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## Academic Appointments

- 2022-2023. **Postdoctoral Research Associate**, WSU Puyallup Research and Extension Center, Washington State University.
- 2020-2022. **USDA NIFA Postdoctoral Fellow**, Ornamental Plant Pathology, WSU Puyallup Research and Extension Center, Washington State University.

## Education

- 2015-2020. **PhD** Plant Pathology, Forestry and Agricultural Biotechnology Institute, Dept. of Plant & Soil Science, University of Pretoria, South Africa. Dissertation: *Phytophthora* diversity in the Cape Floristic Region. Primary Supervisor: Mike Wingfield. Co-Supervisors: Treena Burgess, Francois Roets.
- 2016-2019. **Affiliate Research Student**, Dept. of Conservation Ecology & Entomology, Stellenbosch University, South Africa.
- 2012-2014. **Dual MSc** Dept. of Botany & Plant Pathology, Dept. of Wood Science & Engineering, Oregon State University. Thesis: Phytosanitation of Douglas-fir (*Pseudotsuga menziesii*) logs to mitigate the risk of artificially disseminating *Phytophthora ramorum* within the global trade of timber. Advisers: Everett Hansen & Jeff Morrell.
- 2006-2010. **BSc** Dept. of Natural Resource Sciences, Washington State University. Undergraduate Thesis: Influence of climatic variables on forest growth in the Sierra Nevada Mountains.

## Initiatives

- 2022- PI, *Ravenholt Urban Forest Health Lab* (<https://treehealth.wsu.edu/>), Washington State University, Albert Victor Ravenholt Fund.
- 2020- Program director, *Forest Health Watch* (<https://foresthealth.org/>), Washington State University, United States Department of Agriculture, National Institute of Food and Agriculture.
- 2022- Prime mover, *Open Redcedar Adaptation Network* (<https://jmhulbert.github.io/adaptation>), Washington State University.
- 2022- Prime mover, *USDA APHIS PPA 7721 Invasive Species Outreach for Tribes* (<https://extension.wsu.edu/invasive-species>), Washington State University.
- 2020- Organizer, *WSU Forestry Working Group*, Washington State University.
- 2020- Organizer, *Pacific Northwest Citizen Science Network* <https://pnwcitsci.org/>
- 2016-2020 Project leader, *Cape Citizen Science* (<https://citsci.co.za/>), Forestry and Agricultural Biotechnology Institute, University of Pretoria, Stellenbosch University, DST-NRF Centre of Excellence in Tree Health Biotechnology.
- 2019- Prime mover, *Forest Health Citizen Science Community* (<https://fhcs.page/>).
- 2018-2019 Instructor, *R for biology and ecology workshop series* (<https://jmhulbert.github.io/r/>), two series offered at University of Pretoria and one series offered at Stellenbosch University.
- 2012-2014 Co-founder, *Inspiration Dissemination* (<http://blogs.oregonstate.edu/inspiration/>), KBVR 88.7fm, Oregon State University.

## Community Service

- 2021-2024 Volunteer, Nature and Environment Council, MetroParks Tacoma
- 2021 Member, Pierce County Community Engagement Task Force
- 2021 Volunteer Mechanic, Second Cycle, Tacoma, Washington
- 2020-2021 Voting Member, Puyallup Watershed Initiative, Forest Community of Interest
- 2018 Volunteer Mechanic, Palouse Bicycle Collective, Moscow, Idaho
- 2014-2015 Volunteer Shop Manager, Corvallis Bicycle Collective, Corvallis, Oregon

## Publications

### Book Chapters

- Liebholt A, Moltzen B, Juzwik J, **Hulbert JM**, (submitted) Forest tree pathogen biosecurity. USFS National Forest Health Assessment Chapter 6.
- Van der Colff D, Ebrahim I, Powrie LW, Rebelo AG, Edge D, Mecenero S, Scott SL, Hoffman MT, **Hulbert JM**, Dithale N, Mahood K, Gafen M, Sink KJ, Franken M, Zikishe V, Grieve K, Parbhoo S, Dayaram A and Turner SC. 2019. 'Biodiversity provides opportunities for citizen science' chapter in *National Biodiversity Assessment 2018: Compendium of Benefits of Biodiversity*. South African National Biodiversity Institute, Pretoria. [hdl.handle.net/20.500.12143/6491](http://hdl.handle.net/20.500.12143/6491)

## Peer-Reviewed Manuscripts

- Brooks R, Omdall D, **Hulbert JM**, Brown S, Marshall JC, Elliott M, Chastagner GA. 2023. *Cryptostroma corticale*, the causal agent of sooty bark disease of maple, appears widespread in western Washington State, USA. *Forest Pathology*. Online Early View e12835.
- Andrus et al. 2023. Canary in the Forest? – Tree mortality and canopy dieback of western redcedar linked to drier and warmer summers. *Journal of Biogeography* JBI-23-0212.R1.
- **Hulbert JM**, Hallett RA, Roy HE, Cleary M 2023. Citizen science can enhance strategies to detect and manage invasive forest pests and pathogens, *Frontiers in Ecology and Evolution* 11. DOI: 10.3389/fevo.2023.1113978.
- Lanning KK, Kline N, Elliott M, Stamm E, Warnick T, LeBoldus JM, Garbelotto M, Chastagner GA, **Hulbert JM** 2023. Citizen science can add value to *Phytophthora* monitoring: five case studies from western North America. *Frontiers in Environmental Science* 11. DOI: 10.3389/fenvs.2023.1130210.
- Fraisl D, Hager G, Bedessem B, Hsing P, Gold M, Haklay M, **Hulbert JM**, and others 2022. Citizen Science in environmental and ecological sciences, *Nature Review Methods Primers* 2, 64. DOI: 10.1038/s43586-022-00144-4.
- Engelbrecht J, Duong TA, Paap T, **Hulbert JM**, Hanneman JJ, van den Berg N 2022 . Population genetic analyses of *Phytophthora cinnamomi* reveals three lineages and movement between natural vegetation and avocado orchards in South Africa. *Phytopathology*. DOI: 10.1094/PHYTO-10-21-0414-R
- Bose TB, **Hulbert JM**, Burgess TI, Paap T, Wingfield MJ 2021. Two novel *Phytophthora* species from the Cape Floristic Region of South Africa. *Mycological Progress*, 20(6):755-767. DOI: 10.1007/s11557-021-01702-y.
- Elliott M, **Hulbert JM**, Streng D, Chastagner GA 2021. Multiagency collaborations help public gardens contain *Phytophthora* outbreaks while providing insights and opportunities for novel research. *Plant Health Progress*. DOI: 10.1094/PHP-02-21-0045-FI.
- Paap T, Wingfield MJ, Burgess I, **Hulbert JM**, Santini A. 2020. Harmonising the fields of invasion science and forest pathology. *NeoBiota* 62:301-332. DOI: 10.3897/neobiota.62.52991.
- **Hulbert JM**, Paap T, Burgess TI, Roets F, Wingfield MJ. 2019. Botanical gardens provide valuable baseline *Phytophthora* diversity data. *Urban Forestry and Urban Greening* 46:126461. DOI: 10.1016/j.ufug.2019.126461.
- Ryan SF and 41 others, 2018. The role of citizen science in addressing grand challenges in food and agriculture research, *Proceedings of the Royal Society B* 285(1891). DOI: 710.1098/rspb.2018.1977.
- **Hulbert JM**, Agne MC, Burgess TI, Roets F, Wingfield MJ. 2017. Urban environments provide opportunities for early detection of *Phytophthora* invasions, *Biological Invasions* 19:3629–3644. DOI: 10.1007/s10530-017-1585-z.
- Peterson E, Hansen EM, **Hulbert JM**. 2014. Source or Sink? The role of soil and water borne inoculum in the dispersal of *Phytophthora ramorum* in Oregon tanoak forests. *Forest Ecology and Management*, 322:48-57. DOI: 10.1016/j.foreco.2014.02.031.

## Not Peer-Reviewed Manuscripts

- Hester SN, Kruger H, Ticehurst JL, **Hulbert JM** and Cacho OJ. 2023. Editorial: The Role of Community and Industry Surveillance in Managing Invasive Species: A Review of Current Knowledge. *Frontiers in Ecology and Evolution* 11. (accepted).
- Elliott M, Rollins L, Bourret T, **Hulbert JM**, Chastagner GA 2021. Three new hosts for *Phytophthora ramorum* confirmed in Washington State: Salal, Oregon grape, and red huckleberry, *Plant Health Progress*. DOI: 10.1094/PHP-01-21-0003-FI.
- Chastagner GA, Elliott M, **Hulbert JM** 2021. Effectiveness of fungicides and biopesticides in controlling Botrytis gray mold on western hemlock nursery stock. *Tree Planter's Notes*, 64(1):21-31.
- **Hulbert JM**, Turner SC, Scott SL. 2019. Challenges and solutions to establishing and sustaining citizen science projects in South Africa, *South African Journal of Science*, 115(7/8). DOI: 10.17159/sajs.2019/5844.
- Auerbach J, Barthelmess E, Cavalier D, Cooper C, Fenyk H, Haklay M, **Hulbert JM**, Kyba C, Larson L, Lewandowski E, Shanley L. 2019. The problem with delineating narrow criteria for citizen science. *Proceedings of the National Academy of Sciences*, 116(31). DOI: 10.1073/pnas.1909278116.

- **Hulbert JM** 2019. Citizen science increases the ethics of foreign led research, *Narrative Inquiry in Bioethics*, Johns Hopkins University Press. Volume 9, Number 1, Spring 2019. DOI: 10.1353/nib.2019.0024.
- **Hulbert JM**, Roets F. 2018. Science engagement in South Africa. *Science*, 361(6406):985. DOI: 10.1126/science.aav1499.
- **Hulbert JM**. 2016. Citizen science tools available for ecological research in South Africa, *South African Journal of Science*, 112:5/6. DOI: 10.17159/sajs.2016/a0152.

## Manuscripts in Review or Revision

- **Hulbert JM** (submitted). More mentorship needed for research co-production with marginalized communities.
- **Hulbert JM**, Roets F, Burgess TI, Wingfield MJ. (under revision). Exotic and putatively native *Phytophthora* species are associated with distinct plant communities in southern Afrotropical Forests.
- Louw NL, Roets F, **Hulbert JM** (under revision). Molecular techniques reveal additional factors in the decline of the endangered silver tree (*Leucadendron argenteum*).
- **Hulbert JM**, Scholtz K, Roets F. (under revision). Youth participation in citizen science reveals differences between outreach and engagement and connects plant pathology research to public health.

## Extension Fact Sheets

- Zobrist KW, Bomberger RA, Glass J, **Hulbert JM**, Darr M, Roberts E. 2023. Managing emerald ash borer in Washington State, WSU Extension Fact Sheet FS384.
- Zobrist KW, Bomberger RA, Glass J, Marquis J, **Hulbert JM**, Darr M, Roberts E, (accepted). Emerald Ash Borer and its implications for Washington State, WSU Extension Manual EM127.
- Brooks R, **Hulbert JM**, Omdall D, Elliott M, Chastagner GA 2022. Sooty Bark Disease Diagnostic Guide, WSU Extension Fact Sheet FS375E.

## ArcGIS Story Maps

- Dewitz F, **Hulbert JM**. 2023. Tacoma schools, urban heat and trees
- **Hulbert JM**, Elliott JM, Chastagner G. 2023. *Phytophthora* communities in eastern Cascade waterways

## Community Science Field Guides

- Dewitz F, **Hulbert JM**. 2023. Maple Health Watch Research - iNaturalist and Sample Collection Field Manual.
- **Hulbert JM** 2022. Soil Sample Collection Guide.
- **Hulbert JM**, Dewitz F. 2022. Tacoma Street Tree Vulnerability Study iNaturalist - Field Manual.
- Evans A, **Hulbert JM**. 2022. Western Redcedar Dieback Project - iNaturalist Field Manual 3.0.

## Program Progress Reports

- **Hulbert JM**. 2023. *Ravenholt Urban Forest Health Lab Progress Report*.

## Funding and Support

### Totals

### Total Funding Secured as Postdoc (2020- )

- Funding awarded at WSU: **\$2,918,200** (\$2,582,064 as PI)
- Funding pending: **\$88,221**
- Funding applied for at WSU: **\$4,682,978**

## Postdoc Fellowship Proposals

### Funded

- 2020-2022 **PD**, *Forest Health Defenders: enhancing biosecurity through public engagement in plant disease research*. USDA NIFA EWD Postdoctoral Research Fellowship program (**\$164,967**).

### Submitted

- 2022-2023 **PI**, *Visualizing western redcedar vulnerability and demonstrating assisted seed migration as an approach for climate adaptation*. USGS Northwest Climate Adaptation Science Center Research Fellowship Program (**\$65,069**).
- 2020-2021 **PI**, *Developing a toolkit for climate adaptive conservation of the western redcedar in the Pacific Northwest*. USGS Northwest Climate Adaptation Science Center Research Fellowship Program (**\$63,383**). **Application withdrawn to accept above.**
- 2020-2022 **PI**, *Surveying Phytophthora diversity in the Olympic National Forest with citizen science*. NSF Postdoctoral Fellowship in Biology, Broadening Participation of Groups Under-represented in Biology (**\$138,000**). **Application withdrawn to accept above.**
- 2020 **Postdoc**, *Forest Health Defenders: public engagement to conserve the western redcedar*. David H. Smith Conservation Research Fellowship, Society for Conservation Biology (**\$123,000**).
- 2019 **Postdoc**, *Moss, metals and microbes: revealing hotspots of stormwater contamination with citizen science in the Puget Sound*. David H. Smith Conservation Research Fellowship, Society for Conservation Biology (**\$178,710**).

## Research Grants

### Funded

- 2023 **PI**, *Empowering community college students to equitably enhance urban forests*. USDA Forest Service, Urban and Community Forestry, Inflation Reduction Act (**\$1,786,431**).
- 2023 **PI**, *Enhancing bio-surveillance in the Pacific Northwest by strengthening and leveraging the networks of the Forest Health Watch*. USDA Forest Service, Bipartisan Infrastructure Law (**\$145,000**).
- 2023 **PI**, *Increasing Native Vigilance, Awareness and Surveillance of Invasions via Education and Resources (INVASIVE-R) Project (Year Two)*. USDA APHIS PPQ PPA Section 7721 (**\$89,403**).
- 2023 **Co-PI**, *Washington Nursery and Landscape Biosurveillance Education Program*. Washington State Department of Agriculture, Nursery Research Funding (**\$15,000**).
- 2022 **PI**, *Detecting biological invasions with sentinel plantings at ports and urban points of dispersal in Washington State*. USDA Forest Service, International Programs (**\$205,071**).
- 2022 **PI**, *Tacoma Sooty Bark Disease Vulnerability*. Washington State Department of Natural Resources, Community Forestry Assistance Grant (**\$40,000**).
- 2022 **PI**, *Increasing Native Vigilance, Awareness and Surveillance of Invasions via Education (INVASIVE) Project*. USDA APHIS PPQ PPA Section 7721 (**\$77,763**).
- 2021 **Co-PI**, *Survey and diagnostic activities to identify distribution and host range for maple sooty bark disease in urban areas of the Puget Sound region*. USDA Forest Service Emerging Pests program (**\$31,750**).
- 2020 **Co-PI**, *Stream survey of Phytophthora spp. present in Pacific Northwest larch forests considered to be high risk for P. ramorum establishment*. USDA Forest Service Emerging Pests program (**\$35,910**).
- 2020 **Cooperator/Proposal Author**, *Lateral movement of Phytophthora ramorum in nursery substrates*. USDA APHIS PPQ PPA Section 7721 (**\$48,582**).

### Submitted

- 2023 **PI**, *Enriching Tribal management and resilience to invasive species with co-designed educational materials*. USDA APHIS PPQ PPA Section 7721 (**\$88,221**).
- 2023 **PI**, *Engaging community college students in tree inventory and monitoring blitzes in Washington State*. USDA Forest Service, Bipartisan Infrastructure Law (**\$285,000**).

- 2023 **PI**, *Washington Statewide Campus Tree Blitz* (**\$40,000**).
- 2022 **Co-PI**, *Schools as oases in urban heat islands: addressing urban forest equity through school and community partnerships and research*. National Science Foundation, Civic Innovation Challenge (**\$48,653**).
- 2021 **PI**, *Community engagement to explore the microbes associated with the dieback of western redcedar*. USGS Directed Research Funding - Northwest Climate Adaptation Science Center (**\$226,493**).
- 2021 **PI**, *Empowering communities to understand the effects of climate change on forest health, accelerate research about the dieback of western redcedar, and recognize genetic diversity as a tool for increasing climate resiliency*. USDA Forest Service Urban & Community Forestry 2021 Challenge Cost Share Grant Program (**\$299,539**).
- 2020 **Co-PI/Postdoc**, *Seattle Urban Forest Atlas: An interactive citizen-science geo-database and simulation platform to promote healthy, resilient, and equitable urban forests*. University of Washington EarthLab Innovation Grants Program (**\$74,141**).
- 2019 **PI**, *Forest Health Defenders: Public engagement to conserve the western redcedar*. USDA Forest Service Citizen Science Competitive Funding Program Application (**\$30,000**).

## Foundation Grants and Gifts

### Funded

- 2022 **PI** *Ravenholt Urban Forest Health Lab*, Albert Victor Ravenholt Fund (**\$270,000**).

### Submitted

- 2023 **PI** *Bamford Foundation Urban Science Internship Program* (**\$270,000**).
- 2022 **PI** *Minimizing Human Health Risks and Urban Tree Infections from Sooty Bark Disease*, Tree Research and Education Endowment Fund, John Z. Duling Grant (**\$24,942**).
- 2022 **Co-PI** *Co-Developing Tree Planting Guides for Cities: A Case Study in Tacoma Washington*, Frank & Evelyn Schmidt Family Foundation (**\$25,000**).

## Funded Outreach Grants

- 2020 Tribal Engagement Activity Proposal, Forest Community of Interest, Puyallup Watershed Initiative (**\$8,500**).
- 2018 Social Impact Grant, Faculty of AgriScience, Stellenbosch University (~**\$4,000, received in ZAR**).
- 2017 Mathre Education Endowment Award, American Phytopathological Society (**\$1,000**).
- 2017 Plant Pathology Promotion Fund, British Society for Plant Pathology (~**\$2,500, received in ZAR**).

## Crowdfunded Projects

- 2017 Engage Kayamandi Youth in Cape Citizen Science with Vision Afrika, DOI:10.18258/8690 (**\$626**).
- 2015 Discovering Plant Destroyers in South Africa with Citizen Science, DOI:10.18258/2066 (**\$5,000**).

## In Kind Donations

- 2021 Field Sampling Equipment (GPS units, camera traps, communication devices), Transition Fidalgo
- 2021 Field Notebooks, Rite in the Rain
- 2021 Western redcedar trees, Weyerhaeuser
- 2021 Soil temperature and moisture monitoring equipment, Meter
- 2017 Field Guide to Fynbos (20 copies), Rapula Trust

## Sponsored Internship Proposals

- 2023 *Keeping trees healthy in urbanizing environments of the Pacific Northwest* College of Agriculture, Human and Natural Resource Sciences, Washington State University (**\$2,000**).

- 2022 *Supporting ornamental, flower, and bulb crop productions in the Pacific Northwest through applied research*, College of Agriculture, Human and Natural Resource Sciences, Washington State University, Research and Extension Experiences for Undergraduates (REEU): Sustainable High-value Horticulture and Processing (**\$4,500**).
- 2022 *Keeping trees healthy in changing environments of the Pacific Northwest*, College of Agriculture, Human and Natural Resource Sciences, Washington State University (**\$3,000**).
- 2021 *Tree health and heat islands in Seattle*, College of the Environment, Environmental Science, University of Washington, Capstone Project Proposal.

## Academic Honors & Awards

- 2019 Getting the Message to the Public, Forestry and Agricultural Biotechnology Institute
- 2018 Travel Fund, British Society for Plant Pathology
- 2018 Stephen A. Johnston Student Travel Award, American Phytopathological Society
- 2016 Getting the Message to the Public, Forestry and Agricultural Biotechnology Institute
- 2016 Best Student Personal Website, Forestry and Agricultural Biotechnology Institute
- 2015 Best PhD Oral Presentation, Dept. of Plant Science Postgraduate Research Symposium
- 2014 Graduate Scholarship, Oregon Lottery
- 2014 Travel Award, Oregon State University Graduate School
- 2014 Student Travel Award, Botany and Plant Pathology Graduate Student Association
- 2014 Bartholomew Memorial Scholarship
- 2014 Most Innovative Radio Program, Intercollegiate Broadcasting System
- 2014 Best WSE Oral Presentation, Western Forestry Graduate Research Symposium
- 2013 Schutz Family Fellowship
- 2013 Alfred W. Moltke Fellowship
- 2013 Jack & Lila Saubert Fellowship
- 2013 Larry Moore Award for Graduate Education in Plant Pathology
- 2013 Student Travel Award, Western International Forest Disease Work Conference

## Academic Leadership

- 2022- Vision Committee Member, WSU Puyallup Research and Extension Center
- 2020- Program Director, Forest Health Watch
- 2020- Organizer, Forestry Working Group, Washington State University
- 2021- Member, Forest Adaptation Network
- 2017-2020 Committee Member, American Phytopathological Society, Committee for Diversity and Equality
- 2017-2020 Committee Member, American Phytopathological Society, Forest Pathology Committee
- 2016-2020 Founder and Project Leader, Cape Citizen Science
- 2015 Coordinator, University of Pretoria Invasive Species Journal Club
- 2014 Founder and Director, Botany and Plant Pathology BUDS Program
- 2014 Planning Committee Member, Western Forestry Graduate Research Symposium
- 2013-2014 President, Botany and Plant Pathology Graduate Student Association
- 2013-2014 Co-Founder and Director, Forest Graduate Undergraduate Mentorship Program
- 2013 Planning Committee Member, Western Forestry Graduate Research Symposium
- 2013 Planning Committee Member, College of Forestry Graduate Student Orientation
- 2013 Organizer, Natural Science Graduate Student BBQ
- 2012-2014 Co-host, Inspiration Dissemination
- 2012-2014 Officer, College of Forestry Graduate Student Council
- 2012-2014 Wood Science Steward, Coalition of Graduate Employees
- 2012-2014 Graduate Representative, Dept. of Wood Science and Engineering
- 2012-2014 Committee Member, Wood Science and Engineering Graduate Affairs
- 2012 Organizer, Natural Science Graduate Student BBQ



## Teaching Experience

### Guest Lectures

- 2023 Washington State University, School of the Environment, Disturbance Ecology (SOE 485) Lecture, *Forest Pathology in the Pacific Northwest*.
- 2023 Highline Community College, Botany and Evolution, *Urban forests, tree health, equity and community science* (two lectures).
- 2023 University of Puget Sound, Research Methods, *Tacoma community science, western redcedar health as indicators of inequities*.
- Green River College, Forest Ecology, On-Campus Lab instruction, *Western redcedar dieback on Green River Campus*.
- 2023 University of Washington Tacoma, Environmental Science, *Urban forest health and community science in Tacoma*.
- 2022 Washington State University, Plant Pathology (PLP 429) *Forest Pathology - Tree health issues in the Pacific Northwest*.
- 2022 Pierce College, Cell Biology, *Stream sampling for Phytophthora* (2 classes, two field lessons and one lab visit).
- 2022 University of Washington, Human Centered Design and Engineering, Directed Research Groups, Spring Quarter, *The UX of climate change: western redcedar dieback*.
- 2022 Green River College, Forest Resource Management, Forest Ecology, On-Campus Lab instruction, *Western redcedar dieback and Sooty Bark Disease issues on Green River Campus*.
- 2022 Washington State University, School of the Environment, Graduate class in Ecology (SOE 593) Lecture, *Western redcedar dieback and the community science approach*.
- 2021 Washington State University, Department of Plant Pathology, General Plant Pathology (PLP 429) Lecture, *Forest Pathology - concepts and issues in the Pacific Northwest*.
- 2021 Pierce College, Cell Biology, On-Campus Lecture, *The need for more forest health scientists to increase climate resilience in urban communities*.
- 2021 Green River College, Forest Resource Management, Forest Health and Protection course, On-Campus Lab instruction, *Sooty bark disease and western redcedar dieback on Green River campus*.
- 2021 Pacific University, Department of Biology and Environmental Science, Plant Pathology, *Western redcedar dieback - plant pathology research with Pacific University*.
- 2021 Evergreen State College, Environmental Studies, Field Ecology Lecture, *Western redcedar dieback - exploring local project opportunities with students at Evergreen State College*.
- 2021 Green River College, Forest Resource Management, Forest Ecology Lecture, *Western redcedar dieback - exploring local project opportunities with students at Green River College*.
- 2021 Washington State University, School of the Environment, Disturbance Ecology (SOE 485) Lecture, *Tree root diseases - effects at multiple scales*.
- 2021 University of Washington, Human Centered Design and Engineering, Directed Research Group, Winter & Spring Quarters, *The UX of climate change: Forest Health Watch - community engagement for healthy forests*
- 2020 Washington State University, Department of Plant Pathology, General Plant Pathology (PLP 429) Lecture, *Forest Pathology*.
- 2020 Washington State University, 4H Ecostewards Program, Chelan/Douglas County Extension, Guest Lecture, *Super Fungi - adaptations and super powers*.
- 2018 Cape Peninsula University of Technology, Faculty of Applied Sciences, Btech Plants Module, Lecture, *Invasive microscopic organisms: plant pathogens and biosecurity*.
- 2018 Stellenbosch University, Dept. of Conservation Ecology & Entomology, CONSECOL414: Advanced Conservation Management, Lecture, *Microscopic organisms: plant promoters and plant destroyers*.
- 2017 Stellenbosch University, Dept. of Conservation Ecology & Entomology, CONSECOL414: Advanced Conservation Management, Lecture, *A look into the microscopic world: lifelines or invisible threats*.
- 2017 Stellenbosch University, Dept. of Conservation Ecology & Entomology, CONSECOL414: Advanced Conservation Management, Field Course, Drie Kulien Nature Reserve.
- 2016 Stellenbosch University, International Winter School, Biodiversity & Ecology Course, Lecture, *Surveying Phytophthora species with citizen science*.

## Co-direction

- 2021 University of Washington, Human Centered Design and Engineering, Directed Research Group, Winter & Spring Quarters, *The UX of climate change: western redcedar dieback*.

## Field Assistance

- 2021 Evergreen State College, Environmental Studies Path Affiliation, *Field Ecology*
- 2021 Green River College, BAS in Forest Resource Management program, *Forest Ecology*

## Workshop Instruction

- 2019 University of Pretoria, Faculty of Natural and Agricultural Sciences, *R for biology data science workshop series (5 sessions, 76 participants, packages: ggplot2 and dplyr)*.
- 2019 University of Pretoria, Forestry and Agricultural Biotechnology Institute, *RStudio and R package workshop series (5 sessions, 35 participants, packages: ggplot2, dplyr, vegan and Markdown)*.
- 2018 Stellenbosch University, Dept. of Conservation Ecology & Entomology, *RStudio and R package workshop series (4 sessions, 23 participants, packages: ggplot2, dplyr, and vegan)*.

## Courses Prepared to Teach

- Invasion / Disturbance Ecology
- Forest Health and Protection
- Forest Pathology
- Methods of Citizen and Community Science

## Event Organization

### Webinars

- 2023 *Ravenholt Urban Forest Health Spring 2023 Webinars*
- 2023 *Invasive species workshop and webinars for Tribal Audiences* (Virtual Workshop).
- 2021 Webinar Co-Organizer, Western Redcedar: Cultural and ecological reflections and dieback concerns, Treeline Webinar Series.
- 2021 Webinar Co-Organizer, Arbutus ARME (<https://www.arbutusarme.org>), Inaugural Member Meeting -Spring.
- 2021. Session Moderator (4 sessions), Washington Forest Owners' Winter School, Washington State University Extension.
- 2020 Webinar Co-Organizer, Arbutus ARME (<https://www.arbutusarme.org>), Inaugural Member Meeting (Webinar).

### Workshops

- 2023 *Invasive species workshop and webinars for Tribal Audiences* (Virtual Workshop).
- 2022 E3 Washington Virtual Conference Workshop, *Schools as oases in urban heat islands: identifying the barriers*.
- 2022 City of Tacoma, *Tacoma Tree Pest Identification Workshop*, City of Tacoma Waste Transfer Station and Nursery.
- 2022 Pacific Education Institute, *Urban Forestry Solutions Oriented Storylines*, Almendinger Conference Center, WSU Puyallup Research and Extension Center, Puyallup, Washington.
- 2022 Washington Invasive Species Council & Washington State University, *Invasive Species Preparedness Resources for Tribal Nations Workshop*, Almendinger Conference Center, WSU Puyallup Research and Extension Center, Puyallup, Washington.

## Conferences

- 2024 Session Coordinator, *Public engagement to keep urban trees and communities healthy*, IUFRO 26th World Congress 2024, Stockholm, Sweden.
- 2022 Conference Co-Organizer, *Pacific Northwest Citizen Science Summit*, Online Conference, Zoom.
- 2022 Session Chair, Collaboration and Community Science, Human-Nature Systems, Salish Sea Ecosystem Conference. Online Conference, Zoom.
- 2021 Conference Co-Organizer, *Pacific Northwest Citizen Science Summit*, Online Conference, Zoom.
- 2019 Session Coordinator, *Forest health defenders: empowering citizens to protect forests through research contributions*, IUFRO XXV World Congress, Curitiba, Brazil.
- 2018 Event Co-organizer, *South Africa Citizen Science Fair, International Citizen Science Day Event*, Kirstenbosch National Botanical Garden, Cape Town, South Africa.
- 2017 Session Coordinator, *Early detection and monitoring of invasive forest pests and pathogens with citizen science*, IUFRO 125th Anniversary Congress, Freiburg, Germany.
- 2014 Symposium Planning Committee, *Canopies to construction: the ecology, management and use of tomorrow's forests*, Western Forestry Graduate Symposium, Corvallis, Oregon, USA.
- 2013 Symposium Planning Committee, *Branching out: communicating forest research beyond academics*, Western Forestry Graduate Symposium, Corvallis, Oregon, USA.

## Invited Panel Participation

- 2023 *Bringing Youth Outside*, Healing Connections: Nature and Wellness Symposium.
- 2023 *Climate Migration Workshop*, Human Centered Design and Engineering, University of Washington.
- 2022 *Professional Q&A*, Northwest Innovative Forestry Summit, Forest Guild, UW Pack Forest, Eatonville, Washington.
- 2021 *Urban Forests: Climate Change Solution or Casualty?* Youtube, Cascadia Climate Action, Climate Science on Tap Event.
- 2015 *Is one tree worth a forest?* World Forestry Congress, World Cafe Forest Health Session, Durban, South Africa.
- 2013 *Maximizing your graduate education*, new student orientation panel, Graduate School, Oregon State University.

## Presentations

### North American Conferences

- 2023 **Hulbert JM**, Community engagement, Oomycetes and western redcedar dieback, American Phytopathological Society annual conference, Denver, Colorado.
- 2023 **Hulbert JM**, Community engagement for healthy forests, Western International Forest Disease Work Conference, Sonoma, California.
- 2023 Elliott M, **Hulbert JM**, Murray T, Chastagner G, Identification of the sooty bark pathogen (*Cryptostroma corticale*) from hosts in multiple states, Western International Forest Disease Work Conference, Sonoma, California (Poster Presentation).
- 2023 Elliott M, **Hulbert JM**, Murray T, Chastagner G, Detecting biological invasions with sentinel plantings at ports and urban points of dispersal in Washington State, Western International Forest Disease Work Conference, Sonoma, California (Poster Presentation).
- 2023 **Hulbert JM**, Western redcedar dieback - open analyses of open data, Washington GIS Association annual meeting, Tacoma, Washington.
- 2023 **Hulbert JM**, Community engagement can enhance biosurveillance, Western Forest Insect Work Conference, Seattle, Washington.
- 2022 **Hulbert JM**, Sooty Bark Disease - Climate Change Time Bomb in the Pacific Northwest, Partners in Community Forestry, Seattle, Washington.
- 2022 **Hulbert JM**, History of PNW CitSci and the Citizen Science Community, Pacific Northwest Citizen and Community Science Summit (Virtual Presentation).
- 2022 **Hulbert JM**, Sooty Bark Disease: Diagnostics & Research in the Pacific Northwest Pacific

Northwest International Society of Arboriculture Meeting, Coure D'Alene, Idaho.

- 2022 **Hulbert JM**, Are Oomycetes associated with the dieback of western redcedar?, 10th Meeting of the International Union of Forest Research Organizations, Working Party S07.02.09 - *Phytophthora* in Forests and Natural Ecosystems Berkeley California.
- 2022 **Hulbert JM**, Forest Health Watch: empowering communities to keep trees healthy, 10th Meeting of the International Union of Forest Research Organizations, Working Party S07.02.09 - *Phytophthora* in Forests and Natural Ecosystems Berkeley California.
- 2022 **Hulbert JM**, Community engagement to accelerate research and learning about the dieback of western redcedar. Salish Sea Ecosystem Conference. (Virtual Presentation).
- 2022 **Hulbert JM**, Community engagement can accelerate research about urban forest health issues. Urban Ecology and Conservation Symposium, Urban Ecosystem Research Consortium, Portland Oregon. (Virtual Presentation).
- 2021 **Hulbert JM**, Western redcedar dieback as an indicator of the effects of climate change on cultural resources and tribal communities, 2021 Rising Voices Workshop, Virtual (Poster-walk) Presentation
- 2021 **Hulbert JM**, So, you want to start a citizen science project?, 2021 Pacific Northwest Citizen and Community Science Summit, Virtual Presentation.
- 2021 **Hulbert JM**, Forest Health Watch: empowering community scientists to accelerate research, Northwest Climate Conference (Online), Virtual Presentation.
- 2021 **Hulbert JM**, Urban Ecology and Conservation Symposium, Urban Ecosystem Research Consortium, Exploring the dieback of western redcedar as a symbol of the inequities in urban environments. Video Poster Presentation.
- 2018 **Hulbert JM**, Burgess TI, Roets F, Wingfield MJ. 2018. Pathogen hunters: nonscientist engagement in plant disease research, International Congress for Plant Pathology, Boston. Poster Presentation.
- 2018 **Hulbert JM**, Burgess TI, Roets F, Wingfield MJ. 2018. The Cape Town Hypothesis Test: *Phytophthora* in urban vs natural environments, International Congress for Plant Pathology, Boston. Poster Presentation.
- 2014 **Hulbert JM**, Morrell JJ, Hansen EM. 2014. Chemical treatment to sanitize *Phytophthora ramorum* colonized timber products and mitigate the risk of accidental dissemination of Sudden Oak Death. International Union of Forest Research Organizations, World Congress. Salt Lake City. Poster Presentation.
- 2014 **Hulbert JM**, Rosenberger R. 2014. Forest G.U.M.P. The value of graduate-undergraduate mentorship programs. International Union of Forest Research Organizations, World Congress. Salt Lake City. Poster Presentation.
- 2014 **Hulbert JM**, Morrell JJ, Hansen EM. 2014. Potential of using boron for mitigation of *Phytophthora ramorum* in Douglas-fir logs. International Research Group on Wood Protection 45th annual meeting. St. George, Utah. Oral Presentation.
- 2014 **Hulbert JM**, Kamvar Z. 2014. *Inspiration Dissemination*: Science Communication for College Students. American Association for the Advancement of Science Annual Meeting. Chicago, Illinois, Poster Presentation.
- 2014 **Hulbert JM** 2014. The value of graduate-undergraduate mentorship programs. Biennial Conference on University Education in Natural Resources Auburn University, Auburn, Alabama.
- 2014 **Hulbert JM**, Kamvar Z. 2014. *Inspiration Dissemination*: Science Communication for College Students. Biennial Conference on University Education in Natural Resources Auburn University, Auburn, Alabama.
- 2012 **Hulbert JM**, Morrell J, Hansen E. 2012. Chemical treatment to sanitize *Phytophthora ramorum* colonized timber products. Western International Forest Disease Work Conference, Tahoe City, California. Oral Presentation.
- 2011 Hansen E, **Hulbert JM**, Reeser P, Sutton W, Kanaskie A. 2011. Sudden larch death? Larch susceptibility to *Phytophthora ramorum*. Western International Forest Disease Work Conference, Leavenworth Washington. Poster Presentation.

## International Conferences

- 2022 **Hulbert JM**. Citizen science approaches: mass participation or structured monitoring of invasive species. International Plant Health Conference, London. Recorded presentation.
- 2019 **Hulbert JM**. Methods of public engagement in forest health research, IUFRO XXV World Congress, Curitiba, Brazil. Oral Presentation.
- 2019 **Hulbert JM**, Burgess T, Roets F, Wingfield MJ. Non-scientist engagement in plant disease research in South Africa, IUFRO XXV World Congress, Curitiba, Brazil. Oral Presentation.
- 2017 **Hulbert JM**, Burgess T, Roets F, Wingfield MJ. Public engagement to survey *Phytophthora* in South Africa, IUFRO Working Party *Phytophthora* in forests and natural ecosystems (7.02.09), Sapa, Vietnam. Oral Presentation.
- 2017 **Hulbert JM**, Roux J, Burgess T, Roets F, Wingfield MJ. Citizen science initiatives: opportunities to manage global forest pest challenges, IUFRO 125th Anniversary Congress, Freiburg, Germany. Oral Presentation.
- 2017 **Hulbert JM**, Roux J, Burgess T, Roets F, Wingfield MJ. Cape Citizen Science: public engagement to detect and discover *Phytophthora* species in South Africa, IUFRO 125th Anniversary Congress, Freiburg, Germany. Poster Presentation.
- 2017 **Hulbert JM**, De Beer ZW, Wingfield MJ. Cape Citizen Science: public engagement for plant disease research in a biodiversity hotspot, International Botanical Congress, Shenzhen, China, Poster Presentation (not presenting author).
- 2014 **Hulbert JM**, Morrell JJ, Hansen EM. Wooden Vectors of *Phytophthora ramorum*: Are Douglas-fir Logs a Risk? Seventh Meeting of the IUFRO Working Party 7.02.09 *Phytophthora* in Forests and Natural Ecosystems, Esquel, Argentina. Poster Presentation (not presenting author).
- 2012 Peterson E, **Hulbert JM**, Hansen EM. Roads and streams are not significant pathways for SOD spread in tanoak forests. 6th IUFRO *Phytophthora* in Forest and Natural Ecosystems. Cordoba, Spain. Oral Presentation (not presenting author).

## South African Conferences

- 2018 **Hulbert JM**. Igniting conversations with community engagement: establishing citizen science projects in South Africa, Science Forum South Africa, Pretoria, South Africa. Oral Presentation.
- 2017 **Hulbert JM**, Roets FR. Indigenous plant pathogens and their contributions to plant community diversity, Fynbos Forum, Swellendam, South Africa. Oral Presentation.
- 2017 **Hulbert JM**, Roets FR. Revealing hidden threats to fynbos biodiversity with citizen science, Fynbos Forum, Swellendam, South Africa. Oral Presentation.
- 2017 **Hulbert JM**, Roux J, Burgess TI, Roets F, Wingfield MJ. Methods of surveying plant pathogens with citizen science, South African Society for Plant Pathology, 50th anniversary meeting, Champagne Sports Resort, KwaZulu-Natal Province, South Africa. Oral Presentation.
- 2017 **Hulbert JM**, Roux J, Burgess TI, Roets F, Wingfield MJ. Public engagement in South Africa's ecological research: the 'how' and 'why' of citizen science, South African Association of Botanists, Annual Meeting, Cape Town, South Africa. Oral Presentation.
- 2016 **Hulbert JM**, Agne MC, Roux J, Burges TI, Roets F, Wingfield MJ. Records of *Phytophthora* invasions suggest that early detection programs should focus on urban environments, DST-NRF Centre of Excellence for Invasion Biology Workshop, *Non-native species in urban environments: patterns, processes, impacts and challenges*, Stellenbosch, South Africa. Oral Presentation.
- 2016 **Hulbert JM**. Monitoring invasive species with citizen science: an international review, Joint South African Association of Botanists-Southern Africa Society for Systematic Biology Conference, Bloemfontein, South Africa. Oral Presentation.
- 2015 **Hulbert JM**. Early detection and monitoring of invasive plant pests with citizen science, DST-NRF Centre of Excellence for Invasion Biology Workshop, *Evolutionary Dynamics of tree invasions: drivers, dimensions, and implications for management*, Stellenbosch, South Africa. Oral Presentation.

## Symposia

- 2023 Master Gardener Advanced Education Conference. *Backyard Citizen Science opportunities in the Northwest*. Oral Presentation.
- 2022 University of Washington Urban Forest Symposium. *Western redcedar trees as cultural resources in urban environments*. Pre-recorded presentation.
- 2022 Washington State University Research Week, *Engaging community scientists in research about tree health and urban heat islands*. Virtual Presentation.
- 2021 Washington State University Research Showcase, *Community science to keep forests healthy in the face of climate change*. Poster presentation.
- 2021 Washington State University, 4th Annual plant Science Symposium, *Forest Health Watch: community science to accelerate research about the dieback of western redcedar*. Poster presentation.
- 2020 Portland State University, Cedar Summit, *Understanding western redcedar dieback: the community science approach*, Virtual Presentation.
- 2020 Puyallup Watershed Symposium, Pierce County, *Forest Health Watch - community science for healthy forests*, Webinar Presentation.
- 2019 University of Pretoria, Forestry and Agricultural Biotechnology Institute, Tree Protection Co-operative Program Annual Meeting, *Phytophthora multivora: local driver of plant diversity and global agent of bio-insecurity*.
- 2018 University of Pretoria, Forestry and Agricultural Biotechnology Institute, Tree Protection Co-operative Program Annual Meeting, *Phytophthora diversity in southern Afrotropical forests*.
- 2017 Stellenbosch University, Dept. of Conservation Ecology & Entomology, Research Day, *Introduction to Cape Citizen Science: A project to engage the public in plant disease research*.
- 2016 University of Pretoria, Forestry and Agricultural Biotechnology Institute, Tree Protection Co-operative Program Annual Meeting, *Developing a citizen science program on tree health in South Africa*.
- 2016 University of Pretoria, Forestry and Agricultural Biotechnology Institute, NRF-DST Centre of Excellence in Tree Health Biotechnology Annual Meeting, *The history of Phytophthora cinnamomi in South Africa*.
- 2015 University of Pretoria, Dept. of Plant & Soil Science Postgraduate Research Symposium, *Introduction to Cape Citizen Science: A project to engage the public in plant disease research*.
- 2014 Oregon State University, College of Forestry, Western Forestry Graduate Research Symposium, *Wooden vectors of Phytophthora ramorum: Are Douglas-fir logs really a risk?*
- 2013 Oregon State University, College of Forestry, Western Forestry Graduate Research Symposium, *Chemical treatments to sanitize Phytophthora ramorum colonized timber material and mitigate the risk of artificial Sudden Oak Death dissemination*.

## Seminars and Lab Meetings

- 2023 Washington State University, Department of Plant Pathology Fall Seminar Series, *Citizen science and biosecurity- opportunities for plant disease monitoring and research*
- 2022 Washington State University, Department of Plant Pathology Fall Seminar Series, *Research needs for mitigating the emergence of sooty bark disease in the Pacific Northwest* (Virtual Presentation).
- 2021 USDA Forest Service, Forest Health and Protection (Region 6), monthly forest pathology meeting, *Sooty Bark Disease: climate change 'time bomb' in many broadleaf trees in the PNW* (Virtual Presentation).
- 2021 Washington State University, Department of Plant Pathology Spring Seminar Series, *Forest Health Watch: community engagement for healthy forests* (Virtual Presentation).
- 2021 Systematic Biology Seminar, Systematic Biology Programme, Uppsala University, Sweden *Citizen science methods to accelerate research about forest health issues* (Virtual Presentation).
- 2020 Washington State University, Forestry Working Group meeting, *Forest Health Watch and the WSU forestry community* (Virtual Presentation).
- 2020 Washington State University, 4-H Eco-Stewards Program meeting, *Forest Health Watch - community science in the Pacific Northwest* (Virtual Presentation).
- 2020 University of Pretoria, Forestry and Agricultural Biotechnology Institute, *A quest for plant*

*destroyers in the Cape Floristic Region: a story of the growth of an indigenous-plant pathologist* (PhD Prestige Seminar).

- 2018 Stellenbosch University, Dept. of Conservation Ecology and Entomology, Roets, Oberlander, and Dryer Join Lab Meeting, *The Cape Town Hypothesis Test*.
- 2017 University of Pretoria, Forestry and Agricultural Biotechnology Institute, Thursday Morning Seminar Series, *The trade of live plants in Africa: a risk to tree health?*
- 2016 University of Pretoria, Forestry and Agricultural Biotechnology Institute, Research Discussion Seminar, *The role of scientists in society: developing a responsible protocol in case we discover an internationally regulated plant pathogen*.
- 2016 University of Pretoria, Dept. of Plant and Soil Science, Fall Seminar Series, *Citizen science tools available for phytogeographical research in South Africa*.
- 2016 Stellenbosch University, Dept. of Plant Pathology, Friday Forum Seminar Series, *Cape Citizen Science: community engagement to survey *Phytophthora* species in the fynbos*.
- 2016 University of Pretoria, Forestry and Agricultural Biotechnology Institute, Thursday Morning Seminar Series, *Methods of sampling *Phytophthora* with citizen science*.
- 2015 Oregon State University, Dept. of Botany and Plant Pathology, Spring Seminar Series, *Crowd-funding and citizen science applications in biology*.
- 2013 Oregon State University, Dept. of Wood Science & Engineering, Spring Seminar Series, *Using wood science to mitigate the impact of Sudden Oak Death*.

### Invited Talks

- 2023 Canadian Phytopathological Society, British Columbia Regional Meeting. Keynote: *Sharing the responsibility of biosecurity: engaging communities in plant disease monitoring* (Virtual Presentation).
- 2023 Environmental Justice Week, Highline College, *Urban forest equity and tree health in the Pacific Northwest*.
- 2023 Washington Invasive Species Council Meeting, September. *Summary of the 2023 Invasive Species Workshop and Webinars for Tribal Audiences*
- 2023 Palouse Discovery Science Center, Science Pub *Community minded scholarship: empowering people to address concerns with community science*.
- 2022 Washington Community Forestry Council Meeting, *Urban Forestry Programming at WSU* (Virtual Presentation).
- 2022 Northwest Indian Fisheries Commission, USDA Animal and Plant Health Inspection Service, Emergency Preparedness Response Management Training, *USDA APHIS INVASIVE Project Introduction*.
- 2021 Washington Department of Natural Resources, Presentation to State Forester & Forest Health Division Leads, *Forest Health Watch: community engagement for healthy forests* (Virtual Presentation).
- 2021 Western International Forest Disease Workgroup, Climate Change Committee Update, *Western redcedar dieback update* (Virtual Presentation).
- 2021 Green River Coalition, Guest Seminar for Interns, *Forest Health Watch: community science to accelerate research* (Virtual Presentation).
- 2021 Seattle Climate Change Meetup Group, *Community scientists needed in forest health and climate change research* (Virtual Presentation).
- 2021 PlantAmnesty Member Event, *Community scientists needed to explore and understand the dieback of western redcedar* (Virtual Presentation).
- 2021 Bonneville Environmental Foundation, Treeline Practitioners Meeting, *Tools for community engagement: creating custom projects on iNaturalist* (Virtual Presentation).
- 2021 City of Tacoma, Nature and Environment Advisory Council Meeting, *Forest Health Watch: community engagement for healthy parks* (Virtual Presentation).
- 2021 Arbutus ARME, Spring member meeting, *TreeSnap and iNaturalist observation update*, (Virtual Presentation).
- 2021 Forest Resource Management Faculty Meeting, Green River College, *Forest Health Watch: community engagement for healthy forests* (Virtual Presentation).
- 2020 University of Washington, Urban Ecology Research Lab Meeting, *Exploring the dieback of western*

- redcedar as a metaphor for the inequities in urban communities* (Virtual Presentation).
- 2020 Climate Resiliency Fund, Bonneville Environmental Foundation, Riparian Climate Corridors Project Extension Group Meeting, *Forest Health Watch - community science* (Virtual Presentation).
  - 2020 King County, King County Conservation District Forestry Team Meeting, *Western redcedar dieback in King County* (Virtual Presentation).
  - 2020 Washington State Department of Agriculture, Plant Protection Group Meeting, *Forest Health Watch - upcoming community science program* (Virtual Presentation).
  - 2020 South King County Culture (SoCoCulture), Member Update, *Forest Health Watch - partnering with SoCuCulture to promote the Engaging Trees platform* (Virtual Presentation).
  - 2020 Forest Adaptation Network, Bi-Annual Meeting, *Forest Health Watch - engaging communities in forest adaptation science* (Virtual Presentation).
  - 2020 Seattle Urban Forestry Interdepartmental Team, Quarterly Meeting, *Forest Health Watch - upcoming community science program* (Virtual Presentation).
  - 2020 Seattle Urban Forestry Commission, Monthly Meeting, *Forest Health Watch - community science in the Pacific Northwest* (Virtual Presentation).
  - 2020 City of Seattle, Urban Forest Core Team, monthly Meeting, *Forest Health Watch - an upcoming community science program in the Pacific Northwest* (Virtual Presentation).
  - 2020 Puyallup Watershed Initiative, Forest Community of Interest, Bimonthly Meeting, *Forest Health Defenders - Pacific Northwest citizen science - brainstorm and discussion* (Virtual Presentation).
  - 2020 Forestry and Natural Resources Extension Coffee Hour, Oregon State University, *Forest Health Defenders - Pacific Northwest citizen science - brainstorm and discussion* (Virtual Presentation).
  - 2020 EcoPhysiology Working Group, Reed College, Portland State University & WSU Vancouver, *Forest Health Defenders - Pacific Northwest citizen science - brainstorm and discussion* (Virtual Presentation).
  - 2020 Urban Ecology Research Laboratory, University of Washington, *Seattle Urban Forest Atlas project proposal*.
  - 2019 National Research Foundation, South African Agency for Science and Technology Advancement, FAMELAB Alumni Network Event, *Public engagement with citizen science in South Africa*.
  - 2018 Transatlantic Science Education Cooperative, Annual Workshop, Stellenbosch University, *Cape Citizen Science: methods of youth engagement*.
  - 2018 Iimbovane Outreach Workshop, Centre for Excellence in Invasion Biology, Stellenbosch University, *Microscopic organisms: why and how we study them*.
  - 2018 Plant Conservation Unit, University of Cape Town, *Benefits and challenges of citizen science: the experiences of @CapeCitSci in South Africa*.
  - 2018 Farm to Table Working Group, North Carolina State University, *Citizen science in South Africa: applications for agriculture* (teleconference).
  - 2018 University of Pretoria, Forestry and Agricultural Biotechnology Institute, 20th Anniversary Meeting, *Inspiring a new generation of plant health specialists in Africa*.
  - 2018 University of Washington, School of the Environment and Forests, Harvey Lab Meeting, *Citizen science and plant disease in South Africa*.
  - 2016 Stellenbosch University, Dept. of Conservation Ecology and Entomology, Regional Universities Forum for Capacity Building in Agriculture (RuForum) visit, *Conserving Biodiversity with citizen science*.
  - 2016 Agricultural Research Council, Stellenbosch University, Dept. of Plant Pathology, Pre-symposium Fungal Pathogens Discussion Group, ARC-PPRI 24th Interdisciplinary Symposium on Soil-borne Plant Diseases, *Public engagement to survey plant destroyers in South Africa*.
  - 2016 Stellenbosch University, Centre of Excellence in Invasion Biology, Dept. of Zoology, Invasives in the Cape Discussion Group, *Is the greatest threat to South Africa's natural resources something we cannot see?*
  - 2015 Oregon State University, Dept. of Integrative Biology, Undergraduate Club, Spring Term Meeting, *Deciding how to impact the world: Issues, options, and tools*.
  - 2015 Oregon State University, Science Communication Brown Bag Lunch Seminar Series, *Crowdfunding: creating new possibilities for science*.
  - 2014 Oregon State University, Science Communication Brown Bag Lunch Seminar Series, *The Process of Podcasting: Using College Radio to Communicate Science*.



- 2014 Oregon State University, College of Forestry, Researcher Teacher Partnerships: Making global climate change relevant in the classroom, Spring Workshop, *Invasive Species: Service Learning Opportunities for K-12*.
- 2014 Oregon State University, College of Forestry, Researcher Teacher Partnerships: Making global climate change relevant in the classroom, Spring Workshop, *Inspiring Science as Graduate Students*.

## Competitive Presentations

### Travel Awards

- 2020 Washington State University, Innovation and Research Engagement Office, Research Week, *Washington State Forest Health and Climate Change Research Cooperative*.

## Science Communication

- 2013 Scholars Insights, Oregon State University, *It only takes one spore to start an epidemic*.

## Public Engagement

### Public Presentations

- 2022 Forest Health Watch, Tacoma Community Science Introduction (Virtual Presentation).
- 2022 Washington State University, Forest Health Watch. Sooty Bark Disease Bi-Monthly Information Sessions (Virtual Presentation).
- 2022 Forest Health Watch, Monthly Research Updates (Virtual Presentations).
- 2022 Washington State University, WSU Forestry Webinar, Western Redcedar Dieback Webinar *Community science to advance knowledge and learning about western redcedar dieback* (Virtual Presentation).
- 2022 Washington State University, *Forest Health Watch - Collaborator Update Meetings (2 events)* (Virtual Presentation).
- 2021 Tacoma Tree Foundation, Growing Skills Webinar Series, *Tracking sooty bark disease in the Pacific Northwest* (Virtual Presentation).
- 2021 Comox Valley Nature (Vancouver Island, BC), *Western Redcedar Dieback and Community Science in the Pacific Northwest* (Virtual Presentation).
- 2020 Tacoma Tree Foundation, Growing Skills Webinar Series, *Forest Health Watch - recognizing signs and symptoms of tree pests and diseases in our neighborhoods* (Webinar Presentation).
- 2020 Washington State University, *Forest Health Watch - Collaborator Update Meetings (3 events)* (Virtual Presentation).
- 2018 South African Citizen Science Project Fair, International Citizen Science Day, Old Mutual Conference Center, Kirstenbosch National Botanical Garden, *Cape Citizen Science*.
- 2018 Friends of Brackenfell Nature Reserve, Brackenfell Nature Reserve, monthly meeting, *How citizens can protect the Cape Floral Kingdom from new plant diseases*.
- 2018 Wildlife and Environment Society of South Africa, Tygerberg Nature Reserve, Big Friends Group Event, *How citizens can protect the Cape Floral Kingdom from new plant diseases*.
- 2017 South African National Biodiversity Institute, Kirstenbosch National Botanical Garden, Room To Grow Wednesday Talks Series, *Cape Citizen Science: plant disease in the fynbos*.

## Youth Engagement Activities

- 2023 Forest Management Class, Science and Math Institute, Tacoma Washington *Forest Health and Invasive Species walk*.
- 2023 Ecology Club, Chief Leschi, Puyallup Tribe of Indians School District, *Soil sampling and monitoring*.
- 2022 Northwest Youth Corps, Capitol Land Trust, Inspiring Kids Preserve, *Forest Health and Invasive Species walk*.
- 2022 Muckleshoot Tomanamus Forest, Muckleshoot Tribal College - Early College Program and College and Career Education Opportunities Program, *Invasive Species* (1 event).

- 2022 Ecology Club, Chief Leschi, Puyallup Tribe of Indians School District, Ecology Club, *Earth Day tree planting*.
- 2022 Hilltop Heritage Middle School, Thrive Program, *Educational walk and tree identification* (1 event), Point Defiance Park, Tacoma, Washington.
- 2021 Mount Tahoma High School, Botany class *Forest Walk at Lincoln Tree Farm*, Spanaway, Washington.
- 2021 Muckleshoot Tribal College - Early College Program, *Educational Walks in Tomanamus Forest* (2 events), Tomanamus Forest, Green Water, Washington.
- 2021 Muckleshoot Tribal College - Early College Program, *Research Tour*, Washington State University, Puyallup Research and Extension Center.
- 2018 Kluitjieskraal and Waterval Junior Rangers, *Part 2: Collecting bark and ambrosia beetles*, Cape Nature, Wolseley.
- 2018 Littlewood Primary, *Part 2: Collecting bark and ambrosia beetles*, Cape Nature, Wolseley.
- 2018 Littlewood Primary, *Part 1: Collecting bark and ambrosia beetles*, Cape Nature, Wolseley.
- 2018 Kluitjieskraal and Waterval Junior Rangers, *Part 1: Collecting bark and ambrosia beetles*, Cape Nature, Wolseley.
- 2017 SANParks Junior Rangers, *Hike to De Mond*, Cape Point, Table Mountain National Park.
- 2017 Noordhoek Primary, *Cape Citizen Science Presents: Cape Nature Junior Ranger Adventures in Rochepan Nature Reserve*, Cape Nature, Veldrift.
- 2017 Littlewood Primary, *Cape Citizen Science Presents: Cape Nature Junior Ranger Adventures in Drift Sand Nature Reserve*, Cape Nature, Blue Downs.
- 2017 Se7en +1 homeschool group, *Cape Citizen Science Presents: Lab Visit with Se7en +1*, Stellenbosch University, Stellenbosch.
- 2017 Fish Hoek Girl Guides, *Adventures with First Fish Hoek Girl Guides*, Fish Hoek.
- 2017 Se7en +1 homeschool group, *Mountain hike with Seven+1*, Fish Hoek.
- 2017 Mamre Girls Brigade, *Cape Citizen Science Presents: Adventures in Silwer Stream*. Cape Nature, Mamre.
- 2017 South African Education and Environment Project, *SAEP and Cape Citizen Science Present: Adventures in Helderberg Nature Reserve*, three activities (July 29, August 5, and October 7), Cape Town Municipality, Somerset West.
- 2017 South African Education and Environment Project, *SAEP and Cape Citizen Science Present: Adventures in Cape Point*, three activities (June 10, 17 and 24), Cape Point, Table Mountain National Park.
- 2017 Vision Afrika, *Pathogen hunting in Jonkershoek Nature Reserve on Earth Day*, Jonkershoek Nature Reserve, Stellenbosch.
- 2016 Helderberg Eco-Rangers, *Sampling streams for Phytophthora and monitoring stream health with miniSASS*, Edward Wood Environmental Education Center, Somerset West.
- 2016 Helderberg Eco-Rangers, *Training to be citizen scientists: reporting dying plants with IspotNature*, Helderberg Eco-Rangers, Edward Wood Environmental Education Center, Somerset West.
- 2016 Four Cape Town Scout Troops, *Cape Citizen Science: plant disease on Hoys Koppie*, Hermanus, Scout excursion.
- 2016 Helderberg Eco-Rangers, *Disease in our fynbos*, Edward Wood Environmental Education Center, Somerset West.
- 2015 Se7en +1 homeschool group, *Sampling in Kirstenbosch National Botanical Garden*, South African National Biodiversity Institute, Cape Town.
- 2014 Wood Magic Volunteer, *Forest products in everyday materials*, World Forestry Institute, Portland, Oregon.
- 2013 Wood Magic Volunteer, *Forest products in everyday materials*, World Forestry Institute, Portland, Oregon.

## Outdoor Events

- 2023 *Tacoma Tree Foundation*, Maple Health Watch walk and happy hour, Franklin Park, Tacoma, Washington.

- 2022 *Tacoma Tree Foundation*, Private hike with donor, Madrone Ecology, Point Defiance, Tacoma, Washington.
- 2022 *City of Renton and Renton School District*, Redcedar Tree Planting, Black River Riparian Area, Renton, Washington.
- 2022 *Tacoma Tree Foundation*, Redcedar Tree PLanting, Swan Creek, Tacoma, Washington.
- 2021 *Issaquah Alps Trail Club*, Forest Health, Tiger Mountain, Issaquah, Washington.
- 2021 *Tacoma Tree Foundation*, Madrone Ecology, Swan Creek, Tacoma, Washington.
- 2020 *Arbutus ARME*, Madrone Ecology, Point Defiance, Tacoma, Washington.

## Promotional Table Events

- 2023 WSU Puyallup Research and Extension Center, Tomanamus Community Day, Muckleshoot Indian Tribe, Green Water, Washington.
- 2023 Forest Health Watch, Fall State Fair - NW Outdoors Exhibit, Puyallup, Washington.
- 2023 WSU INVASIVES-R Project, Affiliated Tribes of Northwest Indians,
- 2023 WSU INVASIVES-R Project, Northwest Intertribal Agricultural Council Regional Meeting, Pendleton Oregon.
- 2023 Forest Health Watch, Tacoma Garden Festival, Tacoma, Washington.
- 2023 Forest Health Watch, South Sound Sustainability Fair, Tacoma, Washington.
- 2023 Forest Health Watch, Spring State Fair - NW Outdoors Exhibit, Puyallup, Washington.
- 2022 Forest Health Watch, Focus on Forestry, Monroe, Washington.
- 2022 WSU Puyallup Research and Extension Center, Tomanamus Community Day, Muckleshoot Indian Tribe, Green Water, Washington.
- 2022 Forest Health Watch, Climate Science on Tap, Seattle, Washington.
- 2022 WSU INVASIVES Project, Affiliated Tribes of Northwest Indians Annual Convention, Tulalip, Washington.
- 2022 Forest Health Watch, South Sound Sustainability Fair, Tacoma, Washington.
- 2022 Forest Health Watch, Tacoma Tree Foundation, Hilltop Tree Giveaway, Tacoma, Washington.
- 2018 Science Forum South African, Council for Scientific and Industrial Research, Pretoria.
- 2018 Biodiversity Careers Day, Kirstenbosch Research Centre, Cape Town.
- 2017 Science Forum South African, Council for Scientific and Industrial Research, Pretoria.
- 2017 National Science Week \_\_, \_\_ African Institute of Mathematical Sciences, Khayelitsha.
- 2017 Open Day, Faculty of AgriSciences, Stellenbosch University.
- 2016 Hermanus Botanical Society Flower Festival, Hermanus.
- 2016 Funky Fynbos Festival, Gaansbai.
- 2015 Arbor Week Expo, Stellenbosch.
- 2013 Spring Discovery Days, Oregon State University.
- 2013 Fall Discovery Days, Oregon State University.

## Stakeholder Engagement

### Presentations

- 2023 Forest Health Watch, November Collaborator Updates (3 meetings with presentations)
- 2023 Annual Training Conference, Pacific Northwest Chapter of the International Society of Arboriculture, *Western redcedar dieback in the urban environment, Tacoma, Washington.*
- 2023 Intertribal Agriculture Council, Pacific Northwest Region Meeting, *No-cost educational materials to amplify awareness and mitigate the impacts of invasive species.*
- 2023 Washington State University Extension Western Washington Family Field Day, *Emerging Diseases in the Pacific Northwest.*
- 2023 Cascadia User Group of Open Source (CUGOS) meeting, *Western redcedar dieback: open analyses of open data*, Seattle, Washington.
- 2023 Port of Tacoma, Invasive Species Workshop, *Sentinel Plantings in Tacoma: a tool for detecting new arrivals of invasive species*, Tacoma, Washington.

- 2023 Ravenholt Urban Forest Health Webinars, *Tacoma Sooty Bark Disease Vulnerability Study* (Online Webinar).
- 2023 South Sound Mushroom Club, *Fungi and tree health in the Pacific Northwest*, Olympia, Washington.
- 2023 Northwest Natural Resources Group, Fireside Chat, *Monitoring tree health: community mapping to study western redcedar dieback*.
- 2022 Northwest Innovative Forestry Summit, Forest Guild, *Forest Health Watch - data for public engagement and project implementation*, UW Pack Forest, Eatonville, Washington.
- 2022 Washington State University Extension Online Field Day, *Emerging Diseases in the Pacific Northwest* (Pre-Recorded Online Presentation).
- 2022 Pacific Northwest International Society of Arboriculture Meeting, *Sooty Bark Disease: Diagnostics & Research in the Pacific Northwest* (Pre-Recorded Online Presentation).
- 2022 Affiliated Tribes of Northwest Indians, Natural Resource Committee, *Brief introduction to WSU /USDA APHIS INVASIVE Project*.
- 2022 Intertribal Agriculture Council, Pacific Northwest Region Meeting, *FY22 USDA APHIS PPA 5.0595: Increasing Native Vigilance, Awareness and Surveillance of Invasions via Education (INVASIVE) Project*.
- 2022 WSU Master Gardeners, Lewis County Chapter, *Community science to study the dieback of western redcedar*.
- 2022 Washington State University, Master Naturalist Programming, *Community science to study the dieback of western redcedar*. (Two Virtual Presentations).
- 2022 Washington Native Plant Society, Koma Kushan Chapter, *Community scientists needed for Western redcedar dieback in Pacific Northwest*. (Virtual Presentation).
- 2022 Selkirk Alliance for Science, *Community Science for western redcedar research* (Webinar Presentation).
- 2022 Washington State Department of Transportation, Revegetation Climate Change Discussions *Forest Health Watch and western redcedar dieback research* (Webinar Presentation).
- 2022 Washington State University, Washington Forest Owners' Winter School, *Sooty Bark Disease in the PNW - what to look for in your maple trees* (Webinar Presentation).
- 2022 City of Seattle, *Sooty Bark Disease in the Pacific Northwest*, Integrated Pest Management and Recertification Webinar (Virtual Presentation).
- 2022 South Sound Educators, Science Leadership Collaborative, *Linking ecology education and research with iNaturalist* (Virtual Presentation).
- 2021 - 2022 Washington State University, *Forest Health Watch - Research Updates*, Montly (June-Dec) (Virtual Presentations).
- 2021 Issaquah Alps Trail Club, *Community scientists needed for Western redcedar dieback in Pacific Northwest*. (Virtual Presentation).
- 2021 Idaho Native Plant Society, Kinnikinnick Chapter, *Community scientists needed for Western redcedar dieback in Inland Northwest*. (Virtual Presentation).
- 2021 Idaho Native Plant Society, White Pine Chapter, *Community scientists needed for Western redcedar dieback in Inland Northwest*. (Virtual Presentation).
- 2021 Montana Native Plant Society, Flathead and Kelsey chapters *Community scientists needed for research about western redcedar dieback* (Virtual Presentation).
- 2021 USFS Region 6 Advanced Silviculture Training *Community science to accelerate research and enhance biosecurity in the Pacific Northwest* (Virtual Presentation).
- 2021 WSU Extension Lewis County Invasive Species Workshop *Keeping trees healthy in Washington - WSU research and extension services* (Virtual Presentation).
- 2021 Washington State University, Master Gardener Advanced Diagnostic Training Workshop *Forest Health Watch: community science to accelerate research* (Virtual Presentation).
- 2021 Shoreline Green Cities Partnership Forest Stewards Training, *Community scientists needed for redcedar dieback research* (Virtual Presentation).
- 2021 Redmond Green Cities Partnership Forest Stewards Training, *Community scientists needed for redcedar dieback research* (Virtual Presentation).
- 2021 Issaquah Green Cities Partnership Forest Stewards Training, *Community scientists needed for redcedar dieback research* (Virtual Presentation).

- 2021 Washington State University Extension SW Washington Forestry Tech Series, *Tracking forest health issues with iNaturalist* (Virtual Presentation).
- 2021 Seattle Green Cities Partnership Forest Stewards Training, *Western redcedar dieback in Seattle* (Virtual Presentation).
- 2021 Thurston County Master Gardeners, *Forest health concerns and community science in the Pacific Northwest* (Virtual Presentation).
- 2021 Portland Metro, monthly conservation teams meeting, *Forest Health Watch: community science to accelerate research* (Virtual Presentation).
- 2021 WSU Grays Harbor & Pacific County Master Gardeners, *Forest Health Watch: community science to accelerate research* (Virtual Presentation).
- 2021 Bainbridge Island Watershed Council, *Forest Health Watch: community engagement for healthy forests* (Virtual Presentation).
- 2021 Washington State University, *Pacific Northwest Forest Biosurveillance Training (June)* (Virtual Presentation).
- 2021 Washington State University, *March Forest Health Watch - Collaborator Update Meetings (4 events)* (Virtual Presentation).
- 2021 Washington State University, Washington Forest Owners' Winter School, *Western redcedar dieback: what's happening and how you can help* (Webinar Presentation).
- 2021 Duwamish River Re-vegetation Partners Meeting, King County, *Insights for healthy restoration practices* (Virtual Presentation).
- 2020 Green Cities Partnership Network Meeting, *Forest Health Watch - keeping forests healthy* (Virtual Presentation).
- 2020 Washington State University, *November Forest Health Watch - Collaborator Update Meetings (3 events)* (Virtual Presentation).
- 2017 South African National Biodiversity Institute, *Introduction to Phytophthora*, Plant Pest Monitoring and Prevention Workshop, International Plant Sentinel Network, Kirstenbosch National Botanical Garden, November 6-7, 2017.
- 2017 South Africa National Parks, *Forest Phytophthoras: invisible threats or contributors to plant community diversity?* Garden Route National Park SANParks Office, Knysna, South Africa.
- 2017 Cape Town Municipality, *Plant disease in the Cape Floristic Region*, Branch Meeting, Cape Town.
- 2017 Cape Town Municipality, Cape Nature, World Wildlife Foundation, *Plant disease in the Cape Floristic Region*, BioNet Steering Committee Meeting, Cape Town.
- 2016 South Africa National Parks, *Cape Citizen Science: Sampling Phytophthora with Citizen Science*, Research Committee Feedback Discussion, Cape Research Centre, Tokai, Cape Town.
- 2016 Cape Nature, *Involving Cape Nature to study dying plants in the fynbos*, Eastern Division Quarterly Ecological Meeting, George.
- 2016 Cape Nature, *Engaging citizens in research through workshops and targeted sampling*, Central Division Quarterly Ecological Meeting, Fernkloof Nature Reserve, Hermanus.
- 2016 Cape Nature, *Community driven research about plant disease in the fynbos*, Western Division Quarterly Ecological Meeting, Porterville.

### WSU Puyallup REC Tours

- 2023 Tacoma Community College, Environmental Science students, Fall.
- 2023 Pacific Lutheran University, Botany students
- 2023 Tacoma Community College, Environmental Science students, Spring.
- 2023 Tacoma Community College, Math Engineering and Science Achievement (MESA) students.
- 2022 Conservation District Foresters.
- 2022 Pierce County Americorps Crew.
- 2022 City of Tacoma, Washington Conservation Corps Crew.

### Community Science Events

- 2023 Issaquah Alps Trail Club, Northwest Tiger Mountain, Issaquah, Washington.
- 2022 Tacoma Tree Foundation, Redcedar walk, Swan Creek, Tacoma, Washington.

- 2022 Issaquah Alps Trail Club, Squak Mountain, Issaquah, Washington.
- 2023 Issaquah Alps Trail Club, North Tiger Mountain, Highline Trail, Issaquah, Washington.
- 2021 Transition Fidalgo and Friends, Anacortes, Washington.

### Plant Health Workshops

- 2023 Sooty Bark Disease Tour, Annual Training Conference, Pacific Northwest Chapter of International Society of Arboriculture.
- 2022 Forest Health Watch, Wapato Park Tour, Co-hosted with Forterra and City of Tacoma Open Spaces, Tacoma, Washington.
- 2017 South African National Parks, *Hunting for Phytophthora in West Coast National Park*, SANParks office, Langebaan, West Coast.
- 2017 Stellenbosch Municipality, *Surveying Phytophthora in Jan Marais Nature Reserve*, Stellenbosch.
- 2016 Cape Nature, *Surveying Phytophthora in Marloth Nature Reserve*, Marloth Nature Reserve, Swellendam.
- 2016 South African National Biodiversity Institute, *Recognizing plant disease, sampling soil, and testing hypotheses*, Harold Porter Botanical Garden, Bettys Bay.
- 2016 Stellenbosch University, *Recognizing plant disease and sampling soil for Phytophthora spp.*, Stellenbosch University Botanical Garden, Stellenbosch
- 2016 South African National Biodiversity Institute, *Hypothesis testing in Kirstenbosch National Botanical Garden with Citizen Science*, Kirstenbosch National Botanical Garden, Kirstenbosch Garden Office, Cape Town.
- 2016 South African Botanical Society, *Surveying Phytophthora species in Fernkloof Nature Reserve*, Fernkloof Nature Reserve Hall, Hermanus.
- 2016 South Africa National Parks, *Surveying Phytophthora species in Agulhas National Park*, SANParks Office, Agulhas.
- 2016 South African National Biodiversity Institute, *Phytophthora soil baiting in the Protea Garden*, Kirstenbosch National Botanical Garden, Kirstenbosch Garden Office, Cape Town.
- 2016 South Africa National Parks, *Sampling dying plants and the Breede river in Bontebok National Park*, Bontebok National park, Swellendam.
- 2016 South African National Biodiversity Institute, *Recognizing plant disease: why and how*, Kirstenbosch National Botanical Garden, Kirstenbosch Garden Office, Cape Town.
- 2016 South Africa National Biodiversity Institute, *Introduction to Phytophthora: plant destroyers in South Africa*, Kirstenbosch National Botanical Garden, Kirstenbosch Garden Office, Cape Town.

### Mentorship and Supervision

- 2023 Jah’Niya Myers. Internship Project (Senior), College of Agricultural, Human, and Natural Resource Sciences Internship Program, Washington State University
- 2023 Anne Marie Ring. Part-time Summer lab and field technician, University of Puget Sound Biology and Geography undergraduate student.
- 2022 Noah Willards. Part-time Lab Technician and prospective graduate student.
- 2022 Fig Dewitz. Part-time Lab and Field Technician.
- 2022 Taylor McNees. Capstone Project and Lab Technician, Microbiology, University of Washington Tacoma
- 2022 Hibaaq Arte, Capstone Project (Senior), Environmental Studies, University of Washington
- 2022 Daviti Vardishvili, Internship Project (Junior), High-Value Agriculture Research and Extension Experiences for Undergraduate Students (REEU) Program, Washington State University
- 2022 Grant Irey, Internship Project (Freshmen), College of Agricultural, Human, and Natural Resource Sciences Internship Program, Washington State University
- 2022 Nicole Vonberckefeldt, Capstone Project (Senior), Natural Resources, Green River College
- 2022 Jennifer Olson, Capstone Project (Senior), Natural Resources, Green River College
- 2022 Lyndsay Felthoven, Capstone Project (Senior), Environmental Studies, University of Washington
- 2022 Angela Mabel Gaither, Capstone Project (Senior), Environmental Studies, University of Washington

- 2021 Brienne Laia & Hailey Dilow, Marine Chemistry Science Project (Grade 12), Bellarmine Preparatory Highschool, Tacoma, Washington.
- 2018 Eric Norton, BSc Honors (4th year), Dept. of Conservation Ecology and Entomology, Stellenbosch University.
- 2018 Ashleigh Basel, BSc Honors (4th year), Dept. of Conservation Ecology and Entomology, Stellenbosch University.
- 2017 Grég Thiry, MSc Environmental Education, Université of Montpellier, France. South African Environmental Education Project Intern.
- 2017 Nicolas Louw, BSc Honors (4th year), Dept. of Conservation Ecology and Entomology, Stellenbosch University.
- 2017 Adam Wentzel, Work Integrated Learning Student, Cape Nature, Jonkershoek Nature Reserve, Dept. of Biodiversity and Conservation, Cape Peninsula University of Technology.
- 2017 Tara Nair Van Ryneveld, BSc Honors (4th year), Plant Conservation Unit, Dept. of Biological Sciences, University of Cape Town.
- 2017 Liza-Marie Dippenaar, BSc Plant Pathology 4th year project, Dept. of Plant Pathology, Stellenbosch University.
- 2017 James Coldrey, BSc Plant Pathology 4th year project, Dept. of Plant Pathology, Stellenbosch University.
- 2016 Jeff Groenewald, BSc (3rd year), Biodiversity and Ecology, Dept. of Botany and Zoology, Stellenbosch University.
- 2014 Emma Buczkowski, BSc Zoology, Dept. of Botany & Plant Pathology Undergraduate Mentorship Program (BUDS) Oregon State University.
- 2014 Joey DeSheilds, BSc Molecular and Cell Biology, Dept. of Botany & Plant Pathology Mentorship Program (BUDS), Oregon State University.
- 2014 Kayla Nass, BSc Wood Science and Engineering, Hourly Morrell Lab Student Employee, Oregon State University.
- 2014 Al Pancoast, BSc Forest Engineering, Forestry Graduate Undergraduate Mentorship Program (GUMP), Oregon State University.
- 2014 Alex Abair, BSc Botany & Plant Pathology, Hourly Hansen Lab Student Employee, Oregon State University.
- 2013 Josh Petitmermet, Hourly Hansen Lab Student Employee, Oregon State University.
- 2013 Jake Kotche, Hourly Hansen Lab Student Employee, Oregon State University.
- 2013 Patrick Duyck, BSc Forest Engineering, Personal Initiative.

## Mentorship Outcomes

- McNees T, **Hulbert JM**, Elliott M, Chastagner G. 2023. Sooty bark disease of bigleaf maple: A microscopic threat to the world's largest maple species, Puyallup Watershed Symposium.
- McNees T, NSF Graduate Research Fellowship proposal: Population genomics of *Cryptostroma corticale*.
- Arte H, White E, Felthoven L, Gaither A, Billo T, McDonald S, **Hulbert JM** (Manuscript in Prep). Western redcedar dieback is associated with urban heat in King County Washington.
- Olson J, Vonberckefeldt N, **Hulbert JM** 2022. Oomycete communities associated with redcedar on Green River College campus, Green River College Capstone Presentation.
- Vardishvili D, Shrader K, Harvey S, **Hulbert J**, Chastagner G. 2022. Post-harvest hydration treatment effects on the vase life of Peonie, Washington State University, Summer Undergraduate Research Symposium. (Poster Presentation.)
- Gaither A, Billo T, **Hulbert JM** 2022. Redcedar dieback and urban heat in Renton, Environmental Studies Capstone Project Presentations, University of Washington. Poster Presentation.
- Felthoven L, Billo T, **Hulbert JM** 2022. Redcedar dieback and environmental health disparities in Seattle, Environmental Studies Capstone Project Presentations, University of Washington. Oral Presentation.
- Laia B, Dilow H, **Hulbert J** 2021. Phytophthora species associated with unhealthy red alder trees at Titlow Park, Bellarmine Preparatory Highschool Science Fair.

- Basel A, **Hulbert JM**, Midgley G, Jacobs S, Dreyer L, Roets F. 2018. Disease or drought? A physiological analysis on the effects of *Phytophthora* infection and water stress on *Leucadendron argenteum*, Fynbos Forum, Worcester, South Africa. Oral Presentation.
- Groenewald J, Roets F, **Hulbert JM**. 2017. *Phytophthora cinnamomi*: a driver behind endangered flora in the CFR?, South African Association of Botanists, Annual Meeting, Cape Town, South Africa. Poster Presentation.
- Louw NL, Roets F, **Hulbert JM**. 2017. The diminishing silver lining: re-evaluating the microscopic threats to South Africa's silver tree, Fynbos Forum, Swellendam, South Africa. Oral Presentation.

## Professional Development

- 2022 Columbia River Inter-Tribal Fish Commission, Aquatic Invasive Species Workshop, Aquatic Ecology Laboratory, Washington State University Vancouver.
- 2021 Integrating Climate into Hazard Mitigation Plans (Western Region), Tribes & Climate Change Program, Institute for Tribal Environmental Professionals, Northern Arizona University.
- 2021 CC101: Introduction to Climate Change Adaptation Planning for Tribes, Tribes & Climate Change Program, Institute for Tribal Environmental Professionals, Northern Arizona University.
- 2021 Software/Data Carpentry workshop at the UW eScience Institute, University of Washington.
- 2021 Partnership Development Training, USDA Forest Service
- 2020 PI Roles and Responsibilities Training, Washington State University.
- 2020 Working with Industry 101, Washington State University.
- 2020 Study Circle on Racism and Equity, Washington State University.
- 2018 Citizen science and youth education in South Africa, Transatlantic Science Education Cooperative, Stellenbosch University.
- 2017 The People Side of Ecology, Social Science Methods Workshop, Dept. of Conservation Ecology and Entomology, Stellenbosch University.
- 2016 Introduction to Phylogenetics Workshop, Forestry and Agricultural Biotechnology Institute, University of Pretoria.
- 2016 Microsatellite Workshop, Forestry and Agricultural Biotechnology Institute, University of Pretoria.

## Digital Media Production

### Data Visualization

- Tacoma schools, urban heat and trees, (ArcGIS storymap).
- *Phytophthora* communities in eastern Cascade waterways, (ArcGIS storymap).
- Western Redcedar Dieback Map - Community Scientists (daily update), (Tableau Public).
- Western Redcedar Dieback Map - Preliminary Analysis (daily update), (Tableau Public).

### YouTube Channels

- WSU Invasive Project - USDA APHIS Project # 5.0595
- WSU Ravenholt Urban Forest Health Lab

### Video Production

- 2021 Western Redcedar Dieback Research and Community Science at Washington State University. YouTube.
- 2021 Western Redcedar Dieback Map - Adding Observations to iNaturalist. YouTube.
- 2020 Forest Health Watch - Puyallup High School Introduction. YouTube.
- 2017 A year of empowering young minds. YouTube.
- 2016 Engage Kayamandi youth in Cape Citizen Science with Vision Afrika. Experiment.com.
- 2016 Release your inner scientist (website header). YouTube.
- 2015 Discovering plant destroyers in South Africa with citizen science. Experiment.com.



## Podcast Production

- 2017 *Dylan*, Cape Citizen Science.
- 2015 *Behind the Research*, Oregon State University, College of Forestry.
- 2012-2014 *Inspiration Dissemination*, Oregon State University, 88.7fm KBVR.

## Web Development

- 2023- WSU Ravenholt Urban Forest Health Lab, Wordpress (<https://treehealth.wsu.edu/>)
- 2023- WSU Invasive Species, Wordpress (<https://extension.wsu.edu/invasive-species/>)
- 2020- Ornamental Plant Pathology, Wordpress (<https://ppo.puyallup.wsu.edu/>).
- 2020- PNW Citizen Science, Github Pages (<https://pnwcitsci.org/>).
- 2019- Forest Health Citizen Science Community, Github Pages (<https://fhcs.page/>).
- 2018- R Workshop Series, html & R Markdown (<https://jmhulbert.github.io/r/>).
- 2015- Cape Citizen Science, Wordpress (<https://citsci.co.za>).
- 2015-2016 Personal website, Drupal (<https://jmhulbert.me>).
- 2013-2014 Inspiration Dissemination, Drupal ([oregonstate.edu/inspire](https://oregonstate.edu/inspire)).
- 2013-2014 Botany and Plant Pathology Graduate Student Association, Drupal (<https://gsa.bpp.oregonstate.edu>).
- 2013-2014 Western Forestry Graduate Research Symposium, Drupal ([gradsymp.forestry.oregonstate.edu](https://gradsymp.forestry.oregonstate.edu)).
- 2013-2014 Forest Graduate Undergraduate Mentorship Program, Drupal ([gump.forestry.oregonstate.edu](https://gump.forestry.oregonstate.edu)).

## Selected Popular Writing

- Hulbert JM. 2023. Maple health watch - community scientists needed, Forest Stewardship Notes, Washington Department of Natural Resources.
- Zobrist K, Shults P, Hulbert JM. 2022. Focus on: emerald ash borer, WSU Puget Sound Extension Forestry Fall E-Newsletter.
- Zobrist K, Shults P, Hulbert JM. 2022. Washington residents should anticipate impacts from emerald ash borer, Forest Stewardship Notes, Washington Department of Natural Resources.
- Hulbert JM. Community scientists needed for western redcedar dieback research. Kelseya, Montana Native Plant Society, Volume 34, Issue 4, Summer 2021.
- Hulbert JM. Forest Health Watch – Opportunities to contribute to research and strengthen our biosecurity. PNW ISA Trees, Spring Issue 2021.
- Hulbert JM. Pacific Northwest Forest Bio-Surveillance Training Available, DNR & WSU Forest Stewardship Notes.
- Hulbert JM 2021. Community science and the dieback of western redcedar, treeline, Bonneville Environmental Foundation, Watersheds Program.
- Hulbert JM 2020. Forest Health Watch - a new community science initiative in the Northwest, Forest Stewardship Notes, Washington Department of Natural Resources.
- Hulbert JM 2020. You can contribute to western redcedar dieback research, Small Forest Landowner News.
- Hulbert JM, Roets F. 2017. Citizen science: how ordinary people can guard Cape Town's biodiversity, The Conversation-Africa.
- Hulbert JM. 2017. Pathogen Hunters: citizen scientists track plant diseases to save species, The Conversation-Africa.
- Hulbert JM. 2017. Two species of plant killing genus *Phytophthora* found in a Western Cape garden, Veld & Flora Vol 103(1).
- Hulbert JM. 2017. Citizen Science, Supernova: the magazine for curious kids Vol 6.1.
- Hulbert JM. 2016. Citizen driven science: the citizen science movement in South Africa, Quest Magazine, Vol 12 (2).
- Hulbert JM. 2016. Plant Destroyers, Supernova: the magazine for curious kids, Vol 5.6.
- Hulbert JM. 2016. Super Fungi, Supernova: the magazine for curious kids, Vol 5.5.
- Hulbert JM. 2016. Citizen science: research experience for all, Veld & Flora, Vol 102(2).

- Hulbert JM. 2016. Recycled pathogens: avoiding accidental infection through awareness, *Agrikultuur Magazine*, Vol 34.
- Hulbert JM. 2015. Microbes, Supernova: the magazine for curious kids, Vol 5.3.
- Hulbert JM. 2015. Citizen engagement in research to protect fynbos—and forests, *SA Forestry*.
- Hulbert JM. Navarro S. 2011. Effective collaboration slows the spread of Sudden Oak Death in Oregon, *Western Forester*, Vol 56(3).

## Selected Media Coverage

### Articles

- Wenda Reed. 2023. High and dry for a NW icon?, *Washington State Magazine*, Fall 2023.
- Seth Truscott. 2023. WSU sentinel plantings to guard against invasive pests, diseases at Washington ports, *WSU CAHNRS News*
- Joe Roberts. 2023. Engaging the curious: WSU Extension educates and empowers citizen scientists, *WSU CAHNRS News*
- WSU, 2022. Climate Science on Tap explores urban forests with WSU researcher, *WSU Insider*
- Nicholas Turner. 2022. Has this iconic Northwest tree reached a tipping point?, *Seattle Times*.
- Pacific Education Institute. 2022. Puget Sound teachers branch out with PEI's urban forestry storylines, online article. + Anna Marie Pizzariello, Education Outreach Report Part 1, *The Real Dirt*, Master Gardener Foundation of Lewis County Newsletter.
- Nathan Gilles. 2022. Pac NW's 'trees of life' are dying. Now we know why, *Columbia Insight*, Online Article.
- Craig Sailor. 2022. Another tree disease has appeared in Pierce County, and this one can injure people, too, *The News Tribune*, Tacoma Washington. Newspaper article.
- Pacific Education Institute. 2022. PEI's Urban Forestry SOLS inspire PSESD teachers to explore forests with students, online article.
- Truscott S. 2022. Tacoma tree planting helps young scientists learn how redcedar can survive changing climates, *College of Agriculture, Human and Natural Resource Science*, Washington State University. Online Article.
- Wheeler H. 2021. Takeaways from Forest Health Watch, *Issaquah Alps Trail Club Newsletter*.
- Editor. 2021. Using iNaturalist to track redcedar dieback. *Koma Kushan Chapter WNPS Newsletter*.
- Truscott S. 2021 WSU researcher engages communities in tree health research with Forest Health Watch, *College of Agricultural, Human and Natural Resource Science*, Washington State University, online article.
- Truscott S. 2021 WSU co-organizes first annual Pacific Northwest Citizen and Community Science Summit, *College of Agricultural, Human and Natural Resource Science*, Washington State University, online article.
- Editor. 2021. Comox Valley Nature lecture discusses western redcedar tree health, *Comox Valley Record*, newspaper.
- Kempe Y. 2021. An iconic tree is dying off in Whatcom — what's causing it and how can you help save it?, *Bellingham Herald*, Bellingham.
- Extoque R. 2021. The Unlikely Partnership Supporting South Seattle Youth Through Forest Science, *South Sound Emerald*, Seattle, digital newspaper.
- Dunne N. 2021. Mapping Cedar Dieback, *University of Washington, Arboretum Bulletin*, Washington.
- Inghram I. 2021. Citizen scientists study western redcedars, *Anacortes newspaper*, Washington.
- Peterson C. 2021. Help needed to assist dying western redcedars. *Hungry Horse News and Whitefish Pilot*, Montana.
- Truscott S. 2021. Citizen scientists can help study, halt die-off of Pacific Northwest's redcedars, *College of Agricultural, Human and Natural Resource Science*, Washington State University, online article.
- Media and Communication 2018. Getting citizen science into South African classrooms, *University of Stellenbosch*, online article.
- de Bruin L. 2018. Be part of the Cape Town hypothesis test, *University of Pretoria homepage*, online article.
- Duvenage E. 2017. Jy kan PhD-student help met grondmonsters, *Die Burger*, newspaper article.

- Burt B. 2017. Citizen scientists around the world take to the woods in an effort to improve the health of forests, IUFRO Spotlight # 49, online article.
- Duvenage E. 2017. Citizen science crowdfunding project pays off, SciBraai, online article.
- Brits E. 2016. 'Publiek kan help om fynbos te red, Netwerk 24, newspaper article.
- Heyl A. 2016. Join the hunt for pathogens in the fynbos, UP News, online article.
- Editor. 2016. Science Project aims to boost fynbos conservation, Boland Gazette, Hermanus Times, newspaper article.
- DeKlerk, R. 2016. Identifying plant diseases at the southernmost point of Africa SanParks Times, magazine article.

## Radio Interviews

- NPR KNKX 88.5 Tacoma Washington, Sooty bark disease vulnerability study, July 12, 2022.
- KBCS 91.3 Bellevue Washington, The Redlined Western Redcedar Study Project, November 18, 2021.
- treehugger podcast, Forest health and climate change (in production)
- treehugger podcast, Madrones! with Arbutus ARME, January, 2021.
- Cherry Creek Media, Wenatchee Washington, March 12, 2021.
- Middag op RSG, RSG 100-104FM, January 23, 2018.
- Detour, Maties MFM 92.6FM, November 29, 2017.
- Green Living, Radio Helderberg 93.6FM, February 23, 2017.
- KLCC News, NPR KLCC 89.7, April 8, 2015.

## Science Community Service

- 2023- Technical Advisory Committee Member, The effectiveness of trees in mitigating stormwater runoff in Western Washington – Phase 2, Washington State Department of Ecology
- 2022 Guest Editor, Special Issue, Frontiers in Ecology and Evolution, *The Role of Community and Industry Surveillance in Managing Invasive Species: a Review of Current Knowledge*
- 2021 Promotion Review, External Evaluation, Associate Professor of Practice
- 2021 Workshop Participant, *Citizen science and its future role for monitoring nature and the environment* (Joint University Initiative, United Kingdom)
- 2021 Adhoc Reviewer, Oregon State University Extension (1 Extension Publication)
- 2021 Adhoc Reviewer, Journal of Plant Pathology (1 Manuscript)
- 2021 Adhoc Reviewer, African Journal of Marine Science (1 Manuscript)
- 2020 Adhoc Reviewer, Urban Forests Urban Greening (1 Manuscript)
- 2020 Adhoc Reviewer, Journal of Science Communication (1 Manuscript)
- 2020 Adhoc Reviewer, Journal of Plant Pathology (1 Manuscript)
- 2020 Adhoc Reviewer, Scientific Reports (1 Manuscript)
- 2019 Adhoc Reviewer, African Journal of Marine Biology (1 Manuscript)
- 2018 Adhoc Reviewer, Biological Invasions (1 Manuscript)
- 2016 Adhoc Reviewer, IMAfungus (1 Manuscript)

## Research Positions

- 2020 - 2023 Postdoctoral Research Associate, Washington State University, Dept. of Plant Pathology, Puyallup Research and Extension Center. Primary Supervisor: Gary Chastagner.
- 2015 - 2019 Graduate Student, University of Pretoria, Dept. of Plant and Soil Sciences, Pretoria, Gauteng, South Africa. Primary Supervisor: Mike Wingfield. Co-supervisors: Treena Burgess, Francois Roets.
- 2016 - 2018 Affiliate Research Student, Stellenbosch University, Dept. of Conservation Ecology and Entomology, Stellenbosch, Western Cape Province, South Africa. Supervisor: Francois Roets.
- 2012 - 2014 Graduate Research Assistant, Oregon State University, Dept. of Wood Science and Engineering, Corvallis, Oregon, USA. Supervisors: Everett Hansen, Jeff Morrell.
- 2011 - 2012 Research Technician, Oregon State University, Dept. of Botany and Plant Pathology, Corvallis, Oregon, USA. Supervisors: Everett Hansen, Paul Resser, Wendy Sutton.

- 2010 Field Technician, Oregon State University, Dept. of Forest Engineering, Resources and Management, Corvallis, Oregon, USA. Supervisors: Dave Shaw, Travis Woolley.
- 2009 Forest Service STEP Field Technician, Joint project with U.C. Davis and Forest Service Sierra Nevada Research Center, Davis, California, USA. Supervisors: Seth Bigelow, Michael Papaik, Malcolm North.
- 2008 Field Technician, Joint project with University of Idaho and Forest Service Rocky Mountain Research Station, Moscow, Idaho, USA. Supervisors: Andrew Hudak, Penny Morgan.
- 2008 Volunteer Lab Technician, Forest Pathology Lab, Forest Service Rocky Mountain Research Station, Moscow, Idaho, USA. Supervisors: Ned Klopfenstein, Mee-Sook Kim.
- 2007 - 2010 Research Technician, Washington State University, Dept. of Plant Pathology, Pullman, Washington, USA. Supervisor: Patricia Okubara.
- 2004 Research Technician, Kansas State University, Dept. of Plant Pathology, Manhattan, Kansas, USA.

## References

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