



July 29, 2021

Joseph P. Shramek
Forest Practices Division Manager
Washington State Department of Natural Resources
Natural Resources Building MS 47000
1111 Washington Street SE
Olympia, WA 98504

Dear Joe,

The Washington State Association of Counties has retained Mark Meleason, Ph.D. to work with our team to more deeply engage in the Adaptive Management Program and to serve as our representative on the Cooperative Management, Evaluation, and Research Committee (CMER).

As you can see from Mark's Curriculum vitae, he brings several years of relevant experience and education to the program. We are excited to have him as a voting member of the CMER committee.

We request that the Forest Practices Board appoint Mark Meleason as a voting member of CMER, representing WSAC, at the August Forest Practices Board meeting.

Respectfully submitted,

Eric Johnson
Executive Director

Enclosure

Cc
Stephan Bernath
Marc Engel

Mark A. Meleason, Ph.D.

June 2021

Meleason Environmental Consulting LLC
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CAREER GOAL

My career goal is to combine research on riparian and aquatic systems with policy development to produce management protocols that are scientifically defensible and operationally feasible across the landscape. Through my research and policy experience, I have developed an extensive toolkit that includes study design and statistical analyses using fieldwork measurements or simulation modeling aimed at policy development.

My work has emphasized the following areas:

- Research on the structure and function of riparian and aquatic ecosystems
- Applied research on the impact of land management practices on these ecosystems
- Influence of land management practices on shade, wood recruitment, and juvenile salmon habitat
- Development of management strategies based on scientific knowledge and societal needs

EDUCATION

- **Ph.D.** 2001, Fisheries Science (Stream Ecology). Oregon State University, Corvallis, Oregon. Advisor: Dr. Stanley V. Gregory. Dissertation title: *A simulation model of wood dynamics in Pacific Northwest streams.*
- **M.A.** 1993, Biological Sciences (Terrestrial Ecology). University of California, Santa Barbara, California. Advisor: Dr. Daniel B. Botkin.
- **B.S. / B.S.** 1989, Biological Sciences (Environmental Biology) / Environmental Studies Program (Resource Management). University of California, Santa Barbara, California. Graduated with High Honors. Thesis title: *Wind-hydrogen energy system for Santa Rosa Island, California.*
- **Certificate of Completion.** 1978, National Hardwood Lumber Inspection Association. Hardwood Lumber Inspection School, Memphis, Tennessee.
- **A.A.** 1978, Forest Technology. University of Pennsylvania, Mont Alto, Pennsylvania.

SUMMARY OF QUALIFICATIONS

Research Experience

- **Research Fish Biologist** - Oregon Coastal Coho modeling with USFS
- **Environmental Consultant** (Sole proprietor) - Stream / riparian research and field assessment
- **Research Associate** - Status and future of salmon of western Oregon and northern California (“Botkin study”)
- **Research Scientist** – Lead role planning, directing, and coordinating stream / riparian research projects with National Institute of Water and Atmospheric Research (NIWA, New Zealand)

Management and Policy Experience

- **Riparian and Aquatic Specialist** – Oregon Department of Forestry, State Forests

Communication Skills

- Presented oral and poster papers to scientists, managers, and the public
- Wrote scientific reports, peer reviewed, and popular articles
- Taught stream and riparian ecology to students, research field crews, and field foresters

Quantitative Skills

- Conducted numerous statistical analysis with various software (e.g., NCSS, R, SYSTAT, SAS)
- Created numerous simulation models (primarily in C++ and VBA)
- Working knowledge of GIS ArcInfo

WORK HISTORY

ENVIRONMENTAL CONSULTANT, *Oregon Meleason Environmental Consulting LLC, Salem OR, February 2020 – present*

Main Research Focus. My consultancy has an emphasis in but not limited to the riparian, aquatic, and fisheries management using the best available science. My services include “office products” such as designing and conducting applied research, writing, and editing of scientific manuscripts, serving as an expert witness in a court of law, simulation modeling of riparian systems (e.g., riparian forest, large wood, and shade), and teaching or training workshops such as using physical habitat criteria (as referred to in the Oregon Forest Practices Act) to determine the upper extent of fish. My services also include “field products” that include but are not limited to stream surveys (e.g., upper extent of fish and perenniality), fish passage assessment, wetland delineation, and stream enhancement projects.

Example of Research Contracts (work in progress, client names withheld):

- Scientific editor of a study on large wood recruitment related for forest management
- Expert witness on effects of forest harvest on aquatic resources
- Co-author in publications on the effects of forest harvest on macroinvertebrates and fish (Trask Watershed study), riparian shade modeling, and the influence of a small dam removal on macroinvertebrates

RIPARIAN AND AQUATIC SPECIALIST, *Oregon Department of Forestry, State Forests Division, Salem OR, October 2012 – February 2020*

Supervisors: Rosemary Mannix and Mike Wilson

Main Research Focus: The duties of this position were equally divided among research, field support for nine districts, scientific research, and policy analysis.

Research Areas:

- Upper extent of fish use and perennial flow in small headwater streams
- Macroinvertebrate response to the removal of a small dam
- Direct impacts of forest harvest on fish abundance
- Development of statistical approaches to assess macroinvertebrate response to forest harvest

Field Support:

- Teach /conduct stream surveys for upper extent of fish use and perenniality and wetlands delineation
- Design and implement stream enhancement projects
- Develop Alternative Forest harvest management plans as needed to protect aquatic resources

Policy Development and Analysis:

- Develop guidelines to clarify riparian rule implementation
- Contribute to writing State Forests management plan
- Represent Aquatic Resource interests in Habitat Conservation Plan negotiations
- Consultant to legal team on litigation involving protection of aquatic resources
- Review selected Bills produced by the Oregon Legislative Assembly

RESEARCH FISH BIOLOGIST, *College of Forestry, Oregon State University, Corvallis, OR, October 2011-October 2012; USFS, Pacific Northwest Research Station, Corvallis, OR, March 2009 – October 2011*

Supervisors: Kelly Burnett (USFS), Pete Lawson (NOAA), and Lisa Ganio (OSU)

Main Research Focus: Multidisciplinary team approach to developing a simulation framework for assessing population dynamics of Coho salmon along Coastal Oregon. My primary duty was to advance the Nickelson / Lawson Coho model by linking it to a dynamic landscape model. Due to funding limitations, my duties transitioned to a project that predicted potential juvenile Coho salmon habitat from GIS variables, Nome River, Alaska. This analysis involved assessment of physical and biological factors that influenced juvenile Coho salmon distribution and abundance throughout the Nome River basin.

Research Areas:

- Linked stream habitat conditions with various life-history stages in a Coho population model
- Simulated the effect of land management on Coho habitat conditions using the forest dynamics models ZELIG, FVS, and ORGANON
- Modeled wood recruitment to streams and related wood loads to coho habitat conditions
- Developed statistical model that predicted relative Coho abundance from habitat attributes

ECOLOGIST, *USFS, Pacific Northwest Research Station, Corvallis, OR, September 2007 – March 2009*

Supervisor: Paul Anderson.

Main Research Focus: Managed and analyzed large, complex data sets from several long-term ecological studies and published results in peer-reviewed journals.

Research Areas:

- Assessment of stream shade and microclimate in small streams
- Riparian buffer and density management influences on microsite conditions in young headwater forests (Anderson and Meleason 2009)
- Developed several sampling protocols used in the BLM Density Management and Riparian Buffer study

RESEARCH SCIENTIST, ENVIRONMENTAL CONSULTANT, *September 2005 – 2007*

Main Research Focus. As the sole proprietor, I specialized in the development and refinement of simulation models.

Example of Research Contracts:

- **Contracting Agency:** NOAA, through Northwest Fisheries Science Center, Seattle, WA. Developed version 2 of the computer simulation model OSU StreamWood. Version 1 of this model was the topic of my PhD research (please see model description below under DOCTORAL RESEARCH). The main focus of this contract was to link the model to other forest gap models and forest growth and yield models such as ORGANON and FVS
- **Contracting Agency:** National Institute of Water and Atmospheric Research (NIWA), New Zealand. I was awarded several contracts to continue research that I initiated while with NIWA. Various projects (all with either published articles or manuscripts in preparation) include the development and application of a shade model for forested streams, in-stream dissolved oxygen dynamics in headwater streams following forest harvest, recovery rates of wood, shade, and stream temperature to riparian restoration and microhabitat (Davies-Colley et al. 2009), characterizing the variability of wood in streams (Meleason et al. 2007), and preferences of crayfish in reaches with and without wood (Parkyn et al. 2009).

RESEARCH SCIENTIST, *National Institute of Water and Atmospheric Research Ltd., Hamilton, New Zealand. June 2001 – September 2005.*

Supervisor: Dr. John Quinn.

Main Research Focus: I developed a wood-in-streams research program that determined the importance of wood in New Zealand's native forest streams. My general focus was exploring the linkages between riparian forests and streams and the biological and geomorphic effects of wood in streams. I also participated in numerous multidisciplinary research projects. Although initially hired as a 2-year post-doc, I was promoted to a full-time position responsible for conducting my own research.

Research Areas:

- Large wood in Native forest streams of New Zealand (Meleason et al. 2005)
- Influence of forest buffer width on microclimate (Meleason and Quinn 2004)
- Implications of riparian management strategies on short- and long-term supplies of wood to streams (Meleason and Hall 2005)
- Landscape-level analysis of the distribution and abundance of wood in streams
- Fish response to wood addition to a stream after forest harvest and slash removal
- Riparian forest surveys to determine species composition, structure, and abundance
- Sustainability of riparian plantings in urban and rural landscapes
- Field experiments and simulation of dissolved oxygen levels within streams with logging slash
- Laboratory assessment of organic matter respiration rates
- Simulation of stream shade from riparian forests
- Influence of wood on habitat complexity and abundance of freshwater crayfish
- Simulated fate of *Campylobacter* in a hypothetical stream adjacent to a dairy farm.
- Quantitative risk assessment of *Campylobacter* in New Zealand (see TECHNICAL REPORTS)

DOCTORAL RESEARCH, *Fisheries and Wildlife Department, Oregon State University, Corvallis, Oregon.*
March 1994 to May 2001.

Advisor: Dr. Stanley V. Gregory

Thesis Research Topic: I developed an individual-based stochastic computer model, OSU StreamWood, that simulated the dynamics of wood in small streams of the Pacific Northwest. The model simulated riparian forest growth and delivery of wood to streams as well as breakage, movement, and decomposition of the wood in the channel (Meleason et al. 2002, 2003).

Other Research Areas:

- Literature review of impact of high-head dams on salmonid migration
- Assessment of in-stream wood depletion rates
- Participated in wood tagging study and electro-fishing surveys

RESEARCH ASSOCIATE, *Center for the Study of the Environment (CSE), Santa Barbara, California.*
May 1991 to March 1994.

Supervisor: Dan Botkin

Contract Research Topic: Assessed the relative effects of forest harvest practices on salmonid populations in western Oregon and northern California. This was a \$1 million project funded through the Oregon State legislature. My contract expired prior to the completion of the project so I did not directly contribute to the final report. However, this experience provided a unique introduction to the science, policies, and management issues related to salmonids and their habitat in western Oregon.

Duties:

- CSE Portland Office manager, World Forestry Center, Portland Oregon. I was responsible for the daily operations of the office.
- I investigated specific topics as directed by the “Blue Ribbon Panel” (e.g., Daniel B. Botkin, Kenneth Cummins, Thomas Dunne, Henry Regier, Mathew Sobel, and Lee M. Tallbot).
- Project liaison, responsible for establishing working relationships with state (e.g., ODF, ODFW) and federal (e.g., USFS, USFWS) agencies, industry and non-government groups, and participating in public forums.
- I conducted extensive literature reviews, and co-authored several reports (Botkin et al. 1993, Schenk and Meleason 1994).

MASTERS RESEARCH, *Biological Sciences Department, University of California, Santa Barbara, California.*
1988 to 1991.

Advisor: Dan Botkin

Thesis Research Topic: This research was initially for a Ph.D. in ecology. I had selected a topic, Ecotonal variation of *Pinus banksiana*, conducted the fieldwork, and passed my Ph.D. preliminary oral exam. It was at this point that I was asked by Dr. Botkin to temporarily suspend my Ph.D. research and join his Oregon salmon project team (please see CSE Research Associate description for details). Although invited to join him at a George Mason University to complete this work, I decided to accept an M.A. degree for my graduate work at UCSB and pursue a Ph.D. with Dr. Gregory at OSU.

Other Research Areas:

- Conducted forest surveys to support the forest gap model JABOWA
- Participated in the planning and supervision of field crews assessing forest biomass in the northern deciduous forests of eastern Canada and northeastern United States
- Participated in the planning and supervision of field crews for a joint US/USSR forest research project establishing a series of permanent plots in Siberia (Russia), Alaska, and Minnesota.

REFEREED PUBLICATIONS

1. Meleason, M.A., J. Dunham, and M. River. *In prep.* Assessing the Direct Impacts of Forest Harvest on a Fish Community Using a Paired Watershed Approach.
2. Gerth, W.J., M. A. Meleason. And J. Li. *In prep.* Influence of a small dam removal on a macroinvertebrate community.
3. Johnson, S.L., J. Li, J. Sobota, L. Ashkenas, L. Ganio, and **M.A. Meleason**. *In review.* Macroinvertebrate responses to forest harvest in the headwaters of Trask River Watershed. *Freshwater Biology*.
4. Rutherford, J. C., R. J. Davies-Colley, and **M. A. Meleason**. 2018. Modelling stream shade: 1. Verifying numerical simulations with measurements on simple physical models. *Ecological Engineering* 120: 441-448.
5. Rutherford, J. C., **M. A. Meleason**, and R. J. Davies-Colley. 2018. Modelling stream shade: 2. Predicting the effects of canopy shape and changes over time. *Ecological Engineering* 120: 487-496.
6. Arismendi, I, J. D. Groom, M. Reiter, S. L. Johnson, L. Dent, **M. Meleason**, A. Argerich, and A. E. Skaugset. 2017. Suspended sediment and turbidity after road construction / improvement and forest harvest in streams of the Trask River Watershed Study, Oregon. *Water Resources Research* 53: doi:10.1002/2016WR020198
7. Meleason, M.A., J. Groom, and L. Dent. 2013. A Simulation Framework for Evaluating Riparian Management Strategies on Wood in Streams: An Example Using Oregon's State Forest Riparian Management Regulations. Pages 136 – 147 in Anderson, P. D. and R.K. Ronnenberg, Eds. *Density Management in the 21st Century – West Side Story*. Gen. Tech. Rep. PNW-GTR-880. Portland OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station.
8. Acuna, V, D. J.R. Diez, L. Flores, **M.A. Meleason**, and A. Elozegi. 2013. Does it make economic sense to restore rivers for their ecosystem services? *Journal of Applied Ecology*. **50**: 988-997.
9. Anderson, P. D. and **M. A. Meleason**. 2009. Discerning responses of down wood and understory vegetation abundance to riparian buffer width and thinning treatments: an equivalence/inequivalence approach. *Canadian Journal of Forest Research*. **39**:2470-2485.
10. Davies-Colley, R., **M.A. Meleason**, G. M.J. Hall, and J.C. Rutherford. 2009. Modeling the time course of shade, temperature, and wood recovery in streams with riparian forest restoration. *New Zealand Journal of Marine and Freshwater Research* **43**:673-688.
11. Parkyn, S.M., **M.A. Meleason**, and R. Davies-Colley. Wood enhances crayfish (*Paranephrops planifrons*) habitat in a forested stream. 2009. *New Zealand Journal of Marine and Freshwater Research* **43**:689-700.
12. Opperman, J. J., **M. A. Meleason**, R. Francis, and R. Davies-Colley. 2008. 'Livewood': geomorphic and ecological functions of living trees in active river channels. *BioScience* **58**:1069-1078.
13. Meleason, M. A., R. Davies-Colley, and G.M. J. Hall. 2007. Characterizing the variability of wood in streams using simulation modeling and multiple-reach surveys. *Earth Surface Processes and Landforms*. **32**: 1164 - 1173.
14. Meleason, M. A., R. Davies-Colley, A. Wright-Stow, J. Horrox, and K. Costley. 2005. Characteristics and geomorphic function of wood in native forest streams in New Zealand. *International Review of Hydrobiology* **90**:466-485.
15. Meleason, M. A. and G. M. J. Hall. 2005. Managing plantation forest to provide short- to long-term supplies of wood to streams: A simulation study using New Zealand's pine plantations. *Environmental Management* **36**. 258-271.

16. Meleason, M.A. and J. M. Quinn. 2004. Influence of riparian buffer width on air temperatures at Whangapoua Forest, Coromandel Peninsula, New Zealand. *Forest Ecology and Management* **191**:365-371.
17. Meleason, M.A., S.V. Gregory, and J. P. Bolte. 2003. Implications of selected riparian management strategies on wood in Cascade Mountain streams of the Pacific Northwest. *Ecological Applications* **13**:12-12-1221.
18. Gregory, S. V., **M. A. Meleason**, and D. J. Sobota. 2003. Modeling the dynamics of wood in streams and rivers. Pages 315-336 *in* S. V. Gregory, K. Boyer, and A. Gurnell, editors. *The ecology and management of wood in World Rivers*. American Fisheries Society, Bethesda, MD.
19. Meleason, M.A., S. V. Gregory, and J. P. Bolte. 2002. Simulation of stream wood source distance for small streams in the western Cascades, Oregon. Pages 457-466 *in* W. F. Laudenslayer, P. J. Shea, B. E. Valentine, C. Weatherspoon, L. Phillip, and E. Thomas, technical editors. *Proceedings of the symposium on the ecology and management of dead wood in western forests*. PSW-GTR-181 Pacific Southwest Research Station, USDA FS, Albany, CA.
20. Pritchard, G.O., D.W. Follmer, **M.A. Meleason**, D.D. Shoemaker, J.C. Perkins, and S.L. Leupp. 1992. Disproportionation reactions between alkyl and fluoroalkyl radicals VII: difluoromethyl with perfluoro-n-propyl and methyl radicals. *International Journal of Chemical Kinetics* **24**:735-742.
21. Pritchard, G.O., S.H. Abbas, M.L. Piasecki, and **M.A. Meleason**. 1991. Disproportionation reactions between alkyl and fluoroalkyl radicals VI: difluoromethyl and normal-propyl radicals. *Journal of Chemical Kinetics* **23**:431-437.
22. Pritchard, G.O., S.H. Abbas, J.M. Kennedy, S.J. Paquette, D.B. Hudson, **M.A. Meleason**, and D.D. Shoemaker. 1990. Disproportionation reactions between alkyl and fluoroalkyl radicals V: perfluoro-n-propyl and ethyl radicals revisited. *International Journal of Chemical Kinetics* **22**:1051-1069.

POPULAR ARTICLES

1. Reeves, P., **M. A. Meleason**, and F. Matheson. 2006. Sustainable riparian plantings in urban and rural landscapes. *Water & Atmosphere* **14**:16-17. (https://niwa.co.nz/search?search_api_views_fulltext=Meleason)
2. Rowe, D., J. Smith, B. Baillie, and **M. A. Meleason**. 2004. Wood in streams: how much is good for fish? *Water & Atmosphere* **12**:16-17. (https://niwa.co.nz/search?search_api_views_fulltext=Meleason).
3. Meleason, M.A., J. M. Quinn, and R. Davies-Colley. 2002. Why is wood important in streams? *Water & Atmosphere* **10**:18-19. ([https://docs.niwa.co.nz/library/public/W&A10\(3\)_18.pdf](https://docs.niwa.co.nz/library/public/W&A10(3)_18.pdf)).
4. Quinn, J. M. and **M. A. Meleason**. 2002. Periphyton in our rivers: too much of a good thing? *Water & Atmosphere* **10**:18-19. (<https://niwa.co.nz/sites/niwa.co.nz/files/import/attachments/periphyton.pdf>).
5. Quinn, J. M. and **M. A. Meleason**. 2002. Trends in nuisance periphyton at National Rivers Water Quality Network sites 1989–2001. National Institute of Water and Atmospheric Research Ltd web publication:

TECHNICAL REPORTS

1. Oregon Department of Forestry, State Forests Division. 2009. *Physical Habitat Training Manual*. Revised by **M.A. Meleason** in 2013. Salem OR. 44 pp.
2. McBride, G., **M. A. Meleason**, C. Skelly, R. Lake, P. van der Logt, and R. Collins. 2005. Preliminary Relative Risk Assessment for *Campylobacter* Exposure in New Zealand: 1. National Model for Four Potential Human Exposure Routes. 2. Farm Environmental Model. NIWA Client Report HAM2005-094 for New Zealand Ministry of Health. National Institute of Water and Atmospheric Research Ltd, Hamilton, New Zealand.

3. McBride, G, **M. A. Meleason**, C. Skelly, R. Lake, P. van der Logt, and R. Collins. 2004. Quantitative Risk Assessment for *Campylobacter* exposure in New Zealand. NIWA Client Report HAM2004-121 for New Zealand Ministry of Health. National Institute of Water and Atmospheric Research Ltd, Hamilton, New Zealand.
4. Meleason, M. A. and T. Williston. 2003. Ministry for the Environment Recreational Water Quality Assessment Software “BatheWatch”, User Guide, and Technical Manual. National Institute of Water and Atmospheric Research Client Report No. HAM2003-46.
5. Meleason, M. A. 2002. OSU STREAMWOOD model and user’s guide. H. J. Andrews Experimental Forest Long-term Ecological Research web publication.
6. Williams, K.J. and 14 others. 1995. Gravel disturbance impacts on salmon habitat and stream health, volume II: technical background report. A report for the Oregon Division of State Lands. Prepared by the Oregon Water Resources Research Institute. Oregon State University, Corvallis Oregon.
7. Schenk, H.J., and **M.A. Meleason**. 1994. Status and future of salmon of western Oregon and northern California: available data on land use. The Center for the Study of the Environment, Santa Barbara, California. 93 pp.
8. Botkin, D.B., **M.A. Meleason**, R.A. Nisbet, K.W. Cummins, T. Dunne, H.A. Regier, M.J. Sobel, and L.E. Talbot. 1993. Status and future of anadromous fish of western Oregon and northern California: related studies. The Center for the Study of the Environment, Santa Barbara, California. 43 pp.

ABSRTACTS AND PRESENTATIONS (PARTIAL LIST)

1. Meleason, M.A. 2020. Aquatic Resource Assessment of Oregon’s State Forests. Presentation to Oregon Department of Justice Legal Team, January 4, 2020, Portland OR.
2. Meleason, M.A. 2018. Trask Watershed Study and a Brief Introduction to ODF State Forests. Invited speaker: Oregon Mid and North Coast Water Monitoring Summit, Tillamook Estuaries Partnership. February 28, 2018, Tillamook OR.
3. Dent, L, and M. A. Meleason 2017. Progress Report of the Trask Watershed Study. Forest Trust Land Advisory Committee, December 15, 2017, Salem OR.
4. Meleason, M. A. 2016. Managing Aquatic Resources in State Forests. Invited speaker, Tillamook Forest Center, June 16, 2016, Tillamook OR.
5. Meleason, M. A. 2015. Past Present, and Future Concerns for State Forests’ Aquatic Resources. Oregon Department of Forestry, State Forests Conference, October 22, 2015, Salem, OR.
6. Meleason, M.A. 2015. What’s in Our Streams? Bring your kids to work day presentation. April 23, 2015, Salem, OR.
7. Meleason, M.A. and K. Skinner. 2014. Co-organizer. Trask River Watershed Study Symposium: Implications of Contemporary Forest Practices on Aquatic Systems One Year Post-harvest. Tillamook Oregon, March 13, 2014.
8. Dent, L., J. Brandt, and **M.A. Meleason** 2013. State forests Research and Monitoring Annual Report September 2011 – September 2013. Presentation to the Oregon Board of Forestry. Salem, OR.
9. Meleason, M.A, J. Groom, and L. Dent. 2011. Implications of various riparian management strategies on wood in streams. Density Management in the 21st Century – West Side Story. Oregon State University, October 4 -6, 2011, Corvallis, OR.

10. Lawson, P., R. Kennedy, G. Reeves, K.M. Burnett, C. Jordon, and **M.A. Meleason**. 2011. Patterns of Forest Disturbance in the Oregon Coast Range with Implications for Oregon Coast Coho Salmon . American Fisheries Society 141 Annual Meeting, September, 4-9, 2011, Seattle, WA.
11. Meleason, M.A., P. Lawson, D. Miller, K.M. Burnett, and G. Reeves. 2011. Modeling Stream Habitat Dynamics and Coho Population Viability in Oregon Coastal Rivers. American Fisheries Society 141 Annual Meeting, September, 4-9, 2011, Seattle, WA.
12. Meleason, M.A., P. Lawson, D. Miller, K.M. Burnett, and G. Reeves. 2011. Estimating Coho Habitat Capacity in a Dynamic Landscape Using GIS-Based Variables. American Fisheries Society 141 Annual Meeting, September, 4-9, 2011, Seattle, WA.
13. Meleason, M.A., P. Lawson, D. Miller, K. Burnett, and G. Reeves. 2011. Estimating Coho Habitat Capacity Using GIS-based Variables. American Fisheries Society, Special Workshop on Salmon Escapement Goal Science, November 18-19, 2010, Portland, OR.
14. Lawson, P., Kennedy, R., Reeves, G., Jordan, C., and **M.A. Meleason**, M. 2010. Patterns of forest disturbance in the Oregon Coast Range with implications for Oregon coast coho salmon. Oregon Chapter American Fisheries Society Annual Meeting February 2010, Eugene, OR
15. Meleason, M. A. and R. Davies-Colley. 2006. Characterizing wood volume in streams: sensitivity of reach surveys to large but rare wood pieces. The 2nd International Symposium of Wood in World Rivers, Stirling, Scotland. August 14-18, 2006.
16. Meleason, M. A., R. Davies-Colley, and S. Parkyn. 2005 (Abstract for oral presentation). Wood in New Zealand's native forest streams. Recent advances. North American Benthological Society Annual Meeting, Athens, GA. Bulletin of the North American Benthological Society 22:1 (162).
17. Davies-Colley, R, **M. A. Meleason**, and K. Rutherford. 2005 (Abstract for poster). Advances in stream shade modeling. Accounting for overhang and off-centre view. American Benthological Society Annual Meeting, Athens, GA. Eos trans. AGU, 86(18), Jt. Assem. Suppl. Abstract B33E-25.
18. Meleason, M. A. 2000. (Abstract for oral presentation). Simulation of large wood dynamics in small streams of the Pacific Northwest. Page 39 *in* International Conference on Wood in World Rivers. October 23 -27, Oregon State University, Corvallis OR.

TEACHING, TOURS, and WORKSHOPS

Oregon Department of Forestry

1. State Forests Habitat Conservation Tour, Co-organizer, and presenter. Tillamook State Forests, April 16, 2019.
2. Oregon Board of Forestry Tour. Presenter: Ben Smith Creek: Stream Enhancement and Partners for Coho Restoration. April 26, 2016.
3. Large Wood Design and Implementation Workshop. Co-organizer and instructor, two-day workshop (lecture and field). Coos Bay District Office, March 29-30, 2015.
4. Legacy Roads Field Tour. Co-organizer and Presenter. Participants included members of EPA, NOAA, and DEQ to discuss how to manage legacy roads. Tillamook State Forests, August 10, 2015.
5. Coastal Forests and Streams, Co-instructor, one-day class for Oregon State University's Master Naturalist Program, Tillamook Forest Center, March 29, 2014.
6. Trask Watershed Study Tours. Co-organizer and Presenter. I helped organize annual field tours of the Trask Watershed study. Tillamook State Forests, 2014 - 2016.

7. Upper Extent of Fish Use Workshops, Instructor / co-instructor, one-day training class (lecture and field). Teach foresters how to use physical habitat protocols to determine the upper extent of fish use. Methods were also taught on an individual basis by request. Numerous occasions and locations between 2012 – 2020.
8. Upper Extent of Stream Perenniality Workshops, Instructor, one-day training class (lecture and field) for Oregon Department of Forestry foresters on how to use physical criteria to determine the upper extent of stream perenniality. Method was also taught on an individual basis by request. Numerous occasions and locations between 2012 – 2020.
9. Aquatic Resource Assessments for Timber Harvest Units. Aquatic Resource Expert. I reviewed all proposed timber harvests on State Forests using GIS for management of aquatic resources. In some cases, I asked to visit a site for further review. In other cases, I was invited by foresters to review specific issues with a given harvest unit. Issues include but not limited to forest wetlands delineation, forest road and forest trail drainage issues including hydrologic disconnection, fish passage, beaver management, and stream enhancement. Oregon State Forests, 2012-2020.

USFS, Pacific Northwest Research Station, Corvallis, Oregon

10. Coho and Landscape Disturbance Workshop. Co-organizer. Participants from NOAA, ODFW, USFS, and OSU. USFS Corvallis Research Station, June 24, 2011.
11. OSU StreamWood: Organizer and Instructor. A Tool for Exploring the Effects of Riparian Management Strategies on Wood in Streams. Workshop sponsored by the Central Cascades Adaptive Management Partnership. Corvallis Oregon, May 13, 2010.

Oregon State University, Corvallis, Oregon

12. Stream Ecology, Instructor, summer semester, graduate-level class, Oregon State University, Hatfield Marine Science Center, Newport OR.
13. Stream Ecology, Instructor, two-week children's class.
14. Stream Ecology, Instructor, one-day, graduate-level field methods class.
15. Limnology, Teaching Assistant.

University of California, Santa Barbara, California

16. Communities and Ecosystems, Teaching Assistant.
17. Introduction to the Biological Environment, Teaching Assistant.

PROFESSIONAL AFFILIATIONS

- Ecological Society of America
- American Fisheries Society
- American Water Resources Association

JOURNALS SERVED AS A REVIEWER

- Canadian Journal of Forest Research
- Forest Ecology and Management
- Forest Science
- Journal of American Water Resources Association
- Journal of Environmental Management
- Journal of North American Benthological Society
- Fisheries Research

REFERENCES

Dr. Paul Anderson, Team Leader
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(Esteemed colleague - retired)

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