DOUGLAS ALAN MAGUIRE

Department of Forest Engineering, Resources & Management
Oregon State University
Corvallis, OR 97331
541-737-4215; email: doug.maguire@oregonstate.edu

EDUCATION

B.S. in Forestry (Forest Management) 1976, University of Maine, Orono, ME.

M.S. in Botany (Forest Ecology) 1979, Rutgers University, New Brunswick, NJ.

M.S. in Statistics (Applied Statistics) 1986, Oregon State University, Corvallis, OR.

Ph.D. in Forest Management (Forest Modeling/Biometrics) 1986, Oregon State University, Corvallis, OR.

EMPLOYMENT

2020 **Professor Emeritus,** Department of Forest Engineering, Resources, and Management, Oregon State University, Corvallis, OR

2008 **Professor,** Giustina Professor of Forest Management, Director of Center for Intensive Planted-forest Silviculture, Department of Forest Engineering, Resources, and Management, Oregon State University, Corvallis, OR.

2007 Associate Professor, Hayes Professor of Silviculture, Director of Center for Intensive Planted-forest Silviculture, Department of Forest Science, Oregon State University, Corvallis, OR.

2002 Associate Professor, Hayes Professor of Silviculture, Silviculture Extension Specialist, Department of Forest Science, Oregon State University, Corvallis, OR.

2000 Associate Professor with Indefinite Tenure, Department of Forest Resources, Oregon State University, Corvallis, OR.

(1997) Forest Biometrics Consultant, Winrock International/World Bank, West Bengal, India.

1996 Assistant Professor, Department of Forest Resources, Oregon State University, Corvallis, OR.

1993 Associate Professor, Department of Forest Ecosystem Science, University of Maine, Orono, ME.

1990 Associate Professor with Indefinite Tenure, Silviculture Project Leader for Stand Management Cooperative, College of Forest Resources, University of Washington, Seattle, WA.

(1987) Forest Biometrics Consultant, USAID/Winrock International, Sind, Pakistan.

1986 Assistant Professor, Silviculture Project Leader for Stand Management Cooperative, College of Forest Resources, University of Washington, Seattle, WA.

1986 Research Forester, USDA-Forest Service, Northeastern Forest Experiment Station, Orono, ME.

1985 Research Assistant, FIR Growth and Yield Modeling Project, College of Forestry, Oregon State University, Corvallis, OR.

1985 Teaching Assistant, Department of Statistics, Oregon State University, Corvallis, OR.

1982 Research Assistant, FIR Growth and Yield Modeling Project, College of Forestry, Oregon State University, Corvallis, OR.

1982 Prep and Planning Forester, USDA-Forest Service, Shasta-Trinity National Forest, Big Bar, CA.

1979 Assistant District Silviculturist, USDA-Forest Service, Shasta-Trinity National Forest, Big Bar, CA.

1978 Forestry Technician, USDA-Forest Service, Kootenai National Forest, Troy, MT.

1976 Teaching Assistant, Department of Botany, Rutgers University, New Brunswick, NJ.

1975 Federal Summer Intern, USDA-Forest Service, Washington, D.C.

1974 Forestry Technician, Great Northern Paper Company, Millinocket, Maine.

PUBLICATIONS

Refereed Journal Papers

108) Stokely, T.D., Kormann, U.G., Verschuyl, J., Kroll, A.J., Frey, D.W., Harris, S.H., Mainwaring, D., Maguire, D., Hatten, J.A., Rivers, J.W., Fitzgerald, S., Betts, M.G. 2021. Experimental evaluation of herbicide use on biodiversity, ecosystem services, and timber production tradeoffs in forest plantations. *Journal of Applied Ecology*, *in press*. http://doi:10.1111/1365-2664.13936

107) Kormann, U.G., Stokely, T.D., Verschuyl, J., Kroll, A.J., Harris, S., Maguire, D., Mainwaring, D., Rivers, J.W., Betts, M.G. 2021. Reconciling biodiversity with timber production and revenue via an intensive forest management experiment. *Ecological Applications*, *in press*. https://doi-org.ezproxy.proxy.library.oregonstate.edu/10.1002/eap.2441

106) Gilson, L.W., Maguire, D.A. 2021. Drivers of productivity differences between Douglas-fir planted within its native range in Oregon and on exotic sites in New Zealand. *Forest Ecology and Management* 498: 119525. https://doi.org/10.1016/j.foreco.2021.119525

105) Putney, J.D., Maguire, D.A. 2021. Response of Douglas-fir stem profile to operational nitrogen fertilization in western Oregon. *Forest Ecology and Management* 496: 119411. https://doi.org/10.1016/j.foreco.2021.119411

104) Maguire, D.A., Mainwaring, D.B. 2021. Effects of initial spacing and species mix on stand developmental patterns in two field trials in central Oregon. *Forest Ecology and Management* 491: 119153. https://doi.org/10.1016/j.foreco.2021.119153

103) Putney, J.D., Maguire, D.A. 2020. Shifts in foliage biomass and its vertical distribution in response to operational nitrogen fertilization of Douglas-Fir in Western Oregon. *Forests* 11: 511. http://dx.doi.org/10.3390/f11050511

102) Schmidt, A., Mainwaring, D.B., **Maguire, D.A**. 2020. Development of a tailored combination of machine learning approaches to model volumetric soil water content within a mesic forest in the Pacific Northwest. *Journal of Hydrology* 588:125044. https://doi.org/10.1016/j.jhydrol.2020.125044

101) Joo, S., **Maguire, D.A.**, Mainwaring, D.B., Jayawickrama, K.J., Ye, T.Z., St. Clair, B. 2020. Estimation of yield gains at rotation-age from genetic tree improvement in coast Douglas-fir. *Forest Ecology and Management* 466: 117930. https://doi.org/10.1016/j.foreco.2020.117930

100) Riofrio, J., M. del Rio**, D.A. Maguire**, F. Bravo. 2019. Species mixing effects on height-diameter and basal area increment models for Scots pine and Maritime pine. *Forests* 10(3):249-271. doi:10-3390_f10030249.

99) Jagels, R., M.A. Equiza, **D. Maguire** and D. Cirelli. Do tall tree species have a higher stiffness to weight ratio than shorter species? *American Journal of Botany* 105:1617-1630. doi:10.1002/ajb2.1171.

99) Bravo, F., **D.A. Maguire**, and S.C. González-Martínez. 2017. Factors affecting cone production in *Pinus pinaster* Ait.: lack of growth-reproduction trade-offs but significant effects of climate and tree and stand characteristics. *Forest Systems* 26 (2): e07S. https://doi.org/10.5424/fs/2017262-11200.

97) Cornejo-Oviedo, E.H., S.L. Voelker, D.B. Mainwaring, **D.A. Maguire**, F.C. Meinzer, and J.R. Brooks. 2017. Basal area growth, carbon isotope discrimination, and intrinsic water use efficiency after fertilization of Douglas-fir in the Oregon Coast Range. *Forest Ecology and Management* 389:285-295. dx.doi.org/10.1016/j.foreco.2017.01.005.

96) Osborne, N.L., O. Høibø, and **D.A. Maguire**. 2016. Estimating the density of coast Douglas-fir wood samples at different moisture contents using medical X-ray computed tomography. *Computers and Electronics in Agriculture* 127:50-55.

95) Balster, D.S., Remko, R.A., . . . , **D.A. Maguire**, . . . , et al. 2015. BAAD: a Biomass And Allometry Database for woody plants. Ecology 96:1445.

94) Osborne, N.L., **Maguire, D.A.** 2015. Modeling knot geometry from branch angles in Douglas-fir (*Pseudotsuga menziesii*). *Canadian Journal of Forest Research* 46:215-224.46:215-224.

93) Zhao, J., **D. Maguire**, D. Mainwaring, and A. Kanaskie. 2015. The effect of within-stand variation in Swiss needle cast intensity on Douglas-fir stand dynamics. *Forest Ecology and Management* 347:75-82.

92) Mainwaring, D.B., **D.A. Maguire**, and S.S. Perakis. 2014. Three-year growth response of young Douglas-fir to nitrogen, calcium, phosphorus, and blended fertilizers in Oregon and Washington. *Forest Ecology and Management* 327:178-188.

91) Lowell, E.C., **D.A. Maguire**, D.G. Briggs, E.C. Turnblom, K.J.S. Jayawickrama, and J. Bryce. 2014. Effects of silviculture and genetics on branch/knot attributes of coast Pacific Northwest Douglas-fir and implication for wood quality – A synthesis. *Forests* 5:1717-1736

90) Littke, K.M., R.B. Harrison, D. Zabowski, D.G. Briggs, and **D.A. Maguire**. 2014. Effects of geoclimatic factors on soil water, nitrogen, and foliage properties of Douglas-fir plantations in the Pacific Northwest. *Forest Science* 60:1118-1130.

89) Zhao, J., **D. Maguire**, D. Mainwaring, J. Wehage, and A. Kanaskie. 2013. Thinning mixed-species stands of Douglas-Fir and western hemlock in the presence of Swiss needle cast: Guidelines based on relative basal area growth of individual trees. *Forest Science* 60:191-199.

88) Lara, W., F. Bravo, and **D.A. Maguire**. 2013. Modeling patterns between drought and tree biomass growth from dendrochronological data: A multilevel approach. *Agricultural and Forest Meteorology* 178:140-151.

87) Zhang, J., M.W. Ritchie, **D.A. Maguire**, and W.W. Oliver. 2013. Thinning ponderosa pine (Pinus ponderosa) stands reduces mortality while maintaining stand productivity. *Canadian Journal of Forest Research* 43:311-320.

86) Lam, T.-Y. and **D.A. Maguire**. 2013. Bayesian models describing microhabitat associations of infrequently captured small mammals sampled under a complex hierarchical design. *Forest Ecology and Management* 298:101-110.

85) Mulvey. R.L., D.M. Shaw, and **D.A. Maguire**. 2013. Fertilization impacts on Swiss needle cast disease severity in western Oregon. *Forest Ecology and Management* 287:147-158.

84) Lam, T.-Y. and **D.A. Maguire**. 2012. Structural equation modeling: Theory and applications in forest management. *International Journal of Forest Research* 2012 Article ID 263953, 16 pages, doi: 10.1155/2012/263953.

83) Zhao, J., **D.A. Maguire**, D.B. Mainwaring, and A. Kanaskie. 2012. Climatic influences on needle cohort survival mediated by Swiss needle cast in coastal Douglas-fir. *Trees* 26:1361-1371.

82) **Maguire, D.A.**, D.B. Mainwaring, and A. Kanaskie. 2011. Ten-year growth and mortality in young Douglas-fir stands experiencing a range in Swiss needle cast severity. *Canadian Journal of Forest Research* 41:2064-2076.

81) Zhao, J., D.B. Mainwaring, **D.A. Maguire**, and A. Kanaskie. 2011. Regional and annual trends in Douglas-fir foliage retention: correlations with climatic variables. *Forest Ecology and Management* 262:1872-1886.

80) Garber, S., T.Y. Lam, and **D.A. Maguire**. 2011. Growth and mortality of residual Douglas-fir after regeneration harvests under group selection and two-story silvicultural systems. *Western Journal of Applied Forestry* 26:64-70.

79) Lam, T.Y. and **D.A. Maguire**. 2011. Thirteen-year height and diameter growth of Douglas-fir seedlings under alternative regeneration cuts in the Pacific Northwest. *Western Journal of Applied Forestry* 26:57-63.

78) Shaw, D.C., G.M. Filip, A. Kanaskie, **D.A. Maguire**, and W.A. Littke. 2011. Managing an epidemic of Swiss needle cast in the Douglas-fir region of Oregon: The role of the Swiss Needle Cast Cooperative. *Journal of Forestry* 109:109-119.

77) Weiskittel, A..R., **D.A. Maguire**, R.A. Monserud, and G.P. Johnson. 2010. A hybrid model for intensively managed Douglas-fir plantations in the Pacific Northwest, USA. *European Journal of Forest Research* 129:325-338.

76) Vance, E.D., **D.A. Maguire**, and R.S. Zalesny. 2010. Research strategies for increasing productivity of intensively managed forest plantations. *Journal of Forestry* 108:183-192.

75) **Maguire, D.A.**, D.B. Mainwaring, R. Rose, S.M. Garber, and E.J. Dinger. 2009. Response of coastal Douglas-fir and competing vegetation to repeated and delayed weed control treatments during early plantation development. *Canadian Journal of Forest Research* 39:1208-1219.

74) Keyes, C.R., **D.A. Maguire**, and J.C. Tappeiner. 2009. Recruitment of ponderosa pine seedlings in the Cascade Range. *Forest Ecology and Management* 257:495-501.

73) Wilson, D.S. and **D.A. Maguire**. 2009. Environmental basis of soil-site relationships in ponderosa pine. *Ecological Monographs* 79:595-617.

72) Garber, S.M., R.A. Monserud, and **D.A. Maguire**. 2008. Crown recession patterns in three conifer species of the Northern Rocky Mountains. *Forest Science* 54:633-646.

71) Keyes, C.R., and **D.A. Maguire**. 2008. Some shrub shading effects on the mid-summer microenvironment of ponderosa pine seedlings in central Oregon. *Northwest Science* 82:245-250.

70) Maguire, C.C., **D.A. Maguire**, T.E. Manning, S.M. Garber, and M.W. Ritchie. 2008. Response of small mammals to alternative stand structures in the mixed conifer forest of northeastern California. *Canadian Journal of Forest Research* 38:943-955.

69) Weiskittel, A.R., H. Temesgen, D.S. Wilson, and **D.A. Maguire**. 2008. Sources of within- and between-stand variability in specific leaf area of three ecologically distinct conifer species. *Annals of Forest Science* 65:14-23.

68) Moore, J.R., and **D.A. Maguire**. 2008. Simulating the dynamic behavior of Douglas-fir trees under applied loads by the finite element method. *Tree Physiology* 28:75-83.

67) Pascual, D., **D.A. Maguire**, and F. Bravo. 2007. Assessing the applicability of growth models to new species and regions: An example comparing Mediterranean maritime pine in central Spain to ponderosa pine in southwestern Oregon, USA. *Western Journal of Applied Forestry* 22:269-277.

66) Weiskittel, A.R., **D.A. Maguire**, and R.A. Monserud. 2007. Response of branch growth and mortality to silvicultural treatments in coastal Douglas-fir plantations: Implications for predicting tree growth. *Forest Ecology and Management* 251:182-194.

65) Weiskittel, A.R., S.M. Garber, G.P. Johnson, **D.A. Maguire**, and R.A. Monserud. 2007. Annualized diameter and height growth equations for Pacific Northwest plantation-grown Douglas-fir, western hemlock, and red alder. *Forest Ecology and Management* 250:266-278.

64) Keyes, C.R. and **D.A. Maguire**. 2007. Seed rain of ponderosa pine beneath partial overstories. *New Forests* 34:107-114.

63) Weiskittel, A.R., **D.A. Maguire**, and R.A. Monserud. 2007. Modeling crown structural responses to competing vegetation control, thinning, fertilization, and Swiss needle cast in coastal Douglas-fir of the Pacific Northwest, USA. *Forest Ecology and Management* 245:96-109.

62) Parker, R.T., **D.A Maguire**, D.D. Marshall, and P. Cochran. 2007. Ponderosa pine growth response to soil strength in the volcanic ash soils of central Oregon. *Western Journal of Applied Forestry* 22:134-141.

61) **Maguire, D.A.**, C.B. Halpern, and D.L. Phillips. 2007. Changes in forest structure following variable-retention harvests in Douglas-fir dominated forests. *Forest Ecology and Management* 242:708-726.

60) Barbour, R.J., R. Singleton, and **D.A. Maguire**. 2007. Evaluating forest product potential as part of planning ecological restoration treatments on forested landscapes. *Landscape and Urban Planning* 80:237-248.

59) Weiskittel, A.R. and **D.A. Maguire**. 2007. Response of Douglas-fir leaf area index and litterfall dynamics to Swiss needle cast in north coastal Oregon, USA. *Annals of Forest Science* 64:121-132.

58) Moores, A., K. Puettmann, and **D.A. Maguire**. 2007. The focus of intensive silvicultural research on coastal Douglas-fir over the last 20 years. *Western Journal of Applied Forestry* 22:21-28.

57) Weiskittel, A.R., and **D.A. Maguire**. 2006. Branch surface area and its vertical distribution in coastal Douglas-fir. *Trees* 20:657-667.

56) Temesgen, H., P.J. Martin, **D.A. Maguire**, and J.T. Tappeiner. 2006. Quantifying effects of different levels of dispersed canopy tree retention on stocking and yield of the regeneration cohort. *Forest Ecology and Management* 235:44–53.

55) Lysak, T., D.W. Ross, **D.A. Maguire**, and D.L. Overhulser. 2006. Predicting spruce weevil damage in sitka spruce in the northern Oregon Coast Range. *Western Journal of Applied Forestry* 21:159-164.

54) **Maguire, D.A.**, D. Mainwaring, and C.B. Halpern. 2006. Stand dynamics after variable retention harvesting in mature Douglas-fir forests of western North America. *Allgemeine Forst und_Jagdzeitung* 177:120-131.

53) Weiskittel, A.R., **D.A. Maguire**, R.A. Monserud, and E.C. Turnblom. 2006. Intensive management influence on Douglas-fir stem form, branch characteristics, and simulated product recovery. *New Zealand Journal of Forestry Sciences* 36:293-312.

52) Weiskittel, A.R., **D.A. Maguire**, S.M. Garber, and A. Kanaskie. 2006. Influence of Swiss needle cast on foliage age class structure and vertical foliage distribution in Douglas-fir plantations of north coastal Oregon. *Canadian Journal of Forest Research* 36:1497-1508.

51) Perakis, S.S., **D.A. Maguire**, T.D. Bullen, K. Cromack, R.H. Waring, and J.R. Boyle. 2006. Coupled nitrogen and calcium cycles in forest of the Oregon Coast Range. *Ecosystems* 9:63-74.

50) Garber, S.M. and **D.A. Maguire**. 2005. The response of vertical foliage distribution to spacing and species composition in mixed conifers stands in central Oregon. *Forest Ecology and Management* 211:341-355.

49) **Maguire, D**. 2005. Uneven-aged management: Panacea, viable alternative, or component of a grander strategy. *Journal of Forestry* 103:73-74.

48) Mainwaring, D.B., **D.A. Maguire**, A. Kanaskie, and J. Brandt. 2005. Growth responses to commercial thinning in Douglas-fir stands with varying severity of Swiss needle cast in Oregon, USA. *Canadian Journal of Forest Research* 35:2394-2402.

47) Garber, S.M., J.P. Brown, D.S. Wilson, **D.A. Maguire**, and L. Heath. 2005. Snag longevity under alternative silvicultural regimes in mixed-species forests of central Maine. *Canadian Journal of Forest Research* 35:787-796.

46) Moore, J.R., B.A. Gardiner, J.R.A. Blackburn, A. Brickman, and **D.A. Maguire**. 2005. An inexpensive instrument to measure the dynamic response of standing trees to wind loading. *Agricultural and Forest Meteorology* 132:78-83.

45) Valkonen, S. and **D.A. Maguire**. 2005. Relationship between seedbed properties and the emergence of spruce germinants in recently cut Norway spruce selection stands in southern Finland. *Forest Ecology and Management* 210:255-266.

44) Garber, S.M. and **D.A. Maguire**. 2005. Vertical trends in maximum branch diameter in two mixed-species spacing trials in the central Oregon Cascades. *Canadian Journal of Forest Research* 35:295-307. (22 : 2.44)

43) Moore, J.R. and **D.A. Maguire**. 2005. Natural sway frequencies and damping ratios of trees: Influence of crown structure. *Trees* 19:363-373.

42) Halpern, C.B., D. McKenzie, S.A. Evans, and **D.A. Maguire**. 2005. Initial responses of forest understories to varying levels and patterns of green-tree retention. *Ecological Applications* 15:175-195.

41) Moore, J.R. and **D.A. Maguire**. 2005. Natural sway frequencies and damping ratios of trees: Concepts, review, and synthesis of previous studies. *Trees* 18:195-203.

40) Mainwaring, D.B. and **D.A. Maguire**. 2004 The effect of local stand structure on growth and growth efficiency in heterogeneous stands of ponderosa pine and lodgepole pine in central Oregon. *Canadian Journal of Forest Research* 34:2217-2229.

39) Gonda, H.E., **D.A. Maguire**, G.O. Cortes, and S.D. Tesch. 2004. Stand-level height-diameter equations for young ponderosa pine plantations in Neuquen, Patagonia, Argentina: Evaluating applications of equations developed in the western US. *Western Journal of Applied Forestry* 19:202-210.

38) Garber, S.M. and **D.A. Maguire**. 2004. Stand productivity and development in two mixed-species spacing trials in the central Oregon Cascades. *Forest Science* 50:92-105.

37) Aubry, K.B., C.B. Halpern, and **D.A. Maguire**. 2004. Ecological effects of variable-retention harvests in the northwestern United States: the DEMO study. *Forest, Snow, and Landscape Research* 78:119-137.

36) Garber, S.M. and **D.A. Maguire**. 2003. Modeling stem taper of three central Oregon species using nonlinear mixed effects models and autoregressive error structures. *Forest Ecology and Management* 179:507-522.

35) Johnson, G.R., B.L. Gartner, **D. Maguire**, and A. Kanaskie. 2003. Influence of Bravo fungicide applications on wood density and moisture content of Swiss needle cast affected Douglas-fir trees. *Forest Ecology and Management* 186:339-348.

34) Dean, T.J., S.D. Roberts, D.W. Gilmore, **D.A. Maguire**, J.N. Long, K.L. O'Hara, and R.S. Seymour. 2002. An evaluation of the uniform stress hypothesis based on stem geometry in selected North American conifers. *Trees* 16:559-568.

33) Moore, J.R., **D.A. Maguire**, D.L. Phillips, and C.B. Halpern. 2002. Effects of varying levels and patterns of green-tree retention on amount of harvesting damage. *Western Journal of Applied Forestry* 17:202-206.

32) **Maguire, D.A.** and A. Kanaskie. 2002. The ratio of live crown length to sapwood area as a measure of crown sparseness. *Forest Science* 48:93-100.

31) **Maguire, D.A.**, A. Kanaskie, W. Voelker, R. Johnson, and G. Johnson. 2002. Growth of young Douglas-fir plantations across a gradient in Swiss needle cast severity. *Western Journal of Applied Forestry* 17:86-95.

30) Bravo, F., D.W. Hann, and **D.A. Maguire**. 2001. Impact of competitor species composition on predicting diameter growth and survival rates of Douglas-fir trees in southwestern Oregon. *Canadian Journal of Forest Research* 31:2237-2247.

29) Kershaw, J.A. and **D. A. Maguire**. 2000. Influence of vertical foliage structure on the distribution of stem cross-sectional area increment in western hemlock and balsam fir. *Forest Science* 46:86-94.

28) Wilson, D.S., R. S. Seymour, and **D.A. Maguire**. 1999. Density management diagram for northeastern red spruce and balsam fir forests. *Northern Journal of Applied Forestry* 16:48-55.

27) **Maguire, D.A.**, S.R. Johnston, and J. Cahill. 1999. Predicting branch diameters on second-growth Douglas-fir from tree-level descriptors. *Canadian Journal of Forest Research* 29:1829-1840.

26) **Maguire, D.A.**, J. Brissette, and L. Gu. 1998. Crown structure and growth efficiency of red spruce in uneven-aged, mixed-species stands in Maine. *Canadian Journal of Forest Research* 28:1233-1240.

25) Batista, J.L.F. and **D.A. Maguire**. 1998. Modeling the spatial structure of tropical forests. *Forest Ecology and Management* 110:293-314.

24) Roeh, R. and **D.A. Maguire**. 1997. Crown profile models based on branch attributes in coastal Douglas-fir. *Forest Ecology and Management* 96: 77-100.

23) Gilmore, D.W., R.S. Seymour, **D.A. Maguire**. 1996. Foliage-sapwood area relationships for *Abies balsamea* in central Maine, U.S.A. *Canadian Journal of Forest Research* 26:2071-2079.

22) Kershaw, J.A. and **D.A. Maguire**. 1996. Crown structure in western hemlock, Douglas-fir, and grand fir in western Washington: horizontal distribution of foliage within branches. *Canadian Journal of Forest Research* 26:128-142.

21) **Maguire, D.A.** and J.L.F. Batista. 1996. Sapwood taper models and implied sapwood volume and foliage profiles for coastal Douglas-fir. *Canadian Journal of Forest Research* 26:849-863.

20) **Maguire, D.A.** and W.S. Bennett. 1996. Patterns in vertical distribution of foliage on coastal Douglas-fir. *Canadian Journal of Forest Research* 26:1991-2005.

19) Kershaw, J.A. and **D.A. Maguire**. 1995. Crown structure in western hemlock, Douglas-fir, and grand fir in western Washington: trends in branch-level mass and leaf area. *Canadian Journal of Forest Research* 25:1897-1912.

18) **Maguire, D.A.** and W.S. Bennett. 1995. A field procedure for thinning by relative density specifications: Development, implementation, and relationship to stand structure. *Western Journal of Applied Forestry* 10:85-90.

17) Segura, G.K, L.B. Brubaker, J.F. Franklin, T.M. Hinckley, **D.A. Maguire**, and G. Wright. 1994. Recent mortality and decline in mature *Abies amabilis*: the interaction between site factors and tephra deposition from Mount St. Helens. *Canadian Journal of Forest Research* 24:1112-1122.

16) **Maguire, D.A.** 1994. Branch mortality and potential litterfall from Douglas-fir trees in stands of varying density. *Forest Ecology and Management* 70:41-53.

15) **Maguire, D.A.**, W.S. Bennett, and M. Moeur. 1994. Models for describing basal diameter and vertical distribution of primary branches on young Douglas-fir. *Forest Ecology and Management* 63:23-55.

14) **Maguire, D.A.**, J.A. Kershaw, Jr., and D.W. Hann. 1991. Predicting effects of silvicultural regime on branch size and juvenile wood core in Douglas-fir. *Forest Science* 37: 1409-1428.

13) **Maguire, D.A.** and D.W. Hann. 1990. A sampling strategy for estimating past crown recession on temporary growth plots. *Forest Science* 36: 549-563.

12) **Maguire, D.A.** and D.W. Hann. 1990. Constructing models for direct prediction of five-year crown recession in southwestern Oregon Douglas-fir. *Canadian Journal of Forest Research* 20: 1044-1052.

11) Kershaw, J.K., **D.A. Maguire**, and D.W. Hann. 1990. Longevity and duration of radial growth in Douglas-fir branches. *Canadian Journal of Forest Research* 20: 1690-1695.

10) **Maguire, D.A.**, G.F. Schreuder, and M. Shaikh. 1990. A biomass yield model for high- density *Acacia nilotica* plantations in Sind, Pakistan. *Forest Ecology and Management* 37: 285-302.

9) **Maguire, D.A.** and D.W. Hann. 1989. The relationship between gross crown dimensions and sapwood area at crown base in Douglas-fir. *Canadian Journal of Forest Research* 19: 557-565.

8) **Maguire, D.A.** and D.W. Hann. 1989. Bark thickness and bark volume in southwestern Oregon Douglas-fir. *Western Journal of Applied Forestry* 5: 5-8.

7) **Maguire, D.A.** and D.W. Hann. 1987. Equations for predicting sapwood area at crown base in southwestern Oregon Douglas-fir. *Canadian Journal of Forest Research* 17: 236-241.

6) **Maguire, D.A.** and D.W. Hann. 1987. A stem dissection technique for dating branch mortality and reconstructing past crown recession. *Forest Science* 33: 858-871.

5) **Maguire, D.A.** and C.C. Maguire. 1987. Analyzing treatment effects on Douglas-fir seedling survival with an Extreme Value regression model. *Canadian Journal of Forest Research* 17: 1627-1630.

4) **Maguire, D.A.** 1985. The effect of sampling scale on the detection of interspecific patterns in a hemlock-hardwood forest herb stratum. *American Midland Naturalist* 113: 138-145.

3) **Maguire, D.A.** and R.T.T. Forman. 1983. Herb cover effects on tree seedling patterns in a mature hemlock-hardwood forest. *Ecology* 64: 1367-1380.

2) **Maguire, D.A.** 1983. Suppressed crown expansion and increased bud density after precommercial thinning in California Douglas-fir. *Canadian Journal of Forest Research* 13: 1246-1247.

1) **Maguire, D.A.** 1980. Addition to the flora of Cathedral State Park, West Virginia. *Castanea* 45:277-278.

Other refereed papers

(1) **Maguire, D.A.**, S. Canavan, C.B. Halpern, and K.B. Aubry. 2005. Fate of taxa after variable-retention harvesting in Douglas-fir forests of the northwestern United States. Pp. 271-279 in C.E. Peterson and D.A. Maguire (editors). Balancing Ecosystem Values: Innovative Experiments for Sustainable Forestry. USDA-FS Gen. Tech. Rep. PNW-GTR-635.
(2) Schwarz, P., **D.A. Maguire**, and D.B. Mainwaring. 2005. Projections of future overstory stand structure and composition following variable-retention harvests in the northwestern United States. Pp. 201-214 in C.E. Peterson and D.A. Maguire (editors). Balancing Ecosystem Values: Innovative Experiments for Sustainable Forestry. USDA-FS Gen. Tech. Rep. PNW-GTR-635.
(3) Temesgen, H., P.J. Martin, **D.A. Maguire**, and J.T. Tappeiner. 2005. Effects of different levels of canopy tree retention on stocking and yield of the regeneration cohort in the southern Interior of British Columbia. Pp. 215-224 in C.E. Peterson and D.A. Maguire (editors). Balancing Ecosystem Values: Innovative Experiments for Sustainable Forestry. USDA-FS Gen. Tech. Rep. PNW-GTR-635.
(4) Fitzgerald, S., **D.A. Maguire**, and R. Singleton. 2005. Simulating structural development and fire resistance of second-growth ponderosa pine stands for two contrasting stand treatments. Pp. 191-198 in C.E. Peterson and D.A. Maguire (editors). Balancing Ecosystem Values: Innovative Experiments for Sustainable Forestry. USDA-FS Gen. Tech. Rep. PNW-GTR-635.
(5) Keyes, C.R., and **D.A. Maguire**. 2005. Positive seedling-shrub relationships in natural regeneration of ponderosa pine. Pp. 95-107 In M.W. Ritchie, A. Youngblood, and D.A. Maguire (editors). Ponderosa Pine: Management, Issues and Trends. USDA-FS Gen Tech. Rep. PSW-GTR-198.

Book chapters and encyclopedia entries

(1) **Maguire, D.A.**, A. Osawa, and J.L.F. Batista. 2005. Primary production, growth, and carbon dynamics. Pp. 339-383 in F. Andersson (ed). Ecosystems of the World 6: Coniferous Forests. Elsevier, Amsterdam.
(2) **Maguire, D.A.** 2001. Tree morphology. Pp. 2238-2242 in A.H. El-Shaarawi and W.W. Piegorsch (eds). Encyclopedia of Environmetrics. Wiley, New York.

Books

(1) Tappeiner, J.C., II, **D. A. Maguire**, T.B. Harrington, and J.D. Bailey. 2015. Silviculture and Ecology of Western U.S. Forests, Second Edition. OSU Press, Corvallis, Oregon. 446 p.
(2) Tappeiner, J.C., II, **D. A. Maguire**, and T.B. Harrington. 2007. Silviculture and Ecology of Western U.S. Forests. OSU Press, Corvallis, Oregon. 440 p.

Edited Publications

(1) Maguire, D.A. and D.B. Mainwaring (eds). 2019. Center for Intensive Planted-forest Silviculture 2018 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA. 60 p.
(2) **Maguire, D.A.** and D.B. Mainwaring (eds). 2018. Center for Intensive Planted-forest Silviculture 2017 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA. 58 p.
(3) **Maguire, D.A.** and D.B. Mainwaring (eds). 2017. Center for Intensive Planted-forest Silviculture 2016 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA. 60 p.
(4) **Maguire, D.A.** and D.B. Mainwaring (eds). 2016. Center for Intensive Planted-forest Silviculture 2015 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA. 59 p.
(5) **Maguire, D.A.** and D.B. Mainwaring (eds). 2015. Center for Intensive Planted-forest Silviculture 2014 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA. 56 p.
(6) **Maguire, D.A.** and D.B. Mainwaring (eds). 2014. Center for Intensive Planted-forest Silviculture 2013 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA. 60 p.
(7) **Maguire, D.A.** and D.B. Mainwaring (eds). 2013. Center for Intensive Planted-forest Silviculture 2012 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA. 60 p.
(8) **Maguire, D.A.** and D.B. Mainwaring (eds). 2012. Center for Intensive Planted-forest Silviculture 2011 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA. 46 p.
(9) **Maguire, D.A**. and D.B. Mainwaring (eds). 2011. Center for Intensive Planted-forest Silviculture 2010 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA. 60 p.
(10) Peterson, C.E. and **D.A. Maguire** (eds). 2005. Balancing Ecosystem Values: Innovative Experiments for Sustainable Forestry. USDA-FS PNW Research Station, Portland, Oregon. General Technical Report PNW-GTR-635. 389 p.
(11) Ritchie, M.W., **D.A. Maguire**, and A. Youngblood. (eds). 2005. Proceedings of the Symposium on Ponderosa Pine: Issues, Trends, and Management. USDA-FS PSW Research Station, Redding, California. General Technical Report PSW-GTR-198. 281 p.

Non-refereed Publications

(1) Joo, S., **D.A. Maguire**, J.B. St. Clair, K. Jayawickrama, T.Z. Ye. 2019. Morphological crown attributes representing family effects on height and diameter growth performance in a coastal Douglas-fir progeny test: A crown ideotype approach. Pp. 5-11 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2018 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.
(2) Joo, S., **D.A. Maguire**, K. Jayawickrama, T.Z. Ye, J.B. St. Clair. 2019. Difference between realized gains observed in Douglas-fir block plantings and simulated gains using genetic-gain multipliers in CIPSANON. Pp. 12-21 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2018 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA
(3) Putney, J., **D. Maguire, D.** Mainwaring, and M. Banks. 2019. Response of inside-bark stem profile to operational fertilization of mid-rotation Douglas-fir. Pp. 28-33 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2018 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.
(4) Putney, J., **D. Maguire**, D. Mainwaring, and M. Banks. 2019. Responses of foliage amount and its vertical distribution in nitrogen fertilized Douglas-fir trees. Pp. 34-39 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2018 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.
(5) Mainwaring, D., **D. Maguire**, C. Gonzalez-Benecke, C. Harrington, T. Harrington, E Turnblom. 2019. Generating tree lists for young Douglas-fir and western hemlock plantations. Pp. 40-44 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2018 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.
(6) Mainwaring, D., **D. Maguire**, C. Gonzalez-Benecke, C. Harrington, T. Harrington, E Turnblom. 2019. Updates to the height to crown base and mortality equations for western hemlock. Pp. 45-

48 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2018 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA

(7) Mainwaring, D., D. Hann, A. Bluhm, **D. Maguire**, D. Hibbs, G. Ahrens. 2019. Updates to the ORGANON red alder plantation (RAP) equations. Pp. 49-54 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2018 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA

(8) **Maguire, D**., D. Mainwaring, M. Wightman, C. Gonzalez-Benecke, E. Dinger. 2018. Strategy for simulating competing vegetation dynamics by lifeform in western hemlock plantations. Pp.5-11 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2017 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA

(9) Mainwaring, D., **Maguire, D**., R. Rose, E. Dinger, T. Harrington, R. Harrison, E. Turnblom. 2018. Refinements in CIPSANON increment and mortality equations. Pp.12-16 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2017 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA

(10) Mainwaring, D., D. Hann, A. Bluhm, **D. Maguire**, D. Hibbs, G. Ahrens. 2018. Updates to the ORGANON red alder plantation (RAP) equations. Pp.17-20 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2017 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA

(11) Mainwaring, D., **D. Maguire**, U. Kormann, T. Stokely, M. Betts. 2018. The News at Five: Five-year Douglas-fir growth and tree demography following multiple operational herbicide treatments in a large-scale intensive forest management experiment in the northern Oregon Coast Range. Pp.21-26 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2017 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA

(12) Mainwaring, D., **D. Maguire**, U. Kormann, T. Stokely, M. Betts. 2018. Volume yield and net present value from projections of 5-year-old Douglas-fir plantations subject to different levels of early vegetation control. Pp.27-32 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2017 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA

(13) Putney, J., **D. Maguire**, D. Mainwaring, M. Banks. 2018. Shifts in Douglas-fir stem profile inside-bark in response to nitrogen fertilization. Pp.33-36 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2017 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA

(14) Putney, J., D. **Maguire**, D. Mainwaring, M. Banks. 2018. Shifts in vertical pattern of stem cross-sectional increment on nitrogen-fertilized Douglas-fir. Pp.37-40 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2017 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA

(15) Joo, S., D.A. **Maguire**, K. Jayawickrama, T.Z. Ye. 2018. Tree morphological variables contributing to differential family performance in the Douglas-fir realized gain trials. Pp. 41-46 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2017 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA

(16) Joo, S., D. **Maguire**, D. Mainwaring, K. Jayawickrama, T.Z. Ye. 2018. Sources of discrepancy between genetic gains predicted from progeny tests, realized gains observed in block plantings, and simulated gains projected by CIPSANON. Pp. 47-52 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2017 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA

(17) Uranga, M., F. Mauro, **D. Maguire**. 2018. Exploring minimum data requirements for taper equations of plantation species in Uruguay. Pp. 53-56 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2017 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA

(18) Joo, S., D. Mainwaring, D. **Maguire**, D. Hann, N. Osborne. 2018. CIPSANON in R. Pp. 57-58 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2017 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA

(19) Withrow-Robinson, B., and **D. Maguire**. 2018. Competition and density in woodland stands. Oregon State University Extension Service, Corvallis, OR. EM 9206.

(20) **Maguire, D.**, D. Mainwaring, E. Turnblom, R. Harrison, and A. Bluhm. 2017. Vertical foliage distribution in response to thinning and fertilization: Links to productivity. Pp. 53-60 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2016 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(21) Putney, J., D. **Maguire, D.** Mainwaring, and M. Banks. 2017. Analyzing five-year Douglas-fir volume and diameter growth response to nitrogen fertilization in western Oregon. Pp. 46-52 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2016 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(22) Joo, S., **D. Maguire**, and K. Jayawickrama. 2017. Variation in crown attributes among families in the Colton Douglas-fir realized gain trials. Pp. 39-45 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2016 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(23) Joo, S., **D. Maguire**, and K. Jayawickrama. 2017. Simulation of Douglas-fir realized gain trials with ORGANON using genetic gain multipliers. Pp. 32-38 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2016 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(24) Mainwaring, D. and **D. Maguire**. 2017. Exploring ecophysiological mechanisms to incorporate into CIPSANON: Linking soil and local climatic conditions to forest productivity and response to silvicultural treatments. Pp. 27-31 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2016 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(25) Mainwaring, D., **D. Maguire**, G. Ritokova, and D. Shaw. 2017. The effect of Swiss Needle Cast on stem taper of Douglas-fir trees from 26- to 40-year-old plantations in north coastal Oregon. Pp. 22-26 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2016 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(26) Mainwaring, D., **D. Maguire**, and D. Hann. 2017. Direct effects multipliers for simulating response to thinning and fertilization in Douglas-fir and to thinning in western hemlock. Pp. 14-21 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2016 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(27) Mainwaring, D., **D. Maguire**, C. Gonzalez-Benecke, M. Wightman, E. Turnblom, R. Harrison, and S. McLeod. 2017. Annualized diameter growth, height growth, and mortality equations for western hemlock. Pp. 7-13 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2016 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(28) Mainwaring, D. and D. Maguire. 2016. Branch DIB and heartwood diameter. Pp. 56-59 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2015 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(29) Schmidt, A., D. Mainwaring, and **D. Maguire**. 2016. Data gap filling in Panther Creek soil moisture monitoring data using artificial neural networks. Pp. 52-55 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2015 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(30) Oliveri, R., D. **Maguire, D.** Mainwaring, H. Rodman, and D. Gourley. 2016. Quantifying differential growth rates among understory trees species in complex mixed-conifer stands resulting from shelterwood-with-reserves in southwestern Oregon. Pp. 43-47 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2015 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(31) Gourley, D. and **D. Maguire**. 2016. Methods to detect silvicultural influences on earlywood and latewood in Douglas-fir. Pp. 39-42 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2015 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(32) Cornejo-Oviedo, E., **D.A. Maguire**, D.B. Mainwaring and S.L. Voelker. 2016. Basal area growth response of Douglas-fir to nitrogen fertilization. Pp. 35-38 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2015 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(33) Joo, S., **D. Maguire** and B. St.Clair. 2016. Simulating realized gain trials by incorporating heritable morphological traits from Douglas-fir progeny tests into growth models. Pp. 26-29 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2015 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(34) Faria, A. and **D. Maguire**. 2016. Magnitude and duration of shifts in carrying capacity induced by nitrogen fertilization: Modelling responses in maximum SDI in Phase I trials of RFNR Project using quantile regression. Pp. 22-25 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2015 Annual Report. College of Forestry, Oregon State

University, Corvallis, OR, USA.

(35) Mainwaring, D., **D. Maguire**, C. Gonzalez-Benecke, M. Wightman, E. Turnblom, and R. Harrison. 2016. Annualized diameter growth, height growth, and mortality equations for western hemlock. Pp. 17-21 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2015 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(36) Mainwaring, D., **D. Maguire**, R. Rose, E. Dinger and T.Harrington, E. Turnblom, and D. Hann. 2016. Final annualized diameter growth, height growth, and mortality equations for Douglas-fir in CIPSANON v1.0. Pp. 12-16 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2015 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(37) Hann, D.W., D. Mainwaring, and **D. Maguire**. 2016. Overview of the CIPSANON growth and yield DLLs. Pp. 8-11 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2015 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(38) **Maguire, D.** 2016. CIPS perspectives on PNW intensive silvicultural research: Regional needs, recommendations, future projects. Pp. 5-7 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2015 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(39) Pajares Calvo, J., D. Mainwaring, D., and **D. Maguire**. 2015. The relative productivity and stand structure of Douglas-fir stands with varying levels of red alder retention near Waldport, Oregon. Pp. 54-56 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2014 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(40) Mainwaring, D., **D. Maguire**, A. Bluhm, P. Footen, R. Harrison, E. Knight, K. Coons and E. Turnblom. 2015. Estimating nutrient pools and fluxes under varying intensities of timber harvest and residue utilization in Douglas-fir plantation ecosystems. Pp. 50-53 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2014 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(41) Hann, D.W., D. Mainwaring and **D. Maguire**. 2015. Mechanistic biomass equations for intensively managed Douglas-fir trees. Pp. 46-49 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2014 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(42) Romero, P., A. Faria, and **D. Maguire**. 2015. Long-term growth responses to thinning in the Black Rock Unit of George T. Gerlinger Experimental Forest. Pp. 42-45 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2014 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(43) Joo, S., **D. Maguire**, and B. St.Clair. 2015. Representing family effects on height growth performance in a douglas-fir progeny test. Pp. 37-41 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2014 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(44) Osborne, N, D. Gourley, O. Hoibo, and **D. Maguire**. 2015. Measuring wood density by means of medical computed tomography: applications to developing comprehensive regional wood properties models. Pp. 34-36 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2014 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(45) Osborne, N, and **D. Maguire**. 2015. Modeling knot shape in Douglas-fir Stems: A critical component for simulating virtual logs. Pp. 28-33 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2014 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(46) Osborne, N, and **D. Maguire**. 2015. Implications of stand density regime for meeting Douglas-fir pole specifications. Pp. 24-27 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2014 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(47) Gourley, D., N. Osborne, **D. Maguire**, and O. Hoibo. 2015. Environmental and silvicultural influences on earlywood/latewood width in Douglas-fir: A synthesis and strategy. Pp. 21-23 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2014 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(48) Gourley, D. 2015. Wood quality software suite for processing ORGANON wood quality output.

Pp. 19-20 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2014 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(49) Faria, A.,and **D.A. Maguire**. 2015. Identifying constraints on site carrying capacity for Douglas-fir: Maximum stand density following nitrogen fertilization. Pp. 11-14 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2014 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(50) Mainwaring, D., **D. Maguire**, R. Rose, E. Dinger and T.Harrington, E. Turnblom, and D. Hann. 2015. Update on annualized diameter growth, height growth, and mortality equations for Douglas-fir plantations and their implications for stand growth and yield. Pp. 6-10 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2014 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(51) Maguire, D., D. Mainwaring, N. Osborne, and D. Gourley. 2015. Overview of CIPS analyses and tools. Pp. 5 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2014 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(52) Terroba, C., **D. Maguire**, and D. Mainwaring. 2014. Effects of species mix and initial spacing on foliage biomass in a mixed-species spacing trial in central Oregon. Pp. 56-60 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2013 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(53) Coons, K., **D. Maguire**, D. Mainwaring, A. Bluhm, R. Harrison, P. Footen, E. Knight, and E. Turnblom. 2014. Estimating nutrient pools and nutrient removals under varying intensities of timber harvest and residue utilization in intensively-managed Douglas-fir plantations. Pp. 49-55 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2013 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(54) Romero, P., and **D. Maguire**. 2014. Models to estimate total height, height to crown base and mortality at the Black Rock Thinning Trials. Pp. 42-48 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2013 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(55) Maguire, D. 2014. Models for the height and shape of the heartwood core in Douglas-fir. Pp. 37-41 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2013 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(56) Hann, D., **D. Maguire**, E. Turnblom, and R. Harrison. 2014. Impact of repeated fertilization upon individual tree crown recession in young Douglas-fir plantations. Pp. 29-36 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2013 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(57) Osborne, N., **D. Maguire**, and D. Hann. 2014. Simulating Douglas-fir tree and stand development under varying initial spacings with ORGANON: Knot size and juvenile wood core effects on grade recovery of lumber. Pp. 22-28 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2013 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(58) Maguire,D,, T. Harrington, B. Wagner, and D. Mainwaring. 2014. Simulation of competing vegetation dynamics in Douglas-fir plantations. Pp. 17-21 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2013 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(59) Mainwaring, D., **D. Maguire**, and D. Hann. 2014. XORG: An EXCEL application for simulating individual stands of Douglas-fir using young stand growth equations and ORGANON DLLs. Pp. 13-16 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2013 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(60) Mainwaring, D., **D. Maguire**, R. Rose, E. Dinger and T.Harrington, and E. Turnblom. 2014. Update on annualized diameter growth, height growth, and mortality equations for Douglas-fir plantations and their implications for stand growth and yield. Pp. 5-12 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2013 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(61) Urteaga, A., D. Mainwaring, **D. Maguire**, and J. Hatten. 2013. Modeling rates of water use and soil water depletion by fertilized young Douglas-fir plantations. Pp. 57-60 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2012 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(62) Osborne, N. and **D. Maguire**. 2013. ORGANON-N-R: Simulating Douglas-fir growth and yield in

R with the ORGANON DLL. Pp. 53-56 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2012 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(63) Romero, P., D. Mainwaring, **D. Maguire**, and D. Hann. 2013. Response of Individual Douglas-fir Trees to different thinning regimes at George T. Gerlinger Experimental Forest: Diameter growth responses in the Black Rock Thinning Trials. Pp. 48-52 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2012 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(64) Zhao, J., D. Hann, **D. Maguire**, and D. Mainwaring. 2013. Development of Swiss Needle Cast diameter and height growth modifiers for ORGANON. Pp. 42-47 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2012 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(65) Hann, D., **D. Maguire**, E. Turnblom, and R. Harrison. 2013 Effects of respacing, single, and multiple fertilization on site index and individual tree volume increment in young Douglas-fir plantations. Pp. 33-41 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2012 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(66) Coons, K., **D. Maguire**, D. Mainwaring, A. Bluhm, R. Harrison, and E. Turnblom. 2013 Allometric relationships and above-ground Douglas-fir biomass and nutrient pools under varying stand density and nitrogen fertilization regimes. Pp. 28-32 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2012 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(67) Rogers, N., **D. Maguire**, and D. Mainwaring. 2013 Estimation of leaf area index and simulation of evapotranspiration for intensively managed Douglas-fir forests. Pp. 23-27 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2012 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(68) Maguire,D,, T. Harrington, B. Wagner, and D. Mainwaring. 2013 Models for projecting competing vegetation dynamics by life form. Pp. 17-22 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2012 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(69) Mainwaring, D., **D. Maguire**, R. Rose, E. Dinger and T.Harrington, E. Turnblom, and D. Hann. 2013. Preliminary fitting of a rotation length diameter growth equation. Pp. 12-16 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2012 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(70) Mainwaring, D., **D. Maguire**, R. Rose, E. Dinger and T.Harrington. 2013. Refit of young stand Douglas-fir growth and mortality equations with an expanded dataset. Pp. 5-11 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2012 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(71) Mainwaring, D., **D. Maguire**, R. Rose, and E. Dinger. 2011. Simulation of Tree And Stand Development on VMRC Controlled Experiments Using the SMC Variant of the CONIFERS Young Stand Growth Model. Pp. 5-19 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2010 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(72) Wilson, D., **D. Maguire**, R. Rose, E. Dinger, and D. Mainwaring. 2011. Incorporating the Influence of Competing Vegetation Control on Young Douglas-fir (*Pseudotsuga menziesii*) Dominant Height Growth through Dynamic Age-shift Models. Pp. 20--19 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2010 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(73) Mainwaring, D., **D. Maguire**, R. Rose, T. Harrington, and E. Dinger. 2011. Diameter and height growth equations for Douglas-fir growing in intensively managed plantations in the Pacific Northwest. Pp. 29-36 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2010 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(74) D. Mainwaring, **D. Maguire**, R. Rose, T. Harrington, and E. Dinger. 2011. Mortality equations for intensively managed douglas-fir plantations in the Pacific Northwest. Pp. 37-40 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2010 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(75) Mainwaring, D., **D. Maguire**, R. Rose, and E. Dinger. 2011. A model for assigning DBH to young Douglas-fir trees established and growing under varying levels of competing vegetation. Pp. 41-

43 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2010 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(76) **Maguire, D.**, T. Harrington, and B. Wagner. 2011. A model describing the effects of crown closure on the dynamics of competing vegetation in young Douglas-fir plantations. Pp. 44-47 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2010 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(77) **Maguire, D.**, R. Rose, D. Mainwaring, and E. Dinger. 2011. Models for simulating competing vegetation dynamics under varying control regimes implemented by the Vegetation Management Research Cooperative. Pp. 48-53 in D.A. Maguire and D.B. Mainwaring (eds). Center for Intensive Planted-forest Silviculture 2010 Annual Report. College of Forestry, Oregon State University, Corvallis, OR, USA.

(78) Harrison, R.B., **D.A. Maguire**, and D. Page-Dumroese. Chapter 6: maintaining adequate nutrient supply—principles, decision-support tools, and best management practices. Pp. 33-42 in S.D. Angima and T.R. Terry (eds). Best Management Practices for Maintaining Soil Productivity in the Douglas-fir Region. EM-9023. Extension Service, Oregon State University, Corvallis, OR.

(79) **Maguire, D.A.**, Mainwaring, D.B. and Halpern, C.B. 2005. Stand dynamics after variable-retention harvesting in mature Douglas-fir forests of western North America. [Abstract]. In: Innes, J.L.; Edwards, I.K.; Wilford D.J., eds. Proceedings of the 22nd IUFRO World Congress, Forests in the balance: linking tradition and technology. International Forestry Review. 7(5): 47.

(80) Moore, J.R. and **D.A. Maguire**. 2002. The mechanics of trees under wind loading. Pp. 39-50 in E.T. Smiley and K.D. Koder (eds). Tree structure and mechanics conference proceedings: How trees stand up and fall down. International Society of Arboriculture, Champagne, IL.

(81) **Maguire, D.A.**, A. Kanaskie, and M. McWilliams. 2000. A strategy for monitoring Swiss needle cast and assessing its growth impact in Douglas-fir plantations of coastal Oregon. Pp. 705-713 in M. Hansen and T. Burk (eds). Integrated tools for natural resources inventories in the 21st century. USDA-Forest Service Gen. Tech. Rep. NC-212.

(82) Wilson, G.F. and **D. A. Maguire**. 1996. Simulation of early regeneration processes in mixed species forests of Maine, USA: Germination, survival, and height growth. Pp. 530-539 in J.P. Skovsgaard and V.K. Johannsen (eds). Modelling Regeneration Success and Early Growth of Forest Stands. Danish Forest and Landscape Research Institute, Hørsholm, Denmark.

(83) **Maguire, D.A.** and M.D. Petruncio. 1995. Pruning and growth of western Cascade species: Douglas-fir, western hemlock, and sitka spruce. Pp. 179-215 in D.P. Hanley, C.D. Oliver, D.A. Maguire, D.G. Briggs, and R.D. Fight (eds). 1995. Forest Pruning and Wood Quality. Institute of Forest Resources, College of Forest Resources, University of Washington, Seattle, WA. Contribution No. 77.

(84) Hanley, D.P., C.D. Oliver, **D.A. Maguire, D.**G. Briggs, and R.D. Fight (eds). 1995. Forest Pruning and Wood Quality. Institute of Forest Resources, College of Forest Resources, University of Washington, Seattle, WA. Contribution No. 77. 403 p.

(85) **Maguire, D.A.**, J.L.F. Batista, and D. McKenzie. 1993. Horizontal structure of uneven-aged mixed-species forests modeled as an inhomogeneous Poisson process. Pp. 161-170 in K. Rennolls (ed). Spatial Stochastic Models in Forestry. CASSM Publishing, University of Greenwich, London, UK.

(86) Briggs, D.G., **D.A. Maguire**, and T.D. Fahey. 1992. Predicting growth, quality, and product value of Pacific Northwest Douglas-fir plantations. Pp. 278-281 in Wood Product Demand and the Environment. Forest Product Research Society, Madison, WI.

(87) **Maguire, D.A.** et al. 1991. Field Procedures Manual, Douglas-fir Version. Stand Management Cooperative, College of Forest Resources, University of Washington, Seattle. 72 p. + App.

(88) **Maguire, D.A.** et al. 1991. Field Procedures Manual, Western Hemlock Version. Stand Management Cooperative, College of Forest Resources, University of Washington, Seattle.

(89) **Maguire, D.A.** 1991. Strategies for modeling the effect of silvicultural regime on wood quality in Douglas-fir. Proceedings of the Society of American Foresters National Convention, San Francisco, CA, August 4-7, 1991.

(90) **Maguire, D.A.**, W.S. Bennett, J.A. Kershaw, B. Gonyea, and H.N. Chappell. 1991. Establishment Report: Stand Management Cooperative Field Installations. Contribution No. 72, Institute of Forest Resources, College of Forest Resources, University of Washington, Seattle. 42 p.

(91) **Maguire, D.A.** et al. 1990. Silviculture Project Five-year Plan, 1991-95. Stand Management Cooperative, College of Forest Resources, University of Washington, Seattle. 47 p.

(92) Schreuder, G.F. and **D.A. Maguire**. 1989. El modelo matematico de crecimiento y rendimiento economico para el sistema Hury usando Acacia Nelotica. In: Manejo y aprovechamiento de

plantaciones forestales con especies de uso multiple. Antigua, Guatemala, April 1989.

(93) **Maguire, D.A.** and W. Scott. 1988. Measuring the effects of slash burning and other silvicultural operations on stand productivity: A theoretical perspective. Pp. 81-94 in Hanley, D.P., J.J. Kammenga, and C.D. Oliver (eds.). The Burning Decision: Regional Perspectives on Slash. College of Forest Resources, University of Washington, Seattle, WA. Institute of Forest Resources Contribution No. 66. 374 p.

(94) **Maguire, D.A.**, G.F. Schreuder, D.G. Briggs, and M. Shaikh. 1988. HYMNS: A model to simulate hury yields and the corresponding economic synthesis. Winrock/Pakistan No. 17, March 1988.

(95) Chappell, H.N. and **D.A. Maguire** (eds.). 1987. Predicting forest growth and yield: Current issues, future prospects. Coll. For. Res., Univ. Wash., Institute of Forest Resources Contribution No. 58. 95 p.

(96) Chappell, H.N., R.O. Curtis, D.M. Hyink, and **D.A. Maguire**. 1987. The Pacific Northwest Stand Management Cooperative and its field installation design. Pp. 1073-1080 in Proceedings of Forest Growth and Prediction Conference, Minneapolis, MN. USDA-Forest Service General Technical Report NC-120. 1149 p.

(97) **Maguire, D.A.**, D.W. Hann, and J.A. Kershaw, Jr. 1987. Prediction of branch diameter and branch distribution for Douglas-fir in southwestern Oregon. Pp. 1029-1036 in Proceedings of Forest Growth Modelling and Prediction Conference, Minneapolis, MN. USDA-Forest Service General Technical Report NC-120. 1149 p.

(98) **Maguire, D.A.** 1987. The Pythagorean spirit at the University of Washington. *Compiler* 5: 4-6.

(99) **Maguire, D.A.** and R.T.T. Forman. 1979. The influence of herb cover on tree seedling patterns in an old growth hemlock-hardwood forest. *Bull. Ecol. Soc. Amer.* 60: 125 (abstr).

(100) **Maguire, D.A.** 1977. Forest Interpreter's Primer on Range Management. USDA-FS TT-54. 69 p.

SERVICE

Professional

1) Faculty Advisor to OSU Student Chapter of Society of American Foresters, 2017-2019.
2) OFRI Working Group for Special Report on Silvicultural Systems, 2016-2017.
3) Section Editor, 2011-2016. *Forest Systems*.
4) Newsletter Editor, Capital Chapter, Oregon Society of American Foresters, 2009-2011.
5) Reviewer for *Forest Science*, *Canadian Journal of Forest Research*, *Annals of Forest Science*, *Ecology*, *European Journal of Forest Research*, *Forest Ecology & Management*, *Western Journal of Applied Forestry*, *Journal of Forestry*, *Trees: Structure and Function, Ecological Modelling, International Journal of Biometeorology, New Zealand Journal of Forestry Sciences, Silva Fennica Forestry, American Naturalist*
6) Editorial Review Board, 1992-1994, *Forest Ecology and Management*.
7) Chair-elect, Biometrics Working Group, 1992-1994, Society of American Foresters.
8) Chair, Biometrics Working Group, 1994-1996, Society of American Foresters.
9) Guest Associate Editor, 1997, *Forest Science*
10) Co-Chair, Publicity Committee, 1995 SAF National Convention, Portland, Maine.

PROFESSIONAL SOCIETIES

Society of American Foresters, 1976-present.
Ecological Society of America, 1977-present.

AWARDS

2016 Research Award, Oregon Society of American Foresters, plaque.
2012 Research Award, Oregon Society of American Foresters, plaque.
2010 Best Speaker Award, Western Mensurationists Meeting, plaque.
2009 Xi Sigma Pi Mentor Award, plaque.
2001 Research Award, Oregon Society of American Foresters, plaque.
1997 Aufderheide Award for Best Teacher, Oregon State University, $1000.
1989 Burlington Northern Award for Teaching Excellence, University of Washington, $2500.