MICHAEL MAHONEY

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QUALIFICATION SUMMARY

- Experience in designing and implementing research methodologies including stand cruises, field collections, microscopy, sample preparation and identification, and statistical analyses used to present and publish scientific results
- Proficient in R; Minitab; ImageJ; ESRI ArcMap; Microsoft Word, PowerPoint, and Excel
- *Coursework includes*: Natural Resources Ecology; Forest Ecology and Silviculture; Adirondack Field Studies; Natural Resources Measurements and Sampling; Forest Biometrics

EDUCATION

State University of New York College of Environmental Science and Forestry December 2018

Bachelor of Science in Forest Ecosystem Science (Cumulative GPA 3.704)
Expected Honors: *Magna Cum Laude* (Cumulative GPA: 3.712), Dean's List (2015-2018)
Thesis: Beaver Foraging Preferences and Impacts on Forage Structure in New York's Adirondack Mountains

RESEARCH EXPERIENCE

Independent Researcher – Honors Thesis September 2017 – Present
Stella Laboratory – SUNY-ESF

- Independently designed and implemented research methodologies to assess ecosystem impacts of *Castor canadensis* within public forest preserve lands of New York's Adirondack Park
- Planned 13-week field season with 27 field sites in 6 counties, involving 400 miles of foot travel and measuring 10,000 individual trees
- Built predictive models of beaver foraging behaviors with increasing distances from impoundments, including impacts of forest structure and composition on foraging behavior
- Presented research at Spotlight on Student Research (April 24, 2018)

Research Intern September 2017 - Present
Yanai Forest Ecosystem Science Laboratory – SUNY-ESF

- Assisted in research as part of 6-year longitudinal study, with findings presented at Rochester Academy of Sciences Fall Scientific Paper Session (November 11, 2017), Forest Ecosystem Monitoring Collective Conference (December 15, 2017), and Spotlight on Student Research (April 24, 2018).
- Researched phenology and disease ecology of *Neonectria faginata* and *Neonectria ditissima* within fertilized experimental stands in Bartlett Experimental Forest, Bartlett, New Hampshire
- Significantly improved image analysis speeds by developing novel methods to rapidly quantify *Xylococcus betulae* and *Cryptococcus fagisuga* scale densities on trees in experimental stands

TEACHING EXPERIENCE

Undergraduate Teaching Assistant August 2018 - December 2018
Introduction to Geospatial Information Technologies – SUNY-ESF

- Instructed 33 undergraduate students in basics of geospatial information technologies, focusing primarily on ESRI products and Garmin GPS receivers for field data
- Assisted with 3 hour lab, instructing students in use of GIS softwares and report formatting
- Topics covered include vector and raster datasets and creation, working with geospatial databases, importing and manipulating field data, map creation, and ModelBuilder

Course Grader October 2018 – December 2018
Watershed Ecology and Management – SUNY-ESF

- Graded exams and assignments for 99 undergraduate students
- Assisted TA in records keeping and data entry

Undergraduate Teaching Assistant August 2016 - December 2016
Organismal Biology and Ecology – SUNY-ESF

- Worked independently to design and facilitate hour-long review workshops for a broad introductory biology course
- Topics covered include general ecology, phylogeny and evolutionary biology, plant systematics and physiology, and animal systematics and physiology
- Assisted in proctoring exams and quizzes during lecture periods

Peer Tutor August 2016 - Present
Academic Success Center – SUNY-ESF

- Worked as a tutor teaching and reinforcing general concepts of biology and organismal ecology
- Received "Tutor of the Semester" award for work during Fall 2016 semester

CONFERENCE RESEARCH PRESENTATIONS

Mahoney, M. J., and Stella, J. C. (2018). Beaver Foraging Preferences and Impacts on Forest Structure in the Adirondack Mountains of New York. Contributed talk at the Forest Ecosystem Monitoring Collective Conference, Burlington, VT.

Mahoney, M. J., and Stella, J. C. (2018). Beaver Foraging Preferences and Impacts on Forest Structure in the Adirondack Mountains of New York. Contributed talk at the Rochester Academy of Sciences Fall Scientific Paper Session, Geneseo, NY.

Mahoney, M. J., Zevin, R., and Stella, J.C. (2018). Impacts of Beaver on Forest Structure and Composition. Poster session presented at the Spotlight on Student Research, Syracuse, NY.

Mahoney, M. J., Leimanis, V., Desrochers, M. L., Giambona, B., Johnston, M. T., Yanai, R. D., and Dillon, G. A. (2018) Impacts of Fertilization on Causal Organisms of Beech Bark Disease. Poster session presented at the Spotlight on Student Research, Syracuse, NY.

CONFERENCE RESEARCH PRESENTATIONS (CONTINUED)

Lasser, G. A., Johnston, M., **Mahoney, M.**, Leimanis, V., and Stoodley, J. (2017). An Investigation of Nutritional Effects on Beech Bark Disease Causal Organisms. Poster session presented at the Forest Ecosystem Monitoring Collective Conference, Burlington, VT.

Lasser, G. A., Johnston, M., **Mahoney, M**., Leimanis, V., and Stoodley, J. (2017). An Investigation of Nutritional Effects on Beech Bark Disease Causal Organisms. Poster session presented at the Rochester Academy of Sciences Fall Scientific Paper Session, Rochester, NY.

HONORS AND AWARDS

Robin Hood Oak Award for Academic Excellence	December 2018
Robert M. Hick Scholarship for Undergraduate Academic Achievement	November 2018
ESF Career Fellowship	April 2018
Outstanding Student Award for Accomplishments in Forest Ecology and Field Dendrology	June 2017
Program at Wanakena Scholarship	May 2017
Tutor of the Semester	December 2016
Dean's List	December 2015 – December 2018
SUNY-ESF National Scholarship	August 2015 – December 2018

PROFESSIONAL EXPERIENCE

Beaver Impact Assessment Intern May 2018 - August 2018
New York State Department of Environmental Conservation - Albany, New York

- Surveyed beaver-impacted riparian areas within the Adirondack State Park for current forest structure, density, and composition conditions
- Performed self-designed field work independently for long hours in inhospitable weather conditions
- Data gathered during field season will be used to inform adaptive management of public lands to respond to increasing beaver-human conflicts

Ecology/STEM Director June 2013 - August 2016
Nashua Valley Council, Boy Scouts of America – Dublin, New Hampshire

- Designed and implemented a week-long ecology-focused outdoor education program for over 1,500 Scouts each year
- Taught classes on subjects including Environmental Science, Forestry, Soil and Water Conservation and Sustainability
- Hired and managed a staff of four people, acting as both trainer and supervisor
- Became certified as a Leave No Trace Trainer and ran two half-hour Leave No Trace Awareness courses per week

LEADERSHIP AND CAMPUS INVOLVEMENT

Head Orientation Leader March 2016 – November 2018

- Hired and directed fifty-person orientation leader team representing SUNY-ESF to new students and their families.
- Utilized problem-solving, communication, coordination, and people skills to integrate incoming students into the broader ESF community.

Syracuse University Outing Club 2015 - Present

- Trained and tested club leaders on skills necessary to run multi-day trips in backcountry environments in role as Backpacking Chair. Restructured leadership requirements and skill verification methods.
- Publicity Chair for 2017-18 academic year in charge of managing publicity team, coordinating advertising efforts, and communicating with 700 new members each year
- Equipment Room Chair for 2016-17 academic year in charge of managing and maintaining $200,000 worth of equipment and coordinating gear for 10 trips a week