

# Research Permits Report

## 2015 Annual Report



NYC Parks

City of New York  
Parks and Recreation  
Bill de Blasio, Mayor  
Mitchell J. Silver, FAICP, Commissioner

# Introduction

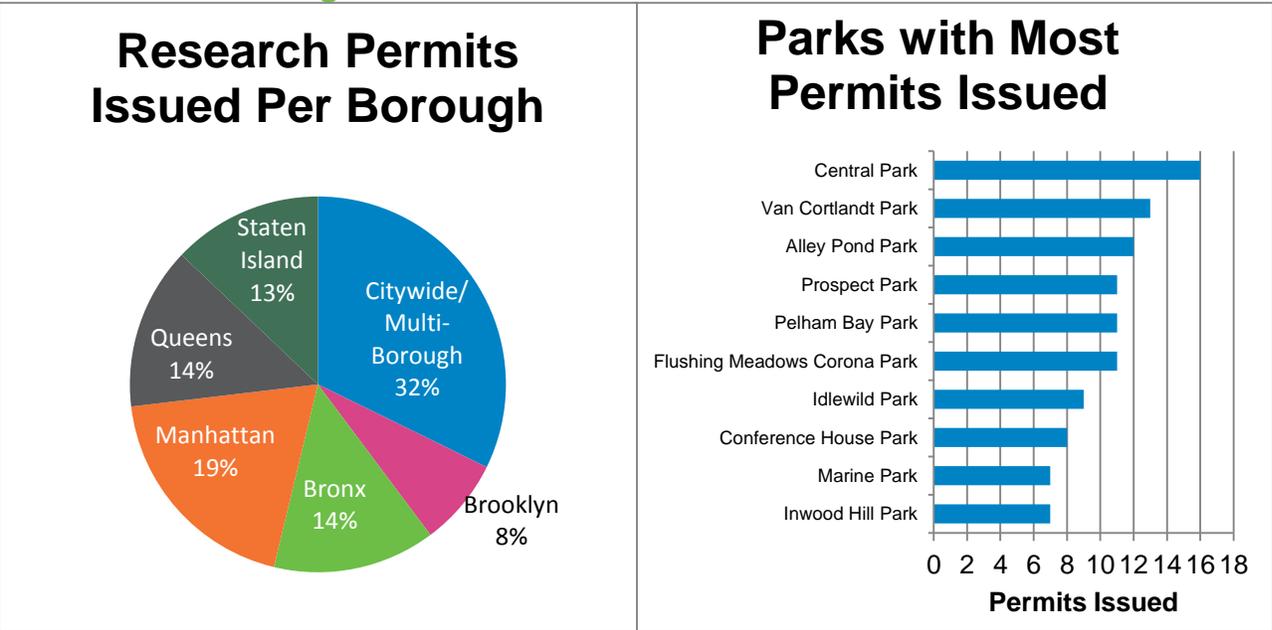
The mission of the Forestry, Horticulture, and Natural Resources Division (FHNR) is to protect, restore, expand, and manage New York City’s natural spaces to maximize their benefits for environmental and community health and resilience. The mission of the NYC Urban Field Station (UFS) is to improve the quality of life in urban areas by conducting and supporting research about socio-ecological systems and natural resource management.

Each year, research permits are reviewed and issued by FHNR via the NYC UFS to researchers outside of the agency who are interested in conducting scientific research on NYC Parks properties.

## Overview

In 2015, 93 research permit applications were granted by the NYC Department of Parks & Recreation Forestry, Horticulture, and Natural Resources Division. Out of all the permits granted, 33 were renewals of ongoing projects. Research was distributed throughout the five boroughs and spanned multiple parks, habitat types and taxa. Applicants also spanned a range of organizations including public schools, universities, environmental organizations, government agencies, and other organizations. This year, we received our first permit applications from a researcher based in Mexico and a researcher based in the UK.

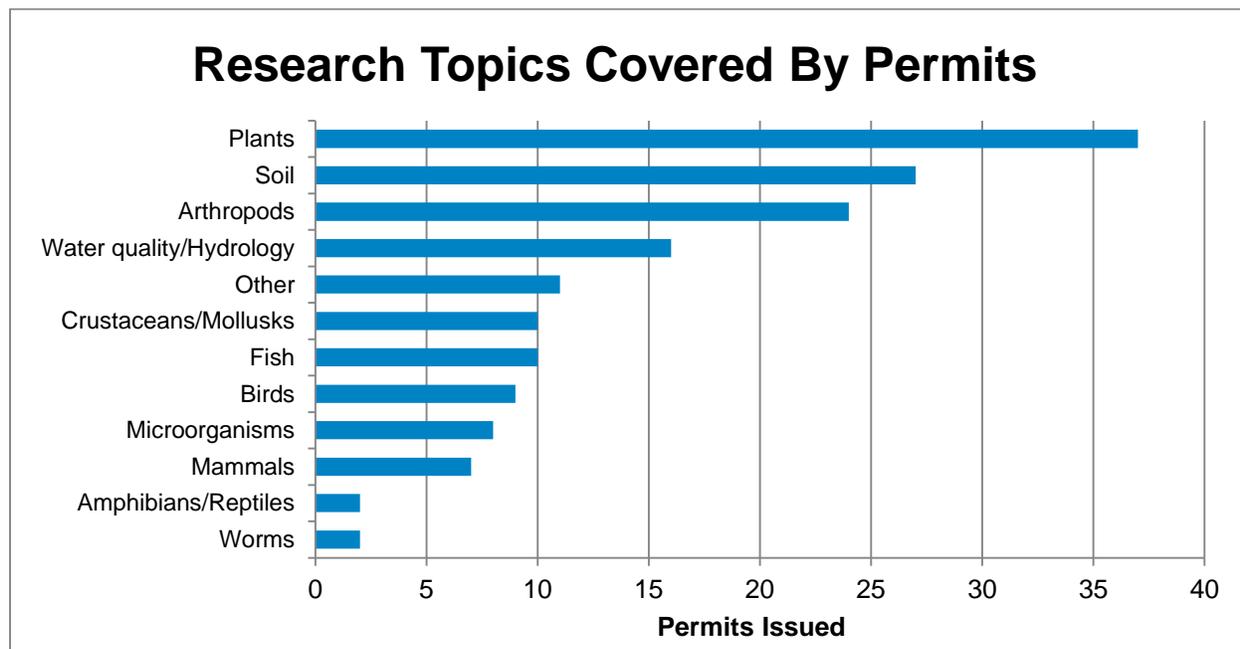
## Locations: Borough and Park



Most of the research permits issued were for citywide or multi-borough projects (30 permits). For single-borough projects, Manhattan had the most permits (18 permits) and Brooklyn had the fewest (7 permits). Out of all city parks, Central Park was the most frequently studied followed by Van Cortlandt Park and Alley Pond Park.

## Research Topics

The breadth of research that was conducted on parkland spanned multiple taxa, habitats, and disciplines. This year, the majority of research was focused on plants, soil, and/or arthropods, and many permits covered multiple research topics. Other research topics included archaeology, wave attenuation, and topography.



## Affiliations of Researchers

Various institutions and organizations conducted research on parkland, and the majority of researchers were affiliated with universities.

### Environmental/Ecological Organizations

Friends of Van Cortlandt Park  
 Great Ecology  
 Mianus River Gorge Preserve  
 Morton Arboretum  
 Natural Areas Conservancy  
 New York Botanical Garden  
 NY/NJ Baykeeper  
 NYC Audubon  
 Wildlife Conservation Society

### Federal/State/City Government

NYC Department of Environmental Protection  
 NYS Governor's Office of Storm Recovery  
 NYS Department of Environmental Conservation  
 Port Authority of NY & NJ  
 US Geological Survey  
 USDA Animal and Plant Health Inspection Service  
 USDA Forest Service  
 USDA Natural Resources Conservation Service

## Affiliations of Researchers (continued)

### Universities

Barnard College  
Boston University  
Brooklyn College  
City College of New York  
College of Staten Island  
Columbia University  
CUNY City College  
Drexel University  
Fordham University  
Hofstra University  
Instituto de Ecologia, Xalapa, Mexico  
John Jay College of Criminal Justice  
LaGuardia Community College  
Monmouth University  
New York University  
Open University, Buckinghamshire, UK  
Queens College  
Queensborough Community College  
Rockefeller University  
Rutgers University  
SUNY College of Environmental Science & Forestry  
University of Maryland  
University of North Carolina at Chapel Hill  
University of Washington Seattle  
Yale University  
Yeshiva University

### K-12 Schools

Bard High School Early College  
Ethical Culture Fieldston School  
Greenwich High School  
New York Harbor School  
Ossining High School  
PS 277  
Riverdale Country School  
Speyer Legacy School  
St. Francis Preparatory School  
Stuyvesant High School  
Sunset Park High School  
Trinity School

### Other Organizations

AKRF Inc.  
American Museum of Natural History  
ARCADIS U.S., Inc.  
Bronx Community Board 8  
Cold Spring Harbor Laboratory  
COOKFOX Architects LLP  
Friends of + Pool  
MFS Consulting Engineers & Surveyors, DPC  
Nautical Archaeology Society of Portsmouth, UK  
Normandeau Associates, Inc.  
Stantec Consulting

## Publications from Past Research Permits

The following are publications related to past research permits that researchers have shared with us.

Halem, Z.M., Ross, D.J., **Cox, R.L.** 2014. Evidence for intraspecific endocrine disruption of *Geukensia demissa* (Atlantic ribbed mussel) in an urban watershed. *Comparative Biochemistry and Physiology, Part A* 175: 1-6.

<http://www.sciencedirect.com/science/article/pii/S1095643314000890>

**Oldfield, E.E., Felson, A.J.,** Auyeung, D.S.N. Crowther, T.W., Sonti, N.F., Harada, Y., Maynard, D.S., Sokol, N.W., Ashton, M.S., Warren II, R.J., Hallett, R.A., **Bradford, M.A.** 2015. Growing the urban forest: tree performance in response to biotic and abiotic land management. *Restoration Ecology* 23: 707-718.

<http://onlinelibrary.wiley.com/doi/10.1111/rec.12230/abstract>

# Tables of All Research Projects

## ONGOING PROJECTS

NAME(S)	YEAR STARTED	ORGANIZATION(S)	PROJECT NAME
Susan Elbin	1982	NYC Audubon	Breeding Bird Survey of New York City
Melissa Cohen	1996	NYS Department of Environmental Conservation	Electrofishing Fisheries Surveys
Mark Bradford & Alex Felson	2011	Yale University	NYC Afforestation Project in Kissena Park
Samuel Janis	2011	New York Harbor School	Billion Oyster Project Oyster Gardening Program
Krista McGuire	2011	Barnard College	Heavy metal resistant microbes on New York City green roofs
Franco Montalto	2011	Drexel University	Green Infrastructure Monitoring
Mark Weckel & Chris Nagy	2011	American Museum of Natural History & Mianus River Gorge Preserve	Mapping coyote habitat and dispersal corridors in the greater NYC metropolitan area
Mark Botton	2012	Fordham University	Effects of a beach nourishment project on horseshoe crabs ( <i>Limulus polyphemus</i> )
Allison Fitzgerald	2012	NY/NJ Baykeeper	Soundview Park Oyster Reef Monitoring Project
Alison Kocek	2012	SUNY College of Environmental Science & Forestry	Characteristics of salt marshes preferred by tidal marsh-obligate breeding sparrows in New York City
Seth Wollney	2012	College of Staten Island	Freshkills Turtle Project
Ayse Aydemir	2013	Bard High School Early College	Using DNA barcoding to identify invertebrates in soil samples from East River Park
Jennifer Donovan	2013	Trinity School	The Biodiversity Project of Central Park
Jason Munshi-South	2013	Fordham University	Cityscape Genomics of Rats ( <i>Rattus norvegicus</i> ) in New York City
Richard Shaw	2013	USDA Natural Resources Conservation Service	Soil Microbial Diversity in Urban Environments
Regina Alvarez	2014	Queensborough Community College	The Flora of Central Park
Amy Berkov	2014	CUNY City College	City Parks: Islands of Insect Diversity
Marguerite Burke	2014	PS 277	Salt marsh wetlands in Marine Park
William Capurso	2014	US Geological Survey	SWaTH Network (Surge, Wave, and Tide Hydrodynamic): Regional Network of Storm-Tide Sensors
Rachel Cox	2014	Riverdale Country School	Molecular Markers for Environmental Stress in <i>Guekensia demissa</i> (Atlantic ribbed mussel)
Patricia Culligan	2014	Columbia University	Developing High Performance Green Infrastructure Systems to Sustain Coastal Cities
John Dennehy	2014	Queens College	Impact of urbanization on microbial soil communities
Susan Elbin	2014	NYC Audubon	The Urban Oasis in McGolrick Park
Antonia Florio	2014	Cold Spring Harbor Laboratory	DNA Barcoding: An Assessment of Biodiversity in Marine Park
Wally Fulweiler & Sarabeth Buckley	2014	Boston University	Sentinels of Change: Are Salt Marshes in LIS Keeping Pace with Sea Level Rise?
Soonil Higashino	2014	Ossining High School	Identification of Cutaneous Bacteria on Salamanders that Inhibit the Chytrid Fungus ( <i>Batrachochytrium dendrobatidis</i> )
Lea Johnson	2014	University of Maryland	Plant communities of disturbed urban soils: Implications for ecological restoration
Annesia Lamb	2014	Brooklyn College	Seasonal Nitrogen Fluxes From an Ulva Bed
Antonio Liberta	2014	Yeshiva University	Diversity of Auchenorrhyncha and Coleoptera in Highbridge Park
Tiffany Medley	2014	Monmouth University	Analysis of the presence and condition of oysters in the Hudson River Estuary
Jason Munshi-South	2014	Fordham University	Segmented Filamentous Bacteria in Wild Populations of <i>Peromyscus leucopus</i> Along an Urbanization Gradient
Michael Scherer	2014	Normandeau Associates, Inc.	Study of aquatic habitat & natural resource impacts of the Floating Lady Barge at Barretto Point Park
John Waldman	2014	Queens College	The Effect of Dams on Densities and Sizes of American Eels

## NEW PROJECTS

NAME	ORGANIZATION	PROJECT NAME
Christopher Ades	St. Francis Preparatory School	Urban Barcode: Worms in Cunningham and Francis Lewis Parks
Ben Altschuler	Ethical Culture Fieldston School	Microorganisms in Lentic vs. Lotic Ecosystems
Regina Alvarez	Queensborough Community College	Central Park Soil Microbe Study
Robert Bender	Bronx Community Board 8	Van Cortlandt Park Bioblitz
John Butler	Friends of Van Cortlandt Park	Wetland Stewardship for a Healthier Bronx
Olga Calderon	LaGuardia Community College	Biodiversity of nature's recyclers: wood-boring beetles, bacteria, fungi
Rebecca Calisi	Barnard College	The effects of flock size on food discrimination of the city pigeon
Andrew Clapper	USDA Animal and Plant Health Inspection Service	Southbeach Psychiatric Hospital Hybrid Turkey Damage Management Project
Jeffrey Clark & Jason Aloisio	Fordham University & Wildlife Conservation Society	Project TRUE -- Teens Researching Urban Ecology
Scott Cohen	Nautical Archaeology Society of Portsmouth, UK	An Archaeological Survey of the Hulks on the Foreshore of Shooter's Island
Sandy Collins	AKRF Inc.	Living Breakwaters and Tottenville Dune Project
Angelique Corthals	John Jay College of Criminal Justice	Forensic Anthropology Exercise - Recovery of remains
Anthony Cullen	Rutgers University	Germination, distribution and dispersal of <i>Viburnum sieboldii</i> : understanding the spread of an invasive sub canopy tree
Joseph Doumet	New York University	Avian Acoustic Ecology Project
Robert Dowell	None (Independent Researcher)	Re-Introduction of the Gray Birch ( <i>Betula populifolia</i> ) to Western Virginia
Irene Fisher	US Geological Survey	USGS Sediment-bound Contaminant Resiliency and Response (SCoRR)
Lauren Frazee	Rutgers University	The diversification and homogenization of <i>Plantago major/rugelii</i> populations in the New York City area
Parker Gambino	Greenwich High School	Hymenoptera Survey of Van Cortlandt Park
Daniel Greene	NYS Governor's Office of Storm Recovery	Living Breakwaters Data Collection Plan at Conference House Park
Christine Halloran	Brooklyn College	A comparative study of the alternative stable states in Prospect Park Lake
Steven Handel	Rutgers University	Restoration of Jamaica Bay Fringing Habitats: Post-Sandy Status and New Approaches for a Resilient Future
Jonathan Hilburg	COOKFOX Architects LLP	Soil Inoculation Experiment for Future Green Roof Projects
Alexandra Horowitz	Barnard College	Reconnaissance investigation of urine-marking by domestic dogs ( <i>Canis familiaris</i> )
Charlie Howe	Great Ecology	Idlewild Park Access Trail: Wetland Delineation and Biological Survey
Kayla Keenan	St. Francis Preparatory School	The Effect of Algae on Biodiversity
Patricia Kenyon	City College of New York	Electrical Resistivity Imaging of Tidal Forcing of the Water Table in Heterogeneous Sediment
Irina Khadinovich	College of Staten Island	Soil condition in NYC Parks
Alexis Kleinbeck	Rutgers University	Can salt marsh communities survive rapid sea level rise? An experiment at Jamaica Bay, New York
Jeffrey Kolodzinski	Port Authority of NY & NJ	Resident Canada Goose Management on North and South Brother Islands
Michael Kunz	University of North Carolina at Chapel Hill	Conservation Collection of Seabeach Amaranth ( <i>Amaranthus pumilus</i> ) Seeds
David Kupfer	Queensborough Community College	Queens Satellite HS for Opportunity: Invertebrates in Captain Tilly Pond
Maite Lascurain	Instituto de Ecologia, Xalapa, Mexico	Latino foraging in New York City
Kate Legner	University of Washington Seattle	Carbon Monitoring System
Sharon Lin	Stuyvesant High School	Must Be Something in the Water: Algal diversity in NYC waterbodies
Damon Little	New York Botanical Garden	Using DNA barcoding to measure seed dispersal of the invasive species <i>Corydalis incisa</i>
Sara Malmkvist	Stantec Consulting	Dunes Project: Boundary & topographic survey of Conference House Park

## NEW PROJECTS (continued)

NAME	ORGANIZATION	PROJECT NAME
John McLaughlin	<a href="#">NYC Department of Environmental Protection</a>	Jamaica Bay Ecological Pilot Projects: Wave Attenuation
Peter Moore	MFS Consulting Engineers & Surveyors, DPC	Living Breakwaters Design
Jason Munshi-South	<a href="#">Fordham University</a>	Diversity and Abundance of Carrion Beetles along an Urban-to-Rural Gradient
Jason Munshi-South	<a href="#">Fordham University</a>	Assessing Competition for Food Waste between Arthropods and Ground-Dwelling Vertebrates in Urban Environments
Ian Murdock	<a href="#">Open University, Buckinghamshire, UK</a>	Plant-Environment Interactions Practical Task: Air temperature difference in open and under canopy
Jamie Ong	<a href="#">Natural Areas Conservancy</a>	Soils Sampling and Topographic Survey in Alley Creek
Sara Oppenheim	<a href="#">American Museum of Natural History</a>	Noctuid diversity in Central Park's wild areas
Douglas Partridge	<a href="#">ARCADIS U.S., Inc.</a>	Rockaway Inlet to East Rockaway Inlet and Jamaica Bay Reformulation Study
Edgardo Rivera	<a href="#">New York Botanical Garden</a>	Plants of Pelham Bay Park
Jennifer Rosati	<a href="#">John Jay College of Criminal Justice</a>	Successional Dynamics of the Carrion Insect Community in an Urban Environment
Joseph Rothleutner	<a href="#">Morton Arboretum</a>	Ex-situ Conservation of <i>Magnolia virginiana</i> var. <i>virginiana</i>
Ronald Sarno	<a href="#">Hofstra University</a>	Selective behavior by rodents in the built environment: A pilot
Kimberly Schwab	<a href="#">Speyer Legacy School</a>	Billion Oyster Project/ water quality monitoring
Chad Seewagen	<a href="#">AKRF Inc.</a>	Living Breakwaters and Tottenville Dune Project
Richard Shaw	<a href="#">USDA Natural Resources Conservation Service</a>	USDA-NRCS Tidal Marsh Sampling
Courtney Singleton	<a href="#">Columbia University</a>	Archaeological Survey of an Abandoned Homeless Encampment at Pelham Bay Park
Nancy Sonti	<a href="#">USDA Forest Service</a>	Urban Tree Ecophysiology
Mark Stoeckle	<a href="#">Rockefeller University</a>	Aquatic eDNA detection of fish in NYC habitats
Rachel Tao	<a href="#">Columbia University</a>	Water-Use and Ecosystem Services of Plant Species on New York City Green Roofs
Maggie Tuttle	<a href="#">City College of New York</a>	Testing Rainwater from a Green Roof
Megan Wallner	<a href="#">Sunset Park High School</a>	Urban Barcode Project: Sunset Park
Elizabeth Watson	<a href="#">Drexel University</a>	Stoichiometric and stable isotope ratios as indicators of nutrient pollution for Long Island and New York City Estuaries
Dong-Ping Wong	<a href="#">Friends of + Pool</a>	"Plus" Pool Site Selection - Water sampling
Eric Yee	<a href="#">Columbia University</a>	Seasonal Variation and Apparent Local Extinction of Native Plants on NYC Green Roofs

## For More Information

Research Permits Manager: Novem Auyeung, [novem.auyeung@parks.nyc.gov](mailto:novem.auyeung@parks.nyc.gov)

NRG website: <http://www.nycgovparks.org/greening/natural-resources-group>

NYC UFS website: <http://www.nrs.fs.fed.us/nyc/>

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