

MARY E. LOFTON

Virginia Polytechnic Institute and State University
Department of Biological Sciences
1405 Perry Street, Blacksburg, VA 24060

Research Interests: limnology; effects of climate change and land use change/degradation on plankton diversity and trophic webs in lakes and reservoirs and implications for water quality; best practices in scientific communication regarding policy, resource management, and education

Email: melofton@vt.edu

EDUCATION

GRE Scores

2014

Verbal Reasoning - 170 (99th percentile)
Quantitative Reasoning - 165 (90th percentile)
Analytical Writing - 5.5 (98th percentile)

The College of William and Mary in Virginia, Williamsburg, VA

2006-2010

B.S. in Biology

- Graduated *summa cum laude*
- Cumulative **GPA of 3.88**
- Dean's List 7 of 8 semesters

GRANTS/AWARDS

Monroe Scholar

2006-2010

- Designation awarded to top 7% of incoming freshman class at William and Mary based on admissions profile; \$3000

JP Morgan-Chase National Merit Scholar

2006

- Designation awarded to about 15,000 students nationwide each year on the basis of PSAT scores as well as a student's academic record and submitted essay; \$2500

WORK EXPERIENCE

Research Assistant

2015-present

Biological Sciences Analytical Chemistry Lab and Carey Lab

Virginia Polytechnic Institute and State University, Blacksburg, VA

- Conduct sampling of freshwater reservoirs in Roanoke, VA using both manual techniques and probes/sondes to collect physical, chemical, and biological data
- Conduct total and soluble nutrient analyses of water samples
- Perform data quality control and analysis of long-term water chemistry datasets

Science Teacher **2013-2015**

HS Biology and Environmental Science

Miller School of Albemarle, Charlottesville, VA

- Taught five sections of ten to sixteen students
- Developed syllabus and course structure, including lab and field study components
- Administered all tests and assigned all grades
- Average score of 3.75 for AP Environmental Science students on AP exam
- Served as academic advisor and mentor to a cohort of seven female students

Science Teacher **2010-2013**

HS Biology and Environmental Science

Saint James School, Hagerstown, MD

- Taught four sections of eight to fifteen students
- Collaborated on syllabus and curriculum development, including lab component
- Administered all tests and assigned all grades
- Served as academic advisor and mentor to a cohort of seven female students

Coach and Dorm Parent **2010-2013**

Girls' Soccer and Lacrosse; Upper Girls' Dormitory

Saint James School, Hagerstown, MD

- Planned and ran all practices, arranged transportation, and supervised games for varsity girls' soccer and JV girls' lacrosse as head coach
- Lived *in loco parentis* to forty girls ages sixteen to eighteen
- Responsible for study hall once a week, supervision every third weekend, and put-to-bed

LEADERSHIP ROLES

Environmental Initiatives Coordinator **2013-2015**

Miller School of Albemarle, Charlottesville, VA

- Developed cross-curricular programming such as Trout in the Classroom, volunteer opportunities at environmental non-profits in Charlottesville, and Adopt-A-Stream

Task Force Chair for Instruction and Program Accreditation Committee 2014-2015

Miller School of Albemarle, Charlottesville, VA

- Chaired committee of eight faculty and staff to review the school's instruction and program and assess compliance with written standards of the Virginia Association of Independent Schools
- Oversaw drafting and was primary editor for Miller School's Instruction and Program report as part of the school's application for re-accreditation through VAIS

Interim Science Department Chair **2014-2015**

Miller School of Albemarle, Charlottesville, VA

- Served as acting department chair while department chair was on leave; ran department meetings and attended curriculum committee meetings to advocate for science curriculum changes

Faculty Mentor **2014-2015**

Miller School of Albemarle, Charlottesville, VA

- Mentored a new science faculty member through regular meetings and class observations

Coach

2013-2015

Equestrian and Girls' Soccer

Miller School of Albemarle

- Planned and ran all practices, arranged transportation, and supervised games for varsity girls' soccer as head coach
- Was assistant instructor for beginning hunt seat equestrian students

Coach and Dorm Parent

2010-2013

Girls' Soccer and Lacrosse; Upper Girls' Dormitory

Saint James School, Hagerstown, MD

- Planned and ran all practices, arranged transportation, and supervised games for varsity girls' soccer and JV girls' lacrosse as head coach
- Lived *in loco parentis* to forty girls ages sixteen to eighteen
- Responsible for study hall once a week, dorm supervision and off-campus trips every third weekend, and put-to-bed

PROFESSIONAL DEVELOPMENT

National Science Teachers Association Regional Conference, Richmond, VA

Greater Richmond Convention Center; October 2014

Advanced Placement Summer Institute: Environmental Science, Williamsburg, VA

College of William and Mary; July 2013

Klingenstein Summer Institute, Lawrenceville, NJ

Lawrenceville School; June 2012

- Was accepted to a competitive summer program affiliated with Columbia University for promising independent school teachers with two to five years of experience
- Completed two weeks of intensive seminars and coursework around themes in independent school education, including innovative instruction, best practices in science education, and promoting diversity and strong school communities

AP Environmental Science Workshop, Watertown, CT

Taft School; July 2011

The Association of Boarding Schools New Teacher Academy, Boston, MA

Boston University; July 2010

SERVICE

- **Water quality monitor**, Virginia's Save Our Streams program, Virginia (2014-present)
- **Organic farm intern**, Friends Farm, Williamsburg, PA (summer 2009 and 2011)
- **Girl Scout Outreach Chair**, Kappa Delta Sorority, Williamsburg, VA (2009-2010)
- **Kindergarten TA**, Matthew Whaley Elementary School, Williamsburg, VA (2006-2010)

SKILLS

- **Languages:** French (spoken and written)
- **Scientific skills/technologies:** experience with Lachat flow injection and chromatography technologies, total/dissolved carbon analyzer, various water quality sondes, and benthic macroinvertebrate identification

- **Computer programs:** Excel, R