

## MYLA F. J. ARONSON

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Department of Ecology, Evolution and Natural Resources  
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### EDUCATION

Ph.D. 2007. Ecology and Evolution, Rutgers University, New Brunswick, NJ

M.S. 2002. Ecology and Evolution, Rutgers University, New Brunswick, NJ

B.S. 1998. Natural Resources, Cornell University, Ithaca, NY

### PROFESSIONAL APPOINTMENTS

Assistant Professor, NTT, 2016-present, Department of Ecology, Evolution and Natural Resources, Rutgers University, New Brunswick, NJ

Associate Editor-in-Chief, 2012-present, Ecological Restoration, Department of Ecology, Evolution and Natural Resources, Rutgers University, New Brunswick, NJ

Research Scientist, 2012-2016, Department of Ecology, Evolution and Natural Resources, Rutgers University, New Brunswick, NJ

Assistant Professor, 2009-2012, Department of Biology, Hofstra University, Hempstead, NY

Visiting Assistant Professor, 2006-2009, Department of Biology, Luther College, Decorah, IA

Postdoctoral Research Associate, 2007-2008, University of Minnesota, St. Paul, MN

### PEER-REVIEWED PUBLICATIONS

**Aronson, M.F.J.**, M.V. Patel, K. O'Neill, and J.G. Ehrenfeld. (*in press*). Connectivity in urban river systems. *Biological Invasions* special issue on Urban Invasions.

**Aronson, M.F.J.**, M.R. Piana, J.S. MacIvor, and C.C. Pregitzer. (*in press*) Management of plant diversity in urban green spaces. In A. Ossola and J. Niemelä (eds), *Urban Biodiversity: From Research to Practice*. Taylor & Francis.

\*Dolan, R.W., **M.F.J. Aronson**, A.L. Hipp. 2017. Floristic response to urbanization: Filtering of the bioregional flora in Indianapolis, Indiana, USA. *American Journal of Botany* 104: 1179-1187.

#### \*Cover Article

\*Lepczyk, C.A., **M.F.J. Aronson**, et al. 2017. Biodiversity in the city: fundamental questions for understanding the ecology of urban green spaces for biodiversity conservation. *BioScience* <https://doi.org/10.1093/biosci/bix079>

#### \*Editor's Choice

**Aronson, M.F.J.**, C. Lepczyk, et al. 2017. Biodiversity in the city: research priorities and knowledge gaps for urban green space planning and management. *Frontiers in Ecology and the Environment* 15:189-196.

Nilon, C., **M.F.J. Aronson**, S. Cilliers, C. Dobbs, L. Frazee, M.A. Goddard, D. Roberts, E.K. Stander, P. Werner, and K.P. Yocom. 2017. Planning for the Future of Urban Biodiversity: A Global Review of City-Scale Initiatives. *BioScience* 67:332-342.

Lepczyk, C.A., F. La Sorte, **M.F.J. Aronson**, M. Goddard, I. MacGregor-Fors, C.H. Nilon, and P. Warren. 2017. Global Patterns and Drivers of Urban Birds. In M. Hedblom and E. Murgui (eds), *Ecology and Conservation of Birds in Urban Environments*. Springer.

**Aronson, M.F.J.**, C.H. Nilon, et al. 2016. Hierarchical Filters Determine Community Assembly of Urban Species Pools. *Ecology* 97(11): 2952-2963.

- Koncki, N.G. and **M.F.J. Aronson**. 2015. Invasion Risk in a Warmer World: Modeling Range Expansion and Habitat Preferences of Three Non-native Aquatic Invasive Plants. *Invasive Plant Science and Management* 4:236-449.
- Hagmann, D.F., N.M. Goodey, C. Mathieu; J. Evans, **M.F.J. Aronson**, F. Gallagher, and J.A. Krumins. 2015. Effect of Metal Contamination on Microbial Enzymatic Activity in Soil. *Soil Biology and Biochemistry* 91:291-297.
- Aronson, M.F.J.**, S.N. Handel, S.E. Clemants, and I.P. LaPuma. 2015. Urbanization promotes non-native woody species and diverse plant assemblages in the New York metropolitan region. *Urban Ecosystems* 18:31-45.
- \***Aronson, M.F.J.**, F.A. La Sorte, C.H. Nilon., *et al.* 2014 A global analysis of the impacts of urbanization on bird and plant diversity reveals key anthropogenic drivers. *Proceedings of the Royal Society B* 281: 20133330.
- \***Chosen as a Community Choice Research Highlight, “most viewed papers in science” in Nature, April 2014 Volume 508.**
- \***featured in many popular and scientific media outlets (see page 6)**
- F.A. La Sorte, **Aronson, M.F.J.**, N.S. Williams, *et al.* 2014. Beta diversity of urban floras among European and non-European cities. *Global Ecology and Biogeography* 23:769-779.
- Bennington, J.B. and **M.F.J. Aronson**. 2012. Reconciling Paleontological and neontological data: issues of scale, taxonomy, and taphonomy. In: Louys, J (ed) *Palaeontology in Ecology and Conservation*. Springer.
- Aronson, M.F.J.**, and S.N. Handel. 2011. Deer and Invasive species suppress forest herbaceous communities and canopy tree regeneration. *Natural Areas Journal* 31:400-407.
- \***Aronson, M.F.J.**, and S. Galatowitsch. 2008. Long-term vegetation development of restored prairie pothole wetlands. *Wetlands* 28(4): 883-895.
- \***Chosen as one of the top 30 papers “deemed most important in furthering the field of wetland science” in 30 years of the journal Wetlands.**
- Baiser, B., J.L. Lockwood, D. La Puma, and **M.F.J. Aronson**. 2008. A perfect storm: two ecosystem engineers interact to degrade deciduous forests of New Jersey. *Biological Invasions* 10(6): 785-795.
- Aronson, M.F.J.**, S.N. Handel and S.E. Clemants. 2007. Fruit type, life form, and origin determine the success of woody plant invaders in an urban landscape. *Biological Invasions* 9(4): 465-475.
- Aronson, M.F.J.**, C.A. Hatfield, and J.M. Hartman. 2004. Plant community patterns of low-gradient forested floodplain wetlands in a New Jersey urban landscape. *Journal of the Torrey Botanical Club* 131(3): 232-242.
- Hatfield, C.A., P.W. Ryan, **M.F. Johnson** and J.M. Hartman. 2002. Assessing the feasibility of using hydrogeomorphic wetlands assessment in New Jersey – Riverine forest example. Department of Environmental Protection, Trenton, New Jersey.

*Publications in Review or Preparation*

- Tartaglia, E.S., **M.F.J. Aronson**, and J. Raphael. (*major revisions*) How does suburban horticulture influence plant invasions on the suburban/wildland interface? *Natural Areas Journal*
- Sorensen, A.E., R.C. Jordan, G. Blaise, J. Brown, L.K. Campbell, **M.F.J. Aronson**, M. Johnson. (*in review*) Public willingness to participate in urban restoration stewardship programs: Linkages between ecological knowledge, environmental identity, and motivations. *Arboriculture & Urban Forestry*
- O'Neill, K., **M.F.J. Aronson**, C. H. Nilon, S. Cilliers, C. Dobbs, L. Frazee; M.A. Goddard, D. Roberts, E.K. Stander, P. Werner, M. Winter, K.P. Yocom (*in review*). Has urban biodiversity planning gone mainstream? A global survey of urban plans. *Journal of Environmental Planning and Management*
- Aronson, M.F.J.**, M.R. Piana, S.N. Handel. (*in prep*). The challenge of conserving an old-growth suburban forest: stress and vegetation change over 63 years in the Hutcheson Memorial Forest, New Jersey. Intended for submission to *Conservation Biology*.

*Public Writing*

- Aronson, M.F.J.** 2015. A threaten old forest tells a story relevant to every urban forest. The Nature of Cities. <http://www.thenatureofcities.com/2016/03/31/a-threatened-old-forest-tells-a-story-relevant-to-every-urban-forest/>
- Aronson, M.F.J.** 2015. Global Round Table: 10 scientists and 10 practitioners walk into a bar...what would they talk about? How can research and knowledge generation be co-created to better support practitioners and evidence-based decision making? The Nature of Cities. <http://www.thenatureofcities.com/2015/06/30/10-scientists-and-10-practitioners-walk-into-a-bar-what-would-they-talk-about-how-can-research-and-knowledge-generation-be-co-created-to-better-support-practitioners-and-evidence-based-decisi/>
- Aronson, M.F.J.** 2012. Restoring Native Communities. Pages 44-49 in A Native Plants Reader. Brooklyn Botanic Garden: Brooklyn, NY.

**GRANTS** (2011-present only)

- Cynthia Skema (PI), Lena Struwe (co-PI), **Myla F.J. Aronson** (co-PI), et al. Collaborative Research: Digitization TCN: The Mid-Atlantic Megalopolis: Achieving a greater scientific understanding of our urban world. *National Science Foundation*. 2016-2019. \$1,500,000
- Steven N. Handel (PI), **Myla F.J. Aronson (co-PI)**. 69 years of forest dynamics at the Hutcheson Memorial Forest: is the past prologue? McIntire-Stennis Cooperative Forestry Program. July 2016-June 2019. \$60,000.
- Steven N. Handel (PI), Christina Kaunzinger (co-PI), **Myla F.J. Aronson (co-PI)**, Marci Meixler (co-PI). Restoration of Jamaica Bay fringing habitats: post-Sandy status and new approaches for a resilient future. *National Park Service*. November 2014-October 2016. \$482,920.
- Myla F.J. Aronson** (PI) and Charles Nilon (PI) and. Collaborative Research: RCN: UrBioNet: A global network for urban biodiversity research and practice. *National Science Foundation*. 2014-2019. \$500,000.
- Myla F.J. Aronson** and Charles Nilon. Ecological and social linkages among biodiversity, ESS, and environmental policy and management in the world's cities. Working group, *National Socio-Environmental Synthesis Center, German Centre for Integrative Biodiversity Research, and The Helmholtz Centre for Environmental Research*. 2014-2015.
- Steven N. Handel and **Myla F.J. Aronson**. Improving forest resilience in response to critical ecological stressors: deer, invasive plant species, and climate change. New Jersey Agricultural Experiment Station USDA-NIFA McIntire-Stennis Forestry Research Program. 2013-2016. \$60,000.
- Myla F.J. Aronson** and Jordan Raphael. The role of suburban horticulture in structuring plant invasions in natural areas on the suburban/wildland interface at William Floyd Estate, Fire Island National Seashore. *LISSMA, NYS Department of Environmental Conservation*. 2014-2015. \$12,711.
- Jennifer Krumins and **Myla F.J. Aronson**. Role of Plant and Soil Community Structure in Riparian Soil Nutrient Retention. *Barnegat Bay Partnership*. July 2012-December 2014. \$47,915
- Joan G. Ehrenfeld (deceased), Karen O'Neill (social science lead PI), **Myla F.J. Aronson** (Co-PI), Kirk R. Barrett (Co-PI), Nina H. Fefferman (Co-PI), Rachael L. Shwom (Co-PI). ULTRA-EX: Connectivity Along Urban Rivers: A Keystone Process for Urban Ecosystems. *National Science Foundation, Behavior and Cognitive Science, Long Term Ecological Research Program*, September 2009-March 2013, \$299,886
- Myla F.J. Aronson**, Madhusudan Katti, Charles Nilon, Paige Warren. Comparative ecology of cities: What makes an urban biota "urban"? Working group, *National Center for Ecological Analysis and Synthesis*, January 2010-January 2011. \$87,000,
- Myla F.J. Aronson** and Justin DiAngelo. *LICOR LEEF Ecophysiology package*. \$49,000, May 2011.
- Myla F.J. Aronson**. Potential range expansion of non-native aquatic invasive plants and assessing the effects of these species on native habitats in the New York metropolitan area. Hofstra University HCLAS Faculty Research and Development Grant, 2011, \$1,200

**PRESENTATIONS**

*Invited Lectures (2011-2016)*

Invited speaker: New Jersey Chapter of the American Society of Landscape Architects. Biodiversity in the Concrete Jungle: Restoring Nature in Cities for a Resilient Future, March 2017.  
Keynote: Joint conference of the Society for Ecological Restoration Australasia and the New Zealand Ecological Society, 19-23 November 2016.  
Invited speaker: Non-native species in urban environments: patterns, processes, impacts and challenges, Center for Invasion Biology, Stellenbosch University, South Africa, November 2016.  
Keynote: New England Chapter of the Society of Ecological Restoration, October 2016.  
North Dakota State University, Department of Biology Seminar Series, April 2016  
Auburn University, School of Forestry and Wildlife Sciences Seminar Series, September 2015  
Chicago Plant Science Symposium, The Field Museum, April 2015.  
Keynote: Special Lecture for the Friesner Herbarium Annual Open House, Butler University, 2014.  
Planning and designing urban habitats. Biodiversity in Urban Parks: Learning from the 2013 Central Park BioBlitz Symposium, 2014.  
Rutgers University Ecology and Evolution Graduate Program Seminar Series, 2013.  
Keynote: The Bonnie Lustigman Symposium and Awards Presentation, Montclair University, 2013  
The Ecology of New York City Symposium, Columbia University, 2013.  
NYC Natural Areas Restoration Practitioners meeting, 2011 and 2012.  
Long Island Native Plant Symposium, 2011.

*Conference Presentations*

**Aronson, M.F.J.** Biodiversity in the Concrete Jungle: Understanding Nature in Cities for a Resilient Future. Joint conference of the Society for Ecological Restoration Australasia and the New Zealand Ecological Society, Hamilton, NZ, 19-23 November 2016.  
**Aronson, M.F.J.**, C.H. Nilon, C.A. Lepczyk, T.S. Parker, and P.S. Warren. UrBioNet: A global network for urban biodiversity research and practice. Poster presentation, The Ecological Society of America 100<sup>th</sup> Annual Meeting, Baltimore, MD, August 9-14, 2015.  
Lepczyk, C.A., and **M.F.J. Aronson**. Using the science of urban ecology to inform management and planning. Organized oral session presentation, The Ecological Society of America 100<sup>th</sup> Annual Meeting, Baltimore, MD, August 9-14, 2015.  
Geretz, E.S. and **M.F.J. Aronson**. Temporal and spatial changes in bryophyte diversity with urbanization in Philadelphia, PA. Poster presentation, The Ecological Society of America 100<sup>th</sup> Annual Meeting, Baltimore, MD, August 9-14, 2015.  
Tartaglia, E., **M.F.J. Aronson**, and J. Raphael. The role of suburban horticulture in structuring plant invasions in natural areas on the suburban/wildland interface at William Floyd Estate, Fire Island National Seashore. Poster presentation, The Ecological Society of America 100<sup>th</sup> Annual Meeting, Baltimore, MD, August 9-14, 2015.  
Stander, E.K., and **M.F.J. Aronson**. Using case studies to engage undergraduates in socio-ecological synthesis: Urban biodiversity example. Oral presentation, The Ecological Society of America 100<sup>th</sup> Annual Meeting, Baltimore, MD, August 9-14, 2015.  
**Aronson, M.F.J.** Filters that shape urban biodiversity. Symposium presentation, The 4<sup>th</sup> Annual URBIO conference, Incheon, South Korea, October 9-12, 2014  
Haines-Klaube, C.E., J.A. Krumins, and **M.F.J. Aronson**. Understanding eutrophication: Flora and bacterial communities of an urban watershed. Oral presentation, The Ecological Society of America 99<sup>nd</sup> Annual Meeting, Sacramento, CA, August 10-15, 2014.  
Greendyk, J.R., C.E. Haines-Klaube, **M.F.J. Aronson**, and J.A. Krumins. Fungal community composition of urban riparian soils. Poster presentation, The Ecological Society of America 99<sup>nd</sup> Annual Meeting, Sacramento, CA, August 10-15, 2014.  
**Aronson, M.F.J.** Community assembly and connectivity along an urban river system. Poster presentation, The Ecological Society of America 98<sup>nd</sup> Annual Meeting, Minneapolis, MN, August 4-9, 2013.  
Patel, M., **M.F.J. Aronson**, K. O'Neill, J. Dowd, R. Shwom, and J.G. Ehrenfeld. Ecological and social connectivity in an urban river system, oral presentation. The Ecological Society of America 97<sup>nd</sup> Annual Meeting, Portland, OR, August 5-10, 2012.

- Aronson, M.F.J.** Using comparative studies to examine intercity versus intracity patterns of native species loss and biotic homogenization of urban floras. *Invited speaker*. Comparative Studies of Cities: Links to Urban Biodiversity and Urban Design Symposium. URBIO 2010: Urban Biodiversity and Design Conference, Nagoya, Japan, May 18-22, 2010.
- Aronson, M.F.J.** The biotic-human interface: Addressing biodiversity and conservation in the urban landscape. Symposium presentation, The Ecological Society of America 93<sup>rd</sup> Annual Meeting, Milwaukee, WI, August 3-8, 2008.
- R.C. Putnam, **M.F.J. Aronson**, and P.B. Reich. Examining the effects of CO<sub>2</sub>, N, and diversity on initial establishment of weedy invaders in a grassland ecosystem. Oral presentation, The Ecological Society of America 93<sup>rd</sup> Annual Meeting, Milwaukee, WI, August 3-8, 2008.
- Aronson, M.F.J.**, S.N. Handel, and S.E. Clemants. Urbanization promotes native plant species loss and replacement with non-native plant communities. Oral presentation, Urban Biodiversity and Design: Implementing the convention on biological diversity in towns and cities, Erfurt, Germany, May 21-24, 2008.
- Aronson, M.F.J.**, S.N. Handel, and S.E. Clemants. Biotic homogenization and the replacement of native species with alien species in an urban landscape. Oral presentation, The Ecological Society of America 92<sup>nd</sup> Annual Meeting/Society for Ecological Restoration International 18<sup>th</sup> International Conference, San Jose, CA, August 5-10, 2007.
- Aronson, M.F.J.**, and S.N. Handel. Past, present and future of a suburban old growth forest: vegetation change and exotic species invasions over 50 years. Oral presentation, The Ecological Society of America 90<sup>th</sup> annual meeting, Montreal, Canada, August 7-12, 2005.
- Aronson, M.F.J.**, S.N. Handel and S.E. Clemants. Life history correlates of change in plant species distribution in an urban landscape. Oral presentation, The Ecological Society of America 89<sup>th</sup> annual meeting, Portland, Oregon, August 1-6, 2004.
- Momsen, J. and **M.F. Johnson**. Tidal salt marsh restoration in an urban environment. Oral presentation, The Society of Wetland Scientists 22<sup>nd</sup> Annual Meeting, 2001.
- Norris, M.E. and **M.F. Johnson**. Developing a hydrogeomorphic functional assessment (HGM) in an urbanized landscape. Poster presentation, The Society of Wetland Scientists 21<sup>st</sup> Annual Meeting, 2000.

#### **ADDITIONAL PROFESSIONAL EXPERIENCE**

- Lecturer, Dept. of Ecology, Evolution and Natural Resources, Rutgers University, Spring 2013-2016  
*Courses*: Urban Ecology, Principles of Ecology
- Assistant Professor, Hofstra University, Fall 2009 to Spring 2012  
*Courses*: Biology 13: Prokaryotes, Protists, Fungi and Plants; Biology 14: Evolution, Ecology and Behavior; Biology 253A: Graduate Seminar in Invasion Ecology
- Visiting Assistant Professor, Luther College, Fall 2006 to Spring 2009  
*Courses*: General Ecology; Botany; Principles of Biology 1: Ecology, Evolution and Biodiversity; Principles of Biology 2: Molecules, Cells and Genes; Ecological Concepts (non-majors)
- Graduate Fellow, 2005-2006, Department of Ecology, Evolution and Natural Resources, Rutgers University, New Brunswick, NJ and the Morris County Park Commission, New Jersey
- Laboratory Instructor and Teaching Assistant, Rutgers University Fall 2002-Spring 2005  
*Courses*: Beginning and Intermediate Geomatics, General Biology, Principles of Biology, Principles of Botany, Intermediate Geomatics, Restoration Ecology
- Graduate Assistant, 1999-2001, Department of Landscape Architecture, Rutgers University, New Brunswick, NJ and the New Jersey Department of Environmental Protection, Trenton, NJ
- Field/Lab Assistant, 1998-2002, Department of Ecology, Evolution and Natural Resources and Department of Landscape Architecture, Rutgers University, New Brunswick, NJ
- Field/Lab Assistant, 1994-1998, Department of Natural Resources and Department of Entomology, Cornell University, Ithaca, NY
- Teaching Assistant, Cornell University, Spring 1997  
*Course*: Environmental Conservation

**PROFESSIONAL MEMBERSHIPS**

Ecological Society of America, Society for Conservation Biology, Society for Ecological Restoration, Urban Ecosystems Ecology Section, Ecological Society of America (*Section Chair*)

**PROFESSIONAL ACTIVITIES**

- Associate Editor: *Biological Invasions, Ecological Restoration, Urban Naturalist*.
- Reviewer for: *Biological Conservation, Biological Invasions, BioScience, Ecography, Ecology Letters, Environmental Management, Global Ecology and Biogeography, Journal of Ecology, Natural Areas Journal, Restoration Ecology, Urban Ecosystems*.
- Urban Ecosystems Ecology Section, Ecological Society of America, Chair 2015-2017. Vice-chair 2012-2014.
- Organized symposiums for: The Ecological Society of America 100<sup>th</sup> Annual Meeting, Baltimore, MD, August 9-14, 2015; The 4<sup>th</sup> Annual URBIO meeting, Incheon, South Korea, October 9-12, 2014; The 26<sup>th</sup> International Congress for Conservation Biology, Baltimore, MD, July 21-25, 2013; Society for Conservation Biology North America Congress for Conservation Biology, Oakland, CA July 15-18, 2012; The Ecological Society of America 97<sup>th</sup> Annual Meeting, Portland, OR, August 5-10, 2012; The Ecological Society of America 93<sup>rd</sup> Annual Meeting, Milwaukee, WI, August 3-8, 2008.

**SERVICE (2011- PRESENT ONLY)**

- Advisory Board Member, Stewardship Mapping and Assessment Project (STEW-MAP) in New York City, US Forest Service.
- Fire Island National Seashore Science Advisory Team, 2012-present.
- Advisory Board, Center for Resilient Landscapes USDA Forest Service and Rutgers University, 2012-present

**GRADUATE STUDENTS**

*Current Students*

Max Piana, PhD Student, Rutgers University (co-advisor)  
Lauren Frazee, PhD Candidate, Rutgers University (committee member)  
Hua Shang, PhD Student, Rutgers University (committee member)  
Amy Gage, PhD Student, Rutgers University (committee member)

*Past Students*

Josh Echols, M.S., Rutgers University (committee member)  
Alexis Kleinbeck, M.S., Rutgers University (committee member)  
Jordan Raphael, M.S., Hofstra University (advisor), Fire Island National Seashore  
Natalie Koncki, M.S., Hofstra University (advisor), Tighe & Bond, Engineering and Environmental Consulting  
Chris Anderson, M.S., Hofstra University (advisor), The River Project

**POPULAR AND SCIENTIFIC PRESS**

*Print*

National Wildlife Federation Magazine, February 2015  
Quebec Science Magazine, August 2014  
Science for Environment Policy, 1 May 2014, Issue 370. European Commission DG Environment News Alert Service  
Columbia Spectator, September 2014. <http://columbiaspectator.com/eye/2014/09/11/where-wild-things-are>

*Radio*

BBC Shared Planet: <http://www.bbc.co.uk/programmes/b0496c09>

*Web*

*Myla F.J. Aronson*

*My work has been highlighted in over 45 regional, national, and global popular and scientific news websites, below are selected outlets only.*

BBC News Science and Environment: <http://www.bbc.com/news/science-environment-26140827>

Scientific American: <http://www.scientificamerican.com/podcast/episode/urban-biodiversity/>

ScienceDaily: [http://www.sciencedaily.com/releases/2014/02/140212132950.htm?utm\\_source=feedburner&utm\\_medium=feed&utm\\_campaign=Feed%3A+sciencedaily+%28Latest+Science+News++ScienceDaily%29](http://www.sciencedaily.com/releases/2014/02/140212132950.htm?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+sciencedaily+%28Latest+Science+News++ScienceDaily%29)

Mongabay.com: <http://news.mongabay.com/2014/0411-levikov-cities-biodiversity.html>

NJ Environment News: <http://njenvironmentnews.com/2014/02/12/study-shows-urbanisations-impact-biodiversity/>

High Country News: <https://www.hcn.org/blogs/goat/for-native-birds-cities-may-spread-disease-while-still-providing-sanctuaries>