CURRICULUM VITAE

LOUIS F. PITELKA

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CURRENT POSITION:

Program Director
Ecosystem Science Cluster, Division of Environmental Biology
National Science Foundation
4201 Wilson Boulevard
Room 635
Arlington, VA 22230
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PROFESSIONAL POSITIONS:

2007- pres.	Program Director, Ecosystem Science, Division of Environmental Biology, National Science Foundation, Arlington, VA
2005	Science Advisor, USDA Cooperative State Research Education and Extension Service, Competitive Grants Program, Washington, DC.
1996- pres.	Professor, University of Maryland Center for Environmental Science
1996-2004	Director, Appalachian Laboratory, University of Maryland Center for Environmental Science
1984-1996	Project Manager, Electric Power Research Institute, Palo Alto, CA
1983-1984	Program Director, Population Biology and Physiological Ecology Program, National Science Foundation, Washington, DC
1982-1984	Chair, Department of Biology, Bates College, Lewiston, Maine
1981-1984	Associate Professor of Biology, Bates College
1974-1981	Assistant Professor of Biology, Bates College

EDUCATION:

1969-1974	Stanford University; Ph.D. in Biological Sciences, Sept. 1974.
Win.1971	Organization for Tropical Studies, Costa Rica; Fundamentals of Tropical Biology
1965-1969	University of California, Davis; B.S. in Zoology

OTHER PROFESSIONAL APPOINTMENTS AND OFFICES HELD:

2007-pres	U.S. Government Carbon Cycle Interagency Working Group
2003-pres	EPA Committee on Valuing the Protection of Ecological Systems and Services
2002-2003	Chair, Global Change and Terrestrial Ecosystems (GCTE) project of the International Geosphere-Biosphere Program (IGBP)
2002-2004	AIBS Working Group on Infrastructure for Biology at Regional to Continental Scales, an NSF-sponsored project to further develop plans for NEON
2003	President, Association of Ecosystem Research Centers
2001-2005	Director, Chesapeake Watershed Cooperative Ecosystem Studies Unit (CESU)
1997-2000	Board of Directors, American Institute of Biological Sciences

1997-2003	Design Committee for A Report on the State of theNation's Ecosystems, a project of the H. John Heinz Center for Science, Economics and the Environment
1997-pres.	Board Member, Maryland Chapter of The Nature Conservancy
1997-2000	Board of Professional Certification, Ecological Society of America (ESA)
1996-2003	IGBP-GCTE Scientific Steering Committee
1996-2005	DOE Biological and Environmental Research Advisory Committee
1995-1999	Steering Committee for 1999 International Botanical Congress
1994- pres.	Certified Senior Ecologist, ESA
1994-2002	Science Advisory Committee for EPA Center for Ecological Health Research, Univ. of California, Davis
1994-1997	Council-Member-at-Large, American Institute of Biological Sciences (elected)
1992-1994	Chair, Future Meetings Committee, ESA
1990-1996	Treasurer of the ESA
1988-1990	Annual Meeting Program Chair, ESA
1982-1984	Associate of the Gray Herbarium, Harvard University

EDITORSHIPS AND EDITORIAL BOARD APPOINTMENTS

2002-pres.	Editorial Board, *Frontiers in Ecology and the Environment*
2000-2001	Review Editor for IPCC Working Group 1 for Chapter 3 (Carbon Cycle) of the Third Assessment Report
1997-pres.	Editorial Board, *Oecologia*
1997-2003	Chair of Steering/Editorial Committee for a series of reports on confronting climate change sponsored by the Union of Concerned Scientists and ESA
1996- pres.	Editorial Board, *Ecological Issues*, a special report series of the ESA
1995- 2001	Editor-in-Chief, *Ecological Applications*
1991	Guest member, Editorial Board for Annual Review of Energy and Environment
1990-1995	Editorial Board, *Ecological Applications*

AWARDS, FELLOWSHIPS AND OTHER RECOGNITION:

2001	Distinguished Service Citation from the Ecological Society of America
1999	Fellow of the American Association for the Advancement of Science
1994	EPRI Performance Recognition Award
1989	EPRI Environment Division Award for Research Innovation
1972-1974	Dietz Fellowship, Stanford University
1969-1972	NSF Predoctoral Fellowship
Sum. 1969	NSF Undergraduate Research Fellowship, Univ. California, Davis
1969	Graduation with High Honors, Phi Beta Kappa, Phi Kappa Phi; Departmental Citation in Zoology

PUBLICATIONS:

Castro, M.C., K.N. Eshleman, K.N., L.F. Pitelka, G. Frech, M. Ramsey, W.S. Currie, K. Kuers, J.A. Simmons, R.R. Pohlad, C., C.L. Thomas, and D.M. Johnson. 2007. Symptoms of nitrogen saturation in an aggrading forested watershed in western Maryland. *Biogeochemistry* 84: 333-348.

Pitelka, L.F., J.G. Canadell, and D.E. Pataki. 2007. Global ecology, networks, and research synthesis. IN: Terrestrial Ecosystems in a Changing World. Ed. by J.G. Canadell, D.E. Pataki, and L.F. Pitelka. Springer, Berlin.

Neilson, R.P, L.F. Pitelka, A.M. Solomon, R. Nathan, G.F. Midgley, J. Fragoso, H. Lischke, and K. Thompson. 2005. Forecasting regional to global plant migration in response to climate change: Challenges and directions. *BioScience* 55:749-759.

Kohyama, T., J. Canadell, D.S. Ojima, and L.F. Pitelka. 2005. Forest ecosystems and environments: scaling up from shoot module to watershed. Ecological Research 20: 241.

Pitelka, L.F., H. Bugmann, and J.F. Reynolds. 2001. How much physiology is needed in forest gap models for simulating long-term vegetation response to global change? Introduction (introduction to series of papers). *Climatic Change* 51: 251-257.

Reynolds, J.F., H. Bugmann, and L.F. Pitelka. 2001. How much physiology is needed in forest gap models for simulating long-term vegetation response to global change? Challenges, limitations and potentials. *Climatic Change* 51: 541-557.

Morgan, M.G., L.F. Pitelka, and E. Shevliakova. 2001. Elicitation of expert judgments of climate change impacts on forest ecosystems. *Climatic Change* 49: 279-307.

Malcolm, J.R. and L.F. Pitelka. 2000. Ecosystems and Global Climate Change: A Review of Potential Impacts on U.S. Terrestrial Ecosystems and Biodiversity. Pew Center on Global Climate Change, Washington, DC. 41 pp.

Shaver, G.R., J. Canadell, F.S. Chapin, J. Gurevitch, J. Harte, G. Henry, P. Ineson, S. Johansson, J. Melillo, L. Pitelka, and L. Rustad. 2000. Global warming and terrestrial ecosystems: a conceptual framework for analysis. *BioScience* 50: 871-882.

Mooney, H.A., J. Canadell, F.S. Chapin, J. Ehleringer, C. Körner, R. McMurtrie, W.J. Parton, L.F. Pitelka, and E.-D. Schulze. 1999. Ecosystem physiology responses to global change. IN: Implications of Global Change for Natural and Managed Ecosystems: A Synthesis of GCTE and Related Research. Ed. by B.H. Walker, W.L. Steffen, J. Canadell, and J.S.I. Ingram. IGBP Book Series No. 4, Cambridge University Press, pp. 141-189.

Scholes, R.J., E.-D. Schulze, L.F. Pitelka, and R.O. Hall. 1999. Biogeochemistry of terrestrial ecosystems. IN: Ibid, pp. 271-303.

Pan, Y., J.M. Melillo, A.D. McGuire, D.W. Kicklighter, L.F. Pitelka, K. Hibbard, L.L. Pierce, S.W. Running, D.S. Ojima, W.J. Parton, D.S. Schimel and other VEMAP Members. 1998. Response of terrestrial ecosystems to elevated CO_2: A comparison of simulation studies among biogeochemistry models. *Oecologia* 114: 389-404.

Pitelka, L.F., and Plant Migration Workshop Group (24 others). 1997. Plant migration and climate change. *American Scientist* 85: 464-473.

Canadell, J.G., L.F. Pitelka, and J.S.I. Ingram. 1996. The effects of elevated CO_2 on plant-soil carbon below ground: A summary and synthesis. *Plant and Soil* 187: 399-400.

VEMAP Members (27 authors) 1995. Vegetation/ecosystem modeling and analysis project: Comparing biogeography and biogeochemistry models in a continental-scale study of terrestrial ecosystem responses to climate change and CO_2 doubling. *Global Biogeochemical Cycles* 9: 407-437.

Pitelka, L.F. 1994. Air pollution and terrestrial ecosystems. *Ecological Applications* 4: 627-628.

Pitelka, L.F. 1994. Ecosystem response to elevated CO_2. *Trends in Ecol. and Evol*. 6: 204-207.

Pitelka, L.F. and F.A. Pitelka. 1993. Environmental decision making: Multidimensional dilemmas. *Ecological Applications* 3: 566-568.

Pitelka, L.F. 1993. Biodiversity and policy decisions. IN: Ecosystem Function of Biodiversity. Ed. by E.D. Schulze and H.A. Mooney. Springer-Verlag, Berlin.

Glenn, E.P., L.F. Pitelka, and M.W. Olsen. 1992. The use of halophytes to sequester carbon. IN: Natural Sinks of CO_2. Ed. by J. Wisniewski and A.E. Lugo. Kluwer Academic Press, Boston.

Taylor, G.E., Jr. and L.F. Pitelka. 1992. Genetic diversity of plant populations and the role of air pollution. IN: The Effects of Air Pollution on Biodiversity. Ed. by J. Barker and D.T. Tingey. Van Nostrand Reinhold, New York.

Glenn, E.P., C.N. Hodges, H. Lieth, R. Pielke and L.F. Pitelka. 1992. Halophytes to remove carbon from the atmosphere. *Environment* 34: 40-43.

Liu, S., R. Munson, D. Johnson, S. Gherini, K. Summers, R. Hudson, K. Wilkinson and L. Pitelka. 1991. Application of a nutrient cycling model (NuCM) to a northern mixed hardwood and a southern coniferous forest. *Tree Physiology* 9: 173-184.

Taylor, G.E., Jr., L.F. Pitelka and M.T. Clegg. 1991. Introduction. IN: Ecological Genetics and Air Pollution Stress. Ed. by G.E. Taylor, Jr., L.F. Pitelka and M.T. Clegg. Springer-Verlay, New York.

Parsons, D.J. and L.F. Pitelka. 1991. Plant ecological genetics and air pollution stress. A commentary on implications for natural populations. IN: Plant Ecological Genetics and Air Pollution Stress. Ed. by G.E. Taylor, Jr., L.F. Pitelka, and M.T. Clegg. Springer-Verlag, New York.

Drake, B.G., R.J. Luxmore, H.A. Mooney, W.C. Oechel and L.F. Pitelka. 1991. How will terrestrial ecosystems interact with the changing CO_2 concentration of the atmosphere and anticipated climate change? *BioScience* 41: 96-104.

Pitelka, L.F. and D.J. Raynal. 1989. Forest decline and acidic deposition. *Ecology* 70: 2-10.

Huckabee, J.W., J.S. Mattice, L.F. Pitelka, D.B. Porcella, and R.A. Goldstein. 1989. An assessment of the ecological effects of acidic deposition. *Arch. Environ. Contam. Toxicol*. 18: 3-27.

Pitelka, L.F. 1988. Evolutionary responses of plants to anthropogenic pollutants. *Trends in Ecol. and Evol*. 3: 233-236.

Bazzaz, F.A., N.R. Chiariello, P.D. Coley and L.F. Pitelka. 1987. Allocating resources to reproduction and defense. *BioScience* 37: 58-67.

Pitelka, L.F. and W.F. Curtis. 1986. Photosynthetic responses to light in an understory herb, *Aster acuminatus*. *Amer. J. Bot*. 73: 535-540.

Pitelka, L.F. and J.W. Ashmun. 1985. Physiology and integration of ramets in clonal plants. IN: Population Biology and Evolution of Clonal Organisms. Ed. by J.B.C. Jackson, L.W. Buss and R.E. Cook. Yale University Press.

Ashmun, J.W., R.L. Brown and L.F. Pitelka. 1985. Biomass allocation in *Aster acuminatus* : variation within and among populations over 5 years. *Canad. J. Bot*. 63: 2035-2043.

Pitelka, L.F., J.W. Ashmun and R.L. Brown. 1985. The relationships between seasonal variation in light intensity, ramet size, and sexual reproduction in natural and experimental populations of *Aster acuminatus* (Compositae). *Amer. J. Bot*. 72: 311-319.

Pitelka, L.F., S. B. Hansen and J.W. Ashmun. 1985. Population biology of *Clintonia borealis*. I. Ramet and patch dynamics. *J. of Ecology* 73: 169-183.

Ashmun, J.W. and L.F. Pitelka. 1985. Population biology of *Clintonia borealis*. II. Survival and growth of transplanted ramets in different environments. *J. of Ecology* 73: 185-198.

Brown, R.L., J.W. Ashmun and L.F. Pitelka. 1985. Within-and between-species variation in vegetative phenology in two forest herbs. *Ecology* 66: 251-258.

Ashmun, J.W. and L.F. Pitelka. 1984. Light-induced variation in the growth and dynamics of transplanted ramets of the understory herb, *Aster acuminatus*. *Oecologia* 64: 255-262.

Pitelka, L.F. 1984. Application of the -3/2 power law to clonal herbs. *Amer. Natur*. 123: 442-449.

Pitelka, L.F., M.E. Thayer and S.B. Hansen. 1983. Variation in achene weight in *Aster acuminatus*. *Canad. J. Bot*. 61: 1415-1420.

Ashmun, J.W., R.J. Thomas and L.F. Pitelka. 1982. Translocation of photoassimilates between sister ramets in two forest herbs. *Ann. Bot*. 49: 403-415.

Winn, A.A. and L.F. Pitelka. 1981. Some effects of density on the reproductive patterns and patch dynamics of *Aster acuminatus*. *Bull. Torrey Bot. Club* 108: 438-445.

Pitelka, L.F., D.S. Stanton and M.O. Peckenham. 1980. Effects of light and density on resource allocation in a forest herb, *Aster acuminatus* (Compositae). *Amer. J. Bot*. 67: 942-948.

Pitelka, L.F. and D.L. Kellogg. 1979. Salt tolerance in roadside populations of two herbaceous perennials. *Bull. Torrey Bot. Club* 106: 131-134.

Pitelka, L.F. 1978. Variation in caloric values of annual and perennial lupines (*Lupinus*: Leguminosae). *Amer. Midl. Natur*. 99: 454-462.

Pitelka, L.F. 1977. Energy allocation in annual and perennial lupine (*Lupinus*: Leguminosae). *Ecology* 58: 1055-1065.

Hickman, J.C. and L.F. Pitelka. 1975. Dry weight indicates energy allocation in ecological strategy analysis of plants. *Oecologia* 21: 117-121.

Ragland, T.E., E.W. Carroll, L.F. Pitelka, J. Vanderpeute and Z. Sabar. 1972. Purification and properties of malate dehydrogenases from cauliflower. *Phytochem*. 11: 1303-1309.

BOOKS EDITED:

Canadell, J.G., D.E. Pataki, and L.F. Pitelka. 2007. Terrestrial Ecosystems in a Changing World. Springer, Heidelberg, 336p.

Taylor, G.E., L.F. Pitelka and M.T. Clegg. 1991. Plant Ecological Genetics and Air Pollution Stress. Springer-Verlag, New York.

Osmond, B., L.F. Pitelka and G.M. Hidy. 1990. Plant Biology of the Basin and Range. Springer-Verlag, New York.

RECENT RESEARCH GRANTS AND CONTRACTS:

"Research Opportunities and Collaboration in the Appalachians". Funded by the A.W. Mellon Foundation. 1/99-12/05 (3 two-year grants; total amount granted = $1,200,000)

"Chesapeake Watershed Cooperative Ecosystem Studies Unit". A university-federal agency cooperative agreement involving nine local universities and six federal agencies. The CESU is headquartered at the Appalachian Laboratory, and I was the Director from its establishment in 2001 until 2005.

TEACHING EXPERIENCE (At Bates College, with number of times taught):

Plant Ecology (9), Population Biology (6), Advanced Experimental Ecology (6), Biogeography (3), General Ecology (3), Evolution (1), Botany (1), Conservation Ethic (1)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:

Ecological Society of America, American Institute of Biological Sciences, American Geophysical Union, American Association for the Advancement of Science