

BROOKE K. SULLIVAN, PHD

sulli@uw.edu | +1 (206) 841-7643 | ORCID ID:0000-0001-8391-3590

ecological design and planning, resilience, disaster, restoration, arboriculture, halophytes, microbiology

EDUCATION

- 2015-2019 **PhD Science** Coastal and Estuarine Ecology
University of Melbourne, Parkville, Victoria, AUS
- 2009-2011 **Master of Science** Restoration Ecology and Environmental Horticulture
University of Washington, Seattle, Washington, USA
- 1999-2006 **Certificate in Restoration Ecology**
Bachelor of Landscape Architecture
Bachelor of Arts in Community and Environmental Planning
University of Washington, Seattle, Washington, USA

CERTIFICATIONS AND LICENSES

- Registered Consulting Arborist** #541, American Society of Consulting Arborists, 2013
- Open Water SCUBA Diver**, PADI International, 2007
- Tree Risk Assessment Qualification**, International Society of Arboriculture, 2008
- Certified Arborist** #PN-6439A, International Society of Arboriculture, 2007
- WA Driver's license** #SULLIBK200KP, Washington, 1996

PROFESSIONAL EXPERIENCE

- Principal**, *Back To Nature Design*, 121 NW 79th St Seattle, WA 98117
- Arborist**, *TetraTech*, 3475 E Foothill Blvd, Pasadena, CA 91107
- Associate II**, *Environmental Science Associates*, 5309 Shilshole Avenue West, Seattle, WA 98107
- Research Associate**, *Sol-Sea Ltd*, 1417 NW 54th St, Seattle, WA, 98107

TEACHING EXPERIENCE

- Lecturer** *Friday Harbor Labs*, University of Washington, Friday Harbor, Washington, USA. Biodiversity and Monitoring for Estuarine Ecosystems (2021-2023)
- Instructor** *Three Seas Program*, Northeastern University, College of Science, Boston, Massachusetts, USA. Conservation and Restoration of Marine Systems (2022)
- Lecturer** *Department of Landscape Architecture*, University of Washington, Seattle, Washington, USA. Ecological Design and Planning (2018-2020), Plant ID and Management (2019-2022), Planting Design Seminar (2020), including various community and ecologically-focused landscape design studios (2017-present)
- Demonstrator** *School of Life and Environmental Sciences*, Deakin University, Geelong, VIC, AUS. Cells and Genes (2016), Marine and Coastal Ecosystems (2016)
- Instructor** *Osher Lifelong Learning Institute*, University of Washington, Seattle, WA. Pacific Northwest Native Trees (2011-2012); Pacific Northwest Ecosystems (2012)
- Mentor** *Wetlands Management Certificate Program*, University of Washington, Seattle, WA. (2009-2011)
- Instructor** *National Garden Clubs, Inc.*, Tacoma, WA. Landscape Design School Courses (2011- 2012)
- Student Assistant** *Department of Biology*, University of Washington, Seattle, WA, USA. Biology 180 (2010-2011)

SERVICE

- 2016- Present **Co-Chair and Red List Authority** IUCN SSC Seagrass Species Group
- 2019- Present **Participant** UW Resilience Lab Well-being for Life and Learning Initiative
- 2016-2018 **Treasurer** Australasian Society for Phycology and Aquatic Botany
- 2013-2016 **Editorial Board** American Society of Consulting Arborists
- 2002-2003 **AmeriCorps** Washington State Service Corps

AWARDS + GRANTS

Waterworks Grant - \$161,000, King County Council (2022-2023)
Sri Lankan Seagrass Study - \$50,000, Fondation Segré Conservation Action Fund Research Grant (2021)
Friday Harbor Laboratories Faculty Fellow- University of Washington (2021-2023)
Campus Sustainability Fund - \$95,000, University of Washington January (2020)
Resilience Seed Grant- \$3000, UW Resilience Lab, June (2019)
Environmental Grant - \$1500, Swan Bay Environmental Association, July (2018)
Evamaria Koch Travel Grant - \$500, World Seagrass Association, June (2018)
David H. Ashton Scholarship - \$2000, University of Melbourne, May (2018)
Environmental Grant - \$1500, Swan Bay Environmental Association, July (2017)
ASPAB Travel Award - \$850, Australasian Society for Phycology and Aquatic Botany, October (2016)
Science Abroad Traveling Scholarship - \$1500, University of Melbourne, July (2016)
Drummond Travel Award - \$1000, University of Melbourne, July (2016)
Margaret Catto Award - \$1000, University of Melbourne, June (2016)
Evamaria Koch Travel Grant - \$500, World Seagrass Association, June (2016)
GAM Scott Research Award - \$2000, University of Melbourne, May (2016)
Margaret Catto Award - \$1000, University of Melbourne, Aug (2015)
Ernest Hodgkin Estuary Research Award - \$300, Australian Marine Science Association, July (2015)
ABRS Travel Grant - \$825, Australian Biological Resource Study, March (2015)

PEER REVIEWED PUBLICATIONS

Sullivan, BK et al. Standard ecological and molecular research methods and techniques for *Labyrinthula* spp. (In review) *Frontiers in Marine Ecology and Biology* (In prep)

Sullivan, BK et al. Copper Sulphate Treatment Induces *Heterozostera* Seed Germination and Improves Seedling Growth Rates, *Global Ecology and Conservation* (In Review)

D Arguetty, A Cantu, C Chen A Ganti, K Germinaro J Johnson, M Kennedy, L Lichty, D Masuda, K McLaughlin, Jon Monteith, **BK Sullivan**, B Tench. *Well-being for life & learning: a guidebook for advancing student well-being at the University of Washington*. 2020. 87 pages. [PDF](#)

Sullivan, BK. *Heterozostera Resilience*. Dissertation. University of Melbourne, Victoria, Australia, 2019.
<http://hdl.handle.net/11343/228928>

Hewson, I, **Sullivan BK** et al. "Perspective: Something old, something new? Review of wasting and other mortality in Asteroidea (Echinodermata)." *Frontiers in Marine Science* 6 (2019): 406:
<https://doi.org/10.3389/fmars.2019.00406>

Macreadie PI, **Sullivan BK** et al. *Biogeography of Australian Seagrasses: NSW, Victoria, Tasmania and Temperate Queensland* In *Seagrasses of Australia* Ed. Anthony Larkum. Springer International Publishing AG, 2018.

Sullivan, BK et al. *Host-pathogen dynamics of seagrass diseases under future global change*. *Marine Pollution Bulletin*. (2018): <https://doi.org/10.1016/j.marpolbul.2017.09.030>

Trevathan-Tackett, S. **Sullivan BK** et al. *Pathogenic Labyrinthula associated with Australian seagrasses: Considerations for seagrass wasting disease in the southern hemisphere*. *Microbiological Research* (2018): <http://doi.org/10.1016/j.micres.2017.10.003>

Sullivan, BK et al. *The First Isolation and Characterisation of the Protist Labyrinthula sp. in Southeastern Australia*. *J. Eukaryot. Microbiol.*, (2017) 64: 504–513. <https://doi.org/10.1111/jeu.12387>

A Schwelm, J Badstöber, S Bulman, N Desoignes M Etemadi, RE Falloon, CMM Gachon, A Legreve, J Lukeš, Ueli Merz, A Nenarokova, M Strittmatter, **BK Sullivan** et al. *Top 10 pathogen miscellany - other eukaryotes infecting plants and algae*. *Molecular Plant Pathology*. (2017): <https://doi.org/10.1111/mpp.12580>

York, PH, Smith TM, Coles RG, McKenna SA, Connolly RM, Irving AD, Jackson EL, McMahon K, Runcie JW, Sherman CD, **Sullivan BK** et. al. *Identifying knowledge gaps in seagrass research and management: an Australian perspective*. *Marine Environmental Research* 6 (2016):
<https://doi.org/10.1016/j.marenvres.2016.06.006>

Scholz B, Guillou L, Marano AV, Neuhauser S, **Sullivan BK**, Karsten U, Küpper FC, and Gleason FH. *Zoosporic parasites infecting marine diatoms—A black box that needs to be opened*. *Fungal Ecology* 19 (2016): 59-76.
<https://doi.org/10.1016/j.funeco.2015.09.002>

- Sullivan, BK**, Krueger HA. *Minority and Gender Equality*. Arboricultural Consultant 11 (2016).
https://www.researchgate.net/publication/311219219_Minority_and_Gender_Equality
- Sullivan, BK**. *Gum Trees... Not just for the bees!* Arboricultural Consultant 12 (2015).
https://www.researchgate.net/publication/295010626_Gum_Trees_Not_Just_for_the_Bees_-_fullTextFileContent
- Sullivan BK**, Krueger SR. *Australian hardwood tree a likely contender for world's tallest*. Arboricultural Consultant 5 (2015).
https://www.researchgate.net/publication/277307038_Australian_hardwood_tree_a_likely_contender_for_world's_tallest
- Sullivan BK**. *Consistency in Practice: How Do You Measure the Diameter at Standard Height (DSH) of Study Trees?* Arboricultural Consultant 10 (2014).
https://www.researchgate.net/publication/273103336_Consistency_in_Practice_How_Do_You_Measure_the_Diameter_at_Standard_Height_DSH_of_Study_Trees
- Sullivan BK** et al. *The role of Labyrinthula spp. in global seagrass declines*. Fungal Ecology 6(5) (2013): 328-338. <https://doi.org/10.1016/j.funeco.2013.06.004>

INVITED REVIEWS

- Guest Editor**, Frontiers in Marine Science
Proposal Review, National Science Foundation
Proposal Review, Oregon Sea Grant
Peer Review, Diseases of Aquatic Organisms
Peer Review, Proceedings B
Peer Review, Estuaries and Coasts
Peer Review, Aquatic Botany

INVITED LECTURES

- Keynote Speaker**, *LIFE Blue Natura* IUCN Centre for Mediterranean Cooperation, December 9, 2020
Invited Speaker, *Oregon Institute of Marine Biology* Charleston, Oregon, United States, October 19, 2018

IN THE MEDIA

- Holtz, J. and Taguchi, K. 2021 Oct. 11. UW Resilience Lab aims to change campus culture toward compassion and mindfulness. *UW News*. <https://www.washington.edu/news/2021/10/11/resilience-lab/>
- Olsen, K. 2020. Dec 17. On NE 43rd St near the UW, we're connecting you to the new Link Light Rail Station, ensuring safe sidewalks and keeping street trees healthy well into the future. *SDOT Blog*
<https://sdotblog.seattle.gov/2020/12/17/on-ne-43rd-st-near-the-uw-were-connecting-you-to-the-new-link-light-rail-station-ensuring-safe-sidewalks-and-keeping-street-trees-healthy-well-into-the-future/>
- Kelly, P. 2018 may 24. Remaking a reef: UW landscape architecture students to present design for new artificial reef at Redondo dive site. *UW News*. <https://www.washington.edu/news/2018/05/24/remaking-a-reef-uw-landscape-architecture-students-to-present-design-for-new-artificial-reef-at-redondo-dive-site/>
- Phan A. 2011 Jul 24. Red seaweed turning 'green' for Manchester entrepreneur *Kitsap Sun*.
<http://www.kitsapsun.com/news/2011/jul/24/business-spotlight-red-seaweed-turns-green-for/>

PROFESSIONAL CONFERENCES

- Speaker, Council of Educators in Landscape Architecture, 100+1 Resilience, **Virtual**, 2021
 Participant, IUCN World Congress, Marseille, **France** (Postponed), 2020
 Speaker, Ecological Society of America, California, **United States** (Postponed), 2020
 Session Leader, International Seagrass Biology Workshop, Maryland, **United States** (Postponed), 2020
 Participant, IUCN SSC Leaders Meeting, Abu Dhabi, **United Arab Emirates**, 2019
 Speaker and Session Leader, International Seagrass Biology Workshop, Singapore, **Singapore**, 2018
 Speaker, Australasian Society for Phycology and Aquatic Botany conference, Queensland, **Australia**, 2017
 Speaker, International Seagrass Biology Workshop, Wales, **United Kingdom**, 2016
 Speaker, Australasian Society for Phycology and Aquatic Botany conference, Hobart, Tasmania, **Australia**, 2015
 Speaker, Australian Marine Science Association, Geelong, Victoria, **Australia** 2015
 Speaker, National Estuarine Ecological Research, New Orleans, Louisiana, **United States**, 2013

PROFESSIONAL ECOLOGICAL CONSULTING AND DESIGN EXPERIENCE

Arborist / TetraTech Disaster Relief Program / CalRecycle Northern Branch / Butte and Trinity Counties, California / 2020-2021. Brooke was contracted to work on-call as an arborist with tree risk assessment qualification to provide tree risk abatement and guide tree related debris clean-up crews following declaration of wildfire disaster areas.

Consulting Arborist / Cove and Beulah Park Tree Risk Assessment / Herrera Environmental Consulting Inc. / King County, Washington / 2018-2019. Brooke completed Level 1, 2 and 3 tree risk assessment for three King County WTD parcels located on Vashon Island. Services also included field mapping, reporting, construction observation, habitat tree creation and community relations.

Consulting Arborist / Wilburton Siphons Odor Control Project / Parametrix Inc. / King County, Washington / 2017-2018. Brooke provides project management and arborist services as requested by King County Wastewater Treatment Division to assist in regulatory compliance for the Wilburton Siphons Odor Control Project in the City of Bellevue, Washington. Specifically, BTND prepared a tree inventory covering 25,000 linear feet of pipeline installation, a tree impact assessment and a tree protection plan.

Consulting Arborist / Regulatory Compliance, Land Acquisition and Community Relations Services / Herrera Environmental Consultants / King County, Washington / 2015-present. Brooke provided project management and arborist services as requested to assist King County Wastewater Treatment Division in administering the Work Order Contract in relation to the Sunset-Heathfield Pump Station/Force Main Upgrades Project, including a review of tree health and condition and tree risk assessments for the North Beach and Carkeek Park CSO projects.

Consulting Arborist / 141st Street-111th Avenue Culvert Replacement / Murray Smith and Associates / 2016. Brooke provided project management and arborist services as a subcontractor to the City of Kirkland project, including preparation of tree inventory and condition reports for a culvert replacement planned to cross Juanita Creek in Kirkland, Washington.

Landscape Designer / Trinity United Methodist Church Rain Garden / BTND / Seattle, Washington / 2013-2014. The project included permitting, design and installation of the City of Seattle's largest RainWise rain garden. Working in concert with Seattle Public Utilities and the Trinity United Methodist Church community, BTND was able to design and oversee construction of an entirely native plant and/or edible plant garden. The garden also stores and infiltrates water, reducing storm loads in our waste water treatment systems and recharging groundwater to our local creeks.

Consulting Arborist / North Creek Interceptor Construction Management / MWH Global / King County, Washington / 2013-2016. Brooke provided project management and arborist services for King County Wastewater Treatment Division as requested to assist the county in administering the project construction contract.

Consulting Arborist / City of Duvall On-Call Environmental Services / Herrera Environmental Consultants / King County, Washington / 2014. Brooke provided ongoing project management and arborist services as requested to assist the City of Duvall fulfill their environmental code review responsibilities. Specific project work has included review of 33 acres of forest inventory for accuracy and reviewing tree impacts from a proposed soldier wall installation at a popular park.

On-Call Consulting Arborist / Fremont Siphon / Environmental Science Associates / King County, Washington / 2012-2013. Brooke provided ongoing project management and arborist consulting services for King County Wastewater Treatment Division CSO control projects. She often prepared tree inventory and arborist reports including tree impact studies, tree appraisals, tree risk assessments, transplant feasibility analyses and develops tree removal, replacement and retention plans.

On-Call Consulting Arborist / Magnolia CSO Project / Environmental Science Associates / King County, Washington / 2012-2013. Brooke provided ongoing project management and arborist consulting services for King County Wastewater Treatment Division CSO control projects. She often prepares tree inventory and arborist reports including tree impact studies, tree appraisals, tree risk assessments, transplant feasibility analyses and develops tree removal, replacement and retention plans.

Certified Arborist / Olympus Meadows Trunk Sewer Improvements / Jacobs Engineering / Snohomish County, Washington / 2011-2013. Brooke provided project management and consulting services as a sub-consultant to Jacobs Engineering on a sewer improvement project for the Alderwood Water and Wastewater District. The scope of work included developing a tree inventory, tree impact assessment and tree protection, removal, replacement and maintenance reports and plans for trees located along a stream channel that was responsive to Snohomish County Code.

Consulting Arborist / Pump Station 33B / Lakehaven Utility District / Federal Way, Washington / 2012-2014. Brooke provided project management and arborist consulting services for Lakehaven Utility District's Pump Station No. 33B sanitary sewer line installation project. She prepared a tree inventory, tree risk assessment and tree analysis report including tree impact studies and tree removal, replacement and retention plans for numerous trees the district intends to retain during direction drill and trench excavation activities.

Consulting Arborist / Kingsgate Booster Pump Station and Pipeline / Woodinville Water District / Kirkland, Washington / 2011-2012. Brooke provided project management and arborist consulting services as a sub-consultant to Environmental Science Associates. She prepared a tree inventory and an arborist report for 87 trees located on a proposed reservoir improvement site, which included a flagged wetland. The arborist report included a tree survey, tree impact assessment, proposed tree protection measures and a maintenance plan.

Arborist / Bellevue Influent Trunk Improvement / King County / Bellevue Washington / 2010. Brooke provided project management and arborist consulting services as a sub-consultant to Environmental Science Associates. She contracted, managed and completed an inventory, tree condition report, impact assessment and tree appraisal for 57 trees along a half-mile proposed sewer alignment that included two stream crossings.

Landscape Designer / Bertschi School Living Building / Seattle Washington / 2009. Brooke assisted the landscape architects in planning for accreditation of the school under the Living Building Challenge. She provided insight and design recommendations for the agricultural requirements and programming for urban food systems education at the school.