

VITA
Elizabeth C. Cole

Education

B.S. Utah State University, Logan, Utah, June 1981
Major: Forestry
Minor: Biology, Applied Statistics/Computer Science

M.S. Oregon State University, Corvallis, Oregon, June 1984
Major: Forest Ecology
Minor: Statistics
Thesis: Fifth-year growth responses of Douglas-fir to crowding and other competition

Employment History

2014-2015: Research consultant Hancock Timber Corporation (Consultant for field project on regeneration of larch and Douglas-fir in Eastern Oregon)

2007-2010: Research consultant Forest Capital (Consultant for field project on regeneration of larch and Douglas-fir in Eastern Oregon)

2005-present: Research consultant Sierra Pacific Cooperative and Thunder Road Resources (Statistical analyses for vegetation management research)

1997-present: Research consultant Sealaska Corporation, Juneau, AK (Consultant for project on precommercial thinning of Sitka spruce: impacts on tree growth and vegetation, Alaska Science and Technology Foundation Grant and regeneration of western redcedar and Alaska yellow cedar project)

1988-present: Senior Research Assistant Department of Forest Engineering, Resources, and Management (previously in Department of Forest Science), Oregon State University, Corvallis, Oregon

1992-2007: Research consultant Klukwan Forest, Inc., Juneau, AK. (Consultant for project on reforestation of white spruce, Alaska Science and Technology Foundation Grant)

1983-1988: Research Assistant Department of Forest Science, Oregon State University, Corvallis, Oregon

1981-1983: Graduate Research Assistant Department of Forest Science, Oregon State University, Corvallis, Oregon

1980-1981: Range Technician USDA Forest Service, Intermountain Forest and Range Experiment Station, Logan, Utah (full time June-Aug, Part time Sept-May, full time June-Aug)

1979-1980: Research Assistant Department of Forestry, Utah State University, Logan, Utah (part time Oct.-May)

1979: Forest Technician USDA Forest Service, Payette National Forest, New Meadows, Idaho (full time June-Aug)

Current Research Projects:

Impact of deer browsing on different stock types of western redcedar and Alaska yellow-cedar in Southeast Alaska; Monitoring of fuel reduction treatments for forest restoration; Impacts of riparian buffers on stream temperature and fish habitat in small-order Oregon streams; Density management in Douglas-fir and Grand fir; Competitive interactions among salmonberry, red alder, and western hemlock; Thinning mature stands of Douglas-fir for structural diversity; Adaptability of tree seedlings for forest regeneration in south-central and interior Alaska; Influence of early stand density management on tree form growth and habitat development in southeast Alaska forests; Regeneration of western larch and Douglas-fir in Eastern Oregon

Past Projects:

Effects of vegetation management treatments on growth of white spruce in interior and south-central Alaska; Competitive effects of vegetation on pine and Douglas-fir in southwestern Oregon; Development of vegetation in Oregon Coast Range plantations of varying density; Herbicide dissipation in interior and coastal Alaska; Reforestation of riparian areas in central Oregon Coast Range; Density management in Douglas-fir and red alder; Effects of competition on growth of Douglas-fir and western hemlock in Oregon and Washington; Impacts of browsing on growth of Douglas-fir; Testing of treatments for herbicide efficacy; Impacts of clearcutting and burning on vegetation, small mammals, and amphibians; Interactions among stock type height, browsing, and competition on growth of Douglas-fir; Influence of salmonberry on growth of Douglas-fir, western hemlock, and Sitka spruce; Influence of snowbrush ceanothus on growth of Douglas-fir in the Cascade Mountains; Impact of glyphosate application on small mammal populations; Impacts of vegetation management treatments on availability of browse and growth of red spruce in Maine; Assessment of vegetation management tools in Oregon and Alaska

Refereed Publications:

Cole, E.C., A. Lindsay, M. Newton, and J.D. Bailey. 2018. Eight-year performance of bareroot Douglas-fir and bareroot and plug western larch seedlings following herbicide applications, northeast Oregon. *New Forests* 49:791-814 (lead author and all data analyses)

Cole, E.C., A. Lindsay, M. Newton, and J.D. Bailey. 2018. Vegetation control and soil moisture depletion related to herbicide treatments on forest plantations in Northeastern Oregon. *Weed Tech.* 32 (4):461-474. (lead author and recent data analyses)

Priebe, J.E., M. D. Powers, and E.C. Cole. 2018. Species, tree size, and overstory environment affect likelihood of ice storm damage to understory trees in a mature Douglas-fir forest. *For. Ecol. Manage.* 409:777-788 (edited all sections)

Cole, E.C., M. Newton, and J.D. Bailey. 2017. Understory vegetation dynamics 15 years post-thinning in 50-year-old Douglas-fir and Douglas-fir/western hemlock stands in western Oregon, USA. *For. Ecol. Manage.* 384:358-370. (lead author and all data analyses)

Cole, L. and M. Newton. 2015. Relationships between radiation and canopy closure estimates in streamside buffers in Western Oregon. *For. Sci.* 61(3):559-569. (lead author and all data analyses)

Newton, M. and L. Cole. 2015 Overstory development in Douglas-fir-dominant forests thinned to enhance late-seral features. *For. Sci.* 61(4):809-816. (all data analyses, wrote methods and results section, edited all sections)

Cole, E.C. and M. Newton. 2013. Influence of streamside buffers on stream temperature response following clearcut harvesting in western Oregon. *Can. J. For. Res.* 43:993-1005 (lead author and all data analyses)

Cole, E.C., M. Newton, and A. Youngblood. 2013. Effects of overtopping on growth of white spruce in Alaska. *Can. J. For. Res.* 43:861-871. (lead author and all data analyses)

Newton, M. and L. Cole. 2013. Stream temperature and streamside cover 14-17 years after clearcutting along small forested streams, western Oregon. *West. J. Appl. For.* 28(3):107-115. (all data analyses, wrote methods and results sections, edited all sections)

Nabel, M.R., M. Newton, E.C. Cole. 2013. Abundance of natural regeneration and growth comparisons with planted seedlings 10-13 years after commercial thinning in 50-year-old Douglas-fir. Douglas-fir/western hemlock, Oregon Coast Range. *For. Ecol. Manage.* 292:96-110. (edited all sections)

Newton, M., B. Lachenbruch, J.M. Robbins, and E.C. Cole. 2012. Branch diameter and longevity linked to plantation spacing and rectangularity in young Douglas-fir. *Forest Ecology and Management* 266:75-82. (some data analyses, edited all sections, answered reviewers comments)

Newton, M. and L. Cole. 2012. Sitka spruce and western hemlock stand and tree growth 10 years after precommercial thinning in southeast Alaska. *West. J. Appl. For.* 27(1):5-11. (all data analyses, wrote methods and results sections, edited all sections)

Youngblood, A., E. Cole, and M. Newton. 2011. Survival and growth response of white spruce stock types to site preparation in Alaska. *Canadian Journal of Forest Research* 41(4):793-809 (provided data and edited all sections)

Cole, E.C., T.A. Hanley, and M. Newton. 2010. Influence of precommercial thinning on understory vegetation of young-growth Sitka spruce forests in southeastern Alaska. *Canadian Journal of Forest Research* 40(4):619-628 (all data analyses and wrote most sections)

Cole, E.C., and M. Newton. 2009. Tenth-year survival and size of underplanted seedlings in the Oregon Coast Range. *Canadian Journal of Forest Research* 39(3):580-595. (all data analyses and all most sections)

Newton, M., E. Cole, and J. Barry. 2009. "Waving wand" broadcast hand application of herbicides: technical basis and usage. *Contributions in Education and Outreach N. 2.* College of Forestry, Oregon State University Corvallis, OR. (edited all sections and provided data analyses)

Lindsay, A., P. Oester, and E. Cole. 2009. Twenty-year response of Ponderosa pine (*Pinus ponderosa* Laws.) to treatment with hexazinone in Northeastern Oregon. *West. J. Appl. For.* 24(3):151-156. (edited all sections, assisted with data analyses)

Newton, M. and E.C. Cole. 2008. Dissipation of four forest-use herbicides at high latitudes. *Env. Sci. Poll. Resh.* 15(7):573-583. (all data analyses, wrote methods and results sections, edited all sections)

Newton, M. and E.C. Cole. 2008. Twenty-six-year response of ponderosa pine and Douglas-fir plantations to woody competitor density in treated stands of madrone and whiteleaf manzanita. *For. Ecol. Manage.* 256(3):410-420. (all data analyses, wrote methods and results sections, edited all sections)

Newton, M. and E.C. Cole. 2006. Use of growth curve derivatives to illustrate acceleration and deceleration of growth in young plantations under variable competition.

Can. J. For. Res. 36(10):2515-2522. (all data analyses, wrote methods and results sections, edited all sections)

Newton, M. and E.C. Cole. 2005. Linkage between riparian buffer features and regeneration, benthic communities and water temperature in headwaters streams, western Oregon. *In* Harrington, Constance A. and Stephen H. Schoenholtz, Tech eds.

Productivity of Western Forests: A Forest Products Focus. Proceedings of a meeting held in Kamilche, WA, Sept 20-23, 2004. USDA Forest Service, Pacific Northwest Research Station, Gen. Tech Rep. PNW-GTR-642, pp. 81-101. Portland, Oregon. (all data analyses, wrote methods and results sections, edited all sections)

Newton, M. and E.C. Cole. 2006. Harvesting impacts on understory regeneration in two storied Douglas-fir stands. *West. J. Appl. For.* 21(1):14-18. (all data analyses, wrote methods and results sections, edited all sections)

Wagner, R.G., M. Newton, E.C. Cole, J.H. Miller, and B.D. Shiver. 2004. The role of herbicides in enhancing forest productivity and conserving land for biodiversity in North America. *Wildlife Society Bulletin* 32(4):1028-1041. (edited all sections)

Cole, E.C., A. Youngblood, and M. Newton. 2003. Effects of competing vegetation on juvenile white spruce (*Picea glauca* (Moench) Voss) growth in Alaska. *Annals of For. Sci.* 60:1-11. (all data analyses and wrote most sections)

Brandeis, T.J., M. Newton and E.C. Cole. 2002. Biotic injuries on conifer seedlings planted in forest understory environments. *New Forests* 24:1-13. (edited all sections)

Brandeis, T.J., M. Newton, G. M. Filip and E.C. Cole. 2002. Habitat development in artificially made second-growth Douglas-fir snags. *J. Wildl. Manage.* 66(3):625-633. (edited all sections)

Brandeis, T.J., M. Newton, and E.C. Cole. 2001. A comparison of overstory density measures for describing understory conifer growth. *For. Ecol. Manage.* 152:149-157. (edited all sections)

Brandeis, T.J., M. Newton, and E.C. Cole. 2001. Underplanted conifer seedling survival and growth in thinned Douglas-fir stands. *Can. J. For. Res.* 31:302-312. (edited all sections)

O'Dea, M.E., M. Newton, E.C. Cole, and M. Gourley. 2000. The influence of weeding on growth of browsed seedlings in Douglas-fir plantations. *West. J. Appl. For.* 15(3):163-168. (edited all sections and provided data)

Cole, E.C., M. Newton, and A. Youngblood. 1999. Regenerating white spruce, paper birch, and willow in south-central Alaska. *Can. J. For. Res.* 29:993-1001. (all data analyses and wrote most sections)

Cole, E.C., W.C. McComb, M. Newton, J.P. Lemming, and C.L. Chambers. 1998. Response of small mammals to clearcutting, burning, and glyphosate application in the Oregon Coast Range. *J. Wildl. Manage.* 62(4):1207-1216. (all data analyses and wrote most sections)

Cole, E.C., W.C. McComb, M. Newton, C.L. Chambers, and J.P. Leeming. 1997. Response of amphibians to clearcutting, burning, and glyphosate application in the Oregon Coast Range. *J. Wildl. Manage.* 61(3):656-664. (all data analyses and wrote most sections)

Newton, M., R. Willis, J. Walsh, E. Cole, and S. Chan. 1996. Enhancing riparian habitat for fish, wildlife, and timber in managed forests. *Weed Technology* 10:429-438.

- Cole, E.C. 1996. Managing for mature habitat in production forests of western Oregon and Washington. *Weed Technology* 10:422-428. (wrote all sections)
- Knowe, S.A., E.C. Cole, and M. Newton. 1995. Response surface analysis of control of red alder and vine maple with glyphosate-imazapyr and triclopyr-imazapyr mixtures. *West. J. Appl. For.* 10(4):127-132. (edited all sections, provided data)
- Newton, M. and E.C. Cole. 1994. Stand development and successional implications: pure and mixed stands. Chapter 7. *In The Biology and Management of Red Alder*. D.E. Hibbs, D.S. DeBell, and R.F. Tarrant, eds. Oregon State University Press, Corvallis. pp. 106-115. (edited all sections, provided data)
- Newton, M., L.M. Horner, J.E. Cowell, D.E. White, and E.C. Cole. 1994. Dissipation of glyphosate and aminomethylphosphonic acid in North American forests. *J. Agric. Food Chemis.* 42(8):1795-1802. (edited all sections)
- Newton, M., E.C. Cole, and D.E. White. 1993. Tall planting stock for enhanced growth and domination of brush in the Douglas-fir region. *New Forests* 7:107-121. (all data analyses, wrote methods and results sections, edited all sections)
- Newton, M., E.C. Cole, D.E. White, and M.L. McCormick, Jr. 1992. Young spruce-fir forests released by herbicide I. Response of hardwoods and shrubs. *Northern J. Appl. For.* 9(4):126-130. (all data analyses, wrote methods and results sections, edited all sections)
- Newton, M., E.C. Cole, M.L. McCormick, Jr., and D.E. White. 1992. Response of spruce-fir forests to herbicidal release II. Conifer growth in residual hardwoods and overstocking. *Northern J. Appl. For.* 9(4):130-135. (all data analyses, wrote methods and results sections, edited all sections)
- Newton, M., and E.C. Cole. 1991. Root development in planted Douglas-fir under varying competitive stress. *Can. J. For. Res.* 21:25-31. (all data analyses, wrote methods and results sections, edited all sections)
- Newton, M., E.C. Cole, R.A. Lautenschlager, D.E. White, and M.L. McCormick, Jr. 1988. Browse availability after conifer release in Maine's spruce-fir forests. *J. Wildl. Manage.* 53(3):643-649. (all data analyses, wrote methods and results sections, edited all sections)
- Cole, E.C., M. Newton, and D.E. White. 1988. Efficacy of imazapyr and metsulfuron methyl for forest site preparation and conifer release in the Oregon Coast Range. *Forest Research Lab Research Note 81*, Oregon State University. 7 p. (all data analyses and wrote most sections)
- Newton, M., and E.C. Cole. 1987. A sustained yield scheme for old-growth Douglas-fir. *West. J. Appl. For.* 2(1):22-25. (all data analyses, wrote methods and results sections, edited all sections)
- Cole, E.C., and M. Newton. 1987. Fifth-year growth responses of Douglas-fir to crowding and nonconiferous competition. *Can. J. For. Res.* 17:181-186. (All data analyses and wrote all sections)
- Cole, E.C., and M. Newton. 1986. Nutrient, moisture, and light relations in five-year-old Douglas-fir plantation under variable competition. *Can. J. For. Res.* 16:727-732. (all data analyses and wrote all sections)
- Abstracts, Proceedings, and Papers Presented:*
2017 NAFEW talk
2017 IUFRO talk

Redding talk
WRC talk
2 SAF talks

Cole, E.C. and M. Newton. 2005. The use of derivatives from the Chapman-Richards growth model to evaluate competition. IUFRO Forest Vegetation Management Conference, Corvallis, OR. June 20-24, 2005.

Cole, E.C. and M. Newton. 2005. Fourteen year development of red alder and western hemlock stands with and without the presence of other competing vegetation in Oregon Coast Range. International Symposium Red Alder: A State of Knowledge. Center for Urban Horticulture, Seattle WA. March 23-25, 2005.

Cole, E.C. Impact of forestry herbicide applications on vegetation in young and 50-year-old stands. Deer and Elk Workshop, Jan. 2005. (Invited speaker).

Cole, E.C. Hemlock/Grand fir. 2004. Alternative Species Workshop, November 2004. (Invited speaker)

Chan, S., and E.C. Cole. 2002. Thinning young stands for diversity: regeneration, stand structure, and microsite. Symposium on Silvicultural Options for Sustainable Management of Pacific Northwest Forests, Oregon State University, Corvallis, OR., March 4-6, 2002. (Invited presentation)

Cole, E.C. 2002. Competitive impacts on conifer growth. Silviculture Institute, July 22-26, Corvallis, Oregon. (Invited presentation)

Cole, E.C. 2002. Potential sources of information for impacts of herbicide application on vegetation. Invited presentation at a meeting of forest and wildlife managers to address the impacts of vegetation management practices on wildlife habitat. May 7, 2002, Portland, Oregon.

Cole, E.C., A. Youngblood, and M. Newton. 2002. Effects of competing vegetation on juvenile white spruce growth in Alaska. Popular Summaries IUFRO Fourth International Conference on Forest Vegetation Management, Nancy, France, June 17-21, 2002, pp.71-73.

Cole, E.C., and M. Newton. 2001. Reforestation, vegetation management, and seedling growth in the Oregon Coast Range. Yaquina Watershed Council, February 5, Harlan, Oregon. (Invited presentation)

Cole, E.C., M. Newton, and A. Youngblood. 2001. Research on stock types and competition. Alaska Forest Resources and Practices Act Reforestation Workshop, May 22-23, 2001, Fairbanks, AK. (Invited presentation)

Cole, E.C., and M. Newton. 2000. Vegetation competition in forest plantations: a quantitative approach. Industrial Vegetation Management Association meeting, November 14-15, Portland, Oregon. (Invited presentation)

Cole, E.C. and M. Newton. 2000. Vegetation competition in forest plantations: a quantitative analysis. Integrated Forest Vegetation Management Workshop, November 14-15, 2000.

Cole, E.C. 2000. Density, species mixtures, and early stand development. Newtonian silviculture symposium, April 13, 2000, Corvallis OR. (Invited presentation).

Cole, E.C., W.C. McComb, M. Newton, C.L. Chambers, and J. P. Leeming. 1999. Response of small mammal and amphibian capture rates to clearcutting, burning, and glyphosate application in the Oregon Coast Range. Proceedings of the 20th annual Forest Vegetation Management Conference, January 19-21, 1999, Redding CA., p. 103-105 (Invited presentation).

Cole, E.C., M. Newton, and A. Youngblood. 1999. Regenerating white spruce, paper birch, and willow in southcentral Alaska. Popular Summaries, Third International Conference on Forest Vegetation Management, Ontario Ministry of Natural Resources, Forest Research Institute, Forest Research Information Paper No. 141, pp. 75-77.

Cole, E.C., W.C. McComb, and M. Newton. 1996. Effects of timber harvesting in riparian areas on small mammal and amphibian capture rates. Ecology and Management of Westside Riparian Areas: Ecology, Fisheries, Wildlife, and Silviculture, May 21-23, 1996, Oregon State University, Corvallis, OR.

Cole, E.C. and M. Newton. 1995. Competitive effects among red alder, western hemlock, and salmonberry in the Oregon Coast Range. Popular Summaries from Second International Conference on Forest Vegetation Management, New Zealand Forest Research Institute Bulletin 192. p. 34-36.

Cole, E.C., W.C. McComb, M. Newton, C.L. Chambers, and J.P. Leeming. 1995. Response of small mammal and amphibian capture rates to clearcutting, burning, and glyphosate application in the Oregon Coast Range. Popular Summaries from Second International Conference on Forest Vegetation Management, New Zealand Forest Research Institute Bulletin 192. p. 155-157.

Cole, E.C. 1995. Managing for mature habitat in production forests. Weed Science Society of America, Seattle, WA (Invited presentation)

Cole, E.C. 1991. Herbaceous competition with conifer seedlings. Forest Vegetation Management Workshop, Oregon State University. (Invited presentation)

Cole, E.C., and M. Newton. 1991. Efficacy of cut stump treatments for controlling bigleaf maple. Proceedings, Western Society of Weed Science 44:50-53.

Cole, E.C., and M. Newton. 1990. Comparative growth of seedling red alder and western hemlock growing in pure and mixed stands. Proceedings, Northwest Scien. Assoc. 64:91.

Cole, E.C., and M. Newton. 1990. Efficacy of different herbicides on bigleaf maple sprout clumps. Proceedings, Western Society of Weed Science 43:37-43.

Cole, E.C., and M. Newton. 1989. Height growth response in Christmas trees to sulfometuron and other herbicides. Proceedings, Western Society of Weed Science 42:129-135.

Cole, E.C., and M. Newton. 1989. Seasonal efficacy comparisons of two glyphosate formulations. Proceedings, Western Society of Weed Science 42:136-142.

Cole, E.C., and M. Newton. 1988. Comparative growth responses of Douglas-fir and grand fir at varying densities. Northwest Science Abstracts 62(2):67.

Cole, E.C., and M. Newton. 1988. Evaluation of 2,4-D and sulfometuron for shrub and herbaceous weed control. Weed Science Society of America Abstracts 28:34.

Cole, E.C., and M. Newton. 1988. Potential use of fluroxypyr alone and in mixtures for pine release. Proceedings, Western Society of Weed Science 41:101-108.

Cole, E.C., M. Newton, and D.E. White. 1987. Evaluation of herbicides for early season conifer release. Proceedings, Western Society of Weed Science 40:119-128.

Cole, E.C., and M. Newton. 1987. Height/diameter ratios: an index to crowding in young Douglas-fir. Northwest Science Assoc. Abstracts #67.

Newton, M., and E.C. Cole. 1987. Managing old growth Douglas-fir forests: some possibilities. Proceedings, Oregon Soc. Amer. For. and The Wildl. Soc. Joint Meeting. Abstract pg. 8. (Invited paper)

Newton, M., and E.C. Cole. 1986. What does it take to produce old-growth Douglas-fir profitably? Northwest Science Assoc. Abstract #70.

Cole, E.C., M. Newton, and D.E. White. 1986. Response of northwestern hardwoods, shrubs, and Douglas-fir to Arsenal and Escort. Proceedings, Western Society of Weed Science 39:86-92.

Cole, E.C. 1986. Potential uses of Arsenal and Escort for forestry. Forest Vegetation Management Workshop, Oregon State University, February 12, 1986 (Invited paper)

Cole, E.C., and M. Newton. 1985. Intraspecific and interspecific competition in young Douglas-fir plantations in the Oregon Coast Range. Northwest Science Assoc. Abstract #77.

Cole, E.C. 1985. Resource and tree response: wet sites. Forest Vegetation Management Workshop, Oregon State University, February 20, 1985.

Cole, E.C. 1985. Competition and density affect stemwood production in young Douglas-fir. Proceedings, Weed Science Society of America 25:53.

Cole, E.C. 1984. Competitive effects of red alder and grass on coastal Douglas-fir. IUFRO Site Productivity Subgroup, Portland, Oregon, January 15, 1984.

Cole, E.C., M. Newton, and S.M. Zedaker. 1983. Intra- and interspecific competition in Douglas-fir plantations in the Oregon Coast Range. Proceedings, Western Society of Weed Science 36:72-77.

Proceedings and Co-author Presentations:

Youngblood, A., E.C. Cole, and M. Newton. 2004. Opportunities for enhanced fiber production coincident with other resource values in white spruce-hardwood stands of Alaska. To be presented at Mixed Woods Workshop, Canadian Forestry Service, October 2004. (Invited presentation)

Newton, M., and E.C. Cole. 2004. 23-year response of ponderosa pine and Douglas-fir plantations to shrub density in treated stands of madrone and whiteleaf manzanita. To be presented Jan. 20, Forest Vegetation Management Conference, Redding, CA. (Invited presentation).

Newton, M., and E.C. Cole. 2004. Reforestation studies in interior and southcentral Alaska. INFEST Symposium, February 24-26, Homer, Alaska. (Invited presentation)

Newton, M., and E.C. Cole. 2003. Buffer design, stream temperature, and optimization of streamside cover. Watershed Research Cooperative, December 3, Eugene, Oregon. (Invited presentation).

Newton, M., and E.C. Cole. 2003. Alaska vegetation management studies. Forest Health Protection Symposium, August 5-6, Anchorage, Alaska. (Invited presentation)

Wagner, R.G., M. Newton, E.C. Cole, J.H. Miller, and B.D. Shiver. 2003. Role of herbicides in enhancing forest productivity. P. 270 In Proc. The Wildlife Society 10th Annual Conference, September 6-10, 2003, Burlington, VT.

Newton, M. and E.C. Cole. 2002. Systematic quantification of time X competition interactions in Douglas-fir and western hemlock competition studies. Popular Summaries IUFRO Fourth International Conference on Forest Vegetation Management, Nancy, France, June 17-21, 2002, pp. 161-163.

Newton, M., T.J. Hanson, and E. Cole. 2002. Correction of site index estimation with the aid of competition history. Popular Summaries IUFRO Fourth International Conference on Forest Vegetation Management, Nancy, France, June 17-21, 2002, pp.61-63.

Newton, M., and E.C. Cole. 2001. Influence of stand density reduction on regeneration and yield in middle-aged Douglas-fir. Portland SAF. (Invited presentation).

Newton, M., E.C. Cole, and J. Robbins. 2000. Managing yield and wood quality in second-growth forests. Proceedings of the 21st annual Forest Vegetation Management Conference, January 18-20, 2000 Redding CA., pp. 53-59. (Invited presentation)

Brandeis, T.J., E.C. Cole, and M. Newton. 1999. Underplanting and competition in thinned coastal Douglas-fir. Proceedings of the 20th annual Forest Vegetation Management Conference, January 19-21, 1999, Redding CA. p.15-28.

Newton, M., E.C. Cole, and T.J. Brandeis. 1999. Use of broadcast pre-thinning treatment to facilitate two-story stands. Popular Summaries, Third International Conference on Forest Vegetation Management, Ontario Ministry of Natural Resources, Forest Research Institute, Forest Research Information Paper No. 141, pp. 226-228.

Brandeis, T.J., E.C. Cole, and M. Newton. 1997. Underplanting and competition in thinned coastal Douglas-fir. Proceedings of the IUFRO 1.14.00 Interdisciplinary uneven-aged silviculture symposium, Sept. 15-19, 1997, Corvallis, OR., p. 270-273

Newton, M. and E.C. Cole. 1994. Vegetation management in high latitude forest regeneration. *In Proc. Weed Sci. Soc. Am.* 33:26. Champaign, IL.

O'Dea, M., E.C. Cole, and M. Newton. 1994. The effects of herbaceous competition on Douglas-fir seedlings. *In Proc. Western Soc. Weed Science.*

Hyatt, J.M., E.C. Cole, and M. Newton. 1991. The effects of animal damage upon the growth of western hemlock seedling in riparian zones of the Oregon Coast Range. *Northwest Scientific Association* 65(2):64.

Newton, M. and E.C. Cole. 1991. Combinations of glyphosate and imazapyr for control of deciduous woody species in western Oregon and Alaska. *Proceedings, Western Society of Weed Science* 44:69-72.

Newton, M., E.C. Cole, and D.E. White. 1988. Long-term efficacy of herbicides for releasing spruce-fir. *Proc. Weed Sci. Soc. Amer.* 28:34.

Newton, M., E.C. Cole, and D.E. White. 1987. Fiber and browse from conifer release in spruce-fir and Douglas-fir. *Proc. Oregon Soc. Amer. For. and The Wildl. Soc. Joint Meeting, Abstract* pg. 21.

White, D.E., M. Newton, and E.C. Cole. 1986. Enhanced herbaceous weed control in conifers with combinations of nitrazine fertilizer formulations and hexazinone. *In Proceedings, Western Society of Weed Science* 39:102-106.

Newton, M., E.C. Cole, and D.E. White. 1986. What influences control of coastal deciduous brush with glyphosate? *In Proceedings, Western Society of Weed Science* 39:86-92.

Newton, M., and E.C. Cole. 1985. Role of crowding and root deformation in root growth of five-year-old Douglas-fir. Northwest Scien. Assoc. 58th Annual Meeting, Abstract #58.

Research Reports (excluding annual reports):

Newton, M., and E.C. Cole. 2003. Stand density regulation and understory regeneration 1992-2002. Final Report. Submitted to U. S. Geological Survey Biological Resources Division Corvallis, OR 97331. 25 p.

Newton, M., E.C. Cole, and A. Youngblood. 2003. Adaptability of tree seedlings for forest restoration in south-central Alaska. (In lieu of final report) Submitted to Alaska Science and Technology Foundation. 40 p.

Youngblood, A. E.C. Cole, and M. Newton. 2003. White spruce and moose enhancement project. USDA Forest Service, Pacific Northwest Research Station and State and Private Forestry, Anchorage, Alaska Demonstration Project Brochure.

Newton, M., and E.C. Cole. 2000. Douglas-fir and western hemlock growth under intensive management. Stand Management Coop, Research Final Report, June 22, 2000. 32 p.

Newton, M., and E.C. Cole. 1998. Hardwood riparian forest rehabilitation and its impacts. Final report to Starker Forest, Inc., Weyerhaeuser Co., Georgia Pacific Co., Casacdes Timber Consultants, Inc., and Oregon Dept. of Forestry. January 31, 1998, 62 p.

Newton, M. and E.C. Cole. 1997. Reforestation and vegetation in central Alaska. USDA Forest Service, Forest Health Protection Special Report R10-TP-65.

Cole, E.C., and M. Newton. 1992. Site preparation treatments for control of vine maple. *in* Western Society of Weed Science, 1992 Research Progress Report

Cole, E.C., and M. Newton. 1992. Dormant and foliar treatments for controlling vine maple. *in* Western Society of Weed Science, 1992 Research Progress Report

Newton, M., E.C. Cole, and S. Knowe. 1992. Control of red alder and vine maple with glyphosate-imazapyr and triclopyr-imazapyr combinations. CRAFTS Technical Report, Forest Research Laboratory, Oregon State University, Corvallis, Oregon. 17 p.

Cole, E.C., and M. Newton. 1991. Control of prickly rose in subarctic spruce forests. P. 53-55 *in* Western Society of Weed Science 1991 Research Progress Report.

Cole, E.C., and M. Newton. 1991. Herbicide stem injection treatments for controlling paper birch in high latitude forests. P. 56-59 *in* Western Society of Weed Science 1991 Research Progress Report.

Cole, E.C., and M. Newton. 1991. Grass control treatments for reforestation of subarctic forests. P. 60-63 *in* Western Society of Weed Science 1991 Research Progress Report.

Cole, E.C., and M. Newton. 1991. Conifer release treatments for aspen control in subarctic spruce forests. P. 64-67 *in* Western Society of Weed Science 1991 Research Progress Report.

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Field Presentations:

I assist with or lead 5 to 6 tours per year of our research plots for a variety of groups, including University students, teachers, foresters, scientists (including IUFRO tours), policy makers and regulators, and the general public.

University and Professional Service:

Co-taught FOR 441 Silviculture Lab Spring 2005

I have served on a variety of committees for the Department of Forest Science, including, hiring, Promotion & Tenure, Department Head Review, courtesy faculty appointment, safety, and strategic planning committees and on the University Research Assistant committee. I am routinely contacted by individuals from forest industry, public agencies, other universities, private landowners, native corporations, and graduate students asking for professional expertise in reforestation, forest ecology, and statistical analyses. I am frequently asked to do pre-submission and professional reviews of manuscripts, including reviews for the following journals: Forest Science, Canadian Journal of Forest Research, Annals of Forest Science, Western Journal of Applied Forestry, New Forests, Forest Ecology and Management, Forest Products Journal, Journal of Applied Ecology, Northern Journal of Applied Forestry, New Zealand Journal of Forest Science, Northern Journal of Applied Forestry, Journal of Environmental Management, and Journal of Ecology. I have served as section chair for a scientific conference, and I have been a moderator at conferences.

Computer Programs used on a regular basis:

SAS® for statistical analyses; Excel, Sigmaplot, Microsoft Word, WordPerfect, PowerPoint

Licenses

Oregon State Radiation Safety Committee license (not current)
Troxler Radiation Safety Committee

Awards:

University RA
CoF RA
OSAF 2012 Ripstream