

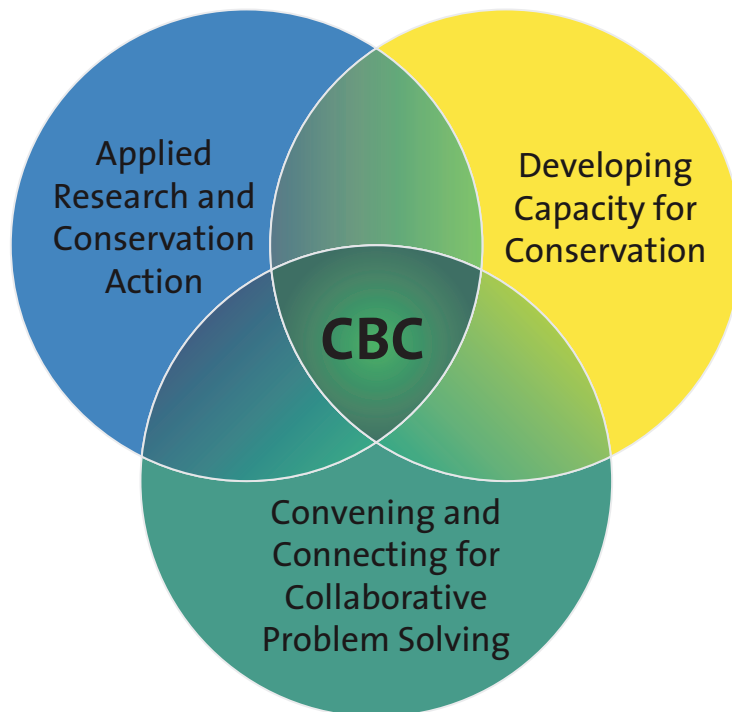
Progress Report

Fall 2018



What we do

The Center for Biodiversity and Conservation (CBC) transforms knowledge—from diverse sources and perspectives—into conservation action.



We believe that understanding life on Earth and how to sustain it is the fundamental challenge of our time. The American Museum of Natural History is devoted to understanding our universe, our planet, and our role. Through the CBC, the Museum acts on that understanding and contributes to our collective endeavor of learning how to live with nature in equitable ways.

The challenge is both scientific and social, so we work to connect different strands of knowledge, connect people to knowledge, and connect people to each other, to find innovative and sustainable solutions. This report presents highlights of our most recent accomplishments.



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Research & Conservation Conservation Planning and Monitoring

The CBC's biodiversity informatics experts develop new methods, software programs, and training resources to help manage, analyze, and interpret biological and environmental data from expeditions, natural history collections, databases, and remote sensing instruments. A strong current focus is on advancing and promoting the use of **machine learning** for the understanding and conservation of biodiversity. All products are released with open-access licenses so students, educators, researchers, practitioners, and the general public can freely use them.

Our current R&D efforts, led by CBC programmer Peter Ersts and Director of Applied Bioinformatics Ned Horning, focuses on the development of Nenetic, the Neural Network Image Classifier, and the continued development of the Animal Detection Network. The Animal Detection Network will provide software and standardized datasets for the automatic detection and labeling of animals in trail camera (camera trap) archives. Nenetic represents a new approach to land cover classification, designed specifically for use with high-resolution, low-altitude images collected with popular instruments including drones. The code for Nenetic has been available online since May of 2018 and will be officially released in the coming weeks.

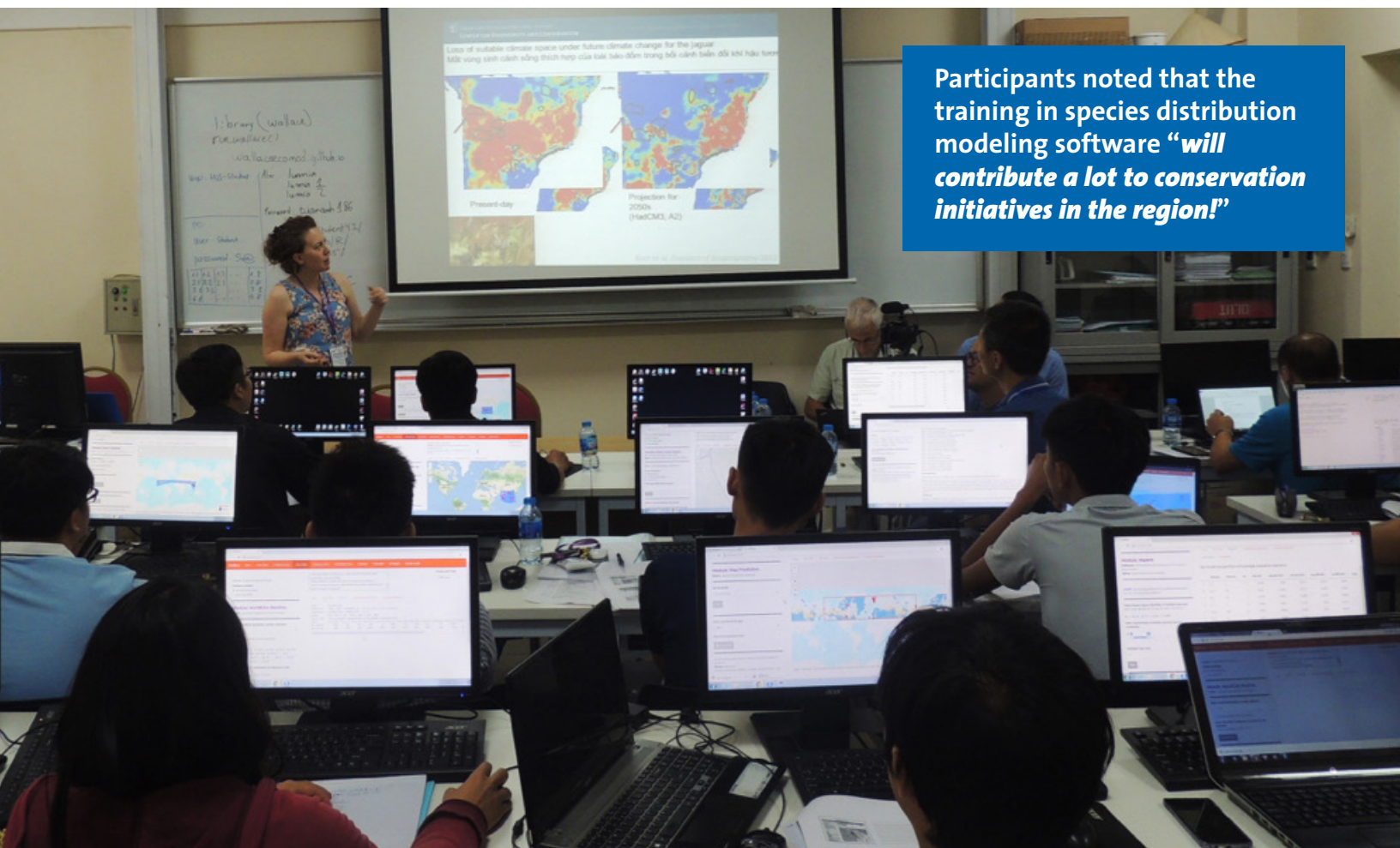
Through these resources, we are striving to cultivate a network of conservation practitioners and machine learning experts to advance the use of machine learning for the understanding and conservation of biodiversity.

Building on our expertise with machine learning tools, two major new projects on species monitoring are underway. Led by Dr. Mary Blair, Director of Biodiversity Informatics Research, and collaborators with funding from NASA and the Prince Albert II of Monaco Foundation. The projects are contributing to capacity development through training and new software—and are designed to directly inform management and policy in Vietnam, China, and Colombia.

The first project focuses on improving software tools that were developed for users in Colombia, but that can be used globally to facilitate calculations of biodiversity change. The second project focuses on understanding and protecting key endangered species in the Mekong region—encompassing Southern China, Vietnam, and Laos—as habitats and threats shift due to a changing climate. In a major step forward, the CBC organized a highly successful workshop entitled “Collaborative transboundary conservation of vulnerable species and habitats under climate change” at Vietnam’s Hanoi University of Science in July. We convened 36 attendees from diverse organizations including local and international conservation NGOs, academic and research institutions, and local and national government staff from Vietnam, Laos, and China.

Participant feedback was overwhelmingly positive, and pre- and post-workshop evaluations showed evidence of knowledge gained from the workshop. There was very high demand among participants for us to hold a second training workshop next year, and to translate all materials to local languages to enable a broader range of participants, especially at early career stages.

With these projects, we hope to overcome the gap between the best practices of state-of-the-art modeling and actual biodiversity conservation decision-making. Further, by co-creating the research and these tools with local partners, we are ensuring that local stakeholders have an active role in the research and development process—increasing the sustainability of these efforts beyond the projects’ initial lifespans.



In an ongoing collaboration with University of California, Davis and other partners, Mr. Horning contributed the CBC's expertise in machine learning and remote sensing to the Great Basin mapping project. The project aims to automate the estimation of cheatgrass density from low-altitude aerial photographs, in order to find out how invasive cheatgrass affects the ecosystem—particularly with regard to fire frequency and intensity. Mr. Horning participated in a field visit to Idaho in [MONTH], where the field crew sampled cheatgrass and took photographs of plots to test current methods. We were pleased that the expedition was selected by the Museum for celebration in an Instagram Story!

Separately, working with a colleague from Colorado State University, Mr. Horning also led analyses of potential movement distances of delta smelt (*Hypomesus transpacificus*), an endangered fish endemic to the upper Sacramento-San Joaquin Estuary of California. These analyses are integral to model abundance of delta smelt and their use of the estuary. Movement is hypothesized to be strongly associated with viability and habitat quality for this species, and may also affect probabilities of detection and sample sizes. Results will be used to predict delta smelt movement and survival.





Research & Conservation

Resilient Biocultural Landscapes: Supporting Effective Reef Management Locally and Globally

The CBC continues to illuminate the fundamental connections between people, their culture, and their environment in the Solomon Islands, fostering more robust natural resource management in areas of high cultural and biological diversity. The research team led by Jaffe Chief Conservation Scientist Dr. Eleanor Sterling in collaboration with several partners—now in its fifth year—has generated valuable new data on the importance of biodiversity to food security and climate change adaptation, and defined new indicators that the participating communities can use to track progress in these areas.

We have been working closely with the local communities on summaries of our work and progress to date so that they are recorded in formats that are helpful and relevant. We are pleased to report that these products have been printed and shared with communities and partners in the Solomon Islands.

Field work continues as we collect data on a project focusing on produce gardens and food security, led by Helen Fellow Camera Ford, who traveled to the communities this past September. Community members in the villages of Biche, Vavanga, Kalina, and Zaira in the New Georgia Group of the Solomon Islands rely heavily on farming for both sustenance and income, and farming practices are an important part of how they manage their natural resources and adapt to a changing climate. Over the last few years, these communities have seen a sharp increase in devastating crop destruction caused by a local garden pest, *Herpetogramma hipponalis*. Working with Dr. Mary Blair and Ned Horning, Ms. Ford is building a mechanistic model in the software R that simulates the population of *H. hipponalis* in the garden plots based on different environmental scenarios. The model will use environmental and survey data collected from the island communities as inputs in an effort to determine what environmental factors are contributing to the increase in *H. hipponalis* populations in the community garden plots.

This work is funded by two grants from the National Science Foundation (NSF), as well as the Tiffany & Co. Foundation, the Gordon and Betty Moore Foundation, Lynette and Richard Jaffe, the Jaffe Family Foundation, SNAPP: Science for Nature and People Partnership, and Nia Tero.

We are also preparing products from this research for the global conservation and policy communities. Working with experts from a variety of contexts and disciplines—the SNAPP Working Group on Assessing Biocultural Indicators—we have completed an important analysis of the overlap between, elements considered important for wellbeing and for biological and cultural resilience in the Pacific islands, and international indicators of sustainable development. Our analysis shows that some dimensions of local wellbeing are well-represented in international metrics, but that others, such as indicators that focus on the relationships between humans and nature, are lacking in the global indicators. The Working Group laid out a set of recommendations on how to bridge these gaps to support sustainability efforts and increase the effective use of donor resources in the Pacific and globally. Our results are now awaiting review for publication.

Our partnership with Nia Tero is ongoing, as they develop and strengthen partnerships at important biodiversity sites under management by indigenous peoples and local communities around the world. Our work with Nia Tero is currently focused on producing guidance for developing wellbeing indicators that be can uses at their sites, and on leading discussions of this approach at global meetings. Drawing from the highly successful Action Group on Knowledge Systems and Indicators of Wellbeing event we held in April, we have developed policy recommendations for the Convention on Biological Diversity, and an online directory of tools and resources to facilitate information sharing. Plans under development include a series of quarterly informational webinars in addition to a targeted in-depth exploration of indicators about the connections between people and place.

Nature-Culture Indicators and Knowledge Systems Resource Directory

Home Resources About








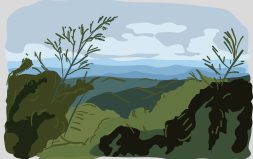







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The Nature-Culture Indicators and Knowledge Systems Resource Directory is an online content hub for sharing materials on Indigenous and community-based culturally relevant monitoring, assessment, and management of resources and well-being, with a specific focus on approaches that link biological and cultural indicators.

It allows users to search for and access existing resources (including frameworks, guides, case studies, research, and practical tools) that can be useful to communities, as well as many of the national institutions, researchers, and organizations that are working with communities.

We are pleased to announce the publication of another peer reviewed paper on this work, building on the foundation of five papers published to date. In the journal Sustainability, Dr. Sterling and CBC research scientist Dr. Joe McCarter join with key thinkers in the field to review the principles of biocultural conservation and providing examples that emphasize the importance of pluralistic and partnership-based approaches to conservation.

	New Conservation Science Approach	Half Earth Approach	Biocultural Approaches
What?	 <p>Biodiversity conservation, especially ecosystem services</p>	 <p>Biodiversity conservation, especially species and ecosystem integrity</p>	 <p>Multiple objectives of relevant stakeholders</p>
Why?	 <p>Emphasis on instrumental value of biodiversity</p>	 <p>Emphasis on intrinsic value of biodiversity</p>	 <p>Pluralistic worldviews (including relational (7), intrinsic, instrumental values)</p>
Where?	 <p>More emphasis on human-dominated landscapes</p>	 <p>More emphasis on remote locations and wilderness</p>	 <p>Tailor interventions to social-ecological context</p>
How?	 <p>Emphasis on economic incentives and payment for ecosystem services</p>	 <p>Emphasis on strict protected areas</p>	 <p>Diverse and nested institutions with adaptive governance and management</p>
Who?	Not specified	Not specified	 <p>Partnerships and social learning among multiple stakeholders</p>



Research & Conservation Wildlife Trade in Southeast Asia

Dr. Mary Blair continues to collaborate with partners in Southeast Asia on wildlife trade mitigation. This summer, Dr. Blair led important outreach for the project when she was invited to present on this work at high-profile events including the International Primatological Congress at the United Nations Complex in Nairobi, Kenya, and a public lecture at the United States Embassy in Hanoi. The public lecture was also broadcast live on Facebook to more than 9,000 viewers.

The CBC's investments in local capacity for research on and conservation of Southeast Asian primates continue to generate long-term outcomes. New monitoring surveys of slow loris populations will take place in yet another protected area in Vietnam based on our established methodology: Son Lien Nature Reserve in Thanh Hoa Province.

Vietnamese graduate student Tuan Anh Nguyen was awarded a Rufford Foundation Small Grant on "Improving the conservation of the second most important population of the critically endangered Delacour's Langur (*Trachypithecus delacouri*) in Vietnam;" additionally, Truong Van Nguyen, who was an attendee at our Genetics workshop in Hanoi in 2016, has secured a Ph.D. fellowship to work at the German Primate Center on primate conservation genomics.

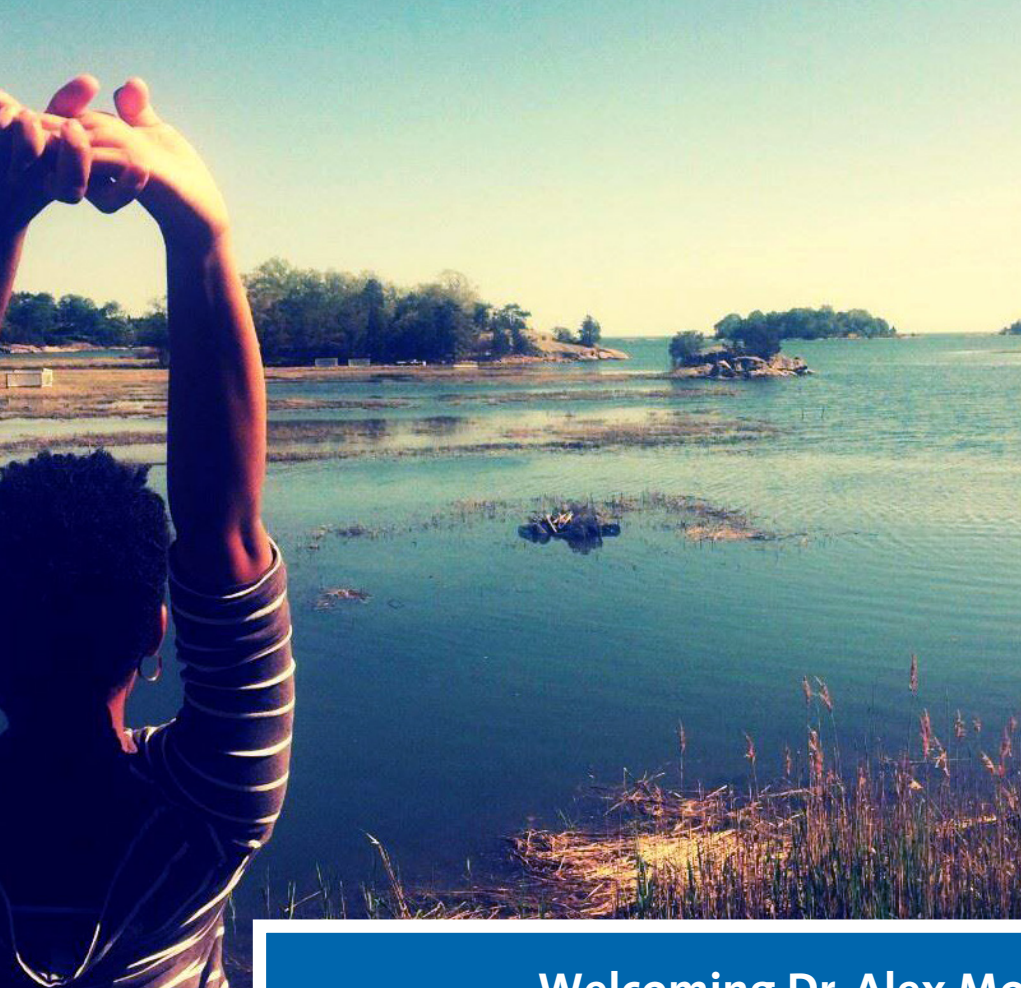


Research & Conservation

Flamingos in the Americas

CBC Associate Director, Dr. Felicity Arengo, continues to co-lead monitoring efforts for flamingos and the wetlands they depend on in the High Andes. We are pleased to report that the ongoing work of the Grupo de Conservación Flamencos Altoandinos has resulted in a declaration of the flamingo censuses in Mar Chiquita, one of our sites in Córdoba Province, “of national interest” by the Argentinian congress—an important step forward for protection efforts. The municipalities around Mar Chiquita are working together with their representative to have Congress declare the Ramsar site an 800,000-hectare National Park.

Dr. Arengo is also facilitating an interdisciplinary research team to better understand how the human and natural aspects of this system are coupled and affected by mining, with collaborators from the University of Massachusetts, the University of Alaska Anchorage, and Columbia University. The team continues to monitor closely the rapidly changing landscape of lithium mining in wetlands that are important for flamingo conservation in northwestern Argentina. Currently, prospecting and exploration seems to have slowed down, in part because of the Argentinean economic crisis, while the expansion of existing established operations has been approved and is moving forward. A CBC expedition is planned for February 2019 to carry out hydrogeochemistry sampling to begin investigating connectivity among basins and baseline water budgets.



Welcoming Dr. Alex Moore

We were delighted this summer to welcome Dr. Alex Moore to the Museum and to the CBC. Dr. Moore is an ecologist with a passion for wetlands and wetland restoration, and will broaden the CBC's expertise in this area. As the new Postdoctoral Conservation Research and Teaching Fellow, Dr. Moore will be leading conservation research as well as teaching and mentoring high school students in the Museum's Science Research Mentoring Program.

Alex recently completed a Ph.D. at the Yale School of Forestry and Environmental Studies where her research focused on how predator-prey interactions influence ecosystem functions in salt marsh habitats with important implications for wetland restoration and conservation. Prior to earning her Ph.D., she conducted Master's thesis research evaluating the species status of a putative new species of freshwater mollusk using molecular techniques. Her research at the CBC will expand on the work she did at Yale by branching out into new wetland ecosystems while also incorporating cultural links into restoration and conservation outcomes.

Former CBC Postdoctoral Fellow, Dr. Rae Wynn-Grant, has been hired in the prestigious position of National Geographic Fellow to advance a new project on human-wildlife conflict with grizzly bears, and remains a visiting scientist at the CBC.

Capacity Development

Network of Conservation Educators and Practitioners

Our signature program dedicated to **developing capacity for conservation**, the Network of Conservation Educators and Practitioners (NCEP) continues to support teaching and lead training to improve conservation.

Several innovative collaborations are contributing to the growth of our module collection. As of October, NCEP is part of a National Science Foundation (NSF) Biological Oceanography grant. Through this grant, NCEP will be partnering with researchers at the University of Washington to develop a module highlighting parasite diversity in marine ecosystems. Even though parasites comprise more than half of Earth's species, parasite diversity is a topic often overlooked in conservation education.

Additionally, as previously reported, last year NCEP and collaborators at Michigan State University and Rutgers University were awarded a two-year NSF grant that supports an investigation of how students can best learn systems thinking and systems modeling—particularly in the context of food systems learning—through innovative software and classroom instruction. Now in its second year, collaborators are finalizing new exercises and class materials on systems thinking that will be added to the NCEP collection.

Our Ecology course for the Museum's popular online teacher training series, Seminars on Science, continues to attract new students. "Ecology: Ecosystem Dynamics and Conservation" covers topics in ecology and conservation using Museum, NCEP, and Howard Hughes Medical Institute (HHMI) resources. The six-week course is designed to strengthen educators' understanding of ecological principles, while providing resources and approaches for teaching students about the interdependence of ecosystems and humans. Over the past year, the Museum and NCEP staff adapted the material for a massive open online course (MOOC) on Coursera taught by CBC Director Dr. Ana Luz Porzecanski. The course launched on March 12, 2018; to date, the course has received more than 5,000 visitors and engaged more than 1,400 active learners from all continents. Reviews have been overwhelmingly positive (with an average user rating of 4.8 stars). In the words of the course participants:

“ Absolutely fantastic course!
Pertinent material, great evidence, plethora of additional readings for those who want to get more than just a grade out of the course and lots of talent offering their expertise. Highly recommend.

”

(June 2018)

“ An excellent course *that covers a diverse array of topics, has engaging lectures and reading materials, and does an excellent job of emphasizing why conserving biodiversity is something every human should be concerned about and involved in.*

”

(August 2018)

NCEP's **Conservation Teaching and Learning Studios** convene conservation educators for an action-oriented, participatory approach to conservation education. The most recent Studio, held on June 13-15, 2018, welcomed 21 university-level conservation science educators from the United States, Peru, Guyana, and Nepal for two and a half days of practice in applying tools and techniques in evidence-based teaching; learning about NCEP resources; and networking. Participants were trained in new teaching approaches with an emphasis on practicing evidence-based methods, and enjoyed ample time for group practice in these techniques. Time was also allocated toward convening participants as both educators and learners, with daily activities and presentations led by the participants themselves. The majority of Studio participants covered their own travel and accommodation costs, however, NCEP provided twelve participants with registration fee waivers and six participants with small but crucial grants for travel assistance.

Overall, the Studio was another resounding success, receiving glowing reviews and evaluations from participants. Nineteen out of 21 respondents returned an evaluation and we received an average rating of 4.8 (out of 5). Notably, three participants returned for a second NCEP Studio experience, including one who wrote: "I attended the NCEP Learning Studio last year, which was my first experience actually being taught how to teach, and it was enormously beneficial; I had no idea how many resources were available and learned so much! After putting many new ideas to work this past year with great success, I am looking forward to learning more next month."

Studios are becoming a highly influential faculty development opportunity, and have fostered the growth of the module collection through new modules such as *Genetically Modified Crops and Biological Conservation on Farmlands*, and *Social and Ecological Tradeoffs in Tropical Reforestation*, both of which will be featured in the upcoming 9th issue of the *Lessons in Conservation* journal. Demand for Studios continues to be high, reinforcing the vital role of teacher training and idea exchange in the conservation field. We are planning a webinar for past Studio participants this winter, and NCEP's next Studio is scheduled for June 2019.





We also took advantage of important gatherings in the field of conservation to lead additional trainings. In July 2018, NCEP jointly offered an interactive session entitled “Case studies for teaching and learning in conservation: what have we learned and where can we go next?” at the North America Congress of Conservation Biology (NACCB) in Toronto, Canada. Our co-organizers included colleagues from Michigan Sustainability Cases, the National Socio-Environmental Synthesis Center, and the *Case Studies in the Environment* journal. The session’s eleven participants included both conservation educators and professionals. The goals of the session were to: 1) allow all participants to learn about our resources; 2) allow participants to share their experiences and needs through interactive, small group discussions; and 3) brainstorm together about possible future directions and synergies.

A key take-away was that case studies are being used as a tool for shared learning across professional and educational settings, communicating success in the real world as well as failures and lessons learned. In this vein, real cases were reported to resonate with students and trainees more than fictional cases, and participants also advocated for local examples. As pointed out by a participant who is a practitioner in a government agency, these case studies have the potential to also encourage new norms or organizational change, through leading by example. Participants who were less experienced with case studies were able to hear a diversity of reasons and strategies for using cases.



Sharon R. Akabas

Associate Professor in Pediatrics and
The Institute of Human Nutrition at CUIMC

Eleanor Sterling

Adjunct Professor
Department of Ecology, Evolution,
and Environmental Biology

Capacity Development

Advancing Conservation Education: Thinking Big About Food

The CBC continues its partnership with Columbia University to convene educators and researchers analyzing the intersections between food, our bodies, and our environment and to develop teaching and learning materials that use food systems as the setting for practicing critical thinking and inquiry. The project encompasses the development of three undergraduate courses: Food and the Body; Food, Ecology, and Globalization; and Food, Public Health, Policy, and Economics.

Dr. Sterling, Dr. Sharon Akabas (a nutritionist from Columbia Medical School), and CBC Biodiversity Scientist Erin Betley are teaching Food, Ecology, and Globalization in the Fall of 2018. They continue to pilot the use of innovative software and classroom instruction to investigate how students can best learn systems thinking and systems modeling, particularly in the context of food systems learning, as part of our NSF-funded collaboration with Michigan State University and other institutions. Their innovations in course design were recognized and highlighted in a Faculty Spotlight video of the Columbia's Center for Teaching and Learning. New exercises and class materials generated through this project will also be contributed to the NCEP collection. For example, an exercise on "Biotechnology and Genetically Modified Food" is currently in revision; we anticipate its addition to the NCEP collection in early 2019.

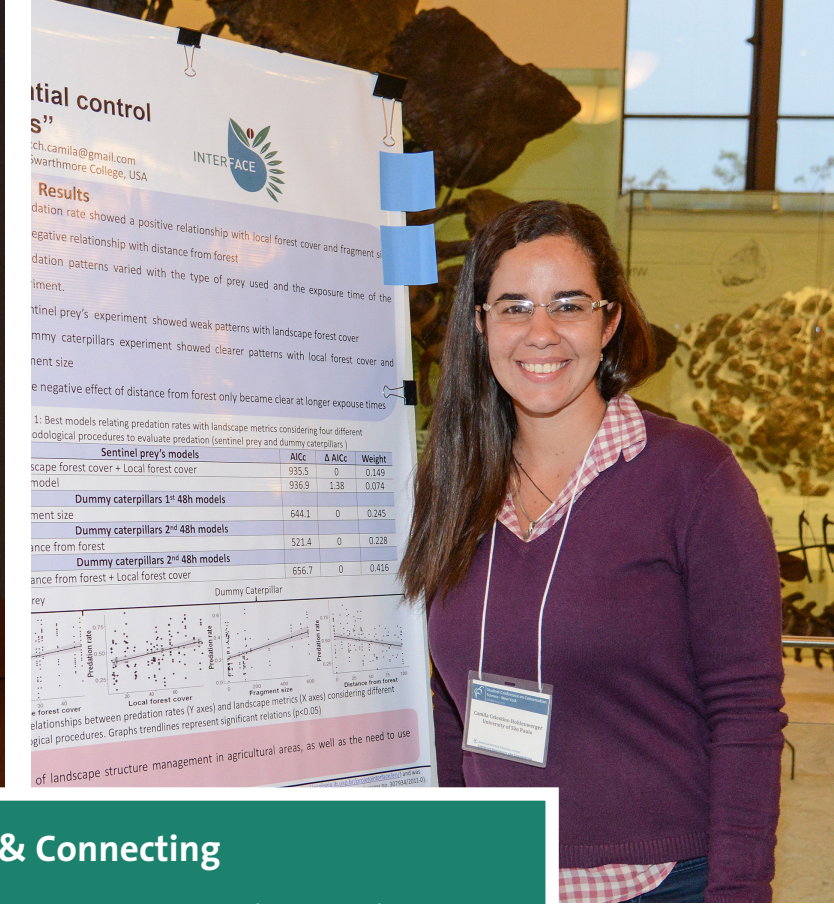


Capacity Development
Strengthening the future of conservation science

To encourage excellence, diversity, and inclusion in conservation, the CBC is devoted to promoting the recruitment, achievement, and success of students and early-career professionals from groups historically underrepresented in the field. We lead a number of activities to advance these goals, under our Inclusive Conservation Community Initiative (ICON). This summer and fall we led a combination of outreach, mentoring, and other activities. We directly mentored eight undergraduate students, three graduate students, and six high school students, helping them gain experience in a variety of aspects of conservation work, as well as exposing them to different policy fora. During the summer, Dr. Alex Moore and CBC Bioinformatics Specialist Pete Galante also traveled to Black Rock Forest with 60 high school students from the Science Research Mentoring Program. As part of an immersive outdoor camping and educational experience, they engaged students in the types of field methods that an ecologist might use to address specific research questions.

In addition, we had the opportunity to share the CBC’s work broadly through multiple speaking engagements. Dr. Blair presented on CBC work at the aforementioned International Primatological Society Congress in Nairobi, Kenya, and at the United States Fish and Wildlife Service’s Diversity Joint Venture Annual Meeting. The USFWS Diversity Joint Venture annual meeting convened high-profile partners in the conservation and environmental sectors including the National Park Service, the Student Conservation Association, the U.S. Forest Service, several state fish and wildlife commissions, Green 2.0, The Corps Network, the American Fisheries Society, the Society for Conservation Biology, Urban Outdoors, the Environmental Leadership Program, and the Yale School of Forestry and Environmental Studies. Together, the DJV partners aim to increase diversity, equity, and inclusion in conservation through coordination for collective impact. Dr. Blair presented at the meeting on CBC’s ongoing work in diversity, equity, and inclusion in conservation science and contributed to a number of working group activities.

Dr. Porzecanski was an invited speaker at a plenary panel discussion on equity, inclusion, and diversity in the field of conservation at the North American Congress on Conservation Biology in Toronto, Canada, this past July.



SCCS-NY 2017

Convening & Connecting Student Conference on Conservation Science

The CBC once again hosted its annual Student Conference on Conservation Science-New York (SCCS-NY), and it was another resounding success. It featured 47 talks and over 40 posters, along with plenaries by two dynamic and inspiring practitioners:

Dr. Arturo A. Massol-Deyá, Professor at the Department of Biology at the University of Puerto Rico, and Associate Director of Casa Pueblo, described his work to conserve the island’s biodiversity and to protect its critical watersheds from industrial activities such as mining. Dr. Massol-Deyá also described the establishment of two community-based protected forest areas that changed the island’s forestry policy and catalyzed an increase of protected areas from 3.7 percent to 8 percent of the land area. **Dr. Erika Svendsen**, Research Social Scientist with the United States Forest Service, spoke about her work in the field of environmental stewardship as it relates to community development, governance, and human wellbeing. As the co-Director of the New York City urban field station, a special partnership between the Forest Service, the New York City Department of Parks and Recreation, and several NGOs and academic institutions, she carries out joint research and practice to improve the quality of life in urbanizing areas by conducting, supporting, and communicating research about social-ecological systems and natural resource management.

They were joined by Jennifer Bolstad (landscape architect, educator, and community organizer), and Walter Meyer (urban designer), both from Local Office Landscape Architecture, for the 2018 Mack Lipkin Man and Nature Series Panel Discussion, titled **Conservation and Resilience: What Climate Change is Teaching Us**. Dr. Porzecanski moderated this lively public panel discussion on how climate change affects the places where we live and work.

The SCCS-NY took place on October 24-26—around the time of the mailing of this report—hence we look forward to sharing more details with you soon!



Convening & Connecting Guiding global policy

As we work to advance conservation action and bridge local and global scales in conservation, we continue to connect with the international arena and share lessons from our work with global initiatives. Dr. Sterling has been leading these efforts, which recently included the publication of a new, step-by-step guidance document on best practices to engage stakeholders in biodiversity conservation projects, for use by the United States Agency for International Development (USAID). We presented the results of the work in a webinar hosted by USAID in June 2018. The report, published in September, has been shared with USAID staff around the world, particularly with those funding biodiversity conservation work, to provide evidence-based, practical guidance regarding key steps, tools, and practices for effectively engaging stakeholders in biodiversity conservation projects. It has the potential to reach the 125 countries where USAID does biodiversity work through its missions and offices and to guide policy on a global scale.

Drawing from the highly successful Action Group on Knowledge Systems and Indicators of Wellbeing event held in April, CBC organizers distilled meeting findings and developed a number of deliverables including a meeting summary report, a policy recommendation document for the Convention on Biological Diversity, and an online directory of tools and resources. The Action Group intends to continue to support the community of practice through information sharing. Plans under development include a series of quarterly informational webinars in addition to a small, in-depth exploration of indicators on people and place connections.

Dr. Sterling has also been leading CBC efforts to engage with the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). The CBC reviewed several sections in the global assessment led by IPBES, focusing on Indigenous Peoples and Local Communities and the Aichi Biodiversity Targets and Sustainable Development Goals. We also provided feedback on the overall global assessment, including several examples of how our own work can inform the issues presented in the assessment and also other examples of missing literature based on the CBC's extensive knowledge base. Dr. Sterling continues her work with other specialists to ensure just and equitable representation and treatment of indigenous and local knowledge in these assessments in advance of the next IPBES plenary in April and May 2019 in Paris, France.

A priority for Dr. Sterling as Jaffe Chief Conservation Scientist has been to publish more about the CBC and its work to raise its profile. This endeavor has proven very successful; since our April report, she has published ten papers, with another eight papers in revision, or in press—a prolific output that will increase public awareness and understanding of the CBC's far-reaching work. In addition, Dr. Sterling is a leader on capacity development for IUCN's World Commission on Protected Areas, and was an invited speaker at the recent celebration of IUCN's 70th anniversary. Dr. Sterling has also participated in the planning committee for a global conference on capacity building for conservation that will take place in July 2019 in the United Kingdom. The conference is being co-organized by multiple partners, including IUCN and the CBC.



HALF-EARTH: LEARNING FROM LOCAL STEWARDS

Welcome

ANA PORZECANSKI
Center for Biodiversity
and Conservation
American Museum of
Natural History

Panel 1

How are indigenous peoples
and local communities leading
the way in nature stewardship?

Panel 2

How can indigenous and local
community initiatives inform
the Half-Earth vision?



Indigenous Leadership in Stewardship of and Conservation of Lands in Canada

Presented to Half Earth Day 2018
American Museum of Natural History, October 22nd 2018
By
Valérie Courtois, RPP
Director

INDIGENOUS LEADERSHIP



Convening & Connecting Events, Exhibitions, and Outreach

This fall, we collaborated with the E.O. Wilson Biodiversity Foundation to host Half-Earth Day at the Museum on October 22nd. Organized by the E.O. Wilson Biodiversity Foundation and its Half-Earth project, Half-Earth Day brings together people from around the world and across disciplines to share their unique perspective and thought leadership on how we can successfully ensure the health of our planet for future generations. Dr. Ana Porzecanski worked closely with the Foundation on the design of the panel discussions for the afternoon, which focused on learning from local stewards. The program provided an important opportunity for dialogue with representatives from Indigenous peoples and local communities, and for discussion of the crucial part they play in conservation efforts.

We continue to advise the Museum on special exhibitions as they are adapted for new venues. As it travels around the United States, Our Global Kitchen: Food, Nature, Culture continues to reach new audiences. After a well-received installation at the Fernbank Museum of Natural History in Atlanta, Georgia, it will open at the Bell Museum in Saint Paul, Minnesota in late September. The ¡Cuba! special exhibition just opened in a new venue, at the Denver Museum of Nature and Science. In addition, Dr. Porzecanski is participating as an advisor in the development of several new exhibits within the new Gilder Center for Science, Education, and Innovation. We hope to showcase conservation work through some of the planned exhibits and teaching labs given its potential to illustrate the application of science, and scientific research methods, to the protection of biodiversity.

In keeping with the CBC's efforts to reach a broad audience, Dr. Sterling also served as a science advisor to an independent film production company, Archipelago Films and Arise Media, in the production of a 3-D film on connecting to nature. "Backyard Wilderness" takes a year-long look across the seasons at a young family and their relationship to the biodiversity in their backyard. Encompassing some stunning wildlife footage (including days-old wood ducks parachuting from their nest at the top of the canopy to start their lives on the ground), the movie was released in April 2018 to critical acclaim. The film won Best Cinematography, Best Visual Effects, Best Lifelong Learning, and Best Short Film at the Giant Screen Cinema Association Awards in September. It is now on view in the Museum's LeFrak Theater!

