

Ecologist + Educator

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SUMMARY

I save wild places for wild people. I am a Harvard-trained ecologist with 22 years of education and administration experience. As a conservationist, I research bold strategies to reach E.O. Wilson's half-earth (2016) and am a teaching assistant for Harvard's online sustainability program. My ecological research focuses on saving wildlands to help with 30x30, buffering scenic trails to become wildlife corridors, and rewilding *Homo sapiens* to build a sustainable future. As an administrator, I've directed and envisioned programs, managed over 1.5 million dollars in grant funding, and led million-dollar fundraising campaigns. I employ environmental education, outdoor recreation, film and media, landscape-level planning, and innovation to embolden the next generation and save biodiversity.

EDUCATION

HARVARD UNIVERSITY // Extension School Master of Liberal Arts in Extension Studies-Sustainability GPA 3.75 // 2016-2019

Thesis/Reimagining National Parks in the American West to Reach Half-Earth

- Harvard's Oustanding Thesis Prize in Sustainability Recipient (2019)
- Certificate in Natural Resource Management & Sustainable Ecosystems (2017)
- Hispanic Scholarship Fund (HSF) Scholar 2017
- *Courses:* Land ethics, conservation biology, ecology, natural resource management, geographic information systems, land conservation, environmental and human health, environmental management, pro seminar (ecological statistics), and thesis proposal

MONTREAT COLLEGE Master of Science in Environmental Education GPA 3.49 // 2010-2015

Thesis/Green Play: Restorative Neurobehavioral Effects on ADHD Children

• *Courses:* Environmental systems, environmental communication, environmental issues, designing environmental education, earth systems, island ecosystems, environmental history and philosophy, and research methods

LENOIR-RHYNE UNIVERSITY

NC Middle School Teaching Certificate (Provisional) GPA 3.49 // 2012-2013

MONTREAT COLLEGE

Bachelor of Science in Outdoor Education 1997-2001

- Minors in Environmental Studies & Art
- Founder and president of the Student Environmental Club

EXPERIENCE

HARVARD UNIVERSITY, EXTENSION SCHOOL, CAMBRIDGE, MA

Teaching Assistant - Ecology

August 2019 - present

Assists in graduate ecology, land conservation, and quantitative methods courses:

- Managed online learning platform, Canvas
- Provided timely feedback and edits to student essays, Excel workbooks, and presentations
- Taught Excel workbook seminar and land conservation lectures
- Managed online classes via Zoom for graduate-level Ecology and Proseminar (Ecological Statistics and Research)
- Taught lab and field-based seminars in corridor ecology, national park conservation, ecological methods, and stakeholder negotiations

THE RIVIERA RIDGE SCHOOL, SANTA BARBARA, CA

Director of Academic Innovation

August 2021 - present

Directed STEM curriculum and STEAM Electives Program:

- Managed the STEAM Electives program for the middle school with over 25 classes and developed a certificate program
- Developed and coached our STEM vertical alignment plan for Junior Kindergarten through Eighth Grade
- Directed the Center for Design Engineering and Creativity (Maker Space)
- Developed our school gardens and hydroponics program
- Developed a citizen science program and ecotour to Virgin Islands National Park
- Developed innovative science and mathematics curricula and programs
- Partnered with the National Science Foundation and UC Santa Barbara Materials Science lab to create an engineering curriculum
- Partnered with the Santa Barbara Botanic Garden to create a citizen science monitoring program
- Developed the annual Maker Fair as a recruitment event (over 300 attendees per year)
- Served on the academic leadership team
- Served on the master planning committee
- Develop strategic partnerships with local community NGOs and governmental agencies

STEM Educator

August 2020 - July 2021

Taught middle school science and mathematics courses:

- Managed online learning platform, Google Classroom
- Provided timely feedback and edits to student essays, projects, and presentations
- Taught advanced geometry, earth science, and 6th and 7th-grade Mathematics using a researched-based experiential approach
- Ran hybrid classroom and science lab via Zoom and in-person

GIFFT HILL SCHOOL, ST. JOHN, US VIRGIN ISLANDS

Interim Director Of Advancement

December 2019 - August 2020

Worked to raise 1.8 million dollars in funding for Caribbean students and conservation:

- Managed scholarships and annual donations
- Led the major gifts initiative and print materials for donor solicitations
- Managed a portfolio of 430 active donors (a 37% increase from the previous year)
- Researched prospects and cultivated donor relationships
- Created online and print media donor campaigns
- Managed and oversaw all grant funding
- Oversaw an "Eco-school" certificate plan and sustainability infrastructure
- Created marketing plan and fundraising plan
- Created all graphic and web designs
- Planned all donor-based events, including an auction for 150 guests
- Partnered with the National Park Service, University of Virgin Islands, Harvard University, and National Park Service to provide citizen science projects & STEM career pathways

Stem Coordinator & Advancement

August 2018 - December 2019

Built STEM pathways for Caribbean students and advanced the school's mission:

- Developed and oversaw STEM grant funding
- Worked on a team to raise 1.5 million dollars in hurricane repairs
- Worked on a team to raise 2 million dollars in scholarship funding and annual fund
- Created multi-media and print campaigns for donors
- Developed citizen science projects & STEM career pathways
- Taught middle school science and math
- Taught high school Environmental Studies and Ecology
- Created a "Green School" certificate plan
- STEM coach for preschool-twelfth grade teachers
- Developed STEM curricula using NGSS Science Standards
- Partnered with the National Park Service, University of Virgin Islands, Harvard University, and the National Park Service

THE LEARNING COMMUNITY, BLACK MOUNTAIN, NC STEM & Outdoor Educator

July 2017 - August 2018

Created a "green school" middle school curriculum and classroom:

• Taught middle school mathematics and science daily

- Facilitated all-school science fair
- Led a 3-day backpacking trip and 5-day coastal science field course
- Developed whole school outdoor education curriculum and taught backpacking, orienteering, and rock climbing
- Co-authored science curriculum and teacher handbook

MONTREAT COLLEGE, MONTREAT, NC

Instructor Of Environmental Science & Outdoor Education August 2015 – July 2017

Instructed Bachelor of Science students using a liberal arts approach:

- Taught four to six lecture and lab-based classes per semester
- Advised 5 to 10 undergraduate students and oversaw student internships with SCA, USFWS, NPS, and the USFS
- Created a marketing plan to improve retention (98.5%) and recruitment (10 majors to 21 majors/27 minors in two years)
- Developed environmental science career fair
- Created an online environmental course for an adult learning program
- Facilitated American Ecosystems (a 28-day course to 20 National Parks)
- Co-led Undergraduate Research Symposium
- Committee Chair of the Library and Research Committee

Adjunct Instructor Of Environmental Science August 2013 – August 2015

Oversaw campus sustainability & lectured in environmental studies course:

- Lectured twice a week for the Introduction to Environmental Studies
- Led weekly field natural history lab
- Faculty representative for the Environmental Club
- Coordinator of the Campus Stewardship Committee
- Oversaw campus energy audit and recycling

Biology Lab Instructor

January 2009 - January 2012

Instructed biology laboratory classes and field studies:

- Prepped biology laboratory weekly
- Instructed biology lab for 120 undergraduate students
- Led yearly field courses at NC State Parks
- Planned Earth Day events in 2009 & 2010
- Served on campus-wide marketing & communication committee
- Faculty representative for the Environmental Club

INSTRUCTED

ES 200:Introduction to Environmental

Studies

- ES 206: Ecology
- ES 206l: Ecology Lab
- ES 230: Field Natural History
- BL 406: Conservation Biology
- . ES 460: Wetland Ecology
- ES 460A: Coastal Ecology
- IS 111: Conservation History
- ES 301: Physical & Environmental

Geography

- ES 305: American Ecosystems
- OE 340: Teaching Methods
- ES 210: Sustainability
- BL 101: Biology 101 (Non majors)
- BL 101 & 102L: Biology Lab
- ES 230: Sophomore Science Seminar
- EE230L: Elementary Education Science
 Lab

FRANCINE DELANY NEW SCHOOL FOR CHILDREN, ASHEVILLE, NC STEM Educator

January 2003 - August 2008// www.fdnsc.net

Taught middle school using an experiential approach:

- Taught interdisciplinary lessons for 6th-8th-grade science, 8th-grade Algebra I & II, and K-5th-grade science
- Facilitated reader's and writer's workshops for science classes
- Coordinated yearly Middle School Science Fair
- Led yearly field course to the Outer Banks, NC
- Served on the directorate committee
- Served as a teacher representative on the board (2 years)
- Co-developed middle school elective arts and athletic program

THE LEARNING COMMUNITY, BLACK MOUNTAIN, NC

Stem & Outdoor Educator

October 2001 - December 2002

Taught 5th-8th grade science and mathematics using an experiential approach:

- Taught interdisciplinary lessons for 5th-8th-grade science
- Facilitated homeroom team meetings
- Led field course to the Outer Banks
- Created 5-8th-grade science and mathematics curriculum

BLUE RIDGE BACKCOUNTRY AT MONTREAT COLLEGE, BLACK MOUNTAIN, NC

Outdoor Educator

Seasonal 1999 - 2001

Led week-long wilderness experiences for teens:

- Instructed middle school & high school students in the backcountry
- Taught backpacking, rock climbing, & canoeing excursions.
- Prepped gear & route plans for weekly field courses
- Maintained high and low ropes course elements
- Created a Western North Carolina trail guide for instructors

FOREST HOME CONFERENCE CENTER, FOREST FALLS, CA

Wilderness Instructor & Ropes Course Manager

Seasonal 1997 - 1999

Led daily wilderness and adventure experiences for families and teens:

- Created and implemented overnight wilderness experiences
- Trained and managed 15 to 20 staff on climbing wall, zip line, and ropes course
- Designed and created low ropes course elements for two new courses
- Maintained recreational equipment

MARKETING EXPERIENCE

COLE RIAN, LLC

Art Director and Co-Owner

Asheville, NC / 2010-2014

Directed multi-media, print, and web campaigns for small businesses, large advertising firms, and magazines:

- Co-directed photography campaigns
- Created marketing materials for print and web

- Ad Campaigns in Southern Living, Food and Wine, Garden and Gun, Bon Appetit, Vogue Italia, Marie Claire
- Created a photography campaign for BJ Lieberman of NPR
- American Photography Assistant Award Winner

PAPERS

Delineating greater ecosystems around protected areas to guide conservation R. Travis Belote & Melissa B. Wilson
Conservation Science and Practice 11 March 2020 https://doi.org/10.1111/csp2.196

The Value of Trail Corridors for Bold Conservation Planning Melissa B. Wilson & R. Travis Belote Land 2022, 11(3), 348; https://doi.org/10.3390/land11030348

DOCUMENTARY FILMS

"Stay Wild" Film

Directed by: Lizzy Fowler Productions

Melissa Wilson moved to St. John, USVI, in 2018. With over half of the island conserved as a national park, the beauty of the landscape inspired a biodiversity and climate solution for wildlands in the American West. After graduating from Harvard University's Extension School, her thesis fosters hope for wild places and people.

"Best Documentary Short" at Rocky Mountain Film Festival

Featured: Rocky Mountain Film Festival, Maui Film Festival, Colorado Film Festival, Gold Bridge Film Festival, No Man's Land Film Festival, Istanbul Film Festival, and Great Lakes State Film Festival

PRESENTATIONS & POSTERS

Connectivity "Reimagining the American West to Reach Half Earth" (Wilson Wilder, 2023) Land Conservation and Nature Based Solutions Lecture, Harvard Extension School // Cambridge, Massachusetts

Presentation // December 2023

Stay Wild (Wilson Wilder, 2023) Wilder Lecture Series, Harvard Extension School // Cambridge, Massachusetts
Presentation // May 2023

[&]quot;Best Documentary Short" Colorado Film Festival

[&]quot;Social Impact Award" Great Lakes Film Festival

Innovation in Education (Wilson Wilder, 2023) Moxi Museum // Santa Barbara, California Presentation // May 2023

Using Citizen Science Monitoring for Conservation with Unrepresented STEM students (Wilson, 2019) National Association of Environmental Educators // Lexington, Kentucky Presentation // October 2019

Reimagining the American West to Reach Half-Earth (Wilson & Belote, 2019) Harvard Thesis Symposium // Cambridge, Massachusetts Presentation // May 2019

The Conservation Value of Recreational Trails (Wilson & Belote, 2019) Society of Conservation GIS // Monterrey, California Presentation // July 2019

The Conservation Value of Recreational Trails (Wilson & Belote, 2019)
Fisher Prize Competition Harvard University // Cambridge, Massachusetts
Poster Presentation // April 2019

USVI Citizen Science Project Addresses Water Quality after Hurricanes Irma & Maria (Chanes &. Wilson, 2019) Citizen Science Conference // Raleigh, North Carolina Presentation // March 2019

Primary Nature Experiences (Wilson, 2019) NAAEE Conference // Spokane, Washington Workshop // October 2018

Nature & Neuroscience (Wilson, Daniel, & Faircloth, 2019) NAAEE Research Symposium // Spokane, Washington Workshop // October 2018

Biophilia & Early Stem Education (Wilson, 2018) In Bloom Conference with Author David Sobel // Asheville, North Carolina Workshop // April 2018

Green Play & ADHD: A Neurobehavioral Study on Outdoor Play (Wilson, Daniel, & Faircloth, 2016)

Children & Nature Network // St. Paul, Minnesota Poster Session // May 2016

Green Play & ADHD (Wilson, Daniel, & Faircloth, 2016) Environment & Design Research Association // Raleigh, North Carolina Poster Session // May 2016

Environmental Educator's Timeline (Daniel & Wilson, 2012) Environmental Educators of NC // Boone, North Carolina
Presentation // October 2012

Science & Literacy: Why Our Students Excel (Lawing & Wilson, 2005) NC State Department of Public Instruction // Raleigh, North Carolina Presentation // April 2000

CERTIFICATES

TEACHER MENTOR
Harvard Graduate School of Education
August // 2023
CPR & FIRST AID
September // 2022

MASTER'S CERTIFICATE
Natural Resource Management & Sustainable Ecosystems
Harvard University // 2016

MIT Master Maker Certificate MIT Edgerton Lab MIT// 2021

NATIONAL SCIENCE FOUNDATION- RESEARCH EXPERIENCE OF TEACHERS University of California Santa Barbara Materials Science Laboratory UC Santa Barbara // Summer 2021- Spring 2023

OUTWARD-BOUND EDUCATOR COURSE North Carolina Outward Bound (NCOB) // 2006

ENVIRONMENTAL EDUCATION CERTIFICATIONS Montreat College // 2001

- * Project Learning Tree
- * Project WILD
- * Project Aquatic WILD
- * Mt. Mitchell ELEE
- * Project WET
- * E*M* Power
- * Air Quality Curriculum
- * Coastal Management

NC MIDDLE SCHOOL TEACHING LICENSE (provisional) Lenoir-Rhyne University // 2005

HOW TO LEARN MATH: FOR TEACHERS Stanford University Online // 2020

BACKPACKER MAGAZINE'S OUTDOOR EDUCATOR OF THE YEAR 1999

VOLUNTEER EXPERIENCE

HARVARD EXTENSION SCHOOL ENVIRONMENTAL CLUB

Board Member

Cambridge, Massachusetts/ Fall 2022- present

- Developed the Wilder Lecture Series, a nature-positive series to educate the Harvard community about COP15 and 30x30
- Wrote a grant to the Salata Insitute and received funding for our series
- Collaborated on the development of the Harvard Environmental and Sustainability Journal

CURRICULUM DEVELOPER

Friends of Virgin Islands National Park St. John, USVI / 2023- present

- Partnered with the VI Audubon Society and VI National Park to create a birding curriculum
- Developed a pre and post-curriculum on sea turtles and birds for 3-8th grade students for high school students

CITIZEN SCIENCE COORDINATION

Friends of Virgin Islands National Park

St. John, USVI / 2018- present

Partnered with Harvard University & Gifft Hill School on the Sea Turtle Monitoring program

- Developed field protocol for high school students
- Created a 1-week STEM immersion focused on endangered sea turtles
- Facilitated and taught ground mapping and shoreline profiling
- Curriculum development

PLAYGROUND CONSULTANT

Friends of Virgin Islands National Park

St. John, USVI / 2018-2020

Partnered with local agencies to create a "playground plan for the Virgin Islands National Park:

- Served on a committee that planned and created a playground and ballfield as the gateway for the national park
- Created a natural playground proposal that integrated environmental and cultural education
- Provided "green play" research and consulting services

GRANT WRITER

Island Green Living Association

St. John, USVI / 2018- present

Wrote grants for NGOs that focus on sustainability efforts:

• Served on a committee that planned a zero-waste campaign

HOBBIES

- Hiking and backpacking
- Sailing
- Sea kayaking
- Whitewater canoeing
- Snorkelling
- Cooking
- Poetry
- Ballet
- Yoga

SKILLS

- Landscape planning
- Experiential learning
- Systems thinking
- Field studies
- Interdisciplinary
- Citizen science
- Teaching methods
- Adventure trip planning
- Backcountry skills

OTHER EXPERTISE

- ArcGIS
- Photoshop
- Adobe Creative Suite
- Web design
- Graphic Design
- Photography
- Videography
- QuickBooks Online
- Microsoft & Google Suite

- Wrote grant background, objectives, and measurables
- Provided sustainability research and consulting services to the committee

LAND CONSERVATION REPRESENTATIVE

Montreat Landcare Committee

Montreat, NC / 2016-2017

Served on committee to protect and manage Montreat, NC:

- Partnered with local agencies to sustainably care for the land
- Advocated for greater trail use and environmental education programs
- Bolstered a city greenway that connected to National Forest and Nature Conservancy trails
- Partnered with the Hemlock Restoration Initiative and undergraduate students to monitor Hemlocks

OUTREACH DIRECTOR

The Academy at Terpsicorps Asheville, NC / 2014-2016

Directed scholarship grantees, grant opportunities, and partnerships for a non-profit dance studio:

- Procured 17 scholarships for inner-city youth to attend ballet and tap classes
- Co-directed studio educational programming for the first year
- Created marketing materials for print and web

REFERENCES

Dr. Travis Belote Lead Ecologist The Wilderness Society P: +1 (406) 581- 3808 E: tbelote@tws.org

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