CURRICULUM VITAE

DIANE WHITE HUSIC

Work address:

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UNIVERSITY EDUCATION:

- Ph.D., Biochemistry: 1986, Michigan State University
 - Thesis Title: The Metabolism of D-Lactate and Structurally Related Organic Acids in *Chlamydomonas Reinhardtii*." Thesis Supervisor: Dr. N. E. Tolbert
- B.S., Biochemistry: 1981, Northern Michigan University, Summa Cum Laude

APPOINTMENTS:

- Founding Dean, Center for Scholarship, Research and Creative Endeavors, July 1, 2022 –
- Founding Dean, School of Health and Natural Sciences, Moravian College, January 2016 July 2022 (Moravian University as of June 1, 2021)
- Professor of Biology, Moravian College, August 2004 present
 - Director, Environmental Science and Studies Program, Moravian College, October 2017 present
 - Chairperson, Department of Biological Sciences, Moravian College, August 2004 January 2016
- LVAIC Consortial Professor, Lafayette College, Fall 2006
- Professor: Department of Chemistry, East Stroudsburg University, 1998 to 2004
 - Chairperson, Department of Chemistry, East Stroudsburg University, May 2002 Aug. 2004
 - Coordinator, Biochemistry (1988 2004) and Chemical Biotechnology (2000 2002) programs
 - Associate Professor, Department of Chemistry, East Stroudsburg University, 1993 1998
 - Assistant Professor, Department of Chemistry, East Stroudsburg University, Fall 1988 1993
- Visiting Scientist, Department of Biological Sciences, Lehigh University, Summer, 1999; Summer/Fall,
 2000
- Visiting Scientist: The Wistar Institute, Philadelphia, PA, summer, 1989
- Postdoctoral Fellow: The Wistar Institute, August 1986 August 1988, with Dr. L. Diamond

AWARDS AND HONORS:

- 2022 Senior Fellow, Global Council for Science and the Environment
- 2014 NCAA Division II Special Recognition for Leadership Role in Faculty Athletics Representatives Institutes
- 2014 National Geographic Geo-educator of the Week
- 2013 Northern Michigan University Distinguished Alumni Award
- 2013 Omicron Delta Kappa Golden Apple Award for teaching
- 2010 Audubon Together Green Fellowship and 2011 Together Green Mentor Award
- 2006 Moravian College Board of Trustees Chair "Impact Award"
- 2004 David Knight Award for Outstanding Service to the Faculty Athletics Representatives Association
- 1996 Induction into *Omicron Delta Kappa*, the National Leadership Honor Society (nominated and selected by ESU students)
- 1986 National Research Service Award, National Institutes of Health (to 1988)
- 1985 Department of Biochemistry Graduate Student Award, Michigan State University
- 1981 Honorable Mention -Proctor and Gamble Undergraduate Contest in Colloid and Surface Chemistry
- 1981 Lucian F. Hunt Award for academic achievement in chemistry, Northern Michigan University

BOARD AND STEERING COMMITTEE MEMBERSHIPS:

- Board of Directors, Lehigh Gap Nature Center and Wildlife Refuge (2006 present)
 - President, elected in March 2021
 - Vice President, spring 2013 2021
- Board of Directors, Hawk Mountain Sanctuary (Fall 2019 present)
 - Chair, Conservation Science Committee (Fall 2020 present)
- Board of Directors, Camaquiri Conservation Initiative, a newly formed LLC in Costa Rica (March 2019 present)
- Board of Directors, Northern Michigan Alumni Association (Fall 2018 present)
 - Chair, NMU Alumni Awards committee (Fall 2019 2021)
 - Career and Professional Development Committee (Fall 2021 present)
- Steering Committee of the Research and Independent NGO's (RINGOs) Civil Society Constituency Group for the United Nations Framework Convention on Climate Change (UNFCCC; 2012 – present, by invitation)
- UNFCCC Technology Executive Committee Task Force on Innovation (Fall 2019 present)
- UNFCCC Technology Executive Committee Task Force on Adaptation (Summer 2016 2019)
- Executive Committee member, National Council on Science and the Environment College and University Network Leaders' Alliance (Summer 2018 – present)
- Board Member, Rocky Mountain Science and Sustainability Network (since fall 2013)
- National Geographic Society Committee on Research and Exploration (Grants Committee; January 2017 2019)
- National Geographic Geo-Educator Community Steering Committee (Spring 2014 2016)
- Board Member, Lehigh Valley Audubon Society (through spring 2013)
- Steering Committee Member, Bethlehem (PA) Climate Action Plan Working Group (2020-2021)
- Steering Committee Member, Pennsylvania Climate Change Adaptation Working Group on Natural Resources (2010 – 2011)
- Executive Board Member, Council on Undergraduate Research (2005 2011)
 - President (June 2009 June 2010)
- Faculty Athletics Representatives Association (FARA) Executive Committee (1995 1999, 2000 2003)
 - President (Jan. 2001 Jan. 2002)
 - Division II Vice President (1997 1999)
- Advisory Board, Save the Wild U.P. (September 2013 2016)
- NOTE: My numerous other leadership roles at the campus, community, state, and national levels are outlined later in this c.v. beginning on page 23.

LEADERSHIP AND ADMINISTRATIVE SKILLS:

• Leadership:

- Unique leadership experiences within higher education or non-profit organizations (locally and nationally), and leadership roles with local and state agencies and the United Nations (see p. 1-2 and pp. 23-26 of this c.v.). Most notably:
 - Founding Dean of the School of Natural and Health Sciences, Moravian University.
 - President, Council on Undergraduate Research, 2009 2010.
 - President, Faculty Athletics Representatives Association (NCAA), 2001 2002.
 - President, Lehigh Gap Nature Center Board of Directors, March 2021 present.
 - Department chair at two institutions in two different disciplines for 14 years.
 - APSCUF union leadership, including Chair, State Meet & Discuss and Negotiations team member (PA State System union representing over 5500 faculty).
 - PA-State System of Higher Education Planning Implementation Advisory Council, 1997 2001 (appointment by SSHE Vice Chancellor for Academic Affairs).
- Since 2005, I have led national leadership institutes for faculty serving in the role of NCAA Faculty Athletics Representative focusing on role clarity, strategic communications, difficult conversations, flexing to different behavioral styles (DiSC), mental well-being, and personal action planning.

Hiring, Mentoring and Management:

- Participate in faculty hiring, onboarding, mentoring, setting schedules (e.g., for teaching), and conducting performance evaluation of faculty teaching, scholarship and service.
- Recruitment and hiring of all the faculty (23) for the new Rehabilitation Sciences department at Moravian and for several other departments during a period of significant turnover.
- Service on the Academic Personnel Committee (now Tenure, Promotion and Review Committee) at Moravian University.
- Oversight of support staff, including goal setting and annual evaluations for staff members.
- Regular evaluation and mentoring of staff as board officer for the Lehigh Gap Nature Center.

Budget Management:

- Joint oversight of the ~\$3 million academic support budget at Moravian with the other academic dean.
- Management of department budget development and spending and various endowment funds.
- Service on Moravian's Budget and Planning Committee.
- Extensive board service with fiduciary responsibility.
- Former member of the budget committee for the state-wide faculty union (APSCUF) for the PA State System of Higher Education.

Strategic Planning:

- Participant in campus-wide strategic planning processes as well as implementation and benchmarking of strategic goals.
- Fall 2020 January 2022: led the strategic planning process for the Lehigh Gap Nature Center.
- Participant in strategic planning processes as a board member for other 501-3c non-profit organizations and the Kittatinny Coalition.

• Evaluation and Accreditation:

- Site visitor for Middle States Association of Higher Education (11 teams) in which institutional assessment and planning are carefully reviewed.
- Service on campus accreditation review teams at two institutions.
- External reviewer for numerous academic departments or programs and experience as outside evaluator for grant-funded projects (see pp. 26-27 of this *c.v.*)

• Fundraising:

- Successful record of grant writing (see pp. 19 20 of this c.v.).
- Experience in meeting with potential donors and elected officials to share stories of successes and to have "imagine if" discussions. This has led to significant donations to support student research, scholarships, and new buildings and renovations at both East Stroudsburg University and Moravian

- University.
- Capital Campaign steering committee member for Lehigh Gap Nature Center (2007 2010).

• Communication:

- Strong written and oral communication skills.
- Experience using various forms of media to engage diverse audiences, including public relations training, and being interviewed by local, national, and international media outlets.

UNIQUE PROFESSIONAL EXPERIENCES:

- American Association for Colleges and Universities (AAC&U) Reframing Institutional Transformation to Include Non-Tenure Track STEM Faculty Institute. (I wrote a proposal on behalf of Moravian University, and we were selected to send a team of 5 to the institute in July 2022.)
- Academic Impressions Academic Restructuring Considerations for Future Transformation and Growth, November 2019.
- Civil Society Observer/Moravian College Delegation: COP15 (U.N. Climate Change Negotiations), 2009, Copenhagen, Denmark; COP16, 2010, Cancun, Mexico; COP17, 2011, Durban, South Africa; COP18, 2012, Doha, Qatar; COP19, 2013 Warsaw, Poland; COP20, 2014, Lima, Peru; COP21, 2015, Paris, France; COP22, 2016, Marrakech, Morocco; COP23, 2017, Bonn, Germany; COP24, 2018, Katowice, Poland; COP25, 2019, Madrid, Spain; COP26, 2021, Glasgow, Scotland.
- Civil Society Observer for the Women's Major Group, representing the Global Women's Scholar Network, Open Working Group 7 on the post-2015 Sustainable Development Goals, January 8-10, 2014.
- Invited participant for the NSF Workshop: Environmental Data Science Inclusion Network (April 2019, Boulder, CO).
- Invited participant for the NSF Workshop: Building Leadership Capacity for Systemic, Scalable and Sustainable Change in Undergraduate Biology/STEM Education (July 31 Aug 2, 2019, Denver, CO).
- Biomedical Research Alliance of New York (BRANY) Institutional Biosafety Committee Member (to review recombinant DNA/gene transfer research and clinical trials).
- Wildbranch Environmental Writing Workshop Participant, Sterling College, June 5-11, 2011, Craftsbury Commons, VT. (Application process for acceptance; worked with scientist/award-winning author Sandra Steingraber.)
- Hog Island Audubon Chapter Leadership Workshop, August 15 20, 2011, Maine.
- Audubon TogetherGreen Fellowship in Conservation Leadership Training (through Dec. 2011).
- Keck/PKAL Facilitating Interdisciplinary Learning Leadership Roundtable, April 9-11, 2010, Baltimore,
 MD
- Invited participant: NSF/CUR Transformative Research Summit, June 10 12, 2009, Snowbird, UT.
- Invited participant: Keck/PKAL Invitational Roundtable on Assessment of Interdisciplinary Learning and Interdisciplinary Learning Environments, April 3 5, 2009, Baltimore, MD.
- Invited participant: PERC Economics for Environmental Studies Workshop, 9 Quarter Circle Ranch, Montana (2006).
- Invited participant: NCAA Foundation Leadership Conference, Lake Buena Vista, Florida (2002).
- Selected as ESU delegate for trade mission to Singapore sponsored by the N.E. PA Council for Economic Development (2001).
- Participant in APSCUF Leadership Workshop, Harrisburg, PA (1993).
- Pennsylvania Summer Teaching Academy Fellow, Boiling Springs, PA (1990).

TEACHING EXPERIENCE:

Courses Taught at Moravian College:

LiNC 101 First Year Writing Seminar:

The Future of Nature and Humans: 21st Century Environmentalism

The History of Disease

From Genes to Pine Trees: What Really Keeps Us Healthy?

ENVR 112 Environmental Science

BIOL 193 From Cells to Spheres: The Science of Life and our Environment

ENVR 110 Introduction to Environmental Studies

ENVR/IDIS 190 Redefining Prosperity: Moving Toward a Culture of Sustainability

IDIS/HLTH 292 Nutrition for Health HLTP 330 Environmental Health BIOL/CHEM 328 Biochemistry II

BIOL/ENVR370 Senior Seminar:

Disease in the 21st Century How Plants Have Changed the World

Biology of Aging Contemporary Controversies in the Life Sciences

Conservation Biology and Restoration Ecology The Science and Ethics of Modern Biomedical Technologies

Genetic Engineering: Applications in Biology, Medicine, Food Production and the Environment

IDIS/ENVR 298 Negotiating our Climate Future

IDIS 213 The Impact of Technology on Diet and Disease ENVR 244 Negotiating Climate on the International Stage

IDIS/ENVR 297 Global Climate Change: Realities, Risks, and Responses

BIOL 381 Independent Study (numerous; some example themes are included below)

Biomedical Writing Modern Techniques in Biomedical Research

Evolution and Science Teaching Rain Gardens as a Form of Conservation Landscaping

Environmental Writing & Literature Dimensions of Ecology

U.S. Hurricanes in the 21st Century: Ecological Impact and the Role of Global Climate Change

Medical Traditions, Practices and Philosophies A Global Perspective (International Health Science)

An Analysis of the Biochemical and Athletic Effects of the Supplement Creatine Phosphate

BIOL/ENVR 392 Costa Rica as a Model of Sustainability and Tropical Ecology

MEDU 680 Independent Study: Curricular Development – Rare and Forgotten Flora (graduate level)

Honors theses directed:

- Mr. Christopher Sorich (2018-19) "Assessment of the Ecology, Health, and Remediation Action Maintaining a Phytostabilizing Grassland Community".
- Ms. Jacqulyn Cook (2017-18) "Analyzing Factors that Lead Municipalities to Develop Climate Action Plans and Factors that Determine Successful Implementation of Those Plans".
- Ms. Laura McBride (2015-16) "Analysis of Zinc Contamination in Plants in the Remediation Area of the Lehigh Gap Wildlife Refuge".
- Ms. Paige Malewski (2015-16) "A Paleopathological Analysis on the Effects of Urbanization and Industrialization on Public Health in Medieval and Post-Medieval England (1100-1900)" with Dr. Sandy Bardsley.
- Ms. Marla Bianca (2012-13): "Determination of the impact of heavy metal contamination on plants at the Lehigh Gap Wildlife Refuge".
- Ms. Caiti Campbell (2012-13): "Barnegat Bay Explorer Program: Using Public Education in the Barnegat Bay Protection Effort".
- Ms. Anna Meola (2011-12): "Using Ecological Monitoring and Citizen Science to Better Understand Climate Change Impacts in Eastern Pennsylvania".

Courses Taught at Lafayette College:

CHEM 351 Biochemistry (via LVAIC Consortial Professor Program)

Courses Taught at East Stroudsburg University:

CHEM 315 Biochemistry (lecture) CHEM 317 Biochemistry Laboratory

CHEM 350 Physical Biochemistry (lecture) CHEM 352 Physical Biochemistry Laboratory

CHEM 412 Contemporary Topics in Biochemistry CHEM 415 Protein Chemistry CHEM 417 Protein Chemistry Laboratory CHEM 418 Molecular Toxicity

CHEM 420 Bioseparations CHEM 108 Environmental Chemistry (gen. ed.)

CHEM 108H Environmental Chemistry – Honors
CHEM 123 General Chemistry I Laboratory
CHEM 234 Organic Chemistry I Lab
CHEM 236 Organic Chemistry II Lab

CHEM 493 Research in Chemistry CHEM 486 Field Experience and Internships

CHEM 485 Independent Study: MCOM 290 Ethical Issues in a Contemporary Society

-Research in Biochemistry

-Advanced Biochemical Techniques

-Techniques in Biotechnology

BIOL 538 Physiological Biochemistry (graduate level)

GSCI 512 Contemporary Topics in Biochemistry (graduate level)

GSCI 570 Introduction to Research (graduate level)

SCHOLARSHIP:

Books or Book Chapters:

- 1. *Husic*, *D.W.*, *Husic*, *H.D.*, *Kunkle*, *D. and Whidden*, *H.* editors, <u>From Superfund Site to Wildlife Refuge: A Story of Ecological Restoration at the Lehigh Gap, Pennsylvania</u>. *Pennsylvania Academic of Sciences* (in preparation, by invitation, expected publication date 2022).
- 2. Bowser, G., Whipple, S., Halliwell, P. and Husic, D. "Place-based Learning and Citizen Science Engages Underrepresented Students in Environmental Sciences", in Communicating Science: From Theory to Practice, Julia Kiernan, ed. Manuscript proposal accepted; chapter in preparation.

Published Manuscripts:

- 1. Halliwell, P., Whipple, S., Hassell, K., Bowser, G., Husic, D. and Brown, MA. (2020) "21st Century Climate Education: Developing Diverse, Confident, and Competent Leaders in Environmental Sustainability." The Bulletin of the Ecological Society of America 101(2).
 - https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/bes2.1664
- 2. *Husic*, *D.W.* (2016) "Climate Negotiations on an International Stage: A Report from Marrakech." Wildlife Activist 80: 11-12.
- 3. *Husic, Diane W.*, Master, Terry L., Husic, Corey, Kloiber, Stephen, Reider, Kerry, and Beimforr, Laura. 2015. Key Findings of 2014 Monitoring of the Kittatinny Ridge (Eastern Portion): Forest Birds and Habitat Quality. Kittatinny Coalition.
- 4. *Husic*, *D.W.* (2014) "What Fires Should Educators Light", Liberal Education 100 (1): 2-3; Guest Message. https://www.aacu.org/liberaleducation/2014/winter/husic.
- 5. *Husic, D.W.*, Peterman, K.E., Foy, G.P., and Binford, H. (2014) "Undergraduates, Faculty Mentors, and Professional Disciplinary Societies Address Climate Change as a Global Human Rights Issue." CUR Quarterly 34 (3): 19-20.
 - http://www.cur.org/assets/1/23/Pages_from_spring2014web_v34.3_web_vignette_Husic.pdf.
- 6. *Husic*, *D*. (2013) "A Decade of Research at LGNC." Wildlife Activist 72: 6 11, and "Why Diversify?" Ibid., p. 15.
- 7. *Husic*, *D*. (2013) "On the Value of Raptors." American Hawkwatcher 38: 16 19; available at http://lgnc.org/publications/hawkwatcher.
- 8. *Husic*, *D*. (2012) "Violets and Butterflies." (on the conservation efforts for the endangered Regal Fritillary), Wildlife Activist 72: 3-4.

- 9. *Husic, D.* (2012) "Environmental Literacy, Wild Places and Play as Elements of a Quality Education." Wildlife Activist 71: 6-7.
- 10. *Husic*, *D*. (2012) "COP17: Lessons from South Africa." Wildlife Activist 70: 8 11.
- 11. Husic, D. (2012) "Birding Conference Focuses on Diversity." Wildlife Activist 70: 11-12.
- 12. *Husic*, *D*. (2011) "LGNC Launches New Conservation, Education and Citizen Science Initiatives" and "Eastern PA Phenology Project Update." Wildlife Activist 69: 5 6, 12.
- 13. Kunkle, D., Husic, D., and Husic, C. (2011) "Creating a Diverse Prairie Ecosystem at the Lehigh Gap." Wildlife Activist 69: 2-5.
- 14. *Husic*, *D.W*. (2011) "Climate Change is Not a Spectator Sport: Make a Difference Globally and in Your Backyard." Keystone Wild!Notes, Spring edition, pp. 15-18, by invitation; available at http://www.dcnr.state.pa.us/wrcp/wildnotes/spring11/index.html.
- 15. *Husic*, *D.W.*, Husic, C., Kunkle, D., and Kuserk, F. (2010) Lehigh Gap Wildlife Refuge Ecological Assessment Part II, available at http://lgnc.org/resources/reports/lgwr-assessment-ii.
- 16. *Husic*, *D.W.* and Hensel, N. (2011) From Transforming the Curriculum to Tackling Global Grand Challenges The Role of Undergraduate Research in the 21st Century. PKAL 20th Anniversary Essays, by invitation; available at http://www.aacu.org/pkal/twentiethanniversaryessays.cfm.
- 17. *Husic*, *D*. (2010) "Reflections on Copenhagen." Wildlife Activist (fall 2010 issue and available at http://lgnc.org/wp/wp-content/uploads/2010/11/Reflections-on-Copenhagen.pdf.
- 18. Elrod, S., *Husic*, *D.* and Kinzie, J (2010) "Research and Discovery Across the Curriculum." Peer Review 12: 4 8.
- 19. *Husic*, *D*. and Kunkle, D. (2010) "From Superfund to Super Habitat: Lehigh Gap Nature Center." Keystone Wild! Notes, Spring 2010, PA Wild Resource Conservation Program.
- 20. *Husic, D.W.* (2010) "The Role of Department Chairs in Promoting and Supporting Transformative Research" *In* <u>Transformative Research at Predominantly Undergraduate Institutions</u>. Karukstis, K. and Hensel, N. eds., Council on Undergraduate Research, Washington, D.C.; available at http://www.cur.org/pdf/TRFull.pdf.
- 21. *Husic*, *D.W*. (2010) "Transformative Research as a Means of Transforming Landscapes and Revitalizing Academic Departments: A Case Study" *In* <u>Transformative Research at Predominantly Undergraduate Institutions</u>. Karukstis, K. and Hensel, N. eds., Council on Undergraduate Research, Washington, D.C.; available at https://www.cur.org/assets/1/7/TRFull.pdf.
- 22. Hensel, N., *Husic*, *D*., McConnaughay, K. (2009) "Student-Faculty Research in Science and Engineering" *In* Private Colleges and Universities Magazine. (Revised and updated versions of this were also published by invitation in 2010 and 2011.)
- 23. *Husic*, *D*. (2009) "Some Reflections on Superfund Sites." Wildlife Activist 64: 8 11.
- 24. *Husic*, *D*. (2009) "Advocacy and the Political Process: It's Not for Me. Is it?" CUR Quarterly 29: 6 7.
- 25. *Husic*, *D*. (2009) "Providing a Framework for Environmental Leadership in the 21st Century." Wildlife Activist 63: 5 8.
- 26. *Husic*, *D*. (2008) "Environmental Leadership in the U.S. A Historical Perspective." Wildlife Activist 62: 6
- 27. *Husic*, *D*. (2008) "Confessions of a Newly Diagnosed Birding Addict." Wildlife Activist: 61: 7 9.
- 28. *Husic*, *D*. and F. Kuserk (2007) "Lehigh Gap A Vibrant Education and Research Center." Wildlife Activist: <u>59</u>: 3 4.
- 29. *Husic*, *D*. and D. Kunkle (2007) "Summer Camp' for Teachers." Wildlife Activist: 59: 5 6.
- 30. *Husic*, *D*, and C. Husic (2006) "Lehigh Gap Naturalists Club Founded." Wildlife Activist: 57: 8 9.
- 31. **Husic, D.W.** (2006) "Navigating through Interdisciplinary Pitfalls and Pathways to Success.", <u>CUR</u> Quarterly, 26: 169 176. (A photo of our research consortium was featured on the cover of this edition.)
- 32. **Husic, D.W.** (2005) "Technology and Ethics." In <u>Ready Reference: Ethics</u>, 2nd edition, J. K. Roth, ed., Salem Press (Pasadena, CA); pp. 1456 1464.
- 33. Husic, D.W. (2005) "Ethics of Genetically Modified Foods." Ibid, pp. 575 -578.
- 34. *Husic*, *D.W*. and Elgin, T. (2003) "Curricula Structures to Support Undergraduate Research." NSF- funded Summit on Undergraduate Research, Bates College; available at: http://www.bates.edu/chemistry-biochemistry/faculty/thomas-wenzel/undergraduate-research-summit/white-papers/.

- 35. *Husic*, *D.W.* (2003) "Politics and Higher Education: Barriers to Undergraduate Research Opportunities at Public Comprehensive Institutions." NSF-funded Summit on Undergraduate Research, Bates College; available at: http://www.bates.edu/chemistry-biochemistry/faculty/thomas-wenzel/undergraduate-research-summit/white-papers/.
- 36. Husic, H.D. and *Husic*, *D. W.* (2002) "The Oxidative Photosynthetic Carbon (C2) Cycle: An Update and Unanswered Questions." *In* Reviews in Plant Biochemistry and Biotechnology 1: 33 56, A. Goyal, S.L. Mehta, M.L. Lodha, eds.
- 37. *Husic, D.W.* (2000) "Genetically Engineered Foods." *In* Encyclopedia of Environmental Issues, C.W. Allin, ed., Salem Press, Inc. (Pasadena), pp. 348 -351.
- 38. Husic, D.W. and Husic, H.D. (2000) "Genetically Engineered Organisms." Ibid., pp. 351 353.
- 39. *Husic*, *D.W.* (2000) "Flavr Savr Tomato.", *Ibid*.
- 40. Husic, D.W. (2000) "DDT.", In The Encyclopedia of Environmental Issues, Ibid.
- 41. *Husic*, *D.W.* (1997) "The p53 Gene Implicated in Many Types of Cancer." *In* The Twentieth Century: Great Scientific Achievements, Supplement, R. Smith, ed., Magill and Salem Press (Pasadena, CA), pp. 1412 1414.
- 42. Bellows, T. and *Husic*, *D.W*. (1997) "An Interdisciplinary Approach to Plant Science." A Science Alliance Teaching Module, Somerset/Hunterdon Business and Education Partnership, NJ.
- 43. *Husic*, *D.W*. (1997) "Cancer." *In* The Encyclopedia of Social Issues, J.K. Roth, ed., Marshall Cavendish Corp. (NY), pp. 230 -233.
- 44. Husic, D.W. (Feb. 1995) "Cancer and Genetics." Flat Coated Retriever Society of America Newsletter.
- 45. *Husic*, *D.W.* (1994) "Technology and Ethics." *In* Ready Reference: Ethics, S. Woodyard, ed., Salem Press (Pasadena, CA), pp. 856 860.
- 46. *Husic*, *D.W.* (1994) "Morel Multiplies Plants *in vitro* Revolutionizing Agriculture." *In* The Twentieth Century: Great Scientific Achievements, C. Moose, ed., Magill and Salem Press (Pasadena, CA), pp. 574 576.
- 47. Husic, H. D. and *Husic, D. W.* (1993) "Melvin Calvin." *In* Nobel Laureates in Chemistry 1901--1992, L.K. James, ed., American Chemical Society and the Chemical Heritage Foundation, 422-427. (a biography favorably reviewed by Calvin).
- 48. *Husic*, *D.W.* and Tolbert, N.E. (1992) "Enzymes of Glycolate, Lactate, and Pyruvate Metabolism in Algae: An Evolutionary Perspective." *In* <u>Phylogenetic Changes in Peroxisomes of Algae/Phylogeny of Plant</u> Peroxisomes. H. Stabenau, ed., University of Oldenburg Publications, pp. 233-252.
- 49. Husic, H. D. and *Husic, D. W.* (1990) "Stanford Moore and William Stein." *In* Magill, F. N., ed., <u>The Nobel</u> Prize Winners: Chemistry, Salem Press, pp. 900-909.
- 50. Husic, H. D. and *Husic*, *D. W.* (1990) "Peter D. Mitchell." *In* Magill, F. N., ed., <u>The Nobel Prize Winners:</u> Chemistry, Salem Press, pp. 993-1001.
- 51. *Husic, D. W.* and Tolbert, N. E. (1987) "Inhibition of Glycolate and D-Lactate Metabolism in a *Chlamydomonas Reinhardtii* Mutant Deficient in Mitochondrial Respiration." Proc. Natl. Acad. Sci., U.S.A. 84, 1555-1559.
- 52. *Husic*, *D. W.* and Tolbert, N. E. (1987) "NADH:Hydroxypyruvate Reductase and NADH:Glyoxylate Reductase in Algae. Partial Purification and Characterization from *Chlamydomonas Reinhardtii*." Arch. Biochem. Biophys. 252, 396-408.
- 53. Tolbert, N. E., Gee, R., *Husic, D. W.*, and Dietrich, S. (1987) "Peroxisomal Glycolate Metabolism and the C₂ Oxidative Photosynthetic Carbon Cycle." In Fahimi, H. D. and Sies, H., eds., Peroxisomes in Biology and Medicine, Springer-Verlag, Berlin/ Heidelberg, pp 213-222.
- 54. *Husic, D. W.* and Tolbert, N. E. (1987) "Glycolate and D-Lactate Metabolism in a Mutant of *Chlamydomonas Reinhardtii* Deficient in Mitochondrial Respiration." *In* <u>Progress in Photosynthesis</u> <u>Research</u>, Vol. III, Martinus Nijhoff Publishers, Dordrecht, pp 557-560.
- 55. *Husic*, *D. W.*, Husic, H. D., and Tolbert, N. E. (1987) "The Oxidative Photosynthetic Carbon or C2 Cycle." CRC Crit. Rev. Plant Sci. 5, 45-100.
- 56. *Husic, D. W.* and Tolbert, N. E. (1985) "D-Lactate Metabolism in *Chlamydomonas reinhardtii*." Plant Physiol. 78, 277-284.

57. Tolbert, N. E., Husic, H. D., *Husic, D. W.*, Moroney, J. V., and Wilson, B. J. (1985) "Relationship of Glycolate Excretion to the Dissolved Inorganic Carbon Pool in Microalgae." Lucas, W. J. and Berry, J. A., eds., Inorganic Carbon Uptake by Aquatic Photosynthetic Organisms, American Society of Plant Physiologists, Rockville, MD, pp 211-227.

Other Scholarly Work:

Contributor for Reports:

- 1. UNFCCC Technology Executive Committee, 2021. *Good Practices and Lessons Learned on International Collaboration RD&D Initiatives of Climate Technology*; available at https://unfccc.int/ttclear/tec/rdandr.
- 2. UNFCCC Technology Executive Committee. November 2017. *Compilation of Good Practices in Effective Knowledge Sharing and Practical Learning on Climate Adaptation Technologies Through South-South and Triangular Cooperation*; available at http://unfccc.int/ttclear/tec/brief9.html#SSCompilation.
- 3. UNFCCC Technology Executive Committee TEC Brief 9. 2017. South-South Cooperation and Triangular Cooperation on Technologies for Adaptation in the Water and Agriculture Sectors; available at https://unfccc.int/ttclear/tec/brief9.html#Brief9
- 4. NCAA Division II Document: The Role of the FAR in Supporting Student-Athlete Mental Health and Wellness, adopted in April 2016; available at http://www.ncaa.org/sites/default/files/DII FAR MentalHealthRole 08252016.pdf
- 5. UN Environment Programme Global Gender and Environment Outlook 2016; available at http://web.unep.org/ggeo.
- 6. Pennsylvania Wildlife Action Plan: 2015-2025; available at http://www.pgc.pa.gov/WILDLIFE/WILDLIFEACTIONPLAN/Pages/default.aspx
- 7. NGO CSW outcome document for the North America and European region: An open discussion paper on the priority themes for CSW 58 "Challenges and Achievements in the Implementation of the Millennium Development Goals (MDGs) for Women and Girls," April, 2014; available at: http://www.womenlobby.org/news/ewl-news/article/ngo-csw-outcome-document-for-the?lang=en
- 8. NCAA Division II Model Faculty Athletics Representative Document adopted in April, 2012: http://www.ncaa.org/sites/default/files/Model%2BFAR%2BDocument%2BWeb%2BVersion.pdf
- 9. Addendum on Defining the FAR in the Strategic Communications Relating to Intercollegiate Athletics, adopted in April 2014: http://www.ncaa.org/sites/default/files/DII ModelFAR Document Addendum.pdf
- 10. Pennsylvania Climate Adaptation Planning Report: Risks and Practical Recommendations, PA Department of Environmental Protection, January 2011 (available at http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-82988/7000-RE-DEP4303%20combined%20report.pdf).
- 11. Enhancing Research in the Chemical Sciences at Predominantly Undergraduate Institutions, A Report from the Undergraduate Research Summit, Bates College, Lewiston, Maine (8/2-4/03), sponsored by the National Science Foundation (See final report link at

http://abacus.bates.edu/acad/depts/chemistry/twenzel/summit.html.)

Blogs:

A New Prosperity: http://anewprosperity.blogspot.com/

Huffington Post: http://www.huffingtonpost.com/author/husicd-402 Moravian at UNFCCC: http://moraviancollegeatunfccc.blogspot.com/

Watching the Seasons – the blog of the Eastern Pennsylvania Phenology Project:

http://watchingtheseasons.blogspot.com/

Op-ed pieces:

Husic, D.W. (2005) "Science as a public good", *The Scientist* 19 (16): 8 (29 August 2005). Husic, D.W. (2001) "Hail to the Ambassadors of Women's Sports", <u>The NCAA News</u>, (10/8/01). Husic, D.W. (2000) "Faculty Should Embrace NCAA Service" <u>The NCAA News</u>, (12/4/00). Several others in local newspapers, especially The Morning Call (Lehigh Valley, PA)

Other Media: Video Projects; Contributor for Articles, Radio, and Television Stories (actual written contributions or interviewed):

- 1. Interviewed for capstone video project by Moravian MFA student, Sean McClellan: World Water Dance. A segment of this was selected for a global premiere at World Water Week by the Stockholm International Water Institute: https://www.youtube.com/watch?v=zguvsOY-LII; Summer 2021.
- 2. Interviewed for article: "The Death of Seasons", October 28, 2020, by Madeline Ostrander for <u>Huffington Post</u>.
- 3. Interviewed for <u>Yale Climate Connections</u> spot: "Citizen science project in rural Pennsylvania aims to change the climate conversation." March 23, 2020.
- 4. Interviewed for news story: "What global impacts could wildfires in Amazon rainforest have? 2 local experts explain." Channel 69 News (Allentown, PA), August 24, 2019. https://www.wfmz.com/news/what-global-impacts-could-wildfires-in-amazon-rainforest-have-local/article_a6411fe4-bebe-5585-bbb0-b70690131c70.html.
- 5. Six Degrees of Connection STEM Highlights project with the Nurture Nature Center in Easton, PA. https://nurturenatureorg-my.sharepoint.com/:v:/g/personal/ksemmens_nurturenature_org/EXsLr2R-9qRPkGDbMaRlplkBWG6dTm6V8c3xAguFe85ow?e=XrfhPL.
- 6. Interviewed for article "One Man's Journal Chronicles a Backyard in Climate Flux," Morning Call, November 18, 2017; available at: http://www.mcall.com/news/local/mc-news-environment-record-keepers-20171026-story.html.
- 7. Interviewed by press at COP23 in Jülich Germany for "Gäste aus aller Welt bestaunen Jülicher Klimaforschung," in *Aachener Nachrichten*, November 10, 2017; available at: http://www.aachener-nachrichten.de/lokales/juelich/gaeste-aus-aller-welt-bestaunen-juelicher-klimaforschung-1.1757693.
- 8. Interviewed by State Impact PA/NPR reporter Susan Phillips at COP22, November 2016, Marrakech, Morocco: https://stateimpact.npr.org/pennsylvania/2016/11/21/pennsylvania-academics-find-inspiration-at-climate-conference/#more-43458.
- 9. Interviewed by WFMZ Channel 69, May 2014. http://www.wfmz.com/news/lehigh-valley/what-climate-change-could-mean-for-our-region/19847445; http://www.wfmz.com/news/lehigh-valley/what-climate-change-could-mean-for-our-region/20160527135439594/19885173.
- 10. Interviewed by John Ostapkovich of KYW 1060, Philadelphia, for radio show and blog "Spring Arrives Earlier Now Than In The 1960s, Expert Says," May 30, 2013; available at: http://philadelphia.cbslocal.com/2013/05/30/spring-arrives-earlier-now-than-in-the-1960s-expert-says/.
- 11. WDIY Lehigh Valley Arts Salon Guest, "American Wildlife Art", October 7, 2013, http://www.allentownartmuseum.org/node/724.
- 12. Interviewed by Paul Brown on COP18 for NPR top-of-the-hour news clips during All Things Considered (11/28/12) and Morning Edition (11/29/12).
- 13. Interviewed about *TogetherGreen* Phenology Project and changes in the timing of spring bird migration for story in Audubon Magazine by Anna Sanders, "Holy Shift", November-December 2012, p. 8.
- 14. Interviewed and extensively quoted in "Science in Society Where does it fit in?", Keystone Wild!Notes, Winter 2012, http://www.dcnr.state.pa.us/wrcp/wildnotes/index.html.
- 15. iConservePA Science Afield Video "Citizens Count" (on the value of citizen science); Spring 2011 available at http://www.iconservepa.org/csi/scienceafield/index.htm.
- 16. Radio interview: "From Moonscape to Super Habitat—The Remarkable Story of the Lehigh Gap Nature Center"; Greening of the Great Lakes Program, mLive.com; Recorded April 21, 2011; Aired June 13, 2011; http://www.mlive.com/environment/index.ssf/2011/06/kirk_heinze_from_moonscape_to.html.
- 17. Pickle, D. (2011, Spring) "Fellows Institute kicks it up a notch", NCAA Champion Magazine, p. 69.

- 18. CUR Quarterly Presidential Columns: Fall and Winter, 2009 editions and Spring and Summer, 2010 editions.
- 19. Cosier, S. (2009 May/June) "Whiz Kids", <u>Audubon Magazine</u> -- An article about the Naturalists Club from the Lehigh Gap (PA) that I co-advised.
- 20. 2008 Wildlife Activist an article on a birding research project report (w/ C. Husic).
- 21. 2006 Wildlife Activist an article on involving youth in ecological research.
- 22. Summer 2006 Wildlife Activist an article on Habitat Gardening and Native Plantings.
- 23. Contributor to the "NCAA Division II Update" a Quarterly Newsletter (e.g. see the March 2007 issue, p. 13 http://www1.ncaa.org/membership/governance/division_II/d2_newsletter/March_Newsletter.pdf and the March 2006 issue, pp. 12 14,
 - $\underline{http://www1.ncaa.org/membership/governance/division_II/d2_newsletter/index.html)}.$
- 24. Contributor to "FARA Voice" Newsletter (e.g., see the April/May 2009 Issue XXVIII http://www.farawebsite.org/files/Faravoice/FARAVoiceAprilMay2009.pdf).
- 25. Brown, G. "Athletics Reform Issues Top FARA Forum Agenda", The NCAA News, (11/5/01).
- 26. Durand, B. (2001) "Women Faculty Now Help Govern Campus Athletics", <u>Women in Higher Education</u>, Vol. <u>10</u>: 7 8.
- 27. Brown, G. "NCAA Governance Structure Has FARA Looking For Right Fit", The NCAA News, (5/7/01)

Invited Published Book Review:

Husic, Diane (Dec. 2012) "From preservation to restoration: ecology for the 21st century", Ecology 93, 2769-2774 Book: Galatowitsch, Susan M. 2012. *Ecological restoration*. Sinauer Associates, Inc., Sunderland, Massachusetts. xvii + 630 p. \$89.95 (hardcover), ISBN: 978-0-87893-607-6.

PUBLISHED ABSTRACTS, PRESENTATIONS AND WORKSHOPS:

(* Denotes Undergraduate Research Students)

- 1. *Organizer and Facilitator*, 3D Naturalist Workshop on Discovery, Data, Diversity and Citizen Science, Schoodic Institute, Acadia National Park, Maine, August 10 13, 2022 (part of an NSF grant-funded project).
- 2. *Invited panelist*, *Women in Conservation*, an event sponsored by Hawk Mountain Sanctuary for Women's History Month, March 29, 2022.
- 3. Organizer and moderator for invited mini-symposium, Snapshots of a Superfund Site: An Interdisciplinary Approach to Ecological Restoration. 97th annual Pennsylvania Academy of Sciences Conference, March 26, 2022, DeSales University. My presentation in this session: "Analyzing the Success of Restoration and Adaptive Management Strategies."
- 4. *Organizer and facilitator*, 12th NCAA Division II Faculty Athletics Representatives (FAR Fellows) Leadership Institute, October 1 3, 2021, Indianapolis, IN.
- 5. *Invited panelist. Leading with Science on the Road to COP26.* Sponsored by the Global Council for Science and the Environment (GCSE) and the Security and Sustainability Forum (SSF). October 18, 2021. Virtual.
- 6. *Invited panelist.* Why is effective communication important for water? Communications and Behaviour Change Accelerator at World Water Week, August 23, 2021. https://worldwaterweek.us2.pathable.com/meetings/virtual/.
- 7. *Invited speaker*, From Science to Action: The Importance of Engaging the Public in Complex Environmental Issues. World Water Week Communications Initiative, The Stockholm International Water Institute. Virtual. June 9, 2021.
- 8. *Invited speaker*, Custodians of our Ecosystem: Women, Raptors, and Unsettling Words. Hawk Mountain Sanctuary Stay-at-Home Speaker Series, November 12, 2020. Also presented for the Lehigh Gap Nature Center Virtual Speakers Series, December 17, 2020.
- 9. *Organizer, moderator and presenter,* panel, *Crossing the Abyss: The Value of Working at the Science-Policy Interface*. National Council for Science and the Environment annual conference, January 7, 2020, Washington, D.C.
- 10. *Invited moderator*, flash talk session, Exploring the Science-Policy Interface, National Council for Science and the Environment, January 7, 2020, Washington, D.C.
- 11. *Organizer, moderator, and presenter,* COP25 Side-event panel for the Research and Independent NGOs, *Contribution of Higher Education to Climate Action and the Implementation of the Paris Agreement.* December 3, 2019, Madrid, Spain.
- 12. *Invited panel discussant:* COP25 event at the Bangladesh Pavilion entitled "Universities as Knowledge Brokers in the Governance of Climate Change." December 3, 2019, Madrid, Spain.
- 13. *Organizer and facilitator*, 11th NCAA Division II Faculty Athletics Representatives (FAR Fellows) Leadership Institute, September 27 29, 2019, Indianapolis, IN.
- 14. *Invited Panelist:* Working at the Interface of Science and Policy for the "Connecting Society with Science: How Can Scientists Better Communicate with the Public" mini-symposium, Pennsylvania Academy of Science Symposium, Cedar Crest College, Allentown, PA, March 30, 2019.
- 15. *Organizer and facilitator*, COP24 Side-event panel for the Research and Independent NGOs, *Contributions of the research community to climate action and implementation of the Paris Agreement*. Research into Practice Day, December 4, 2018, Katowice, Poland.
- 16. *Organizer and facilitator*, 10th NCAA Division II Faculty Athletics Representatives (FAR Fellows) Leadership Institute, September 28 30, 2018, Indianapolis, IN.
- 17. *Poster Presentation:* Foster, Paul, Anna Monfils, Gillian Bowser, Ulrike Gretzel, Diane Husic, Teresa Mourad, and John Moore. 2018. *New tools for data literacy and data management skills for undergraduate research*. Second Annual Digital Data in Biodiversity Research Conference: Emerging Innovations for Biodiversity Data. 4 6 June 2018. University of California, Berkeley.
- 18. *Panelist:* Summer meeting of the Council of Environmental Deans and Directors, "Interdisciplinary Challenges and Opportunities." Chatham University, June 27, 2018, Pittsburgh, PA.
- 19. *Invited Speaker:* Chicago Botanic Gardens, Art show opening for Penelope Gottleib, *Intersections Between Art and Environmental Science*. May 5, 2018, Chicago, IL.

- 20. *Invited Panelist:* AAAS Science and Human Rights Coalition Meeting, *Teaching STEM Without a Human Rights Perspective: What Could Go Wrong?* January 25, 2018, Washington, D.C.
- 21. *Organizer and facilitator*, COP23 Side-event panel for the Research and Independent NGOs, "Community-Based Adaptation: Research, Practice and Partnerships for Resilience-Building". My presentation was entitled *Community-Based Adaptation Conferences and the TEC Adaptation Taskforce: South-South Cooperation*. November 6, 2017, Bonn, Germany.
- 22. *Invited Panelist:* "A Moment of Science" (with Rebecca Kennedy) and "Climate Change Comes Home Impacts in the Lehigh Valley." (with Vincent Joseph Cotrone and Kate Semmons), Biannual Lehigh Valley Watershed Conference, October 17, 2017, Bethlehem, PA.
- 23. *Invited Speaker:* "Building Climate Resiliency: Community-based Solutions to a Global Challenge." October 19, 2017, Manada Conservancy, Hershey, PA.
- 24. *Organizer and facilitator*, 4th biannual NCAA Division II Faculty Athletics Representatives Advanced Leadership Institute, September 29 October 1, 2017, Indianapolis, IN. Focus on Strategic Communication.
- 25. *Invited Speaker:* "Tracking Climate Change Through Bloom Times, Birds, and Bugs." Easton Public Library, August 17, 2017, Easton, PA and September 20, 2017, Kalmbach Memorial Park, Macungie, PA.
- 26. *Invited Panelist:* "Prioritising Participation: emphasising the 'C' in CBA." 11th Community-based Adaptation Conference, June 22 29, 2017, Kampala, Uganda.
- 27. *Poster Presentation:* "Ecological Restoration: Re-establishing Landscapes While Building Resilience and Community." 11th Community-based Adaptation Conference, June 22 29, 2017, Kampala, Uganda.
- 28. *Organizer and co-facilitator* (with Mary Heather Noble), Craft session entitled *Cross-pollinating, A Conversation: How Literary Art and Science Can Enrich One Another*. Moravian College Writers' Conference, February 5, 2017, Bethlehem, PA.
- 29. *Organizer, facilitator, and presenter*, COP22 Side-event panel for the Research and Independent NGOs, "New Directions in Climate Change Research", Marrakech, Morocco, November 7, 2016. My presentation was entitled *Engaging youth as citizen scientists to conduct landscape-level ecological monitoring of the impacts of climate change.*
- 30. *Organizer and facilitator*, 9th NCAA Division II Faculty Athletics Representatives (FAR Fellows) Leadership Institute, September 30 October 2, 2016, Indianapolis, IN.
- 31. *Organizer and facilitator*, COP21 Side-event panel for the Research and Independent NGOs, "*Bridging the research gap: a discussion of new directions and research needs for climate policy.*" Paris, France, December 2, 2015.
- 32. *Organizer and facilitator*, 3rd biannual NCAA Division II Faculty Athletics Representatives Advanced Leadership Institute, October 2 -4, 2015, Indianapolis, IN. Focus on Student-Athlete Mental Wellness and Inclusion.
- 33. *Faculty mentor*: Laura McBride "Creation of an Annotated Bibliography of the Kittatinny Ridge in Pennsylvania: A Tool for Creating Conservation and Research Priorities." National Conferences for Undergraduate Research, April 16-18, 2015, Eastern Washington University. Also presented at the "Posters on the Hill" event in Harrisburg, PA, March 2015, and at the Kittatinny Ridge Science Summit, August 2014.
- 34. *Organizer and facilitator*, 8th NCAA Division II Faculty Athletics Representatives (FAR Fellows) Leadership Institute, October 23 26 2014, Indianapolis, IN.
- 35. *Invited Speaker:* "The Kittatinny Ridge: A Vital Landscape in our Backyard." Jacobsburg State Park, PA, September 26, 2014.
- 36. *Invited Symposium Presenter:* "Adapting Lessons from the International Stage to Address Climate Change at Home." for Symposium on *Global Stewardship by Increasing Climate Science Literacy*. 248th ACS National Meeting, San Francisco, CA, August 2014.
- 37. *Co-organizer and facilitator* (with Kate Brandes and Dan Kunkle): STEM-Learning through Science-Based Nature Journaling Workshops for Teachers: "Landscape interpretation and storm water." June 19th, 2014 (Lehigh Gap Nature Center) and "Watershed science, landscape interpretation, riparian zones; links between water, industry, and culture." June 24th, 2014 (along Lehigh River Watershed). Funded by PA DEP Environmental Education grant.
- 38. *Invited Speaker:* "Intersections Between Science, Nature, and the Arts." Allentown Art Museum, Allentown, PA, December 8, 2013 (http://allentownartmuseum.ticketleap.com/intersections-between-science-nature-and-the-arts-/) and Nurture Nature Center, Easton, PA, March 20, 2014. Invited again for

- May 4, 2015, to present this for the Allentown Art Museum docents. Also delivered at Moravian College as part of the 2014- 15 Arts and Lectures Series, April 13, 2015.
- 39. *Invited Speaker:* "Using Citizen Science to Study Regional Impacts of Climate Change." East Stroudsburg University, East Stroudsburg, PA, February 28, 2014.
- 40. *Forum Co-Moderator:* Inquiry into the Impact of New Technology Initiatives on Teaching and Learning within the Context of a Liberal Arts Environment. February 19, 2015, Moravian College.
- 41. *Invited Speaker:* "Some random thoughts on biodiversity: What we don't know and why it is important to find out?" Northern Michigan University, September 20, 2013.
- 42. *Poster Presentation:* "Lessons from the International Stage: Making Adaptation Policy and Case Studies Relevant at the Regional Level." Inaugural National Adaptation Forum, April 2-4, 2013, Denver, CO and National Council for Science and the Environment: Building Climate Solutions Conference, Crystal City, Washington, D.C., January 27-30, 2014.
- 43. *Organizer and facilitator*, 2nd biannual NCAA Division II Faculty Athletics Representatives Advanced Leadership Institute, October 18-20, 2013, Indianapolis, IN. Produced document: "Defining the FAR Link in the Strategic Communications Chain Relating to Intercollegiate Athletics."
- 44. *Contribution to Art Exhibit*: "Taking Note: The Art of Nature Journaling." Nurture Nature Center, Easton, PA, July 18 September 15, 2013.
- 45. *Poster Presentation:* "Engaging public audiences in climate science through citizen science, nature journaling and art workshops, and community dialog about local adaptation priorities." Inaugural National Adaptation Forum, April 2-4, 2013, Denver, CO.
- 46. *Speaker:* "Climate-induced changes in habitat and community compositions: how do we begin to adapt the fields of ecology and restoration?" Meeting of the Society for Ecological Restoration, Mid-Atlantic Section, *Pieces of the Puzzle: From Backyard Habitat to Landscape Scale*, March 29, 2013, University of Maryland, College Park, MD.
- 47. *Co-author* of paper being delivered (with Dan Kunkle): "Ecological Monitoring and Adaptive Management of the Lehigh Gap Wildlife Refuge/Palmerton Superfund Site." Meeting of the Society for Ecological Restoration, Mid-Atlantic Section, *Pieces of the Puzzle: From Backyard Habitat to Landscape Scale*. March 29, 2013, University of Maryland, College Park, Md.
- 48. *Faculty Mentor*: Marla Bianca, "Analysis of the Heavy Metal Contamination on Plants at a Superfund Restoration Site and Adaptive Management Consequences." NCUR conference, April 2013, LaCrosse, Wisconsin.
- 49. *Invited Speaker:* "A Decade of Ecological Restoration & Research at the Lehigh Gap Wildlife Refuge." Lehigh Gap Nature Center Speaker Series, February 17, 2013.
- 50. *Invited Panelist:* "Lehigh Valley's Most Unwanted: on the Ecological Management of Invasive Plants." January 31, 2013, Nurture Nature Center, Easton, PA.
- 51. *Co-facilitator* (with Kate Brandes), Nature Journaling Workshop Series, Workshop #1 "Many observations, many languages: communicating nature. Different ways of Interpreting the world." November 17, 2012, Nurture Nature Center, Easton, PA. Supported by a grant from the Lehigh Valley Arts Council.
- 52. *Invited Speaker*: "Climate Change: From Your Backyard to the International Stage." The Manada Conservancy, November 1, 2012, Hershey, PA.
- 53. *Organizer and facilitator*, 7th NCAA Division II Faculty Athletics Representatives (FAR Fellows) Leadership Institute, October 19 21, 2012, Indianapolis, IN.
- 54. *Invited Speaker*: "The Timings, They Are a Changin': What Does This Mean for PA's Ecosystems?", 5th Lehigh Valley Watershed Conference (Rising Waters). Lehigh University, October 9, 2012.
- 55. Workshop Co-facilitator: Bushey, M., King, J., and Husic, D. "Establishing and Sustaining Interdisciplinary Undergraduate Research Projects." 2012 CUR Conference (June 24, College of New Jersey).
- 56. Workshop Co-facilitator (with Keri Maxfield, Pam Ruch, and Judy Krasnicke): "Backyards as Science Laboratories: Using Observation, Journaling, and Art to Capture Changes in Nature." June 30, 2012, Nurture Nature Center, Easton, PA.
- 57. *Invited Facilitator:* Faculty Workshop on Interdisciplinary Learning (Curricular Mapping), Willamette University. June 18-19, 2012, sponsored by the Keck Foundation.
- 58. *Facilitator*: Kittatinny Ridge Ecological and Conservation Science Summit. April 20, 2012, Lehigh Gap Nature Center.

- 59. *Speaker:* "Is Climate Change the New Apartheid for the 21st Century?" Moravian College InFocus program on Poverty and Inequality (April 2, 2012).
- 60. *Faculty mentor*: Anna Meola and Diana Feldmann, "Using Ecological Monitoring and Citizen Science to Better Understand Climate Change Impacts in Pennsylvania." National Conferences for Undergraduate Research, March 29 31, 2012, Ogden, Utah.
- 61. *Speaker:* The Eastern PA Phenology Project: Birding and Nature Watching with a Scientific Purpose. "A Focus on Diversity: Changing the Face of American Birding" conference, John Heinz Wildlife Refuge. October 22, 2011. This presentation was videotaped and broadcast nationally through the Fledging Birders Institute, the Birding Education Network, and the American Birding Association. (Archived at http://www.fledgingbirders.org/CFABLIVE4.html.)
- 62. Talks on The Eastern PA Phenology Project were also given at the Edge of the Woods Native Plant Garden Fall Festival (by invitation, Sept. 10, 2011) and at the Migration Festival at the Lehigh Gap Nature Center (October 17-18, 2011).
- 63. *Organizer and facilitator*, 1st biannual NCAA Division II Faculty Athletics Representatives Advanced Leadership Institute, October 14-16, 2011, Indianapolis, IN. Produced "NCAA Division II Model FAR Document."
- 64. *Invited Facilitator:* Faculty Workshop on Interdisciplinary Learning. Willamette University, June 23-24, 2011, sponsored by the Keck Foundation.
- 65. *Invited Speaker:* "From Superfund to Superhabitat: A Story of Hope for our Ecological Future." Michigan State University, 50th Anniversary Celebration of the Biochemistry and Molecular Biology Program, April 20, 2011.
- 66. *Invited Keynote Speaker:* "From Student to Scholar: Charting a Course toward Excellence." Shippensburg University's Celebration of Undergraduate Research. April 19, 2011.
- 67. *Invited Speaker:* "Climate Change is Not a Spectator Sport: Making a Difference both Internationally and in Your Backyard." Science Café, LVACS and Barnes and Noble, April 6, 2011.
- 68. *Co-presenter:* Husic, D.W., Kuserk, F., McConnaughay, K., Morris, S., Edgcomb, M. "*Developing Environmental Literacy and Citizenry Through Co-Curricular High Impact Practices and Strategic Partnerships.*" AAC&U/PKAL Engaged STEM Learning: From Promising to Pervasive Practices Conference. Miami, FL, March 24-26, 2011.
- 69. *Co-presenter:* Husic, D. W., Lee, Moses N.F., and Ronco, S. "*Transformative Research: Working with Undergraduates to Chart New Research Paradigms.*" AAC&U Academic Renewal Conference on Creativity, Inquiry, and Discovery: Undergraduate Research in and Across the Disciplines. Durham, NC, November 12, 2010.
- 70. *Co-organizer and facilitator*, 6th annual NCAA Division II Faculty Athletics Representatives (FAR Fellows) Leadership Institute, October 29 31, 2010, Indianapolis, IN.
- 71. *Invited Speaker:* "From Superfund to Superhabitat or How Does a Biochemist End up Doing Ecological Restoration and Conservation Policy?" Northern Michigan University, October 22, 2010.
- 72. *Invited roundtable facilitator* and *Poster co-presenter:* "Toward a Truly Interdisciplinary Environmental Science Program." Project Kaleidoscope/AAC&U colloquium entitled Transformative Change in STEM Education: Leadership for Advancing Undergraduate Interdisciplinary Learning; October 15-15, 2010, Washington, D.C.; participant in the Keck-PKAL Facilitating Interdisciplinary Learning Project.
- 73. *Invited speaker*: "Environmental Leadership for the 21st Century: Changing policy and practice at global and local levels." Service Learning in Public Policy program. Freedom Foundation campus, Valley Forge, PA, July 21, 2010.
- 74. *Invited speaker*: "A Discussion on Science-based Consortia, Undergraduate Research and Curriculum, Service Learning, and Community Partnerships." Ecological Research as Education Network (EREN) meeting. University of the South, Sewanee, TN, June 28, 2010.
- 75. Co-presenter: Husic, D. and Deibel, M. "Linking Undergraduate Research, Service Learning, and Community Partnerships Through Work at Regional Contaminated Sites." CUR National Conference: Undergraduate Research as Transformative Practice: Developing Leaders and Solutions for a Better Society. Weber State University, Ogden, UT June 20, 2010.
- 76. *Invited speaker:* "Adapting to Climate Change on a Global Scale: Perspectives from the Copenhagen Climate Change Summit." Conference: Adapting to Climate Change Planning for the Future of Pennsylvania's Natural Resources. April 30, 2010, Erie, PA.

- 77. *Co-presenter:* Temple, L., Dunbar, D. and Husic, D.W. "Original research in the undergraduate science classroom and beyond: a means to many ends." Poster presented at AAC&U's Faculty Roles in High-Impact Practices conference. March 25, 2010, Philadelphia, PA.
- 78. *Invited speaker:* Transformative Research at Predominantly Undergraduate Institutions. CUR Dialogs. February 25 -27, 2010, Washington, D.C.
- 79. *Invited moderator and panelist:* Husic, D.W., Murphree, S., and Kinnel, R., "Faculty Scholarship: How Much and at What Cost." 43rd annual meeting of the Mid-Atlantic Association of Liberal Arts Chemistry Teachers. Washington College (Chestertown, MD, November 14, 2009).
- 80. *Invited speaker and workshop leader:* "At the Heart of the Liberal Arts Experience: Undergraduate Research, Scholarship, and Creative Activity." Mary Baldwin College, Staunton, Virginia, September 30, 2009.
- 81. *Co-organizer and facilitator*, 5th annual NCAA Division II Faculty Athletics Representatives (FAR Fellows) Leadership Institute, October 2009, Indianapolis, IN.
- 82. *Faculty mentor:* Wright, M. "Annotated Bibliography of the Palmerton Zinc Superfund Site and the Lehigh Gap in Pennsylvania." Poster presentation at the 5th annual Undergraduate Research at the Capitol Pennsylvania, Harrisburg, PA. October 20, 2009. As CUR president, I was asked to give opening remarks for this event.
- 83. *Faculty mentor:* S. Brockley*, L. Yi*, G. Niehoff*, and Husic, D. "Analysis of Plant Succession at the Lehigh Gap A Superfund Site Undergoing Restoration." Poster presentation for the 2009 Council on Undergraduate Research Posters on the Hill event, Washington D.C. (May 2009). This poster was also presented at the 2009 NCUR meeting, LaCrosse, WI (April 2009).
- 84. *Co-author:* D. Kunkle, D.W. Husic, and J. Dickerson. "Lehigh Gap restoration project: Revegetating a Superfund site with native grasses." Annual Meeting of the Mid-Atlantic Chapter of the Ecological Society of American. The College of New Jersey, (March 13, 2009).
- 85. *Presenter:* D.W. Husic, S. Brockley, Y. Li, G. Niehoff, and D. Kunkle. "The Central Role of Plants in the Remediation and Ecological Monitoring of a Metal Contaminated Site in Eastern Pennsylvania." Annual Meeting of the Mid-Atlantic Chapter of the Ecological Society of America. The College of New Jersey, (March 13, 2009).
- 86. *Co-author:* D. Kunkle, J. Dickerson, and D. Husic (2008) "The Use of Native Grasses at the Palmerton Superfund Site." *In:* The Conference Proceedings of the Sixth Eastern Native Grass Symposium. South Carolina, October 2008.
- 87. *Co-organizer and facilitator*, 4th annual NCAA Division II Faculty Athletics Representatives (FAR Fellows) Leadership Institute, October 2008, Indianapolis, IN.
- 88. *Presenter:* D.W. Husic, M. Kuchka, Y. Li*, and Michael Kearse, "The D-Lactate Dehydrogenase in Chlamydomonas reinhardtii: A Bioinformatics and Gene Expression Study." Poster presented at the annual meeting of the American Society of Plant Biologists. Merida, Mexico, June 27 July 1, 2008.
- 89. *Presenter:* D.W. Husic, Y. Li*, G. Niehoff*, and D. Kunkle, "The Central Role of Plants in the Remediation and Ecological Monitoring of a Metal-Contaminated Site in Eastern Pennsylvania." Talk presented at the 72nd Annual Meeting of the Northeast Section of the American Society of Plant Biologists. University of Connecticut in Storrs, April 19, 2008.
- 90. **Co-author:** Kunkle, D. and Husic. D.W. "An Analysis of the Impact of Alternative Energy Sources on Watersheds: -The Studies that Have Yet to Be Done." Paper delivered at the 2nd Lehigh Valley Watershed Conference. Fogelsville, PA, March 28, 2008.
- 91. *Moderator, session organizer and presenter:* Husic, DW, Cates, B., Schriver, K, and Engelmann, P. "The Faculty Voice in Intercollegiate Athletics: Speaking with Campus and External Constituents about Issues in Division II," NCAA Convention. Nashville, Tennessee, January 13, 2008.
- 92. *Co-organizer and facilitator*, 3rd annual NCAA Division II Faculty Athletics Representatives (FAR Fellows) Leadership Institute, October 5 7, 2007, Indianapolis, IN.
- 93. Delivered paper co-authored with Dr. Hilde Binford entitled "Promoting collaboration between science and non-science faculty." Moravian College Faculty Workshop. Spring 2007, Bethlehem, PA.
- 94. *Moderator, session organizer and presenter*: Husic, DW, Zeigenfus, R., Cates, B., Hunkins, B., "Strengthening the Faculty Voice in Division II Intercollegiate Athletics: An Update on the FAR Fellows Leadership Institute." NCAA Convention, Orlando. FL, January 7, 2007.

- 95. *Panel member:* Hensel, N, Bender, C., and Husic, D.W., "Undergraduate Research: New Visions for Faculty Engagement and Workload." AAC&U Networking Conference. Chicago, IL, November 10, 2006.
- 96. *Co-organizer and facilitator*, 2nd annual NCAA Division II Faculty Athletics Representatives (FAR Fellows) Leadership Institute, October 14 16, 2006, Indianapolis, IN.
- 97. *Invited presenter:* "An Update on Activities and Initiatives of the Council of Undergraduate Research Chemistry Division." Mid-Atlantic Association of Liberal Arts Chemistry Teachers (MAALACT). Ithaca College, October 5, 2007.
- 98. *Moderator, session organizer and presenter:* Husic, D.W., dePaula, J., and Karukstis, K., "Challenges Faced by Research Active Faculty Members at Predominantly Undergraduate Institutions: Generating New Ideas and Sustaining Research Productivity." CUR2006 Biannual Conference. DePauw Univ., June 27, 2006.
- 99. *Moderator and session organizer*: "The NSF Undergraduate Research Center Program Some Preliminary Models." CUR2006 Biannual Conference. DePauw Univ., June 25, 2006 (*Our NSF-funded CROPS consortium was one of the models highlighted in this session*.)
- 100. *Moderator*, *session organizer and panel member*: Husic, D.W., dePaula, J., Ronco, S., Wesemann, J. and Dunn, D.A. "Changing Career Directions: New Opportunities or Mid-Life Crisis?" CUR2006 Biannual Conference. DePauw Univ., June 27, 2006.
- 101. *Moderator and session organizer*: "Want to Bring CUR to Your Home Institution? Tips for Bidding on and Hosting a CUR National Conference or Business Meeting." CUR2006 Biannual Conference. DePauw Univ., June 26, 2006.
- 102. Delivered paper entitled: "Liberally-Trained Scientists and the Science-Literate Public: A Synergistic Relationship." Spring 2006 Moravian College Faculty Workshop: <u>Defining and Promoting</u> <u>Multidisciplinarity</u>: <u>Comparing and Integrating Differing Perspectives in Liberal Education Courses</u>. May 22, 2006, Bethlehem, PA.
- 103. *Invited panelist*. Husic, D., "Research Across Academic Department Boundaries: Professional Payoffs and Pitfalls." For a symposium on <u>Getting Started in Undergraduate Research at Predominantly Undergraduate Institutions</u>. American Chemical Society National Meeting. Atlanta, March 27, 2006. (This was a repeat invitation to do this presentation.)
- 104. *Invited session moderator*: Designing a Research-supportive Undergraduate Curriculum. American Chemical Society National Meeting. Atlanta, March 29, 2006.
- 105. *Facilitator*, Student-Athlete Leadership Project: "Expanding your Orbit." Moravian College, January 14 15, 2006.
- 106. *Co-organizer and facilitator*, Inaugural NCAA Division II Faculty Athletics Representatives (FAR Fellows) Leadership Institute, October 7 9, 2005, Indianapolis, IN.
- 107. Reese, Elizabeth*, Li, Yi*, and *D. Husic*, "Enzymes of D-lactate and glycolate metabolism in *Chlamydomonas reinharditti*." Poster presentation at the CROPS Inaugural Summer Symposium. Lafayette College, Easton, PA, July 28-29, 2005 (I was the co-organizer of this symposium.) Ms. Yi Li* also presented the results of this research at the 2006 NCUR conference in Ashville, NC and at the inaugural Moravian College Student Scholarship Day (April 27, 2006).
- 108. Delivered paper entitled: "The Value of Research in an Undergraduate Liberal Arts Curriculum." Spring 2005 Moravian College Faculty Workshop: <u>Academic Expectations for the Discipline</u>: <u>Conversations on Course Levels and Learning, May 20, 2005, Bethlehem, PA.</u>
- 109. *Invited panelist.* Husic, D., "Research Across Academic Department Boundaries: Professional Payoffs and Pitfalls." For a symposium on <u>Getting Started in Undergraduate Research at Predominantly Undergraduate</u> Institutions. American Chemical Society National Meeting. San Diego, March 15, 2005.
- 110. *Moderator, participant, and session organizer*: Husic, D.W., Elgren, T., and Wenzel, T., "Curricular Elements that Enhance Undergraduate Research." CUR 2004 Biannual Conference. Univ. of Wisconsin, LaCrosse, June 24, 2004.
- 111. *Moderator and session organizer*: Husic, D.W., dePaula, J., and Karukstis, K., "Ongoing Challenges Faced by Research-Active Faculty at Primarily Undergraduate Institutions: Generating New Ideas and Sustaining Research Productivity." CUR2004 Biannual Conference. Univ. of Wisconsin, LaCrosse, WI. June 25, 2004.
- 112. *Participant:* Wenzel, T., dePaula, J, Husic, D. and Ronco, S., "Undergraduate Research in Chemistry Involving Partnerships," CUR2004 Biannual Conference. Univ. of Wisconsin, LaCrosse, June 25, 2004.

- 113. *Moderator and session organizer*: "The Impact of Biotechnology on Education and Economic Development in Northeast PA." Biotechnology Summit. East Stroudsburg University, PA, March 18, 2004.
- 114. *Moderator and session organizer*: Husic, D. W., Ceddia, A., Childs, A.W., and Lennon, K. "Leveling the Playing Field: Striking a Balance Between Academics and Athletics." The 2003 Annual Conference of the Middle States Commission on Higher Education. Philadelphia, PA, December 9, 2003.
- 115. *Invited panelist*: Husic, D., "Undergraduate Research: The Good, The Bad, and The Ugly." MAALACT 2003 (Mid-Atlantic Association of Liberal Arts Chemistry Teachers). Gettysburg College, October 4, 2003.
- 116. *Invited speaker*. Husic, D., "Chemical biotechnology: A unique undergraduate degree program at East Stroudsburg University (PA) and a major outcome of a NSF-ILI grant." NSF Catalyzed Innovations in the Undergraduate Curriculum Symposium. 226th American Chemical Society National Meeting, New York, NY, September 10, 2003.
- 117. Husic, D., "Biochemistry course assignments: A means to both stimulate higher levels of learning and address curricular design challenges." ACS National Meeting. New York, NY, September 11, 2003. (This presentation was featured in the 9/22/03 edition of Chem. & Eng. News.)
- 118. *Invited speaker*. Husic, D., "Industrial and Community Partnerships as an Alternative Route to Enhancing the Campus Research Environment." For a symposium on New Models for Conducting Research at Undergraduate Institutions, American Chemical Society National Meeting. New Orleans, LA March 2003.
- 119. *Invited speaker*: Husic, D., "Future Directions for Biochemistry. The Impact of the Changing Science Landscape on the Undergraduate Biochemistry Curriculum." MAALACT 2002 (Mid-Atlantic Association of Liberal Arts Chemistry Teachers). Hood College, October 12, 2002.
- 120. Husic, D., "Chemistry at the Edge." Workshop presentation at CUR 2002, the biannual conference of the Council of Undergraduate Research. New London, CT, June 20, 2002.
- 121. *Workshop organizer and moderator*: Husic, D. and J. Fagan, "Teaching Old Faculty New Tricks." CUR 2002, the biannual conference of the Council of Undergraduate Research. New London, CT, June 20, 2002.
- 122. R.D. Wynne*, T.P. Ayers* and D.W. Husic, "Studies of Oxidative Stress Protection Mechanisms in *Chlamydomonas reinhardtii* Mutants Lacking Photosystem II." Poster presentation at the annual ESU Sigma Xi Research Forum. April 2002.
- 123. *Invited speaker*: Husic, D., "From Ponds, Sludge and Soil, Why Scientists Pay Attention to a Little Green Algae Called *Chlamydomonas*. Annual Provost's Colloquium. East Stroudsburg University, January 30, 2001.
- 124. Smith, S., Hagan, T., Reed, R., Texter, F. and D. Husic, "Professional Organizations Look at Undergraduate Biochemistry Programs." Panel presentation at the 35th annual meeting of the Middle Atlantic Association of Liberal Arts Chemistry Teachers (MAALACT). Moravian College, Bethlehem, PA, October 2000.
- 125. Husic, D., Knabb, M., and L. Contois, "Novel Interdisciplinary Programs at the Interface of Chemistry and Biology." Panel presentation at CUR 2000, the biannual conference of the Council of Undergraduate Research. Wooster, OH, June 24, 2000.
- 126. M. Knabb and D. Husic (2000) "Designing Interdisciplinary Programs at the Interface of Biology and Chemistry: Obstacles and Strategies for Overcoming Them." Workshop presented at the 9th Annual Conference on Advancing Teaching in College Classrooms and Campus Cultures. State College, PA, March 10, 2000.
- 127. Husic, D.W., (2000) "A Study of Whale Myoglobin. Protein Purification and Analysis Workshop for Precollege and College Teachers." A 2-day workshop that I designed and conducted at East Stroudsburg University, March 24 and 25, 2000.
- 128. Husic, D.W., Bellows, T*. and Cherill, C. (1997) "A Plant Science Educational Module for Science Alliance." Plant Physiology 114S: 315. Presented paper at the Quadrennial Joint Annual Meetings of the American and Canadian Societies of Plant Physiologists. Vancouver, BC, August 1997.
- 129. Presenter at the sixth annual Science Alliance Summer Institute for K 12 educators; "An Interdisciplinary Approach to Plant Science." Warren, NJ, 1997.
- 130. Panel member for writing workshop "Writing in the Sciences: Discipline Specific Successes and Concerns." East Stroudsburg University, Dec. 1992.
- 131. Invited panel member for AAUW teleconference "Shortchanging Girls; Shortchanging America." East Stroudsburg University, April 1992.

**I have had 16 additional published abstracts and symposium presentations since 1983, including some with undergraduate research collaborators. These were for national and international conferences, many related to my graduate and post-doctoral research. I have been a panel member and session organizer for a number of educational sessions at the annual NCAA Conventions and the annual meeting of the Faculty Athletics Representatives Association. I have also been an invited speaker at several institutions, such as at Juniata (2004), Marist (2005) and Muhlenberg (2019) colleges. Additionally, I routinely do talks for regional garden and watershed groups, conservancies, and nature centers.

Grant Writing/Administration/Participation:

- NSF Research Coordination Network (Undergraduate Biology Education): *Youth Environmental Alliance in Higher Education*; funded for 5 years; co-PI, \$499,756.
- NSF Research Coordination Network (Undergraduate Biology Education): *3dNaturalists bioblitzes, citizen science, and undergraduate learning*; funded for 5 years; co-PI, \$500,000.
- 2016 25-in-25 grant from Keep Pennsylvania Beautiful: *An urban campus and community native plant meadow: Managing storm water runoff and creating a public outdoor learning laboratory*; author \$1000.
- 2016 Audubon PA/PA Department of Conservation and Natural Resources: *Kittatinny Ridge Post-fire Monitoring Project*; co-PI; \$12,000.
- Audubon PA/PA Department of Conservation and Natural Resources: *Kittatinny Ridge Pilot Monitoring Project*; Co-author and PI; \$13,100.
- 2005 NCAA Division II Affiliate Organization Grants: \$50,000/year. Project Coordinator and Facilitator for
- 2022 for annual FAR Leadership Institutes.
- 2013 PA Department of Environmental Protection Environmental Education Grants Program: *Building the Teacher's Notebook: STEM-Learning through Science-Based Journaling* (with the Nurture Nature Center and the Lehigh Gap Nature Center; with Kate Brandis and Dan Kunkle); \$4400.
- 2011 Lehigh Valley Greenways grant: Conservation of the Blue Mountain / Kittatinny Ridge Greenway; Author and PI; \$5000.
- 2011 PA Department of Environmental Protection Environmental Education Grants Program: *Using phenology monitoring of the Kittatinny Ridge corridor area in the classroom to teach science*; author and co-PI; \$5500.
- 2010: CUR NSF-CCLI-Phase III grant: *Institutionalizing Undergraduate Research at State Systems and Private College Consortiums*; Core participant.
- 2009 Margaret A. Cargill Foundation; for Environmental Studies Programs at Moravian College; Contributed to writing and co-administrator; led to the establishment of an endowment for the environmental programs at the institution; \$75,000 plus stock share dividends for 5 years.
- 2009 Audubon Global Warming Chapter Activity Programs: Climate Change Art Competition for Regional Schools; Author; \$1000.
- 2009 LiCOR LEEF Program; Equipment for research and education in the Moravian College Environmental and Biological Science Programs; author; \$48,000.
- Department of Conservation & Natural Resources, Wild Resource Conservation Program: *Lehigh Gap Wildlife Refuge Ecological Assessment, Part II;* PIs: D. Kunkle, Lehigh Gap Nature Center and D. Husic, Moravian College; \$45,000.

Grant Writing/Administration/Participation (continued):

- 2006 NSF ATE program: *Two-year Technician Education and Transfer Programs: Tapping the Potential of Undergraduate Research PIs;* A Council of Undergraduate Research and National Council of Instructional Administrators collaboration; I served as a member of the planning committee; \$110,800.
- NSF Division of Chemistry (Undergraduate Research Center Planning Grant): *Undergraduate Research Center Planning Grant: Consortium for Research Opportunities in the Plant Sciences (CROPS)*. PIs: H.D. Husic and D.W. Husic (with 5 other principal scientists in consortium); \$50,000. (Note: This was 1 of only 20 pilot programs funded nationally for this new grant program.)
- 2004 Camille and Henry Dreyfus Foundation; Special Program in Chemical Sciences: *Establishment of a Consortium for Educational and Research Opportunities in the Chemical and Molecular Aspects of Plant Science*; Authors: H.D. Husic and D.W. Husic (with other participating scientists and institutions); \$15,000.
- ESU and State System of Higher Education Technology Fee Funds: *Molecular Modeling for Organic Chemistry;* Authors: M. Jones-Wilson and D. Husic; \$45,000.
- National Science Foundation, Special Project: *Undergraduate Research in Chemistry Summit;*Authors: Tom Wetzel, PI and numerous other members of steering panel of which I was a member; \$80,000.
- ESU and State System of Higher Education Technology Fee Funds: *Molecular Modeling Labs for Biochemistry, Chemical Biotechnology and Physical Chemistry;* Author: Diane Husic; \$60,000.
- FIPSYE grant funds: *Acquisition of Science and Technology Equipment;* Authors: M. Liberman, R. Staneski, J. Huffman, D. Husic, and others; \$500,000.
- 2000 PA-SSHE Capital Venture Loan Program: *Development of Two New Programs in Biotechnology* Authors: Peter Hawkes, Jane Huffman, Abdalla Aldras and Diane Husic; \$250,000.
- NSF Instrumentation and Laboratory Improvement Program: *Integration of Molecular Biotechnology into the Biology and Biochemistry Curriculum;* Authors and co-PIs: Diane Husic and Jane Huffman; \$60,246.

I have also written several internal grants for faculty professional development and to support student researchers through the Student Opportunities for Academic Research (SOAR) program at Moravian College.

Research/Scholarly Interests:

Superfund Restoration Work:

A major focus of my current research area represents a dramatic shift from my previous scholarly areas of interest and involves studies of the re-emergence of biological communities at the Palmerton Zinc Pile Superfund site. The Lehigh Gap Wildlife Refuge and Nature Center was created after purchasing 750 acres on the north face of the Kittatinny Ridge within the Superfund site boundaries. Eighty years of zinc smelter operations that emitted SO₂ and metal particulates resulted in almost total loss of the vegetation in the area that is highly contaminated with heavy metals included zinc, lead, and cadmium. In 2003, the center began an experimental habitat restoration project using warm season prairie grasses to revegetate the barren "moonscape" which lies at the crossroads of the Appalachian Trail and the Delaware and Lehigh National Heritage Corridor and part of the Lehigh River watershed. In spring 2006, a longitudinal study of the bird populations (including breeding activity) at the site was commenced at the refuge and I am one of the scientists that was involved in this project.

Since 2007, my students at Moravian College and I have been looking at variations in tolerance to heavy metals in the various plant species on the refuge property. Of particular interest are a) *Betula populifolia* (grey birch) and other early successional trees; b) the rare plant species *Minuartia patula* (Michx.) mattf. (Sandwort) and c) the Pennsylvania endangered *Dicentra eximia* (Wild Bleeding Heart). All three of these species grow abundantly in this region; the grey birch shows severe leaf margin chlorosis, presumably at least partially because of high levels of metal uptake into the vegetative tissue. Because the EPA Record of Decision mandates minimizing mobility and bioavailability of the contaminant metals, plants such as this which take up significant levels of zinc are problematic. We are also involved in plant succession monitoring, including the impact of a test prescribed burn; a habitat enhancement project sponsored to better understand the recovery of the ecosystem and the success of our management plan. A major outcome of this work was Part II of a comprehensive ecological assessment for the refuge (http://lgnc.org/resources/reports/lgwr-assessment-ii) for which I was lead author. I also wrote a case study about the ongoing research at this site (by invitation) for the CUR monograph on Transformative Research (available at http://www.cur.org/pdf/TRFull.pdf). I have been invited to co-edit a book on the restoration of the Superfund Site for the Pennsylvania Academy of Sciences; I serve as the lead editor and author of several chapters for the book.

An offshoot of this work was the establishment of the Lehigh Gap Naturalists Club (K-12 age students). I originally was a co-advisor for the program but have since handed this of the staff at the nature center. Students are introduced to field research methods and participate in authentic research projects data collection. Ongoing projects include a native bee inventory study in conjunction with the USGS, Monarch tagging, biodiversity studies, and enhancement and management of scrub habitats and power company right-of-ways. This club and the youth research were highlighted nationally -- See "Whiz Kids", an article on citizen science written by Susan Cosier that featured this group; May/June 2009 Audubon Magazine. http://www.audubonmagazine.org/citizenScience/citizenscience0905.html

Climate Change Impacts:

In 2010, I was awarded an Audubon *TogetherGreen* Fellowship that spawned a new research project that allows me to combine my strong and long-running interest in climate change impacts and experience in ecological monitoring. Phenology is the observation of the timing and details of seasonal changes. This includes the opening of leaf buds, leaf color change, blooming of flowers, fruiting, appearance (or disappearance) of migrating birds, hatching of insects, and emergence of animals from hibernation. Such events in nature are sensitive to changes in our environment, including climate change. By monitoring key species, individuals participating in this citizen science project can collect data that will help scientists and conservation managers better understand the impact that climate change is having on Pennsylvania's plants, animals, and habitats. The Eastern PA Phenology Project was launched in spring 2011 after planning and developing critical partnerships (See details at www.lgnc.org/research/phenology and www.WatchingTheSeasons.blogspot.com). Undergraduate researchers analyzed the almost 210,000 original data entries submitted by participating citizen scientists along with long-term data sets in several databases (mostly related to birding records) to look for long-term changes as well as setting a baseline with the 2011 data.

This project connects with my work with the United Nations Framework Convention on Climate Change as a member of the international Research and Independent NGOs constituency group. This may seem to be a major diversion from my doctoral training, but in fact, my graduate laboratory was engaged in some of the earliest studies of the impact of increasing atmospheric carbon dioxide on plant and algae growth and carbon concentrating mechanisms in the early 1980's! One offshoot of this work at the science-policy interface includes my being named Senior Fellow in 2022 by the Global Council for Science and the Environment, a nongovernmental organization established in 1990 that advances the use of science to inform environmental decision making. Additionally, I serve as a co-principal investigator for an NSF-funded project "Youth Environmental Alliance in Higher Education" that connects institutions of higher education from all over the globe to provide integrated knowledge to students that empowers them to address complex global environmental problems (http://yeah-net.org/).

Citizen science projects also tie in with my interest in communicating science to the public. I am currently a co-PI on an NSF grant related to understanding how citizen science contributes to informal learning in STEM, especially with diverse populations of undergraduate students. In that project and in collaboration

with the Rocky Mountain Science and Sustainability Network and National Park Service, we work with college students to examine climate change impacts along mountain landscapes from Colorado to Montana. One major component of this is the "Pollinator Hotshots" project in which we have established monitoring protocols for pollinators surveys at different altitudes and set up transects in several locations in Yellowstone National Park, the Grand Tetons National Park, and the Colorado State University Mountaintop campus. Previously, I have been involved with monitoring ecological changes along the Kittatinny Ridge (a portion of the Appalachian Mountains that runs through Pennsylvania). We were particularly interested in forest structure and health, breeding bird populations and invasive plant species.

Phylogenetic relationships of enzymes involved with the metabolism of α -hydroxy acids and enzymes of photorespiration in photosynthetic organisms:

Since my Ph.D. work, I have been interested in the mechanism, regulation, cellular localization, and substrate stereospecificity of enzymes associated with the metabolism of α-hydroxy acids and enzymes of photorespiration (the oxidative photosynthetic carbon cycle) in photosynthetic organisms. Several of these enzymes have interesting phylogenetic relationships between bacterial, algal, yeast, fungal, and higher plant species. New molecular genetic methods have made it possible to go back to try new approaches to analyze these evolutionary relationships. For several years, I have been collaborating with Dr. Mike Kuchka at Lehigh University on this project. We are focusing on a novel NAD+-linked D-lactate dehydrogenase (D-LDH) in the unicellular eukaryotic alga *Chlamydomonas reinhardtii* as well as a mitochondrial D-lactate/glycolate dehydrogenase that is linked to the mitochondrial electron transport chain in this organism. These enzymes may provide clues as to evolutionary events associated with the emergence of photosynthetic organisms from aquatic environments to terrestrial ones where they had to adapt to high atmospheric oxygen concentrations. To date, we have been able to express the gene for the NAD+-linked LDH in E. coli and hope to use this recombinant protein for further structural analysis. We have also collaborated on projects that utilize photosynthetic and mitochondrial mutants to explore the regulation of nonnuclear gene expression. A variety of methods including complementation, molecular genetics, proteomics, and membrane transport studies are used for this project.

NATIONAL LEADERSHIP EXPERIENCE

Council on Undergraduate Research (CUR):

June 2010 - 2011 CUR Immediate past-president

June 2009 – June 2010 CUR president

Fall 2007 Facilitator, NSF-CCLI Regional Workshops on Institutionalizing Research (2)

Summer 2005 – June 2007 Member, CUR Executive Board

June 2008 - June 2011

Summer, 2005 – June 2007 Chemistry Division Chair (elected for a 2-year term) 2005 – 2007 Planning Committee and Facilitator for NSF-ATE grant

Summer, 2004 – June 2006 Program Planning Committee member for CUR 2006 (Host: DePauw Univ.)

Summer, 2002 – 2004 Program Co-director for CUR 2004 (Host: University of Wisconsin, LaCrosse)

Spring, 1999 – present Chemistry Councilor (elected position); *emerti* after serving as CUR president

2003 – 2006 Chair, Meetings Committee

2005 – 2007 Government and External Relations Committee

2007 – 2008 Outreach Committee

Fall 1997 – 2016 Institutional Liaison to the CUR

Middle States Commission on Higher Education:

Evaluation Team Member: 2022, 2021, 2014, 2013, 2012, 2009, 2008, 2007, 2006, 2005, 2003

Committee on Substantive Change: February 2002 – 2014 Planning Committee – MSCHE AQA Conference: 2003, 2004

American Association of Colleges and Universities:

2009 -Planning committee for the 2010 Faculty Roles in High Impact Practices

Faculty Athletics Representatives Association (FARA):

Jan. 2001 – Jan. 2002 President

Jan. 1997 -1999 Division II Vice President 1995 – 1999, 2000 - 2003 FARA Executive Committee

1994 - 1997 FARA Legislative Review Committee

1995 -1997: Committee chairperson

1996 - 1999 FARA Constitution Committee Chairperson

NCAA Committee Service:

Summer, 2004 – present Project Coordinator/Facilitator for NCAA Division II FAR Fellows Institutes

and FAR Advanced Leadership Institutes

January 2004 – July 2004 NCAA Division II Management Council February 2002 – Jan. 2004 NCAA Division II Legislation Committee

Interpretations subcommittee

Sept. 1995 – 2001 NCAA Academic Requirements Committee

January 2004 – June 2004 (After August 1, 1997, restructuring of the NCAA took effect and this became a

Division II specific committee.)

Fall, 1997 - 2000: Subcommittee on Satisfactory Progress Waivers

Summer, 1997 – 2000 Task Force to Review Initial Eligibility Issues

Spring, 1996 – Dec. 2001 Core Course Review Committee

June 2001 – 2004 NCAA Division II Degree Completion Committee

Fall, 2002 – 2004 Division II FAR Enhancement Grant Program Development Team

May 2002 Representative for Division II FARs to the NCAA Foundation Leadership

Workshop

STATE-WIDE LEADERSHIP EXPERIENCE

Spring, 2010 – 2015	Member of PA Climate Change Adaptation Working Group on Natural
	Resources
	Fall 2011 – 2015: Member of steering committee:
	January 2014 – October 2015: Subcommittee for State Wildlife Action Plan –
	Climate Change Impacts
Fall, 1997 – Summer, 2001	SSHE Planning Implementation Advisory Council
	(Appointment by SSHE Vice Chancellor for Academic Affairs)
1992 - 2000	Association of Pennsylvania State College and University Faculties (APSCUF)
	State Meet and Discuss (Appointment by State APSCUF President)
	June 1999 – Sept 2000: Chairperson/spokesperson
1990 - 2004	ESU delegate to APSCUF Legislative Assembly
	(Elected by faculty every two years)
1993 -1994	Member of APSCUF negotiations team
	(Appointment by State APSCUF President)
1994 -1998	APSCUF Budget Committee
	(Elected to position by Legislative Assembly)
1992 -1994	APSCUF ad hoc Public Relations Committee
1990 -1992	APSCUF Rules and By-laws Committee
	(Elected to position by Legislative Assembly)
1992 -1993	PA State System of Higher Education Academic Advisory Committee
	(appointment by SSHE Vice Chancellor)
1992 - 2004	Pennsylvania State Athletic Conference (PSAC) Representative
	Chairperson for PSAC Faculty Athletics Representatives
	Conference Liaison to FARA
	1998-99 PSAC Governance Committee

KEY RESPONSIBILITIES AND SERVICE AT MORAVIAN COLLEGE

Administrative roles:

Founding Dean of the School of Natural and Health Sciences (Jan. 2016 – present)

Serve on a wide range of committees related to academic planning and curricular development, strategic planning, enrollment management, budget and planning, Heritage Day planning, design team – health sciences building ("the Sally"), COVID preparedness

Department leadership:

Biology Department Chairperson (Aug. 2004 – Jan. 2016)

- Periodic evaluation of faculty
- Course scheduling
- Budget planning and oversight

Coordinator, External Department Review (2004)

Co-coordinator, Biochemistry Degree Program (with chair of Dept. of Chemistry)

Member Science Division Steering Committee

Campus-wide committees and responsibilities as a faculty member:

Academic Program and Planning Committee (2016 – present)

Provost and President Councils (2016 – present)

Budget and Planning Committee (2021 – present)

Strategic Planning Pillar Group: High Impact Practices (2021)

Intellectual Property Task Force (2017 – present)

Co-chair for Center of Investigation on Sustainability, Moravian College InFocus Program (2011-2015)

LinC Committee (general education; 2013-17, elected position)

College Strategic Planning Committee (2007 – 2008, elected position)

Campus-wide committees and responsibilities as a faculty member (continued):

College Assessment Committee (2004 – 2006)

Academic Personal Committee (2005-2012; 2014-15, elected position)

Science Facility Planning Committee (2006 – 2017)

Member of Science Center Initiative Oversight Committee (presidential appointment)

Co-chair, Moravian College Student Scholars Day Planning Committee (2005-09)

Convener, Undergraduate Research and Creative Endeavors Committee (spring 2005 – 2014)

Provost Search Committee (2014-15)

Participated in faculty interviews of candidates for VP of Institutional Advancement position (2005),

President (2006), Academic Vice President (2007), and for VP enrollment management (2013)

Campus Sustainability Task Force (2007-2008)

KEY ESU RESPONSIBILITIES AND SERVICE

Department leadership:

Chemistry Department Chairperson (May 2002 – Aug. 2004; elected for a 3-year term)

Chair, Five-year Program Review Committee and ACS Recertification Review (2002 – 2004)

Coordinator, Biochemistry Degree Program (1990 - 2004)

Coordinator, Chemical Biotechnology Degree Program (2000 – 2004)

Department of Chemistry Committees

- Numerous Search and Screen Committees (yearly; chairperson from 1998 2000)
- Numerous Evaluation, Promotion and Tenure Committees (yearly; chairperson 1998-99)
- Undergraduate Research Committee
- Program Review Committee (3 times)
- General Science Graduate Committee

Building design and facilities planning:

Science and Technology Building Design Review Team (2000-2004)

Gessner Science Building renovation project (1992 – 1994)

Campus-wide committees:

Retention Advisory Committee (2002 – 2003; appointed by Provost)

- Retention retreats with Noel-Levitz consultants (May and Aug. 2002)

ESU Governance Committee (2002 – 2003 appointed by President)

Fundraising Steering Committee (1999 – 2001)

Strategic Planning:

Task Force on Fundraising (1999 – 2001)

Action Planning Group (APG) on Undergraduate Research (1994 -1995)

University Self-Study/External Reviews:

Mission Statement Review (Spring 2001)

Middle States Review Periodic Review Report – review drafts (2001)

Strategic Planning Retreat (September 1998)

Task Force on Administration, Organization and Governance (1995 -1996)

Internal Scan Committee (1992 - 1993; in preparation for March 1993 ESU Self-Study)

APSCUF Service (ESU Chapter):

Article IX Team (1995 -1997)

Article IX Subcommittee on Academic Policies (1995 - 1998)

Article IX Subcommittee on Distance Education (1995 -1996)

Executive Council (1990 – 2004)

Delegate to State Legislative Assembly (1990 – 2004) Bylaws Committee (1992 -1997)

Curriculum/Program Development:

Keystone (Capstone) Course Committee/Participant in pilot course on "Ethics" (1992 -1993) Gerontology Program Committee (1990 -1994)

Faculty Development:

New Faculty Orientation Committee (1990 - 1991)

Research:

Undergraduate Research and Creative Activities Committee (1996 - 2003)

ESU Center for Research and Economic Development Committee (2000 – 2002)

Co-coordinator of Sigma Xi Research Forum (1990 - 1992, 1996 -2000)

External Thesis Committee Member

- ESU Dept. of Biological Sciences: 10 graduate students
- ESU Dept. of Movement and Exercise Physiology: 1 graduate student
- Temple University, Dept. of Biochemistry: 1 graduate student

Athletics:

ESU Faculty Athletics Representative to the NCAA (1989 – 2004)

- Faculty Athletics Representative to the PA State Athletic Conference (1991-2004)

ESU Intercollegiate Athletic Committee (1989 – 2004)

- Chairperson (1989-1994, 2001 -2002)

Student Athlete Center for Excellence Advisory Board (2000 – 2004)

Academic Coordinator for Athletics Search and Screen Committee (1998 – 99)

Athletic Director Search and Screen Committee (2000, 1991 -1993)

ESU Athletic Nickname and Logo Committee (1995 - 1996)

ESU-Rotary Basketball Tournament Committee (1991, 1992)

- Chairperson, 1992

Evaluation for Retention, Tenure and Promotion

- Chairperson for Associate Athletic Director (1991,1992, 2001); Committee member (2002)
- Committee member for Academic Coordinator for Athletics

Student Organizations/Scholarship Programs:

Advisor – ESU Environmental Club (1993 -1999)

Participant – ESU Chemistry Club (Student Affiliates Chapter of the American Chemical Society)

Participation – ESU Chapter of Omicron Delta Kappa

Institutional representative for Barry Goldwater Scholarship Program (1990 – 2000)

MISCELLANEOUS SERVICE EXPERIENCES:

2022 – present	Bethlehem Environmental Justice Coalition
2021 – present	Lehigh Valley Planning Commission – work on developing greenhouse gas inventory
	and Climate Action Plan development (with PA-DEP and ICLEI)
2020 - 2021	Bethlehem Climate Action Plan Working Group
2020	Reviewer for Biology Program, Delaware Valley University, Bucks County, PA
2019 – present	Reviewer for Ecological Applications, a journal of the Ecological Society of America
2017, 2018	Reviewer for American Chemical Society Books
2015	Program Review for Chemistry and Biochemistry Programs, Elizabethtown College,
	PA and facilitator for workshop on interdisciplinary connections between Chemistry
	and Biology
2014	Program Review for Biochemistry Program, Richard Stockton College, New Jersey

MISCELLANEOUS SERVICE EXPERIENCES (continued):

2012	AAAS-EPSCOR Review Panel Member (Rhode Island)
2011 – 2016	External evaluator – Willamette College Keck Foundation Grant Program on
2011 2010	Interdisciplinary Learning
June 2011	Facilitator: CUR Workshop on "Institutionalizing Undergraduate Research" for
Valle 2011	COPLAC (NSF-CCLI grant)
2011	Reviewer for Murdock Trust Undergraduate Research Program, Seattle University
2011	External evaluator for tenure and promotion candidate – Seattle University
2010 - 2016	External evaluator for the Ecological Research as Education Network (EREN), an NSF-
	sponsored program
2009 - 2013	Member, Board of Directors, Lehigh Valley Audubon Society
2009	Reviewer for Biochemistry Program – Indiana University of PA
2008 - 2010	Appointed to U.S. Congressman Dent's Energy and Environmental Advisory Board
2008 - 2013	Education Committee Chairperson, Lehigh Valley Audubon Society
2007 - 2009	Facilitator: 2 CUR Workshops on "Institutionalizing Undergraduate Research" (NSF-
	CCLI grant-funded project)
2007 - 2009	External evaluator/assessment consultant – Earlham College Keck Foundation Grant
2006 – present	Member, Lehigh Gap Nature Center Board
2004 - 2006	Member, Pocono Medical Center Ethics Committee
2005	Reviewer for Chemistry Program, Butler University, Indianapolis, IN
2004	Reviewer for master's program in Applied Natural Sciences, University of Colorado at
	Pueblo
2002 - 2005	Reviewer for "CUR Posters on the Hill" (abstracts from students representing Division
E 11 2004	of Chemistry)
Fall 2004	External reviewer for tenure and promotion candidate: Villanova University,
G 2002	Department of Chemistry
Summer 2002	External reviewer for tenure and promotion candidate: University of Pittsburgh at
Spring 2000	Johnstown, Dept. of Chemistry External reviewer: Bloomsburg University Chemistry Department
1999 – present	Reviewer for biochemistry and biology texts, educational websites, software, federal
1999 – present	grant programs and several scientific journals
July 2000	National Science Foundation CCLI Review Panel
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1997, 1996 1996 -1997	Invited item writer for GRE Biochemistry, Cell and Molecular Biology Test Participating Scientist in the National Science Foundation-sponsored Science Alliance (Somerset/Hunterdon Business and Education Partnership)

OTHER COMMUNITY WORK:

- Conservation Landscaping Project (funded by the Lehigh Valley Community Foundation)
- Environmental Education Teacher Workshops funded by the PA Department of Environmental Protection
- Master Gardener, Penn State Extension
- Regular contributor for the Master Watershed Steward training programs
- Partner Nurture Nature Center, Easton, PA (programming, grant-funded community initiatives)
- Frequent speaker for community events and local organizations

REFERENCES AVAILABLE UPON REQUEST