

Stanford



Nicole Ardoin

Director, E-IPER, Associate Professor of Education and Senior Fellow at the Woods Institute for the Environment
Graduate School of Education

CONTACT INFORMATION

- **Admin. Support**

Cherylynn Walker

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Bio

BIO

Nicole Ardoin, Emmett Family Faculty Scholar, is the Sykes Family Director of the Emmett Interdisciplinary Program in Environment and Resources (E-IPER) in the School of Earth, Energy, and Environmental Sciences. She is an Associate Professor in the Graduate School of Education and a Senior Fellow in the Woods Institute for the Environment. Professor Ardoin and her Social Ecology Lab group research motivations for and barriers to environmental behavior at the individual and collective scales. They use mixed-methods approaches--including participant observation, a variety of interview types, surveys, mapping, network analysis, and ethnography, among others--to consider the influence of place-based connections, environmental learning, and social-ecological interactions on participation in a range of environmental and sustainability-related decisionmaking processes. Professor Ardoin and her interdisciplinary group pursue their scholarship with a theoretical grounding and orientation focused on applications for practice; much of her lab's work is co-designed and implemented with community collaborators through a field-based, participatory frame. Professor Ardoin is an associate editor of the journal *Environmental Education Research*, a trustee of the George B. Storer Foundation, chair of NatureBridge's Education Advisory Council, an advisor to the Student Conservation Association and Teton Science Schools, among other areas of service to the field.

ACADEMIC APPOINTMENTS

- Associate Professor, Graduate School of Education
- Senior Fellow, Stanford Woods Institute for the Environment
- Affiliate, Precourt Institute for Energy
- Senior Fellow, Stanford Woods Institute for the Environment

ADMINISTRATIVE APPOINTMENTS

- Emmett Family Faculty Scholar, School of Earth, Energy, and Environmental Sciences, (2018- present)
- Sykes Family E-IPER Faculty Director, Emmett Interdisciplinary Program in Environment and Resources, (2019- present)
- Faculty Director (Acting), Emmett Interdisciplinary Program in Environment and Resources, Stanford University, (2018-2019)

HONORS AND AWARDS

- William C. Everhart Award, Clemson Institute for Parks (2018)
- Miriam Aaron Roland Volunteer Service Prize, Haas Center for Public Service, Stanford University (2018)

- Outstanding Contributions to Research in Environmental Education, North American Association for Environmental Education (2016)
- President's Award, North American Association for Environmental Education (2014)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Trustee, George B. Storer Foundation (2016 - present)
- Advisory Board, North American Association for Environmental Education (2015 - present)
- Education Advisory Council Member, Teton Science Schools (2015 - present)
- Faculty Steering Committee, Haas Center for Public Service (2015 - present)
- Programs Committee of the Board of Directors, Monterey Bay Aquarium (2013 - 2018)
- Advisory Committee, Jasper Ridge Biological Preserve (2012 - present)
- Education Advisory Council Chair, NatureBridge (2010 - present)

PROFESSIONAL EDUCATION

- Ph. D., Forestry & Environmental Studies (Social Ecology), Yale University
- M.Phil., Forestry & Environmental Studies (Social Ecology), Yale University
- M.S., Natural Resource Management (Environmental Education & Interpretation), University of Wisconsin, Stevens Point
- B.B.A., International Business & French, James Madison University

LINKS

- My Lab Website: <https://people.stanford.edu/nmardoin/>

Research & Scholarship

RESEARCH INTERESTS

- Civic Education
- Collaborative Learning
- Environmental Education
- Gender Issues
- Lifelong Learning
- Psychology
- Research Methods
- Science Education
- Social and Emotional Learning
- Sociology

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Nicole Ardoin holds a joint appointment with the Graduate School of Education and the Woods Institute for the Environment at Stanford University. She is the inaugural Emmett Family Faculty Scholar and the Skyes Family Faculty director of the Emmett Interdisciplinary Program in Environment and Resources (E-IPER) in the School of Earth, Energy, and Environment (SE3).

A unifying theme across Professor Ardoin's work is an interest in community engagement and social learning as an opportunity to motivate productive, critical dialogue and sustained environmental practices that build resiliency in light of changing environmental conditions. Professor Ardoin's research includes studies on motivations for and barriers to environmental and stewardship behavior among a range of audiences and in varying settings; the use of social strategies by non-governmental

organizations to engage individuals and communities in decisionmaking related to natural resource management; leadership and training programs in natural resources and conservation; and the impact of green/biophilic buildings and the built environment on environmental attitudes, knowledge, and behaviors.

CURRENT RESEARCH (Selected):

The Summen Project: Coastal Fog-mediated Interactions Between Climate Change, Upwelling, and Coast Redwood Resilience (2016–2020; funded by NSF Coastal SEES Program; in partnership with UC Santa Cruz, UC Berkeley, Carnegie, Oregon State University)

Hybrid Physical and Digital Spaces for Enhanced Sustainability and Wellbeing, Stanford Catalyst for Collaborative Solutions (2018–2020, funded by Stanford Catalyst for Collaborative Solutions, PI: Sarah Billington, Civil and Environmental Engineering, with co-PIs from Engineering, Computer Science, Psychology)

Blue Habits (Phase II): Leveraging Behavioral Science to Support Pro-Ocean Behaviors (2018–2019, funded by Booking Cares Fund. In partnership with The Oceanic Society)

Connection to Nature Assessment Project (2018–2020, funded by Pisces Foundation, in collaboration with University of Florida, NAAEE, and Children & Nature Network)

Research and Practice: Students and Land Managers Collaborating for Solutions (2017–2020; funded by Realizing Environmental Innovations Projects, Stanford Woods Institute for the Environment. Co-PI: Deborah Gordon, Biology, Stanford)

Connecting Research and Practice: Theoretical, Empirical, and Practical Considerations; ee360: Leadership and Training Collaborative (2017–2021, funded by US EPA, lead partner, North American Association for Environmental Education)

eeWorks: Examining the body of evidence for environmental education with regard to conservation, academic outcomes, civic engagement, and positive youth development (2015–2018, funded by North American Association for Environmental Education, US EPA, Fish and Wildlife Service, and others)

Community Environmental Literacy as a Motivator for Participating in Environmental Stewardship over Time (2019–2021; funded by the Pisces Foundation)

RESEARCH INTERESTS:

Community Involvement

Community/Youth Development and Organizations

Diversity

Environmental Education

Ethnography

Evaluation

Organizations

Qualitative Research Methods

Teaching

COURSES

2018-19

- Capstone Project Seminar in Environment and Resources: ENVRES 290 (Aut, Win)
- Evolution, Conservation, and Education in Galápagos: ANTHRO 10SC, HUMBIO 17SC (Sum)
- Graduate Practicum in Environment and Resources: ENVRES 270 (Aut, Win, Spr, Sum)
- Open Space Management Practicum: EARTHSYS 176, EARTHSYS 276 (Aut)
- Qualitative Interviewing: EDUC 450C (Win)
- Research Approaches for Environmental Problem Solving: ENVRES 330 (Spr)
- Science and Environmental Education in Informal Contexts: EDUC 357 (Win)

2017-18

- Capstone Project Seminar in Environment and Resources: ENVRES 290 (Win)
- Graduate Practicum in Environment and Resources: ENVRES 270 (Win, Spr, Sum)
- Qualitative Interviewing: EDUC 450C (Win)
- Research Approaches for Environmental Problem Solving: ENVRES 330 (Spr)
- Theory and Practice of Environmental Education: EDUC 332 (Spr)

2016-17

- Qualitative Interviewing: EDUC 250E (Win)
- Research Approaches for Environmental Problem Solving: ENVRES 330 (Spr)
- Science and Environmental Education in Informal Contexts: EDUC 357 (Win)
- Theory and Practice of Environmental Education: EDUC 332 (Spr)

2015-16

- Research Approaches for Environmental Problem Solving: ENVRES 330 (Spr)
- Science and Environmental Education in Informal Contexts: EDUC 357 (Win)
- Theory and Practice of Environmental Education: EDUC 332 (Spr)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Ciara Wirth

Orals Chair

Adina Abeles

Postdoctoral Faculty Sponsor

Diane Matar

Doctoral Dissertation Advisor (AC)

Indira Phukan

Orals Evaluator

Stephanie Rafanelli

Doctoral Dissertation Co-Advisor (AC)

Juan Miguel Arias, Jenna Forsyth, Anna Lee, Jose Urteaga, Lynne Zummo

Master's Program Advisor

Chris Escobedo

Doctoral (Program)

Kristen Green, Archana Kannan, Indira Phukan, Francisca Santana, Shannon Switzer, Jose Urteaga, Lynne Zummo

Publications

PUBLICATIONS

- **Exploring connections between environmental learning and behavior through four everyday-life case studies** *ENVIRONMENTAL EDUCATION RESEARCH*
Gould, R. K., Ardoin, N. M., Thomsen, J. M., Roth, N.
2019
- **To co-produce or not to co-produce** *NATURE SUSTAINABILITY*
Lemos, M., Arnott, J. C., Ardoin, N. M., Baja, K., Bednarek, A. T., Dewulf, A., Fieseler, C., Goodrich, K. A., Jagannathan, K., Klenk, N., Mach, K. J., Meadow, A. M., Meyer, et al
2018; 1 (12): 722–24
- **Seizing opportunities to diversify conservation** *CONSERVATION LETTERS*
Gould, R. K., Phukan, I., Mendoza, M. E., Ardoin, N. M., Panikkar, B.
2018; 11 (4)
- **Sustainable tourism and the management of nearshore coastal places: place attachment and disruption to surf-spots** *JOURNAL OF SUSTAINABLE TOURISM*
Reineman, D. R., Ardoin, N. M.
2018; 26 (2): 325–40
- **Increased Neighbor Interaction and Fear of Social Sanctions: Associations with Resident Action to Control the Invasive Little Fire Ant** *Society & Natural Resources*
Niemiec, R., Ardoin, N., Brewer, F., Kung, S., Lopez, K.
2018: 1-20
- **Scale-dependence of environmental and socioeconomic drivers of albizia invasion in Hawaii** *Landscape and Urban Planning*
Niemiec, R., Asner, G., Brodrick, P., Gaertner, J., Ardoin, N.
2018; 169: 70-80
- **The importance of culture in predicting environmental behavior in middle school students on Hawai'i Island.** *PloS one*
Gould, R. K., Krymkowski, D. H., Ardoin, N. M.
2018; 13 (11): e0207087
- **What difference do role models make? Investigating outcomes at a residential environmental education center** *ENVIRONMENTAL EDUCATION RESEARCH*
Stern, M. J., Frensley, B., Powell, R. B., Ardoin, N. M.
2018; 24 (6): 818–30
- **Factors that contribute to community members' support of local nature centers** *ENVIRONMENTAL EDUCATION RESEARCH*
Browning, M. M., Stern, M. J., Ardoin, N. M., Heimlich, J. E.
2018; 24 (3): 326–42
- **Environmental education and K-12 student outcomes: A review and analysis of research** *JOURNAL OF ENVIRONMENTAL EDUCATION*
Ardoin, N. M., Bowers, A. W., Roth, N., Holthuis, N.
2018; 49 (1): 1–17
- **Social learning within a community of practice: Investigating interactions about evaluation among zoo education professionals.** *Evaluation and program planning*

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- Khalil, K., Ardoin, N. M., Wojcik, D.
2017; 61: 45-54
- **Exploring the Effectiveness of Outreach Strategies in Conservation Projects: The Case of the Audubon Toyota TogetherGreen Program** *SOCIETY & NATURAL RESOURCES*
Stern, M. J., Ardoin, N. M., Powell, R. B.
2017; 30 (1): 95-111
 - **More than good intentions: the role of conditions in personal transportation behaviour** *Local Environment*
Biggar, M., Ardoin, N. M.
2017; 22 (2): 141-155
 - **Community context, human needs, and transportation choices: a view across San Francisco Bay Area communities** *Journal of transport geography*
Biggar, M., Ardoin, N. M.
2017; 60: 189-199
 - **Civic and natural place attachment as correlates of resident invasive species control behavior in Hawaii** *Biological Conservation*
Niemiec, R. M., Ardoin, N. M., Wharton, C. B., Brewer, F. K.
2017; 209: 415-422
 - **The development of trust in residential environmental education programs** *Environmental Education Research*
Ardoin, N. M., DiGiano, M. L., O'Connor, K., Podkul, T. E.
2017; 23 (9): 1335-1355
 - **Investigating the sets of values that community members hold toward local nature centers** *Environmental Education Research*
Browning, M. H., Stern, M. J., Ardoin, N. M., Heimlich, J. E., Petty, R., Charles, C.
2017; 23 (9): 1291-1306
 - **UNDERSTANDING THE COMMUNITY CONTEXT OF AEADES AEGYPTI MOSQUITO BREEDING IN COASTAL KENYA: IMPLICATIONS FOR CONTROL**
Forsyth, J., Mutuku, F., Kibe, L., Kamoni, J., Mwashee, L., Ardoin, N., LaBeaud, D.
AMER SOC TROP MED & HYGIENE.2017: 56
 - **The company you keep: Networks in a community of informal education evaluators** *STUDIES IN EDUCATIONAL EVALUATION*
Khalil, K. A., Ardoin, N. M., Wojcik, D. J.
2016; 51: 7-16
 - **Farmer Typology in South Kona, Hawai'i: Who's Farming, How, and Why?** *FOOD CULTURE & SOCIETY*
Lincoln, N. K., Ardoin, N.
2016; 19 (3): 563-585
 - **Environmental Behavior's Dirty Secret: The Prevalence of Waste Management in Discussions of Environmental Concern and Action** *ENVIRONMENTAL MANAGEMENT*
Gould, R. K., Ardoin, N. M., Biggar, M., Cravens, A. E., Wojcik, D.
2016; 58 (2): 268-282
 - **Effects of a behaviour change intervention for Girl Scouts on child and parent energy-saving behaviours** *NATURE ENERGY*
Boudet, H., Ardoin, N. M., Flora, J., Armel, K. C., Desai, M., Robinson, T. N.
2016; 1
 - **Cultivating values: environmental values and sense of place as correlates of sustainable agricultural practices** *AGRICULTURE AND HUMAN VALUES*
Lincoln, N. K., Ardoin, N. M.
2016; 33 (2): 389-401
 - **Using online narratives to explore participant experiences in a residential environmental education program** *CHILDRENS GEOGRAPHIES*
Ardoin, N. M., DiGiano, M., O'Connor, K., Holthuis, N.
2016; 14 (3): 263-281
 - **"I know, therefore I adapt?" Complexities of individual adaptation to climate-induced forest dieback in Alaska** *ECOLOGY AND SOCIETY*
Oakes, L. E., Ardoin, N. M., Lambin, E. F.
2016; 21 (2)

- **Post-trip philanthropic intentions of nature-based tourists in Galapagos** *Journal of Ecotourism*
Ardoin, N. M., Wheaton, M., Hunt, C. A., Schuh, J. S., Durham, W. H.
2016; 15 (1): 21-35
- **Looking toward the blue sky: Environmental education researchers' experience, influences, and aspirations** *Applied Environmental Education & Communication*
Ardoin, N. M., Clark, C. R., Wojcik, D. J.
2016; 15 (1): 75-89
- **Negotiating credibility and legitimacy in the shadow of an authoritative data source** *ECOLOGY AND SOCIETY*
Cravens, A. E., Ardoin, N. M.
2016; 21 (4)
- **Beyond formal groups: neighboring acts and watershed protection in Appalachia** *INTERNATIONAL JOURNAL OF THE COMMONS*
Lukacs, H., Ardoin, N. M., Grubert, E.
2016; 10 (2): 878-901
- **Motivating residents to combat invasive species on private lands: social norms and community reciprocity** *ECOLOGY AND SOCIETY*
Niemiec, R. M., Ardoin, N. M., Wharton, C. B., Asner, G. P.
2016; 21 (2)
- **Using web and mobile technology to motivate pro-environmental action after a nature-based tourism experience** *JOURNAL OF SUSTAINABLE TOURISM*
Wheaton, M., Ardoin, N. M., Hunt, C., Schuh, J. S., Kresse, M., Menke, C., Durham, W.
2016; 24 (4): 594-615
- **Conservation in a social-ecological system experiencing climate-induced tree mortality** *BIOLOGICAL CONSERVATION*
Oakes, L. E., Hennon, P. E., Ardoin, N. M., D'Amore, D. V., Ferguson, A. J., Steel, E. A., Wittwer, D. T., Lambin, E. F.
2015; 192: 276-285
- **Nature-based tourism's impact on environmental knowledge, attitudes, and behavior: a review and analysis of the literature and potential future research** *JOURNAL OF SUSTAINABLE TOURISM*
Ardoin, N. M., Wheaton, M., Bowers, A. W., Hunt, C. A., Durham, W. H.
2015; 23 (6): 838-858
- **Collaborative and Transformational Leadership in the Environmental Realm** *JOURNAL OF ENVIRONMENTAL POLICY & PLANNING*
Ardoin, N. M., Gould, R. K., Kelsey, E., Fielding-Singh, P.
2015; 17 (3): 360-380
- **A Protocol for eliciting nonmaterial values through a cultural ecosystem services frame** *CONSERVATION BIOLOGY*
Gould, R. K., Klain, S. C., Ardoin, N. M., Satterfield, T., Woodside, U., Hannahs, N., Daily, G. C., Chan, K. M.
2015; 29 (2): 575-586
- **Evaluation in residential environmental education: An applied literature review of intermediary outcomes** *Applied Environmental Education & Communication*
Ardoin, N. M., Biedenweg, K., O'Connor, K.
2015; 14 (1): 43-56
- **Energy behaviours of northern California Girl Scouts and their families** *ENERGY POLICY*
Boudet, H., Ardoin, N. M., Flora, J., Arnel, K. C., Desai, M., Robinson, T. N.
2014; 73: 439-449
- **Exploring Sense of Place and Environmental Behavior at an Ecoregional Scale in Three Sites** *HUMAN ECOLOGY*
Ardoin, N. M.
2014; 42 (3): 425-441
- **Using digital photography and journaling in evaluation of field-based environmental education programs** *STUDIES IN EDUCATIONAL EVALUATION*
Ardoin, N. M., DiGiano, M., Bundy, J., Chang, S., Holthuis, N., O'Connor, K.
2014; 41: 68-76
- **The implications of differing tourist/resident perceptions for community-based resource management: a Hawaiian coastal resource area study** *JOURNAL OF SUSTAINABLE TOURISM*

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- Vaughan, M. B., Ardoin, N. M.
2014; 22 (1): 50-68
- **Youth-community-university partnerships and sense of place: two case studies of youth participatory action research** *CHILDRENS GEOGRAPHIES*
Ardoin, N. M., Castrechini, S., Hofstedt, M. K.
2014; 12 (4): 479-496
 - **The forest has a story: cultural ecosystem services in Kona, Hawai'i** *ECOLOGY AND SOCIETY*
Gould, R. K., Ardoin, N. M., Woodside, U., Satterfield, T., Hannahs, N., Daily, G. C.
2014; 19 (3)
 - **The Relationship of Place Re-Making and Watershed Group Participation in Appalachia** *SOCIETY & NATURAL RESOURCES*
Lukacs, H. A., Ardoin, N. M.
2014; 27 (1): 55-69
 - **An exploration of future trends in environmental education research** *ENVIRONMENTAL EDUCATION RESEARCH*
Ardoin, N. M., Clark, C., Kelsey, E.
2013; 19 (4): 499-520
 - **Views From the Field: Conservation Educators' and Practitioners' Perceptions of Education as a Strategy for Achieving Conservation Outcomes** *JOURNAL OF ENVIRONMENTAL EDUCATION*
Ardoin, N. M., Heimlich, J. E.
2013; 44 (2): 97-115
 - **Exploring the dimensions of place: a confirmatory factor analysis of data from three ecoregional sites** *ENVIRONMENTAL EDUCATION RESEARCH*
Ardoin, N. M., Schuh, J. S., Gould, R. K.
2012; 18 (5): 583-607
 - **Trends in Philanthropic Support: Foundation Giving in Environmental Education** *JOURNAL OF ENVIRONMENTAL EDUCATION*
Ardoin, N. M., Bowers, A. W.
2012; 43 (4): 259-273
 - **Evaluating a Constructivist and Culturally Responsive Approach to Environmental Education for Diverse Audiences** *JOURNAL OF ENVIRONMENTAL EDUCATION*
Stern, M. J., Powell, R. B., Ardoin, N. M.
2011; 42 (2): 109-122
 - **Development and validation of scales to measure environmental responsibility, character development, and attitudes toward school** *ENVIRONMENTAL EDUCATION RESEARCH*
Powell, R. B., Stern, M. J., Krohn, B. D., Ardoin, N.
2011; 17 (1): 91-111
 - **What Difference Does It Make? Assessing Outcomes From Participation in a Residential Environmental Education Program** *JOURNAL OF ENVIRONMENTAL EDUCATION*
Stern, M. J., Powell, R. B., Ardoin, N. M.
2008; 39 (4): 31-43
 - **Understanding behavior to understand behavior change: a literature review** *ENVIRONMENTAL EDUCATION RESEARCH*
Heimlich, J. E., Ardoin, N. M.
2008; 14 (3): 215-237