

CICR

CONNECTIONS

SUMMER 2025

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ICON PhD Program Fall Orientation, August 2024

2025 Symposium on Integrative Conservation

Bhavya Iyer
Aharna Sarkar

The Symposium on Integrative Conservation (SIC) 2025 was held on February 21st in Baldwin Hall on the University of Georgia's Athens campus. The Symposium is a biennial conference for students of the Integrative Conservation (ICON) PhD program to showcase their work to an audience of peers and faculty, as well as prospective students. ICON students presented seven 15-minute talks, nine 5-minute speed talks, and four posters over the course of the day. The talks were divided into four sessions – Human-Nature Relationships, Socio-ecological Systems, Adaptation & Resilience, and Climate & Justice. The presentations were engaging and diverse, covering a range of topics and themes, from conservation of cranes in the Korean Demilitarized Zone to the politics of global climate data. Each talk was followed by a brief question & answer session.

Wezddy Del Toro Orozco was awarded first place in the 15-minute talks category for her presentation, "Jaguar Park! I See You, Predator – I See You, Human. A Socio-Ecological Approach to Coexistence in the Brazilian Amazon". Ravneet Kaur's talk on "Industrial to Investment: Pathways and outcomes of timberland ownership transitions in the United States" was awarded first in the 5-minute speed talk category, while Amit Kaushik's poster titled "The Tiger as Protector to the Tiger as Destructor: Illustrating Gond's Worldviews in a Changing More-than-Human World" won the poster category.

The keynote speaker for the symposium was Dr. Jennifer Bloodgood, an ICON alum with a dual PhD-DVM. Dr. Bloodgood studied nutrition in rehabilitating green sea turtles and the perceptions of visitors of the Georgia Sea Turtle Center towards wildlife rehabilitation and is currently an Assistant Professor of Practice at Cornell University's College of Veterinary Medicine. Dr. Bloodgood's talk on "How I've Put My ICON Training into Practice" was a glimpse of her career post-ICON and was very helpful for current ICON students.



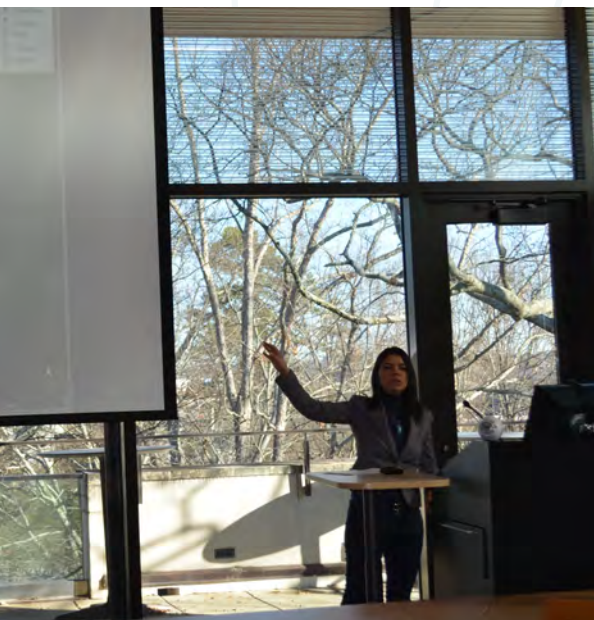
Keynote speaker Dr. Bloodgood (Image: Kristie Gill)

A PhotoVoice exhibit was held during the Symposium (more details on page 4). A silent auction was also conducted during the symposium to help raise funds for the Integrative Conservation Student Organization (ICSO), with items donated by students and faculty up for grabs. The auction helped raise over \$225 for ICSO.

The incoming Graduate Coordinator for the Integrative Conservation PhD Program, Dr. Jesse Abrams, closed out the event with a short speech and an announcement of the winners of the ICON Program Awards. Ravneet Kaur was awarded the Ashley Block Memorial Award. Shinyeong Park won the J. Peter Brosius Research Award, while Kristie Gill was awarded the ICON Agile Scientist Award. The evening ended with a happy hour at the Little Kings Shuffle Club, where the Symposium Student Awards were announced. After the symposium, a feedback form was circulated among attendees to gauge peoples' feelings on the event. Comments were all positive, with some helpful constructive feedback which we can keep in mind for future symposia.

Scenes from SIC 2025

Photos by Kristie Gill



ICON PhotoVoices hosts its first physical exhibit at SIC 2025

Akanksha
Sharma

Students came together to organize the first physical exhibit of “ICON PhotoVoices” at SIC 2025. Attendees were able to explore 15 distinct exhibits with corresponding reflections shared by 9 ICON student and alumni contributors.

Submissions were invited under the themes ‘Human and beyond human worlds,’ ‘Envisioning just futures,’ ‘Rethinking conservation,’ and ‘Experiences in the field.’ The exhibit was planned and organized by Akanksha Sharma, with support from Aharna Sarkar, Asa Julien, Justice Britton, Sonrisa Reed, and Sriranjana Thirumalai.



‘Shells and Livelihoods’ by Shishir Rao
(Photo by Akanksha Sharma)



‘Fieldwork Experiences’ by Wezddy Del Toro Orozco (Image: Akanksha Sharma)



‘Tasar Physicalities’ by Akanksha Sharma
(Image: Sriranjana Thirumalai)

Contributors Alyssa Quan, Amit Kaushik, Caitlin Mertzluft, Eileen Joseph, Kristie Gill, Shinyeong Park, Shishir Rao, Wezddy Del Toro Orozco, and Akanksha Sharma were able to create an engaging visual and reflective experience for the attendees with their exhibits.

While some entries shared field experiences, others reflected on the ways in which gender, tradition, justice, politics, or change manifested in their research or fieldwork. Images ranged from macro shots to aerial photographs, taken using high-end equipment or phone cameras, with a wide range of focal subjects. The reflections shared alongside the images allowed the attendees to engage with grounded perspectives in creative visual ways and researchers to expand what is typically communicated about research to the more intimate and personal. ICON PhotoVoices continues to invite submissions from ICON students, alumni, faculty, and others in the ICON community.



‘The Irony of Boundaries: Between a Sanctuary of Life and a Space of Neglect’ by Shinyeong Park (Image: Kristie Gill)

> **More about the PhotoVoices SIC 2025 exhibit**

> **About the CICR and ICON PhotoVoices initiative**

To better articulate CICR's identity and impact, the executive committee took on the challenge of defining the Center's core themes—no easy task for a group using pluralistic approaches to address a wide range of complex social-environmental issues.

Since CICR began almost 15 years ago, we have successfully communicated to ever-broadening audiences why the Center is so necessary and valuable – because multiple lenses and perspectives are essential for understanding and solving complex conservation problems. In a Spring 2024 Faculty Retreat, better communicating what we do emerged as a priority for CICR. In Fall 2024, and with the assistance of ICON RA Asif Sandeelo, CICR embarked on a re-branding initiative to better articulate and communicate our work to the campus community, prospective students, and the broader conservation community and public. The process involved an iterative series of steps to collect preliminary input and develop and share drafts in an effort to reach consensus about what defines our work. Here, we share the results of this process.

Early on, it became clear that there was widespread agreement that CICR's core identity and contribution focuses more on the "how" than the "what" – namely, approaching conservation through pluralism. After extensive deliberation, a newly articulated mission emerged: **"To re-imagine conservation for a more just and sustainable future by putting pluralism into practice."**

Yet there was also recognition that CICR's contribution also touches on the "what." Through in-person meetings and an online survey with the CICR Executive Committee and ICON Representatives, we solicited the following:

1. Core themes that we apply pluralism to;
2. The ongoing scholarship, partnerships or projects that (a) fall under any of the identified themes, (b) reflect a pluralistic approach, and (c) has been shaped in one way or another by CICR;
3. What is novel about the work that CICR is doing on these themes and in the conservation space.

These deliberations resulted in a total of six themes, with their respective descriptions to highlight CICR's unique approach. Ongoing work consists of revising the CICR website to reflect the newly articulated mission and identity.

PUTTING PLURALISM INTO PRACTICE

Bringing together multiple perspectives (disciplines, ways of knowing) more effectively and equitably in problem-solving, and the commitment, methods and unique outcomes that flow from that.

RESTORING CULTURAL RELATIONS TO LAND

Placing research at the service of Indigenous and other historically marginalized groups, supporting their efforts to re-Indigenize relations with homelands; to restore culturally significant plants and animals; and to heal both land and people.

PUSHING CONSERVATION BOUNDARIES

Re-framing conservation by re-narrating landscape histories; acknowledging historic and contemporary injustices; and envisioning stewardship beyond the human-nature divide.

JUST AND SUSTAINABLE RESPONSES TO CLIMATE CHANGE

Developing conceptual tools and analyses to understand and to enhance resilience in the face of climate change and environmental degradation, and to address climate-induced human-wildlife conflict.

INNOVATIONS IN (GRADUATE) EDUCATION

Pioneering state-of-the-art pedagogical innovations for interdisciplinary and trans-disciplinary training rooted in pluralism, reflexivity, systems thinking, creativity, decolonial approaches and authentic partnerships.

RE-THINKING RESTORATION

Re-thinking restoration by re-telling landscape histories (to acknowledge human presence); envisioning restoration in the face of novel ecosystems and drivers; democratizing restoration goals; and acknowledging restoration as a values-driven practice.

“From Critique to Re-Envisioned Sustainabilities”: CICR Panel

Laura German

In September 2024, Laura German, Jesse Abrams and Brock Woodson co-organized a panel at the inaugural conference of the National Sustainability Society in Seattle, Washington. The panel, entitled, “From Critique to Re-Envisioned Sustainabilities,” brought together UGA faculty, students and partners from across UGA colleges (Agriculture, Engineering, Franklin, Warnell) to profile the innovative work being done at UGA to re-envision sustainability futures.



Dr. Cory Struthers (Image: Laura German)

Since the late twentieth century, there has been an ongoing and sustained critique of the prevailing paradigms and practices driving conservation, governance, food systems, and infrastructure development, among other fields. These critiques, emanating from Indigenous and peasant communities, social and natural scientists, and others, have highlighted the ways in which dominant systems of thought and practice fail to meet the needs of people—especially the most marginalized—while also exacting heavy tolls on the more-than-human world. In light of these critiques, there is a pressing need to identify new principles, models, and paradigms that are more just, equitable, and integrative and that embody substantive steps forward in the pursuit of sustainability and justice.

This panel sought to highlight the work being done at UGA in response to this need. It included the presentation of a collaborative paper by Cory Struthers on “Rethinking Conservation” that is currently under review in PNAS. The paper identifies diverse dimensions of oppression in the conservation arena, and articulates a framework for anti-oppressive conservation research and practice to help environmental scientists and practitioners to engage reflexively with their own practices. A second presentation, entitled, “Rethinking Infrastructure,” gave an overview of a collaborative paper published in PNAS in 2023. Presented by Brock Woodson, the paper presented a framework for re-thinking infrastructure in ways beneficial rather than harmful to biodiversity. A third contribution by Jennifer Jo Thompson, “Rethinking Food Systems”, brought competing visions of food futures into dialogue with professional experience across collaborative projects to consider the future of academic knowledge production and training, and methods for collaboratively envisioning pathways toward more sustainable and desirable food futures. The final presentation brought together the personal and disciplinary insights of Laura German (anthropologist) and Joe O’Brien (fire scientist with the USDA Forest Service) to make a case for “Rethinking Fire.” Drawing on conceptual tools from paleoecology, the critical social and ecological sciences, and Tribal nations living under federal policies of cultural and fire suppression, the paper explored the fundamental question, “What is fire?” and called for a wholesale shift in our relationship to fire.

¹ German, L., J. Abrams, C. Struthers, S. Pictou, B. Woodson, S. Kumar, T. Cabe, R. Merino, E. King (In Review). Conservation re-imagined: Towards anti-oppressive futures. Revised manuscript under review in PNAS.

² van Rees, C.B., D.D. Hernández-Abrams, M. Shultz, R. Lammers, J. Byers, B.P. Bledsoe, M.V. Bilske, J. Calabria, M. Chambers, E. Dolatowski, S. Ferreira, L. Naslund, D.R. Nelson, N. Nibbelink, B. Suedel, A. Tritinger, C.B. Woodson, S. K. McKay and S. J. Wenger (2023) Reimagining infrastructure for a biodiverse future. PNAS 120(46), e2214334120.

ICON 8002 Practicum: New Iterations of the ICON-EBCI Partnership

Laura German

During this academic year, two ICON cohorts worked in partnership with the Natural Resources Department (NRD) of the Eastern Band of Cherokee Indians (EBCI) to produce scientific products of interest to the Tribe. In the fall, a group of five students (Ravneet Kaur, Kristie Gill, Monika Giri, Kaili Gregory and Nancee Uniyal) worked under the guidance of Tommy Cabe and Josh Parris (NRD) and in consultation with two EBCI elders with deep knowledge of plant relatives (Onita Bush and Tyson Sampson) to conduct a literature review of the fire ecology of plants with cultural significance to the EBCI. The review, submitted to *Ecology & Society*, helps to identify gaps in the scientific literature and to serve as an input to EBCI-led cultural burning efforts to sustain populations of these plant relatives into the future. Co-instructors Laura German and Doug Aubrey (fire ecologist with the Savannah River Ecology Lab and Warnell School of Forestry and Natural Resources) helped to anchor the project in the ongoing CICR-EBCI partnership and relevant literatures.

In Spring 2025, a new cohort (Hannah Boone, Bhavya Iyer, Eileen Joseph, Alejandro Najera Medellin, Aharna Sarkar, Dominique Valentine and Ummuqulthum Usman) worked with Cabe and Parris to define the project for Fall 2025 through what's known as the "Bridge Course" (ICON 8110). Through bi-weekly meetings with partners, a field trip to Cherokee, and indirect exchanges with the Earth Keepers (a small group of elders constituted to guide the EBCI NRD), partners have agreed on the scope of the new project. The goal of the project will be to conduct background research on what has been written, said, or represented about EBCI cultural burning and the ecological consequences of the suppression of cultural burning, and synthesize this information for the Tribe.



ICON 8110 students visit Kituwah, the Cherokee Mother Town, in April with EBCI Forest Manager Josh Parris (Image: Laura German)

While cultural burning has long been a fundamental practice of the EBCI, serving ecological, cultural, and spiritual functions that sustain land and people, EBCI partners have expressed concern over the loss of cultural knowledge related to land relations and cultural burning. While some of that knowledge still resides within the memories and lived experiences of community members, additional sources like historical accounts, recorded interviews, historical photographs, and paleoecological accounts can provide valuable insights into historical practices and their ecological significance. This cohort will work with co-instructors Laura German and Joe O'Brien (fire ecologist with the USDA Forest Service) to locate and review these sources and summarize what can be learned from them.

The Center for Integrative Conservation Research (CICR) inspires new visions for conservation and environmental decision-making.



CICR.UGA.EDU

An Update on the Medicine Fire Project

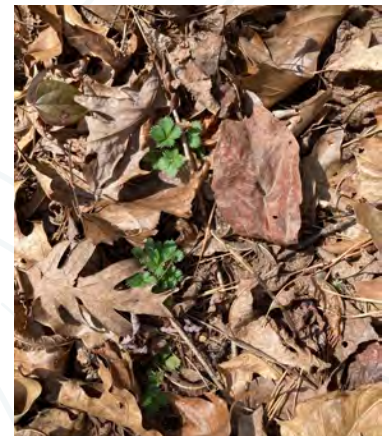
Laura German
Lizzie King

This year, the NSF planning grant awarded to Laura German and Lizzie King to catalyze innovative and inclusive wildland fire science (NSF FIRE-PLAN) was under full swing. The project supported a partnership between the Eastern Band of Cherokee Indians, the Center for Native Health, the University of Georgia, the Prescribed Fire Lab of the U.S. Forest Service and TERC (a STEM education research organization) to integrate Native and Western scientific knowledges into Native STEM education and wildland fire science, training and practice in western North Carolina.

While UGA partners came into this project with a history of collaboration and an established relationship of trust with the Natural Resources Department (NRD) of the Eastern Band of Cherokee Indians (EBCI), this investment in collaborative planning proved essential to building the necessary trust with the Elohi Dinigatiyi (Earth Keepers) and members of the broader EBCI community for a shared endeavor. Project-funded meetings created the opportunity to get to know one another and establish a shared desire to work together; provided the necessary funding for members of the research team to undergo a Right Relations training; and supported a series of workshops to identify priorities related to the restoration of forests and cultural burning. It also resulted in the re-naming of the project, from “Convergent Pyroscares” to “Medicine Fire.”

Five major thematic areas emerged from Year 1 planning:

1. “Cherokees Engaging Cherokees” – outreach activities to kindle an interest in cultural burning among the wider EBCI community and youth;
2. “Cherokees Lead the Way” – a set of activities focused on Indigenous-led forest and fire stewardship on EBCI land (deeded land and possessory holdings) and adjacent federal lands (Nantahala-Pisgah National Forest);
3. “Liberate Cherokees to Relate to the Land” – a set of activities focusing on identifying and addressing conceptual and institutional barriers to restoring EBCI relations with homelands;
4. “Involve the Youth” – activities designed to encourage youth to reconnect with the land, and to stimulate their interest in land-based careers; and
5. “Learn from the Past” – a set of activities designed to learn from archival and other sources about past landscape conditions and cultural burning practices.



Post-fire emergence of a native wildflower, *Potentilla canadensis* (dwarf cinquefoil) (Image: Laura German)

When the grant was suddenly terminated early in April of this year for no longer being “in alignment with NSF priorities,” we were in the process of planning two activities, with several others envisioned for later in the year. The first is a meeting of Cherokee youth and educational organizations to identify activities to stimulate interest in the stewardship of homelands among Cherokee youth and to identify career pathways. The second is a meeting between Forest Service and UGA modelers and the NRD to explore the role that models such as burn prioritization models, Quic-Fire and LIDAR might play in supporting EBCI efforts to restore culturally important plants and ecosystems and enhance forest resilience into the future. This role might include the modelling of fire treatments on possessory holdings to maximize family stewardship goals; or the identification of “best bet” fire treatments across homelands given the uncertainties associated with the novel forest conditions that have arisen following nearly a century of fire suppression and a warming climate. As you might imagine, this is not a project that you can simply walk away from when federal monies unexpectedly dry up. These activities will move forward in the absence of NSF funding, while we explore alternative funding streams from private foundations.

Congratulations to our 2024-25 ICON Graduates!



Rachel Arney | PhD, ICON & Geography, Major Professor: Jennifer Rice

"The Politics of Environmental Knowledge Production and Conservation in the U.S. – Mexico Borderlands"



Kanchana Balasubramanian | PhD, ICON & Forestry and Natural Resources, Major Professors: Jeffrey Hepinstall-Cymerman & Puneet Dwivedi

"Ecological and Social Dimensions of Ecosystem Services: Gendered Perceptions and Spatial Prioritization for Sustainable Forest Management and Conservation Planning"



Christina Crespo | PhD, ICON & Anthropology, Major Professors: Theodore Gragson & Patricia Richards

"Enacting Change Through Everyday Practices: A Laboratory Ethnography of Science Otherwise at CLEAR"



Sameera Gujarathi-Talati | PhD, ICON & Ecology, Major Professors: Seth Wenger & Susana Ferreira

"Beyond the Individual: Contextual Forces Shaping Environmental Behavior and Conservation Across Scales"



Suneel Kumar | PhD, ICON & Anthropology, Major Professor: Laura German

"The Life of Delta: A More-Than-Human Ethnography of the Indus Delta in Pakistan"



Hannah Morris | PhD, ICON & Forestry and Natural Resources, Major Professor: Elizabeth King

"Multiple Ecological Disturbances and Issues of Equity in Access in Maritime Live Oak Forests"



Corrie Navis | PhD, ICON & Forestry and Natural Resources, Major Professor: John Maerz

"Conservation Amidst Complexity: Strategic Approaches to Informed Decision-making for Management of a Rare Endemic Salamander"