

CURRICULUM VITAE

University of Idaho

NAME: Andrew Steven Nelson

DATE: 25 February 2019

RANK OR TITLE: Assistant Professor

DEPARTMENT: Forest, Rangeland, and Fire Sciences

OFFICE LOCATION AND CAMPUS ZIP: CNR 102C; 1133

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DATE OF FIRST EMPLOYMENT AT UI: July 2015

DATE OF TENURE: Untentured

DATE OF PRESENT RANK OR TITLE: July 2015

EDUCATION BEYOND HIGH SCHOOL:

Degrees:

Ph.D.	University of Maine	Orono, ME	2013	Forest Resources, Silviculture
M.S.	University of Maine	Orono, ME	2010	Forest Resources, Silviculture
B.S.	Univ. of California, Berkeley	Berkeley, CA	2005	Conservation & Resource Studies Minor: Forestry

EXPERIENCE:

Teaching, Extension and Research Appointments:

2018-present	Alberg Beck Endowed Chair of Native Plant Regeneration	University of Idaho
2015-present	Assistant Professor	University of Idaho
2013-2015	Assistant Professor	University of Arkansas, Monticello
2013-2015	Assistant Professor	Arkansas Forest Resources Center, UA Division of Agriculture
2007-2013	Research Assistant	University of Maine

Academic Administrative Appointments:

2018-present	Director, Center for Forest Seedling and Nursery Research and Franklin H. Pitkin Forest Nursery	Univ. of Idaho
2016-2018	Interim Director, Center for Forest Seedling and Nursery Research and Franklin H. Pitkin Forest Nursery	Univ. of Idaho
2010-2011	Interim Coordinator, Cooperative Forestry Research Unit	Univ. of Maine

Consulting:

2017-present	Reforestation Consultant	Western Forestry & Conservation Association
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TEACHING ACCOMPLISHMENTS:

Areas of Specialization: Plant regeneration, nursery propagation, silviculture

Courses Taught:

University of Idaho

Silvicultural Principle and Practices	FOR 424	2015-2018	4 cr.	enrollment~26
Forest Regeneration	FOR 324	2016-2018	3 cr.	enrollment~26
Seedling Quality Assessment	FOR 499	2017	3 cr.	enrollment, 1
Forest Production Ecology	FOR 502	2017	2 cr.	enrollment, 1

University of Arkansas, Monticello

Silviculture	FOR 3434	2014-2015	4 cr.	enrollment~20
Advanced Dendrology	FOR 2291	2014	3 cr.	enrollment~15
Forest Fire and Herbicides	FOR 3133	2013	3 cr.	enrollment~20

University of Maine
Forest Land Navigation

SFR 106 2012 1 cr. enrollment~20

Students Advised:

Undergraduate Students:

I advise approximately 6-8 undergraduate students each semester. The following is a list of my advisees that graduated:

Graduate Students Advised:

Completed:

2016	Ethan Childs	M.S.	University of Arkansas, Monticello
2016	Alexander Hoffman	M.S.	University of Arkansas, Monticello
2017	Geoffrey Williams	M.S.	University of Idaho
2018	Jonathan Cherico	M.S.	University of Idaho
2018	Jacob Reely	M.S.	University of Idaho

In Progress

2016-present	Meghan Foard*	Ph.D. candidate	University of Idaho
2017-present	Kelsie Grover	M.S.	University of Idaho
2018-present	Shawn deFrance †	M.S.	University of Idaho
2018-present	Brooke Durnin	M.S.	University of Idaho
2019-present	Mariajuana James‡	M.S.	University of Idaho
2019-present	Lauren Goss	M.S.	University of Idaho
2019-present	Joshua Mullane	M.S.	University of Idaho

* National Science Foundation – Integrated Graduate Education & Research Traineeship

† Forest Biometrics Research Institute Fellowship at the University of Idaho

‡ Gates Millenium Scholar

Postdoctoral Fellows:

2017-2018	Chenchen Shen	University of Idaho
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Graduate Committee Involvement:

2017-present	Raquel Feltrin	Ph.D.	University of Idaho
2017-present	Wade Steady	M.S.	University of Idaho
2018	Allison Lutes	M.S.	University of Idaho
2017-2018	Callie Collins	M.S.	University of Idaho
2016-2017	Ann Abbott	Ph.D.	University of Idaho
2016-2017	Kelli Roemer	M.S.	University of Idaho
2015-2017	Lauren Sherman	M.S.	University of Idaho
2015-2017	Alex Anderson	M.S.	University of Idaho
2014-2016	Chris Sheldon	M.S.	University of Arkansas, Monticello

Undergraduate Theses:

2017-2018	Joshua Mullane	B.S.	University of Idaho
2018-2019	Gabrielle Harden (Berklund Scholar)	B.S.	University of Idaho

Club Advising:

2015-present UI Society of American Foresters Student Chapter, advisor

Courses Developed:

Silvicultural Principle and Practices	FOR424	2015-2017	4 cr.	enrollment~26
Forest Regeneration	FOR324	2016-2017	3 cr.	enrollment~26
Seedling Quality Assessment	FOR499	2017	3 cr.	enrollment, 1

Non-credit Classes, Workshops, Seminars, Invited Lectures, etc.:

Introduction to Forest Management FOR 102 2016-2017 Guest lectures: Silviculture, regeneration

SCHOLARSHIP ACCOMPLISHMENTS:**Publications (* indicates graduate students advised):**Refereed/Adjudicated Journal Articles:

22. Bose, A., **Nelson, A.S.**, Kane, M., and Rigling, A. 2018. Density reduction in loblolly pine (*Pinus taeda* L.) stands to increase tree C assimilation: an approach with the dual $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ isotope signatures in needles. *Annals of Forest Science*. 75: 8. DOI: 10.1007/s13595-017-0687-1.
21. Collins, C.N., Brooks, R.H., Sturz, B.D., **Nelson, A.S.**, and Keefe, R.F. 2018. Body composition changes of United States smokejumpers during the 2017 fire season. *Fire*. 1: 48. DOI: 10.3390/fire1030048.
20. Hoffman, A. *, Bataineh, M., Adams, J., and **Nelson, A.S.** 2018. Partial harvesting effects on seedling growth and physiology of three hardwood species in mature *Pinus*-hardwood mixtures. *Journal of the Torrey Botanical Society*. 145(3): 237-249. DOI: 10.3159/TORREY-D-17-00031.
19. Lei, Y., Fu, L. Affleck, D.L.R., **Nelson, A.S.**, Shen, C., Wang, M., Zheng, J., Ye, Q., and Yang, G. 2018. Additivity of nonlinear crown width models: Aggregated and disaggregated model structures using nonlinear simultaneous equations. *Forest Ecology and Management*. 427: 372-382. DOI: 10.1016/j.foreco.2018.06.013.
18. McDonough, T.C., Regan, D.J., and **Nelson, A.S.** 2018. Propagation protocol for blue elderberry (*Sambucus nigra* L. ssp. *cerula* (Raf.) R. Bolli). *Native Plants Journal*. 19(3): 254-259.
17. Shen, C. and **Nelson, A.S.** 2018. Natural conifer regeneration patterns in temperate forests across the Inland Northwest, USA. *Annals of Forest Science*. 75:54. DOI: 10.1007/s13595-018-0724-8.
16. Wagner, R.G., Gonzalez-Benecke, C., **Nelson, A.S.**, and Jacobs, D.F. 2018. Forest regeneration in changing environments. *New Forests*. 49(6): 699-704. DOI: 10.1007/s11056-018-9687-8.
15. Williams, G.M. * and **Nelson, A.S.** 2018. Spatial variation in specific leaf area and horizontal distribution of leaf area in juvenile western larch (*Larix occidentalis* Nutt.). *Trees – Structure and Function*. 32(6): 1621-1631. DOI: 10.1007/s00468-018-1738-4.
14. Williams, G.M. *, **Nelson, A.S.**, and Affleck, D.L.R. 2018. Vertical distribution of foliar biomass in western larch (*Larix occidentalis* Nutt.). *Canadian Journal of Forest Research*. 48: 42-57. DOI: 10.1139/cjfr-2017-0299.
13. Hoffman, A. *, Adams, J., Bataineh, M., Babst, B., and **Nelson, A.S.** 2017. Response of standard eastern cottonwood and novel black willow clones to artificial lighting. *Tree Planters' Notes* 60 (1): 28-36.
12. Rajan, K., **Nelson, A.S.**, Adams, J.P., and Carrier, D.J. 2017. Phytochemical recovery for valorization of loblolly pine and sweetgum bark residues. *Journal of Sustainable Chemistry and Engineering*. 5: 4258-4266. DOI: 10.1021/acssuschemeng.7b00243
11. **Nelson, A.S.**, Wagner, R.G., Day, M.E., Fernandez, I.J., Weiskittel, A.R., and Saunders, M.R. 2016. Light absorption and light-use efficiency of juvenile white spruce trees in natural stands and plantations. *Forest Ecology and Management* 376: 158-165. DOI: 10.1016/j.foreco.2016.06.019
10. **Nelson, A.S.** and Bragg, D.C. 2016. Multi-decadal response of naturally regenerated southern pine to early vegetation management and commercial thinning. *Forest Science* 62(1): 115-124. DOI: 10.5849/forsci.15-056
9. Sheldon, C.J., Ficklin, R.L., Fawley, K.P., Fawley, M.W., Bataineh, M., **Nelson, A.S.**, and Wilson, S. 2016. Vegetation diversity in natural and restored forested wetland sites in southeast Arkansas. *Journal of the Arkansas Academy of Science* 70: Art 37. 221-231.
8. **Nelson, A.S.**, Wagner, R.G., Weiskittel, A.R., and Saunders, M.R. 2015. Effects of species composition, management intensity, and shade tolerance on vertical distribution of leaf area index in juvenile stands in Maine, U.S.A. *European Journal of Forest Research* 134: 281-291. DOI: 10.1007/s10342-014-0850-2

7. **Nelson, A.S.**, and Wagner, R.G. 2014. Spatial coexistence of American beech and sugar maple regeneration in post-harvest northern hardwood forests. *Annals of Forest Science* 71(7): 781-789. DOI: 10.1007/s13595-014-0376-2
6. **Nelson, A.S.**, Weiskittel, A.R., Wagner, R.G., and Saunders, M.R. 2014. Development and evaluation of aboveground small tree biomass models for naturally regenerated and planted tree species in eastern Maine, U.S.A. *Biomass and Bioenergy* 68: 215-227. DOI: 10.1016/j.biombioe.2014.06.015
5. **Nelson, A.S.**, Weiskittel, A.R., and Wagner, R.G. 2014. Development of branch, crown, and vertical distribution leaf area models for contrasting hardwood species in Maine, U.S.A. *Trees - Structure and Function* 28(1): 17-30. DOI: 10.1007/s00468-013-0926-5
4. **Nelson, A.S.**, Wagner, R.G., Saunders, M.R., and Weiskittel, A.R. 2013. Influence of management intensity on the productivity of early successional Acadian stands in eastern Maine. *Forestry* 86(1): 79-89. DOI: 10.1093/forestry/cps064
3. **Nelson, A.S.**, Saunders, M.R., Wagner, R.G., and Weiskittel, A.R. 2012. Early stand production of hybrid poplar and white spruce in mixed and monospecific plantations in eastern Maine. *New Forests* 43: 519-534. DOI: 10.1007/s11056-011-9296-2
2. **Nelson, A.S.**, and Wagner, R.G. 2011. Improving the composition of beech-dominated northern hardwood understories in northern Maine. *Northern Journal of Applied Forestry* 28(4): 186-193.
1. Erbilgin, N., Gillette, N.E., Owen, D.R., Mori, S.R., **Nelson, A.S.**, Uzoh, F., and Wood, D.L. 2008. Acetophenone superior to verbenone for reducing attraction of western pine beetle *Dendroctonus brevicomis* to its aggregation pheromone. *Agriculture and Forest Entomology* 10: 433-441. DOI: 10.1111/j.1461-9563.2008.00407.x

Refereed/Adjudicated Books

1. Deal, R. (Editor) and 19 Associate Editors (**Nelson, A.S.**). 2018. The SAF Dictionary of Forestry, 2nd edition. The Society of American Foresters. Bethesda, MD. 208 p.

Peer Reviewed/Evaluated:

12. Worden, S., Collins, C., Roe, A., Brown, K., Smith, A.M.S., Kolden, C., **Nelson, A.S.**, Brooks, R., and Ramsay, S. 2017. Wildland firefighters' self-reported nutrition and hydration concerns that may impact health and safety. *Journal of Nutrition Education and Behavior* 49(7) S85.
11. Hoffman, A.P. *, Adams, J.P., and **Nelson, A.S.** 2016. Effects of light regime and IBA concentration on adventitious rooting of an eastern cottonwood (*Populus deltoides*) clone. In: Proceedings of the 18th Biennial Southern Silviculture Research Conference. Edited by: Schweitzer, C.J., Clatterbuck, W.K., and Oswalt, C.M. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. e-Gen. Tech. Rep. SRS-212. pp. 478-485.
10. **Nelson, A.S.** and Bragg, D.C. 2014. Long-term response of natural-origin even-aged southern pine to early competition control and density management in Arkansas, U.S.A. XXIV IUFRO World Congress. *The International Forestry Review* 16(5): 305.
9. **Nelson, A.S.**, Wagner, R.G., and Saunders, M.R. 2014. Silvicultural options for early-successional stands in Maine: Six-year results of the silvicultural intensity and species composition experiment. In: Penobscot Experimental Forest:60 Years of Research and Demonsration in Maine, 1950-2010. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station. Gen. Tech. Rep. NRS-P-123. pp. 91-102.
8. **Nelson, A.S.**, Weiskittel, A.R., Wagner, R.G., and Saunders, M.R. 2012. Verification of the Jenkins and FIA Sapling biomass equations for hardwood species in Maine. In Moving from Status to Trends: Forest Inventory and Analysis (FIA) Symposium 2012. Edited by R.S. Morin, and G.C. Liknes. USDA Northern Research Station Gen. Tech. Rep. NRS-P-105, Baltimore, MD. pp. 373-377.
7. **Nelson, A.S.**, Wagner, R.G., Weiskittel, A.R. 2012. Verification of regional and national aboveground sapling biomass equations in Maine. In Cooperative Forestry Research Unit 2012 Annual Report. Edited by B. Roth, Orono, ME.

6. **Nelson, A.S.**, and Wagner, R.G. 2011. Influence of silvicultural intensity and species composition on the productivity of early successional stands in Maine. *In Cooperative Forestry Research Unit 2011 Annual Report. Edited by B. Roth, Orono, ME. pp. 22-26.*
5. Mercier, W.J., and **Nelson, A.S.** (eds). 2010. Cooperative Forestry Research Unit 2010 Annual Report, Orono, ME.
4. **Nelson, A.S.**, and Wagner, R.G. 2010. Productivity of hybrid poplar on forested sites in Maine. *In Cooperative Forestry Research Unit 2010 Annual Report. Edited by W.J. Mercier, and A.S. Nelson, Orono, ME. pp. 16-22.*
3. **Nelson, A.S.**, and Wagner, R.G. 2009. Improving the composition of natural regeneration in Maine hardwood stands with beech-dominated understories: third-year results. *In Cooperative Forestry Research Unit 2009 Annual Report. Edited by S.R. Meyer, Orono, ME. pp. 35-39.*
2. **Nelson, A.S.**, and Wagner, R.G. 2008. Hardwood regeneration improvement and spatial ecology of beech-dominated understories in Maine. *In Cooperative Forestry Research Unit 2008 Annual Report. Edited by S.R. Meyer, Orono, ME. pp. 39-43.*
1. Wagner, R.G., and **Nelson, A.S.** 2007. Improving species composition of hardwood regeneration in beech-dominated understories: first-year results. *In Cooperative Forestry Research Unit 2007 Annual Report. Edited by S.R. Meyer, Orono, ME. pp. 33-36.*

Other Publications:

Nelson, A.S. 2015. Contemporary values of multiaged silviculture: Review of *Multiaged Silviculture: Managing for complex forest stand structures* by Kevin O'Hara. *Journal of Forestry* 113(2): 264-265.

Nelson, A.S., Osborne, D., Liechty, H., and Adams, J. 2014. Fourche Bottoms Desired Forest Conditions Report. Audubon Arkansas, National Audubon Society, Inc. Internal Report.

Refereed/Adjudicated (currently scheduled or submitted):

Childs, E. *, Bataineh, M., Guldin, J., and **Nelson, A.S.** *In review.* Neighborhood competition effects on shortleaf pine and loblolly pine crown dimensions. *Forest Ecosystems.*

Nelson, A.S. and Mackey, L. *In review.* Root growth potential of half-sib western larch in aeroponic mist chambers. *HortScience.*

Shen, C., **Nelson, A.S.**, Jain, T., and Graham, R. *In review.* Structural and compositional changes 50 years after thinning in moist forests of the northern Rocky Mountains. *Forest Science.*

Peer Reviewed/Evaluated (currently scheduled or submitted):

None

Other Publication (currently scheduled or submitted):

Nelson, A.S. *In press.* Response to Jain: Educating the 21st Century Silviculturist. *Journal of Forestry.*

Presentations (* indicates graduate students advised):

Conferences:

49. Durnin, B.A. *, **Nelson, A.S.**, and Jain, T. B. 2018. Understory diversity in restored western white pine stands. *Society of American Foresters Convention.* Portland, OR. (poster)
48. Foard, M. B. *, **Nelson, A.S.**, and Harley, G.L. 2018. Potential for streamflow reconstructions using species-, and site-specific tree ring models. *9th Annual Northwest Climate Conference.* Boise, ID. (poster)
47. Grover, K. * and **Nelson, A.S.** 2018. Response of improved western larch clones to site quality and climate. *Society of American Foresters Convention.* Portland, OR. (oral)
46. **Nelson, A.S.**, Vore, S., Johnstone, R., and Johnson, G. 2018. Integrated vegetation management alternatives to promote vegetation diversity in Inland Northwest utility rights-of-way. *Environmental Concerns in Rights-of-Way Management. 12th International Symposium.* Denver, CO. (poster)

45. Grover, K. *, **Nelson, A.S.**, Coleman, M., Rust, M., Kimsey, M., and Shaw, T. 2018. Response of superior western larch families to site quality. *Center for Advanced Forestry Systems Annual Meeting*. Burlington, VT. (oral)
44. Brooks, R., Collins, C., Brooks, S., **Nelson, A.S.**, and Brown, A. 2017. Wildland firefighter perceptions regarding health and safety issues on the fire line. *7th International Fire Ecology & Management Conference*. Orlando, FL. (poster)
43. Brooks, R., Collins, C., James, S., **Nelson, A.S.**, and Brooks, S. 2017. Wildland firefighter perceptions regarding health and safety issues on the fire line: Assessing fatigue. *7th International Fire Ecology & Management Conference*. Orlando, FL. (oral)
42. Brooks, S., Collins, C., **Nelson, A.S.**, Brooks, R., and Brown, A. 2017. Wildland firefighters' hydration on a fire assignment: Self-reported contributing factors and perceptions. *7th International Fire Ecology & Management Conference*. Orlando, FL. (poster)
41. Collins, C., Brooks, S., Brooks, R., James, S., Brown, A., and **Nelson, A.S.** 2017. Implications of body composition changes across a fire season: A case study of wildland fire fighters. *7th International Fire Ecology & Management Conference*. Orlando, FL. (poster)
40. Foard, M. *, **Nelson, A.S.**, and Harley, G. 2017. Selective tree-ring models: A novel method for reconstructing streamflow using tree rings. *American Geophysical Union Annual Meeting*. New Orleans, LA. (poster)
39. Cherico, J. * **Nelson, A.S.**, and Jain, T. 2017. Long term effects of site preparation and productivity of two Inland Northwest conifers. *Society of American Foresters Convention*. Albuquerque, NM. (oral)
38. Cherico, J. * **Nelson, A.S.**, and Jain, T. 2017. Effects of site preparation on the long-term growth and productivity of Interior Douglas-fir and western white pine. *IUFRO Forest Regeneration in Changing Environments Conference*. Corvallis, OR. (poster)
37. Gerber, K., Davis, A., and **Nelson, A.S.** 2017. Photoperiod reduction influences western larch (*Larix occidentalis*) seedling development. *IUFRO Forest Regeneration in Changing Environments Conference*. Corvallis, OR. (poster)
36. Grover, K. *, **Nelson, A.S.**, Coleman, M., Rust, M., Kimsey, M., and Shaw, T. 2017. Response of superior western larch families to site quality and competition control. *Center for Advanced Forestry Systems Annual Meeting*. Portland, OR. (oral)
35. McDonough, T., Regan, D., and **Nelson, A.S.** 2017. Blue elderberry Propagation at the Pitkin Forest Nursery. *Intermountain Container Seedling Growers' Association Meeting*. Moscow, ID. (oral)
34. Reely, J. * and **Nelson, A.S.** 2017. Biomass allocation patterns of three Northwest conifer species: The effects of seedling quality, site quality, and moisture stress. *IUFRO Forest Regeneration in Changing Environments Conference*. Corvallis, OR. (oral)
33. Reely, J. * and **Nelson, A.S.** 2017. Morpho-physiological attributes of 3 Northwest conifers: Effects of drought stress, seedling and site quality. *Society of American Foresters Convention*. Albuquerque, NM. (oral)
32. Regan, D. and **Nelson, A.S.** 2017. Operational research projects at the Pitkin Forest Nursery. *Intermountain Container Seedling Growers' Association Meeting*. Moscow, ID. (oral)
31. Shen, C. and **Nelson, A.S.** 2017. The response and adaptation of tree seedling regeneration to potential competition in Inland Northwest forests, USA. *IUFRO Forest Regeneration in Changing Environments Conference*. Corvallis, OR. (oral)
30. Williams, G. *, **Nelson, A.S.**, and Affleck, D. 2017. Leaf allocation in a deciduous conifer: vertical distribution of foliage in western larch in Montana and Idaho. *Inland Northwest Growth and Yield Cooperative Winter Technical Meeting*. Coeur d'Alene, ID (oral)
29. Williams, G. *, **Nelson, A.S.**, and Affleck, D. 2017. Spatial foliage distribution models for western larch (*Larix occidentalis* Nutt.). *Society of American Foresters Convention*. Albuquerque, NM. (poster)

28. Foard, M. *, **Nelson, A.S.**, and Brooks, R. 2016. Reconstructing historical stream flows in multiple reaches of the Columbia River Basin using tree ring records. *Western Mensurationists Annual Meeting*. Stevenson, WA. (oral)
27. Hoffman, A.P. *, Bataineh, M., Adams, J.P., and **Nelson, A.S.** 2016. Response of standard eastern cottonwood and novel black willow clones to artificial lighting. *Southern Hardwood Forest Research Group Meeting*. Stoneville, MS. Feb. 18. (3rd place poster award)
26. **Nelson, A.S.**, Coleman, M., Rust, M., Kimsey, M., and Shaw, T. 2016. Response of superior western larch families to competition control and site quality. *Center for Advanced Forestry Systems Annual Meeting*. Pensacola, FL. (oral)
25. **Nelson, A.S.**, Coleman, M., Shaw, T., and Kimsey, M. 2016. Inland Northwest conifer mortality response to nitrogen and potassium fertilization. *Society of American Foresters Convention*. Madison, WI. (oral)
24. Reely, J.A. * and **Nelson, A.S.** 2016. Seedling quality and site quality effects on early growth and survival of two Inland Northwest conifer species. *Society of American Foresters National Convention*. Madison, WI. (poster)
23. Child, E. *, Bataineh, M., **Nelson, A.S.**, and Guldin, J. 2015. Neighborhood effects on shortleaf and loblolly pine crown dimensions in southern Arkansas. *Society of American Foresters National Convention*. Baton Rouge, LA. (poster)
22. Childs, E. * and **Nelson, A.S.** 2015. Effects of neighborhood composition and competition on shortleaf and loblolly pine productivity in southern Arkansas. *18th Biennial Southern Silviculture Research Conference*. Knoxville, TN. (poster)
21. Hoffman, A. *, Bataineh, M., Adams, J., and **Nelson, A.S.** 2015. Canopy gap effects on seedling growth of three hardwood species of southeastern Arkansas. *Society of American Foresters National Convention*. Baton Rouge, LA. (poster)
20. Hoffman, A. *, Adams, J., and **Nelson, A.S.** 2015. Response of eastern cottonwood (*Populus deltoides*) microcuttings to different light conditions and IBA concentrations. *18th Biennial Southern Silviculture Research Conference*. Knoxville, TN. (Outstanding Student Speaker Award)
19. Liechty, H.O., **Nelson, A.S.**, Osborne, D.C., Adams, J.P., and Scheiman, D. 2015. Pre-management forest conditions of Fourche Bottoms-An urban bottomland hardwood forest in Little Rock, Arkansas. *Natural Areas Conference*. Little Rock, AR. (poster)
18. Pagels, T. *, Bataineh, M., **Nelson, A.S.**, and Bragg, D. 2015. Allometric biomass equations for six common understory hardwoods in southeastern Arkansas. *Society of American Foresters National Convention*. Baton Rouge, LA. (poster)
17. Pagels, T. * and **Nelson, A.S.** 2015. Total aboveground biomass of unmanaged and managed mature natural pine-hardwood stands in southern Arkansas. *18th Biennial Southern Silviculture Research Conference*. Knoxville, TN. (poster)
16. Wagner, R.G., Bataineh, M., Olson, M.G., **Nelson, A.S.**, Rice, B. 2013. Influence of partial harvesting on hardwood regeneration. *Northern Hardwood Research Institute Fall Meeting*. Edmundston, New Brunswick, Canada. (oral)
15. **Nelson, A.S.**, Wagner, R.G., Saunders, M.R., and Weiskittel, A.R. 2012. Influence of silvicultural intensity and species composition on the productivity of young Acadian stands in eastern Maine. *Eastern Canada-USA Forest Science Conference*. Durham, NH. (oral)
14. **Nelson, A.S.**, Weiskittel, A.R., Wagner, R.G., and Saunders, M.R. 2012. Development and validation of aboveground sapling biomass equations in Maine. *Northeastern Mensurationists Organization Meeting*. State College, PA. (oral)
13. **Nelson, A.S.**, Weiskittel, A.R., Wagner, R.G., and Saunders, M.R. 2012. Vertical distribution and total tree leaf area equations of juvenile trees in eastern Maine. *Southern Mensurationists Annual Meeting*. Jacksonville, FL. (oral)
12. **Nelson, A.S.**, and Wagner, R.G. 2011. Herbicide treatments can selectively improve the composition of natural hardwood regeneration in American beech-dominated understories in Maine, USA. *7th*

- International Vegetation Management Conference*. IUFRO Unit 1.01.01 Forest Vegetation Management, Valdivia, Chile. pp. 16-18. (oral)
11. **Nelson, A.S.**, Wagner, R.G., Saunders, M.R., and Weiskittel, A.R. 2011. Influence of silvicultural intensity and compositional objectives on the productivity of regenerating Acadian mixedwood stands in Maine, USA. *7th International Vegetation Management Conference*. IUFRO Unit 1.01.01 Forest Vegetation Management, Valdivia, Chile. pp. 90-92. (oral)
 10. Olson, M.G., Wagner, R.G., Brissette, J.C., and **Nelson, A.S.** (presenter). 2011. Forty years of spruce-fir stand development following herbicide release and precommercial thinning in central Maine, USA. *7th International Vegetation Management Conference*. IUFRO Unit 1.01.01 Forest Vegetation Management, Valdivia, Chile. pp. 34-36. (oral)
 9. **Nelson, A.S.**, Weiskittel, A.R., and Wagner, R.G. 2011. Crown and total biomass equations of young, naturally regenerated hardwood species in central Maine. *Northeastern Mensurationists Organization Meeting*. Quebec City, Quebec, Canada. (oral)
 8. Wagner, R.G., and **Nelson, A.S.** 2011. Improving the composition of beech dominated northern hardwood understories in northern Maine. *Canadian Institute of Forestry Annual Conference*. Huntsville, Ontario, Canada. p. 25. (oral)
 7. **Nelson, A.S.**, and Wagner, R.G. 2010. Spatial patterns of coexisting shade-tolerant northern hardwood regeneration in understories dominated by *Fagus grandifolia* in Maine. *Eastern Canada-USA Forest Science Conference*. Université de Moncton, Edmundston, NB, Canada. p. 44. (oral)
 6. **Nelson, A.S.**, Wagner, R.G., and Saunders, M.R. 2010. Influence of silvicultural intensity and compositional objectives on the productivity of regenerating Acadian forest stands. *Eastern Canada-USA Forest Science Conference*. Université de Moncton, Edmundston, NB, Canada. p. 45. (oral)
 5. **Nelson, A.S.**, and Wagner, R.G. 2009. Improving species composition of hardwood regeneration in beech dominated understories. *New England Society of American Foresters Meeting*. Portland, ME. p. 30. (oral)
 4. Olson, M.G., Wagner, R.G., **Nelson, A.S.**, and Saunders, M.R. 2009. Influence of silvicultural intensity and compositional objectives on the production of regenerating Acadian forest stands. *New England Society of American Foresters Meeting*. Portland, ME. p. 31. (poster)
 3. **Nelson, A.S.**, and Wagner, R.G. 2008. Improving species composition of hardwood regeneration in beech dominated understories. *Eastern Canada-USA Forest Science Conference*. University of Maine, Orono, ME. p. 46. (poster)
 2. **Nelson, A.S.**, and Wagner, R.G. 2008. Spatial patterns of natural regeneration in northern hardwood stands in Maine. *Eastern Canada-USA Forest Science Conference*. University of Maine, Orono, ME. p. 87. (poster)
 1. Erbilgin, N., McPherson, B.A., Bonello, P., Wood, D.L., and **Nelson, A.S.** 2007. New relationships among the sudden oak death pathogen, bark and ambrosia beetles, and fungi colonizing coast live oaks. *Sudden Oak Death Science Symposium III*. Santa Rosa, CA. (poster)

Invited Presentations:

28. Durnin, B.A.* and **Nelson, A.S.** 2019. Understory floristic diversity in plated blister-rust resistant western white pine stands. *Inland Empire Tree Improvement Cooperative Conference*. Coeur d'Alene, ID. March 6
27. **Nelson, A.S.** Incorporating competition and seedling quality into a Inland Northwest seedling growth and survival model. *Inland Empire Reforestation Council*. Coeur d'Alene, ID. March 5.
26. **Nelson, A.S.** The importance of seedling quality in the Inland Northwest. *Inland Empire Christmas Tree Association*. Coeur d'Alene, ID. February 23.
25. **Nelson, A.S.** 2019. Vegetation diversity in transmission rights-of-way. *Avista Corporation*. Spokane, WA. January 22.
24. Cherico, J.* and **Nelson, A.S.** 2018. The effects of site preparation on the long-term growth and productivity of interior Douglas-fir and western white pine. *Intermountain Forestry Cooperative Technical Meeting*. Moscow, ID. March 27.

23. **Nelson, A.S.** 2018. The importance of seedling quality for successful reforestation in the Inland Northwest. *Setting Stands Up for Success—From Seed to PCT: Applied Early Stand Silviculture in the Inland Northwest*. Spokane, WA. December 13.
- 22 **Nelson, A.S.** 2018. Rapid root growth potential testing of Inland conifers with aeroponic mist chambers. *Eastside Seedling Characteristics and Quality for Optimum Performance. Joint meeting of the Western Forestry and Conservation Nursery Association and the Intermountain Container Seedling Growers' Association*. Coeur d'Alene, ID. October 25-26.
21. Regan, D. and **Nelson, A.S.** 2018. Nursery production timelines: Tips for successful grower and buyer partnerships. *Inland Empire Reforestation Council Meeting*. Coeur d'Alene, ID. March 6.
20. **Nelson, A.S.** 2018. Togo nursery and restoration project. *U.S. Embassy in Togo Office of Public Affairs*. Notsé, Togo. February 21.
19. **Nelson, A.S.** 2018. Forest regeneration competition thresholds: Concepts and integration into reforestation plans. *Wilbur-Ellis Professional Markets Technical Seminar*. Spokane, WA. January 25.
18. Brooks, R., Collins, C., James, S., **Nelson, A.S.**, and Brooks, S. 2017. Using Actigraph Readibands to connect wildland firefighter sleep patterns and physiology. *Off the Grid workshop: Real-time positioning and mobile data solutions for natural resources*. Coeur d'Alene, ID. November 2.
17. **Nelson, A.S.** 2017. Assessing competition thresholds when establishing Inland Northwest conifers. *Current Topics in Forest Health: 2017 Workshop. University of Idaho Extension*. Coeur d'Alene, ID. December 15.
16. **Nelson, A.S.** 2017. Togo nursery and restoration project. *Forest Research Institute of Ghana*. Kumasi, Ghana. October 20.
15. **Nelson, A.S.** 2017. Defining tipping points in seedling survival and growth with competition thresholds. *Intermountain Forestry Cooperative Technical Meeting*. Moscow, ID. March 28.
14. **Nelson, A.S.** 2016. Advancing the science and management of Inland Northwest forests. *Intermountain Forestry Cooperative Technical Meeting*. Moscow, ID. March 29.
13. **Nelson, A.S.** 2016. Role of forest vegetation management for climate change adaptation. *Department of Forest, Rangeland, and Fire Sciences Seminar*. Moscow, ID. February 17.
12. **Nelson, A.S.** 2015. Future of silviculture at the University of Idaho. *Inland Empire Society of American Foresters Annual Meeting*. Plummer, ID. September 18.
11. **Nelson, A.S.** 2014. Improving resiliency of forests in Arkansas. *69th Arkansas Forestry Association Annual Meeting*. Hot Springs, AR. September 23.
10. **Nelson, A.S.** 2014. Upland hardwood thinning options. *Ozark Woodland Owners Association Spring Meeting*. Batesville, AR. April 3.
9. **Nelson, A.S.** 2014. Natural pine silviculture in southern Arkansas. *School of Forest Resources Seminar*. Monticello, AR. March 18.
8. Wagner, R.G. and **Nelson, A.S.** 2012. Improving the composition of beech-dominated northern hardwood understories in northern Maine. *Maine Society of American Foresters Fall Meeting*. Orono, ME.
7. Wagner, R.G. and **Nelson, A.S.** 2012. Improving the composition of beech-dominated northern hardwood understories in northern Maine. *Maine Pesticide Recertification Meeting*. Bangor, ME.
6. **Nelson, A.S.**, Saunders, M.R., Wagner, R.G., and Weiskittel 2011. Hybrid poplar and white spruce stand production in mixed and monospecific plantations on the Penobscot Experimental Forest. *School of Forest Resources Noontime Seminar Series*. Orono, ME.
5. **Nelson, A.S.** 2010. Spatial ecology and compositional management of American beech and sugar maple regeneration in Maine. *College of Natural Resources, Agriculture and Forestry, Graduate Student Awards*. Orono, ME.
4. **Nelson, A.S.**, and Wagner, R.G. 2010. CFRU Beech Control Study - 3rd year results. *Maine Pesticide Recertification Meeting*. Bangor, ME.

3. **Nelson, A.S.** 2010. Managing beech bark disease with silviculture in Maine. *Northeastern Forest Pest Council Meeting*. York, ME.
2. **Nelson, A.S.**, and Wagner, R.G. 2009. Managing American beech in the beech bark disease aftermath forests of Maine. *Northeastern Forest Health Field Workshop: Using Silviculture to Reduce Risks from Pests*. Schoodic Peninsula, ME.
1. **Nelson, A.S.** 2009. The beech dilemma: ecology and management of a native weed species. *Maine Division of the New England Society of American Foresters Forest Forum*. Caribou, ME.

Grants and Contracts Awarded (Total funding: \$2,056,816; PI-led funding: \$965,596):

22. **Nelson, A.S.** and Jacobs, D. 2019-2024. Acclimating commercial tree seedling root system architecture to drought. *USDA, National Institute of Food and Agriculture, Agriculture and Food Research Initiative. Foundational and Applied Science Program, Foundational Knowledge of Agricultural Production Systems*. \$480,000.
21. **Nelson, A.S.** 2019. Competing vegetation effects on tree growth 2019. *PotlatchDeltic Corporation*. \$41,116.
20. Coleman, M.D., Johnson, D.M., Goebel, P.C., Kimsey, M.J., Hudiburg, T., and **Nelson, A.S.** 2018. ORED 2018 EIS Request: Gap analysis instrument for measuring leaf area of forest canopies. *UI Office of Research and Economic Development*. \$7,025.
19. **Nelson, A.S.** 2018. Benefits of shrub competition when managing transmission line right-of-ways. *Avista Corporation*. \$49,000.
18. **Nelson, A.S.** 2018. Competing vegetation effects on tree growth. *PotlatchDeltic Corporation*. \$24,988.
17. **Nelson, A.S.** 2017. Integrated vegetation management – Cultural and biological control components: Benefits of shrub competition when managing transmission line rights-of-way in northern Idaho and western Montana. *Avista Utilities*. \$24,932.
16. **Nelson, A.S.** 2017-2022. Silvicultural management strategies for enhancing disturbance resilience in the northern Rocky Mountains. *Research Joint Venture Agreement: USDA Forest Service Rocky Mountain Research Station*. \$49,770.
15. **Nelson, A.S.** 2017. Root growth potential and site quality field trial 2017. *Potlatch Corporation*. \$39,373.
14. **Nelson, A.S.** 2016. Root growth potential and site quality field trial 2016. *Potlatch Corporation*. \$63,027.
13. McClure, G.Y. and Zou, M. (71 Senior Personnel). 2015-2020. EPSCoR RII Track-1: Arkansas Advancing and Supporting Science, Engineering, and Technology (ASSET) III – Multifunctional and Tunable Nanostructured Surfaces. *National Science Foundation*. \$12m (Senior Personnel Nelson: \$527,004).
12. **Nelson, A.S.** 2015. Vertical distribution of foliar nitrogen content in loblolly pine and shortleaf pine crown in response to neighborhood composition and competition. *University of Arkansas at Monticello Faculty Research Committee*. \$1,496.
11. **Nelson, A.S.**, Carrier, D.C., and Adams, J.P. 2015. Seasonal and tree size-related effects on biological activity of loblolly pine and sweetgum bark. *Arkansas Science and Technology Authority*. \$49,999.
11. Coleman, M.S. and **Nelson, A.S.** 2015-2020. I/UCRC Phase II: University of Idaho membership in Center for Advanced Forestry Systems. National Science Foundation: Industry/University Cooperative Research Centers. \$367,000.
10. **Nelson, A.S.**, Liechty, H.O., Osborne, D.C., and Adams, J.P. 2014. Fourche Creek Bottom forest community assessment and defined forest conditions silvicultural recommendations. *National Audubon Society*. \$24,737.
9. **Nelson, A.S.** 2014. Influence of forest thinning and neighborhood competition on the intrinsic water-use efficiency of loblolly pine trees. *University of Arkansas at Monticello Faculty Research Committee*. \$1,500.
8. **Nelson, A.S.**, Wagner, R.G., Frank, J., Weiskittel, A.R. 2013. Within-crown carbon and nitrogen partitioning in red spruce and balsam fir tree in response to neighborhood competition. *Maine Agricultural and Forest Experiment Station*. \$2,500.

7. Bataineh, M.M., **Nelson, A.S.**, Wagner, R.G., Roth, B.E., and Weiskittel, A.R. 2013-2015. Individual-tree response to commercial thinning in northern Maine: Influence of including competition, site, and treatment regime in growth and yield models. *National Science Foundation - Center for Advanced Forestry Systems*. \$70,000.
6. Roth, B.E., Wagner, R.G., Seymour, R.S., Weiskittel, A.R., **Nelson, A.S.**, and Bataineh, M.M. 2013-2014. Weymouth Point: Monitoring the effects of whole tree harvesting and intermediate silvicultural treatments on long-term spruce-fir productivity. *Cooperative Forestry Research Unit*. \$12,811.
5. Wagner, R.G., Weiskittel, A.R., and **Nelson, A.S.** 2012-2014. Incorporating young hardwood stand responses to various levels of silviculture and stand composition into new CFRU growth & yield models. *Cooperative Forestry Research Unit*. \$67,871.
4. **Nelson, A.S.**, Wagner, R.G., Day, M., and Fernandez, I.J. 2011-2012. Silvicultural effects on environmental conditions and resulting aboveground productivity and carbon sequestration of northeastern mixedwood forests. *Northern States Research Cooperative - Theme III*. \$38,350.
3. **Nelson, A.S.** 2010. Measuring climate conditions on the Penobscot Experimental Forest. *Penobscot Experimental Forest Research Operations Team*. \$3,000.
2. **Nelson, A.S.**, Olson, M.G., Wagner, R.G., Weiskittel, A.R., Saunders, M.R. 2009-2011. Role of silvicultural intensity and species composition objectives on the growth, dynamics, and carbon balance of northeastern forest stands. *Northern States Research Cooperative - Theme III*. \$71,808.
1. Wagner, R.G., and **Nelson, A.S.** 2008-2011. Improving the species composition of understory hardwood regeneration on beech-dominated sites: continued measurement. *Cooperative Forestry Research Unit*. \$39,509.

Pending Grant Proposals:

Coleman, M. and **Nelson, A.S.** 2019-2024. Phase III IUCRC University of Idaho: Center for Advanced Forestry Systems. *National Science Foundation – Industry-University Cooperative Research Centers Program*. \$500,000.

Honors and Awards:

2012	Ralph Griffin Memorial Scholarship	University of Maine
2009	Mark Housewart Scholarship	University of Maine

SERVICE:

Major Committee Assignments:

University of Idaho:

2017-present University Assessment Committee

Univ. of Idaho College of Natural Resources:

2018-present Assistant/Associate Professor of Wood Science search committee

2017 Heady Endowed Chair in Rangeland Ecology search committee

2016-present College Curriculum Committee

Univ. of Idaho Department of Forest, Rangeland, and Fire Sciences

2019-present Russell H. Hudson Tree Improvement Excellence Award, committee chair

2017, 2018 Promotion and tenure, committee member

2016-present John Mandzak Forest Research Travel Award, committee member

University of Arkansas, Monticello

2014-2015 Academic Appeals committee

2014-2015 University Library committee

2015-2015 University General Council

Other University Service:

2016-present University of Idaho Experimental Forest, reforestation advisor

2016-present Inland Empire Tree Improvement Cooperative, steering committee
 2016-present Franklin H. Pitkin Nursery Advisory Committee, liason
 2016 Spring Commencement Marshall
 015-2016 Society of American Foresters Self-Assessment for Program Reaccreditation, co-author

Professional and Scholarly Organizations:

2019-present IUFRO Unit 1.01.03 Temperate Forest Regeneration working group, lead coordinator
 2018-present American Society of Horticultural Science, member
 2018-present New Forests, Associate Editor
 2018-present Inland Empire Reforestation Council, steering committee
 2017-present Boise Basin Experimental Forest landscape resiliency, committee
 2016-present The Society of Xi Sigma Pi, National Forestry Honor Society, Secretary Fiscal Agent
 2015-present Journal of Forestry, Associate Editor
 2015-2017 Journal of Forestry, Book Review Editor
 2014-present Society of American Foresters D-2: Silviculture, working group
 2004-present Society of American Foresters, member
Journal reviewer: Canadian Journal of Forest Research (2), European Journal of Forest Research (2), Forest Ecology and Management, Forests (7), Forest Science (10), Forestry (4), Journal of Forestry (13), Journal of Vegetation Science (1), Sustainability (1), New Forests (8), Oecologia (1), The Journal of the Torrey Botanical Society (1), Western Journal of Applied Forestry (2), Native Plants' Journal (1).

External Funding Grant Proposal Review

2018 The Icelandic Center for Research

Conference Organization / Session Moderation:

2018 Inland Empire Reforestation Council Meeting, organizing committee
 2018 Western/Intermountain Joint Nursery Growers' Meeting, co-organizer
 2017-2019 Intermountain Container Seedling Growers' Association, organizer
 2017 IUFRO Int'l Forest Regeneration in Changing Environments Conference, tour leader
 2017 IUFRO Int'l Forest Regeneration in Changing Environments Conference, moderator
 2015-2017 IUFRO Int'l Forest Regeneration in Changing Environments Conference, org. committee
 2015-2017 Society of American Foresters National Convention, session moderator
 2015 Biennial Southern Silviculture Research Conference, session moderator
 2014-2015 Biennial Southern Silviculture Research Conference, steering committee

Outreach Service:

2017-present Biennial Reforestation Short Course, USDA Forest Service Regions 1-4 (40 hours online; 2.5 days on-site in Boise)
 2017 Advanced Reforestation and Regeneration Short Course, USDA Forest Service Region 1 (2.5 days onsite in Moscow)
 2016-present Togo Nursery and Restoration Project, 3-4 trips per year. 2-3 workshops per trip.
 2016-present Franklin H. Pitkin Forest Nursery Research and Operations Tours, 4-5 tours per year
 2016 University of Idaho Extension Shrub Field Day. Coeur d'Alene, ID
 2015 University of Idaho Experimental Forest Field Day. Moscow, ID
 2015 Crossett, Arkansas Forestry Field Days
 2014 Shortleaf Pine Initiative Southern Arkansas Field Tour

PROFESSIONAL DEVELOPMENT:

Teaching:

- *Teaching for Learning: Making the Most of the New Science of Learning* seminar. Presented by Dr. Todd Zakrajsek. University of Idaho Center for Excellence in Teaching and Learning. 8 November 2017.

Administration/Management:

- Praesidium Workshop: Managing the Risk of Minors. Led By Aaron Lundberg. University of Idaho Risk Management. 16 October 2017

ADMINISTRATION:

Director, Center for Forest Nursery and Seedling Research and Pitkin Forest Nursery

- Oversee production of over 400,000 plants per year for sale
- Supervise 3.75 FTE staff
- Determine crop quantity and species
- Coordinate large seedling orders
- Manage seedling quality testing
- Co-author nursery propagation protocols
- Lead the Nursery Advisory Committee
- Develop and facilitate trainings and education materials
- Collaborate with private nurseries and forestland owners on research projects and outreach
- Nursery liaison to College of Natural Resources Dean and Administration