



John Sessions, PhD, PE
University Distinguished Professor Emeritus
Oregon State University

john.sessions@oregonstate.edu

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DEGREES

PhD, Forest Management, Oregon State University, 1979

MS, Forest Engineering, University of Washington, 1971

MS, Civil Engineering, California State University, 1968

BS, Civil Engineering, University of California, 1966

TEACHING EXPERIENCE

Oregon State University, 1983-2023, resource scheduling, transportation planning, harvest planning, logging mechanics, road system management, forest economics, international forestry, combinatorial optimization

Oregon State University, Forest Engineering Institute, 1975-1978, transportation planning, engineering economics, logging mechanics

RESEARCH EXPERIENCE

Oregon State University, 1983-present

Pacific Northwest Forest and Range Experiment Station, forest engineering, 1970-1971

INDUSTRIAL EXPERIENCE

- Harvesting Division Manager, JARI Florestal, Brazil 1981-1983
- Systems Analyst, JARI Florestal, Brazil 1980

GOVERNMENT EXPERIENCE

- Staff Economist, Division of Timber Management, Wash. D.C., USDA Forest Service, 1979-1980
- Harvesting Specialist and Director of Logging System Training, USDA Forest Service, 1974-1978
- Director of Transportation Planning, Rocky Mountain Region, USDA Forest Service, 1973

INTERNATIONAL CONSULTANT

- *South and Central America*: Colombia, 2013, 2005, 1995; Argentina, 2006, 2005, 1998, 1996; Brazil, 1996, 1989, 1980-83; Chile, 2014-15, 1995, 1994, 1992, 1990; Costa Rica, 1984; Jamaica, 1972-73
- *Africa*: South Africa, 2003, 2002, 1998, 1993, 1991; Zimbabwe, 1986; Zaire, 1987
- *Europe*: Rome, Italy (FAO), 1985.
- *Asia*: Russia (Far East), 1996; Malaysia, 2009, 1996, 1995; Bhutan, 1973; Indonesia, 2015
- *North America*: British Columbia, 2004, Labrador, 1975, Newfoundland, 1975
- *Australasia*: New Zealand, 1986, Australia 2007

FIELD OF SPECIALIZATION

Transportation Planning, Harvest Scheduling, Forest Economics, Forest Operations

PROFESSIONAL SOCIETIES

- Society of American Foresters
- Forest Products Research Society
- Council on Forest Engineering (Chair WR-COFE 2021)
- Sigma Xi
- Xi Sigma Pi (Faculty Advisor 2020-2023)
- Phi Kappa Phi (University Chapter President 1992-1993, Board 1992-2012)

REGISTERED PROFESSIONAL ENGINEER

- Registered Civil Engineer, Washington, No. 12063 (1970-present)
- Registered Civil Engineer, Colorado, No. 10831 (inactive)

AWARDS

- 2024. Scientific Achievement Award, International Union of Forest Research Organizations (26th IUFRO Congress, Stockholm, Sweden) – Awarded once each 5 years in Forest Operations.
- 2019. Elected Fellow, Society of American Foresters (SAF)
- 2016. Reappointed Richard Strachan Endowed Chair of Forest Operations Management

- 2015. International Forest Engineering Achievement Award, Council on Forest Engr.
- 2015. Earle Wilcox National Forester of the Year, Intertribal Timber Council.
- 2013. National Award in Forest Science, Society of American Foresters.
- 2013-present. Appointed Chair for State of Oregon Forest Engineering Licensing Examination by Oregon State Board of Engineers and Surveyors.
- 2010. High Climber Award, Road Maintenance Modeling, Douglas Timber Operators.
- 2010. Oregon State University nominee to the U.S. Professor of the Year competition, Carnegie Foundation for the Advancement of Teaching.
- 2008. Appointed 1st Richard Strachan Endowed Chair of Forest Operations Management
- 2006. Recognition for Outstanding Service, Oregon Department of Forestry
- 2005, 1994, 1993, 1989, 1986. Aufderheide Award for Outstanding Teaching, Oregon State University, College of Forestry
- 2001. Appointed 1st Faye and Lucille Stewart Endowed Professor of Forest Engineering
- 2001. College of Forestry Dean's Award, Outstanding Service, 10-Year Strategic Plan
- 1999. Appointed University Distinguished Professor of Forestry, Oregon State University (24th title of University Distinguished Professor by Oregon State University)
- 1996-2000. Appointed Marcus Wallenberg Prize International Selection Committee
- 1995. Top Prof Teaching Recognition Award, Oregon State University
- 1991. First Annual Dean's Award for Outstanding Achievement, College of Forestry
- 1980. Superior Service Award for Analysis of Alternative National Timber Harvest Programs, USDA Forest Service

EDITORIAL BOARDS

- 2021. Editor, Special Issue of COFE-FORMEC, Int. J. of Forest Engr.
- 2020-2023. Co-Guest Editor for Special Issue of Operations Research and Optimization Techniques in Forest Management and Operations, Journal of Forests
- 2017-2023. Associate Editor for Operations Research, Canadian J. of Forest Research
- 2017-2018. Guest Editor for Special Issue of Biomass Production and Transport, Journal of Forests.
- 2008-2011. Editorial Board, International Journal of Forestry Research
- 1996. Associate Editor for Forest Engineering, Forest Science
- 1994-present. Forest Science (Silva Fennica) Editorial Board, Finland
- 1985-1996. Associate Editor, Western Journal of Applied Forestry, Society of American Foresters

CONGRESSIONAL AND STATE COMMITTEES

- 2020-23. Co-Chair, National Indian Forest Management Assessment Team (IFMAT IV)
- 2020-23. Member, Washington DNR Technical Committee for Sustainable Harvest Calculation
- 2011-13. Co-Chair, National Indian Forest Management Assessment Team (IFMAT III)
- 2006-09. Member, Interagency Science Team - National Fire Program Analysis Review

- 2004. Invited Testimony, Subcommittee on Forests and Forest Health hearing on Restoration after Catastrophic Events, Washington, DC.
- 2003. Member, National Panel Convened by Department of Interior to Review Monitoring Guidance for the Healthy Forest Initiative (HFI) Categorical Exclusions under NEPA
- 2001-03. Member, Washington DNR Technical Committee for Sustainable Harvest Calculation
- 2001-03. Co-Chair, National Indian Forest Management Assessment Team (IFMAT II)
- 2000. Member, Advisory Team, 2000/2001 Forestry Program Funding and Position Analysis. Bureau of Indian Affairs, US Dept. of Interior.
- 1993-1995. Member, Sierra Nevada Ecosystem Science Team
- 1991-1993. Vice-Chair, National Indian Forest Management Assessment Team (IFMAT)

OTHER SCIENCE AND TECHNICAL COMMITTEES

- 2023-present. Advisor to Joint Legislative Audit and Review Committee, State of Washington,
- 2022 Western States Railroad Forest Products Logistics Working Group
- 2022-2023. Western Regional Council on Forest Engineering Program Committee
- 2021-present. Forest Biohubs Working Group
- 2020-22 Chair, COFE-FORMEC Scientific Committee.
- 2020-present. Member, Technical Advisory Committee for the Washington DNR Sustainable Harvest Calculation.
- 2018-2023. Elliott State Forest Exploratory Committee, College of Forestry.
- 2018. Technical Reviewer for USDA NIFA Biomass Logistics Research Panel.
- 2011-16. Leadership Team, Northwest Advanced Renewables Alliance (NARA)
- 2007-2023. Member, BLM Road Committee Working Group
- 2000. Member, Strategic Planning Team, College of Forestry. Oregon State University
- 1998. Technical Advisor, Integrated Assessment of Willamette Watershed Alternative Futures, University of Oregon
- 1998, 1999. Technical Reviewer for USDA Small Business Innovation Research (SBIR).
- 1999-2006. Invited participant in ODF Forest Planning Process.
- 1995-1996. Chair, State Scientific Panel to Evaluate O&C Lands Transfer
- 1996-1999. Technical Reviewer, Consortium of Plant Biotechnology Research (CPBR)
- 1995-1999. Member, Umpqua River Basin Exchange Pilot Project
- 1994-95. Member, Coquille Forest Scientific Advisory Team
- 1994-1998. Member, Coastal Landscape Analysis and Modeling Study (CLAMS) Team
- 1994-1996. Member, IFMAT Implementation Team
- 1994-1996. Member, Boise Cascade Science Advisory Team
- 1996-1999. External Assessor, Faculty of Forestry, University of Agriculture, Malaysia
- 1993-1994. Member, Washington State Landscape Management Project
- 1992-present. Logging Engineering Examiner for State of Oregon
- 1991. Member, Forest Engineering Program Review Team, Univ. of British Columbia

PROFESSIONAL LEADERSHIP

- 2021. Chair, Western Regional Council on Forest Engineering.
- 2013-present. Chair, State of Oregon Professional Examination Team for Forest Engineering.
- 2011-2023. Chair, Graduate Program for Sustainable Forest Management, Oregon State University.
- 2005-2008. Board, Oregon State University Chapter of Engineers without Borders. One of three founding faculty advisors. Beth McNair, FE/CE, first student president.
- 1992-2012 Board, Phi Kappa Phi, University Chapter President 1992-1993
- 1990-1995. Chairman, Forest Operations in Mountainous Terrain S3.06, International Union of Forestry Research Organizations (IUFRO)
- 1988-1990, 1996-2006. Deputy, Forest Operations in Mountainous Terrain S3.06 International Union of Forestry Research Organizations (IUFRO)
- 1986-1988. Chair, Mountain Logging Working Group S3.06-02 International Union of Forestry Research Organizations (IUFRO)
- 1985-1988. Secretary, Systems Analysis Working Group, Society of American Foresters, Certificate of Merit, Most Improved Working Group (1986)

INVITED PRESENTATIONS

- 2025. Invited Speaker, Cascadia Wildfire Webinar. Biochar as a byproduct and potential feasibility driver of fire-focused forest management: an Oregon case study. Jan 15, 2025.
- 2024. Invited Speaker, Wildfire Mitigation and Response. Helena, MT. October 1, 2024.
- 2024. Invited Speaker, Vibrant Planet, IFMAT findings on forest health. May 7, 2024.
- 2023. Invited Speaker, National Academies. Biomass and Biochar Logistics. Wildfire Risk Reduction, Carbon Dioxide Removal, and Biochar. The Challenges of Scaling Up. October 4, 2023.
- 2022. Invited Speaker, Optimizing transportation networks for biomass utilization, National Biomass Workshop, USDA Forest Service sponsor, May 22, 2022.
- 2021. Invited Speaker, Pacific Logging Congress, November 9, 2021. Future of Battery Electric Log Trucks in the Mountainous Pacific Northwest.
- 2021. Invited Speaker, Coos Chapter, Society of American Foresters, May 22, 2021. Future of Battery Electric Log Trucks in the Mountainous Pacific Northwest.
- 2021. Invited Speaker Western Regional Council on Forest Engineering, Future of Battery Electric Log Trucks in the Mountainous Pacific Northwest. Eugene, OR
- 2020. Invited Speaker University of Oregon Public Interest Environmental Law Conference, Tribal Forest Management, University of Oregon, Eugene, OR
- 2020. Invited Speaker Emerald Valley SAF Chapter, Tethered Logging, Eugene, OR
- 2018. Invited Speaker EXPO 2018 Brazilian Forestry Fair, Sao Paulo, BR
- 2016, Invited Speaker, Protecting the Logging Workforce: Development of Innovative Logging Techniques for a Safer Working Environment. San Diego, CA
- 2016. Invited Keynote Speaker, Sustainable Supply Chains for the Timber Economy of the Future Conference, Austimber2016, Victoria, Australia

- 2015. Invited Speaker, Pacific Logging Congress, World Overview of Log Truck Scheduling and Opportunities for the Pacific Northwest, Hawaii
- 2015. Invited Speaker for Associated Oregon Loggers, Optimizing Pole Recovery, Eugene, OR
- 2014. Top Ten Contributing Scholars in Combinatorial Optimization of Bioenergy Supply Chain Problems in Metaheuristic Algorithms Applied to Bioenergy Supply Chain Problems, *Energies* 2014(7):7640-7672.
- 2014. Invited Reader for the Wallenberg International Forestry Prize
- 2013. Invited Speaker for Olympic Logging Conference, Bioenergy, Victoria, BC
- 2013. Invited Speaker for Oregon Logging Conference, Jet Fuel from Woody Biomass, Eugene, OR.
- 2010. Invited Speaker, Pre- and Post-Wildfire Forest Management for Ecological Restoration and Fire Resiliency, Sacramento
- 2009, 2008, 2007. Invited Speaker, Public Land Wildfire Policy, Ecological Policy, OSU F&W
- 2009. Invited Speaker, Annual Meeting of National Forest Counties, Reno
- 2008. Invited Speaker, O&C Counties Annual Meeting
- 2006. Invited Professor, Northeast Forestry University, Harbin, China
- 2006. Invited Keynote Speaker, 29th Annual Meeting of Council on Forest Engineering
- 2006. Invited Keynote Speaker, 9th Annual Meeting of National Forest Coalition of Counties and Schools, Reno
- 2006. Invited Participant, BLM Western Oregon Plan Revision Process
- 2005. Invited Speaker, National Meeting, Association of Consulting Foresters
- 2004, 2001, 1993, 1990. Dean's Award for Outstanding Achievement
- 2004. Keynote Speaker, O&C Counties Annual Meeting
- 2004. Invited Participant, Klamath Country Institute for Journalism and Natural Resources
- 2004. Invited Speaker, Oregon Society of Certified Public Accountants, Eugene
- 2004. Invited Speaker, Siskiyou Wildlands Project, Southern Oregon University
- 2004. Invited Speaker, Annual Meeting of Western Forest Economists, Wemme
- 2004. Invited Speaker, Annual Meeting of National Forest Counties, Reno
- 2004. Invited Speaker, Portland State University, Executive Training,, Medford
- 2004. Invited Speaker, National Public Radio, Annenberg Policy Center, Philadelphia
- 2004. Invited Speaker, Cascadia Wildlands Project, Oregon Natural Resources Council Audubon Society, Harris Hall, Eugene, Oregon.
- 2003. Keynote Speaker, O & C Counties Annual Meeting
- 2003. Invited Speaker, Pacific Logging Congress
- 2003. Invited Speaker, Southern Oregon Timber Industry Association Annual Meeting
- 2003. Invited Author for *Harvesting in the Tropics*, Springer-Verlag Publishers
- 2003. Invited Author for *Roads in the Tropics*, Springer-Verlag Publishers
- 2003. Invited Author for *Roading and Transport Operations*, Encyclopedia of Forest Science, Elsevier Science
- 2003. Invited Speaker and Panelist, Pacific Logging Congress
- 2003. Invited Testimony for Healthy Forests Initiative, Bend, OR, Field Hearings

- 2002. Invited Lecturer, Winter 2002 Environmental Studies Lecture Series, University of Oregon.
- 2000. Lecturer, Yale Forest Forum Series on Current Issues in Commercial Forestry, School of Forestry and Environmental Studies, Yale University.
- 1998. Lecturer. F.K. Weyerhaeuser Lecture Series on Current Issues in Commercial Forestry, School of Forestry and Environment Studies, Yale University.

PUBLICATIONS

In Refereed Journals and Other Peer-Reviewed Publications:

Zamora, R., J. Sessions, M. Contreras, C. Kogler, R. Alzamora, R. Spinelli, and K. Väättäinen. 2025. Simulation in Forest Engineering: Planning the next generation of forest operations for the challenges of the 21st century, a review. In preparation for J. of Current Forestry Reports.

Gulci, N., J. Sessions, and P. Green. 2025. Assessment of Tethered Harvester Productivity in Steep Terrain Conditions: A Case Study in Western Oregon, USA. In review.

Wing, M., M. Barker, J. Burnett, and J. Sessions. 2025. Eyes in the Sky Revisited: Remote sensing technology development using small unoccupied aircraft systems. In review. Journal of Forestry.

Oyier, P., K. Lyons, J. Sessions, J. Calvo-Amodio, F. Marrs, and S. Brown. 2025. Determining Facial Validity of a Forest Harvest Simulation. In review. European J. of Forest Engr.

Hamilton, D., J. Sessions and C. Langevin. 2025. Identifying rolling resistance and air resistance simultaneously for an electric truck. Accepted. International J. of Forest Engr.

Gulci, N., J. Sessions, S. Gulci, and A. Akay. 2025 Worksheet-based Preliminary Analysis for Skyline Installation: A case study from Kahramanmaras, Turkey. In press. Turkish Journal of Forest Science.

Gulci, S., J. Sessions, and N. Gulci. 2025. Evaluating and Modeling of Chainsaw Noise Propagation by Using Artificial Neural Network in Selective Cutting. Croation J. of Forest Engineering. Accepted June 19, 2025.

Hamilton, D., C. Langevin, J. Sessions and V. Diederichs. 2025. Developing Heavy Duty Electric Vehicle Energy Transportation Cost Mapping. International Forum for Heavy Vehicle Transport & Technology (HVTT Forum), May 25-29, 2025, Laval University, Quebec, CA.
<https://applications.fsa.ulaval.ca/cfp/public/article.aspx?id=847>

Alam, A., R. Naranjo, J. Sessions, C. Okolo, S. Attreya, K. Lyons, and A. Susaeta. 2025. Development and Prospects of Biomass-Based Fuels for Heavy-Duty Truck Applications: A Case Study in Oregon. Published online May 26, 2025. *Energies* **2025**, 18(11), 2747.
<https://doi.org/10.3390/en18112747>.

Okolo, C. A. Susaeta, and J. Sessions. 2024. Credit Market Dynamics, Reduced Greenhouse Gas, and Carbon Intensity Targets: Insights from the Oregon Clean Fuels Program for Sustainable Development. *Journal of Renewable Energy*. In Review.

Okolo, C., A. Susaeta, M. Crandall, and J. Sessions. 2024. Evaluating the Costs and Outcomes of Oregon's Clean Fuels Program: Advancing Carbon Intensity Goals for Sustainable Development. Submitted to *J. of Sustainable Development*. In Review.

Schriver, R., B. Strimbu, and J. Sessions. 2024. Landscape Inventory of Individual Western Juniper in Central Oregon, USA, by fusing multispectral and elevation data. Submitted to *ISPRS Journal of Photogrammetry and Remote Sensing*.

Sercan, G., M. Wing, N. Gülci, J. Sessions, and A. Akay. 2024. Evaluating Landscape Monitoring Using Automatic Dense Point Cloud Classification: UAV-Derived Multi-Temporal Imagery on a University Campus. Submitted to *Journal of Forestry*.

Diniz, C., M. Smidt, J. Sessions and R. Zamora-Cristales. 2024. Simulating gross production of southern harvesting systems using Arena Simulation Software. Submitted to the *International J. of Forest Engineering*.

Schriver, R., J. Sessions and B. Strimbu. 2024. Landscape restoration using individual tree harvest strategies. *Sustainability* 2024, 16, 5124. <https://doi.org/10.3390/su16125124>.

Diniz, C., R. Timofeiczky, J. Garzel, R. Robert, J. Sessions, and E. Lopes. 2024. Comparing different replacement policies for logging machines in Brazil. Special Issue of the *Croatian J. for the 2022 IUFRO-CFE-FORMEC meeting*. Corvallis, Oregon. *Croatian J. of Forest Engr.* 45(1):57-70.

Diniz, C., M. Smidt, and J. Sessions. 2024. Applying optimum bucking method to compare volume and value recovery of cut-to-length and tree-length merchandizing systems in Piedmont and Coastal Plain. FORMEC/FEC 2023—Improving Access to Sustainable Forest Materials in a Resource-Constrained World. Special Issue *Forests* 2024, 15(3), 550; <https://doi.org/10.3390/f15030550> Published online March 18, 2024.

Hamilton, D, V. Diederichs, and John Sessions. 2024. A Forestry Electric Vehicle Energy Routing and Mapping GIS Tool. *International J. of Forest Engineering*. Published online May 23, 2024. <https://www.tandfonline.com/doi/full/10.1080/14942119.2024.2353501>

Sessions J., K. Lyons, and D. Hamilton. 2024. Breakeven Analysis Considering Ultra-Fast Charging Stations at Mills for Battery-Electric Log Trucks. *Croatian J. of Forest Engineering* 45(2):383-389. <https://doi.org/10.5552/crojfe.2024.2292>.

Lyons, K., P. Oyier, F. Belart, S. Brown, J. Calvo-Amodio, and J. Sessions. 2023. Coaching forest engineering: soccer and forest harvesting simulators. In revision.

Gulci, N., A. Akay, and J. Sessions. 2023. A Comparison of Two Felling Techniques

Considering Stump-Height-Related Timber Value Loss. *Croatia J. of For. Engr.* 44(1):103-110.

Sessions, J. 2023. Optimizing transportation networks for biomass utilization. In: *Proceedings: Forest biomass utilization in the Pacific Northwest: Innovative research enables business success*. Workshop held online May 21-22, 2022. Forest Service General Technical Report, David Nicholls (Ed.).

Diniz, C., M. Smidt and J. Sessions. 2022. Engine idle time and its effects on logging machine costs. Submitted to the *Croatia J. of Forest Engr.* In Review.

Lyons, K., J. Wimer, and J. Sessions. 2022. Hazard recognition and risk assessment by cable logging rigging crews. Accepted March 16, 2022, Published online April 4, 2022. COFE-FORMEC Special Issue of *Int. J. of For. Engr.* <https://doi.org/10.1080/14942119.2022.2055411>

Sessions, J. and J. Wimer. 2022. A mobility model for a tethered skidder. COFE-FORMEC Special Issue of *Int. J. of For. Engr.* 33(3): 189-194. Accepted Feb 18, 2022, Published online March 8, 2022. DOI: 10.1080/14942119.2022.2045172

Chung, W., B. Morrisette, P. Green, B. Leshchinsky, F. Belart, J. Sessions, J. Wimer, and J. Garland. 2022. Effects of pre-bunching logs with a tethered feller-buncher on cable logging productivity and costs: A case study in Southern Oregon. Accepted February 14, 2022. Published April 8, 2022. <https://doi.org/10.1093/forsci/fxac008>. Forest Science.

Nicholls, D., D. Vaughn, H-S Han, D. Mitchell, M. Smidt and J. Sessions. 2022. Forest Biohubs to enhance forest health while supporting the emerging bioeconomy: a comparison between three U.S. regions. Accepted January 14, 2022. Published on line January 27, *Energies* 2022, 15(3), 931; <https://doi.org/10.3390/en15030931>

West, T., J. Sessions, and B. Strimbu. 2022. Steep Slope Harvest System Models for Small to Large Trees. *Forests*, 13(2):305-322. <https://doi.org/10.3390/f13020305>.

Diniz, C., and J. Sessions. 2022. ESPDS: A support tool to assist forest equipment purchase decisions. Published online December 1, 2021. doi: 10.5552/crojfe.2022.1168, 43(1)12 pages. *Croatia J. of Forest Engr* 43(1):98-108.

Acuna, M., J. Sessions, and G. Murphy. 2021. Financial impacts of harvesting with spatial, access and size considerations. In preparation.

Sessions, J., B. Strimbu, and T. West. 2021. Do Larger Diameter Logs Cost More to Haul? In preparation.

Sessions, J., K. Lyons, and J. Wimer. 2021. Maximizing the Standing Skyline Log Load Using a Variable Length Tagline. *Forests* 2021, 12, 927. <https://doi.org/10.3390/f12070927>. Published July 15, 2021.

West, T., J. Sessions, and B. Strimbu. 2021. Heuristic Optimization of Thinning Individual Douglas-Fir. *Forests* 2021, 12, 280. <https://doi.org/10.3390/f12030280>. Published on line Feb 28, 2021. 14 pp.

Akay, A.E., Serin, H., Sessions, J., Pak, M., Bilici, E. 2021. Evaluating the Effects of Improving Forest Road Standards on Economic Value of Forest Products, *Croatian J. of Forest Engineering*, 42(2):245–258.

Sessions, J., M. Berry and H-S. Han. 2021. Machine rate calculations – A modified approach. *Croatian J. of Forest Engineering*, 42(3):437-443.

Eker, M., and J. Sessions. 2020. Refocusing on Operational Harvest Planning Model for State Owned Forestry in Turkey. Published on line December 12, 2020. *European J. of Forest Engr.* 6(2):96-106.

Berry, M., and J. Sessions. 2020. Evaluating the economic incentives of biomass removal on site preparation for different harvesting systems in Australia. *Forests* 11(1370):1-12. doi:10.3390/f11121370.

Diniz, C. and J. Sessions. 2020. Ensuring Consistency between Strategic Plans and Equipment Replacement Decisions. Published online June 5, 2020. *International J. of Forest Engineering* 31(3):211-223. <https://www.tandfonline.com/doi/full/10.1080/14942119.2020.1768769>

Lyons, K., J. Sessions and J. Wimer. 2020. Design of continuous bridle multiple-stump anchors. *International J. of Forest Engr.* 31(1):1-8, DOI: 10.1080/14942119.2020.1685833

Lyons, K., J. Sessions and J. Wimer. 2020. The effect on tether tension when using trees to redirect live machine tethers during forest harvesting on steep slopes. *Biosystems Engineering* 195(2020):89-96.

Wooley, R., J.Y. Zhu, R. Gleisner, A. Hawkins, P. Starkey, J. Gao, T. Spink, J. Ley, M. Wolcott, G. Marrs, and J. Sessions. 2020. Production of 1,000 gallons of certified biojet fuel through biochemical conversion of softwood forest residues. Gen. Tech. Rep. FPL-GTR-278. Madison, WI: US Department of Agriculture, Forest Service, Forest Products Laboratory. 109 p.

Green, P., W. Chung, B. Leshchinsky, J. Sessions, S. Fitzgerald, J. Wimer, T. Cushing, and J. Garland. 2020. Insight into the Productivity, Cost and Soil Impacts of Cable-assisted Harvester forwarder Thinning in Western Oregon. *Forest Science* 66(1):82-96.

Diniz, C., J. Sessions, R. Timofeiczky Junior, and R. Robert. 2020. Equipment replacement policy for forest machines in Brazil. *International J. of Forest Engineering* 31(2):87-94.

Hall, D. and J. Sessions 2019. Calculating the length of long bridle legs. *Journal of Theater Design and Technology* 55(4):46-50.

Strimbu, B., C. Qi, and J. Sessions. 2019. Accurate geo-referencing of trees with no or inaccurate terrestrial location devices. *Remote Sensing* 2019, 11(16), 1877; doi:10.3390/rs11161877. Online August 11, 2019.

Petitmermet, J., J. Sessions, J. Bailey, and R. Zamora-Cristales. 2019. Cost and productivity of tethered cut-to-length systems in a dry forest fuel reduction treatment: A case study. *Forest Science* 65(5):581-592. Online March 30 at <https://academic.oup.com/forestscience/advance-article/doi/10.1093/forsci/fxz010/5423754>.

Acuna, M., J. Sessions, R. Zamora-Cristales, K. Boston, M. Brown, and M. Ghaffariyan. 2019. Methods to manage and optimize forest biomass supply chains: A review. *Current Forestry Reports* (2019) 5:124–141 <https://doi.org/10.1007/s40725-019-00093-4>. Springer. On line June 25 at <https://link.springer.com/epdf/10.1007/s40725-019-00093-4>

Hersh, B., A. Mirkouei, J. Sessions, B. Rezaie, and Y. You. 2019. A review and future directions on enhancing sustainability benefits across food-energy-water systems: The potential role of biochar-derived products. *AIMS Environmental Science* 6(5):379-416. doi: 10.3934/environsci.2019.5.379

Petitmermet, J., J. Fried and J. Sessions. 2019. Estimating biomass availability and cost when implementing forest restoration with tethered harvest systems. *Journal of Forestry* 177(4):323-339. Online June 5 at <https://academic.oup.com/jof/advancearticle/doi/10.1093/jofore/fvz033/5511745>

Bilici, E., V. Andiç, A. Akay and J. Sessions. 2019. Productivity of a portable winch system used in salvage logging of storm-damaged timber. *Croatian J. of For. Engr.* 40(2):311-318.

Garland, J., F. Belart, R. Crawford, W. Chung, T. Cushing, S. Fitzgerald, P. Green, L. Kincl, B. Leshchinsky, B. Morrisette, J. Sessions and J. Wimer. 2019. Safety in steep slope logging operations, *Journal of Agromedicine* 24(2):138-145, doi: 10.1080/1059924X.2019.1581115. Online March 12, 2019 <https://doi.org/10.1080/1059924X.2019.1581115>.

Sessions, J., D. Smith, K. Trippe, J. Fried, J. Bailey, J. Petitmermet, W. Hollamon, C. Phillips, and J. Campbell. 2019. Can Biochar Link Forest Restoration with Commercial Agriculture? *Biomass and Bioenergy* 123(2019):175-185. Online March 9, 2019. <https://doi.org/10.1016/j.biombioe.2019.02.015>

Belart, F., B. Leshchinsky, J. Sessions, W. Chung, P. Green, J. Wimer, and B. Morrisette. 2019. Sliding Stability of Cable-Assisted Tracked Equipment on Steep Slopes. *Forest Science* 65(3):304-311. Online Dec 20, 2018. <https://academic.oup.com/forestscience/advancearticle/doi/10.1093/forsci/fxy064/5256532#>

Sessions, J. and K. Lyons. 2019. Harvesting elevation potential from mountain forests. *International J. of Forest Engineering* 29(3):192-198. Published online Oct. 1, 2018.

<https://www.tandfonline.com/eprint/vDYX7eDrjZe9dyJ8Y2AZ/full>

Belart, F., J. Sessions, and G. Murphy. 2019. Seasonal changes in live tree branch moisture in Oregon, USA: four case studies. *Forest Science*, 65(1):100-107. Available on line, August 29, 2018 at <https://doi.org/10.1093/forsci/fxy038>.

Campbell, J., J. Sessions, D. Smith, and K. Trippe. 2018. Potential carbon storage in biochar made from logging residue: basic principles and southern Oregon case studies. Published Sep13, 2018. *PLoS ONE* 13(9): e0203475. <https://doi.org/10.1371/journal.pone.0203475>.

Daugherty, B., J. Sessions, R. Zamora-Cristales, and M. Wing. 2018. Improving Large Trailer Access for Biomass Recovery in Steep Terrain. *Forest Science* 64(4):429-441. Online April 4, 2018. <https://doi.org/10.1093/forsci/fxx020>

Zamora-Cristales, R, K. Boston, J. Long, and J. Sessions. 2018. Economic Estimation of the Available Biomass Following Logging Operations in Western Oregon and Washington. *Forest Products J.* 68(2):191-198. Available on line March 2, 2018 at <http://www.forestprodjournals.org/doi/pdf/10.13073/FPJ-D-17-00045>

Han, H.-S., A. Jacobson, E.M. Bilek, and J. Sessions. 2018. Waste to Wisdom: Utilizing forest residues for the production of bioenergy and biobased products. *Applied Engineering in Agriculture* 34(1):1-7.

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