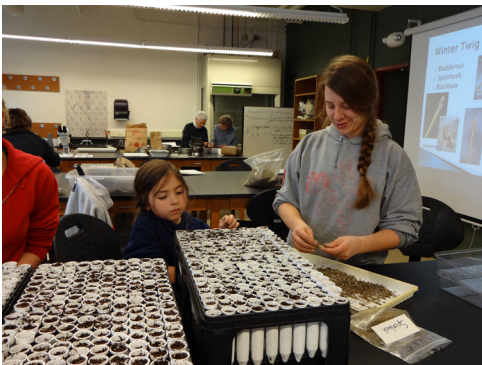


# SENCER-ISE



science education for new civic  
engagements and responsibilities -  
informal science education



SENCER-ISE places the work of the National Center for Science and Civic Engagement at the forefront of educational practice in that it supports and evaluates cross-sector partnerships between higher education and informal science education institutions. SENCER-ISE's goals are to create durable institutional partnerships between the sectors and to emphasize the importance of informal science educational institutions and activities as credible sources of high quality, life-long learning on matters of science, public policy, personal well being, and public welfare.

Funded by the National Science Foundation and The Noyce Foundation, SENCER-ISE:

- › Supports ten Civic Engagement Partnerships.
- › Encourages intra- and inter-partnership communication through in-person and on-line meetings and through postings on the project website.
- › Provides infrastructure support and consultation to the partnerships on evaluation practices and operational matters.
- › Disseminates to the wider educational community the results of partnership activities and resource materials related to evaluation outcomes, best practices for sustaining partnerships, and more.

Overall, SENCER-ISE creates networks in which awardees can learn from each other, engage in common reflective activities, and create models of collaboration. Beneficiaries include higher education faculty, informal science education professionals, students and the general public.

RK&A and the Marian Koshland Science Museum of the National Academy of Sciences are collaborating with NCSCE and SENCER-ISE to provide services to the awardees.



**ANTIOCH COLLEGE & THE GLEN HELEN OUTDOOR EDUCATION CENTER**

*Biodiversity, Invasive Species, and Forest Restoration: Intergenerational Civic Engagement in Classrooms & Outdoors*

Antioch, Glen Helen, and the Marianist Environmental Education Center are partnering to design curriculum around the issue of biodiversity loss following non-native species invasions. The partners integrate informal science education into an introductory Environmental Science course by offering civic engagement activities to elders and youth and involving campus and community members in deciduous forest restoration in southwestern Ohio. Partnership activities include intergenerational workshops on plant propagation, a plant foster care program, seed collection and planting by youth, and informal science education opportunities for undergraduate students.



**CORNELL UNIVERSITY & SCIENCENTER**

*Science from the Start: Engaging Researchers, Undergraduates, and a Science Museum to Reach Early Learners and Set the Stage for STEM Learning*

What tools do parents and other caregivers need in order to learn the science of cognitive development so that young children have the best learning environments possible?

This is the question that the Sciencenter and Cornell University's Early Childhood Cognition (ECC) Lab seek to answer. Researchers at the ECC Lab study the processes by which children learn about cause and effect through everyday experiences. The Sciencenter and the ECC Lab are partnering to share this research with parents and to create tools that will help parents maximize their children's learning at the museum and at home.



**BROOKLYN COLLEGE OF CUNY & GATEWAY NATIONAL RECREATION AREA OF THE NATIONAL PARK SERVICE**

*Sentinels of Shoreline Change: A Citizen Science Field Observation Program*

Gateway National Recreation Area of the National Park Service and Brooklyn College of CUNY are partnering to create a citizen science field observation program focused on monitoring the shoreline of Jamaica Bay for changes due to climate change and human activity. Their project engages local schools and citizens in understanding coastal resilience through a structured program of observation and reflection. The partners are building learning communities amongst rangers, scientists and educators that facilitate deep learning about the Jamaica Bay ecosystem and encourage stewardship and public advocacy for improving the health of the bay.



**FORDHAM UNIVERSITY & WILDLIFE CONSERVATION SOCIETY**

*Project TRUE (Teens Researching Urban Ecology)*

The partnership between the Wildlife Conservation Society and Fordham University engages New York City teens in a research program on one of the most pressing issues of science and civic consequence of our time—urban ecology. High school students are connecting research, guided by a Wildlife Conservation Society instructor, and graduate students and professors from Fordham. The participants are disseminating their discoveries through a blog and a series of symposiums. The results of their research will provide scientific evidence that policy makers could potentially use in making decisions about local land use and other related issues.



**HAMILTON COLLEGE, HOPE COLLEGE,  
OBERLIN COLLEGE,  
& GREEN SCIENCE POLICY INSTITUTE**

*Chemistry and Civic Engagement:  
The Study of Toxic Chemicals in Everyday Products*

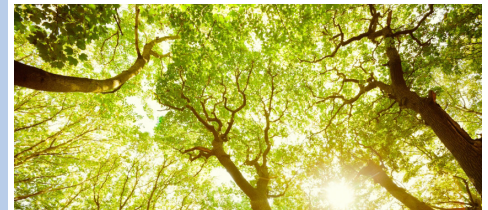
Green Science Policy Institute is partnering with Hamilton, Hope, and Oberlin Colleges to provide course components and research opportunities for undergraduate science students that couple toxicology with public policy and civic engagement. The focus centers on assessing human exposure to a number of anthropogenic toxins and policies designed to protect human and environmental health. A first semester chemistry course has been designed and implemented at Hamilton, which explores broader impacts of the analytical toxicology work done by students in the laboratory. The collaboration has been broadened to include Hope and Oberlin where this model will be expanded and adapted.



**NEW MEXICO EPSCOR  
& NEW MEXICO MUSEUM  
OF NATURAL HISTORY AND SCIENCE**

*New Mexico Informal Science /Current Research Network*

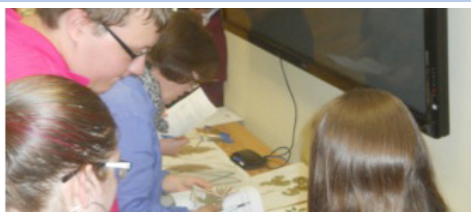
The New Mexico Informal Science/Current Research Network focuses on two issues of importance to New Mexicans—water and energy. The project brings together a network of informal science education institutions (NM ISENet) with a network of university-based researchers (NM EPSCoR) to build capacity for enhanced collaboration to engage learners of all ages in STEM issues related to water and energy. By combining their efforts and expertise, the New Mexico Informal Science/Current Research Network will result in unique ways to reach the public and students with the latest scientific research presented through an array of informal science programs.



**PAUL SMITH'S COLLEGE  
& THE WILD CENTER**

*Interpreting Climate Science*

The Wild Center and Paul Smith's College partner on a course that engages students in developing targeted climate science communication to community gatekeepers—people who can influence the public to make more informed decisions. After reviewing expected climate change effects in Adirondack Park and exploring the principles of interpretation and social science communication strategies, students develop presentations for specific gatekeepers. Goals include use of interpretive strategies to link learners' needs and relevance, conducting research on the public understanding of climate change to initiate conversations, and raising awareness of possible solutions.



**RARITAN VALLEY  
COMMUNITY COLLEGE  
& NEW JERSEY AUDUBON SOCIETY**

*Integrating Citizen Science and Community College Student  
Efforts in Assessing Forest Health in Central New Jersey*

The New Jersey Audubon Society and Raritan Valley Community College are integrating classroom work with citizen science field research to address forest health in central New Jersey. Students at Raritan Valley Community College learn about the principles and practices of scientific research, and assist New Jersey Audubon staff in conducting research-training workshops for citizen scientists at the New Jersey Audubon. Citizen scientists and student interns then assess forest health in central New Jersey, documenting the extent of deer browse and its effects on forest structure, invasive plant species and avian and plant diversity.

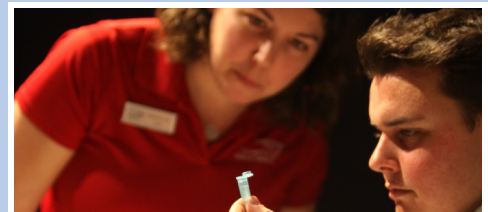


**SAINT MARY'S COLLEGE  
OF CALIFORNIA  
& LINDSAY WILDLIFE MUSEUM**

*Facing the Future: Sharing Habitats with Wildlife*

Saint Mary's College of California and Lindsay Wildlife Museum are partnering on a program that explores issues of urban habitats—their ephemerality, and the need for citizens to share responsibility and promote their success.

The institutions are (1) studying a San Francisco Bay Area watershed habitat; (2) designing data collection methods, such as GIS mapping and mobile app creation, intended to educate children and adults on urban habitats and the need to protect them; and (3) preparing interpretive materials to raise awareness of habitat issues.



**UNIVERSITY OF CONNECTICUT  
& CONNECTICUT SCIENCE CENTER**

*Genome Ambassadors:  
Promoting Public Understanding of Genomics*

The Connecticut Science Center and the University of Connecticut are partnering on "Genome Ambassadors," a program for family audiences visiting the Science Center. The program: (1) assesses gaps in public knowledge and awareness of genomics and (2) designs and delivers a series of genomics related program activities to address identified knowledge gaps. The program will serve as a model for leveraging the assets of university research institutions and informal science education organizations to address STEM-related issues of public importance.

# CONNECT WITH US

Follow us on twitter and visit the SENCER-ISE website for more information about the initiative and the cross-sector partnerships that are supported by its efforts. If you have any questions or suggestions about the SENCER-ISE project, please contact Hailey Chenevert at [hailey.chenevert@ncsce.net](mailto:hailey.chenevert@ncsce.net).

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