

LARA H. URBAT

CERTIFIED ECOLOGIST, ESA
PROJECT MANAGEMENT PROFESSIONAL
CURRICULUM VITAE

Experience:

- **PSEG Long Island (February 2017—Present)**
Permitting Specialist Supervisor (August 2018—Present)
Permitting Specialist (February 2017—August 2018)
Review and preparation of permit applications to agencies and SEQRA documents for electric utility projects. Preparation of restoration plans, scientific analyses, coordination of restoration activities, restoration oversight and follow up monitoring. Site inspections to delineate wetlands, assess habitat, determine restoration success and monitor construction activities. Coordinate with agencies on project goals and environmental needs. Supervise team of environmental scientists and manage workloads.
- **Nelson Pope & Voorhis, LLC (2007—January 2017)**
Project Manager/Environmental Scientist (2014—2017)
Environmental Scientist (2011—2014)
Environmental Analyst (2007—2011)
Division of Environmental and Community Planning, Melville, NY
Preparation of scientific studies and impact analysis documents including ecological assessments, wetland permit processing and restoration, and natural resource protection. Assess habitats, design restoration, and oversee implementation of restorations for both upland and wetland habitats. Conduct ecological assessments for public and private properties. Conduct investigations for rare, threatened, and endangered species. Review projects on behalf of municipalities and provide recommendations. Preparation of watershed management plans, stormwater pollution prevention plans, and analysis of water quality data. Preparation of landscape scale scientific analysis for targeted habitat restoration and improvements. Specialized capabilities in GIS, AutoCAD, and graphic software to aid in resource inventory and analysis.
- **Teaching Assistant for BIO 201, Stony Brook University (September 2006-December 2006)**
Led undergraduate organisms to ecosystems laboratory sections.
- **Teaching Assistant for BIO 203, Stony Brook University (January 2006-August 2006)**
Led undergraduate cell and organ physiology laboratory sections.

Education:

M.A. Stony Brook University

Department of Ecology and Evolution, December 2006

Thesis: “The accuracy of predictions for invasive Garlic Mustard, *Alliaria petiolata*, in North America”

B.S. Stony Brook University

Department of Biology, June 2005

Research Experience:

Undergraduate Research, Stony Brook University

Department of Biology, September 2004-June 2005

This consisted of independent undergraduate research which focused on invasive earthworms on Long Island.

The fall semester focused on the location, abundance and species of earthworms present, while the spring semester

Focused on the effects of soil type on the growth rate of earthworms

Significant Professional Achievements

I am currently out of the office and will return on Monday, January 2. I will be checking emails intermittently. If this is an urgent matter, please text me at 516-254-6292. Thank you and Happy Holidays.

- **Fire Island Carrington Tract Damage Assessment (2021)** - Design a restoration assessment protocol, implement said protocol, and generate assessment report for a wetland damaged by utility activities. The protocol, assessment, and restoration recommendations were accepted by the National Park Service.
- **Riverhead to Canal Marshalling Yard Restoration Plan (2021)** - Design a restoration plan accepted by both the DPS and Suffolk County for a marshalling yard utilized for the Riverhead to Canal Article VII project.
- **Chapel Lane ROW Restoration Plan (2020)** - Design a DEC accepted restoration plan for work needed in the utility right-of-way. Design included an assessment of the existing habitat and selection of appropriate species to complement the existing wetland.
- **Hither Hills State Park Habitat Assessment (2019)** - Design, conduct, and supervise data collection for a habitat assessment for the siting of a electric substation in Hither Hills State Park. Study design included designation of transects for the study area and methodology for vegetative data collection.
- **Southold Substation Wetland Delineation, Habitat Assessment, Violation Resolution and Restoration Plan (2018)** - Delineate the freshwater wetland and assess the area damaged as a result of utility work in proximity to the Southold electrical substation. Utilize the results of the delineation and habitat assessment to design a restoration plan pursuant to a NYSDEC Order on Consent. The restoration plan was accepted by DEC and implemented. Post restoration monitoring is ongoing.

LARA H. URBAT

CERTIFIED ECOLOGIST, ESA
PROJECT MANAGEMENT PROFESSIONAL
CURRICULUM VITAE

Significant Professional Achievements (cont'd):

- **Suffolk County Integrated Marsh Management Program (2016—2017)** - Prepared the response to the RFP issued by Suffolk County to successfully obtain the award to conduct the work. Prepared the site assessment methodology and work with the County on site selection for project implementation. Assessment methodology included inventory and analysis of marsh types within each site, analysis of hydrology in the marsh (including channels, runnels, and mosquito ditches), utilizing GIS data to further refine habitats and critical elevations for successful marsh restoration. Collaborate with coastal engineers for initial mapping and design efforts.
- **Nassau County Police Rare Habitat and Endangered Species Assessment (2015—2016)** - Design and conduct a rare, threatened and endangered species vegetation assessment for remnant Hempstead Plains slated for development with a Nassau County Police facility. Design and conduct an avian survey to determine presence/absence of the NYS listed Upland Sandpiper.
- **Longwood Public Library Restoration Plans (2014 & 2016)** - Designed restoration areas throughout the library, which considered a variety of ecosystem types, including pine-oak woodland, freshwater wetlands, and meadow/grasslands. The library property is located at the headwaters of the Carmans River. Restoration adjacent to the headwaters included native wetland and upland species and post installation monitoring.
- **NEIWPC GI/LID Project for Stewardship Sites (2014—2016)** - Project manager and lead author for the report generated for the project which entailed selection of two Long Island Sound Stewardship Sites that would receive a design for a Green Infrastructure/Low Impact Development project. Conducted technical analysis, coordinated with stakeholders, conducted project presentations, supervised staff assignments, collaborated with staff and engineer on project design, prepare QAPP, provide QA/QC for documentation and data.
- **Tuthill's Creek Watershed Management Plan (2014—2016)** - Lead author for the watershed management plan. Present information to the public and the stakeholder working group. Plan development tasks included data collection, review, and analysis, analysis of laws and policies, and preparation of the final report and associated recommendations.
- **Bristal at Jericho Endangered Species Assessment and Permitting (2015—2016)** - Conduct a habitat assessment and rare, threatened and endangered species assessment for a development located in Jericho, Nassau County, New York. Habitat assessment included inventory and cataloging of species encountered, and a determination of habitat suitability for endangered species. Coordinate with NYSDEC on permits required.
- **EPCAL Endangered Species Assessment, Habitat Assessment and Permitting (2015—2016)** - Conduct a habitat assessment for a proposed health facility located on a portion of the EPCAL property in Calverton, Suffolk County. Habitat assessment included vegetation species inventory and assessment, coordination with NYSDEC, and meeting with NYSDEC to review the potential for Northern Long Eared Bat hibernacula habitat in unused bunkers. Make recommendations for preservation areas on the property and obtain permitting for development of the facility.
- **Riverside Roundabout Stormwater and Wetlands Permitting (2015—2016)** - Prepared permit applications to federal and state agencies for the reconstruction of a roundabout located in Riverside, Town of Southampton, New York. Collaborated with engineers on stormwater design and requirements. Prepared Stormwater Pollution Prevention Plan and conducted calculations and analysis to ensure all requirements were met.
- **The Hills at Southampton Ecological Investigations (2009—2016)**—Conduct ecological investigations for the proposed development located in East Quogue, Suffolk County, New York. Investigations included surveying of over 600 acres of undeveloped property, cataloging species encountered, delineation of habitat types on the property, and preparation of the ecological analysis section for the DEIS. Coordinate and oversee the buck moth survey conducted for the property.
- **Easton Property 3-parameter wetland delineation, Muttontown (2015)** - Conduct a USACE 3-parameter wetland delineation and assessment of 21 depressions located on the Easton property located in Muttontown, Nassau County. Vegetation, soils, and hydrologic information were collected within each depression and within a nearby representative upland area for comparison purposes.
- **EPCAL Grassland Restoration (2013—2015)** - Assessed damage of highly sensitive grassland habitat utilized by several rare, threatened, and endangered wildlife species. Designed, oversaw implementation, and monitored restoration of a portion of the grassland at EPCAL damaged by car storage after Superstorm Sandy. Coordinated with NYSDEC on violation resolution and ensuring restoration goals met the Order on Consent.
- **Riverside Downtown Zoning Overlay DEIS (2015)** - Contributing author to the DEIS and FEIS for the Riverside Downtown Zoning Overlay in the Town of Southampton, New York. Conducted ecological investigations for the zoning overlay district, conducted analysis of natural resource data, and prepared natural resource sections of the DEIS and FEIS. Natural resource analysis included the preparation of a focused watershed management plan and pollutant load analysis.
- **Lake Montauk Watershed Management Plan (2013-2014)** - Lead author for the watershed management plan. Present information to the public and the stakeholder working group. Plan development tasks included data collection, review, and analysis, analysis of laws and policies, and preparation of the final report and associated recommendations.
- **Manorhaven Beach/Sheets Creek Restoration Plan and Wetlands Permitting (2011—2014)** - Design restoration plan for the municipal shore-front improvement project. Obtain permits from federal, state, and municipal agencies for plan implementation.
- **Blue Point Pond Watershed and Wetland Assessment and Restoration Recommendations Report (2013)** - Conduct a habitat assessment, drainage inventory, and hydrologic connectivity analysis for Blue Point Pond located in Blue Point, Suffolk County, New York. Prepare a restoration recommendations plan for the pond. Prepare habitat restoration plans for the stormwater improvements designed for the pond.
- **Shelter Island Watershed Management Plan (2012-2013)** - Lead author for the watershed management plan. Present information to the public and the stakeholder working group. Plan development tasks included data collection, review, and analysis, analysis of laws and policies, and preparation of the final report and associated recommendations.
- **Town of Oyster Bay Local Waterfront Revitalization Plan (2012)** - Prepare Local Waterfront Revitalization Area descriptions and the Inventory and Analysis for the Town of Oyster Bay Local Waterfront Revitalization Plan. Tasks included utilizing GIS based maps and data to write boundary descriptions and reviewing natural, cultural, and regulatory resources and laws to describe each reach for the plan.
- **Cold Spring Pond Park Preserve Habitat Assessment (2012)** - Conduct a habitat assessment for a nature preserve located adjacent to Cold Spring Pond, Town of Southampton, New York. Assessment included categorization of habitats in the preserve area and cataloging of species identified. Recommendations for passive trail use included in the final report to the Trustees.
- **Enchanted Forest Open Space Management Plan (2012)** - Prepare an Open Space Management Plan for land dedicated as open space as mitigation for a subdivision. Plan elements included habitat management and invasive species management.

LARA H. URBAT

CERTIFIED ECOLOGIST, ESA
PROJECT MANAGEMENT PROFESSIONAL
CURRICULUM VITAE

Significant Professional Achievements (cont'd):

- **Westhampton Mine Reclamation Plan (2011—2012)** - Prepare a Mine Reclamation Plan for an existing mine located within both the Core Preservation Area and Compatible Growth Area of the Central Pine Barrens. Prepare and submit the Hardship Waiver Application to the Central Pine Barrens Joint Planning and Policy Commission. Design a detailed native restoration plan for the mine which was included in the application and was key in obtaining the Hardship Waiver.
- **Dix Hills Fire Department Map (2011)** - Utilize GIS to prepare a map for the fire district.
- **Montauk Avenue Improvements, Wetland Permits (2011)** - Design vegetative restoration areas and obtain permits for pavement reduction for the road end.
- **Shore Road/Scott's Cove Culvert Wetland Permits (2011)** - Obtain federal, state, and municipal wetlands permits for the reconstruction of the road an associated culvert.
- **DeForest Williams Hedge Garden Survey & Expanded EAF (2011)** - Design a survey methodology for habitat identification and quality assessment for a formal hedge garden located on the DeForest Williams estate. Conduct the survey and prepare a report detailing findings of the survey. Prepare the Expanded EAF to satisfy the municipal SEQRA requirements.
- **North Manor Estates, Expanded EAF, ACOE Wetland Delineation (2011)** - Conduct a USACE 3-parameter wetland delineation for a wetland on the property. Coordinate with USACE staff regarding jurisdiction. Prepare an Expanded EAF to satisfy municipal SEQRA requirements for the project.
- **Great Cove Watershed Management Plan, Town of Islip (2011)** - Contributing author to the watershed management plan. Prepared select portions of the Inventory and Analysis for the watershed. Tasks included review and analysis of existing natural and cultural resource data.
- **Willow Wood at Coram Revegetation Plan (2011)** - Design a restoration plan for a multifamily development in conformance with the Central Pine Barrens Joint Planning and Policy Commission. Restoration plan included transplant of vegetation located in areas to be developed. Oversee transplant activities.
- **Artist Lake RTE Species Investigation (2011)** - Conduct a rare, threatened and endangered species investigation for areas surrounding Artist's Lake located in Middle Island, Suffolk County, New York in support of site redevelopment. Results summarized and included in SEQRA documentation.
- **Goldsmith's Inlet Draft EIS, Habitat Assessment, Endangered/Threatened Species Assessment (2010)** - Conduct habitat assessments and rare, threatened and endangered species investigations for the reconstruction of a jetty located at Goldsmith's Inlet in Southold, Suffolk County, New York. Lead author on the DEIS for the reconstruction of the jetty.
- **Water Island Association Dock Permitting (2010)** - Gather depth data and obtain permits to extend the Water Island community dock to navigable water depths. Obtain permits from federal (FINS, USACE), State, and municipal agencies.
- **Eastport Hamlet Centre Draft EIS (2010)** - Lead author for the DEIS for a mixed use development located in Eastport, Suffolk County, New York.
- **Cenacle Sisters Convent Expanded EAF, Endangered Species Permit, Wetlands Permits (2009-2010)** - Conduct a wetland delineation, habitat assessment, and associated permitting for the reconstruction of a convent located in Ronkonkoma, Suffolk County, New York.
- **Hempstead Plains Invasive Species Assessment (2009)** - Conduct a field visit identifying and delineating invasive species present on the Hempstead Plains Preserve located in Nassau County, New York.
- **Lighthouse Development Wetland Delineation and Habitat Assessment (2008—2009)** - Conduct a habitat assessment and wetland delineation for the proposed Lighthouse at Long Island development located in Uniondale, Nassau County, New York. Delineate over 1.5 miles of wetland along the Meadowbrook Parkway. Catalogue vegetation and wildlife species in undeveloped areas and determine habitat types present.
- **Calverton Naval Property Avian Surveys (2008-2009)** - Conduct NYSDEC approved avian surveys for two summers at the EPCAL property in Calverton, Suffolk County, New York. Surveys included pre-dawn and night time surveys for rare, threatened, and endangered avian species. Habitat assessments of the property were conducted over the timeframe as well.
- **South Shore Estuary Reserve Diadromous Fish Passage Project (2007)** - Conduct stream walks of five rivers located along the south shore of Long Island, New York. Data collection included plant and invertebrate species present, habitat quality, culvert/crossing information, stream depth and velocity, and whether the crossing was a barrier to diadromous fish passage. Assist in the preparation of the findings and recommendations report for the project.

Professional Presentations:

- **Long Island Invasive Species Management Area Conference Presentation (2017)**
- **Long Island Natural History Conference Invasive Species Presentation (2016)**
- **Longwood Public Library Invasive Species Education Presentation (2016)**
- **NEERS Presentation—A Method for Mapping and Prioritizing Diadromous Fish Passage Restoration (May 2011)**

Certifications and Professional Associations:

Certified Ecologist, Ecological Society of America
Project Management Professional, Project Management Institute
NYSDEC 4-Hour Erosion and Sediment Control Course

Additional Skills:

Proficient in ArcGIS, AutoCAD
Knowledge of RAMAS, MaxEnt, InVEST

Hannah Emouna

Lead Environmental Science and Planning Analyst

Education

- Master of Arts in Biological Sciences, Concentration in Applied Ecology, Stony Brook University (2013-2015)
Thesis: Habitat Suitability Study for the northern Bobwhite Quail (Colinus virginianus) Suffolk County, New York
- Advanced Graduate Certificate- Geospatial Science, Stony Brook University (2013-2015)
- Bachelors of Science in Wildlife Science, State University of New York College of Environmental Science and Forestry (2006-2010)

Training

- NYSDEC Erosion & Sediment Control Training
- GIS and Remote Sensing Software: ESRI ArcGIS 10.0 and higher, IDRISI, ENVI

Professional Affiliations

- Long Island GIS Association (LIGIS)
- Long Island Nature Organization (LINO)

Key Qualifications

Ms. Emouna holds a Master's Degree in Biological Sciences with a concentration in Applied Ecology, an Advanced Graduate Certificate in Geospatial Science, and a Bachelor's Degree in Wildlife Science. She regularly performs environmental monitoring that includes habitat composition analysis and delineation, ecological modeling, and field assessments for a variety of terrestrial and marine habitats. Ms. Emouna coordinates and oversees permitting across federal, state, and municipal levels including NYSDEC, Army Corps of Engineers, NYS Department of State, NYS Department of Transportation, SEQRA and NEPA analysis. She regularly prepares Environmental Assessments and has provided environmental review of development applications for submission to and review for municipal planning boards.

Relevant Professional experience

Fire Island Carrington Tract Damage Assessment (2021)

Assisted with the implementation of the restoration assessment protocol accepted by the National Park Service. Protocol included species and habitat identification, percent cover and species diversity analysis.

Wildwood to Riverhead – Environmental Monitor (2020-2021)

Trained and supervised environmental monitors in EM&CP conditions for the Article VII project. Trained construction personnel on invasive species identification and management techniques to prevent the spread of invasive species across the project site.

Hither Hills State Park Habitat Assessment (2019)

Conducted data for the habitat assessment, and rare, threatened & endangered species investigations within significant natural communities to assess the potential impacts from the siting of electric facilities.

Long Island Native Plant Initiative (LINPI) (2017-2019)

Served on the Board of Directors and as Secretary for the Long Island Native Plant Initiative. The mission of LINPI is to protect the genetic integrity and biodiversity through the protection of native Long island plant communities and to establish a commercial source of local ecotype plant materials. Assisted with the propagation of 18+ long Island native species including herbaceous species, trees & shrubs. Assisted with the planning, planting and management of LINPI Founder Plots as well as the relocation and maintenance of greenhouse facilities.

SCDPW Wetland Restoration- National Fish and Wildlife Foundation (NFWF) Hurricane Sandy Coastal Resiliency via Integrated Salt Marsh Management Grant (2016-2019)

Conducted habitat assessments of previously impacted saltwater marshes throughout South Shore Estuary Reserve watershed. Developed restorations plans for four tidal marshes (+140 acres) using Integrated Marsh Management techniques to restore natural tidal flow to habitats significantly degraded by invasive species, waterlogging, erosion, and the formation of extensive series of mudflats and pannes. Secured all required environmental permitting at the Federal, State, and local levels. Assisted with pre-restoration monitoring. Developed a Quality Assurance Protection Plan and authored NEPA Environmental Assessment accepted by USFWS. Assisted with the development of a 5-year monitoring protocol to ensure the long-term goals of the restoration were accomplished.

SCDPW Wetland Restoration- Smith Point County Park Tidal Restoration- Hazard Mitigation Grant Program (HMGP) (2016-2019)

Conducted habitat assessments of the previously impacted saltwater marsh located at Smith Point County Park (77 acres). Developed a restoration plan utilizing Integrated Marsh Management techniques to restore natural tidal flow to habitats significantly degraded in order to protect the neighboring community against flooding, storm surge, and intense wave action while improving overall marsh sustainability and resilience against sea level rise. Secured all required environmental permitting at the Federal, State, and local levels. Assisted with pre-restoration monitoring. Authored the NEPA Environmental Assessment accepted by Department of Homeland Security-Federal Emergency Management Agency. Assisted with the development of a 5-year monitoring protocol to ensure the long-term goals of the restoration were accomplished.

PSEGLI Canal to Southampton (2018)

Conducted habitat and wetland delineation for PSEGLI underground 69kV cable between the Canal and Southampton substations. Prepared relevant portions of the Natural Resources section and figures for inclusion in the accepted FEAF.

Storm King Art Center Habitat Assessment (2019)

Conducted an ecological investigation, habitat assessment and wetland delineation of the 500 acres Storm King Art Center, New Windsor, New York. The assessment included the delineation of multiple freshwater wetlands, cataloging of all species encountered on site, classification and delineation of habitat types and preparation of an environmental analysis of the site to inform site management.

Town of Monroe Comprehensive Plan (2019)

Assisted with the development of the Town of Monroe Comprehensive Plan Update. Performed GIS analysis to identify significant ridgelines to allow provide a pathway for future conservation.

Fishers Island Eel Grass mapping (2018-2019)

Used historic aerials and GIS mapping to compare the historic and existing extent of eel grass beds for a private homeowner on Fisher's Island. Mapping and resulting analysis used to inform future permitting decisions.

Vineyard View Multifamily Development (2018)

Conduced habitat assessment and freshwater wetland delineation for +17 acre multifamily development. Wetland delineation completed to rectify discrepancies between multiple wetland delineations completed by various consulting firms and the NYSDEC. Final delineation accepted by NYSDEC and development firm for subdivision plans.

Lewis Road PRD (previously “The Hills at Southampton”) Ecological Investigations (2017-2019)

Conducted supplemental ecological investigations for the proposed subdivision and development located in East Quogue, Suffolk County, New York. Investigations included ongoing surveys of the undeveloped property, cataloguing species encountered.

Cenacle Sister Demolition (2018)

Conducted habitat assessment and delineation of habitats and freshwater wetland boundary for NYS endangered species. Secured required permits for the demolition of existing infrastructure within a known NYS endangered species habitat.

McGills Pond Restoration and Stormwater Treatment (2017)

Conducted a freshwater wetland delineation and habitat assessment of McGills Pond, Blue Point Ave, Town of Brookhaven, Suffolk County. Assisted with the design to upgrade the existing stormwater runoff system to provide pretreatment of the runoff through the construction of bio-swales, bio-retention areas, and the addition of catch basins and leaching pools to minimize outflow prior to the discharge to the freshwater wetland (McGills Pond) and subsequently the Great South Bay. Developed a plan for removal of invasive species within the wetland area, vegetated pond buffer restoration and wetland restoration.

Urban Design and Low Impact Development Near Long Island Sound Stewardship Sites, New England Interstate Water Pollution Control Commission (NEWIPCC)-(2016)

Utilized the GIS based invest (Integrated Valuations of Environmental Services and Tradeoffs) and sub-model Nutrient Development Ratio to assess the ability of the ecosystem to purify stormwater runoff by retaining of providing uptake of phosphorus and nitrogen across the landscape discharging into wetlands.

Hempstead Plains Endangered/Threatened Species Assessment (2015-2016)

Conducted transect surveys to locate potential rare, threatened and endangered vegetative species and an avian survey to determine presence/absence of the NYS listed Upland Sandpiper on remnant Hempstead Plains.

Easton Property 3-parameter wetland delineation (2015) - Conducted a USACE 3-parameter wetland delineation and assessment of 21 depressions located on the Easton property located in Muttontown, Nassau County. The USACE 3- parameter approach included the collection and comparison of information regarding the vegetation, soils, and hydrologic within each depression and within a nearby representative upland area.

Bristal at Jericho Endangered Species Assessment and Permitting (2015)

Conducted a habitat assessment and rare, threatened and endangered species assessment for a proposed development. Habitat assessment included inventory and cataloging of species encountered, and a determination of habitat suitability for endangered floral and faunal species.

Threatened Species Monitor (2013-2015)

Monitor breeding activity of threatened Peregrine Falcons. Complete tri-weekly assessments of chick health and survival. Record daily activities of breeding adults and offspring. Assessed impact of construction activities on nest success and overall bird health. Composed and distributed tri-weekly reports, as well as weekly summaries to multiple departments including the NYS Department of Transportation, New York Department of Environmental Conservation.

Justin LaCorte

Environmental Science and Planning Analyst

Education

- Bachelors of Science in Environmental Biology, State University of New York College of Environmental Science and Forestry (2015-2018)
- Bachelors of Science Minor in Renewable Energy, State University of New York College of Environmental Science and Forestry (2015-2018)

Training

- Rutgers University Wetland Delineation Certificate Series
- NYSDEC Erosion & Sediment Control Training

Key Qualifications

Mr. LaCorte holds a Bachelor's Degree in Environmental Biology with a minor in Renewable Energy. He has worked internationally to help educate students and the surrounding community about the practice and techniques associated with sustainable agricultural practices and restore upland and marine habitats impacted by deforestation. Mr. LaCorte has been responsible for the regular maintenance of agricultural areas, including propagation and invasive species management of active orchards, and forest permaculture areas. He regularly performs field assessments for a variety of upland and wetland habitats and has experience with the identification of various groups of flora and fauna. Mr. LaCorte regularly prepares Environmental Assessments and is responsible for permitting at the federal, state, and municipal level.

Relevant experience

Montauk, New York- New Navy Road Substation (2019)

Conducted habitat assessment, and rare, threatened & endangered species investigations over 100+ acres of significant natural communities to assess the potential impacts from the siting of electric facilities.

Horticulturalist- Lafayette Field Station Student Garden (2017)

Under the direction of the horticultural supervisor, responsible for regular maintenance of planted agricultural area. Agricultural areas included fruit orchard, vegetable garden and edible forest permaculture area. Maintenance activities included invasive species management and expansion of existing pollinator garden and mowing.

Studied distress signals in American toad (*Anaxyrus americanus*) (2017)

Conducted research activities to determine if con-specific species utilized urination as an indication of distress and warning to individuals within the immediate vicinity. Work included the safe capture, handling and release of multiple individuals during the course of the report. Research was conducted at a remote biological station in Cranberry Lake, New York.

Ecological Restoration- Global Student Embassy (2014-2015)

Worked collaboratively with an international team of students and leaders to restore upland forest habitat and mangrove forest in Bahai de Caraquez, Ecudaor. Lands were previously impacted by deforestation.

Sustainable Agriculture- Global Student Embassy (2016)

Worked with local communities to help develop and implement sustainable agricultural practices in Chacraseca, Nicaragua. Activities included trench digging to loosen soil for more effective root stabilization, invasive species removal, and sustainable agriculture education.

Plant Health Care Specialist – SavATree, Southampton, NY (2018)

Planned and directed plant health care processes to guarantee the successful completion of projects. Projects included health and safety techniques, pesticide management of invasive species, and soil amendment applications.

Tidal and Freshwater Wetland Delineations (2019-Current)

Frequent fieldwork that includes the delineation and determination of NYSDEC regulated Tidal and/or Freshwater wetland boundaries. Fieldwork includes flagging, coordinating GPS points, and developing a wetland boundary via GIS.