

# Research Permits Report

## 2017 Annual Report



NYC Parks

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



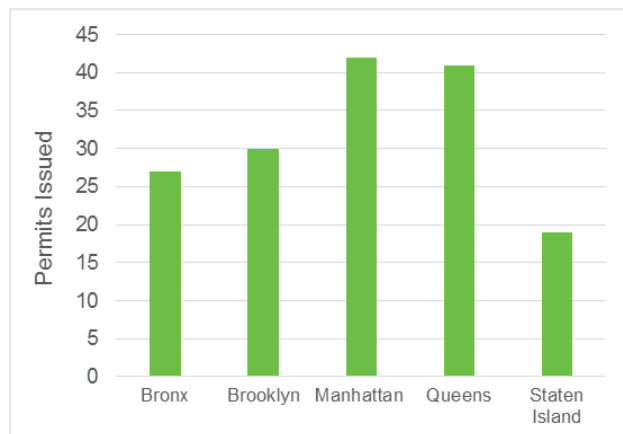
# Introduction

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.

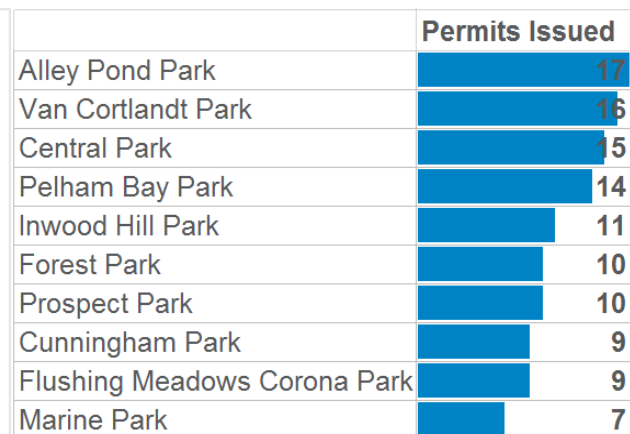
Each year, research permits are reviewed and issued by NYC Parks staff via the NYC UFS to researchers outside of the agency who are interested in conducting scientific research on NYC Parks properties.

## Program Overview

In 2017, 92 permits<sup>1</sup> were issued citywide. A majority of the permit holders were from academic institutions (49%), with non-profit organizations, like NYC Audubon and Billion Oyster Project, conducting 22% of the projects citywide. The Urban Barcode Project (UBP) was the foundation for most of the secondary education permits. NYC Parks has been playing an active role, through UBP, in teaching students about field collection as well as the role of permitting in research. Permits for the social sciences have increased and topics range from human health to ethnographic research. Historically, these programs have not been included in permitting, but increased interest in urban research has raised the need to track these types of projects and how researchers are interacting with park patrons.



**Figure 1.** Boroughs where research occurred



**Figure 2.** Top 10 parks with most permits issued

<sup>1</sup> In addition to the 92 permits issued, additional projects were tracked by the research permits program because it is also a means of notifying and gathering feedback from NYC Parks staff regarding natural resources management required by federal or state agencies, such as the Animal and Plant Health Inspection Service's (APHIS) Wildlife Damage Management programs around airports and the NYS Department of Environmental Conservation's statewide kudzu control program.

A majority of research projects occurred in Manhattan, followed by Queens (Figure 1). Many projects took place in multiple boroughs, so the same permit may have been tallied multiple times, once for each borough included in the study. Alley Pond Park was the most frequently studied park, followed by Van Cortlandt Park (Figure 2). In addition to the 10 parks, 252 other NYC Parks properties or study sites (e.g., some research permits involved street trees, which are located in the right-of-way and not a specific NYC Parks property) were also included in research permits.

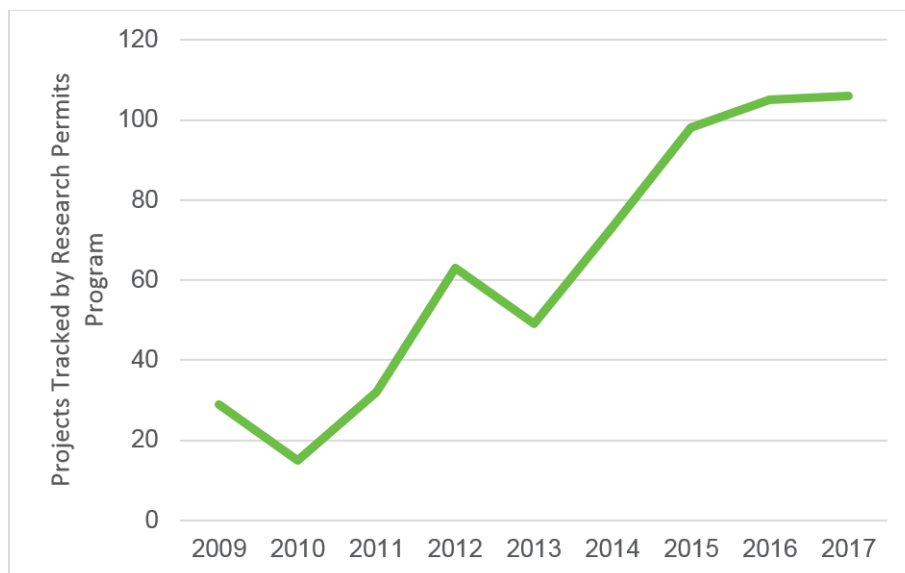
## 2017 Program Highlights

- More permits were issued for new projects than existing ones (62% to 38%), with academic institutions leading most new projects.
- NYC Parks research permits program has seen an 18% increase in applications since 2009.

### Reporting

The NYC Parks Research Permit Program has grown since permitting began in 2009 (Figure 3). In the past, we have emailed individual permit annual reports to applicable reviewers. With the addition of NYC Parks intranet sharepoint system, we will be adding all permit information to an easily shared spreadsheet that will allow us link all the annual reports for the different projects.

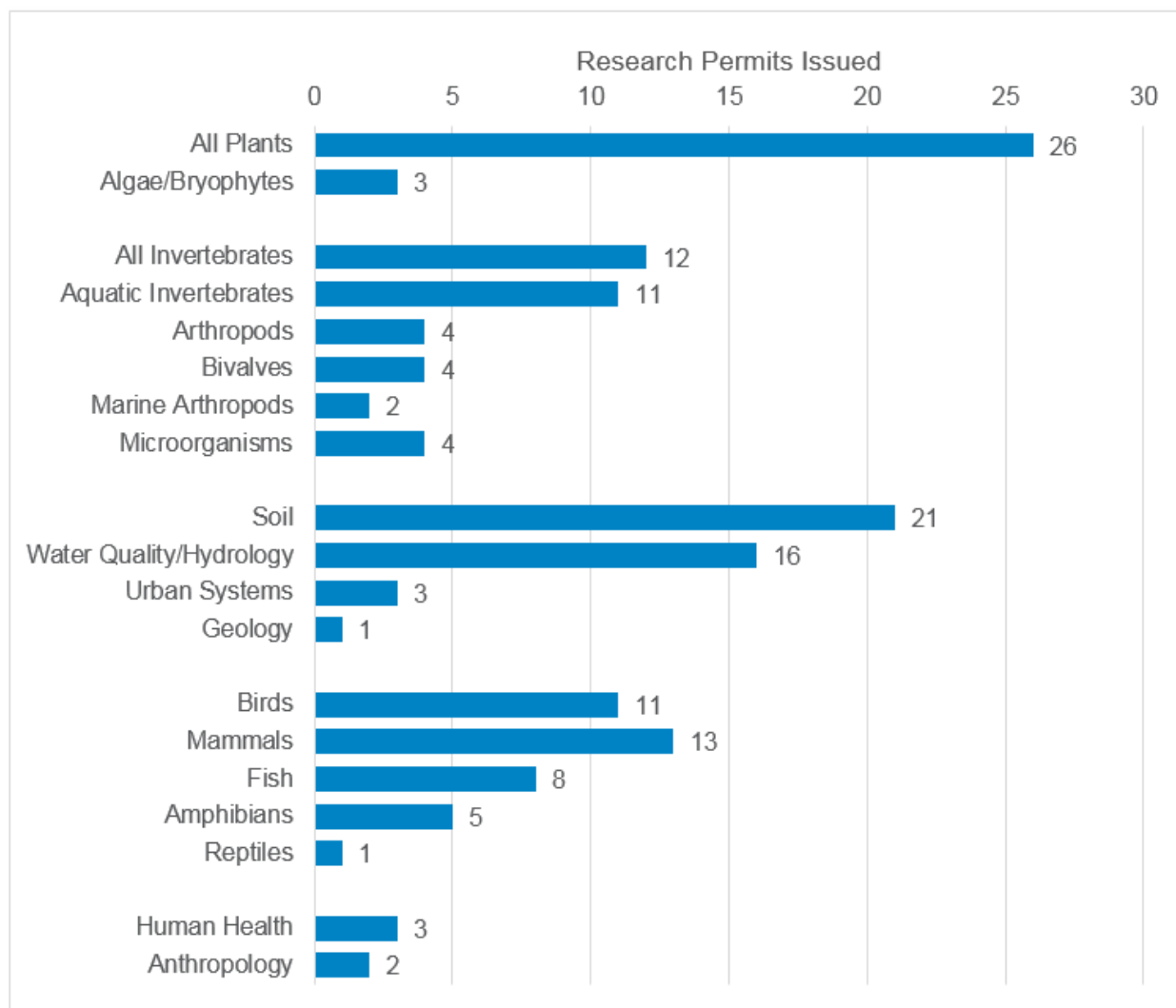
- [NYC Parks intranet sharepoint](#) – Current research permits are listed with annual reports attached. Permits can be filtered by Park name, Institution and/or Research Topic.
- [Google Drive folder for outside reviewers](#) – Conservancy staff that cannot access the NYC Parks intranet can download annual reports specific to their park.



**Figure 3.** NYC Parks Research Permit Program growth over 8 years. The total number of projects tracked includes denied/withdrawn permits and natural resources management required by federal or state agencies.

## Research Topics

Research permits continue to diversify, so new research topic categories were added to track all of the work (Figure 4). Most of the new categories were used to track the level of taxonomic specificity some permits had compared to others. For example, many permits had a broad taxonomic focus on all plants (26 permits) while others were narrowly focused on only algae or bryophytes (3 permits), and some researchers were broadly interested in all invertebrate species (12 permits) while many others were focused on specific invertebrate taxa. Permits studying urban systems were focused on air quality or temperature and other environmental variables related to built infrastructure (3 permits). Similar to previous years, vegetation monitoring topped the list again as the most studied research topic across the five boroughs.



**Figure 4.** 2017 Research permits by topic.

## Affiliations of Researchers

### Universities

Barnard College  
Baruch College  
Brooklyn College  
City College of New York  
College of Staten Island  
Columbia University  
Cornell University  
Drexel University  
Fordham University  
Hofstra University  
Hunter College  
John Jay College  
Macaulay Honors College  
Mt. Sinai School of Medicine  
New York University  
North Carolina State University  
Queens College  
Queensborough Community College  
Rockefeller University  
Rutgers University  
Rutgers University - Camden  
St. John's College  
St. Joseph's College  
Stony Brook University  
Touro University  
University of Aarhus  
University of Maryland  
University of Wollongong, NSW  
Yale University  
York College

### Other Government Agencies

New York City Department of Health  
NYS Department of Environmental Conservation  
USDA Forest Service

### K-12 Schools

Academy for Young Writers  
Bard High School Early College  
Francis Lewis High School  
New York Harbor School  
PS 277  
Regis High School  
Seaford High School  
Sunset Park High School  
Tenafly High School  
The Queens School of Inquiry  
Wadleigh Secondary School

### Environmental Consultants

AKRF, Inc.  
Biohabitats  
Independent - Botanical consultant  
O'Brien & Gere  
White Buffalo Inc.

### Non-Profit Organizations

American Museum of Natural History  
BioBus  
El Puente  
Friends of Van Cortlandt Park  
Natural Areas Conservancy  
New York Botanical Garden  
New York Restoration Project  
NY Harbor Foundation  
NY/NJ Baykeeper  
NYC Audubon  
Protectors of Pine Oak Woods  
Rocking the Boat  
Trout Unlimited  
Staten Island Zoo  
Wildlife Conservation Society

## Publications on Permitted Research

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

Atha, D. 2017. *Hydrocotyle sibthorpioides* and *H. batrachium* (Araliaceae) new for New York State. *Phytoneuron* 2017-46: 1–6 Published 21 August 2017. ISSN 2153 733X

Botton, ML, CP Colon, J Rowden, S Elbin, D Kriensky, K McKown, M Sclafani and R Madden. 2017. Effects of a Beach Nourishment Project in Jamaica Bay, New York, on Horseshoe Crab (*Limulus polyphemus*) Spawning Activity and Egg Deposition. *Estuaries and Coasts*. 40(2). 1-14. ISSN 1559-2731

Fecht, S. 2017. High Levels of Lead Contaminate Many Backyards in Brooklyn Neighborhood. Columbia University State of the Planet (blog). <http://blogs.ei.columbia.edu/2017/10/09/many-backyards-in-brooklyn-neighborhood-are-contaminated-with-high-levels-of-lead/>

Nagy, C, M Weckel, J Monzon, N Duncan, MR Rosenthal. 2017. Initial colonization of Long Island, New York by the eastern coyote, *Canis latrans* (Carnivora, Canidae), including first record of breeding. *Check List* 13(6): 901-907

Winston, T. 2017. New York City Audubon's Harbor Herons Project: 2017 Nesting Survey Report. New York City Audubon, New York, NY.

# Tables of All Research Projects

## Ongoing Projects

Name(s)	Year Started	Organization(s)	Project Name
Susan Elbin	1982	NYC Audubon	Birds of New York City
Melissa Cohen	1996	<a href="#">NYS Department of Environmental Conservation</a>	Fisheries surveys of NYC freshwater lakes and ponds
Jason Grabosky	1997	Rutgers University	Year 20 McCarren Park
Franco Montalto	2011	Drexel University	Green Infrastructure Monitoring
Mark Weckel	2011	<a href="#">American Museum of Natural History</a>	Mapping coyote habitat and dispersal corridors in the greater NYC metropolitan area
Samuel Janis	2011	<a href="#">New York Harbor School</a>	BOP Oyster Gardening Program
Allison Fitzgerald	2012	<a href="#">NY/NJ Baykeeper</a>	Soundview Community Oyster Reef
Mark Botton	2012	Fordham University	Effects of a beach nourishment project on horseshoe crab ( <i>Limulus polyphemus</i> ) spawning activity, egg deposition, and juvenile habitat use
Ayse Aydemir	2013	<a href="#">Bard High School Early College</a>	Using DNA barcoding to identify invertebrates in soil samples from NYC Parks (East River Park)
Jason Munshi-South	2013	Fordham University	Cityscape Genomics of Rats ( <i>Rattus norvegicus</i> ) in New York City
Elle Barnes	2014	Fordham University	The Role of Urbanization on the Microbial Defense Mechanisms of <i>Plethodon cinereus</i>
Lea Johnson	2014	University of Maryland	Three decades of ecological change along an urban-rural gradient
Marguerite Burke	2014	<a href="#">PS 277</a>	Salt marsh wetlands
Regina Alvarez	2014	Queensborough Community College	The Flora of Central Park
Susan Elbin & Debra Kriensky	2014	NYC Audubon	The Urban Oasis in McGolrick Park
Angelique Corthals	2015	John Jay College	Forensic Anthropology Exercise - Recovery of Remains
Courtney Singleton	2015	Columbia University	Homeless encampment archaeology project
Irina Khadinovich	2015	College of Staten Island	Soil Survey
Jason Aloisio	2015	<a href="#">Wildlife Conservation Society</a>	Project TRUE, Teens Researching Urban Ecology
Jennifer Rosati	2015	John Jay College	Biodiversity of Forensically Important Insects in Manhattan Region
Jessica Hoch	2015	Columbia University	Soil microbial assemblages and plant-microbial feedbacks on urban green roofs
John Butler	2015	<a href="#">Friends of Van Cortlandt Park</a>	Wetland Stewardship for a Healthier Bronx
Mark Stoeckle	2015	Rockefeller University	Aquatic eDNA detection of fish in NYC habitats
Nancy Sonti	2015	<a href="#">USDA Forest Service</a>	Urban-Rural Tree Ecophysiology
Patricia Kenyon	2015	City College of New York	Electrical Resistivity Imaging of Tidal Forcing of the Water Table in Heterogeneous Sediment
Steven Handel	2015	Rutgers University	Jamaica Bay Fringing Habitats: Restoration Experiment - Maritime Uplands
Susan Elbin	2015	NYC Audubon	Life Track Egret
Anthony DeNicola	2016	<a href="#">White Buffalo Inc.</a>	Demographic and Behavioral Impacts of an Intensive Male Sterilization Program for Freeranging Whitetailed Deer on Staten Island, New York
Georgia Silvera Seamans	2016	New York University	Observing Wildlife Longitudinally in Washington Square Park
Jason Smith	2016	<a href="#">NYS Department of Environmental Conservation</a>	Shore bird point counts
Kestrel Perez	2016	St Joseph's College	Measurement of size distribution and abundance of Invasive Asian Shore Crabs
Max Piana	2016	Rutgers University	Native Tree Recruitment in Urban Forests
Nicholas Tailby	2016	<a href="#">American Museum of Natural History</a>	Geological mapping of outcrops in Riverside and Central Park
Susan Elbin	2016	NYC Audubon	Black Skimmer Banding at Arverne

## New Projects

Name(s)	Organization(s)	Project Name
Christopher Aigner	Trout Unlimited	Alley Creek Habitat Improvement
Liz Alter	York College	Environmental DNA analysis of restored oyster reef communities
Jose Anadon	Queens College	The effects of urbanization on scavenger behavior
Daniel Atha	New York Botanical Garden	Documenting the Native and Naturalized Flora of New York City
Eric Bae	Tenaflly High School	The Tolerance to SO2 of Different Bryophytes and its Effects on Coloration
Laura Bigler	Cornell University	Wildlife Rabies Vaccination Program
Russell Burke	Hofstra University	Dwarfism in Fowler's Toads
John Butler & Parker Gambino	Friends of Van Cortlandt Park	Benthic Macroinvertebrates of the Tibbetts Brook Watershed
Neeya Byrd	Academy for Young Writers	Hendrix Creek water and soil sampling
Elizabeth Carlen	Fordham University	Population Genomics and Evolution in Feral Pigeons (Columba livia) in New York City
Melanie Cohen	American Museum of Natural History	Water quality sampling workshop for educators - Central Park
Sandy Collins	AKRF Inc.	Living Breakwaters Data Collection
Jane Corbett	City College of New York	Investigating Carbon Flux and Reactivity from Pelham Bay Marsh
Peter Crawford	University of Aarhus, DNK	Tompkins Square Dog Run
Teresa Doss	Biohabitats	Mariners & Arlington Marsh Master Plan
Kristine Erskine	Brooklyn College	A geospatial Habitat Suitability Model to predict the spatial and temporal variability in Jamaica Bay
Myron Floyd	North Carolina State University	Park Use and Physical Activity among Children in Low Income and Racial and Ethnic Minority Communities
Helen Forgione	Natural Areas Conservancy	Citywide Ecological Assessment of NYC Parks Natural Areas
Deshauna Fraser	Touro University	Restorative Effects of Natural Environments in Reducing Stress Among Urban City Dwellers
Robert Frawley	BioBus	Hudson River Flora and Fauna Monitoring
Sarah Hamylton	University of Wollongong, NSW	Aerial drone survey of Mau Mau Island (White Island) in Marine Park, Brooklyn
Steven Handel	Rutgers University	Long Term Transect Study
Sarah Johnson	New York City Department of Health	Cool Neighborhoods NYC: Temperature monitoring initiative
Yelyzaveta Kalinichenko	Wadleigh Secondary School	Plant Biodiversity at Morningside Lake
Sarrah Kaye	Staten Island Zoo	SI Zoo Bioblitz 2017
Franziska Landes	Columbia University	Soil Sampling to test a new field kit in NYC
Paul Lederer	Protectors of Pine Oak Woods	Tagging monarch butterflies
Raymund Lee	Mt. Sinai School of Medicine	Presence of Algae in NYC Bodies of Water: Its Correlation with Wildlife
Henry Lee	Regis High School	The harmful effects of algae on Oakland Lake's ecosystem
Christopher Mangels	Independent - Botanical consultant	Re-survey of sedge flora of Vernam-Barbadoes site, Rockaway Peninsula
Shaadi Mehr	American Museum of Natural History	Bronx River microbiome profiling
Duncan Menge	Columbia University	What is the nitrogen fixation strategy of Elaeagnus angustifolia?
Sabrina Miller	Academy for Young Writers	East New York Ant Biodiversity Study
Jesse Moore	AKRF, Inc.	Threatened and Endangered Species Survey
Katie Mosher-Smith	NY Harbor Foundation	Billion Oyster Project

## New Projects (continued)

Name(s)	Organization(s)	Project Name
Jason Munshi-South	Fordham University	Molecular Investigation of Diet and Microbiomes in Urban White-footed Mice
Kelly O'Donnell	Macaulay Honors College	Alley Pond Bioblitz
Ethan Park	Tenaflly High School	Effects of Pollution on Biodiversity of Algae in Bodies of Water in Central Park and Northern New Jersey
Joseph Pasqualicchio	Francis Lewis High School	The Use of DNA Barcoding Techinques to Determine Biodiversity of Ants in Kissena Park, Fresh Meadows, New York
Lisa Prowant	Stony Brook University	Incorporating Biotic Interactions into Species Distribution Models for Improved Conservation Planning
Andrew Reinmann	Hunter College	Recruitment and Regeneration in Forests of NYC
Matthew Rhodes	Barnard College	Comparison of soil microbial communities in native versus Sedum green roofs
Mario Rivera Benito	Rutgers University - Camden	Influence of water scarcity on urban ant food choices
Cindy Roter	The Queens School of Inquiry	Biodiveristy of invertebrates across habitat gradient
Zachary Russo	O'Brien & Gere	Detection of Chlorinated Solvents using Street Trees as proxy for testing ground wells along Bragg St. and Avenue W Site Characterization
Eric Schneider	Seaford High School	How boating affects biodiversity
Laura Schramm	St. John's College	Seasonal changes to metal composition in soil at public parks
Jamie Smith	Rocking the Boat	Suspended Intertidal Wetlands
Jason Smith	New York Restoration Project	Highbridge Park Soil Sampling
Annie Stoeth	Yale University	Dirty Soils in the City An Examination of Plastic Waste Concentrations on Urban Soil Health, as Measured through Invertebrate Functional Diversity
Ana Traverso-Krejcarek	El Puente	Urban Lab for Open Spaces
Meredith VanAcker	Columbia University	Ixodes scapularis vector dispersal in New York City
Megan Wallner	Sunset Park High School	Invertebrates and Plants in Prospect Park and Bush Terminal Park
Helen Wang	Francis Lewis High School	DNA Barcoding the Biodiversity of Invertebrates in the Eutrophic Meadow-Willow Lake System
Elisabeth Ward	Yale University	Restoring New York's Urban Forests: Effects of Invasive Vines on Tree Health and Carbon and Nitrogen Dynamics
Mark Weckel	American Museum of Natural History	Opportunistic GPS Telemetry of Relocated Coyotes in New York City
Alice Wu	Columbia University	Assessing the invasive potential of goldfish (Carassius auratus) by investigating propagule pressure and population ecology in lakes in New York City and Long Island
Chester Zarnoch	Baruch College	Quantifying the ecosystem services of nitrogen removal and carbon sequestration in restored urban tidal wetlands

## For More Information

Research Permits Manager: Brady Simmons, [brady.simmons@parks.nyc.gov](mailto:brady.simmons@parks.nyc.gov)

NYC Parks research permits program website: <https://www.nycgovparks.org/permits/research/>

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

Last updated: July 10, 2018