move towards integrated co-created understanding.

Participants also spent considerable time discussing cultural continuity and physical safety. Relocation/Site expansion is a taxing, traumatic process that disrupts sense of place, cultural identity, livelihoods, and community health. A prime example was climate-caused/driven/forced migration, and the importance of resettlement on community terms, while still preserving identity. The loss of land does not mean the loss of rights. Treaties also include water and



Chief Albert Naquin, recipient of the 2019 Bob Gough Award for Climate Justice in Action, reflects on what emerged from the Relocation/Site Expansion group.



hunting rights, not just the land. What happens to everything else when you lose the land? This is especially critical in the challenges of administrative law that is often inflexible when it comes to Tribes and Indigenous Peoples. Capacity and support are needed to help with, for example, grant processes and ensuring the original proposal is reflected in the final version and what is enacted.

The group additionally explored the idea of Social DNA (connected with each other and relationship with everything around us), and identified tradition as a source of Social DNA that can be used to empower future generations without getting stuck in the nostalgia of the past.

As for future initiatives and collaborations, the Relocation/Site Expansion group was intent on developing workshops to understand the various lenses through which government organizations address issues, forming coalitions between federally recognized and unrecognized tribes to build support, and utilizing a listserv to stay connected and share resources and strategies, creating a year-round Rising Voices Relocation/Site Expansion working group. Relocation/site expansion calls for support from the whole Rising Voices family to communities going through the process, utilizing and leveraging all of the resources available.

*“Eventually the Site Expansion group will have to utilize all the knowledge within Rising Voices to make it happen.” – Fred Eningowuk, Shishmaref, Alaska*

## Students’ Closing Reflections

Three Indigenous students – Malu Castro (Michigan State University), Jasmine Neosh (College of Menominee Nation), and Sage Nishida (Olohana Foundation) – led the final session of Rising Voices 7, reflecting on what they heard, voiced, and engaged in over the past three days. Nishida started the session talking about how this was his third year coming to Rising Voices. He shared how he has been a part of the NSF-funded INCLUDES Project that emerged from relationships established at Rising Voices between representatives from NCAR and GLOBE/UCAR and participants from communities in Hawai’i, Wisconsin, Arizona, and Alaska. He has been a lead in Hawai’i, working on collecting, monitoring, storing, and sharing data with tools and other assistance provided by NCAR. He holds the space of Rising Voices as a place where he can come and meet people who are like him:

*“Every day there is the opportunity to meet someone new and do something good.”  
– Sage Nishida, Olohana Foundation, May 17, 2019*

Neosh reflected on how she met Castro on the first day of the workshop, on the mountain at the Mesa Lab, and within ten minutes they were engaged in a conversation about what the work being done in these spaces means to the people back home. The conversations within and outside the workshop walls that we are having are meaningful and impactful on people’s lives. She reminded everyone of what Bob Gough used to often say: “If you’re not at the table, you’re on the menu.” Jasmine encouraged those gathered to continue to move the ball forward so that at future Rising Voices workshops we aren’t having the same conversations, but also talking about how we are battling climate change together. She challenged the participants to keep working:

*“Do not leave these things here today. Go home ready to be better allies, recognize our privileges, and be ready to use that privilege. [Those privileges] will be a weapon either way, so we can either protect and lift people up or they’ll be used to push people down.”  
– Jasmine Neosh, College of Menominee Nation, May 17, 2019*

Castro talked about this being his first Rising Voices, attending as a student but also hired as the evaluator for the workshop and program. He posed the question of what are we taking away from Rising Voices? A lot of people talk about relationships. What about these relationships are specific and unique to Rising Voices? Radical love came to mind – this is what we create and gather here, and what we leave with in our bellies, seed of knowledge is in our bellies. Stories were shared with new friends; he witnessed impromptu mentoring sessions, heard and saw radical love. He reflected on how it is the power structures that make us have to face it in a radical way. He sent the reminder out to all those gathered that the more you love someone, the more responsibility you have. The radical love he has experienced has made it so that he has to take radical actions.



Jasmine Neosh shares closing reflections with other students, standing next to the ancestors' chair.

## Workshop Closing

Rising Voices 7 came to a close with the Seven Falls Indian Dancers, a family dance troupe representing four generations of dancers, sharing their art and voice with all those gathered. The closing ceremony included Kalani Souza (Olohana Foundation) reflecting on our time together and calling upon everyone in the room to continue taking the next steps forward together. Ava Hamilton (Arapaho) offered closing words to send everyone on a safe journey home, until we meet again.

*“Love is not unconditional, it is braided into layers of context and responsibility. We need to stand up to the challenge that has been expressed by the radical love here. What are you going to plant, grow, and nurture after leaving here? It might be a new collaboration, new contribution, new relationship you’ve built here; a slight shift in the way you do the work you do, or a new consideration of relationships, roles, responsibilities, and accountability.*

*How will you share what you’ve learned?”*

*– Malu Castro, Michigan State University, May 17, 2019*

## Rising Voices Organizers

### Co-Directors

Heather Lazrus, NCAR  
Julie Maldonado, Livelihoods Knowledge Exchange Network (LiKEN)

### Steering Committee

Paulette Blanchard, UCAR/NCAR Fellow  
Carolyn Brinkworth, UCAR/NCAR  
Kristina Kekuewa, NOAA  
Kristen Luna-Aponte, UCAR/NCAR  
Jean Tanimoto, NOAA  
Bill Thomas, NOAA  
Daniel Wildcat, Haskell Indian Nations University

### Rising Voices Council

Suzanne Benally, Independent  
Kuai Burgess, Kamehameha Schools  
Chris Caldwell, College of Menominee Nation  
Jasmine Neosh, College of Menominee Nation

Ava Hamilton, Independent  
Lea Kekuewa, Kamehameha Schools  
Eileen Shea, Independent  
Kalani Souza, Olohana Foundation  
Kyle Powys Whyte, Michigan State University

### 7<sup>th</sup> Annual Workshop Committee

Ava Hamilton, Independent  
Heidi McCann, National Snow and Ice Data Center  
Brian Miller, North Central Climate Adaptation Science Center  
Michelle Montgomery, University of Washington, Tacoma  
Stefan Tangen, North Central Climate Adaptation Science Center / Great Plains Tribal Water Alliance  
Althea Walker, Southwest Climate Adaptation Science Center / American Indian Higher Education Consortium

## Participant List, 7<sup>th</sup> Annual Rising Voices Workshop

Africano, Sebastian	Trees, Water & People
Alcazar, Michael	In Action Brokerage
Ameko, Agbeli	UCAR
Aragon, Evette	UCAR
Armbruster, Stacy	Colorado State University
Bailey-Johnson, Erika	Bemidji State University
Baird, Melissa	Michigan Technological University
Basaraba, Alex	Adaptation International
Begay, Leanna	Institute for Tribal Environmental Professionals
Begay, Marquel	University of Arizona
Ben-Joseph, Maraya	The Olohana Foundation
Blaine, McKenzie	College of Saint Benedict and Saint John's University
Blanchard, Paulette	University of Kansas/Absentee Shawnee
Bledsoe, David	American Indian College Fund
Bowser, Gillian	Colorado State University
Boyd, Katie	CIRES/University of Colorado, Boulder
Briggs, Jenny	University of Colorado, Boulder
Brollier, Karla	Climate Justice Initiative
Bruyere, Cindy	NCAR
Bunin, Jane	Naropa University
Burrell, Melissa	College of Saint Benedict and Saint John's University
Butler, Debra	University of Massachusetts Boston-School for the Environment
Calabaza, James	Trees, Water & People
Caldwell, Christopher	College of Menominee Nation

Carlson, Vesta	Konawaena High School
Casey, Ti yana	Native American Youth and Family Center/Portland State University
Casper, Aramati	Ecological Society of America
Castro, Kristofer	Michigan State University
Chandler, Patrick	University of Colorado, Boulder
Chang, Michael	Makah Tribe
Chapin, Bridgette	Haskell Indian Nations University
Clark, Robin	Inter-Tribal Council of Michigan
Collins, Gary	Indigenous Waters Network
Colombe, Lisa	Olohana Board Member
Connolly, Marjorie	Ute Mountain Ute Tribe
Cooley, Nikki	Institute for Tribal Environmental Professionals
Cottrell, Clifton	University of Maryland
Cozzetto, Karen	Institute for Tribal Environmental Professionals, Northern Arizona U.
Crall, Alycia	Battelle, NEON Program
Craven, Kimberly	Red Woman Vector Consulting
Croll, Robert	Great Lakes Indian Fish & Wildlife Commission
Crow Ghost, Doug	Standing Rock Sioux Tribe
Dagon, Katie	NCAR
Dardar, Kandi	Pointe-Au-Chien Tribe
David-Chavez, Dominique	Colorado State University
DeHart, Mary Katie	Isle de Jean Charles Band of Biloxi-Chitimacha-Choctaw Indians
Delgado, Vivian	Bemidji State University
DeVillier, Christina	Greater Hells Canyon Council
Dhillon, Carla	Bryn Mawr College
Dilling, Lisa	University of Colorado, Boulder
Druckenmiller, Matthew	ELOKA, National Snow and Ice Data Center
Duquain, McKaylee	University of Minnesota, Twin Cities
Eickhoff, Maija	College of Saint Benedict
Eningowuk, Fred	City of Shishmaref
Eningowuk, Frieda	Shishmaref Native Corp
Feldman, Julia	Livelihoods Knowledge Exchange Network
Filipcuk, Amanda	Regis University Development Practice
Fixico, Loga	University of Syracuse, New York
Flores Castillo Wang, Itzel	Livelihoods Knowledge Exchange Network
Flores Castillo Wang, Riley	Livelihoods Knowledge Exchange Network
Fontana, Nina	University of California, Davis
Francis, Kameice	Bryn Mawr College
Frank, Miriam Anne	Amazon Watch/Univ. of Vienna, Austria
Franta, Susan	Sustainable Health
Frisk, Charlotte Rose	College of Saint Benedict and Saint John's University
Garcia, Angel	James Madison University
Garriga-Lopez, Adriana	Kalamazoo College
Gates, Omar	Great Lakes Integrated Sciences and Assessments
Gaughen, Shasta	Pala Band of Mission Indians
Gavenus, Erika	University of British Columbia
Gavenus, Katie	Center for Alaskan Coastal Studies
Gifford, Gemara	Trees, Water & People
Goad, Hawk	Haskell Indian Nations University
Gould-Greene, Teressa	Piaute/Shoshone - Nez Perce
Govert, Anita	University of Arizona
Greene, Ciarra	Northwest Indian College
Grosse, Corrie	College of Saint Benedict and Saint John's University
Gutierrez, Andra	Gila River - Department of Environmental Quality
Halsey, Theresa	KGNU Community Radio
Hamilton, Ava	Native American Producers Alliance



Hausam, Sharon	Pueblo of Laguna
Haynes, Anna	Bemidji State University
Herman-Mercer, Nicole	US Geological Survey
Herrin, Sara	UCAR
Holbeck, Michelle	Bemidji State University
Holland, Marika	NCAR
Hood, Robbie	Robbie Hood LLC
Huntly, Nancy	Utah State University
Huq, Syed	Water Resources, Rosebud Sioux Tribe
Iaukea, Lesley	University of Hawaii, Manoa
Iaukea, Liane	University of Hawaii, Manoa
Jager, Mary Beth	Native Nations Institute
James, Nicole	Association of Interior Native Educators
Jennings, Lydia	University of Arizona
Jerolleman, Alessandra	Jacksonville State University / Lowlander Center
Jiron, Deborah	Pueblo of Isleta
Johnson, Michael	University of Arizona
Johnson, Noor	National Snow and Ice Data Center
Johnson, Susan	USDA Forest Service, Rocky Mountain Region
Jones, Katherine	National Ecological Observatory Network
Kane, P. David	WindHorse Strategic Initiatives
Ketchum, Terry	University of Oklahoma
Keyes, Philomena	Kotlik Tribal Council
Kirn, Marda	EcoArts Connections
Kiyutelluk, Lloyd	Native Village of Shishmaref
Krajeski, Richard	Lowlander Center
Krantz, Stefanie	Nez Perce Tribe
Lackey, Jessica	University of Minnesota, Twin Cities
Landrum, Laura	NCAR
Lascurain, Aranzazu	Southeast Climate Adaptation Science Center
Lazrus, Heather	NCAR
Lindholm, Kate	North Central Educational Service District
Littlebull, Kathy	Haskell Indian Nations University
Lucero, Raymond	Pueblo of Laguna
Luna Aponte, Kristen	UCAR
Lynn, Stacy	Colorado State University
MacCracken, Michael	Climate Institute
Maldonado, Julie	Livelihoods Knowledge Exchange Network
Marques, Gustavo	NCAR
Marras Tate, Joanne	University of Colorado, Boulder
Mason, Danyelle	Livelihoods Knowledge Exchange Network
McCann, Heidi	National Snow and Ice Data Center
McCray, Ashley	Indigenous Lifeways
McNeeley, Shannon	Colorado State University
Menke, Kurt	Bird's Eye View
Miller, Brian	North Central Climate Adaptation Science Center
Mithlo, Harry	Comanche Nation
Moffat, Bridget	University of California, Santa Barbara
Montano, Melonee	Great Lakes Indian Fish and Wildlife Commission
Montgomery, Michelle	University of Washington, Tacoma
Morales, Reynaldo	University of Wisconsin, Madison
Morrison, Monica	Indiana University
Mosel, Jamie	University of Minnesota
Moss, Richard	American Meteorological Society
Murray, Bonnie	NASA MAIANSE
Naha, Cynthia	Santo Domingo Tribe

Na'puti, Tiara	University of Colorado, Boulder
Naquin, Albert	Isle de Jean Charles Band of Biloxi-Chitimacha-Choctaw Indians
Naquin, Deme	Isle de Jean Charles Band of Biloxi-Chitimacha-Choctaw Indians
Nashoba, Amber	University of California, Santa Barbara
Neosh, Jasmine	College of Menominee Nation
Newton, Jasmine	Haskell Indian Nations University
Nichols, Lauren	North Carolina State University
Nishida, Kachina	Olohana Foundation
Nishida, Sage	Olohana Foundation
Novak, Rachael	Bureau of Indian Affairs Tribal Resilience Program
O'Donnell, David	Bureau of Indian Affairs Tribal Resilience Program
Okitkun, Pauline	Kotlik Tribal Council
Pahdopony-Mithlo, Juanita	Comanche Nation
Palkovitz, Shane	Future Generations University
Pandya, Raj	American Geophysical Union
Pantoja, Amanda	Livelihoods Knowledge Exchange Network
Parker, Britt	NOAA National Integrated Drought and Information System
Patterson, Neil	University of Syracuse, New York
Perry, Simona	c.a.s.e. Consulting Services LLC
Peterson, Kristina	Lowlander Center
Petrovic, Uros	Haskell Indian Nations University
Petrovic, Vera	Livelihoods Knowledge Exchange Network
Picard, Maggie	Northwest Indian College
Pitt, Pah-tu	Na'ah Illahee Fund/Native Kut
Plemmons, Noel	Portland State University
Pollard, Sequoyah	University of California, Santa Barbara
Powers, Jordan	NCAR
Proctor, Kaleb	Haskell Indian Nations University
Puniwai-Ganoot, Noelani	University of Hawaii, Mānoa
Putsavage, Katy	UCAR
Rabin, Robert	NOAA/National Severe Storms Lab
Reidmiller, David	U.S. Global Change Research Program
Reynolds, Sarah	Bird's Eye View GIS
Rico, David	I Collective
Rosemartin, Alyssa	USA National Phenology Network
Samoy, Alyssa	Bureau of Indian Affairs
Sanders, Magdalene	Nisqually Indian Tribe
Santos, Corrie	Bemidji State University
Saperstein, Noah	Miskwabikong, Red Cliff Band of Lake Superior Chippewa
Schaefer, Marie	Michigan State U. & Northeast Indigenous Climate Resilience Network
Schneider, Timothy	NCAR
Schultz, Virginia	University of Colorado-Boulder
Sevilla, Michelle	Climate Justice Hub
Shea, Eileen	Rising Voices Council
Shelton, Kim	Bemidji State University
Shiple, Marianne	NOAA/NIDIS
Sinnok, Wilsa	Native Village of Shishmaref
Slaney, Drew	University of Washington
Sleeman, MacKenize	Association of Interior Native Educators
Small, David	Wolf Mountain Consultants, LLC
Small, Valerie	Trees, Water & People
Smith, Sara	College of Menominee Nation
Souza, Matthew	Olohana Foundation / Lomikai Media
Sparrow, Elena	University of Alaska, Fairbanks
Stadum, Jennifer	Montana Office of Public Instruction
Starkhouse, Ben	Lummi Indian Business Council

Starkweather, Sandra	NOAA/ESRL-CIRES
Sterrett, Susan	Wichita State University
Stevens III, Ernest	Oneida Nation
Stirratt, Heather	NOAA
Stowell, Julie	Lomikai Media
Su, Yan Chun	Boulder Rights of Nature
Tallas, Nizhoni	Virginia Tech
Tangen, Stefan	Great Plains Tribal Water Alliance
Thomas, William	NOAA
Tulley, Nikki	University of Arizona
Uwase, Ines	Bryn Mawr College
Vachon, Ryan	Provare Media/UCAR
Van Stippen, Bryan	National Indian Carbon Coalition
Vance, Vanessa	Wichita and Affiliated Tribes
Venner, Marie	RapidShift.net
Vidal, Kukuya Marguerita	Coalition of Indigenous Taino People, United
Von Hunnius, Sophie	Livelihoods Knowledge Exchange Network
Voss, Danee	College of Saint Benedict
Wakeman, Elizabeth	Great Plains Tribal Water Alliance
Walker, Althea	Southwest Climate Adaptation Science Center
Watkinson, Melissa	Washington Sea Grant
Weyiouanna, Annie	Native Village of Shishmaref
White, Kyle	Oglala Sioux Tribe Natural Resources Regulatory Agency
Whyte, Kyle	Michigan State University
Wiener, John	University of Colorado, Boulder
Wildcat, Dan	Haskell Indian Nations University
Williams, Emily	University of California, Santa Barbara
Winslow, Dena	Aroostook Band of Micmacs
Wright, Kahealani	Olohana Foundation
Yocum, Heather	University of Colorado, Boulder
Youngs, Sabrina	Wisdom of the Elders
Zietlow, Daniel	Provare Media/NCAR
Ziskin, Dan	NCAR

## Rising Voices 7 Workshop Agenda



### RISING VOICES: CLIMATE RESILIENCE THROUGH INDIGENOUS AND EARTH SCIENCES



## 7<sup>th</sup> Annual Rising Voices Workshop Converging Voices: Building Relationships and Practices for Intercultural Science

Wednesday, May 15 – Friday, May 17, 2019  
National Center for Atmospheric Research (NCAR)  
Center Green Campus, 3080 Center Green Drive  
Boulder, CO  
Website: <https://risingvoices.ucar.edu/>

### Day 1: Wednesday May 15, 2019

8:00am	Bus departs Holiday Inn Express for NCAR Center Green Campus <i>Please Note: If you have your own vehicle, please offer a ride to another Rising Voices participant</i>
8:30am	REGISTRATION; Coffee & Tea
9:00am	Welcome to Boulder and Land Recognition (Ava Hamilton, Arapaho) Welcoming Ceremony and Prayer
9:30am	Welcoming Remarks and Workshop Overview (Heather Lazrus, NCAR; Julie Maldonado, LiKEN; Paulette Blanchard, U. Kansas/UCAR; Chris Davis, NCAR) Film: Introducing Rising Voices (Olohana Foundation/Lomikai Media)
10:00am	Who is in the Room Activity (Paulette Blanchard)
10:15am	Plenary Panel #1 “Indigenous value-based mentoring and education across generations, cultures, and knowledge systems” (Paulette Blanchard; moderator)

	<p>This session will focus on approaches to and responsibilities and accountabilities in mentoring and education for both Indigenous and non-Indigenous students, and how students can be supported to maintain their cultural, Indigenous identity, ethics and responsibilities in mainstream universities and institutions.</p> <p>Panelists:</p> <p>Chris Caldwell (College of Menominee Nation)</p> <p>Lesley Iaukea (U. Hawaii)</p> <p>Michelle Montgomery (UW-Tacoma)</p> <p>Neil Patterson Jr. (SUNY-ESF)</p> <p>Dan Wildcat (Haskell Indian Nations U.)</p>
<b>11:15am</b>	<p>Lunch Break - Meet someone new! Lunch for purchase at Tocabe, An American Indian Eatery Food Truck and Center Green Cafeteria</p> <p>Visit Artists (3rd floor), Posters (lobby), Rising Voices Story Wall (main room)</p>
<b>12:45pm</b>	<p>Plenary Panel #2 "Relational Research: Intercultural science collaborations guided by ethical relationships and practices" (Althea Walker, Southwest Climate Adaptation Science Center; moderator)</p> <p>This session will focus on approaches to and responsibilities and accountabilities in intercultural research to move from transactional to relational work.</p> <p>Panelists:</p> <p>Dominique David-Chavez (Colorado State U.)</p> <p>Nicole Herman Mercer (US Geological Survey)</p> <p>Sara Herrin (GLOBE/UCAR)</p> <p>Heidi McCann (National Snow and Ice Data Center)</p> <p>Scott Ketchum (U. Oklahoma)</p>
<b>1:45pm</b>	<p>Plenary Panel #3 Equity and Justice: How do our diverse identities contribute to science, education, and sovereignty? (Michelle Montgomery; moderator)</p> <p>This session will focus on how our identities shape our work and the responsibilities and accountabilities in our work based on our identities.</p> <p>Panelists:</p> <p>Paulette Blanchard (U. Kansas/UCAR)</p> <p>Michael Chang (Makah Tribe)</p> <p>Adriana Garriga-López (Kalamazoo College)</p> <p>Melissa Watkinson (WA Sea Grant)</p>
<b>2:45pm</b>	Process for afternoon; Group photo
<b>3:00pm</b>	Please make way to buses or personal transportation. If you have a car, offer a ride to a friend!
<b>3:10pm</b>	Buses depart from NCAR Center Green for NCAR Mesa Lab
<b>3:45pm</b>	Buses arrive for Field Trip of the NCAR Mesa Lab
<b>3:50pm</b>	Activities at NCAR Mesa Lab; see field trip details in registration packet
<b>4:45pm</b>	Pizza Party in the Mesa Lab Cafeteria



<b>5:30pm</b>	<i>Adjourn for the day, please make your way to buses or personal transportation</i>
<b>5:45pm</b>	<i>Bus departs Mesa Lab to Holiday Inn Express for those not attending public event</i>

## **Day 2: Thursday May 16, 2019**

<b>8:00am</b>	<i>Bus departs Holiday Inn Express for NCAR Center Green Campus</i>
<b>8:30am</b>	<i>Coffee &amp; Tea</i>
<b>9:00am</b>	Welcome to the Day (Ava Hamilton, Arapaho) Poetry reading (Juanita Pahdopony-Mithlo, Comanche Nation)
<b>9:15am</b>	Recap of Day 1/Process Day 2
<b>9:30am</b>	Plenary Discussion - Reflections from Day 1 panels on intercultural science collaborations; please come to a mic to share
<b>10:30am</b>	Short Break – Visit Posters (lobby), Rising Voices Story Wall (main room)
<b>10:45am</b>	Breakout Group Session #1 “Building relationships and practices for intercultural science collaborations”  Themes: water, phenology, health & livelihoods, energy, relocation/site expansion  Breakout group sessions are facilitated conversations to build relationships and practices for intercultural science collaborations:  <ol style="list-style-type: none"> <li>1. How do you understand and approach intercultural scientific collaborations?</li> <li>2. What are the responsibilities and accountabilities in partnerships for intercultural scientific collaboration? Who carries these?</li> <li>3. What makes intercultural scientific collaborations more relational - as opposed to transactional or extractive?</li> <li>4. Share positive examples and experiences about what has worked in intercultural scientific collaborations.</li> <li>5. Building on these examples, experiences, and lessons learned, discuss and plan: <ol style="list-style-type: none"> <li>a) Opportunities for new or ongoing intercultural partnerships among breakout group members and/or others in the room</li> <li>b) Opportunities for applying practices for intercultural science into already established activities</li> </ol> </li> </ol>
<b>12:00pm</b>	Lunch Break - Meet someone new! Lunch for purchase at Tocabe, An American Indian Eatery Food Truck and Center Green Cafeteria.  Visit Artists (3rd floor), Posters (lobby), Rising Voices Story Wall (main room)
<b>1:30pm</b>	Breakout Group Session #2 “Building relationships and practices for intercultural science collaborations” Continued in same small groups
<b>3:30pm</b>	Short Break – Visit Posters (lobby), Rising Voices Story Wall (main room)
<b>3:45pm</b>	<b>Plenary Discussion – Reflections on ideas and plans from Breakout Groups; please come to a mic to share</b>
<b>4:45pm</b>	Wrap-up Day 2
<b>5:00pm</b>	<i>Adjourn for the day</i>
<b>5:15pm</b>	<i>Bus departs Center Green for Holiday Inn Express</i>

*Dinner: Not provided, time to gather with new & old friends*

**Day 3: Friday May 17, 2019**

<b>8:00am</b>	<i>Bus departs Holiday Inn Express for NCAR Center Green Campus</i>
<b>8:30am</b>	<i>Coffee &amp; Tea</i>
<b>9:00am</b>	Welcome to the Day (Everette Joseph, NCAR)
<b>9:10am</b>	Recap Day 2/Process Day 3
<b>9:15am</b>	Plenary Discussion - Report back from Breakout Groups and discussion of next steps; presentations from each theme followed by open discussion; please come to a mic to share
<b>11:15am</b>	Students' Closing Reflections Malu Castro (Michigan State U.) Jasmine Neosh (College of Menominee Nation) Sage Nishida (Olohana Foundation)
<b>11:30am</b>	Seven Falls Indian Dancers
<b>11:45am</b>	Closing Ceremony
<b>12:00pm</b>	Gathering adjourn – We hope to see you again in 2020 if not before!
<b>12:30pm</b>	Bus departs NCAR Center Green for Holiday Inn Express
<b><i>Please remember to complete and return your post-workshop evaluation surveys!</i></b>	