

Elizabeth J. Carlen

PRONOUNS: she, her, hers

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Appointments

[2021-present] **Postdoctoral Fellow**, Losos Lab at Washington University in St. Louis & Schell Lab at the University of California, Berkeley

Education

Ph.D. in Biology Fordham University
[2021] Dissertation: *Evolution and Ecology of Urban Pigeons (Columba livia) in Northeastern North America*
Advisor: Dr. Jason Munshi-South

M.S. in Biology Joint Program with San Francisco State University & the California Academy of Sciences
[2015] Thesis: *Reconstructing the Molecular Phylogeny of Giant Sengis (genus Rhynchocyon)*
Advisor: Dr. John Dumbacher

B.S. in Biology California Polytechnic State University, San Luis Obispo
[2007] Senior Project: *Pika Metapopulations: A Review*
Advisor: Dr. Francis Villablanca

Affiliations

[2023-present] **Member**, Research Coordination Network: Cross-Scale Processes Impacting Biodiversity
[2022-present] **Postdoctoral Affiliate**, Center for the Study of Race, Ethnicity, & Equity
[2022-present] **Member**, St. Louis Urban Ecology and Evolution Working Group
[2021-present] **Postdoctoral Fellow**, Living Earth Collaborative
[2021-present] **Member**, Research Coordination Network: Eco-Evolutionary Dynamics in an Urban Planet: Underlying Mechanisms and Ecosystem Feedbacks

Submitted Publications

[‡]Co-first Authors

Savage, A., Willmott, M., Moreno, P., Li, D., Malesis A., Jagiełło, Z., Miles, L.S., Kuzyo, H. Román Palacios, C., Salazar, D., Verrelli, B., Winchell, K.M., Alberti, M., **Carlen, E.J.**, Falvey, C., Johnson, L., Martin, E., Marzluff, J., Munshi-South, J., Phifer-Rixey, M., Stadnicki, I., Szulkin, M., Bonilla-Bedoya, S., Zhou, Y., Gotanda, K. Online toolkits for collaborative and inclusive global research in urban evolutionary ecology *Ecology and Evolution* [submitted]

[2024] **Carlen, E.J.**, Caizergues, A.E., Jagiełło, Z., Kuzyo, H., Munshi-South, J., Alberti, M., Bonilla, S., Booth, W., Charmantier, A., Cook, E.M., Gosler, A., Gotanda, K.M., Govaert, L., Grimm, N.B., Johnson, L.E., Li, D., Malesis, A.N., Martin, E., Marzluff, J., Mazurek, M., Miles, L.S., Phifer-Rixey, M., Salazar-Valenzuela, D., Savage, A., Schmidt, C., Snyder, R., Stadnicki, I., Vergeles, Y., Verrelli, B.C., Villar, D., Willmott, M., Winchell, K.M., Yates, S., Zhou, Y., Garroway, C.K., & Szulkin, M. What's Past is Present, What's Present is Future: Exploring the historical, cultural, religious, and socio-political drivers of evolution in cities. *Nature Cities* [in revision]

- [2024] ‡Estien, C.O., ‡**Carlen, E.J.**, & Schell, C.J.. Multi-city case studies across the United States reveal the influence of city history and societal inequity on participatory science data. *Ecology and Society* [*in revision*]
- [2024] ‡Williams, T.D., ‡Kreling, S.E.S., Stanton, L.A., Wilkinson, C.E., Estien, C.O., Schell, C.J., & **Carlen, E.J.**, Of Rarity and Symbolism: Understanding the Human Perceptions of Charismatic Color Morphs. *Human Ecology*. doi: <https://doi.org/10.21203/rs.3.rs-3222187/v1> [*in review*]

Peer-reviewed Publications

‡Co-first Authors

- [2024] Johnson, M.T.J., Arif, I., Marchetti, F., Munshi-South, J., Ness, R.W., Szulkin, M., Verrelli, B.C., Yauk, C.L., Anstett, D.N., Booth, W., Caizergues, A.E., **Carlen, E.J.**, Dant, A., González, J., González Lagos, C., Oman, M., Phifer-Rixey, M., Rennison, D., Rosenberg, M.S., Winchell, K.M. Urban mutants: Effects of urbanization on mutation, ecology, evolution, and health. *Nature Ecology and Evolution* [*provisionally accepted*]
- [2024] Caizergues, A.E., Santangelo, J.S., Ness, R.W., Angeoletto, F., Anstett, D.N., Anstett, J., Baena-Diaz, F., **Carlen, E.J.**, Chaves, J.A., Comerford, M.S., Dyson, K., Falahati-Anbaran, M., Fellowes, M.D.E., Hood, G.R., Iñiguez-Armijos, C., Kooyers, N.J., Hodgins, K.A., Lázaro-Lobo, A., Moles, A., Munshi-South, J., Paule, J., Porth, I.M., Santiago-Rosario, L.Y., Stack Whitney, K., Tack, A., Johnson, M.T.J. Does urbanization lead to parallel demographic shifts across the world in a cosmopolitan plant? *Molecular Ecology* [*in press*]
- [2024] ‡**Carlen, E.J.**, ‡Estien, C.O., Perkins, D., Goldstein, B.R., Caspi, T., Williams, T.D., Kreling, S.E.S., Hentati, Y., Stanton, L.A., Des Roches, S., Johnson, R., Young, A.N., Cooper, C.B., Schell, C.J. The Importance of Considering Societal Inequity in Participatory Science Data. *People and Nature*. [*in press*]
- [2023] Fusco, N., Cosentino, B., Gibbs, J., Allen, M., Blumenfeld, A., Boettner, G., Briggs, K., **Carlen, E.J.**, Collins, M., Dennison, C., DiGiacopo, D., Drapeau Picard, A., Edmonson, J., Fisher-Reid, M. C., Fyffe, R., Gallo, T., Grant, A., Harbold, W., Heard, S., Lafferty, D., Lehtinen, R., Marino, S., McDonald, J., Mortelliti, A., Murray, M., Newman, A., Oswald, K., Ott-Conn, C., Richardson, J., Rimbach, R., Salaman, P., Steele, M., Stothart, M., Urban, M., Vandegrift, K., Vanek, J., Vanderluit, S., Vezina, L., Caccone, A. Population genomic structure of a widespread, urban-dwelling mammal; The Eastern gray squirrel, *Sciurus carolinensis*. *Molecular Ecology*, 00, 1-12.
- [2022] Winchell, K., Aviles-Rodriguez, K., **Carlen, E.J.**, Miles, L., Charmantier, A., De León, L., Gotanda, K., Rivkin, L.R., Szulkin, M. and Verrelli, B.. Moving past the challenges and misconceptions in urban adaptation research. *Ecology and Evolution*. 12(11), e9552
- [2022] Santangelo, J.S., Ness, R.W., Cohan, B., Fitzpatrick, C.R., Innes, S.G., Koch, S., Miles, L.S., Munim, S., Peres-Neto, P.R., Prashad, C., Tong, A.T., [et al., including **Carlen, E.J.**]. Global urbanization drives parallel environmental and evolutionary change. *Science*. 375(6586), 1275-1281.
- [2022] Dunn, R.R., Burger, J.R., **Carlen, E.J.**, Koltz, A.M., Light, J.E., Martin, R.A., Munshi-South, J., Nichols, L.M., Vargo, E.L., Yitbarek, S., Zhao, Y., & Cibrian-Jaramillo, A. Urban Archipelagos: A Theory of City Biogeography and the Origin of Species. *Frontiers in Conservation Science*. 22.
- [2021] **Carlen, E.J.**, Li, R., & Winchell, K.M., (2021). Urbanization predicts flight initiation distance in feral pigeons (*Columba livia*) across New York City. *Animal Behaviour*. 178, 229-245.

- [2021] Fusco, N.A., **Carlen, E.J.**, Munshi-South, J., (2021). Urban Landscape Genetics: Are Biologists Keeping Up with the Pace of Urbanization? *Current Landscape Ecology Reports*. 6, 35-45.
- [2020] Miles, L.S., **Carlen, E.J.**, Winchell, K.M., & Johnson, M.T.J., (2020). Urban evolution comes into its own: Emerging themes and future directions of a burgeoning field. *Evolutionary Applications*. 14(1), 3-11.
- [2020] Puckett, E.E., Sherratt, E., Combs, M.A., **Carlen, E.J.**, Harcourt-Smith, W., & Munshi-South, J., (2020). Variation in brown rat cranial shape shows directional selection over 120 years in New York City. *Ecology and Evolution*. 10, 4739-4748.
- [2020] **Carlen, E.J.** & Munshi-South, J., (2020). Widespread Genetic Connectivity of Feral Pigeons Across the Northeastern Megacity. *Evolutionary Applications*. 14(1), 150-162
- [2020] Engel, L.D., **Carlen, E.J.**, Losos, J.B., & Winchell, K.M., (2020). Eastern Gray Squirrels (*Sciurus carolinensis*) Differ in Abundance and Response to Humans Across Urban Habitats of St. Louis. *Urban Naturalist*. 33.
- [2018] Winchell, K.M., **Carlen, E.J.**, Puente-Rolón, A.R., & Revell, L.J., (2018). Divergent habitat use of two urban lizard species. *Ecology and Evolution*. 8(1), 25-35.
- [2017] **Carlen, E.J.**, Rathbun, G.B., Olson, L.E., Sabuni, C.A., Stanley, W.T., & Dumbacher, J.P., (2017). Reconstructing the molecular phylogeny of giant sengis (Macroscelidea; Macroscelididae; *Rhynchocyon*). *Molecular Phylogenetics and Evolution*. 113, 150-160.
- [2016] Dumbacher, J.P., **Carlen, E.J.**, & Rathbun, G.B., (2016). *Petrosaltator* gen. nov., a new genus replacement for the North African sengi *Elephantulus rozeti* (Macroscelidea; Macroscelididae). *Zootaxa*, 4136(3), 567-579.

Grants

- [2022] Global Incubator Seed Grant, Washington University in St. Louis **(\$17,200)**
- [2022] Satellite Meeting Award, Society for Molecular Biology & Evolution **(co-PI; \$28,000)**
- [2021-2023] National Science Foundation Postdoctoral Research Fellowship in Biology **(\$138,000)**
- [2020-2021] Freedman Fellowship, Fordham University **(\$34,000)**
- [2020] Professional Development Funds, Graduate School of Arts and Sciences, Fordham University **(\$5,000)**
- [2019-2020] GSAS Graduate Teaching Assistantship, Fordham University **(\$31,680)**
- [2019] Schering-Plough Endowed Fellowship, Fordham University **(\$4,000)**
- [2019] Calder Graduate Student Research Grant **(\$400)**
- [2019] Spring Student Support Grant, Graduate Student Association, Fordham University **(\$688)**
- [2019] Travel Grant, International Urban Wildlife Conference **(\$500)**
- [2018-2019] Clare Boothe Luce Fellowship, Henry Luce Foundation & Fordham University **(\$31,110)**
- [2018] Schering-Plough Endowed Fellowship, Fordham University **(\$4,000)**
- [2018] Clare Boothe Luce Professional Development Funds, Henry Luce Foundation **(\$5,000)**
- [2018] Fall Student Support Grant, Graduate Student Association, Fordham University **(\$1,250)**
- [2018] Calder Graduate Student Research Grant **(\$600)**
- [2018] Spring Student Support Grant, Graduate Student Association, Fordham University **(\$1,000)**
- [2017-2018] Clare Boothe Luce Fellowship, Henry Luce Foundation & Fordham University **(\$30,500)**
- [2017] Clare Boothe Luce Professional Development Funds, Henry Luce Foundation **(\$5,000)**
- [2017] Schering-Plough Endowed Fellowship, Fordham University **(\$4,000)**
- [2017] Calder Graduate Student Research Grant **(\$857)**
- [2017] Professional Development Grant, Graduate Student Association, Fordham University **(\$750)**
- [2017] Research Support Grant, Graduate School of Arts and Sciences, Fordham University **(\$320)**
- [2017] Fall Student Support Grant, Graduate Student Association, Fordham University **(\$747)**

- [2016-2017] GSAS Graduate Teaching Assistantship, Fordham University (**\$30,450**)
- [2016] Calder Graduate Student Research Grant (**\$1,000**)
- [2016] Professional Development Grant, Graduate Student Association, Fordham University (**\$800**)
- [2015-2016] Centennial Scholarship, Graduate School of Arts and Sciences, Fordham University (**\$29,855**)
- [2015] Internal Award, California Academy of Sciences (**\$2,999**)
- [2015] Neimark Travel Award, American Association for the Advancement of Science (**\$200**)
- [2014] Travel Grant, Graduate Student Council in Biology, San Francisco State University (**\$1,925**)
- [2014] Broadening Participation Travel Award, Society for Integrative and Comparative Biology (**\$500**)
- [2013] Travel Grant, Graduate Student Council in Biology, San Francisco State University (**\$375**)
- [2013] Instructionally Related Research Award, Biology Department, San Francisco State University (**\$275**)

Awards

- [2023] Outstanding Postdoc Mentor Award, Washington University in St. Louis

Invited Seminars

- [2024] Linking past and present: how human history shaped the distribution and evolution of urban wildlife, *Biology Seminar*, **Southern Illinois University, Edwardsville**
- [2024] From the Ground Up: How Urbanization Shapes Eco-Evolutionary Dynamics, *Graduate Seminar in Biology*, **San Francisco State University**
- [2024] From the Ground Up: How Urbanization Shapes Eco-Evolutionary Dynamics, California State University, Long Beach
- [2024] From the Ground Up: How Urbanization Shapes Eco-Evolutionary Dynamics, *Darwin Day*, **Utah Valley University**
- [2024] How Urbanization Shapes the Evolutionary Ecology of Pigeons and Squirrels, *Urban Evolution Symposium*, University of Warsaw
- [2023] Biodiversity Challenges & McDonnell Academy Seed Grant Project Insights, *Global Research Symposium*, **McDonnell International Scholars Academy** [presented with Jonathan Losos]
- [2023] Linking the past to the present: How human history has shaped the distribution and evolution of urban wildlife, *Bio3 Seminar Series*, **Kansas University**
- [2023] How Urbanization Shapes Eco-Evolutionary Dynamics, *Environmental Studies Seminar*, **New York University**
- [2023] How Urbanization Shapes Eco-Evolutionary Dynamics, *Biology Department Seminar*, **Barnard College of Columbia University**
- [2023] How Urbanization Shapes Eco-Evolutionary Dynamics, *Biology Department Seminar*, **San Diego State University**
- [2022] From the Ground Up: How Urbanization Shapes the Evolution of Squirrels and Pigeons, **The Linnaean Society of New York**
- [2022] From the Ground Up: Urban Evolution in Squirrels and Pigeons, *Population Biology Seminar*, **Columbia University**
- [2022] From the Ground Up: Urban Evolution in Squirrels and Pigeons, *Evolution in Urban Environments Seminar*, **University of British Columbia**
- [2021] From the Ground Up: Urban Evolution in Squirrels and Pigeons, *Living Earth Collaborative/EEPB/ Center for the Study of Race, Ethnicity & Equity Seminar Series*, **Washington University in St. Louis**

- [2021] From City to Megalopolis: The Ecology and Evolution of Feral Pigeons in the Northeastern United States, *Biology Colloquium*, **College of Mount Saint Vincent**
- [2020] From City to Megalopolis: The Ecology and Evolution of Feral Pigeons in the Northeastern United States, *Ecology & Biodiversity Seminar Series*, **The University of Hong Kong**
- [2019] From City to Megalopolis: The Ecology and Evolution of Feral Pigeons in the Northeastern United States, *Living Earth Collaborative/EEPB Seminar Series*, **Washington University in St. Louis**
- [2018] Evolution of Animals and Plants in Human Influenced Environments, **Ewha-Luce International Seminar: Expanding Horizons Open Forum**

Invited Symposia Contributions

- [2024] **E.J Carlen.** Linking the past to the present: How human history has shaped the distribution and evolution of urban wildlife. *The Biogeography of Cities*. International Biogeography Society 11th Biennial Conference
- [2020] **E.J Carlen.** From City to Megalopolis: Population Genetics of Feral Pigeons in the Northeastern United States. *Landscape Genetics as a Tool for Managing Human-impacted Landscapes*. International Association for Landscape Ecology - North America Annual Meeting [cancelled due to coronavirus]
- [2020] **E.J Carlen.** Widespread Genetic Connectivity of Feral Pigeons Across the Northeastern Megacity. *Urban Ecology*. Northeast Natural History Conference [cancelled due to coronavirus]
- [2019] **E.J Carlen.** Science Takes Flight: Evolutionary Ecology of Feral Pigeons and Community Engagement. *Inclusive Urban Ecosystems: Integrating Urban Ecology Research with Community Engagement*. International Urban Wildlife Conference

Presentations at Meetings

- [2023] **E.J Carlen.** Adaptive and Nonadaptive Evolution in Urban Eastern Gray Squirrels. Joint meeting of the Society for the Study of Evolution, the Society of Systematic Biologists, and the American Society of Naturalists.
- [2022] **E.J Carlen.** Inequity's Cloud: The Bias in Participatory Science Data. International Urban Wildlife Conference.
- [2022] **E.J Carlen.** Widespread Genetic Connectivity of Feral Pigeons Across the Northeastern United States Megacity. Society for Integrative and Comparative Biology Annual Meeting.
- [2019] **E.J Carlen & J. Munshi-South.** Evolution takes flight: population genetics of feral pigeons (*Columba livia*) in the Northeastern United States. Joint meeting of the Society for the Study of Evolution, the Society of Systematic Biologists, and the American Society of Naturalists.
- [2017] **E.J Carlen & E.M. Barnes.** Bringing Food Trucks Into the Classroom: A Lesson on Ecology, Evolution, and Community Assembly Theory. Joint meeting of the Society for the Study of Evolution, the Society of Systematic Biologists, and the American Society of Naturalists
- [2016] **E.J Carlen.** Research Proposal: Studying the Evolution of New York City's Feral Pigeons. Joint meeting of the Society for the Study of Evolution, the Society of Systematic Biologists, and the American Society of Naturalists.
- [2015] **E.J Carlen & J.P. Dumbacher.** The taming of the (elephant) shrew: reconstructing the molecular phylogeny of giant elephant-shrews (genus *Rhynchocyon*). Joint meeting of the Society for the Study of Evolution, the Society of Systematic Biologists, and the American Society of Naturalists.

- [2015] **E.J Carlen** & J.P. Dumbacher. Reconstructing the molecular phylogeny of elephant shrews. American Association for the Advancement of Science Annual Meeting.
- [2014] **E.J Carlen**, G.B. Rathbun, W.T. Stanley, C.A. Sabuni, & J.P. Dumbacher. Reconstructing the molecular phylogeny of giant sengis (genus *Rhynchocyon*) using museum samples. Joint meeting of the Society for the Study of Evolution, the Society of Systematic Biologists, and the American Society of Naturalists.
- [2014] **E.J Carlen**, G.B. Rathbun, W.T. Stanley, C.A. Sabuni, & J.P. Dumbacher. Reconstructing the molecular phylogeny of giant elephant-shrews (genus *Rhynchocyon*). Society for Integrative and Comparative Biology Annual Meeting.
- [2012] **E.J Carlen**, M. Flannery & E. Godoy. Small mammals in the Presidio: engaging youth in an inventory program. San Francisco Bay Area National Parks Science and Natural Resource Symposium.
- [2007] **E.J Carlen**[‡], & T. Edell[‡], The effects of salt stress on *Brassica oleracea*. California Polytechnic State University, San Luis Obispo, College of Science and Math Annual Research Conference.
- [2006] **E.J Carlen**[‡], A. Chavez[‡], T. Fullman[‡], M. McQueeney[‡], C. Port[‡], & K. Truchinski[‡]. The impacts of elephants and cattle on Kirk's Dik-dik densities: is co-existence viable? California Polytechnic State University, San Luis Obispo, College of Science and Math Annual Research Conference.

Teaching Experience

Instructor

[2017, 2020] Ecological Methods; Fordham University

Teaching Assistant

[2019] Human Physiology Lab; Fordham University
 [2016-2017] Microbiology Lab; Fordham University
 [2015] Introductory Biology I Lab; Fordham University
 [2006] Ecology Lab; California Polytechnic State University, San Luis Obispo
 [2005, 2006] Mammalogy Lab; California Polytechnic State University, San Luis Obispo

Guest Lecturer

[2024] Evolution in the Anthropocene, University of Southern Illinois, Carbondale
 [2024] Trash Animals: The Art of Living in a Human World, New York University
 [2023] Population, Quantitative and Evolutionary Genetics, North Carolina State University
 [2023] Urban Ecology & Evolution, Fordham University
 [2023] Urban Ecology and Evolution, UC Berkeley
 [2022] Design Across Disciplines, Washington University in St. Louis
 [2021] Discovering Missouri's Natural Heritage, Washington University in St. Louis
 [2020, 2021] Urban Ecology & Evolution, University of Richmond
 [2020, 2021, 2023] Ecology of Urban Environments, Concordia University
 [2020] Evolutionary Biology, University of Central Florida
 [2020] Introduction to Genetics, Monmouth University
 [2016, 2019, 2020] Ecology, Fordham University
 [2019] Urban Ecology & Evolution, Providence College
 [2016, 2021] Evolutionary Biology, Fordham University
 [2016] Population and Community Biology, Fordham University

Miscellaneous

[2016] Project Leader, Project TRUE, Fordham University & the Wildlife Conservation Society
 [2012-2015] Teacher Educator, California Academy of Sciences

Mentoring Experience

- [2022-present] **Kaitlyn Thornton** (Washington University in St. Louis)
Eastern Gray Squirrel Limb Morphology Across an Urban to Rural Gradient
- [2022-present] **Lauren Puleo** (Washington University in St. Louis)
Eastern Gray Squirrel Claw Morphology Across an Urban to Rural Gradient
- [2022-present] **Logan Lacy** (Washington University in St. Louis /Tyson Fellows Program)
Maternity Roost Selection Criteria for Tricolored Bats (*Perimyotis subflavus*)
- [2022-present] **Jenny Mann** (Washington University in St. Louis/Tyson Fellows Program)
Diet Comparisons in Eastern Gray Squirrels Across St. Louis
- [2022] **Carol Ge** (Tyson Fellows Program)
Lone Star Tick Host and Habitat Preference
- [2022] **Karen Schmiedeler** (Tyson Fellows Program)
The Impacts of Amur Honeysuckle on White-tailed Deer Summer Habitat Use
- [2021-present] **Daisy Lewis** (Washington University in St. Louis)
Pigeon Population Dynamics in Madrid, Spain & St. Louis, Missouri
- [2021-present] **Camille Block** (Washington University in St. Louis)
Correlations Between Feral Pigeon Color and Lice Prevalence
- [2019-2021] **Joanna Moles** (Fordham University)
Prevalence of Avian Malaria in Feral Pigeons across the Northeastern Megacity
- [2019] **Gabrielle Ma** (Fordham University)
The Effect of Corresponding Sound Waves on the Rhythmical Patterns of Brain Waves
- [2018] **Connor Reynolds** (Calder Summer Undergraduate Research)
Sweet Life in the City: Blood Glucose in Urban Pigeons
- [2017-2018] **Richard Li** (Columbia University)
Analyzing the Effects of Urbanization on the Flight Initiation Distance of New York City Pigeons (*Columba livia*)
- [2017-2018] **Gabriella Blazich** (Fordham University)
Creating a Natural History & Teaching Collection for the Louis Calder Biological Field Station
- [2016-2017] **Katarzyna Endler** (Fordham University/Project TRUE)
Effects of Urbanization on Wild Small Mammal Species Richness in the Bronx Zoo
- [2016-2017] **Alexandra Rebosura** (Fordham University/Project TRUE)
Passive Wildlife Monitoring Using Camera Traps
- [2016] **Conor Gilligan** (Fordham University/Project TRUE)
Study of The Compositional Change of The Center For Global Conservation Green Roof
- [2016] **Paméla Comlan** (Fordham University/Project TRUE)
Uncovering Species Richness and Abundance Under Coverboards
- [2016] **Mamadou Ly** (Fordham University/Project TRUE)
Correlation Between Bird Composition and Noise Level

Presentations by Students at Meetings

‡ undergraduate author

§ high school author

- [2023] D. Lewis‡ & **E.J. Carlen**. How Environmental Factors Influence Pigeon Density in Urbanized Landscapes. International Urban Wildlife Conference.

- [2023] J. Mann[‡] & **E.J. Carlen**. Eastern Gray Squirrel Diets Across St. Louis City & County. International Urban Wildlife Conference.
- [2022] C. Block[‡] & **E.J. Carlen**. Feral Pigeon Plumage Color and Parasite Prevalence. Trends in Biodiversity and Evolution Conference: The Biology of Color.
- [2022] J. Mann[‡], S. Adalsteinsson, E. Biro, E. O'Connell, & **E.J. Carlen**. Eastern Gray Squirrel Diets Across St. Louis City & County. Undergraduate Research Symposium at Washington University in St. Louis.
- L. Lacy[‡], S. Adalsteinsson, E. O'Connell, **E.J. Carlen**, & E. Biro. What are the Maternity Roost Selection Criteria for Tricolored Bats (*Perimyotis subflavus*)? Undergraduate Research Symposium at Washington University in St. Louis.
- [2018] R. Li[‡] & **E.J. Carlen**. Analyzing the effects of urbanization on the flight initiation distance of New York City feral pigeons (*Columba livia*). Mid-Atlantic Chapter of the Ecological Society of America Annual Meeting.
- [2017] A. Rebosura[‡], C. Garcia[§], S. Lide[§], M. Turna[§], J. Svoboda, & **E.J. Carlen**. Passive Wildlife Monitoring Using Camera Traps. International Urban Wildlife Conference.
- [2016] K. Endler[‡], A. Aftabi[§], A. Caraballo[§], S. Blackwood[§], J. Svoboda & **E.J. Carlen**. Effects of Urbanization on Wild Small Mammal Species Richness in the Bronx Zoo. 4th Annual Bronx Science Consortium Poster Symposium
- [2016] P. Comlan[‡], A. Frimpong[§], K. De Leon[§], L. Salazar[§], J. Svoboda, & **E.J. Carlen**. Uncovering Species Richness and Abundance Underneath Coverboards. 4th Annual Bronx Science Consortium Poster Symposium
- [2016] C. P. Gilligan[‡], J. Chimilio[§], A. Fontanilla[§], S. Sanasie[§], J. Svoboda, & **E.J. Carlen**. Study of The Compositional Change of The Center for Global Conservation Green Roof. 4th Annual Bronx Science Consortium Poster Symposium
- [2016] M.L. Ly[‡], M. Andalib[§], E.M. Rodriguez[§], J. Svoboda, & **E.J. Carlen**. Correlation Between Bird Composition and Noise Level. 4th Annual Bronx Science Consortium Poster Symposium

Professional Development

- [2024] Fundamentals of DEI Training, Washington University in St. Louis (5 January)
- [2023] Moving Beyond the Gender Binary in STEM Courses, Washington University in St. Louis (5 April)
- [2023] Jigsaw Method to Boost Student Engagement, Washington University in St. Louis (4 April)
- [2022] SICB Ally Training, Society of Integrative and Comparative Biology (3 January)
- [2020] Anti-racist Pedagogy Workshop, Graduate School of Arts and Sciences, Fordham University (4-5 August)
- [2020] Strategies for Responding to Harassment and Bullying: Improving Workplace Climate, Evolution Community Resources for Early Career Researchers (ECR²), Society for the Study of Evolution, the American Society of Naturalists, and the Society of Systematic Biologists (24 July)
- [2020] Navigating Police Brutality and Racial Trauma Workshop, Counseling and Psychological Services, Fordham University (15 June)
- [2019] ComSciCon Flagship Workshop, University of California San Diego (11-13 July)
- [2018] RADseq Data Analysis Workshop, American Museum of Natural History (6-10 August)
- [2018] Ewha-Luce International Seminar: Expanding Horizons (26 June-13 July)
- [2018] AIBS Communications Science Bootcamp, American Institute of Biological Sciences (16-17 April)
- [2018] Diversity and Pedagogy Workshop, Women in Academia, Fordham University (12 April)

- [2018] Crippling Pedagogy: A Workshop on Disability, Access, & Universal Design, Fordham University (11 January)
- [2017] Sequencing Informatics Workshop, New York Genome Center (25-29 September)
- [2017] Racial Solidarity Network, Office of Multicultural Affairs, Fordham University (15 & 22 February)
- [2016] Lesbian, Gay, Bisexual, Transgender and Ally Network of Support, Office of Multicultural Affairs, Fordham University (19 & 26 October)

Invited Workshop Participant

- [2023] Multidimensional Biodiversity Data (17-21 June)
- [2023] Spring Social, Ecological, Evolutionary, & Plasticity Processes (SEEP) (22-23 May)
- [2023] Winter Urban Eco Evo, hosted by the Urban Eco-Evo Network (2-4 February)
- [2022] Fall Social, Ecological, Evolutionary, & Plasticity Processes (SEEP) (14 December 2022)
- [2022] Fall Urban Eco Evo, hosted by the Urban Eco-Evo Network (27-28 October)
- [2022] Urban Eco-Evo LTER meeting (24-26 August)
- [2022] Spring Social, Ecological, Evolutionary, & Plasticity Processes (SEEP) (20-21 May)
- [2022] NSF Understanding the Rules of Life Postdoc Incubator (12, 19, 22 April)
- [2021] Spring Urban Eco Evo, hosted by the Urban Eco-Evo Network (15-17 April)
- [2018] Ewha-Luce International Seminar: Expanding Horizons (26 June-13 July)

Academic Service

- [2023-present] **Committee Member**, Title IX Advisory Committee, Washington University in St. Louis
- [2023-present] **Committee Member**, Diversity Committee, American Society of Naturalists
- [2022] **Co-organizer**, Urban 'Omics, Satellite Meeting of the Society for Molecular Biology & Evolution
- [2021] **Past-chair**, Graduate Student Advisory Council, Society for the Study of Evolution
- [2021] **Chair**, Graduate Student Advisory Council, Society for the Study of Evolution
- [2020] **Co-organizer**, Evolution Community Resources for Early Career Researchers (ECR²), joint event by the Society for the Study of Evolution, the Society of Systematic Biologists, and the American Society of Naturalists
- [2020] **Chair-elect**, Graduate Student Advisory Council, Society for the Study of Evolution
- [2019-2020] **President**, Biology Graduate Student Association, Fordham University
- [2018-2019] **Biology Student Representative**, Graduate Student Association, Fordham University
- [2017-2019] **Committee Member**, Diversity Committee, Society for the Study of Evolution
- [2017-2019] **Vice President**, Biology Graduate Student Association, Fordham University
- [2016-2017] **Ecology Member-at-Large**, Biology Graduate Student Association, Fordham University
- [2014-2015] **Science Coordinator**, NightLife, California Academy of Sciences

Manuscript Reviewer

- [2023] Zoological Journal of the Linnean Society
- [2023] Global Change Biology
- [2023] Proceedings of the Royal Society B: Biological Sciences
- [2022] Evolutionary Ecology
- [2022] Global Ecology and Conservation
- [2022] Avian Biology Research
- [2021] Evolutionary Applications
- [2021] G3
- [2021] Ecology & Evolution
- [2021] Scientific Reports
- [2020] Zoology

[2019] Journal of Mammalogy

Guest Editor

[2019-2020] Evolutionary Applications

Professional Affiliations

[2024-present] Association for Women in Science
 [2022-present] American Society of Naturalists
 [2021-present] Society for Integrative and Comparative Biology
 [2021-present] Wilson Ornithological Society
 [2021-present] American Society of Mammalogists
 [2016-present] Sigma Xi
 [2013-present] Society for the Study of Evolution
 [2016-2020] Women in Natural Sciences

Community Science Education & Outreach Events

[2023] **speaker**, Zoo Club, Lincoln Park Zoo
 [2023] **co-facilitator**, NatGeo Urban Biomonitoring Project: Field research at SIUE East St. Louis Center with Upward Bound & TRio high school students
 [2023] **speaker**, Ayatana's Biophilium
 [2023] **panelist**, Teaching in a Field Setting: Challenges and Opportunities, Center for Teaching and Learning, Washington University in St. Louis
 [2022] **panel co-organizer**, From Cahokia to Pruitt-Igoe: the history of development, environmental justice, and biodiversity in the St. Louis Region, Living Earth Collaborative & Center for Race, Ethnicity, & Equity, Washington University in St. Louis
 [2022] **speaker**, Ayatana's Biophilium
 [2022] **script writer**, TED-Ed, "[How pigeons took over the world](#)"
 [2021] **panelist**, Tyson Research Center Undergraduate Fellows Program
 [2021] **speaker**, Columbia Grammar & Preparatory School
 [2020] **panelist**, [NightSchool](#), California Academy of Sciences
 [2020] **co-facilitator**, Student-Faculty & Postdoc Networking Lunches, Evolution Community Resources for Early Career Researchers (ECR²), joint event by the Society for the Study of Evolution, the Society of Systematic Biologists, and the American Society of Naturalists
 [2020] **panelist**, Public Policy Panel, Evolution Community Resources for Early Career Researchers (ECR²), joint event by the Society for the Study of Evolution, the Society of Systematic Biologists, and the American Society of Naturalists
 [2020] **co-facilitator**, Primer on Peer Review & the Publication Process, Evolution Community Resources for Early Career Researchers (ECR²), joint event by the Society for the Study of Evolution, the Society of Systematic Biologists, and the American Society of Naturalists
 [2020] **speaker**, Skype-a-Scientist
 [2020] **speaker**, Darwin Day Lecture, New York City Skeptics
 [2019] **moderator**, Book Club September 2019: Darwin Comes to Town by Menno Schilthuis, Van Alen Institute
 [2019] **panelist**, Egghead: The Genius Of Birds, Science Friday Book Club
 [2019] **speaker**, March for Science NYC
 [2018-present] **cofounder & editor**, [Life in the City: Evolution in an Urbanizing World](#) blog
 [2018] **panelist**, Graduate School Prep Workshop, Career Services, Fordham University

- [2018] **judge**, Three Minute Thesis Competition, Graduate School of Arts and Sciences, Fordham University
- [2017] **mentor**, Undergraduate Diversity at Evolution, joint meeting of the Society for the Study of Evolution, the Society of Systematic Biologists, and the American Society of Naturalists
- [2017] **mentor**, SSE day at Evolution, Society for the Study of Evolution
- [2016] **speaker**, Career Day, PS 69 Queens
- [2014] **speaker**, Teen Science Night, California Academy of Sciences
- [2013-2015] **presenter**, 11 events, NightLife, California Academy of Sciences
- [2013-2015] **presenter**, 3 events, Chat with a Scientist, California Academy of Sciences
- [2013, 2015] **presenter**, 2 events, Science, Neat!, El Rio
- [2013, 2014] **presenter**, 2 events, Bay Area Science Festival
- [2012-2015] **presenter**, 6 events, Member Nights, California Academy of Sciences
- [2010-2012] **project group leader**, Careers in Science, California Academy of Sciences

Media Coverage

- [2024] Online Article, Emily Lipstein, "[Pigeons prove that any transplant can become a native New Yorker](#)" **Gothamist** (21 March)
- [2024] Online Article, Warren Cornwall, "[Social inequities and citizen science can skew our view of the natural world](#)" **Anthropocene Magazine** (20 March)
- [2024] Radio, Kate Grumke, "[The Delmar Divide also shows up in data from citizen wildlife observations](#)" **St. Louis Public Radio** (19 March)
- [2023] Online Article, Bridget Reed Morawski, "[Build a Squirrel House - Without Worrying Your Neighbors](#)" **Architectural Digest** (18 January)
- [2022] Online Article, Sarah Sloat, "[TikTok Told Me to Adopt a Pigeon](#)" **The Atlantic** (15 December)
- [2022] Video & Article, Tom Malkowicz (video) & Talia Ogliore (article), "[Squirrels and the city](#)" **The Source** (11 August)
- [2022] Podcast, Flora Lichtman & Phoebe Flanigan, "[Why pigeons took over cities](#)" **Every Little Thing** (4 July)
- [2022] Online Article, Sabrina Imbler, "[Why do pigeon nests look so shitty? An investigation](#)" **Defector** (28 June)
- [2022] Podcast, Kristy MacLeod, "[Rejection is the Rule](#)" **The Women in Ecology and Evolution Podcast** (22 June)
- [2022] Radio, Edgar B. Herwick III, "[Pigeons are everywhere, but have you ever seen a baby one?](#)" **WGBH** (27 May)
- [2022] Radio, Rosemary Misdary, "[The NYC Squirrel Census is back with new results — and a toll-free number](#)" **WNYC** (6 March)
- [2021] Radio, Kathleen Davis, "[A Charismatic Match-up Between Two Feathered Friends](#)" **Science Friday** (24 September)
- [2021] Online Article, Francine Kopun. "[One city councillor wants Toronto to look at a total ban on feeding pigeons. Others think that idea is for the birds](#)" **Toronto Star** (14 July)
- [2021] Online Article, Katherine Fung. "[What To Do When A Pigeon Lays An Egg On Your Bed \(Yes, It's Known To Happen\)](#)" **Gothamist** (8 May)
- [2021] Radio, Katherine Fung. "[Pigeon Nests: Surprisingly Low Maintenance](#)" **WNYC** (5 May)
- [2021] Podcast, Karen Hopkin. "[Boston's Pigeons Coo, 'Wicked'; New York's Birds Coo, 'Fuhgeddaboutit'](#)" **Scientific American** (5 April)
- [2020] Podcast, Nate Swick. "[City Pigeons And Urban Evolution With Elizabeth Carlen](#)" **American Birding Podcast** (21 May)
- [2020] Podcast, Kaylee Byers & Michael Unger. "[Pigeons Are 'Too Coo' For The Suburbs](#)" **Nerdin' About** (20 May)
- [2020] Radio & Online Article, Justine Paradis. "[Outside/In: Boston Pigeons Are Part Of A Pigeon Megacity](#)" **New Hampshire Public Radio** (16 May)

- [2020] Print Article, Joshua Sokol. "[New York and Boston Pigeons Don't Mix](#)" **New York Times** (12 May)
- [2020] Print Article, Will Pavia. "[Boston Pigeons Give Cousins in New York the Bird, Study Finds](#)" **The Times** (27 April)
- [2019] Print Article, Brendan Koerner. "[How Cities Reshape the Evolutionary Path of Urban Wildlife](#)" **Wired** (23 September)
- [2019] Podcast, Christie Taylor. "[SciFri Extra: Bird Nerds of a Feather Flock Together](#)" **Science Friday** (12 September)
- [2019] Documentary (Short), Laura Zephirin. "[Pigeons, Behind The Feathers](#)" **NY WILD - NYU Student Film Contest** (25 February)
- [2019] Online Article, Simone Scully. "[Why Are Pigeons So Good at Surviving in Cities?](#)" **Geek.com** (31 January)
- [2018] Online Article, Emma Bryce. "[Why Are There So Many Pigeons?](#)" **Live Science** (27 October)
- [2018] Radio, George Bodarky. "[Pigeon Palooza](#)" **Cityscape** (22 August)
- [2018] Radio & Online Article, Christie Taylor. "[To Catch a Pigeon](#)" **Science Friday** (27 July)
- [2018] Video & Online Article, Emily Lipstein. "[What Scientists Can Learn From New York City's Freakiest Residents](#)" **Gizmodo** (25 July)
- [2018] Online Article, Leigh Cowart, "[From the parking lot outside your house to the showerhead inside your washroom, the undiscovered is everywhere](#)" **National Post** (19 April)
- [2018] Video & Online Article, Emily Dombroff (video) & Tom Stoelker (article). "[Don't Pigeon Hole Pigeons!](#)" **Fordham News** (16 April)
- [2018] Print Article, Corey Kilgannon, "[The Pigeon Stalker](#)" **The New York Times** (8 March)
- [2018] Radio, "[Why You Should ❤️ NYC Pigeons](#)" **WNYC News** (14 February)
- [2018] Online Article, "[Fordham Biologist on Why You Should Love NYC Pigeons](#)" **Fordham News** (14 February)
- [2017] Online Article, Hannah Parry. "[Philadelphia is the most rat infested city in the United States while New Orleans is crawling with cockroaches](#)" **Daily Mail** (29 January)
- [2016] Documentary Film, Morgan Spurlock. "[RATS](#)" **Discovery Channel** (22 October)
- [2016] Online Article, Sarah Laskow. "[Just How Huge Are New York's Rats? This one weighs about 1.5 pounds.](#)" **Atlas Obscura** (3 March)
- [2013] Podcast. "[Liz Carlen-Chat with an Academy Scientist](#)" **California Academy of Sciences** (13 May)