

Melinda (Bodary) VanDevelder
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EDUCATION

Ph.D. 2018; Virginia Commonwealth University, Educational Leadership
Dissertation title: *A Watershed Moment: The Implementation of Environmental Literacy Policy into a Central Virginia School District*

M.S. 2001; University of Arkansas at Pine Bluff, Aquaculture and Fisheries
Thesis: *Characterization of Baitfish Effluent in Central Arkansas Receiving Streams*

B.S. 1999; Tennessee Technological University, Biology

PROFESSIONAL EMPLOYMENT HISTORY

Richmond Teacher Residency Coordinator and Career Coach, Resident and Curriculum Coordinator for premier teacher residency program, NTC Coach and Trainer for provisionally licensed STEM teachers; Instructor of record for TEDU 311, 312 (Graduate seminar) and TEDU 462, 464 (Practicum); PI on NOAA grant to develop Meaningful Watershed Education Experiences with PCPS science teachers; conduct grant funded summer science professional development workshops for k-12 teachers; Virginia Commonwealth University, Richmond, VA: Fall 2019 - present

Professional Development Facilitator, Urban Educator Collaborative. Create and execute education workshops. Virginia Commonwealth University, Richmond VA: January, 2018 – July, 2020

Instructional Coach, Urban Educator Collaborative, Virginia Commonwealth University, Richmond, VA: 2017 – 2018

Lead Science Teacher, STEAM Curriculum developer, Biology Content Lead, Environmental Literacy Lead; Henrico County Public Schools, Richmond, VA: 2005 – 2019

Administrative Aide, Henrico County Public Schools, Richmond VA: 2007-2008

Biology Instructor, classes for both majors and non-majors; J. Sargeant Reynolds Community College, various campuses, Richmond, VA: 2009-2013

Science Teacher, Manassas Park City Schools, Manassas Park, VA: 2003 - 2005

Aquaculture Research Specialist, supervised University of Arkansas at Pine Bluff water quality labs, conducted research, promoted community extension outreach, Pine Bluff, AR: 2001-2003

PUBLICATIONS (Book Chapter, Journals, and Abstracts)

- VanDevelder, M., Dossick, A., Kirk, S., and Edmondson, E. (2021). Technoheutagogy: a virtual learning walk with SEED. *Virginia Journal of Science Education*, 14(1), 19-23.
- VanDevelder, M, Johnston, K., and Thompson, A. (2015). Dig It!: The Versatility of the Community Garden in *Living the Work*. Emerald Group Publishing, Bingley, UK.
- Bodary, M.J., N. Stone, S.E. Lochmann and E. Frimpong. (2004). Characteristics of Central Arkansas baitfish pond effluents. *Journal of the World Aquaculture Society*. 35:189-497.
- Frimpong, E.A., S.E. Lochmann, M. Bodary and N.M. Stone. 2004. Suspended solids from baitfish pond effluents in drainage ditches. *Journal of the World Aquaculture Society* 35:159-166.
- Lochmann, R., N. Stone, M. Bodary and H. Phillips. 2004. Evaluation of 36%-Protein Diets with or without Animal Protein for Rearing Tank-Hatched Golden Shiner Fry in Ponds. *North American Journal of Aquaculture*. 66 (4): 271-277.
- Bodary, M.J., N. Stone, S.E. Lochmann and E. Frimpong. 2004. Characteristics of Central Arkansas baitfish pond effluents. *Journal of the World Aquaculture Society*. 35:189-497.
- Bodary, M. 2003. Water quality and macroinvertebrate community assessment in a Central Arkansas bayou associated with urbanization and aquaculture effluent. Arkansas Academy of Science 87th annual meeting, University of Arkansas. April 4-5, Fayetteville, Arkansas
- Lochmann, R., N. Stone, M. Bodary and H. Phillips. 2003. Response of golden shiner *Notemigonus crysoleucas* fed practical diets with isonitrogenous levels of fish meal+blood meal or poultry meal in ponds. *Aquaculture America 2003*, Louisville, Kentucky.
- Bodary, M. and N. Stone. 2003. Effects of sodium nitrate on baitfish pond bottom soils. *Book of Abstracts, Aquaculture America*, Louisville, KY.
- Bodary, M., N. Stone and R. Lochmann. 2003. Characteristics of central Arkansas baitfish pond effluents. *Arkansas Aquaculture*, Hot Springs, AR.
- Lochmann, R., N. Stone, M. Bodary and H. Phillips. 2003. Growth, yield and survival of tank-hatched golden shiner fry fed two practical diets. *Arkansas Aquaculture 2003*, Hot Springs, AR.
- Bodary, M. and N. Stone. 2002. Characteristics of baitfish pond effluents and receiving stream water quality in Central Arkansas. 2002 Meeting of the World Aquaculture Society, U.S. Chapter, *Book of Abstracts*, San Diego, California.
- Bodary, M. and N. Stone. 2002. Characteristics of baitfish pond effluents and receiving stream water quality in Central Arkansas. 2002 Meeting of the Southern Division American Fisheries Society, Little Rock, Arkansas.
- Bodary, M., and N. Stone. 2001. Effects of soil-incorporated sodium nitrate on phosphorus release from baitfish pond bottom soils. *UAPB Student/Faculty Research Forum 2001*, UAPB, Pine Bluff, Arkansas.

PROFFESIONAL DEVELOPMENT WORKSHOPS (content designer and/or facilitator)

New Teacher Center Training Workshop for Resident Coaches – I co-trained resident teacher coaches for four school districts participating in RTR (Richmond Teacher Residency) teacher coaching program. August 4, 2021

James River Science Teacher Professional Development Workshop – I created and conducted an experiential learning outdoor workshop on aquatic ecology techniques at Belle Isle in Richmond, VA that was supplemented with an asynchronous component where teachers created relevant lessons, planned experiential field trips, or created a virtual field trip using ArcGIS or Google Earth. July 30-August 6, 2021

HERO-T (Health Educational Research Opportunities for Teachers) Professional Development “Boot Camp” Workshop – I co-conducted a National Institute of Health funded workshop designed to prepare greater Richmond area science teachers for conducting professional research in medical laboratories for funded professional development. June 21-25, 2021

Virtual VCU RTR SEED SCIENCE for teachers of 3-5 grade science – I created and conducted a week-long virtual synchronous and asynchronous science teacher workshop that included lab kits I designed, assembled, and delivered to teachers. July 20-24, 2020

Virtual VCU RTR SEED SCIENCE for teachers of 9-12 grade science – I created and conducted a week-long virtual synchronous and asynchronous science teacher workshop that included lab kits I designed, assembled, and delivered to teachers. June 22-26, 2020.

VCU Urban Educator Collaborative: Data-driven Decision-making: Mapping Your Plan for Remediation. Petersburg, VA. May 16, 2020.

VCU Urban Educator Collaborative: Writing Effective Formative Assessments. Petersburg, VA. April 18, 2020.

VCU Urban Educator Collaborative: The Close-out! How to Effectively Bring a Great Lesson to Closure. Petersburg, VA. March, 2020.

VCU Urban Educator Collaborative: What’s the Hook? Engaging Students Using Effective Anticipatory Sets. Petersburg, VA. February, 2020.

VCU Urban Educator Collaborative: Dare to be Different! Using Differentiation to Meet the Needs of All Students. Petersburg, VA. January, 2020.

VCU Urban Educator Collaborative: Is it Aligned? Writing Effective Lessons Plans Aligned in Content and Cognition. Petersburg High School, December, 2019.

VCU Urban Educator Collaborative: Professionalism, Relationships, and Critical Pedagogy. Petersburg, VA. May, 2019

VCU Urban Educator Collaborative: Dialogue, Motivation, and Goals. Petersburg, VA, April 2019.

VCU Urban Educator Collaborative: Classroom Management. Richmond, VA. August, 2018

VCU Urban Educator Collaborative: Goal Setting. Richmond, VA. May, 2018

VCU Urban Educator Collaborative: Culturally Responsive Content and Instruction, Part 2. Richmond, VA. April, 2018

VCU Urban Educator Collaborative: Culturally Responsive Content and Instruction, Part 1. Richmond, VA. March 2018.

VCU Urban Educator Collaborative: Relationships, Professionalism, and Culturally Responsive Teaching. Richmond, VA. December, 2017

PROFESSIONAL PRESENTATIONS

VanDevelder, M. 2022. MacroMania. Co-presented with Sue Kirk, VCU. Virginia Association of Science Teachers Conference.

VanDevelder, M. 2022. What's Bugging You? Co-presented with Debbie Mickle, VPM. Virginia Association of Science Teachers Conference.

VanDevelder, M. 2021. Islands No Longer; Environmental Science Community Solutions. Co-presented with Anajai Peterson. Virginia Association of Science Teachers Virtual Conference.

VanDevelder, M. 2020. Flipping for STEM Tech. Virginia Association of Science Teachers Virtual Conference.

VanDevelder, M. 2019. A Watershed Moment: The Implementation of Environmental Literacy Policy into a Central Virginia School District. American Education Research Association, Toronto, Ontario.

VanDevelder, M. 2017. Stun the Zooplankton: a short dive into the life-aquatics. Virginia Association of Environmental Educators, Front Royal, VA.

VanDevelder, M. 2017. Inexpensive methods for microscopic inquiry. Henrico County Science Teacher Professional Development Conference, Richmond, VA.

VanDevelder, M. and J. Disbrow. 2016. Dirty hands wash over every environmental programs' modality. Virginia Association of Science Teachers, Williamsburg, VA.

Bodary, M. and N. Stone. 2003. Effects of sodium nitrate on baitfish pond bottom soils. Aquaculture America, Louisville, Kentucky.

Bodary, M., N. Stone and R. Lochmann. 2003. Characteristics of central Arkansas baitfish pond effluents. Arkansas Aquaculture, Hot Springs, AR.

Bodary, M. 2003. Water quality and macroinvertebrate community assessment in a Central Arkansas bayou associated with urbanization and aquaculture effluent. Arkansas Academy of Science 87th annual meeting, University of Arkansas. April 4-5, Fayetteville, Arkansas.

Bodary, M. and N. Stone. 2002. Characterization of baitfish pond effluents and receiving stream water quality in Central Arkansas. 2002 Meeting of the World Aquaculture Society, U. S. Chapter, Book of Abstracts, San Diego, California.

Bodary, M. and N. Stone. 2002. Characterization of baitfish pond effluents and receiving stream water quality in Central Arkansas. 2002 Meeting of the Southern Division American Fisheries Society, Little Rock, Arkansas.

Bodary, M. and N. Stone. 2002. Characterization of baitfish pond effluents and receiving stream water quality in Central Arkansas. 2002 UAPB Annual Research Forum, Arkansas.

Bodary, M. and N. Stone. 2001. Characterization of baitfish pond effluents and receiving stream water quality in central Arkansas. American Fisheries Society Annual Meeting, Phoenix, Arizona. August 12-16, 2001.

GRANTS

NOAA BWET MWEE Grant 2022-2025, Petersburg Environmental Activities and Regional Learning (PEARL) awarded \$300,000: collaborates with NOAA and Petersburg City Public Schools science from central office to teachers and the community beyond.

Virginia Association of Science Teachers TACT grant 2020/2021: collaborated with Petersburg High School Chemistry teacher for \$1,500 grant for creating authentic chemistry labs.

Virginia Environmental Endowment, 2011/2012: received \$4,500 to fund James River water monitoring and endocrine disruptor sampling events with Varina High School's Biology II Virtual Pilot program students.

Henrico Education Foundation Grant, 2011/2012: received \$1,500 to fund James River water monitoring/endocrine disruptor sampling events with Varina High School's Biology II Virtual Pilot program students.

Henrico Education Foundation Grant, 2010/2011: received \$1,850 to fund recycling program and Trash 101 curriculum at Varina High School.

Henrico Education Foundation Grant, 2009/2010: received \$1,600 to fund a community rain garden on campus to honor a recently retired Varina High School teacher.

Virginia Commission for the Arts Teacher Incentive Grant, 2007/2008: received \$500 to fund Chesapeake Bay education at Varina High School using student-created gyotaku prints to delineate storm drains.

Chesapeake Bay Grant, 2004/2005: received \$2,400 from the Chesapeake Bay Foundation to fund the Manassas Park High School Beta Club "Save our Streams" project.

PROFESSIONAL QUALIFICATIONS

Postgraduate Professional Endorsement and Licensure

Biology Teacher, 7-12; VA Department of Education

NTC trained pre-service and in-service teacher coach

Coaching MT resident teachers and provisionally licensed teachers

HONORS and AWARDS

21st Century Teaching Award, *Henrico21*, May 2013. Received for writing 21st century skilled lessons and fostering students to produce exemplary student work.

James River Expedition Guest Instructor, June-July, 2012. Invited by the James River Association to be a guest teacher on a week-long environmental education canoe expedition.

21st Century Teaching Award, *Henrico21*, May 2010. Received for writing 21st century skilled lessons and fostering students to produce exemplary student work.

PROFESSIONAL INTERESTS

- Policy initiatives in science education, environmental education, and sustainability education
 - Outdoor education and Community based learning
 - Service learning
 - Teacher education and continuing education
 - STEAM curriculum development
 - Science Teacher education
 - Evidence Based Practices in the mainstream science classrooms
 - Teaching and mentoring secondary education science teachers to teach creatively and equitably
 - Virtual hybrid science curricula
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PROFESSIONAL MEMBERSHIPS

- American Educational Research Association
 - Virginia Association of Science Teachers
 - Virginia Science Education Leadership Association
 - Virginia Association for Environmental Education
 - American Fisheries Society
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COURSES TAUGHT

College Level:

Virginia Commonwealth University - currently

TEDU 311 – Middle School Seminar

TEDU 312 – High School Seminar

TEDU 462 – Internship I

TEDU 464 – Internship II

J. Sargeant Reynolds Community College

General Biology 101, 2009 – 2013

General Biology 102, 2010 – 2012

General Biology for Non-majors 106, Summer, 2011

University of Arkansas at Pine Bluff

Using GPS Technology in Aquaculture Engineering. Guest Lecturer for Pond Construction and Engineering AQFI 522, Spring, 2003.

K12 Public Education Courses:

Biology

Ecology – designed curriculum

Anatomy and Physiology

Virtual hybrid Ecology – designed curriculum

Virtual hybrid Anatomy and Physiology - designed curriculum

Henrico Co. Meaningful Watershed Educational Experience – designed K-12 curriculum

STEAM integration curriculum design for 6-8 science

Environmental Science – designed curriculum currently used by the VA DOE

Earth Science
