

**TIMOTHY A. NELSON**

Professor of Biology

Director, Blakely Island Field Station

Seattle Pacific University

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**EDUCATION**

**Ph.D.**, Botany

University of Washington, 1995

Dissertation Topic: Interactions and Dynamics of Eelgrass (*Zostera marina* L.),  
Epiphytes, and Grazers in Subtidal Meadows of Puget Sound.

Participant, Organization of Biological Field Stations/National Science Foundation  
Training in Ecoinformatics and GIS (2003), Sevilleta National Wildlife Refuge, New Mexico, USA.

Participant, Third Autumn Course in Mathematical Ecology (1990),  
United Nations Center for Theoretical Physics, Trieste, Italy

**B. S. *summa cum laude***, Biology Major;  
Seattle Pacific University; 1987

**POSITIONS HELD**

**Director, Blakely Island Field Station, Seattle Pacific University**

**7/03 - present**

*Duties:* Direct the operation of the Blakely Island Field Station. Supervise the resident manager, guest services manager, teaching faculty, student workers, and research scientists at the field station. Manage the field station budgets and organize the academic program. Assist with development via securing donations and grants. Prioritize facilities needs and respond accordingly.

**Professor of Biology, Seattle Pacific University**

**9/95- present**

*Duties:* Teaching undergraduate courses, which have included Oceanography, Marine Ecology, Marine Botany, Tropical Marine Biology (in Belize and Hawaii), Marine Biology, Ecology, Environmental Physiology, Introduction to GIS, Vascular Plant Taxonomy, Plant Physiology, Environmental Science (for nonmajors), Biostatistics, Evolution, General Biology (for biology majors and a separate course for elementary education students), several seminars, and Protistology.

Supervision of undergraduate research projects and advising of students with interests in marine biology, ecology, and botany.

Service on several university committees, including the Committee on Racial and Ethnic Affairs (1997-2000, Chair in 1999-2000); University Policies and Evaluation Committee (2004-07);

## POSITIONS HELD (CONTINUED)

Faculty Status (i.e., Rank and Tenure) Committee (2001-05 and 2009-12, Chair in 2003-05 and 2011-12); Admissions, Advising and Retention Committee (2013-16); University Investment Committee (2014-present), Faculty Affairs Committee (short term replacement, 2020-21), Faculty Handbook Revision Review Team (2015-16), Academic Innovation Task Force (2014-15), Semester Task Force (2011); Task Force on Faculty Development (1999-2000); Task Force on Health Benefits (2012); Diving Safety Board (1995-present); Faculty Budget and Stewardship Committee (2017-2020) and College of Arts and Sciences Dean Search Committee (2002-2003).

### Interim Associate Dean of Arts and Sciences

7/12 - 3/13

*Duties:* Provided service and counsel to the Interim Dean of the College of Arts and Sciences on budget matters, data analysis, the STEM disciplines, and other issues as needed. Performed annual evaluations of Department Chairs outside the STEM disciplines. Ceased in this roll once the Associate Dean returned to her position.

### Chair, Department of Biology

7/07 - 6/13

*Duties:* Recommended and implemented curricular changes, strategically planned new teaching equipment purchases, set time schedule, implemented hiring processes for new faculty, conducted annual evaluations of all Biology faculty, and guided faculty development. Secured intra- and extra-mural start-up funding for new faculty. Managed a small budget. Managed the pre-professional health sciences program intermittently on an emergency basis from March 2011 through September 2013. Ceased as Chair at the expiration of my term.

## PROFESSIONAL MEMBERSHIPS

Psychological Society of America  
International Psychological Society  
British Psychological Society

## PEER-REVIEWED PUBLICATIONS (\* INDICATES STUDENT CO-AUTHORS):

Nelson, T. A. and D. R. Young. Submitted. Harmful macroalgal blooms on the West Coasts of North and South America: Recorded occurrence, causes, effects, and research needs. *Harmful Algae*.

Van Alstyne, K.L., R. L. Ridgway, T. A. Nelson. 2018. Neurotransmitters in marine and freshwater algae. Chapter 3 in A. Ramakrishna and W. Roshchina (eds.) *Neurotransmitters in Plants: Perspectives and Applications*, Taylor and Francis (CRC Press), Boca Raton, Florida, USA. 424 pages.

Van Alstyne, K.L., T. A. Nelson, and R. L. Ridgway. 2015. Environmental chemistry and chemical ecology of "green tide" seaweed blooms. *Integrative and Comparative Biology*. doi:10.1093/icb/icv035.

Nelson, T.A. and B.C. Gregg. 2013. Determination of EC-50 for normal oyster larval development in extracts from bloom-forming green seaweeds. *The Nautilus* 127(4):156-159.

Cohen, M. F., Hare, C., Kozlowski, J., McCormick, R. S. , Chen, L., Schneider, L., Knight, Z., Nelson, T. A., and Grewell, B. 2013. Wastewater polishing by a channelized macrophyte-dominated wetland and anaerobic digestion of the harvested phytomass. *Journal of Environmental Science and Health, Part A Toxic/Hazardous Substance & Environmental Engineering* 48:319-330.

Nelson, T.A., J. Olson\*, L. Imhoff\*, and A. Nelson\*. 2010. Aerial exposure and desiccation tolerances are correlated to species composition in "green tides" of the Salish Sea (northeastern Pacific). *Botanica Marina* 53:103-111.

**PEER-REVIEWED PUBLICATIONS (CONTINUED, \* INDICATES STUDENT CO-AUTHORS):**

- Nelson, T.A., Haberlin\*, K., Nelson\*, A.V., Ribarich\*, H., Hotchkiss\*, R., Van Alstyne, K.L., Buckingham\*, L., Simunds\*, D.J., and Fredrickson\*, K. 2008. Ecological and physiological controls of species composition in green macroalgal blooms. *Ecology* 89:1287-1298.
- Van Alstyne, KL, Koellermeier, L, and Nelson, TA. 2007. Spatial variation in dimethylsulfoniopropionate (DMSP) production in *Ulva lactuca* (Chlorophyta) from the Northeast Pacific. *Marine Biology* 150:1127-1135.
- Nelson, T. A., A. V. Nelson\* and M. Tjoelker\*. 2003. Seasonal patterns in ulvoid algal biomass, productivity, and key environmental factors in the Northeast Pacific. *Botanica Marina* 46:263-275.
- Nelson, T. A., D. Lee\*, and B. C. Smith\*. 2003. Toxic extracts from ulvoid macroalgae: Are "green tides" harmful algal blooms? *Journal of Phycology* 39(5):874-879.
- Nelson, T. A. and A. Lee\*. 2001. A manipulative experiment demonstrates that blooms of the macroalga *Ulvaria obscura* can reduce eelgrass shoot density. *Aquatic Botany* 71:149-154.
- Nelson, T. A., 1997. Epiphyte-grazer interactions on *Zostera marina* (Anthophyta: Monocotyledones): Effects of density on community function. *Journal of Phycology* 33:743-752.
- Nelson, T. A., 1997. Interannual variance in a subtidal eelgrass community. *Aquatic Botany* 56:245-252.
- Nelson, T. A. and J. R. Waaland, 1997. Seasonality of eelgrass, epiphyte, and grazer biomass and productivity in subtidal eelgrass meadows subjected to moderate tidal amplitude. *Aquatic Botany* 56:51-74.
- Skubatz, H., T. A. Nelson, and B. J. D. Meeuse, 1993. Selective inhibition of heat-production in *Sauromatum guttatum* inflorescences by glyphosate. *Plant Physiology (Life Science Advances)* 12:5-8.
- Skubatz, H., T. Nelson, B. J. D. Meeuse, and A. J. Bendich, 1991. Heat production in the Voodoo lily (*Sauromatum guttatum*) as monitored by infrared thermography. *Plant Physiology* 95:1084-1088.
- Skubatz, H., T. Nelson, A. Dong, B. J. D. Meeuse, and A. Bendich, 1990. Infrared thermography of *Arum* lily inflorescences. *Planta* 182:432-436.

**OTHER PUBLICATIONS**

- Nelson, T.A. 2013. The Seattle Pacific University herbarium. *Douglasia* 37(4).
- Nelson, T.A., 2013. Introduction to N. A. Milchakova and K. A. Parsons (eds.), *Travels with Seagrass: The Memoirs of Professor Ronald C. Phillips*. Business-Inform, London. 204 pp.
- Nelson, T. A., S. Wyllie-Echeverria, and R. Thom. 2006. In Memoriam: Ronald C. Phillips. Estuarine Research Federation Newsletter.

**PUBLISHED ABSTRACTS AND PRESENTATIONS AT MEETINGS (\* INDICATES STUDENT CO-AUTHORS):**

- Brezynski, Elena; Nelson, Timothy; Wood, Derek. 2017. Learning Assistant workshops: part of the BioCORE Scholars Program for underrepresented and first generation students in Biology. 2017 International Learning Assistant Conference, Boulder, CO.

**PUBLISHED ABSTRACTS AND PRESENTATIONS AT MEETINGS (\* INDICATES STUDENT CO-AUTHORS):**

- Nelson, Timothy; Van Alstyne, Kathy; Gifford, Suzanne. 2014. Fluctuations in pH and oxygen concentration near macroalgal blooms at multiple temporal scales. 61<sup>st</sup> Eastern Pacific Ocean Conference, Mt. Hood, Oregon.
- Nelson, Timothy; Van Alstyne, Kathy; Gifford, Suzanne. 2014. Multiscale fluctuations in seawater pH and oxygen near macroalgal blooms. Joint Aquatic Sciences Meeting. Portland, OR.
- Van Alstyne, Kathy A.; Nelson, Tim; Gifford, S. A. 2014. Spatial and temporal patterns of ulvoid algal abundance and chemical composition at bloom and non-bloom sites in the central Salish Sea. Joint Aquatic Sciences Meeting. Portland, OR.
- Nelson, T., J. Olson\*, L. Imhoff\*, A. Bowen\*, and M. Melton\*. 2011. Video analysis of ulvoid algal and *Zostera* populations in greater Puget Sound. Twenty-fourth Northwest Algal Symposium, Cornet Bay, Washington.
- Nelson, T.A. 2011. Stable isotope analysis and underwater video show the importance of highly localized factors in contributing to excessive growth of harmful algal blooms. Sixth Symposium on Harmful Algae in the United States, Austin, Texas.
- Hylarides\*, M. J., J. Moon\*, T.A. Nelson, R.L. Ridgway. 2011. Immunofluorescence localization of dimethylsulfoniopropionate (DMSP) in thalli of the marine macroalga *Ulva lactuca*. Annual meeting of the Phycological Society of America, Seattle, Washington.
- Nelson, T.A., J. Olson\*, L. Imhoff\*, M. Melton\*, and A. Bowen\*. 2010. Video analysis of ulvoid algae and *Zostera* in greater Puget Sound. Annual meeting of the Phycological Society of America, East Lansing, Michigan.
- Moon\*, J., M. Nguyen\*, T.A. Nelson, and R.L. Ridgway. 2010. Polyclonal antibodies to dimethylsulfoniopropionate (DMSP): Initial characterization and specificity testing. Annual meeting of the Phycological Society of America, East Lansing, Michigan.
- Hare, C., J. Kozlowski, R. McCormick, T. Nelson, L. Chen and M. F. Cohen. 2009. An integrated system for wastewater scrubbing and bioenergy production. Proceedings of the Annual Meeting of the AAAS, Pacific Division, San Francisco, California.
- Gifford, S.-A., K. Van Alstyne, and T. Nelson. 2009. Temporal variation in water quality at sites with low and high macroalgal abundances in Penn Cove, Whidbey Island, Washington. Northwest Algal Symposium, Coupeville, Washington.
- Nelson, T.A., Olson\*, J.K., Imhoff\*, L.D. 2009. Using underwater video analysis to determine ulvoid algal cover and overlap with eelgrass over a regional scale. Puget Sound Georgia Basin Ecosystem Conference, Seattle, Washington.  
([http://depts.washington.edu/uwconf/psgb/proceedings/papers/8C\\_Nelso.pdf](http://depts.washington.edu/uwconf/psgb/proceedings/papers/8C_Nelso.pdf))
- Nelson, T.A., Van Alstyne, K.L., Nelson\*, A.V., Jackson\*, D., Olson\*, J.K., Imhoff\*, L.D. 2008. The good, the bad, and the stinking: Causes and consequences of ulvoid algal blooms. Annual meeting of the Phycological Society of America, New Orleans, Louisiana.
- Olson\*, J.K., L.D. Imhoff\*, Nelson, T.A. 2008. Desiccation controls the upper limit of species distribution among blooming ulvoid macroalgae. Annual meeting of the Phycological Society of America, New Orleans, Louisiana.

**PUBLISHED ABSTRACTS AND PRESENTATIONS AT MEETINGS (CONTINUED):**

- Imhoff\*, L.D., Olson\*, J.K., Nelson, T.A. 2008. Using underwater video analysis to determine large-scale spatial and temporal changes in macroalgal bloom occurrence. Annual meeting of the Phycological Society of America, New Orleans, Louisiana.
- Nelson, T.A., Van Alstyne, K.L., Guerra\*, C., Olson\*, J.K., Imhoff\*, L.D. 2008. Using underwater video to examine the occurrence of green macroalgal blooms on a regional scale in Washington State, USA. 2008 Ocean Sciences Meeting, Orlando, FL.
- Peter\*, L., Nelson, T., Van Alstyne, K., Ronhovde\*, E., Gifford, S., Cataldo\*, M., Nicely\*, A., Puglisi, M. 2007. Comparison of green algal bloom intensity and related water quality parameters at paired bloom and "non-bloom" sites. Annual Meeting of the Phycological Society of America, Providence, RI.
- Guerra\*, C., Nelson, T., Ronhovde\*, E., Peter\*, L. 2007. Underwater video analysis allows for the mapping of green algal blooms throughout the inland marine waters of Washington State. Annual meeting of the Phycological Society of America, Providence, RI.
- Nelson, T. A. 2007. The good, the bad, and the smelly: Noxious algal blooms in Washington State. Walla Walla University Department of Biology Colloquium, Walla Walla, Washington.
- Nelson, T. A., K. L. Van Alstyne, D. Jackson\*. 2006. Dopamine in a green alga: Localization, release, and community effects. Annual meeting of the Phycological Society of America, Juneau, Alaska.
- Nelson, T. A. 2005. Green tides in Washington State. Invited lecture at Oregon Institute of Marine Biology, Charleston, Oregon.
- Nelson, T. A., D. Lee\*, B. C. Smith\*, and R. Prins\*. 2002. Are "green tides" harmful algal blooms? Allelopathic properties of extracts from *Ulva fenestrata* and *Ulvaria obscura*. Annual meeting of the Phycological Society of America, Madison, Wisconsin.
- Nelson, T. A., K. L. van Alstyne, and H. Ribarich\*. 2002. The effects of nitrogen regime on growth, [CHN], [DMSP], [chlorophyll], [protein] and nitrogen uptake rate in *Ulvaria obscura* and *Ulva fenestrata*. Annual meeting of the Phycological Society of America, Madison, Wisconsin.
- Rhodes\*, M. J. and T. A. Nelson. 2002. Interannual variation in coral reef plant communities of central Belize. Annual meeting of the Phycological Society of America, Madison, Wisconsin.
- Nelson, T. A. 2001. Species composition and controls of ulvoid algal blooms in Washington State. *Journal of Phycology* 37(3 supplement):38. (Abstract)
- Nelson, T.A., 2000. Preliminary studies of seasonality, ecology, and species composition of ulvoid algal blooms in Washington State (Abstract). *Journal of Phycology* 36(3 supplement):41. (Abstract)
- Jones\*, K, A. Lee\* and T. Nelson. 2000. A characterization of ulvoid blooms and their abiotic environment in the San Juan Island Archipelago. Fourteenth Northwest Algal Symposium, University of British Columbia, Vancouver, British Columbia, Canada.
- Lee\*, A., K. Jones\* and T. Nelson. 2000. Environmental determinants of ulvoid algal species composition. Fourteenth Northwest Algal Symposium, University of British Columbia, Vancouver, British Columbia, Canada.
- Nelson, T. A., 1996. Implications of a simple predator-prey model for epiphyte-grazer dynamics in subtidal eelgrass (*Zostera marina*) meadows. Ecological Summit '96, Copenhagen: Program and Abstracts.

**PUBLISHED ABSTRACTS AND PRESENTATIONS AT MEETINGS (CONTINUED):**

Nelson, T.A. and J. R. Waaland, 1993. Algal epiphyte, grazer, and eelgrass interactions in a subtidal eelgrass meadow: Observations and a model. 73<sup>rd</sup> Annual Meeting of the Western Society of Naturalists, Newport, Oregon, USA.

Nelson, T. A. and J. R. Waaland, 1992. Algal epiphyte, grazer and eelgrass interactions in a subtidal eelgrass meadow: A progress report. Sixth Northwest Algal Symposium, Oregon Institute of Marine Biology, Charleston, Oregon, USA.

**ADVISEES' RESEARCH PRESENTED AT UNDERGRADUATE RESEARCH CONFERENCES:**

Tsark, Isabella. 2019. Comparison of algal biomass and organic content in Thatcher Bay pre- and post-restoration effort. Seventeenth Erickson Undergraduate Research Conference, Seattle Pacific University.

Cooper, Madison Cooper and Kora Krumm. 2019. Species determination of ulvoid algae through genotyping: What are the environmental implications? Seventeenth Erickson Undergraduate Research Conference, Seattle Pacific University.

Renault, Alexandria. 2018. Overwintering of algal spores in sediment. Sixteenth Erickson Undergraduate Research Conference, Seattle Pacific University.

Swenson, Serena. 2018. Wildfire effects on carbon and nitrogen content in stream sediment from variable log jam ecosystems. Sixteenth Erickson Undergraduate Research Conference, Seattle Pacific University.

Spaulding, Annie. 2017. Comparison of Nitrogen Content with Salinity of Ulvoid Algae in the Puget Sound Region. Fifteenth Erickson Undergraduate Research Conference, Seattle Pacific University.

Hannah, Nellie. 2016. Underwater videographic analysis of ulvoid distribution in the Puget Sound. Fourteenth Erickson Undergraduate Research Conference, Seattle Pacific University.

Spaniel, Chelsea. 2016. Adverse soil conditions contribute to plant palatability on Blakely Island. Fourteenth Erickson Undergraduate Research Conference, Seattle Pacific University.

Niau, Charlotte. 2016. Comparison of salinity with nitrogen and carbon content of ulvoid algae in the Puget Sound region. Fourteenth Erickson Undergraduate Research Conference, Seattle Pacific University.

Nguyen, T., T. Wyss, T. A. Nelson, and R. L. Ridgway. 2015. A dopamine-PABA adduct assay enables spectrophotometric quantification of dopamine release by the marine alga, *Ulvaria obscura*. Twenty-Fourth Regional Conference on Undergraduate Research, Murdock College Science Program, Vancouver, WA.

Neale, K. 2015. Overwintering of *Ulva* species in the Northeastern Pacific. Thirteenth Erickson Undergraduate Research Conference, Seattle Pacific University.

Hannah, N.. 2015. Submerged vegetation monitoring project: Videographic analysis of ulvoid distribution. Thirteenth Erickson Undergraduate Research Conference, Seattle Pacific University.

**ADVISEES' RESEARCH PRESENTED AT UNDERGRADUATE RESEARCH CONFERENCES (CONTINUED):**

- Morrow, K. and T. Nelson. 2014. Spatial and temporal variation in tissue nutrient ratios of aquatic autotrophs on Blakely Island, WA. Twelfth Erickson Undergraduate Research Conference, Seattle Pacific University.
- Lobb, T. and T. Nelson. 2014. Deep green sea. Twelfth Erickson Undergraduate Research Conference, Seattle Pacific University.
- Spoelstra, K. L and T. Nelson. 2013. Effect of Nitrogen Content in Browse Species on the Diet Selection of Black-Tailed Deer. Twelfth Erickson Undergraduate Research Conference, Seattle Pacific University.
- Frid, I., L. Adamian, A. Givens, T. Nelson, and R. Ridgway. 2013. Dopamine localization by immunofluorescence and immunoelectron microscopy in the marine macroalga, *Ulvaria obscura*. Twenty-Second Regional Conference on Undergraduate Research, Murdock College Science Program, Vancouver, WA.
- Nelson, B., B. Gill, and T. Nelson. 2010. Modeling photosynthesis in benthic tidal communities using abiotic factors. Eighth Erickson Undergraduate Research Conference, Seattle Pacific University, Seattle, WA.
- Rosholt, M. and T. Nelson. 2010. Nutrient content of plants used for nitrogen removal in sewage treatment. Eighth Erickson Undergraduate Research Conference, Seattle Pacific University, Seattle, WA.
- Bowen, A., M. Melton, T. A. Nelson. 2009. Video analysis of ulvoid and *Zostera* distribution in Puget Sound. Eighteenth Regional Conference on Undergraduate Research, Murdock College Science Program, Gonzaga University, Spokane, WA.
- Smith, T. and T. A. Nelson. 2009. The effects of depth on nitrogen and carbon content of *Ulva lactuca* and *Ulvaria obscura* at three sites off Blakely Island, WA. Seventh Erickson Undergraduate Research Conference, Seattle Pacific University, Seattle, WA.
- Cadorette, L., J. Olson and T. A. Nelson. 2008. Effects of depth and desiccation on *Ulva* and *Ulvaria*. Seventeenth Regional Conference on Undergraduate Research, Murdock College Science Program, University of Puget Sound, Tacoma, WA.
- Olson, J., L. Cadorette, and T. A. Nelson. 2008. Comparing large-scale density and depth distribution of eelgrass and ulvoid macroalgae. Seventeenth Regional Conference on Undergraduate Research, Murdock College Science Program, University of Puget Sound, Tacoma, WA.
- Sharp, J. and T. Nelson. 2008. Depth distribution of ulvoid algae in the Puget Sound area. Sixth Erickson Undergraduate Research Conference, Seattle Pacific University, Seattle, WA.
- Imhoff, L.D., J. Olson, and T. Nelson. 2007. Video surveys, diver transects, and automated environmental data collection suggest that the occurrence of "green tides" is linked to very small scale spatial processes. Sixteenth Regional Conference on Undergraduate Research, Murdock College Science Program, Willamette University, Salem, OR.
- Olson, J., L. Imhoff and T. Nelson. 2007. Desiccation tolerance determines species composition in green tide seaweeds. Sixteenth Regional Conference on Undergraduate Research, Murdock College Science Program, Willamette University, Salem, OR.

**ADVISEES' RESEARCH PRESENTED AT UNDERGRADUATE RESEARCH CONFERENCES (CONTINUED):**

- Peter, L. and T. Nelson. 2006. Comparison of green algal bloom intensity and related parameters at paired "bloom" and "non-bloom" sites. Fifteenth Regional Conference on Undergraduate Research, Murdock College Science Program, University of Portland, Portland, Oregon.
- Ronhovde, E., C. Guerra, and T. Nelson. 2006. Underwater video analysis allows for the mapping of green algal blooms throughout the inland marine waters of Washington State. Fifteenth Regional Conference on Undergraduate Research, Murdock College Science Program, University of Portland, Portland, Oregon.
- Neblett, C. and T. Nelson. 2005. River otter latrine sites: Developing methods for public involvement in density estimates. Fourteenth Regional Conference on Undergraduate Research, Murdock College Science Program, Northwest Nazarene University, Boise, Idaho.
- Ziemann, R. 2005. The effect of grazing on weed cover and species composition on the Sevilleta National Wildlife Refuge, Socorro, New Mexico. Third Erickson Undergraduate Research Conference, Seattle Pacific University, Seattle, WA.
- Reese, B. and T. Nelson. 2005. Aquatic refugium: Aquatic plants as aquarium filters. Third Erickson Undergraduate Research Conference, Seattle Pacific University, Seattle, WA.
- Vanderpol, B. and T. Nelson. 2004. Using noxious weed distribution to evaluate procedures for the implementation of GIS and ecoinformatics at Blakely Island Field Station. Thirteenth Regional Conference on Undergraduate Research, Murdock College Science Program, Lewis and Clark College, Portland, Oregon.
- Hotchkiss, R. and T. Nelson. 2004. Nitrogen physiology of *Ulvaria obscura* and *Ulva fenestrata*: Do species and environmental [N] interact in determining growth rate? Thirteenth Regional Conference on Undergraduate Research, Murdock College Science Program, Lewis and Clark College, Portland, Oregon.
- Van Mason, A., C. Baldwin and T. Nelson. 2003. Preliminary investigations using *Pterygophora californica* as a model system for seaweed age-structured growth and physiology. Twelfth Regional Conference on Undergraduate Research, Murdock College Science Program, Pacific Lutheran University, Tacoma, Washington.
- Buckingham, L., D. Jackson and T. Nelson. 2003. Localization of dopamine in a seaweed. Twelfth Regional Conference on Undergraduate Research, Murdock College Science Program, Pacific Lutheran University, Tacoma, Washington.
- McPhearson, J. and T. Nelson. 2002. Salinity effects on growth and protein content of *Ulva fenestrata* and *Ulvaria obscura*. Eleventh Regional Conference on Undergraduate Research, Murdock College Science Program, Whitman College, Walla Walla, Washington.
- Hignell, J. B. and R. Render. 2002. Grazer deterrence in ulvoid green algae. Eleventh Regional Conference on Undergraduate Research, Murdock College Science Program, Whitman College, Walla Walla, Washington.
- Rhodes, Melody. 2002. Interannual variation in coral reef plant communities of central Belize. Eleventh Regional Conference on Undergraduate Research, Murdock College Science Program, Whitman College, Walla Walla, Washington.



**ADVISEES' RESEARCH PRESENTED AT UNDERGRADUATE RESEARCH CONFERENCES (CONTINUED):**

- Lee, D., H. Ribarich and T. Nelson. 2001. Allelopathic properties of 'green tide' seaweeds (i.e., ulvoid macroalgae). Tenth Regional Conference on Undergraduate Research, Murdock College Science Program, Gonzaga University, Spokane, Washington.
- Ribarich, H., D. Lee and T. Nelson. 2001. Nutrient effects on the growth and chemical composition of *Ulva fenestrata* and *Ulvaria obscura*. Tenth Regional Conference on Undergraduate Research, Murdock College Science Program, Gonzaga University, Spokane, Washington.
- Prins, R., D. Lee, and T. Nelson. 2001. Enzyme inhibition caused by extracts of 'green tide' seaweeds (i.e., ulvoid macroalgae). Tenth Regional Conference on Undergraduate Research, Murdock College Science Program, Gonzaga University, Spokane, Washington.
- Lyons, C. and T. Nelson. 2001. The role of *Fucus mucus* in desiccation resistance. Tenth Regional Conference on Undergraduate Research, Murdock College Science Program, Gonzaga University, Spokane, Washington.
- Rhodes, M. and T. Nelson. 2001. Interannual variation in coral reef plant communities. Tenth Regional Conference on Undergraduate Research, Murdock College Science Program, Gonzaga University, Spokane, Washington.
- Haberlin, K., M. Tjoelker, and T. Nelson. 2000. Feeding preferences of intertidal grazers for two green macroalgal genera, *Ulva* and *Ulvaria* on Presented at the Ninth Regional Conference on Undergraduate Research, Murdock College Science Program, University of Puget Sound, Tacoma, Washington.
- Tjoelker, M., K. Haberlin, and T. Nelson. 2000. Characteristics of ulvoid algal blooms in the Pacific Northwest. Presented at the Ninth Regional Conference on Undergraduate Research, Murdock College Science Program, University of Puget Sound, Tacoma, Washington.
- Jones, K., A. Lee and T. Nelson. 1999. A characterization of ulvoid blooms and their abiotic environment in the San Juan Island Archipelago. Presented at the Eighth Regional Conference on Undergraduate Research, Murdock College Science Program, Linfield College, Linfield, Oregon.
- Lee, A., K. Jones and T. Nelson. 1999. Environmental determinants of ulvoid algal species composition. Presented at the Eighth Regional Conference on Undergraduate Research, Murdock College Science Program, Linfield College, Linfield, Oregon.
- Carey, E., A. Lee, K. LaFleur, and T. Nelson. 1998. A characterization of "green tides" and selected physical-chemical factors in the vicinity of Blakely Island, Washington. Presented at the Seventh Regional Conference on Undergraduate Research, Murdock College Science Program, Northwest Nazarene College, Nampa, Idaho.
- Lee, A., K. LaFleur, and T. Nelson. 1998. Why are morphologically similar ulvoid algal species found at different tidal elevations? Presented at the Seventh Regional Conference on Undergraduate Research, Murdock College Science Program, Northwest Nazarene College, Nampa, Idaho.
- Ivaska, E. and T. Nelson, 1997. Distribution of benthic organisms in the vicinity of Blakely Island, Washington. Presented at the Sixth Regional Conference on Undergraduate Research, Murdock College Science Program, Willamette University, Salem, OR.

### **ADVISEES' RESEARCH PRESENTED AT UNDERGRADUATE RESEARCH CONFERENCES (CONTINUED):**

Gregg, J. and T. Nelson, 1997. Tidal and spatial variation of sea water qualities in the vicinity of Blakely Island, Washington. Presented at the Sixth Regional Conference on Undergraduate Research, Murdock College Science Program, Willamette University, Salem, OR.

Wassink, K., T. Nelson, and B. Congdon, 1997. Interannual variation in phytoplankton community structure in two lakes. Presented at the Sixth Regional Conference on Undergraduate Research, Murdock College Science Program, Willamette University, Salem, OR.

### **SCUBA CERTIFICATIONS**

YMCA Openwater SCUBA Diver

NAUI Advanced Open Water SCUBA Diver

PADI Rescue Diver

PADI Enriched Air Diver

EFR Emergency First Responder

PADI Divemaster

PADI Open Water SCUBA Instructor

EFR Instructor

PADI Emergency Oxygen Provider Instructor

PADI Enriched Air Instructor

PADI Deep Diver Instructor

PADI Search & Recovery Diver Instructor

PADI Dry Suit Diver Instructor

PADI Master Scuba Diver Trainer

### **PROFESSIONAL SERVICE**

V. P. and President-Elect (2016), President (2017), Past President (2018), Phycological Society of America Funds Manager, Phycological Society of America (2005-2014)

Local Organizer, Phycological Society of America Annual Meeting (2011)

15<sup>th</sup>, 23<sup>rd</sup>, and 27<sup>th</sup>, 29<sup>th</sup> Northwest Algal Symposium Organizer (2001, 2009, 2013, 2016)

National Association of Marine Laboratories Board of Directors (1997-2004)

Western Association of Marine Laboratories President (2001-2002)

Northwest Algal Symposium Student Paper Award Committee (2001-2002)

Chair, Algal Ecology session, Phycological Society of America Annual Meeting (2001, 2011)

Chair, Algal Ecology session, 14<sup>th</sup> Northwest Algal Symposium (2000)

Listserver Manager, Northwest Algal Symposium (2000-present)

Listserver Manager, Phycological Society of America (2010-present)

### **GRANT PROPOSAL OR MANUSCRIPT REVIEWER FOR THE FOLLOWING PROGRAMS AND AGENCIES**

- **US-State or Local:** *New York SeaGrant Program, Rhode Island Research Alliance, Padilla Bay National Estuarine Research Reserve, Puget Sound Partnership*
- **US-Federal:** *National Science Foundation (Geosciences Directorate, Biological Oceanography Division; Biosciences Directorate, several different divisions), National Science Foundation Panelist (Biosciences Directorate), National Oceanic and Atmospheric Administration, Environmental Protection Agency, ECOHAB Program (interagency), ECOHAB Panelist, National Estuarine Research Reserve System*
- **International:** *Irish Research Foundation, National Sciences and Engineering Research Council of Canada/Conseil de Recherches en Sciences Naturelles et en Génie du Canada*

**PROGRAM OR FACULTY REVIEWER FOR THE FOLLOWING COLLEGES AND UNIVERSITIES**

Individual faculty reviews: University of Washington-Bothell, Seattle University, George Fox University  
Program Review: Biology Department at Whitworth University

**MANUSCRIPT REFEREE FOR THE FOLLOWING JOURNALS**

*Aquatic Biology*  
*Applied Microbiology and Biotechnology*  
*Aquatic Botany*  
*Botanica Marina*  
*Chinese Journal of Oceanology and Limnology*  
*Ecological Indicators*  
*Ecology*  
*Environmental and Experimental Botany*  
*Environmental Evidence*  
*Environmental Monitoring and Assessment*  
*Environmental Science and Technology*  
*Environmental Science: Processes & Impacts*  
*Estuarine, Coastal and Shelf Science*  
*Global Change Biology*  
*Harmful Algae*  
*Journal of Applied Phycology*  
*Journal of Biological Research (Thessaloniki)*

*Journal of Environmental Engineering*  
*Journal of Experimental Marine Biology and Ecology*  
*Journal of the Marine Biological Association of the United Kingdom*  
*Journal of Phycology*  
*Journal of Sea Research*  
*Limnology and Oceanography*  
*Marine Biology*  
*Marine Biotechnology*  
*Marine Ecology Progress Series*  
*Marine Environmental Research*  
*North American Journal of Aquaculture*  
*Oecologia*  
*Phycologia*  
*PLoS One*

**GRANT FUNDING-INTRAMURAL**

**PI:** Timothy A. Nelson  
**Title:** Establishment of Permanent Transects to Establish Long Term Patterns in Marine Community Structure and Function  
**Funding Source:** Seattle Pacific University Faculty Research Grant  
**Funding Period:** 1 Year (1997)  
**Amount:** \$2,050.

**PI:** Timothy A. Nelson  
**Title:** An ecological investigation of "green tides" (blooms of ulvoid macroalgae) in North Puget Sound  
**Funding Source:** Seattle Pacific University Faculty Research Grant  
**Funding Period:** 1 Year (1998)  
**Amount:** \$1,752.

**PI:** Timothy A. Nelson  
**Title:** Are "green tides" harmful algal blooms?  
**Funding Source:** Seattle Pacific University Senior Faculty Grant  
**Funding Period:** 1 Year (July 2002-July 2003)  
**Amount:** \$2,500

**PI:** Timothy A. Nelson  
**Title:** Using underwater video analysis to test hypotheses regarding temporal changes in ulvoid algal bloom abundance in Puget Sound  
**Funding Source:** Seattle Pacific University Senior Faculty Grant  
**Funding Period:** 1 Year (July 2009-July 2010)  
**Amount:** \$4,500

## GRANT FUNDING-EXTRAMURAL

**PIs:** Timothy A. Nelson  
**Title:** Northwest Algal and Seagrass Symposium: A focus on biofuels  
**Funding Agency:** National Science Foundation  
**Funding Period:** 1 year (2016)  
**Amount:** \$8,415

**PIs:** City of Federal Way, Timothy A. Nelson as contractor to do work  
**Title:** Using stable isotopes to determine the nitrogen source causing algal blooms in Dumas Bay, Washington.  
**Funding Agency:** Washington State Department of Ecology  
**Funding Period:** 1 year (2010-11)  
**Amount:** \$46,000

**PIs:** Timothy A. Nelson and Kathryn L. Van Alstyne (Western Washington University)  
**Title:** RUI: Collaborative Research: Production of toxins by bloom-forming macroalgae.  
**Funding Agency:** National Science Foundation.  
**Funding Period:** 3 years (September 2007 through September 2010)  
**Amount:** \$563,000 (Total to WWU and SPU)

**PI:** Timothy A. Nelson (as Acting Chair of Biology)  
**Title:** Research Start-Up Grant for New Faculty  
**Funding Agency:** Murdock Charitable Trust.  
**Funding Period:** Open, beginning in September 2006  
**Amount:** \$25,000 (+\$25,000 University match).

**PIs:** Timothy A. Nelson and Kathryn L. Van Alstyne (Western Washington University)  
**Title:** RUI: Harmful ulvoid macroalgal blooms in Washington State.  
**Funding Agency:** National Science Foundation.  
**Funding Period:** 3 years (September 2005 through September 2008)  
**Amount:** \$212,202 (Total to WWU and SPU)  
**GRANT FUNDING-EXTRAMURAL (CONTINUED)**

**PIs:** Kathryn Van Alstyne (Western Washington University) and Timothy A. Nelson  
**Title:** An ecological investigation of "green tides" (blooms of ulvoid macroalgae) in North Puget Sound.  
**Funding Agency:** National Oceanic and Atmospheric Administration.  
**Funding Period:** 3 years (September 2005 through September 2008)  
**Amount:** \$454,516 (Total to WWU and SPU)

**PI:** Timothy A. Nelson  
**Title:** An ecological investigation of "green tides" (blooms of ulvoid macroalgae) in North Puget Sound.  
**Funding Agency:** Murdock College Research Program for Life Sciences.  
**Funding Period:** 2 years (April 1998 through April 2000)  
**Amount:** \$45,889 (\$7,389 in matching funds provided by SPU)

**PI:** Timothy A. Nelson  
**Title:** An ecological investigation of green tides (blooms of ulvoid macroalgae) in the Pacific Northwest.  
**Funding Agency:** Murdock College Research Program for Life Sciences.  
**Funding Period:** Two years (April 2000 through April 2002)  
**Amount:** \$32,000.