References Relevant to California Oak Decline

(compiled by Dr. Lee Klinger)

Ahokas, H. 1997. Acidification of forest top soils in 60 years to the southwest of Helsinki. Forest Ecology and Management 94: 187-193.

Alewell, C., Bredemeir, M., Matzner, E., Blanck, K. 1997. Soil solution response to experimentally reduced acid deposition in a forest ecosystem. Journal of Environmental Quality 26: 658-665.

Alva, A.K., J.H. Graham, and D.P.H. Tucker. 1993. Role of calcium in amelioration of copper phytotoxicity for citrus. Soil Science 155: 211-218.

Alva, A.K., B. Huang, S. Paramasivam, and K.S. Sajwan. 2002. Evaluation of root growth limiting factors in spodic horizons of spodosols. Journal of Plant Nutrition 25: 2001-2014.

Anderson, M.K. 2005. Tending the Wild. University of California Press, Berkeley, CA.

Ash, J. 1988. Nothofagus (Fagaceae) forest on Mt. Giluwe, New Guinea. New Zealand Journal of Botany. 26: 245-258.

Augusto, L., Ranger, J., Ponette, Q., Rapp, M. 2000. Relationships between forest tree species, stand production and stand nutrient amount. Annals of Forest Sciences 57: 313-324.

Balsberg-Pahlsson, A.M., Bergkvist, B. 1995. Acid deposition and soil acidification at a southwest facing edge of Norway spruce and European beech in south Sweden. Ecological Bulletins 44: 43-53.

Bosman, B., J. Remacle and M. Carno. 2001. Element Removal in Harvested Tree Biomass: Scenarios for Critical Loads in Wallonia, South Belgium. Water, Air, & Soil Poll. Focus 1:153-167.

Boudot, J.P., Becquer, T., Merlet, D., Rouiller, J. 1994. Aluminum toxicity in declining forests: a general overview with a seasonal assessment in a silver fir forest in the Vosges mountains (France). Annales des Sciences Forestières 51: 27-51. Cornish, M. 1999. Forest decline as a successional process: the role of bryophytes in a montane ecosystem in the Colorado Rocky Mountains. M.Sc. Dissertation, The University of Oxford, Oxford.

Coughlan, A.P., Y. Dalpe, L. Lapointe and Y. Piche. 2000. Soil pH-induced changes in root colonization, diversity, and reproduction of symbiotic arbuscular mycorrhizal fungi from healthy and declining sugar maple forests. Canadian Journal of Forest Research 30: 1543-1554.

Dambrine, E., Pollier, B., Poszwa, A., Ranger, J., Probst, A., Viville, D., Biron, P., Granier, A. 1998. Evidence of current soil acidification in spruce stands in the Vosges mountains, North-Eastern France. Water, Air and Soil Pollution 105: 43-52.

Deleporte, S., Tillier, P. 1999. Long-term effects of mineral amendments on soil fauna and humus in an acid beech forest floor. Forest Ecology and Management, 118 : 245-252.

Devêvre, O., Garbaye, J., Le Tacon, F., Perrin, R., Estivalet, D. 1995. Role of rhizosphere microfungi in the decline of Norway spruce in acidic soils. In : « Forest decline and atmospheric deposition effects in the French mountains. Landmann, G., Bonneau, M. (Eds), Springer-Verlag, Berlin, pp. 331-352.

Diekmann, M., Dupré, C. 1997. Acidification and eutrophisation of deciduous forest in northwestern Germany demonstrated by indicator species analysis. Journal of Vegetation Science 8: 855-864.

Demchik, M.C. and W.E. Sharpe. 2000. The effect of soil nutrition, soil acidity and drought on northern red oak (*Quercus rubra* L.) growth and nutrition on Pennsylvania sites with high and low red oak mortality. Forest Ecology and Management 136:199-207.

Dunbar, Dennis M.; Stephens, George R. 1975. Association of twolined chestnut borer and shoestring fungus with mortality of defoliated oak in Connecticut. For. Sci. 21: 169-174.

Falkengren-Grerup, U. 1986. Soil acidification and vegetation changes in deciduous forest in southern Sweden. Oecologia 70: 339-347.

Falkengren-Grerup, U. 1987. Long-term changes in pH of forest soils in southern Sweden. Environmental Pollution 43: 79-90.

Falkengren-Grerup, U., Eriksson, H. 1990. Changes in soil, vegetation and forest yield between 1947 and 1988 in beech and oak sites of southern Sweden. Forest Ecology and Management 38: 37-53.

Falkengren-Grerup, U. 1995. Long-term changes in flora and vegetation in deciduous forests of southern Sweden. Ecological Bulletins 44: 215-226.

Fenn, M.E., Huntington, T.G., McLaughlin, S.B., Eagar, C., Gomez, A., and Cook, R.B. 2006. Status of soil acidification in North America. Journal of Forest Science 52: 3-13.

Fernandez-Sanjurjo, M.J., Fernandez Vega, V., Garcia-Rodeja, E. 1997. Atmospheric deposition and ionic concentration in soils under pine and deciduous forests in the river Sor catchment (Galicia, NW Spain). The Science of Total Environment 204: 125-134.

Hallbacken, L. and L.Q. Zhang. 1998. Effects of experimental acidification, nitrogen addition and liming on ground vegetation in a mature stand of Norway spruce (Picea abies (L.) Karst.) in SE Sweden. Forest Ecology and Management 108: 201-213.

Hindar, A., F. Kroglund, E. Lydersen, A. Skiple and R. Hogberget. 1996. Liming of wetlands in the acidified Lake Roynelandsvatn catchment in southern Norway: effects on stream water chemistry. Canadian Journal of Fisheries and Aquatic Sciences 53: 985-993.

Hinrichsen, D. 1987. The forest decline enigma. BioScience 37:542-546.

Houston, D.R. 1973. Diebacks and declines: diseases initiated by stress, including defoliation. Int. Shade Tree Conf. Proc. 49: 73-76.

Houston, D.R. 1979. Classifying forest susceptibility to gypsy moth defoliation. Agric. Handb.542. Washington, D.C.: U.S. Department of Agriculture, 23 p.

Houston, D.R. 1979. Spreading tree diseases: the hand of man. The Ecol. 4/5: 120-124.

Huettl, R.F. and D. Mueller-Dombois (eds.) 1993. Forest Decline in the Atlantic and Pacific Regions. Springer-Verlag, Berlin.

Hugues, S., Norris, D.A., Stevens, P.A., Reynolds, B., Williams, T.G. 1994. Effects of forest age on surface drainage water and soil solution aluminum chemistry in stagnopodzols in Wales. Water Air and Soil Pollution 77: 115-139.

Huntington, T.G. 2000. The potential for calcium depletion in forest ecosystems of southeastern United States: review and analysis. Global Biogeochemical Cycles 14: 623-638.

Huntington, T.G., Hooper, R.P., Johnson, C.E., Aulenbac, B.T., Cappellato, R., Blum, A.E. 2000. Calcium depletion in a Southeastern United States forest ecosystem. Soil Science Society of America Journal 64:1845-1858.

Jane, G.T. and T.G.A. Green. 1987. Etiology of forest dieback areas within the Katmai Range, North Island, New Zealand. New Zealand J. Bot. 24: 513-527.

Jones, Bill F.; Barnes, Gordon; McDaniel, M.C. Arkansas Forest Pest Report. Little Rock, AR: University of Arkansas Cooperative Extension Service; 1975.2 p.

Jönsson, U., T. Jung, U. Rosengren, B. Nihlgård, and K. Sonesson. 2003. Pathogenicity of Swedish isolates of Phytophthora quercina to Quercus robur in two different soils. New Phytologist 158: 355-364.

Joslin, J.D., J. M. Kelly, M.W. Wolfe, and L.E. Rustad. 1988. Elemental patterns in roots and foliage of mature spruce across a gradient of soil aluminum. Water, Air and Soil Pollution 40: 375-390.

Joslin, J.D. and M.H. Wolfe. 1989. Aluminum effects on northern red oak seedling growth in six forest soil horizons. Soil Science Society of America Journal 53: 274-281.

Jung, T., H. Blaschke and W. Oßwald. 2000. Involvement of soilborne Phytophthora species in Central European oak decline and the effect of site factors on the disease. Plant Pathology 49:706-718.

Klein, R.M. 1984. Effect of acidity and metal ions on water movement through red spruce, p. 303-322. In D.D. Adams and W.P. Page (eds.) Acid Deposition. Plenum Press, New York.

Klinger, L.F. 1988. Successional Change in Vegetation and Soils of Southeast Alaska. Doctoral dissertation, Dept. of Geography, University of Colorado, Boulder, CO.

Klinger, L.F. 1990. Global patterns in community succession. 1. Bryophytes and forest decline. Memoirs of the Torrey Botanical Club 24: 1-50

Klinger, L.F. 1991. Peatland formation and ice ages: a possible Gaian mechanism related to community succession, p. 246-255. In S.H. Schneider and P.J. Boston (eds.) Scientists on Gaia, The MIT Press, Cambridge, MA.

Klinger, L.F. 1996. Coupling of soils and vegetation in peatland succession. Arctic and Alpine Research 28:380-387.

Klinger, L.F. and D.J. Erickson III. 1997. Geophysiological coupling of marine and terrestrial ecosystems. Journal of Geophysical Research-Atmospheres 102:25,359-25,370.

Klinger, L.F. 2004. Gaia and complexity, p.187-200. In S.H. Schneider, J.R. Miller, E. Crist, and P.J. Boston (eds.), Scientists Debate Gaia: The Next Century. The MIT Press, Cambridge, MA.

Klinger, L.F. 2006. Ecological evidence of large-scale silviculture by California Indians (Chap. 9). In Wahinkpe Topa (Four Arrows) (ed.), Unlearning the Language of Conquest. University of Texas Press, Austin, TX, pp.153-165.

Klinger, L.F. 2006. Bryophytes and soil acidification effects on trees: The case of Sudden Oak Death. Proceedings of the 2005 International Plant Propagators Society Western Region Meeting (in press).

Kreutzer, K. 1995. Effects of forest liming on soil processes. Plant and Soil 168-169 :447-470.

Long, R.P., S.B. Horsley, and P.R. Lilja. 1997. Impact of forest liming on growth and crown vigor of sugar maple and associated hardwoods. Can. J. For. Res. 27: 1560-1573.

Lundstrom, U.S., Nyberg, L., Danielsson, L., van Hees, P.A.W., Anderson, M. 1998. Forest soil acidification:

monitoring on the regional scale, Varmland, Sweden. Ambio 27: 551-556

Manion, P.D. 1981. Tree Disease Concepts. Prentice Hall, Inglewood Cliffs, NJ.

Matzner, E., D. Murach and H. Fortmann. 1986. Soil acidity and its relationship to root growth in declining forest stands in Germany. Water, Air and Soil Pollution 31:273-282.

McColl, J.G. 1980. A Survey of Acid Precipitation in Northern California. Final Report. Agricultural Experiment Station, University of California, Berkeley, CA.

McLaughlin, D.L., S.N. Linzon, D.E. Dimma and W.D. McIlveen. 1987. Sugar maple decline in Ontario, p. 101-116. In T.C. Hutchinson & K.M. Meema (eds.), Effects of Atmospheric Pollutants on Forests. Wetlands and Agricultural Ecosystems. Springer-Verlag, Berlin.

Moritz, M.A. and D.C. Odion. 2005. Examining the strength and possible causes of the relationship between fire history and Sudden Oak Death. Oecolgia DOI 10.1007/s00442-005-0028-1.

Mueller-Dombois, D. 1987. Natural dieback in forests. BioScience 37:575-583.

Mueller-Dombois, D. 1988. Forest decline and dieback - a global ecological problem. TREE 3:310-312.

Murphy, S. and D. Rizzo. 2005. Incidence of *Phytophthora ramorum*, *P. nemorosa and P. pseudosyringae* in Three Coastal California Forest Communities. Sudden Oak Death Science Symposium II, 18-21 January 2005, Monterey, CA.

Nechwatal, J. and W. Oßwald. 2001. Comparative studies on the fine root status of healthy and declining spruce and beech trees in the Bavarian Alps and occurrence of *Phytophthora* and *Pythium* species. Forest Pathology 31:257-273.

Nichols, James 0. 1968. Oak mortality in Pennsylvania-a ten year study. J. For. 66: 681-694.

Opydo J., Ufnalski K., Opydo W. 2005. Heavy metals in polish forest stands of Quercus robur and Q. petraea. Water, Air, and Soil Pollution 161, 175-192.

Ouimet, R., C. Camire and V. Furlan. 1995. Endomycorrhizal status of sugar maple in relation to tree decline and foliar, fine-roots, and soil chemistry in the Beauce region, Quebec. Canadian Journal of Botany 73:1168-1175.

Persson, T., Rudebeck, A., Wiren, A. 1995. Pools and fluxes of carbon and nitrogen in 40-year-old forest liming experiments in southern Sweden. Water Air and Soil Pollution, 85 : 901-906.

Persson, H. and Ahlström, K. 1990. The effects of forest liming and fertilization on fine root growth. Water, Air, and Soil, Pollution 54: 365-375.

Przybyl K. 1999. Disease changes in root systems of Quercus robur L. and Betula pendula Rothr. trees and fungi identified in roots dead and showing decay. Zesz. Nauk. Akademii Rolniczej im. H. Kollàtaja w Krakowie nr 348: 143-152.

Schütt, P. and E. Cowling. 1985. Waldsterben, a general decline of forests in central Europe: Symptoms, development, and possible causes. Plant Disease 69:548-558.

Schaberg, P.G., D.H. DeHayes and G.J. Hawley. 2001. Anthropogenic calcium depletion: a unique threat to forest ecosystem health? Ecosystem Health 7:214-228.

Schreffler, A.M. and W.E. Sharpe. 2003. Effects of lime, fertilizer, and herbicide on forest soil and soil solution chemistry, hardwood regeneration, and hardwood growth following shelterwood harvest. Forest Ecology and Management 177:471-484.

Shea, S.R. and G.C.P. Broadbent. 1983. Developments in Cultural and Biological Control of Phytophthora Diseases, p.335-350. In Erwin, Bartnicki-Garcia, and Tsao (eds.), Phytophthora: Its Biology, Taxonomy, Ecology and Pathology. APS Press, Saint Paul, MN.

Shortle, W.C. and K.T. Smith. 1988. Aluminum-induced calcium deficiency syndrome in declining red spruce. Science 240:1017-10118.

Sinclair, W. A. Comparisons of recent declines of white ash, oaks and sugar maple in Northeastern woodlands. Cornell Plant. 20: 62-67; 1965.

Siwecki R., Ufnalski K. 1998. Review of oak stand decline with special reference to the role of drought in Poland. Eur.J.For.Path. 28: 99-112.

Skelly, J. M. Oak decline. Bull, MR-FTDA. Blacksburg, VA: Virginia Polytechnic Institute, Cooperative Extension Service; 1967.4 p.

Skelly, J. M. Growth loss of scarlet oak due to oak decline in Virginia. Plant Dis. Rep. 58: 396-399; 1974.

Smith, J.M.B. and L.F. Klinger. 1985. Abovegroundbelowground phytomass ratios in Venezuelan Paramo vegetation and their significance. Arctic and Alpine Research 17:189-198.

Staley, John M. Decline and mortality of red and scarlet oaks. For. Sci. 11: 2-17; 1965.

Thomas, F.M., R. Blank and G. Hartmann. 2002. Abiotic and biotic factors and their interactions as causes of oak decline in Central Europe. Forest Pathology 32:277.

Ufnalski K. 1998. Oak stand decline in north-west part of Poland in light of dendrochronological research. W Cech i in. (red.): Disease/environment interactions in forest decline. Proc. workshop IUFRO Working Party 7.02.06. Vienna, Austria, March 16-21: 203.

Ufnalski K. 2003. Comparison of radial growth dynamics of Quercus robur and Q. petraea with particular reference to oak decline. Phytopathologia Polonica 29: 91-92

Wardle, J.A. and R.B. Allen. 1983. Dieback in New Zealand Nothofagus forests. Pac. Sci. 37:397-404.

Ware, George H. Decline in oaks associated with urbanization. In: Proceedings, Urban and suburban trees: pest problems, needs, prospects, and solutions; 1982 April 18-20; East Lansing, MI. East Lansing, MI: Department of Resource Development, Department of Entomology, Michigan State University; 1982: 61-64.

Wargo, Philip M. Armillariella mellea and Agrilus bilineatus and mortality of defoliated oak. For. Sci. 23: 485492; 1977.

Wilmot, T.R., D.S. Ellsworth and M.T. Tyree. 1996. Base cation fertilization and liming effects on nutrition and

growth of Vermont sugar maple stands. Forest Ecology and Management 84:123-134.