STEPHEN A. GARNEY JR.

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QUALIFICATIONS SUMMARY

- Tactful, resourceful, deft, and flexible worker with a distinct inclination for creative problem-solving in land conservation management and restoration issues
- Proficient in ArcGIS, GPS mapping and navigation, and Microsoft Office Suite; familiar with C, HTML, and CSS, with some experience using Python and JavaScript
- Strong knowledge of northeastern trees, shrubs, herbaceous plants, and fungi identification, in addition to ecological field sampling techniques, data collection, and ecosystem science
- Passionate and knowledgeable about land management design and techniques, as well as about informed, holistic, decision-making based on ecological and conservation theory
- Experience with project planning and organization, literature review, accurate data reporting, scientific and interpretive writing
- *Relevant courses include*: Introduction to Geospatial Information Systems, Advanced Topics in GIS, Introduction to Computer Programming, Diversity & Evolution of Plants, Ecology & Management of Invasive Species, Natural Resources Law & Policy, Forest Ecology, and Dendrology

EDUCATION

State University of New York: College of Environmental Science Forestry [SUNY-ESF] *May 2017*
Bachelor of Science in *Conservation Biology*
Cumulative GPA: 3.36/4.00 (Dean's List: Fall 2013 - Spring 2015)

RELATED EXPERIENCE

Conservation Steward *September 2015 - May 2016, September 2016 - Present*
New York State Office of Parks, Recreation, and Historic Preservation

- Aide in the conservation, restoration (by invasive species ID and removal), and monitoring of the Central Region's federally threatened species: *Asplenium scolopendrium, Novisuccinia chittenangoensis*
- Manage and archive field data, and assist in office's education and outreach initiatives including leading guided hikes and creating educational materials to inform the public about invasive species and threatened species

Park and Recreation Aide *May 2016 - September 2016*
New York State Office of Parks, Recreation, and Historic Preservation

- Conserved and restored state park natural areas and educated park patrons and visitors in a full-time, seasonal position
- Developed and implemented methodology/protocols for invasive species spatial data collection (via GPS), and devised an adaptive organizational system for storing data within an ArcGIS framework
- Worked as part of a field crew team to locate, identify, and manually remove invasive plants while prioritizing areas within or near federally threatened plant habitat
- Lead and co-led several guided hikes and educational/interpretive programs with children from ages 5-18, as well as adults (examples include macroinvertebrate sampling, hikes to see a federally-threatened fern, and recreational fishing events)

Assistant Research Technician and Project Planner *September 2015 - October 2016*
Department of Environmental & Forest Biology, SUNY-ESF

- Developed and co-organized project investigating the mycorrhizal fungi associations of fire-adapted scrub oaks using molecular techniques to inform restoration and management plans at Albany Pine Bush Preserve
- Collected scrub oak seedlings from the field; stratified and germinated scrub oak acorns in greenhouse and began a soil bioassay using air-dried, in situ soil taken around field-collected seedlings; separated ectomycorrhizal fungi by morphotyping; genetically identified fungal root-tips through PCR and ITS-RFLP

Undergraduate Researcher *May - August 2015*
University of Hawaii at Hilo: Research Experience for Undergraduates (REU) Program, Hilo, HI

- Collaborated with the Big Island Invasive Species Committee (BIISC) to evaluate early-detection tools for the invasive plant *Miconia calvescens* in Wao Kele O Puna Forest Reserve, Puna, HI
- Developed, programmed, troubleshot and implemented Unmanned Aerial Vehicle (UAV) mission plans and methodologies to collect information about invasive plant locations and spatial proximity
- Recorded and analyzed UAV spatial data; groundtruthed and compared UAV, ground, and helicopter-collected spatial data on invasive plant locations; integrated and interpreted quantitative and qualitative data in order to augment management decisions
- Utilized GPS systems to navigate transects and treat invasive plant targets with herbicide (using various techniques and herbicides); worked ~30 hours in a greenhouse propagating new plants from seed and maintaining healthy seedlings

Field Research Assistant *May - June 2014*
Department of Environmental & Forest Biology, SUNY-ESF

- Navigated transects in dense forests and identified northeastern herbaceous and woody plant species while collecting floral samples using self-constructed litter traps and quantifying nectar sources
- Sampled and analyzed honeydew deposition by aphids; measured DBH of woody plant species

Leadership Experience, Field Courses, & Campus Involvement

Society for Ecological Restoration: SUNY-ESF Chapter Member *October 2014 - Present*
Chapter President *February 2016 - Present*

- Participate in, plan, and delegate responsibilities to chapter members to organize, coordinate, and implement local and regional restoration efforts
- Lead urban community farm volunteering, invasive species removals, edible habitat garden plantings, regional conference attendance, and long-term restoration efforts in the Syracuse community

Undergraduate Teaching Assistant: General Biology II Lab *January 2015 - May 2015*
Department of Environmental & Forest Biology

- Taught basic laboratory skills and techniques (DNA extraction, PCR, RFLP, gel electrophoresis, light microscopy, bacterial plating, spectrophotometry) and microbiological principles

Student Participant in "Ecological Monitoring & Biodiversity Assessment" *June - July 2014*
Department of Environmental & Forest Biology Field Course, Cranberry Lake, NY

- Explored and quantified Adirondack biodiversity in terrestrial, wetland, montane, and aquatic communities through various ecological field sampling techniques and statistical analyses
- Collaborated with a small team of other students to conduct an independent pilot study examining and assessing potential *Pyrrhalta viburni* invasion fronts on *Viburnum cassinoides* along riparian zones

Student Participant in "Restoring Ecosystems: Principles & Practice" *August - December 2014*
Department of Environmental & Forest Biology Field Course, Chiapas, Mexico & SUNY-ESF

- Investigated restoration theory and strategies for ecosystems all around the world with considerations to development, sustainability, and culture
- Contributed to biocultural restoration project in Lacandon Mayan communities: produced biological field guide with traditional knowledge, written in 3 languages: Lacandon Mayan, Spanish, and English
- Researched and co-wrote a proposal for the implementation of community-level ecological wastewater treatment systems in the city of San Cristobal de las Casas, as a cheaper and more-sustainable alternative to a proposed industrial wastewater treatment system