

Jason M. Aloisio

CIRRICULUM VITAE

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EDUCATION

Fordham University (Bronx, NY)	Biology	PhD	2016
York College of Pennsylvania (York, PA)	Biology	BS	2007

PROFESSIONAL EXPERIENCE

2017 – 2020	Manager of Project TRUE (Teens Researching Urban Ecology), WCS, Education
2014 – 2017	Project TRUE Program Coordinator, WCS, Education
2011 – 2014	WCS Graduate Assistant, Fordham University, Biology
2010 – 2011	Teaching Fellow, Fordham University, Biology
2009 – 2010	Teaching Assistant, Fordham University, Biology
2009	AmeriCorps Intern, U.S. Fish and Wildlife
2008	Naturalist, Glen Helen Ecology Institute

AWARDS, SCHOLARSHIPS, AND GRANTS

2019	Presenters' Choice Award – NSF STEM for all video showcase	--
2019	Outstanding Service Award – CSTEP, Fordham University	--
2018	Pinkerton Foundation: Science Research Mentoring Consortium	\$350,000
2018	Angela Peterson Excellence in Diversity Award	--
2017	Ecological Society of America Graduate Student Policy Award	--
2016	WCS Annual Team Award	--
2014	National Science Foundation (co-PI)	\$2,632,560
2012	St. Rose's start-up funds – Fordham University	\$5,000
2011, 2012	The Kathleen O'Connell Tamburro, PhD, GSAS '68, and Carlo H. Tamburro, M.D., Memorial Endowed Scholarship	\$68,000
2011	Fordham University GSAS Research Grant	\$400
2011	Urban Ecology and Ecosystems Section of ESA Travel Grant	\$400
2010, 2011	Faculty Support Grant, Fordham University	\$3,000
2010	Departmental Funding Award – Fordham University	\$1,000
2009, 2010	Fordham University Presidential Scholarship	\$68,000
2009	AmeriCorps Education Scholarship	\$4,000
2003	Eagle Scout	--

PEER-REVIEWED PUBLICATIONS

- Aloisio, J.M.**, Palmer, M.I., Tuininga, A.R. and J.D. Lewis. Introduced and native plant species composition of vacant unmanaged green roofs in New York City. *Urban Ecosystems* **23**:1227–1238. 2020. <https://doi.org/10.1007/s11252-020-00992-6>
- Aloisio, J.M.**, M.I. Palmer, A.R. Tuininga, and J.D. Lewis. Plant colonization of green roofs is affected by the composition of established native plant communities. 2019. *Frontiers in Ecology and Evolution* **6**:238. doi: 10.3389/fevo.2018.00238

- Aloisio, J.M.**, B.J. Johnson, J.D. Lewis, J.A. Clark, J. Munshi-South, D. Wasserman, J. Heimlich, S. Roberts, and K. Tingley. 2018. Pre-college urban ecology research mentoring: promoting broader participation in the field of ecology for an urban future. *Journal of Urban Ecology* 4:juy203. <https://doi.org/10.1093/jue/juy023>
- Aloisio, J.M.**, M.I. Palmer, M.A. Giampieri, A.R. Tuininga, J.D. Lewis. 2017. Spatially dependent biotic and abiotic factors drive survivorship and physical structure of green roof vegetation. *Ecological Applications*, available online: 10.1002/eap.144
- Aloisio, J. M.**, A. R. Tuininga, and J. D. Lewis. 2016. Crop species selection effects on stormwater runoff and edible biomass in an agricultural green roof microcosm. *Ecological Engineering* 88:20-27.

Publications In-Review

- D. Wasserman, J. Heimlich, **Aloisio, J.M.**, S. Roberts, J.D. Lewis, J.A. Clark, J. Munshi-South, and K. Tingley. Short and long-term effects of urban ecology research mentoring on pre-college students. *In prep at Evaluation and Program Planning*

Publications In-Prep

- Aloisio, J.M.**, S. Roberts, J.D. Lewis, J.A. Clark, J. Munshi-South, D. Wasserman, J. Heimlich, and K. Tingley. Mentoring while being mentored: effects of mentoring high school students on undergraduates during a summer research experience. *In prep*

INVITED TALKS

- 2019 *Green Roof Ecosystems and their role in creating resilient cities*, Seminar, Bowdoin College, Brunswick, ME, USA, September 12
- The challenge of mentoring to broaden participation in an inclusive ecological future*, Organized Oral Session, 103rd Annual Meeting of the Ecological Society of America, Louisville, KY, USA, August 11 – 16
- 2018 *Urban ecology research experiences can increase participation in the ecological sciences*, Organized Oral Session, 103rd Annual Meeting of the Ecological Society of America, New Orleans, LA, USA, August 5 – 10
- Green roofs as tools for research education and more*, The State of Green Roofs in New York City, New York, NY, USA, June 7
- Ecology in urbanity – structural and educational approaches to environmental sustainability in cities*, Oregon State University – Cascades, Bend, OR, USA, February 2
- 2017 *Vegetation dynamics of green roof ecosystems*, West Chester University, West Chester, PA, USA, April 17
- 2016 *Urban ecology: an opportunity to diversify and strengthen the community of*

- ecologists*, Cary Institute for Ecosystem Studies, Millbrook, NY, USA, December 14
- 2016 *Green roof succession and a case study of the CGC green roof by Project TRUE*, WCS, Bronx, NY, USA, October 19
- 2015 *Species identity affects community dynamics and ecosystem function of green roofs*, Queens College, Queens, NY, USA, December 2
- 2015 *Hierarchical systems approaches to urban challenges: Plant communities in green roofs and high school science research education*, York College of Pennsylvania, York, PA, USA, April 15
- 2015 *Plant community dynamics of native plant assemblages on geographically isolated green roofs in NYC*, Organized Oral Session at 100th Annual Meeting of the Ecological Society of America, Baltimore, MD, USA, August 9 – 15
- 2012 *Plant, arthropod, and microbial communities on New York City green roofs: Assembly, development, and function*. Columbus, OH, USA, EcoSummit, September 30 – October 5

CONFERENCE PARTICIPATION

- 2020 *Environmental justice and big data as a foundation for developing ecologically literate and resilient communities*, Organized Oral Session (co-organizer), 104th Annual Meeting of the Ecological Society of America, Virtual Meeting, August 3 – 6, 2020
- 2019 *Inclusive Urban Ecology Research Mentoring: A theoretical and Practical Guide to Training and Implementation*, Workshop, 103rd Annual Meeting of the Ecological Society of America, Louisville, KY, USA, August 12 – 16
- Evaluating teen programs at zoos and aquariums: finding the “secret sauce” to maximize engagement and learning*, Association of Zoos and Aquariums Annual Conference, New Orleans, LA, USA, September 8 – 11
- 2018 *Ecology in urbanity: youth development and environmental education in the 21st century*, Oral, International Conference for Sustainable Cities, New York, NY, USA, May 1 – 2
- Pre-college urban ecology research mentoring: promoting broader participation in ecology*, Poster, Sixteenth Annual Urban Ecology and Conservation Symposium, Portland State University, Portland, OR, USA, February 5
- 2017 *Urban Ecology research mentoring experiences can broaden participation in the ecological sciences*, Oral, 102nd Annual Meeting of the Ecological Society of America, Portland, OR, USA, August 7 – 12

- Spatially-dependent biotic and abiotic factors drive survivorship and physical structure of green roof vegetation*, Oral, Fifteenth Annual Urban Ecology and Conservation Symposium, Portland State University, Portland, OR, USA, February 6
- 2016 *NYC green roofs: how do growing medium properties affect native plant assemblages?*, Poster, Pennsylvania Botany Conference, State College, PA, USA, November 18 – 19
- Know your role! – How to be an effective mentor and mentee*. Workshop organizer, Student Conference on Conservation Science, American Museum of Natural History, New York, NY, USA, October 20-22
- The effects of soil depth and nitrogen-fixing plants on green roofs in New York City*, Poster, 4th Annual Bronx Science Consortium Poster Symposium, Bronx, NY, USA, September 28
- NYC green roofs: how do growing medium properties affect native plant assemblages*, Poster, Bronx Science Consortium Poster Symposium, Bronx, NY, USA, September 28
- Project TRUE: Teens Researching Urban Ecology*, Poster, Association of Zoos and Aquariums Annual Conference, San Diego, CA, USA, September 8 – 11
- Urban Zoos as an epicenter for urban wildlife conservation*. Panel organizer and speaker, Association of Zoos and Aquariums Annual Conference, San Diego, CA, USA, September 8 – 11
- Project TRUE (Teens Researching Urban Ecology) – Creating a pipeline to train the next generation of ecologists*, Talk, 101st Annual Meeting of the Ecological Society of America, Fort Lauderdale, FL, USA, August 7 – 12
- 2015 *Engaging student learners in urban ecology and conservation*. Talk, North American Association of Environmental Educators, San Diego, CA, USA, October 15 – 18
- Understanding urban ecology through a tiered mentorship program*. Poster, Washington Symposium and SENCER-ISE National Meeting, Washington D.C., USA, September 27 – 29
- Plant community dynamics of native plant assemblages on geographically isolated green roofs*. Talk, NYC. 100th Annual Meeting of the Ecological Society of America, Baltimore, MD, USA, August 9 – 14
- 2014 *Project TRUE, Teens Research Urban Ecology in New York City, NYC*. Poster, Science Education for the New Civic Engagements and Responsibilities Summer Institute, Asheville, NC, USA, July 31 – August 4

- 2013 *Project TRUE – Teens Research Urban Ecology: Arthropod biodiversity of the Prospect Park Zoo, NYC.* Poster, 1st Annual Bronx Science Consortium Poster Symposium, Bronx, NY, USA, September 28
- Wild Urban Bird Communities of the City Zoos: Central Park Zoo, Queens Zoo, and Prospect Park Zoo.* Poster, 1st Annual Bronx Science Consortium Poster Symposium, Bronx, NY, USA, September 28
- Project TRUE – Teens Research Urban Ecology: Invertebrate biodiversity of the Prospect Park Zoo, NYC.* Talk, 98th Annual Meeting of the Ecological Society of America, Minneapolis, MN, USA, August 4 – 9
- Plant colonist assemblages on green roofs established with native plant communities in NYC.* Poster, The Ecology of New York City: Organisms, Environment and History, Manhattan, NY, USA, April 20
- 2012 *Plant, arthropod, and microbial communities on New York City green roofs: Assembly, development, and function.* Columbus, OH, USA, EcoSummit, September 30 – October 5
- Growing media affects edible plant production and leachate on a simulated rooftop farm.* Talk, 97th Annual Meeting of the Ecological Society of America, Portland, OR, USA, August 5 – 10
- 2011 *Biomass and plant diversity of naturally colonized green roof substrate in New York City.* Talk, 96th Annual Meeting of the Ecological Society of America meeting, Pittsburgh, PA, USA, August 1 – 6
- Productivity and plant diversity of naturally colonized green roofs in New York City.* Talk, Annual Meeting of the Mid-Atlantic Ecological Society of America, April 9 - 10

DEPARTMENTAL TALKS

- 2018 *Diversity and inclusion in youth development, WCS – Bronx Zoo, Bronx, NY, USA*
- 2016 *Rooftop plant: Community and nutrient dynamics of NYC green roofs, WCS – New York Aquarium, Brooklyn, NY, USA*
- 2015 *Green Roof Ecology – Bronx Zoo, WCS, Bronx, NY, USA*
- 2015 *Discovering Ecology in the Urban Jungle, WCS, Bronx, NY, USA*
- 2015 *Discovering Ecology in the Urban Jungle, Fordham University, Bronx, NY, USA*
- 2015 *Hierarchical systems approach to urban challenges: Plant communities in green roofs and high school science research education, Fordham University, Bronx, NY, USA*
- 2013 *Urban Ecology of New York City, WCS, Bronx, NY, USA*
- 2011 *Introduction to Green Roof Ecology, WCS, Bronx, NY, USA*

- 2011 *Biomass and plant diversity of naturally colonized green roofs in New York City, Louis Calder Center – Biological Field Station, Fordham University, Armonk, NY, USA*
- 2010 *Agricultural Rooftops as Social Economic and Ecological Drivers, Fordham University, New York, NY, USA*

TEACHING EXPERIENCE

High School (courses taught to students underrepresented in STEM are underlined)

- 2015 – 2020 Project TRUE College Boot Camp, WCS
- 2014 The Role of Urban Zoos, WCS
- 2013 Wild Urban Bird Communities of the City Zoos of New York, WCS
- 2013 – 2014 Project TRUE: Urban Bird Biodiversity, WCS
- 2012 – 2014 Project TRUE: Urban Arthropod Biodiversity, WCS
- 2012 Project TRUE: Storm Sandy and Sand Dune Succession, WCS

Undergraduate

- 2018 – 2020 Introduction to science research and mentoring, WCS
- 2017 – 2018 Entering Research Mentoring, Fordham University
- 2017 – 2018 Entering Research, Fordham University
- 2015 – 2016 Project TRUE Research Mentoring Boot Camp, Fordham University
- 2010 – 2011 Introductory Biology II Lab, Fordham University
- 2009 – 2010 Introductory Biology I Lab, Fordham University

Graduate

- 2017 Entering Research Mentoring, Fordham University

Potential Undergraduate Courses

Introductory Biology, Ecology, Urban Ecology, Environmental Science, Science and Society, Biostatistics, Botany, Research Seminar, Science Communication, Entering Mentoring Seminar

Potential Graduate and Faculty Development Courses

Entering Mentoring Seminar, Urban Ecology, Community Ecology

MENTORING EXPERIENCE

High School

Mentored 225 high school students from groups traditionally underrepresented in sciences through Project TRUE. All students presented at conferences or symposiums.

Undergraduates

Mentored 78 undergraduate students, 67 through Project TRUE, 38 from groups traditionally underrepresented in the sciences. All students presented at conferences or symposiums.

Graduate + Staff

Mentored 12 graduate students through Project TRUE and 13 full- or part-time WCS staff who

supported Project TRUE.

PROFESSIONAL SERVICE

Peer-Reviewer

Environmental Engineering Science, Ecological Engineering, Ecosphere, PLOS ONE, Journal of Applied Ecology, WCS Institutional Review Board, National Science Foundation Review Panel

Leadership

- 2020 – present Co-Editor, *Socio-ecological dynamics of green roof ecosystems*, Frontiers in Ecology and Evolution; urban ecology,
- 2015 – 2020 Lead Organizer, Annual Bronx Science Consortium Poster Symposium, WCS
- 2015 – 2018 Lead Organizer, Annual Project TRUE Research Poster Symposium, Fordham University
- 2014 – 2018 Secretary, Ecological Society of America's Urban Ecosystem Ecology Section
- 2013 – 2018 Lead Organizer, Annual Urban Ecology Research Fair, WCS
- 2012 – 2018 Web Administrator, Ecological Society of America's Urban Ecosystem Ecology Section
- 2012 – 2015 Co-organizer, Bronx Science Consortium Poster Symposium

Committees and Working Groups

- 2016 – Present Member, Green Roofs of NYC Working Group, Department of Environmental Conservation
- 2018 – 2020 Committee Member, Institutional Review Board, WCS
- 2017 – 2020 Group Member, Gotham Coyote, American Museum of Natural History
- 2017 – 2020 Education Lead, Green Roofs of NYC Working Group, Department of Environmental Conservation and Audubon NYC
- 2016 – 2020 Member, Regional Conservation Action Plan (ReCAP) – Built Environment Working Group, Department of Environmental Conservation
- 2017 – 2018 Evaluation Working Group Lead, NSF INCLUDES: Early Engagement in Research: key to STEM retention, Columbia University
- 2012 – 2016 Advisor, Fordham University Environmental Policy Alumni Career Advisory Board
- 2012 - 2013 Graduate Student Representative, Bronx Science Consortium
- 2012 Graduate Student Representative, Fordham University Louis Calder Center Planning Committee

COMMUNITY OUTREACH

Leadership

- 2016 Designer and Organizer, Native Plant Restoration, Brooklyn Bike Park
- 2014 – 2016 Curator, Urban Ecology: Studying Urban Biodiversity of NYC, Blog, WCS
- 2014 Organizer, Prospect Park Zoo Earth Day Celebration, WCS
- 2012 – 2014 Founder and Curator, Fordham Urban Sustainability and Ecosystems, Blog, Fordham University
- 2012 Founder, St. Rose's Community Garden and Community Supported Agriculture

(still active) , Fordham University
2011-2012 Chaperone, Global Outreach Program (service learning), Fordham University

Talks

2017 *Wildlife and wild places of New York City*, Port Washington Garden Club, Port Washington, NY
2016 *My road to science and the nature of urban ecosystems*, Staten Island School for Civic Leadership, Staten Island, NY
2016 *Maintaining nature in urban ecosystems: The structure and function of green roofs*, Second District Federated Garden Clubs of New York, Yaphank, NY
2014 *Green Roofs in Urban and Suburban Ecosystems*, Great Neck Garden Club, Great Neck, NY
2014 *Discovering Ecology of the Urban Jungle*, Long Island Chapter of the Adirondack Mountain Club, Dix Hills, NY
2013 *Plants of the Urban Jungle*, Port Washington Garden Club, Port Washington, NY
2012 *Plants of the Urban Jungle*, Rocky Point Rotary, Rocky Point, NY
2012 *Green infrastructure*, Girl Scout Troup 161, Bronx, NY
2012 *Green roofs, what are they?*, Bronx River Alliance, Bronx, NY

MEDIA COVERAGE

2019 Online video, "Citizen Science Story: Project TRUE", *PBS Nature Clip*, New York, NY, USA
2017 Online magazine, "For New York's teen ecologists, even the cemetery is a laboratory", *The New Yorker*, New York, NY, USA
2014 Radio Interview, "Ecology in the concrete jungle", Fordham Conversations, *WFUV 90.1 FM*, Bronx, NY, USA
2012 Periodical, "From weeds to a healthy harvest at Fordham", *The Bronx Ink*, Bronx, NY, USA
2011 Periodical, "Fruitful harvest of unseeded rooftop colonies", *Nature News*
2011 Radio Interview, "View from above", EarthBeat Radio, *Radio Netherlands Worldwide*
2011 Video Interview, "Small farms in a big city", *OnEarth.org*

PROFESSIONAL DEVELOPMENT

2017-2018 Diversity, Equity, and Inclusion, WCS
2017 Communicating Effectively in the Workplace, WCS University
2017 Trained Facilitator of Entering Mentoring, National Research Mentoring Network, University of Wisconsin-Madison
2016 Education Department New Educator Orientation, WCS
2014 SENCER Summer Institute
2008 Outdoor Education Methods (Graduate), Introduction to Environmental Education (Graduate), Glean Helen Ecology Institute, Antioch University New England

PROFESSIONAL SKILLS

Experimental and statistical design

R Environment (expertise in mixed models, multivariate analyses, and ggplot)

NON-PEER REVIEWED PUBLICATIONS

Reports and Technical Papers

Dunifon, S.M., Johnson, B., **Aloisio, J.M.** 2017. Evaluating the impacts of semi-facilitated educational experiences on visitor engagement with zoo exhibits. *International Zoo Educators Association Journal* **34**:37-53

Dunifon, S., Johnson, B., **Aloisio, J.M.** Quest program may increase visitor stay time in world of birds, Neornithes New: a newsletter from the Department of Ornithology, WCS. Bronx Zoo, Volume 4, Issue 2: April, 2017

Aloisio, J.M. 2017. Rooftop Plants: Community and Nutrient Dynamics of New York City Green Roofs, *Dissertation*.

Popular

Aloisio, J.M., Eberhard, E., Tingley, K. Project TRUE (Teens Researching Urban Ecology) *STEMforall2019.videohall.com*, May 2019

Aloisio, J.M. Discover a warbler, inspire a generation, *wilfeview.org*, December 2017

Aloisio, J.M. The Purple Marsh Crab, *wilfeview.org*, June 2017

Aloisio, J.M. A Wiley Coyote, *wilfeview.org*, January 2017

Aloisio, J.M. Project TRUE: Teens Researching Urban Ecology: Solving Program Through Partnerships, *Informalscience.org*, July 2015

PROFESSIONAL MEMBERSHIPS

Ecological Society of America (+ Urban Ecosystem Ecology Section), United States of America
Cycling (USAC)

GRADUATE ADVISORS

J.D. Lewis, A. R. Tuininga

NON-ACADEMIC

Competitive Sport

2019 7th Cat 1 30-34, MTB Marathon USA National Championships

2019 1st Open Endurance, Mooch Madness

2018 2nd Open Under 45, Rocky Point 50, Rocky Point, NY

2018 2nd Cat 1 19-39, Churney Gurney, NYS MTB Series #3, Queensbury, NY

2018 9th Cat 1 19-39, Gnar Weasels – Bubba Trophy Series #4, Ascutney, VT
 2018 2nd Open Under 45, H2H Endurance Series
 2018 5th Overall, 5K River Run, Callicoon, NY
 2018 1st Overall, Shoreham Wading-River 4th of July 5K, Shoreham, NY
 2018 2nd Open Under 45, Bulldog Rump, Andover, NJ
 2018 3rd Open Under 45, Lewis Morris Challenge, Mendham, NJ
 2018 1st Cat 1 – 30-39, The Bicycle Plant MACHO MTB Race “Stillwell woods”, Woodbury, NY
 2018 2nd Open Under 45, Ringwood Rumble, Ringwood, NJ
 2017 1st Cat 2 – 30-39, Something Wicked, Yaphank, NY
 2017 2nd Cat 2 – Overall, Erie 80, Port Jervis, NY
 2017 3rd Cat 2 – Overall, Brand’s Muddy Tire, Middle Island, NY
 2017 5th Cat 2/3 Under 45, Rocky Point 50, Rocky Point NY
 2017 11th Overall, Peak Woodsplitter 6-Hour Challenge, Pittsfield, VT
 2017 3rd Cat 2 – 30-39, Kenda Cup East Series Overall
 2017 6th Cat 2 – 30-39, The Barn Burner – Kenda Cup East #6, Walpole, MA
 2017 2nd Cat 2 – 30-39, Eastern Grind – Kenda Cup East #5, Williston, VT
 2017 6th Cat 2 – 30-39, Gnar Weasels – Kenda Cup East #4, Ascutney, VT
 2017 4th Cat 2 – 30-39, Weeping Willow – Kenda Cup East #3, Ipswich, MA
 2017 6th Cat 2 – 30-39, Bear Brook Classic – Kenda Cup East #2, Allentown, NH
 2017 7th Cat 2 – 30-39, Fat Tire Classic – Kenda Cup East #1, Farmington, CT
 2016 1st Cat 2, 2nd Annual City Slicker, Queens, NY
 2016 11th Cat 2 (25 mile), Erie 80, Port Jervis, NY
 2016 4th Overall, 12th Annual Serpents Back Duathlon, Montauk, NY
 2016 7th Overall, 5K River Run, Callicoon, NY
 2016 2nd Cat 3 – 30-39, Weeping Willow – Kenda Cup East #4, Ipswich, MA
 2016 2nd Cat 3 – 30-39, Chain Stretcher – NY State Mountain Bike Series, Cortland, NY
 2014 25th Overall, SWR Thanksgiving Day 5K, Shoreham, NY
 2010 17th Overall, Warrior Dash, Windham, NY
 2010 11th Overall, Schiff Scout Triathlon, Wading-River, NY
 2009 25th Overall, Schiff Scout Triathlon, Wading-River, NY

Adventure Sport

2020 Cycled from 7,000 miles self-supported from NYC to Chile from October 2019 to March 2020 as coronavirus pandemic surged.
 2019 Cycling Scientists’ Wild Ride for Safe Access to Parks in NYC – Rode 290 miles in Central Park in one day to raise awareness for safe bike lane access to Central Park.
 2018 Self-supported MTB ride on the Chesapeake and Ohio Canal Path from Washington D.C. to the Cumberland gap and back (400 miles) in 4 days.
 2010 [Go \(all 400 miles\) Green](#), Rode 400 miles in four days from NYC to Pittsburg, PA to attend the annual Ecological Society of America Conference.