

CURRICULUM VITAE

Lance H. Gunderson

Personal:

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Education:

University of Florida, Gainesville, Florida.
B. S. Botany, 1975.
M.S. Botany, 1977.
Ph.D., Environmental Engineering Sciences, 1992.

Work Experience:

1977-1978: Adjunct Assistant in Ecological Research, Center for Wetlands, University of Florida and Ecosystem Research Unit, National Audubon Society, Naples, Florida.
1979-1986: Botanist, South Florida Research Center, Everglades National Park, Homestead, Florida.
1986-1988: Vegetation Program Manager, South Florida Research Center, Everglades National Park, Homestead, Florida.
1989-1992: Graduate Research Associate, Dept. Environmental Engineering Sciences and Dept. of Zoology, University of Florida.
1992-1996 Assistant in Zoology, University of Florida.
1997-1998 Assistant Research Professor, Dept. of Zoology, University of Fla.
1996 -2000 Executive Director, The Resilience Network, Beijer Institute for Ecological Economics, Stockholm, Sweden.
1999 -2005 Founding Chairman, Dept. of Environmental Studies, Emory University
1999 -2009 Assoc. Professor, Dept. of Environmental Studies, Emory University
2009- Professor, Dept. of Environmental Studies, Emory University

Awards and Honors

Beijer Fellow – Beijer Institute of Ecological Economics, Swedish Royal Academy of Sciences, Stockholm (2007- present).
Senior Fellow – Agropolis Foundation, Montpellier France (2009-2010)

Boards and Committees:

Co-Editor in Chief, <i>Ecology and Society</i>	2002 - present
Member Editorial Board and Subject Editor, <i>Conservation Ecology</i>	1996 -2002
Member, Editorial Board, <i>Ecosystems</i>	1996 -2000
Chairman of Board, Resilience Alliance	1999 - present
Chair –National Academy of Sciences/National Research Council Committee on Ecological Effects of Road Density	2002 – 2005
Member Science Advisory Board, Grand Canyon Research and Monitoring Center	2001 – present
Member Science Advisory Board, Environmental Center, Fernbank Museum, Atlanta, GA	2005-2006
Member of Review Panel for Florida Keys Carrying Capacity Study, National Research Council, National Academies of Science	2001
National Science Foundation- Review of Baltimore Ecological Study	Feb 2001
Member Ralf Yorque Society	
Scientific Steering Committee Resilience 2017, Stockholm	2016-2017

PUBLICATIONS

Books:

- Gunderson, L.H., C.S. Holling, and S.S. Light (Editors). 1995. *Barriers and Bridges to Renewal of Ecosystems and Institutions*. Columbia University Press, New York, New York.
- Gunderson, L.H., and C.S. Holling (Editors). 2002. *Panarchy: Understanding Transformations in Human and Natural Systems*. Island Press, Washington, DC.
- Gunderson, L.H., and L. Pritchard (Editors). 2002. *Resilience and the Behavior of Large Scale Ecosystems*. SCOPE volume. Island Press, Washington, DC.
- National Research Council. 2005. *Assessing And Managing Ecological Conditions and Roads Across Spatial and Temporal Scales*. National Academy Press, Washington, DC. Committee Chair.
- Gunderson L. H., C. Allen. C.S. Holling (Editors). 2009. *Foundations of Ecological Resilience*. Island Press. Washington, DC.
- Cosens, B. and L. Gunderson (Editors). Forthcoming (2017). *Practical Panarchy: Linking Law, Resilience and Adaptive Water Governance of Regional Scale Social Ecological Systems*. Springer, Netherlands

Reports/Book Chapters:

- Duever, M.J., J.E. Carlson, J.F. Meeder, L.C. Duever, L.H. Gunderson, L.A. Riopelle, T.R.Alexander, R.F. Myers and D.P. Spangler. 1979. Resource Inventory and Analysis, Big Cypress National Preserve. Final Report to National Park Service. Center for Wetlands, Gainesville, Florida and National Audubon Society, Naples, Florida. 1225 p.

- Gunderson, L.H., L.L. Loope, and W.R. Maynard. 1982. An Inventory of the plant communities in the Turner River Area, Big Cypress National Preserve. Report T-648, South Florida Research Center, Everglades National Park, Homestead Florida. 58 p. +map.
- Gunderson, L.H. and L.L. Loope. 1982. An Inventory of the plant communities in the Pinecrest Area, Big Cypress National Preserve. Report T-655, South Florida Research Center, Everglades National Park, Homestead Florida. 42 p. +map.
- Gunderson, L.H. and L.L. Loope. 1982. An Inventory of the plant communities in the L-28 Area, Big Cypress National Preserve. Report T-664, South Florida Research Center, Everglades National Park, Homestead Florida. 38 p. +map.
- Gunderson, L.H. and L.L. Loope. 1982. An Inventory of the plant communities in the Racoon Point Area, Big Cypress National Preserve. Report T-665, South Florida Research Center, Everglades National Park, Homestead Florida. 45 p. +map.
- Gunderson, L.H. and L.L. Loope. 1982. An Inventory of the plant communities in the Deep Lake Area, Big Cypress National Preserve. Report T-666, South Florida Research Center, Everglades National Park, Homestead Florida. 50 p. +map.
- Gunderson, L.H. , J. Craig and D.L. Taylor. 1983. Effects of fire on phenology of understory plants in the pinelands of Everglades National Park. Report 83-04, South Florida Research Center, Everglades National Park, Homestead Florida. 40 p.
- Gunderson, L.H. 1983. Status of exotic woody plants in the Big Cypress National Preserve. Report 83-07, South Florida Research Center, Everglades National Park, Homestead Florida. 34 p. +map.
- Duever, M.J., J.E. Carlson, J.F. Meeder, L.C. Duever, L.H. Gunderson, L.A. Riopelle, T.R.Alexander, R.F. Myers and D.P. Spangler. 1986. Resource Inventory and Analysis, Big Cypress National Preserve. Research Report No. 8 of the National Audubon Society, New York, New York. 455 p.
- *Gunderson, L. H., D.P. Brannon, and G.Y.Irish. 1986. Vegetation Cover Types of Shark River Slough, Everglades National Park, as derived from LANDSAT Thematic Mapper Data. Report 86-04. South Florida Research Center, Everglades National Park, Homestead, Florida. 15 p. + map.
- Gunderson. L.H. 1984. Regeneration of cypress in logged and burned strands at Corkscrew Swamp Sanctuary. pp. 450-479 in: K.C. Ewel and H.T. Odum, eds., *Cypress Swamps*. University of Florida Press, Gainesville, Florida.
- Gunderson, L.H., J. R.. Stenberg and A. K. Herndon. 1988. Tolerance of five hardwood species to flooding regimes in south Florida. In: D. G. Wilcox, ed., *Interdisciplinary Approaches to Freshwater Wetlands Research*. University of Michigan Press.

- Gunderson, L.H. 1989. Historical hydro patterns in the wetland plant communities of Everglades National Park. In: R. R. Sharitz and G.W. Gibbons, eds., *Freshwater Wetlands and Wildlife*. Savannah River Ecology Laboratory, Aiken, South Carolina.
- Gunderson, L.H. and J.R. Stenberg. 1989. Comparison of pan evaporation and community evapotranspiration at two wetland sites in Everglades National Park. South Florida Research Center, Everglades National Park, Technical Report.
- Gunderson, L.H., D.R. Mangis, K.R. Stolte, and E. Gladney. 1989. South Florida slash pine, *Pinus elliottii* var. *densa*, seedlings as biomonitors of air pollution. U.S. National Park Service, Technical Report.
- Gunderson, L.H. and W.F. Loftus. 1993. The Everglades. pp. 199-255 In: W.H. Martin, S.C. Boyce and A.T. Echternacht, eds., *Biodiversity of the southeastern United States*. John Wiley and Sons, New York.
- Gunderson, L.H. 1994. Vegetation of the Everglades: determinants of community composition. In, S. Davis and J. Ogden, editors, *The Everglades: The Ecosystem and Its Restoration*. St. Lucie Press, Florida.
- Gunderson, L.H. and J. R. Snyder. 1994. Fire patterns in the southern Everglades. pp: 291- 305, In, S. Davis and J. Ogden, editors, *The Everglades: The Ecosystem and Its Restoration*. St. Lucie Press, Florida.
- Davis, S.M., L.H. Gunderson, W.A. Park, J. Richardson and J. Mattson. 1994. Vegetation coverage and heterogeneity in a changing Everglades landscape. In, S. Davis and J. Ogden, editors, *The Everglades: The Ecosystem and Its Restoration*. St. Lucie Press, Florida.
- Walters, C.J. and L.H. Gunderson. 1994. Screening Water Policies for Ecosystem Restoration. In, S. Davis and J. Ogden, editors, *The Everglades: The Ecosystem and Its Restoration*. St. Lucie Press, Florida.
- Holling, C.S., L.H. Gunderson, and C.J. Walters. 1994. Synthesis Chapter:. In, S. Davis and J. Ogden, editors, *The Everglades: The Ecosystem and Its Restoration*. St. Lucie Press, Florida.
- Light, S.S., L.H. Gunderson, and C.S. Holling. 1995. The Everglades; Evolution of management in a turbulent environment. In. L.H. Gunderson, C.S. Holling, and S.S. Light, editors. *Barriers and Bridges to Renewal of Ecosystems and Institutions*. Columbia University Press, New York, New York.
- Gunderson, L.H., C.S. Holling, and S.S. Light. 1995. Breaking Barriers and Building Bridges- a Synthesis. In. L.H. Gunderson, C.S. Holling, and S.S. Light, editors. *Barriers and Bridges to Renewal of Ecosystems and Institutions*. Columbia University Press, New York, New York.
- Gunderson, Lance H. 1995. The Everglades: Human Transformations of a Dynamic Ecosystem. *Encyclopedia of Environmental Biology*. Academic Press, Orlando, Florida.

- Holling, C.S. , G. Peterson, P. Marples, J. Sendzimir, K. Redford, L. Gunderson and D. Lambert. 1996. Self organization in ecosystems: lumpy geometries, periodicities and morphologies. pp. 346-384 In. B. Walker and W. Steffen, eds. *Global Change in Terrestrial Ecosystems*. Cambridge University Press.
- Gunderson, L.H. 1997. Ever-changing Everglades; a Case Study in Ecosystem Management. 2nd Edition. In. G. Meffe and C.R. Carroll, eds *Principles of Conservation Biology*,. Sinauer Associates, Sunderland, Mass.
- Gunderson, L.H. 1999. Stepping Back: Assessing for Understanding in Complex Regional Systems. In. M. Herring, et al., eds *At the Crossroads of Science, Management and Policy, a review of Bioregional Assessments*.. Island Press.
- Gunderson, L.H., C.S. Holling, and G.D. Peterson. 2000. Resilience in Ecological Systems. In *Handbook on Ecosystem Theories*,. S.E. Joergensen and F. Mueller, editors
- Gunderson, L.H., C.S. Holling, L.Pritchard, and G. Peterson, 2002. Resilience. Pages 530-531 in H.A. Mooney and J.G. Canadell (eds.), *The Encyclopedia of Global Environmental Change* (Vol. 2, The earth system: biological and ecological dimensions of global environmental change). Scientific Committee on Problems of the Environment (SCOPE) Publication.
- Gunderson, L.H. C. S. Holling and G.Peterson. 2002. Surprises and Sustainability Cycles of Renewal in the Everglades in, *Panarchy: Understanding Transformations in Human and Natural Systems*, L.H. Gunderson and C.S. Holling, editors. Island Press, Washington, DC.
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- Holling, C. S. and L.H. Gunderson. 2002. Resilience and Adaptive Cycles. in, *Panarchy: Understanding Transformations in Human and Natural Systems*, L.H. Gunderson and C.S. Holling, editors. Island Press, Washington, DC.
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- Westley, F., S.R. Carpenter, W.A. Brock, C.S. Holling, L.H. Gunderson. 2002. Why are Systems of people and Nature not just ecological or social systems? in, *Panarchy: Understanding Transformations in Human and Natural Systems*, L.H. Gunderson and C.S. Holling, editors. Island Press, Washington, DC.

- Yorque, R., B. Walker, C.S. Holling, L.H. Gunderson, C. Folke, S. R. Carpenter, W. A. Brock. 2002. Towards an Integrative Synthesis. in, *Panarchy: Understanding Transformations in Human and Natural Systems*, L.H. Gunderson and C.S. Holling, editors. Island Press, Washington, DC.
- Gunderson, L.H., C.S. Holling, L. Pritchard and G.D. Peterson. 2002. Resilience of Large Scale Resource Systems- Theoretical Foundations. *In. Resilience and the Behavior of Large Scale Ecosystems*. L.H. Gunderson and L. Pritchard, eds. SCOPE volume, Island Press, Washington, DC.
- Gunderson, L.H. and C.J. Walters. 2002. Resilience in southern Florida Landscapes. *In. Resilience and the Behavior of Large Scale Ecosystems*. L.H. Gunderson and L. Pritchard, eds. SCOPE volume, Island Press, Washington, DC..
- Gunderson, L.H., C.S. Holling, L. Pritchard and G.D. Peterson. 2002. Resilience of Large Scale Resource Systems- A Synthesis. *In. Resilience and the Behavior of Large Scale Ecosystems*. L.H. Gunderson and L. Pritchard, eds. SCOPE volume, Island Press, Washington, DC.
- Gunderson, L.H. 2003. Managing Ecological Crisis. In *Navigating Nature's Dynamics -Ecosystem Institution Linkages for Building Resilience*. F. Berkes, J. Colding and C. Folke, eds. Cambridge Univ. Press
- Sendzimir, J, C. R. Allen, L. H. Gunderson, and C. Stow. 2002 Implications of Body Mass Patterns For Ecosystem Conservation and Wildlife Management in *Landscape ecology and resource management: linking theory with practice* J. Bissonette and I. Storch, eds. Island Press, Washington, DC.
- Gunderson, L.H. 2002. Foreword - Learning to Monitor or Monitoring to Learn? *In Ecological Monitoring of Ecosystem Initiative*, David Busch and Joel Trexler, eds. Island Press, Washington, DC.
- Gunderson, L. H. 2003. Adaptive dancing: interactions between social resilience and ecological crises. In F. Berkes, J. Colding, C. Folke, eds. *Navigating social-ecological systems: building resilience for complexity and change*. Cambridge University Press, Cambridge UK.
- Miller, M.L. and L. H. Gunderson 2004. Biological And Cultural Camouflage: The Challenges Of Seeing The Harmful Invasive Species Problem And Doing Something About It. Emory University School of Law Public Law and and Legal Theory Research Paper Series. Research Paper No. 03-6.
- Miller, M. L., L. H. Gunderson 2003. Introduction. In M. Miller and R. Fabian, eds. *Harmful Invasive Species: Legal Responses*. Environmental Law Institute.
- Gunderson, L.H. 2004. The Everglades: Trials in Ecosystem Management. 3rd Edition. *In. G. Meffe and C.R. Carroll, eds Principles of Conservation Biology*,. Sinauer Associates, Sunderland, Mass.
- Gunderson, L. H., S. R. Carpenter, C. Folke, P. Olsson, and G. D. Peterson. 2006. Water RATs (resilience, adaptability, and transformability) in lake and wetland social-ecological systems. Pages 61-73 In B. Walker, J. Anderies,

- A Kinzig and P. Ryan, Exploring Resilience in Social-Ecological Systems. CSIRO Press, Collingwood, Victoria.
- Walker, B. H., L. H. Gunderson, A. P. Kinzig, C. Folke, S. R. Carpenter, and L. Schultz. 2006. A handful of heuristics and some propositions for understanding resilience in social-ecological systems. Pages 5-22 In B. Walker, J. Anderies, A Kinzig and P. Ryan, Exploring Resilience in Social-Ecological Systems. CSIRO Press, Collingwood, Victoria.
- Olsson, P., L. H. Gunderson, S. R. Carpenter, P. Ryan, L. Lebel, C. Folke, and C. S. Holling. 2006. Shooting the rapids: navigating transitions to adaptive governance of social-ecological systems. Pages 97-118 In B. Walker, J. Anderies, A Kinzig and P. Ryan, Exploring Resilience in Social-Ecological Systems. CSIRO Press, Collingwood, Victoria.
- Gunderson, L. Craig R Allen, and Don Wardwell. 2007. Temporal scaling in complex systems: resonant frequencies and biotic variability pp 78-90 in *Temporal Dimensions of Landscape Ecology*. J. Bissonette and I. Storch, eds. Springer, New York, NY.
- Gunderson, L.H. 2008. Biophysical Discontinuities in the Everglades Ecosystem. In., C. Allen and C.S. Holling, eds. Hierarchies and Scale, Island Press.
- Gunderson, L., G. Peterson, and C.S. Holling. 2008. Practicing Adaptive Management In Social-Ecological Systems. Pages 223-245 In J. Norberg and G. Cumming, Editors. Complexity Theory for Sustainable Futures. Columbia University Press, New York, New York.
- Gunderson, L. 2008. Panarchy. Encyclopedia of Ecology.. S.E. Joergensen editor. Cambridge University Press.
- Gunderson, L. 2008. Integrated Assessment. Encyclopedia of Ecology.. S.E. Joergensen editor. Cambridge University Press.
- Baron, J.S., C.D. Allen, E. Fleishman, L. Gunderson, D. McKenzie, L. Meyerson, J. Oropeza, and N. Stephenson, 2008: National Parks. In: Preliminary review of adaptation options for climate-sensitive ecosystems and resources. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research [Julius, S.H., J.M. West (eds.), J.S. Baron, L.A. Joyce, B.D. Keller, M.A. Palmer, C.H. Peterson, and J.M. Scott (Authors)]. U.S. Environmental Protection Agency, Washington, DC, USA, pp. 4-1 to 4-68.
- Gunderson, L.H. , S.S. Light. 2008. Envisioning Alternative Futures for Water Resources in Palm Beach and Martin Counties, Florida. Report to the Community Foundation for Palm Beach and Martin Counties. West Palm Beach, Florida.
- Gunderson, L. 2008. Comparing Ecological and Human Community Resilience. Community Resilience Initiative, Southeastern Regional Research Initiative, Report #5. . <http://www.resilientus.org/reports.html>

- Gunderson, L. 2008. Expecting the Unexpected; Why Resilience Matters to People and the Planet. Quivira Journal, Fall 2008. Quivira Coalition, Santa Fe, NM.
- Gunderson, L. 2009. Resilience and Ecosystem Restoration. Restoration Ecology. S. Griepsson, editor. Jones and Bartlett Publishers.
- Gunderson, L., C.Allen. 2009. Why Resilience?, Why Now? In, Foundations of Ecological Resilience. Island Press, Washington, DC.
- Gunderson, L., C. Allen, C.S. Holling. 2009. Summary and Synthesis. Foundations of Ecological Resilience. Island Press, Washington, DC.
- Gunderson, L. 2011. Askö 2010, Commentary pages 193-195 in, *Bringing ecologists and economists together: the Askö meetings*, T. Söderqvist, A. Sundbaum, C. Folke, K.G. Maler, eds. Springer
- Gunderson, L. 2012. Ecological resilience for an increasingly surprising world. Pp 165-186, A.B. McLellan and M. Elran, Eds. *Proceedings of First International Symposium on Societal Resilience*. Homeland Security Studies and Analysis Institute. Washington DC
- Gunderson, L. 2013. Foreword. *Greening in the Red Zone: Disaster, Resilience and Community Greening*. Marianne E. Krasny and Keith G. Tidball, eds. Heidelberg, Germany: Springer.
- Arnold, C.A. and L. H. Gunderson, 2014. Adaptive Law, in Ahjond S. Garmestani and Craig R. Allen, eds., *Resilience and Law*. Columbia University Press, forthcoming 2013)
- Garmestani, A. S. Garmestani, C. R. Allen, C.A. Arnold, and L. H. Gunderson. 2014., *Resilience and Law: Introduction*, in Ahjond S. Garmestani and Craig R. Allen, eds., *Resilience and Law*, Columbia University Press, forthcoming 2013.
- Gunderson, L. 2014. Crises and transformations in Everglades water management. In, Rockström, J. M. Falkenmark, C. Folke, M. Lannerstad, J. Barron, E. Enfors, L. Gordon, J. Heinke, H. Hoff and C. Pahl-Wostl Eds. *Water Resilience for Human Prosperity*. Cambridge University Press..
- Gunderson, L. A. Quinlan, F. Bousquet, R. Mathevet. In review. Through a resilience lens, darkly; examination of the cross scale dynamics in socio-ecological systems in southern France and northern Africa. CIRAD
- Gunderson, L. 2015. Lessons from Adaptive Management--Obstacles and Outcomes. In C.R. Allen, and A. Garmestani, editors. *Adaptive Management of Social Ecological Systems*, Springer, Dordrecht.
- Berkley, J and L. Gunderson. 2015 Practical Resilience: Building Networks of Adaptive Management In C.R. Allen, and A. Garmestani, editors. *Adaptive Management of Social Ecological Systems*, Springer, Dordrecht.
- Gunderson, L.H. 2016. Climate change and Agro ecological resilience. Chapter in *Agriculture and Climate Change*. M.J. Angelo and A. duPlessis, eds. Edward Elgar Publishing Limited.

Gunderson, L. E. W. Pierce. 2016. Adaptive Civic Ecology. Chapter in *Grassroots to Global: What role for community environmental stewardship?*. M. Krasny (ed). CU Press. 2016.

Journal Publications:

Gunderson, L.H. 1989. Accounting for rainfall in evaporation pans. *Water Resources Bulletin* 25:573-579.

Herndon, A.K., L.H. Gunderson and J.R. Stenberg. 1991. Sawgrass, *Cladium jamaicense*, survival in a regime of fire and flooding. *Wetlands* 11:17-27.

Walters, C.J., L.H. Gunderson, C.S. Holling. 1992. Experimental Policies for Water Management in the Everglades. *Ecological Applications* 2 (2): 189-202.

Gunderson, L. H., S. S. Light and C.S. Holling. 1995. Lessons from the Everglades: Learning in a Turbulent System. *BioScience Supplement 1995 Science and Biodiversity Policy*: S66-S73.

Gunderson, L.H. 1996. Health of Large Scale ecosystems. Book Review. *Ecological Economics* 17:183-185.

Gunderson, L.H., C.S. Holling, G. Peterson and L. Pritchard. 1997. Resilience in Ecosystems, Institutions and Society: Propositions for a Research Agenda. Discussion Paper, Resilience Network, Beijer Institute, Stockholm.

Gunderson, L.H. 1998. Time Series. Book Review. *Ecological Economics*. (24) 128.

Gunderson, L.H. 1998. Cross Scale Connections. *Journal of the Public Interest Environmental Conference* 2(1): 21-32.

Gunderson, L.H. 1998. Post-modern Forestry. Book Review. *Ecological Economics*.

Holling, C.S., L.H. Gunderson and G. Peterson. 1998. Comparing Complex Systems. *Okologisches Wirtschaften* 3-4(1998): 4-6.

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Ogden, J.C., J.A. Browder, J.H. Gentile, L. Gunderson, R. Fennema, J. Wang. 1999. Environmental management scenarios: Ecological implications. *Urban Ecosystems* 3: 279-305.

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Carpenter, S.R, and L.H. Gunderson. 2001. Coping With Collapse: Ecological and Social Dynamics in Ecosystem Management. *Bioscience* 51(6): 451-457.

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Conferences and Symposia

- Understanding Ecosystem-Institutional Linkages for Resilience, Beijer Institute, Stockholm Sept. 1998
- Policy Science Dialogues- Stockholm Environmental Institute Sept. 1998
- Historical, Political Economy of Ecological Resilience (Emory, Atlanta) Jan. 1999
- Resilience of Rangelands (Australia), June 1999
- Adaptive Management in Marine Systems (Australia), June 1999
- Resilience in Human Systems (Winnipeg), Sept. 1999
- Florida Keys Carrying Capacity (Florida), Nov 1999
- Panel Moderator: Sustainability and Business (Emory), Jan 2000
- Theories Workshop of Resilience Network (Heron Island, Australia) , June. 1999
- Discontinuities in Complex Systems at Emory University, Oct 1999
- Paths to Sustainability Short Course- NCEAS, Feb 2000
- Emory participation in National Env. Justice Conf. May 2000
- Florida Keys Carrying Capacity . Key Largo Florida. Jan 2001
- Resilience Alliance- Chaing Mai Regional Workshop, Chaing Mai Thailand August 2001

NSF Workshop: Resilience in the Red River Valley, Minneapolis, MN October 2001

The Wilderness Society, Workshop on managing public lands, Denver, CO October 2001.

Georgia Biodiversity Workshop, Athens, October 2001.

NSF Workshop: A Systems Approach to Maintaining Natural Capital in Rapidly Developing Watersheds, Clemson, March 2002.

Envisioning Resilience: Resilience Alliance, Jekyll Island, GA, April 2003.

Case Study Workshop, Kristianstads, Sweden, Sept. 2004.

Resilience Workshop, Melbourne Australia, May 2004.

Marine Resilience Workshop, Stockholm Sweden, October 2004.

Discussant- Role of Science in Public Policy, APPAM Conference, Atlanta Georgia, October 2004

Speaker, Adaptive Management in the 21st Century, AAAS meeting, Washington DC, February 2005.

Speaker, Holistic Approaches to Restoration in the Chesapeake Bay, AAAS meeting, Washington DC, February 2005.

Expert Panel, Chesapeake Bay Restoration, GAO, Washington DC., May 2005

Reserves in Regions, MAB workshop. Avignon, France June 2005

Marine Resilience, Cairns Australia, August 2005

Understanding Discontinuities in Complex Systems. Umea University, Umea Sweden October 2005

Resilience Across Disciplines. NSF Workshop, Washington DC January 2006

Resilience for Practitioners. Montpellier, France February 2006

Applied Resilience. Townsville, Australia March 2006

Science and Policy, UC Davis Law Center, October 2006.

Resilience and Adaptation to Climate Change: Linkages and a new Agenda Blakeney, Norfolk, UK, 17th-20th April 2007

Adaptations to Climate Change, AAAS, February 2008.

Challenges of Adaptive Management, University of Mississippi, April 2010.

Resilience in Socio-Ecological Systems, American Association Geographers, April 2010.

Social Ecological Theories and Empirical Research. June/July 2009, June 2010. CIRAD, Montpellier, France

NSF Workshop, January 2011, Tucson, AZ.

Adaptive Governance and Adaptive Management. Resilience 2011, March 2011, Phoenix AZ.

Adaptive Governance Networks and Ecological Resilience, Vienna Resilience Network, May 2011.

Crisis, Surprises and Resilience. Webinar, Ecotrust August 2011.

Adaptive Governance. Seminar, Compass, Washington DC, Oct. 2011

TEACHING

Courses Taught at Emory University

ENVS 131	Concepts of Environmental Studies
ENVS 132	Integrated Methods in Environmental Studies with laboratory
ENVS 240	Ecosystem Ecology with laboratory
ENVS 320	Environmental Assessment and Management
ENVS 345	Conservation Biology
ENVS 385	Science, Ethics and Policy of Environmental Issues
ENVS 385	Wetland Ecology
ENVS 420S	Law and Biodiversity
ENVS 381	Water and Wetlands
ENVS 495	Honors Research
ENVS 498	Directed Readings
ENVS 499	Supervised Research
MDP 505	Ecosystems, Natural Resources and Development.
ENVS 521	Natural Resource Management

Other Courses

Theories for Sustainable Futures- Short Course at US National Center for Ecological Analysis and Synthesis- May 2000
Ecosystem Management – Stockholm University October 2005.
Adaptive Management Short Course – American Rivers Conf.- May 2006
Adaptive Management Course American Water Resources Conf. – July 2006
Adaptive Management Short Course University of Nebraska- July 2008
Adaptive Management Short Course University of Nebraska- August 2010.

SERVICE/ADMINISTRATION

Emory College/University Service

Member Faculty Science Council
Member Planning Committee Mathematics and Science Center Bldg
Member Emory College Social Science Chairs Council
Sponsor Earth Day Luncheon (April 2002)
Member planning committee joint BS/MPH degree
Chair- Departmental Review 2004-2005
Education Policy Committee- Fall 2007
General Education Requirements Task Force -2007
Chair Grievance Committee 2008-2011

Departmental Service

Conducted faculty meetings
Member curriculum committee
Member graduate committee

Member undergraduate committee
Completed budget planning/implementation.
Completed staff and faculty evaluations.
Developed four new study abroad programs in ENVS (with CIPA)
Developed, implemented Honors program in ENVS

Reviewed Manuscripts:

Journals: Proceedings National Academy of Sciences, Ecosystems, Ecology, Environmental Management, Ecological Economics, Conservation Ecology, World Resources Institute, Trends in Ecology, Human Ecology, Journal of Forestry, Current Biology, Society and Natural Resources.
Book manuscripts for Oxford University Press, Island Press, Cambridge Press
National Academy of Science- National Research Council Report Reviews: a) Missouri River, b) Florida Keys Carrying Capacity, c) Everglades Restoration Science

Other Service:

Developed and submitted proposal for new curriculum in Environmental Studies. Approved Fall 1999
Herben Turner Scholarship Fund - Wrote proposal and visited Mr. Turner, which led to donation by Emory alumnus to support environmental field work in Georgia by undergraduates in Environmental Studies \$275,000 (2000).
Founding Member and Current Chair of Resilience Alliance. Non-profit publisher of Ecology and Society.