

EDUCATION

Virginia Tech, Blacksburg, VA

08/2024 – Present

Ph.D. Student, Department of Agricultural and Applied Economics

- Interfaces of Global Change Ph.D. Fellow; Global Change Center

Appalachian State University, Boone, NC

Degrees conferred 05/2024

B.A. Economics (Environmental Economics and Policy); B.S. Political Science (International and Comparative Politics)

- Chancellor’s Scholarship Recipient and University Honors College Student
- GPA: 4.0

PUBLICATIONS

Peer-Reviewed Articles

Tapas, M.R., Howard, G., Etheridge, R., **Mair, M.**, Peralta, A. (2025). “Integrating human decision-making into a hydrological model to accurately estimate the impacts of agricultural policies.” *Communications Earth & Environment*, 6, 412. doi:10.1038/s43247-025-02325-x

Book Chapters & Refereed Proceedings

Tapas, M.R., Etheridge, R., Howard, G., **Mair, M.** (2025). “Framework for Stakeholder-Driven Socio-Hydrological Modeling: Conceptual Foundations for Policy Development and Evaluation to Improve Ecosystem Health.” In: Pandey, M., Umamahesh, N., Das, J., Pu, J.H. (eds) *Hydrology and Hydrologic Modelling. HYDRO 2023. Lecture Notes in Civil Engineering*, vol. 410. Springer, Singapore. doi:10.1007/978-981-97-7474-6_42

WORKING PAPERS

1. **Mair, M.**, and Howard, G. “Farmer Willingness to Participate in Voluntary Conservation Programs: Evidence from Eastern North Carolina.” *In Preparation*.
2. **Mair, M.**, Moeltner, K., and Schnitzer, M. “Conflict Among Slope Ski Tourers in the Alps: Applications for Machine Learning.” *In Preparation*.
3. **Mair, M.** “Environmental Stress and Labor-Market Constraints on International Migration.” *In Preparation*.
4. **Mair, M.**, and Chen, Z. “A Replicable Framework for Ex-Ante Property Value Impact Assessment of Proposed Utility-Scale Solar Facilities.” *In Preparation*.
5. **Mair, M.**, Ortez, M., Smith, M., and Widmar, N. “Warnings from the Web: Using Online Media Data to Anticipate Crop Conditions.” *Under Review*.

RESEARCH EXPERIENCE

Virginia Tech, Blacksburg, VA

08/2024 – Present

Research Assistant

- Contribute econometric analysis to natural resource valuation projects
- Work in R, Stata, and ArcGIS Pro to accomplish research objectives
- Study economic impact of Red Tide, the renewable energy transition, and conservation contracts
- Employ machine learning, natural language processing, and discrete choice analysis

Appalachian State University, Boone, NC 06/2023 – 05/2024
Honors Thesis Researcher

- Investigated farmer willingness to participate in voluntary conservation programs
- Applied mixed and conditional logit models to survey data to estimate willingness-to-participate values
- Defended thesis before faculty committee; awarded Best Undergraduate Poster and Brashear Prize

Appalachian State University, Boone, NC 03/2022 – 03/2024
Research Assistant

Coastal Studies Institute, Wanchese, NC 06/2023 – 07/2023
REU Summer Research Scholar

North Carolina Institute for Climate Studies, Raleigh, NC 06/2022 – 10/2022
Research Intern

Appalachian State University, Dept. of Wellness and Prevention 03/2022 – 05/2022
Nutritional Assessment Coordinator

AWARDS AND FUNDING

- **Berkeley Sloan Grad Camp Travel Award** (\$1,000) 08/2025
- **VT Kline Graduate Fellowship** (\$907) 05/2025
- **ASU Chancellor’s Scholarship** (full-ride merit scholarship) 08/2020 – 05/2024
- **ASU Chancellor’s List** 08/2020 – 05/2024
- **ASU Department of Economics Brashear Prize for Best Paper** (1st Place) 04/2024
- **ASU Department of Economics Top Student** 04/2024
- **ASU Best Undergraduate Poster** (1st Place) 04/2024
- **ASU College of Arts and Sciences SAFE Grant** (\$400) 04/2024
- **Rocky Mountain Biological Laboratory REU Travel Award** (\$1,200) 04/2024
- **Honors College Special Research Grant** (\$800) 04/2024
- **ASU Dept. of Government and Justice Studies Outstanding Senior Award** 04/2023
- **Cochlear Foundation National Inspirer** (international recognition for young people with hearing loss who advocate and mentor) 11/2022
- **Barnes Program Student Research Grant** (\$1,200) 10/2022
- **East Mecklenburg High School Salutatorian** 06/2020

NOTABLE PRESENTATIONS

Warnings from the Web: Using Online Media Data to Anticipate Crop Conditions

- Virginia Tech Global Change Center Graduate Research Symposium 04/2026
- Artificial Intelligence in Agriculture Conference, NC State University — Raleigh, NC 04/2026

Conflict Among Slope Ski Tourers in the Alps: Applications for Machine Learning

- Virginia Association of Economists Meeting, James Madison University — Harrisonburg, VA 04/2026

Environmental Stress and Labor-Market Constraints on International Migration

- Virginia Tech Nutshell Games (Science Public Communication) 10/2025
- University of California Berkeley & Sloan Grad Camp 08/2025

Documenting Shoreline Loss in Virginia Using Satellite Imagery

- Virginia Tech Office of Geographic Information Systems 2025 Symposium 04/2025

Factors that Impact Farmer Willingness to Participate in Conservation Programs

- Appalachian State University Honors College Thesis Defense 04/2024
- Appalachian State University OSR Student Research Day 04/2024
- Association for Environmental Studies and Sciences Student Research Symposium 04/2024
- National Conference for Undergraduate Research 04/2024
- Elon University Environmental Policy Workshop 02/2024
- State of North Carolina Undergraduate Research and Creativity Symposium 11/2023
- North Carolina Honors Association Annual Conference 11/2023
- Resilience and Adaptation to Coastal Change REU Symposium 11/2023
- East Carolina University Summer Undergraduate Research Symposium 07/2023

International Climate Negotiations: My Experience at COP27

- Appalachian State University Global Symposium 11/2023

The Effect of Voting for Redistribution on Cooperation

- Appalachian State University Annual Dean’s Club Research Symposium 10/2023
- Appalachian State University Dean’s Club Research Series 03/2023

Understanding Sea Level Rise and Its Impacts in North Carolina

- Southern Regional Honors Conference 03/2023
- North Carolina Coastal Resources Commission Science Panel Meeting 11/2022

INTERNATIONAL EXPERIENCE

Chancellor’s Scholars Program Study Abroad, Ireland 01/2023
Culminating Seminar — Irish History and Culture

United Nations Climate Change Conference (COP27), Sharm El-Sheikh, Egypt 11/2022
Observer for Appalachian State University

LEADERSHIP EXPERIENCE

ASU Honors Vanguard Leadership Board 04/2023 – 05/2024
President and Founder

ASU Chancellor’s Scholars Governing Board 10/2022 – 05/2023
Treasurer and Founding Member

ASU Politics Club 04/2022 – 05/2023
Vice President

ASU Student Government Association 03/2022 – 10/2022
Interim Director of the Treasury

ASU Student Government Association 10/2021 – 02/2022
Presidential Campaign Manager

ASU Student Government Association 09/2020 – 05/2021
Senator

SERVICE AND MENTORSHIP

ASU Honors College <i>Honors Peer Mentor</i>	<i>03/2021 – 05/2024</i>
ASU Honors College <i>Honors Vanguard Ambassador</i>	<i>08/2020 – 05/2024</i>

PROFESSIONAL DEVELOPMENT

- **Grad Camp for Environmental and Energy Economics**, UC Berkeley — Berkeley, CA 08/2025
- **Introduction to Marine Energy**, Atlantic Marine Energy Center — Durham, NH 08/2025
- **Economic Forces in American History**, Foundation for Teaching Economics — Charleston, SC 07/2024
- **Seminar on Classical Liberalism**, AIER — Crawfordsville, IN 06/2024
- **Valuing Nonmarket Benefits**, Society for Benefit-Cost Analysis — Online 07/2023

TOOLS

R, Stata, Google Earth Engine, ArcGIS Pro, L^AT_EX, Python

SKILLS

Machine Learning, Decision Trees, Discrete Choice Analysis, Environmental Valuation, Policy Analysis