

Marijke Hecht
Penn State Greater Allegheny
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EDUCATION

- Doctor of Philosophy, Learning Sciences & Policy** 2020
University of Pittsburgh School of Education – Pittsburgh, PA
Dissertation: “*Relational processes between people and place: Understanding environmental interest and identity development through a learning ecosystem lens*”
Advisor: Kevin Crowley
- Master of Science, Botany – Field Naturalist Program** 2002
University of Vermont – Burlington, VT
Master’s Thesis: “*Natural community assessment & recommendations for ecological core areas on the Glebe Mountain Matrix Block,*” submitted to The Nature Conservancy of Vermont
- Bachelor of Arts, Nutritional Anthropology** 1996
Hampshire College – Amherst, MA
Self-directed major: “*Nutrition, agriculture, & science education and their roles in the urban landscape*”

HONORS AND FELLOWSHIPS

- Pennsylvania Association of Environmental Educators’ Outstanding Contribution to Environmental Education Award** – Seven Springs, PA 2020
For research contributions to environmental education
- University of Pittsburgh Center for Urban Education** – Pittsburgh, PA 2017-2020
Graduate Student Fellow
- William B. Stapp Student Scholarship** – Lexington, KY 2019
For participation in the 48th Annual NAAEE Research Symposium
- Carnegie Science Center Leadership in STEM Education** – Pittsburgh, PA 2015
For partnering with schools to use city parks as classrooms
- PUMP and Pittsburgh Magazine ‘40 Under 40’** – Pittsburgh, PA 2010
For environmental leadership in Southwest Pennsylvania
- Pennsylvania Environmental Council ‘40 Under 40’** – Harrisburg, PA 2010
For environmental leadership in the Commonwealth of Pennsylvania
- The Nature Conservancy** – Montpelier, VT 2001
Hubert Vogelmann Fellow in support of Master’s Project
- University of Vermont** – Burlington, VT 2000
Field Naturalist Fellow in support of graduate studies
- Neighborhood Partners Initiative** – Bronx, NY 1998
Community Service Award for creation of Morris Avenue Community Garden
- Hampshire College** – Amherst, MA 1996
Threshold Award for outstanding undergraduate senior thesis

PROFESSIONAL EXPERIENCE

Academic & Teaching Positions

Penn State Greater Allegheny *Current*

Assistant Professor, Recreation Park & Tourism Management

- On-campus courses: Leisure & Human Behavior; Sustainability, Society, & Well-being
- World Campus courses: Leisure & Human Behavior; Sustainability, Society, & Well-being

University of Pittsburgh *2019*

Teaching Assistant

- Supported instruction and grading for EdD course: Out-of-School Organizational Theory

Cornell University Civic Ecology Lab *2018, 2019*

Guest Lecturer

- Provided webinars for on-line course in Introduction to Environmental Education: “Opportunities for urban environmental education across the city landscape” & “Environmental education in cities: Challenges and opportunities”

University of Vermont *2001*

Teaching Assistant

- Led laboratory activities and completed grading for undergraduate Biology class

New York City Board of Education – New York, NY *1996-1999*

Middle School & High School Classroom Teacher

- Taught biology, chemistry, math and life science in NYC public schools (Teach for America Corps member, 1996-1998)
- Developed and co-taught course on chemistry & art culminating in student pieces included in “The Time of Our Lives” exhibition at The New Museum of Contemporary Art (1999)

Research-Practice Partnerships

University of Pittsburgh *2016-2020*

Graduate Student Researcher

- Led research-practice partnership with Pittsburgh Parks Conservancy to study youth interest development in the environment for dissertation (2019-2020)
- Co-led Creative Learning program planning and evaluation process for The Heinz Endowments (2018-2020)
- Participant in and panelist at National Center for Research in Policy and Practice (NCRPP) convening to re-envision graduate training to prepare future researchers to work in partnership with education stakeholders (2019)
- Research Associate at Carnegie Museum of Natural History on Spencer Foundation funded research-practice partnership (2016-2018)
- Participant in Design-Based Implementation Research (DBIR) workshop, Research and Practice Collaboratory (2017)

Project & Non-Profit Management

Independent consultant – Pittsburgh, PA *2016-2019*

- Client: **UrbanKind, Inc.**, *Educational assessment support* (2019)

- Prepared survey for assessment of youth Social and Emotional Learning (SEL)
- Provided practitioner training tools for survey implementation
- Client: **BW3, LLC., *Trainer*** (2019)
 - Supported workplace leadership training focused on race, culture and women
- Client: **Fred Rogers Company, *Environmental education advisor*** (2016-2018)
 - Assisted with PBS proposal and script development for Ollie's Big Backyard, an animated and live action series for 3-5-year-olds (2017-2018)
 - Provided themes and episode review of ten 3-minute episodes of *Through the Woods*, an animated web-based series for 3-5-year-olds (2016)

Pittsburgh Parks Conservancy – Pittsburgh, PA
Director of Education

2009-2016

- Led education team in development and implementation of environmental education programs using parks as classrooms
 - Spearheaded outreach to local schools and districts that prioritized inclusion of marginalized communities to expand and diversify environmental education program participation
 - Emphasized interdisciplinary, hands-on learning to meet standards for STEM (Science Technology Engineering Math) and ELA (English & Language Arts)
 - Partnered with public and charter schools to offer ACT 48 professional development credits to K-12 teachers
 - Annual program reach included
 - enrollment increase from 2 to 20 schools over 7 years
 - 950+ K-12 children from public, charter, and private schools
 - 400 summer camp participants
 - 1,500 people through adult and family programs
 - Created culture for program staff and participants that fostered a sense of wonder, an appreciation for the natural world, and a commitment to lifelong learning
- Led development of new Frick Environmental Center
 - Managed design and construction teams for \$19M urban environmental center
 - Building and site achieved Living Building Challenge & LEED Platinum certification and 8 additional architectural and industry awards, including 2017 AIA Committee on Education in Architecture Award of Excellence
- Participated in capital & program fundraising from foundations, government, & individuals
- Managed annual program budget of \$600K and capital expense budget of \$19M
- Supervised team of 9 permanent and 7-10 seasonal staff

Western Pennsylvania Conservancy – Pittsburgh, PA
TreeVitalize Pittsburgh Program Director

2008-2009

- Developed regional urban tree planting program to improve community and ecological health modeled after successful Philadelphia TreeVitalize program
- Managed neighborhood tree plantings of over 3,300 trees including site assessment, tree procurement, tool management, and plantings with more than 1,500 volunteers
- Provided education & technical support to over 40 community groups in 30 neighborhoods
- Coordinated efforts of program partners including PA Department Conservation & Natural Resources, Allegheny County, City of Pittsburgh, Tree Pittsburgh, & Western Pennsylvania Conservancy
- Participated in fundraising to raise \$3.8M from public and private funding sources

Nine Mile Run Watershed Association – Pittsburgh, PA
Executive Director, start-up phase

2002-2008

- Led organizational development from all volunteer to full time staff of 6
- Spearheaded outreach and stewardship programs including:
 - watershed education reaching over 6,000 citizens
 - implementation of citizen-based tree inventory of 3,000+ trees with 150 volunteers
 - installation of 600 rain barrels
 - successful fundraising to install 3,400 additional barrels
 - involvement of 250 citizens & 30 public officials in design of park entrance for stormwater-capture
 - scientific monitoring of Nine Mile Run with academic partners
- Led fundraising of \$2M from public & private sources including start-up organizational funds
- Successfully advocated for additional federal funds to ensure completion of \$7.7M Nine Mile Run Aquatic Ecosystem Restoration

The Nature Conservancy of New York – Troy, NY
Field Supervisor

1998, 2000

- Mentored high school girls from NYC during 5-week residential summer program
- Built career and social skills through team-based stewardship activities such as trail building
- Led college visits and team building activities such as rafting and horseback riding

PUBLICATIONS

Peer reviewed

- Hecht, M.** (2020). Relational processes between people and place: Understanding environmental interest and identity through a learning ecosystem lens. *Environmental Education Research*, 26(7), 1060-1061.
- Hecht, M.,** Crowley, K., & Russell, J. (2020). Decentering humans in the learning sciences: The role of nonhuman nature and place in learning ecosystems. In Gresalfi, M. and Horn, I. S. (Eds.), *The Interdisciplinarity of the Learning Sciences, 14th International Conference of the Learning Sciences (ICLS) 2020, Volume 1* (pp. 501-504). Nashville, Tennessee: International Society of the Learning Sciences.
- Hecht, M.,** Knutson, K., Crowley, K., Lyons, M., McShea, P., and Giarratani, L. (2020). “How could the dinosaurs be so close to the future?”: How natural history museum educators tackle deep time. *Curator: The Museum Journal*, 63(1), 39-54.
- Hecht, M.** and Crowley, K. (2020). Unpacking the learning ecosystem framework: Lessons from the adaptive management of biological systems. *Journal of the Learning Sciences*, 2(29), 264-284.
- Hecht, M.,** Knutson, K. & Crowley, K. (2019). Becoming a naturalist: Interest development across the learning ecology. *Science Education*, 103(3), 691-713.
- Akiva, T., Crowley, K., Russell, J. L., and **Hecht, M.** (2018). Leadership in out-of-school learning: The educational doctorate program at the University of Pittsburgh. *International Journal for Research on Extended Education*, 5(2).
- Bain, D. J., Copeland, E. M., Divers, M. T., **Hecht, M.**, et al. (2014). Characterizing a major urban stream restoration project: Nine Mile Run (Pittsburgh, Pennsylvania, USA). *Journal of the American Water Resources Association*, 50(6), 1608-1621.

Practitioner focused

- Hecht, M.** & Colvin, S. (2018). Getting dirty: Little nature in informal learning spaces. *Voice of Youth Advocates*. 41(1), 34-36.

Brown, J., Byron, M., Corrao, S., **Hecht, M.**, King, Alicia. (2015). Urban parks as classrooms. In A. Russ (Ed.), *Urban Environmental Education* (pp. 39-42). Ithaca, NY and Washington, DC: Cornell University Civic Ecology Lab/North American Association for Environmental Education/EE Capacity. Retrieved from <https://naaee.org/sites/default/files/uee-2015.pdf>

Hecht, M. (2012). Education through restoration: Creating meaningful service-learning projects in the parks. *Community Works Journal*. Retrieved from http://www.communityworksinstitute.org/cwjonline/inst_reflections/text_inst_reflections/pitts_edcthruparks.html

Reports

Akiva, T., **Hecht, M.** & Osai, E. (2019). Creative Learning Pittsburgh prepared for The Heinz Endowments. Pittsburgh, PA: *University of Pittsburgh*. (Download at <https://tiny.cc/CLPgh>)

Akiva, T., DeMand, A., **Hecht, M.** & McNamara, A. (2017). Simple Interactions 2.0: Initial findings from a randomized control trial. Pittsburgh, PA: *University of Pittsburgh*.

Akiva, T., DeMand, A., Colvin, S., Delale-O'Connor, L., **Hecht, M.** & McNamara, A. (2017). Evaluation of the 2016 Pittsburgh Learn and Earn summer youth employment program. Pittsburgh, PA: *University of Pittsburgh*.

General audience

Hecht, M. (April 15, 2020). The coronavirus exposed inequities across Pittsburgh Public Schools. To parents like me, it also revealed the district's inability to imagine learning outside of schools. *Public Source*, online.

Hecht, M. (August 25, 2015). Send children outside: Nature is the best training ground for STEM careers. *Pittsburgh Post-Gazette*, pp. D1.

Hecht, M. (Fall 2006). Nine Mile Rebirth. *H: The Magazine of The Heinz Endowments*, pp. 20-27.

Falck, Z. and **M. Hecht**. (Spring 2006). The Sewering and salvaging of Nine Mile Run. *Western Pennsylvania History*, pp. 40-50.

Hecht, M. (Winter 2002). Soil mapping: Getting down to earth with a soil scientist. *Northern Woodlands*, pp. 54-57.

PRESENTATIONS

Invited

Hecht, M. (September, 2017). Keynote address at the *Pittsburgh Association for the Education of the Young Child Unconference: Get Dirty!*, Pittsburgh, PA.

Hecht, M. (April, 2015). Place-based learning in parks, schools, & neighborhoods. *Panelist at Greater & Greener: Innovative Parks, Vibrant Cities conference of the City Parks Alliance*, San Francisco, CA.

Hecht, M., Brown, J. and Zellie, H. (March, 2014). Teaching environmental education in the city. *Panelist at Pennsylvania Association of Environmental Educators Conference*, Bolivar, PA.

Carter, Majora, **Hecht, M.**, Butcher, A., Guenter, T., and Taylor, S. (April, 2013). The power of parks. *Presentation at Green Building Alliance Inspire Speaker Series*, Pittsburgh, PA. (Watch at <https://www.youtube.com/watch?v=G61A6XMUb8A>)

Hecht, M., Barker, J., Cochran, E., Sechler, G. (April, 2013). How are buildings of today becoming places of tomorrow? *Panelist at Carnegie Mellon University Engineering Sustainability Conference*, Pittsburgh, PA.

Hecht, M. (September, 2008). Getting credit for trees. *Panelist at International Urban Parks Conference: Parks and the Health of Great Cities*, Pittsburgh, PA.

Hecht, M. (March, 2007). Restoring urban nature. *Panelist at The Lincoln Institute of Land Policy Conference: A More Humane Metropolis*, Pittsburgh, PA.

Hecht, M. (October, 2004). Downtown & dirty: Urban park renewal. *Panelist at the 14th Annual Society for Environmental Journalists Conference*, Pittsburgh, PA.

Hecht, M. (August, 2004). Cultivating uncommon allies: Community forestry in an urban watershed. *Presentation at the 80th Annual International Society of Arboriculture Conference*, Pittsburgh, PA.

Additional conference presentations

Hecht, M., Crowley, K., and Russell, J.L. (June, 2020). Decentering humans in the learning sciences: The role of nonhuman nature and place in learning ecosystems. *International Conference of the Learning Sciences*, Nashville, TN. [Conference held on-line due to COVID-19]

Hecht, M., Akiva, T. and Osai, E. (April, 2020). Forging equity in a citywide creative learning ecosystem: Responding to funding shifts as natural disturbance. [Roundtable session]. *American Educational Research Association Annual Meeting*, San Francisco, CA
<http://tinyurl.com/wlok2yz> [Conference cancelled due to COVID-19].

Hecht M. and Nelson, T. (October, 2019). Navigating a research-practice partnership in an urban environmental education program. *Panel presentation at the North American Association for Environmental Education Research Symposium*, Lexington, KY.

Hecht, M., Howison, M., Osai, E., and Akiva, T. (October, 2019). Mobilizing for creative learning: A citywide approach. *Showcase presentation at the Connected Learning Summit*, UC Irvine, CA.

Hecht, M. (October, 2019). More than just a bunch of parts: Expanding the learning ecosystem framework using insights from biological systems. *Ignite Talk at the Connected Learning Summit*, UC Irvine, CA. (Watch at <https://www.youtube.com/watch?v=jFoH0QXC9I8>)

Hartley, J., Armstrong, A., Bowers, N., **Hecht, M.**, Hunter, R., Jackson S., Lawson, D., & Sadan, N. (October, 2019). Professional development workshop for graduate students or early career professionals in environmental education. *Workshop presented at the North American Association for Environmental Education Research Symposium*, Lexington, KY.

Hecht, M., Nelson, T., Cyphas, N., Thomas, B., Layman, J., and Schmutte, A. (October, 2019). Integrating education into conservation planning to foster stewardship. *Symposium participant at the 2019 Natural Areas Conference*, Pittsburgh, PA.

Hecht, M., Knutson, K., Crowley, K. (October, 2018). Becoming a naturalist: Interest development across the learning ecology. *Poster presented at the North American Association for Environmental Education Research Symposium*, Spokane, WA.

Hecht, M. (March, 2018). A research-practice partnership for informal learning: Creating pathways for 21st century naturalists. *Presentation at the University of Pittsburgh Conference for Graduate Students in Education annual conference*, Pittsburgh, PA.

Hecht, M., Crowley, K. Giarratani, L., Knutson, K. Lyon, M. & Tonsor, S. (October, 2017). What is a 21st Century Naturalist? *Workshop at the International Committee for Museums and Collections of Natural History*, Pittsburgh, PA.

Hecht, M., Tonsor, S., Crowley, K., Knutson, K. (October, 2017). Developing 21st century naturalists: A research-practice partnership. *Presentation at the North American Association for Environmental Education Research Symposium*, San Juan, Puerto Rico. [Conference cancelled due to Hurricane Maria].

- Trovato, C., Akiva, T., **Hecht, M.** (June, 2017). Designing an out-of-school learning EdD program. *Presentation at the Carnegie Program on the Education Doctorate Convening*, Pittsburgh, PA.
- Crowley, K. Giarratani, L., **Hecht, M.**, Knutson, K. Lyon, M. & Tonsor, S. (April, 2017). Bringing research and practice together in a museum: A partnership to develop informal learning experiences for the 21st Century Naturalist. *Poster presented at the American Educational Research Association*, San Antonio, TX.
- Culley, P., **Hecht, M.**, and Shaltes, N. (September, 2015). Vetting to specifications: Using the design phase for the LBC materials petal. *Presentation at the International Living Future Institute: Living Products Expo*, Pittsburgh, PA.
- Hecht, M.** 2014 (October, 2014). City parks as classrooms: Engaging urban schools in environmental education. *Presentation at the North American Association for Environmental Education*, Ottawa, Ontario, Canada.
- Bonci, F., **Hecht, M.**, and Rademacher, S. (April, 2014). The path to park sustainability: From restoration to innovation. *Presentation at the 2014 PA-DE American Society of Landscape Architects Annual Meeting*, Nemaquin, PA.
- Aumer, R., **Hecht, M.** and Shaltes, N. (November, 2013). Frick Environmental Center: A case study. *Presentation at the International Living Future Institute: Net Zero Water Forum*, Philadelphia, PA.
- Rademacher, S., **Hecht, M.**, and Bonci, F. (July, 2013). Clarifying history: Environmental center at Frick Park. *Presentation at the 2013 PA Statewide Conference on Heritage*, Pittsburgh, PA.
- Hecht, M.** (March, 2011). City parks as classrooms. *Presentation at the Pennsylvania Association of Environmental Educators Conference*, Ligonier, PA.
- Hecht, M.** (March, 2010). Urban EcoStewards: Building volunteer programs in parks. *Presentation at the 63rd Annual PA Recreation & Parks Society Conference*, Seven Springs, PA.
- Hecht, M.** (November, 2008). Recruiting and maintaining volunteers. *Presentation at the 16th Annual PA Urban and Community Forestry Conference*, Pittsburgh, PA.
- Hecht, M.** (January, 2008). Nine Mile Run valley restoration. *Presentation at the Society for Ecological Restoration Mid-Atlantic Chapter Conference*, Philadelphia, PA.
- Hecht, M.** (October, 2006). Urban & community forestry in Pittsburgh. *Presentation at the Society for American Foresters National Convention*, Pittsburgh, PA.
- Hecht, M.** (October, 2005). Restoration = Access: Nine Mile Run case study. *Presentation at the Canaan Valley Institute Annual Conference*, Morgantown, WV.

SELECTED GRANTS

Penn State University

- Under review: Lawson, D.F., McClain, L., & Hecht, M. Amount: \$50,000. Reclaiming nature through authentic conversations: Leveraging intergenerational learning and environmental education to advance racial equity. Spencer Conference Grant. Spencer Grant Foundation.

University of Pittsburgh – Pittsburgh, PA

- Dissertation funding
 - Faculty Student Research Grant from School of Education, \$3,000 (2019)
 - Council for Graduate Students in Education research grant, \$400 (2019)
- Council of Graduate Students in Education Colloquium & Interdisciplinary Workshop
 - Guest workshop with Dr. Ananda Marin (Assistant Professor of Qualitative Research Methods in Education, UCLA) funded by Vice Provost for Graduate Studies, \$2,500 (2019)

Pittsburgh Parks Conservancy – Pittsburgh, PA

- Frick Environmental Center capital project
 - Commonwealth of Pennsylvania Redevelopment Assistance Capital Program (RACP), \$1,700,000 (2016)
 - PA Department of Community and Economic Development, \$1,590,000 (2014-2016)
 - The Heinz Endowments, \$1,500,000 (2014-2016)
 - Eden Hall Foundation, \$1,500,000 (2011-2016)
 - Additional government and foundation grants totaling \$12,710,000 (2010-2016)
- Environmental education programming
 - PNC Foundation, Buzzword Early Literacy, \$125,000 (2015-2016)
 - The Pittsburgh Foundation, High School Young Naturalists, \$75,000 (2015-2016)
 - Grable Foundation, general programming, \$140,000 (2012-2016)
 - Additional public and private grants and individual gifts totaling over \$350,000 (2009-2016)

Western Pennsylvania Conservancy – Pittsburgh, PA

- TreeVitalize program to plant urban street trees
 - Pennsylvania Department of Conservation and Natural Resources, \$730,000 (2008-2009)
 - The Heinz Endowments, \$250,000 (2008-2009)
 - Colcom Foundation, \$250,000 (2008-2009)
 - Richard King Mellon Foundation, \$150,000 (2008-2009)
 - PA Infrastructure Investment Authority (PennVest), to plant trees in public rights-of-way for stormwater management, \$2,400,000 (2009-2011, project completed after leaving position)
 - The Home Depot Foundation, volunteer engagement in plantings, \$50,000 (2009)

Nine Mile Run Watershed Association – Pittsburgh, PA

- Nine Mile Run Rain Barrel Initiative
 - PA Department of Environmental Protection ‘Growing Greener’, \$406,439 (2006-2007)
 - Richard King Mellon Foundation, \$400,000 (2006-2010, project completed after leaving position)
- Regent Square Gateway design project, Anonymous private family foundation, \$150,000 (2007)
- Nine Mile Run Stream Monitoring, U.S. Steel Foundation, \$18,500 (2007)
- Watershed environmental education programming, PA Department of Environmental Protection ‘Growing Greener’, \$35,000 (2003-2004)
- Annual operating support
 - The Heinz Endowments, \$450,000 (2006-2008)
 - The Pittsburgh Foundation via the Nine Mile Run Fund, \$200,000 (2003-2004)
 - The Heinz Endowments, start-up organizational support, \$50,000 (2003)
- Additional public and private funds and individual gifts for operating and program support totaling approximately \$100,000 (2002-2008)

University of Vermont – Burlington, VT

- Master’s project support, Conservation and Research Foundation – New London, CT, \$500 (2001)

UNIVERSITY SERVICE

Penn State University

- Penn State Greater Allegheny Curricular Affairs Committee
- RPTM Faculty search committee for Penn State Abington (2020-2021)

University of Pittsburgh (2018-2020)

- Chancellor’s Advisory Council on Sustainability, Graduate Student Representative
- Council of Graduate Students in Education, Colloquium Committee Co-chair

PROFESSIONAL & COMMUNITY SERVICE

The Midwife Center for Birth & Women's Health Board of Directors, expansion committee (chair), advisory committee	<i>2010-2018</i>
Landforce Founding Board of Directors, internal affairs committee	<i>2015-2017</i>
Playful Pittsburgh Collaborative Co-founder of 25 organizational member advocacy group	<i>2013-2016</i>
Pennsylvania Association for Environmental Educators Advisory Board member	<i>2010-2016</i>
Pittsburgh Public Schools Science & Technology Academy Environment and Energy Occupational Advisory Committee member	<i>2009-2014</i>
Urban Ecology Collaborative Founding member, Education Working Group (chair) of 8-city model sharing funded by USDA-Forest Service	<i>2002-2010</i>
Environmental Charter School at Frick Park Founding Board of Directors, finance committee member	<i>2006-2010</i>
Wilkesburg Borough, Pennsylvania Oversight Committee Member	<i>2006-2009</i>

PROFESSIONAL AFFILIATIONS

American Educational Research Association (AERA), Environmental Education SIG
North American Association for Environmental Education (NAAEE)
Remake Learning Network, Southwestern Pennsylvania

REVIEWER

North American Association for Environmental Education Research Symposium (2018-present)
Visitors Studies Journal (2018-present)
Cultural Studies in Science Education (2020)
International Conference on the Learning Sciences (2020)
American Educational Research Association – Environmental Education SIG (2018)
Carnegie Science Awards Selection Committee (2017, 2018)