
School of Natural Resources and Environment, 2032 Dana Building, Phone: 734-763-6961
440 Church St., University of Michigan, Ann Arbor, Michigan 48109 zintmich@umich.edu

EDUCATION

Michigan State University:

Ph.D. 1996 Department of Fisheries and Wildlife - Human Dimensions
M.B.A 1990 Marketing
B.A. 1988 Hotel, Restaurant and Institutional Management

FACULTY APPOINTMENTS

University of Michigan:

2015-present Professor of Environmental Education and Communication:
.75 appointment in School of Natural Resources & Environment (since 1996)
.25 appointment in College of Literature, Science and the Arts (since 2010)
Dry appointment in School of Education (since 2005)
2003-2015 Associate Professor of Environmental Education and Communication
1996-2003 Assistant Professor of Environmental Education and Communication

ACADEMIC LEADERSHIP

Acting Associate Dean for Academic Affairs, School of Natural Resources & Environment
Responsible for all aspects of the School's academic programs, January-August, 2016.

Key achievements during eight months in position:

- Collaboratively developed and implemented new initiatives that resulted in the matriculation of 147 Masters students; a 25% increase from the previous year, as well as 11 fully funded PhD students; the highest number since the fully funded program was instituted in 2008.
- Led the School's Office of Academic Programs resulting in continued high level of service, as well as successful implementation of key events (i.e., Visit Day, Capstone Conference, Honors Ceremony, Commencement). This was accomplished despite the Office Director and Master's Project Administrative Coordinator being on maternity leave simultaneously, partial leave of the Financial Aid Coordinator due to an accident, and three new staff members.
- Created "*Impact*" theme to enhance recruitment activities. The theme was subsequently adopted to drive the School's development and communication initiatives.
- Strategically supported the adoption of the School's new Accelerated Masters Program, which other University of Michigan programs can use as a model.
- Resolved a Graduate Student Instructor selection dispute and Lecturer contract disagreement involving respective unions, through close collaboration with Academic Human Resources.
- Prepared report documenting the School's PhD selection process (to increase transparency) and offered recommendations for improvements. The report and recommendations were well received by faculty.

Key achievements during eight months in Acting Associate Dean position (continued):

- Developed a Masters Project Student Advising session and Agreement. Faculty have begun to use this Agreement to improve graduate student advising.
- Led the refinement and approval of a draft “Field Class Safety Policy” to assist instructors, students, and staff minimize, be prepared for, and appropriately respond to associated risks.
- During the annual faculty retreat, organized a session to develop a recruitment strategy for increasing graduate student applications to enable greater selectivity in future.
- Created and implemented evaluations of Office of Academic Program events to measure participant satisfaction and determine ways to improve future events.
- Achieved the above through gaining Dean’s support and closely collaborating with Field of Study Coordinators, PhD Selection Committee members and other faculty, Office of Academic Programs and additional staff, as well as students.

Acting Associate Director, Program in the Environment

Responsible for supporting the Director in the execution of Program goals and leading select administrative tasks, January-May, 2010.

Key achievements during five months in position:

- Improved School of Natural Resources & Environment and Program in the Environment relationship by increasing the transparency of how key decision affecting both units were made.
- Strengthened and stabilized the Program’s curriculum through recruiting three School of Natural Resources & Environment and University of Michigan faculty members as well as one Lecturer to teach essential courses.
- Revised and enhanced Program events, resulting in improved participant evaluations.
- Led reviews of three Lecturers, nominations of two Graduate Students Instructors and three course approval requests; resulting in the promotion of all Lecturers, one Graduate Student Instructor receiving a competitive University wide award, and the three courses being approved.
- Supervised controversial Graduate Student Instructor selection process without receiving negative feedback.

FACULTY LEADERSHIP DEVELOPMENT (2014-present)

University of Michigan College of Literature, Science, and the Arts |

Full Professor Leadership Coaching Program, August 2016–May 2017. This eight session personal coaching program is designed to foster senior faculty members’ leadership skills and effectiveness. The College and ADVANCE funded my participation in this “*by invitation only*” program typically only offered to faculty with 100% College appointments.

Higher Education Resource Services (“HERS”), Denver, CO

Leadership Training for Women in Higher Education, Bryn Mawr Summer Institute, June 11-22, 2016. This is a two week professional development program for female academic leaders in higher education. To be considered, academic women need to demonstrate leadership potential and submit letters of support from their institution’s upper level administrators. My participation was funded by the School of Natural Resources & Environment.

University of Michigan Office of Academic Innovation

edX Workshop: Exploring MOOCs and Academic Innovation, May 3-4, 2016. Participation in this two-day workshop led to development of a 2016-2017 seminar series entitled “*Creating Innovative Digital Learning and Teaching Opportunities to Foster Climate Literacy*” which will lead to developing the first MOOC “by students for student.” The seminar series was created in partnership with the Office of Academic Innovation and Center for Research on Learning and Teaching and with financial and technical support from the Office of Academic Innovation and the School of Natural Resources & Environment.

University of Michigan Center for Research on Learning and Teaching

Provost’s Seminar on Teaching: “Thinking Long-Term: Next Steps for Engaged Learning at Michigan and Beyond”, May 16, 2016.

Provost’s Campus Leadership Program Roundtable: Distress Signals: Supporting Students Facing Mental Health Issues (CRLT Players), March 25, 2016.

Provost’s Campus Leadership Program Roundtable: The Chair’s Role in Hiring - A STRIDE Workshop, January 22, 2016.

Provost’s Campus Leadership Program Orientation for New Chairs and Associate Deans, October 13, 2015.

Provost’s Campus Leadership Program Dinner for New Chairs and Associate Deans, October 12, 2015.

Transforming Learning for Third Century (TLTC) Self Agency Lunch, September 10, 2015.

Unscripted: Engaged Learning Experiences for U-M Students, March 10, 2015.

Thinking Big: Engaged Learning for the Third Century, November 18, 2014.

TEACHING

University of Michigan:

Environ 211	Social Sciences & Environmental Problems
Environ 367	Global Enterprise and Sustainable Development
Environ/Edcurins 382	Introduction to Environmental Education for Sustainability
NRE 515/EIH 579	Environmental Risk Communication
NRE/EDUC 581	Advanced Environmental Education
NRE 677	Seminars on cutting-edge environmental education/communication topics

Massive Open Online Course (MOOC):

Act on Climate: Steps to Individual, Community, and Political Action has had over 1,600 international learners, received 98% “Likes” and 4.9 of 5 Stars, placing it among UM’s top 10% MOOCs.

HONORS

North American Association for Environmental Education: *Outstanding Contributions to Research in Environmental Education Award* (2014) awarded annually to a single scholar from across the world who has made significant contributions to environmental education research.

University of Michigan: *Program in the Environment Outstanding Instructor Award* (2017) awarded annually to a single faculty member recognizing teaching excellence.

Students for School of Natural Resources & Environment Outstanding Faculty Teaching Award (2014) awarded annually to a single faculty member recognizing teaching excellence.

University of Michigan: *Career Development Fund for Women Faculty Award* (1999) awarded annually to select female faculty who have made significant University of Michigan service contributions.

Society for Risk Analysis: *Student Award* (1995) awarded annually to select students for their innovative risk research.

American Fisheries Society: *Skinner Memorial Award* (1995) awarded annually to select students for their contributions to fisheries research and service.

Michigan State University, Department of Fisheries and Wildlife: *Recruiting Scholarship* (1990).

Michigan State University, College of Business: *Graduate and undergraduate teaching and research fellowships* (1988 - 1990).

American Hotel & Motel Association: *Arthur J. Packard Merit Award* (1987) awarded annually to three students for exceptional academic performance and contributions to US hospitality industry.

PUBLICATIONS

Peer Reviewed (graduate students' names are underlined)

Carman, J.P., **Zint, M** & Ibanez, I. (2017). Assessing student interest and desire to learn more about climate change effects on forests in middle school: An intervention-based path model. *Electronic Journal of Science Education* 21(4): 14-35.

Zint, M. (2016). Social sciences and campus sustainable development. In Social Sciences and Campus Sustainable Development. Special Issue edited by Zint, M. *International Journal of Sustainability in Higher Education* 17(4): 446-450.

Leal, W. & **Zint, M.** (2016). Social sciences and campus sustainable development: The way forward. In Leal, W. and Zint, M. (Eds) *The Contribution of Social Sciences to Sustainable Development at Universities*. Springer World Sustainability Series, Switzerland, pp. 307-313.

Zint, M., & Wolske, K. (2014). From information provision to participatory deliberation: Engaging residents in the transition toward sustainable cities. In Mazmanian, D. and Blanco H. (Eds.) *The Elgar Companion to Sustainable Cities: Strategies, Methods and Outlook*. Edward Elgar Publishing, Northampton, MA, pp. 188-209.

Zint, M., Kraemer, A., & Kolenic, G. E. (2014). Evaluating Meaningful Watershed Educational Experiences: An exploration into the effects on participating students' environmental stewardship characteristics and the relationships between these predictors of environmentally responsible behavior. *Studies in Educational Evaluation: Special Issue on Research in Environmental Education Evaluation* 41: 4-17.

Peer Reviewed (continued)

- Levy, B., & Zint, M. (2013). Toward fostering environmental political participation: Framing an agenda for environmental education research. *Environmental Education Research* 19(5): 553-576.
- Kelly, M., Little, S., Phelps, K., Roble, C., & Zint, M. (2012). Watershed outreach professionals' behavior change practices, challenges, and needs. *Applied Environmental Education & Communication* 11(1): 35-52.
- Zint, M.** (2012). Advancing environmental education program evaluation: Insights from a review of behavioral outcome evaluations. In Stevenson, R., Brody, M., Dillon, J., & Wals, A. (eds.), *International handbook of research in environmental education*, American Educational Research Association & Routledge, NY, pp. 298-309.
- Zint, M.** (2011). Evaluating education for sustainable development programs. In Leal Filho, W. (ed.), *World trends on education for sustainable development*, Peter Lang, pp. 329-347
- Zint, M., Covitt, B., & Dowd, P.** (2011). Insights from an Evaluability Assessment of the US Forest Service More Kids in the Woods Initiative. *Journal of Environmental Education*, 42(4), 255-271.
- Zint, M., Dowd, P., & Covitt, B.** (2011). Enhancing environmental educators' evaluation competencies: Insights from an examination of the effectiveness of the *My Environmental Education Evaluation Resource Assistant* (MEERA) web site. *Environmental Education Research*, 17(4), 471-497.
- Forbes, C., & Zint, M. (2011). Elementary teachers' beliefs about, perceived competencies for, and reported use of scientific inquiry to promote student learning about and for the environment. *Journal of Environmental Education*, 42(1), 30-42.
- Zint, M.** (2010). An introduction to *My Environmental Education Evaluation Resource Assistant* (MEERA), a web-based resource for self-directed learning about environmental education program evaluation. *Evaluation and Program Planning*, 33(2), 178-179.
- Duvall, J., & Zint, M. (2007). A review of research on the effectiveness of environmental education in promoting intergenerational learning. *Journal of Environmental Education*, 38(4), 14-24.
- Zint, M., & Higgs, A.** (2006). Education. *Catalog of Conservation Social Science Tools*, Society for Conservation Biology. Retrieved from <http://www.conservationbiology.org/workinggroups/sswg/catalog/education.com>
- Pollak, T., & Zint, M. (2006). Are newspapers steering potential hybrid drivers off course? An analysis of U.S. newspaper coverage of hybrid electric vehicles. *Journal of Applied Environmental Education and Communication*, 5(1), 51-61.
- Covitt, B., Gomez-Schmidt, C., & Zint, M. (2005). An evaluation of the risk education module *Exploring Environmental Issues: Focus on Risk*. *Journal of Environmental Education*, 36(2), 3-13.
- Brook, A., Zint, M., & DeYoung, R. (2003). Private landowners' responses to an endangered species act listing: Implications for conservation. *Conservation Biology*, 17(6), 1638-1649.
- Brittle, C., & Zint, M. (2003). Do newspapers lead with lead? A content analysis of newspaper coverage of lead health risks to children. *Journal of Environmental Health*, 65(10), 17-22.
- Zint, M.** (2002). Comparing three attitude-behavior theories for predicting science teachers' intentions. *Journal of Research in Science Teaching*, 39(9), 819-844.

Peer Reviewed (continued)

- Zint, M.,** Kraemer A., Northway, H., & Lim, M. (2002). Evaluation of the Chesapeake Bay Foundation's conservation education programs. *Conservation Biology*, 16(3), 641-650.
- Zint, M., & Hanson, M.** (2002). Exploring environmental careers. *Environmental Science & Technology*, 36(1), 22A-26A.
- Zint, M. & Hanson, M.** (2002). Perspectives on the environmental career development of youth: Insights from a survey of U.S. environmental educators. *Applied Environmental Education and Communication*, 1(2), 79-88.
- Zint, M.** (2001). Advancing environmental risk education. *Risk Analysis*, 21(3), 417-426.
- Zint, M. & Frederick, R.** (2001). Marketing & advertising a "deep green" company: The case of Patagonia, Inc. *Greener Management International: The Journal of Corporate Citizenship*, 1(1), 93-113.
- Zint, M., & Peyton, R. B.** (2001). Improving risk education in grades 6-12: A needs assessment of Michigan, Ohio and Wisconsin science teachers. *Journal of Environmental Education*, 32(2), 46-54.
- Zint, M., & Crook, A.** (1998). A needs assessment of fisheries education materials for youth. *Fisheries*, 23(10), 24-34.
- Zint, M.,** Taylor W., Carl L., Edsall C., Heinrich J., Sippel A., Lavis D., & Schaner, T. (1996). Do toxic substances pose a threat to Great Lakes lake trout rehabilitation? A literature review. *Journal of Great Lakes Research*, 21(1), 530-546.
- Zint, M., & Dann, S.** (1995). Educating youth about fish, fishing, and fisheries management issues. *Fisheries*, 20(2), 28-30.

Edited Book

- Leal, W. & **Zint, M** (Eds). 2016. *The Contribution of Social Sciences to Sustainable Development at Universities*. Switzerland: Springer World Sustainability Series. 313pp.

Websites

- Social Sciences for Sustainability: Leveraging Research to Advance Campus Environmental Sustainability. (2014-present). <http://sustainability.umich.edu/environ211> - provides access to social science research synthesized by undergraduate students, to answer questions about how campus' environmental sustainability performance can be improved.
- My Environmental Education Evaluation Resource Assistant (MEERA). (2008-present). <http://www.meera.snre.umich.edu> - a self-directed learning guide designed to support environmental educators' program evaluation efforts through an eight step process and detailed descriptions of environmental education program evaluations. As part of its annual call for environmental education proposals, the US Environmental Protection Agency asks applicants to use MEERA to develop their evaluation plans and complete the required program evaluations. The National Oceanic and Atmospheric Administration and the US Forest Service also recommend the site to environmental educators. Since its inception in 2008, the site has served over 700,000 environmental educators and other professionals from 226 countries.

Websites (continued)

Great Lakes Fisheries Education Teacher's Corner. (2000-present). <http://glin.net/teach/teachers/>
-provides in-depth descriptions of instructional materials designed to teach K-12 students about Great Lakes fisheries. Users can search resources based on the extent to which fisheries content and national environmental education guidelines are addressed, as well as cost and suitable grade levels. This site has had an average of 1,500 unique visitors per month, with a 60% return rate.

National Environmental Education Evaluation Systems

- Zint, M., Kraemer, A., & Heimlich, J.** (2012). *National Oceanic and Atmospheric Administration's Bay Watershed Education and Training Program Evaluation System 5-Year Plan*. Washington, DC: National Oceanic and Atmospheric Administration. 164 pp.
- Zint, M.** (2010). *Evaluating the Environmental Education & Training Partnership (EETAP 2 & 3)*. Washington, DC: U.S. Environmental Protection Agency's Office of Environmental Education. 57 pp.
- Zint, M.** (2004, 2005, 2006, 2007, 2008, 2009, 2010). *Summary of annual Environmental Education and Training Partnership achievements*. Washington, DC: U.S. Environmental Protection Agency's Office of Environmental Education. ~80 pp. each.

Office of Management and Budget (OMB) Paperwork Reduction Act Clearance Supporting Statements:

- Kraemer, A. & **Zint, M.** (2015). Renewal of NOAA Bay Watershed Education and Training (B-WET) Program National Evaluation System. OMB Control Number: 0648-0658. [Approved in 2 months.]
- Kraemer, A. & **Zint, M.** (2013). NOAA Bay Watershed Education and Training (B-WET) Program National Evaluation System. OMB Control Number: 0648-0658. [Approved in 4 months.]
- Kraemer, A. & **Zint, M.** (2005). Evaluation of NOAA Bay Watershed Education and Training (B-WET). OMB Control Number: 0648-0530. [Approved in 4 months.]
- OMB Clearance is required when federal agencies seek to collect data from 10 or more respondents. Required documents describe what information is needed, why it is needed, how it will be collected, how much the collected information will cost respondents and the government. OMB Clearance is challenging to obtain and the process typically requires 6-9 months.*

Commissioned Research & Environmental Education Program Evaluation Reports

- Zint, M., Carman, J., & Kraemer, A.** (2017). *National Oceanic and Atmospheric Administration Meaningful Watershed Educational Experiences: Implementation, Outcomes & Best Practices*. Washington, DC: National Oceanic and Atmospheric Administration. 150 pp.
- Zint, M. & Kraemer, A.** (2014). *NOAA B-WET National Evaluation System: Results from First Pilot Test (2013-2014)*. Washington, DC: National Oceanic and Atmospheric Administration. 134 pp.

Commissioned Research & Environmental Education Program Evaluation Reports (continued)

- Kraemer, A., **Zint, M.**, & Kirwin, J. (2007) *An Evaluation of National Oceanic and Atmospheric Administration Chesapeake Bay Watershed Education and Training Program Meaningful Watershed Educational Experiences*. Washington, DC: National Oceanic and Atmospheric Administration. 120 pp.
- Kraemer, A., Covitt, B., & **Zint, M.** (2002). *Evaluation of Chesapeake Bay Foundation individual and combined middle school education programs*. Annapolis, MD: Chesapeake Bay Foundation. 113 pp.
- Zint, M.**, & Fortner, R. (2001). Great Lakes education assessment and summary of needs. Lansing, MI: Great Lakes Fishery Trust. 197 pp.
- Kraemer, A., & **Zint, M.** (1999). *Chesapeake Bay Foundation education program evaluation*. Annapolis, MD: Chesapeake Bay Foundation. 267 pp.
- Crook, A., & **Zint, M.** (1998). *A needs assessment of fisheries education materials for youth: Report to our Sponsors*. Bethesda, MD: American Fisheries Society, Future Fisherman Foundation, and National Fish and Wildlife Foundation, 46 pp.
- Peyton, R. B., & **Zint, M.** (1994). *Report on the proceedings of the Michigan bowhunting conference: Hunters resolving issues*. East Lansing, MI: Michigan Bowhunting Conference Steering Committee.
- Zint, M.**, & Peyton, R. B., (1993). An evaluation of science education as a means of improving Great Lakes citizens' skills for decision making under risk. East Lansing, MI: Michigan Sea Grant College Program.
- Zint, M.** (1989). Hosts, EI's partners in international hospitality education. East Lansing, MI: Educational Institute of the American Hotel and Motel Association.

Professional Magazine Article

- Game, C., Liberatore, A., Popovich, E., & **Zint, M.** (2010). Growing behavior change. *Green Teacher*, 89(Summer), 7-13.

Professional Technical Publications

- Zint, M.**, & Giles, A. (2000). *Environmental education undergraduate and graduate programs and faculty in the United States, 2nd edition*. Rock Spring, GA: North American Association for Environmental Education. 135 pp.
- Zint, M.** (1998). *Directory of faculty who teach "environmental education" courses at colleges and universities in the United States, 1st edition*. Troy, OH: North American Association for Environmental Education. 102 pp.
- Zint, M.** (1987). *Certified Food and Beverage Trainee's Manual*. American Hotel and Motel Association, East Lansing, MI.

Monographs

- Crook, A., & **Zint, M.** (1998). Guide to fisheries education resources for grades K-12. *American Fisheries Society*, 51.
- Fisher, A., Emani, S., & **Zint, M.** (1996). Risk communication for industry practitioners: An annotated bibliography. *Society for Risk Analysis*, 29.

Conference Proceedings

Zint, M., & Peyton, R. B. (1995). *A framework for environmental "risk" education*. Proceedings from the North American Association for Environmental Education Conference Proceedings. Portland, ME.

Book Reviews

Popovich, E., & Zint, M. (2012). [Review of the book *Learning Science in Informal Environments: People, Places, and Pursuits*, by National Research Council Committee on Learning Science in Informal Environments: Philip Bell, Bruce Lewenstein, Andrew W. Shouse, and Michael A. Feder (eds.)]. Washington, DC: Board on Science Education, Center for Education, Division of Behavioral and Social Sciences and Education, The National Academies Press. *Journal of Environmental Education*, 43(1), 66-68.

Zint, M. (2000). [Review of the book *Green ink: An introduction to environmental journalism*, by Michael Frome]. *Journal of Environmental Education*, 32(1), 59-60.

Zint, M. (1999). [Review of the book *Environmental education for the 21st Century: International and interdisciplinary perspectives*, by Thompson]. *Journal of Environmental Education*, 31(1), 40-41.

Zint, M. (1998). [Review of the book *Earth Summit ethics: Toward a reconstructive postmodern philosophy of environmental education*, by Baird and Rocha, and *Ecology in education*, by Hale]. *Society & Natural Resources*, 11(5), 543-545.

Invited University of Michigan Presentations

Zint, M. (2017). *Future directions for sustainability and social science research*. Panel Member, University of Michigan Sustainability and Social Science Research Symposium.

Zint, M. (2017). *Sustainability AI salon*. Panel Member, School of Natural Resources & Environment.

Zint, M. (2014). *Using study questions and Piazza to help students prepare for exams*. Paper presented at a University of Michigan Center for Research on Learning and Teaching workshop entitled "Increasing engagement in large courses."

Zint, M. (2014). *Engaging undergraduates in large, required courses*. Paper presented at a University of Michigan Hatcher Graduate Library panel on engaging students.

Invited National and International Presentations

Zint, M. (2015). *Ideas and tools for effective evaluation*. Webinar presented for North American Association of Environmental Education.

Zint, M. (2005). *Risk communication & risk education. Calculation to communication: Promoting informed decision-making about health risks*. Paper presented at the University of Michigan Center for Risk Science and Communication Inaugural Symposium.

Zint, M. (1999). *Advancing risk education*. Paper presented as part of a University of Michigan Decision Consortium meeting.

Zint, M. (1999). *Innovations in undergraduate environmental management education*. Paper presented at the Business Environment Learning Leadership (BELL) conference, held at the University of Michigan.

Invited National and International Presentations (continued)

- Zint, M.** (1997). *Defining risk education*. Paper presented as part of a University of Michigan Decision Consortium meeting.
- Zint, M., & Kraemer, A.** (2014). *Preliminary grantee results from NOAA B-WET's national evaluation system*. Paper presented at a National Oceanic and Atmospheric Administration B-WET meeting, Washington D.C.
- Zint, M., & Kraemer, A.** (2013). *Introducing NOAA B-WET's national evaluation system*. Paper presented at a National Oceanic and Atmospheric Administration B-WET meeting, Baltimore, MD.
- Zint, M.** (2012). *What we know: Environmental education and Meaningful Watershed Environmental Education*. Paper presented at the STAC (Chesapeake Bay Program Scientific and Technical Committee) research based best practices in environmental education workshop, Annapolis, MD.
- Zint, M.** (2011). *Communicating climate change*. Paper presented at the Office of Transportation & Air Quality, U.S. Environmental Protection Agency, Ann Arbor, MI.
- Zint, M.** (2010). *Evaluating Communication/Education Programs A Science Communication Example*. Paper presented at Leuphana Universität Lüneburg, Germany.
- Zint, M., Cawood, J.F., & Game, C.R.** (2010). *Evaluating recycling education*. Paper presented at the Michigan Recycling Coalition conference, Detroit, MI.
- Zint, M.** (2009). *Environmental education evaluation: using evaluation to shape programs and policy*. Paper presented at the North American Association for Environmental Education, Portland, OR.
- Zint, M.** (2009). *Can self-directed learning resources increase individuals' evaluation competency? Insights from case studies of environmental educators' experiences with the web-based "My Environmental Education Evaluation Resource Assistant" or "MEERA."* Paper presented at the Environmental Evaluator's Networking Forum, Washington, DC.
- Zint, M.** (2009). *Symposium: Evaluation in environmental education*. Paper presented at the World Environmental Education Congress, Montreal, Canada.
- Zint, M.** (2008). *"MEERA" - A web-based clearinghouse for advancing environmental education evaluation*. Paper presented at the Environmental Evaluator's Networking Forum, Washington, DC.
- Zint, M.** (2007). *"MEERA" - Your Web-Based Environmental Education Evaluation Research Assistant*. Paper presented at the USDA Forest Service "Kids Outside" conference, Madison, WI.
- Zint, M.** (2004). *Questions to ask when evaluating or commissioning evaluations of conservation education programs*. Paper presented at International Association of Fish and Wildlife Agencies Education Summit, National Conservation Training Center, Shepherdstown, WV.
- Zint, M., & Kraemer, A.** (2004). *Evaluation of the Chesapeake Bay Foundation's Education Programs*. Paper presented at Best Education Practices for Water Outreach Professionals conference, University of Wisconsin, Madison, WI.
- Zint, M.** (2003). *Synopsis of research on environment-based education and student achievement*. Paper presented at Empowering Pre-Service Teachers for Environment-Based Education and Teaching the Michigan Benchmarks symposium, East Lansing, MI.

Invited National and International Presentations (continued)

- Zint, M.**, & Fortner, R. (2003). *Great Lakes fisheries and ecosystem education: Needs and opportunities*. Paper presented at Great Lakes Fisheries & Ecosystem Education Networking conference, East Lansing, MI.
- Zint, M.** (2000). *Environmental education instruction at higher education institutions*. Paper presented at the U.S. Higher Education Network for Sustainability and the Environment conference, South Padre Island, TX.
- Zint, M.** (1999). *Teaching risk concepts: elementary school to undergraduate programs*. Paper presented at Society for Risk Analysis conference, Atlanta, GA.
- Zint, M.**, & Crook, A. (1998). *Results from an AFS review of K-12 fisheries education materials*. Paper presented at Aquatic Resources Education Association conference, Hartford, CT.
- Zint, M.** (1993). *Risk: Implications for Great Lakes fisheries management and policy*. Paper presented at Habitat Advisory Board meeting, Great Lakes Fishery Commission, Burlington, Ontario.
- Zint, M.** (1993). *Aquatic nuisance species: What can you do to create awareness and prevent their spread?* Paper presented at In-service teacher training, Kellogg Biological Station, Pellston, MI.
- Zint, M.** (1992). *Zebra mussels: A threat to the Great Lakes*. Paper presented at Higgins Lake Environmental Education School, Higgins Lake, MI.
- Zint, M.** (1992). *Zebra mussels: What can you do to create awareness and prevent their spread?* Paper presented at In-service teacher training, Kellogg Biological Station, Pellston, MI.

Refereed Presentations

- Garramone, I.**, **Torkelson-Regan K.** & **Zint, M.** (2018). *Integrating Environmental Data Analysis into your Classroom: Climate Change and Cherries*. Michigan Science Teachers Association Conference, Lansing, MI.
- Garramone, I.**, **Hawkins, V.** & **Zint, M.** (2018). *Integrate Scientific Modeling, Climate Change, and Forest Ecology into your Middle School Classroom: Climate Change and Michigan Forests*. (2018) Michigan Science Teachers Association Conference, Lansing, MI.
- Zint, M.** (2017). Interdisciplinary teaching and learning about the social sciences and sustainability. Sustainability and Social Science Research Symposium, Ann Arbor, MI.
- Morse, B.** & **Zint, M.** (2017). Observational learning in ecotourism: An investigation into ecotourists' environmentally responsible behavioral intentions in South Korea. International Conference on sustainable tourism, Zurich, Switzerland.
- Rice, B.**, **Zint, M.**, **Carman, J.** & **Green, C.** (2016). Results of a NOAA B-WET National Evaluation System Analysis. North American Association for Environmental Education, Madison, WI.
- Lawson, D.F.**, **Stevenson, K.T.**, **Zint, M.** & **Peterson, M.N.** (2016). Intergenerational transfer: Leveraging the power of children to promote sustainability. North American Association for Environmental Education Conference, Madison, WI.
- Zint, M.** (2015). Improving "My Environmental Education Evaluation Resource Assistant." North American Association for Environmental Education, San Diego, CA.

Refereed Presentations (continued)

- Zint, M.** (2015). Evaluation resources available through NOAA's Bay Watershed Education and Training program. North American Association for Environmental Education, San Diego, CA.
- Zint, M. & Carman, J.** (2014). Influences on interest in climate change and forests. North American Association for Environmental Education Research Symposium, Ottawa, ONT.
- Zint, M., Burkett, E. & Carman, J.** (2014). Climate change impacts on forests: Learning how scientists make predictions. North American Association for Environmental Education, Ottawa, ONT.
- Zint, M. & Kraemer, A.** (2014). Insights from pilot testing NOAA B-WET's grant program evaluation system. North American Association for Environmental Education, Ottawa, ONT.
- Zint, M. & MacDonald, L.** (2014). Motivating students through their desire to make a difference. North American Association for Environmental Education, Ottawa, ONT.
- Zint, M. & MacDonald, L.** (2014). Addressing campus sustainability challenges with the social sciences: Linking applied learning to student performance. The Association for the Advancement of Sustainability in Higher Education, Portland, OR.
- Zint, M., & Wolske, K.** (2013). Engaging residents in transitions toward sustainable cities. North American Association for Environmental Education, Baltimore, MD.
- Zint, M., & Kraemer, A.** (2013). Lessons & resources from NOAA's new watershed education evaluation system. North American Association for Environmental Education, Baltimore, MD.
- Zint, M., & Matson, L.** (2013). Learning how to apply social science research by solving campus sustainability challenges. The Association for the Advancement of Sustainability in Higher Education, Nashville, TN.
- Kelly, M., Little, S., Phelps, K., Roble, C., & Zint, M.** (2012). Watershed outreach professionals' behavior change practices, challenges, and needs. North American Association for Environmental Education, Oakland, CA.
- Dautremont-Smith, J., & Zint, M.** (2012). Strengths and limitations of school sustainability rating systems. North American Association for Environmental Education, Oakland, CA.
- Levy, B., & Zint, M.** (2012). Toward fostering environmental political participation: Framing an agenda for environmental education research. American Educational Research Association, Vancouver, Canada.
- Zint, M.** (2011). Advancing environmental education program evaluation: Insights from a review of behavioral outcome evaluations. World Environmental Education Congress, Brisbane, Australia.
- Zint, M.** (2011). Trends in evaluating environmental education programs. World Environmental Education Congress, Brisbane, Australia.
- Zint, M., Dowd, P., Burnett, A., & Samman, S.** (2009). Coming full circle: evaluating "My Environmental Education Evaluation Resource Assistant." North American Association for Environmental Education, Portland, OR.
- Burnett, A., & Zint, M.** (2009). Developing an evaluation plan for your environmental education proposal. North American Association for Environmental Education, Portland, OR.
- Andrews, M., & Zint, M.** (2009). EUGENE: a new, innovative evaluation tool for environmental educators. North American Association for Environmental Education, Portland, OR.

Refereed Presentations (continued)

- Zint, M.** (2009) "MEERA" – A web-based resource to support evaluations of Great Lakes education programs. International Association for Great Lakes Research Toledo, OH.
- Zint, M.** (2009). "MEERA" - A web-based resource for supporting environmental education evaluations. World Environmental Education Congress, Montreal, Canada.
- Medina, G., & **Zint, M.** (2008). Using evaluation to identify best practices. North American Association for Environmental Education, Wichita, KS.
- Zint, M.** (2008). Evaluating the US Forest Service More Kids in the Woods Program. North American Association for Environmental Education, Wichita, KS.
- Zint, M.** (2008). Learning from case studies of programs using My Environmental Education Evaluation Resource Assistant (MEERA). North American Association for Environmental Education, Wichita, KS.
- Zint, M.** (2007). "MEERA" - Your Web-Based Environmental Education Evaluation Research Assistant. North American Association for Environmental Education, Virginia Beach, VA.
- Zint, M.** (2007). "MEERA" - A Web-Based Clearinghouse for Advancing Environmental Education Evaluation. World Environmental Education Congress, Durban, South Africa.
- Zint, M.** (2007). "MEERA" – A web-based clearinghouse for advancing environmental education evaluation. American Education Research Association conference, Chicago, IL (Poster).
- Zint, M.** (2007). Five insights about individual behavior and sustainability. American Association for the Advancement of Science annual meeting, San Francisco, CA.
- Zint, M.** (2006). MEERA: Your web-based EE evaluation resource assistant. Michigan Alliance for Environmental and Outdoor Education, Wayland, MI.
- Zint, M.** (2006). "MEERA" – A web-based clearinghouse for advancing environmental education evaluation. North American Association for Environmental Education, Minneapolis, MN.
- Zint, M.** (2006). Introducing a web-based clearinghouse for Great Lakes education. Michigan Science Teachers Association conference, Lansing, MI.
- Zint, M.** (2005). Introducing a web-based clearinghouse for Great Lakes education. Midwest Fish & Wildlife conference, Grand Rapids, MI
- Zint, M.** (2005). A practical guide to environmental education evaluation. North American Association for Environmental Education, Albuquerque, NM.
- Zint, M.** (2005). A web-based clearinghouse for advancing environmental education evaluation. North American Association for Environmental Education, Albuquerque, NM.
- Covitt, B., Kraemer, A., & Zint, M. (2002). What works in environmental education? An evaluation of Chesapeake Bay Foundation curricula, field trips, and service-learning programs. North American Association for Environmental Education, Boston, MA.
- Wefel, A., & Zint, M. (2002). Sustainability education: what is it and does it work? An evaluation of a sustainability education program in Ypsilanti, Michigan. North American Association for Environmental Education, Boston, MA.
- Zint, M.** (2002). Comparing three attitude behavior theories for predicting science teacher intentions. National Association for Research in Science Teaching conference, New Orleans, LA.

Refereed Presentations (continued)

- Meichtry, Y., & **Zint, M.** (2001). Relations between science education and environmental (science) education. National Association for Research in Science Teaching conference, St. Louis, MO.
- Sano, L.L., **Zint, M.**, Lim, M., & Dotzour, A. (2001). Communicating children's health risks from pesticide exposure: An evaluation of communication efforts in Southeast Michigan. Poster presented at the Society for Environmental Toxicology and Chemistry, Baltimore conference, Baltimore, MD.
- Zint, M.**, & Meichtry, Y. (2001). Connections between science education and environmental (science) education standards. National Association for Research in Science Teaching conference, St. Louis, MO.
- Giles, M., & **Zint, M.** (2000). A new look at professional development. Poster presented at the North American Association for Environmental Education conference, South Padre Island, TX.
- Hanson, M., & **Zint, M.** (2000). Preparing the environmental professionals of tomorrow. Poster presented at the North American Association for Environmental Education conference, South Padre Island, TX .
- Zint, M.**, & Kraemer, A. (2000). Evaluation of the Chesapeake Bay Foundation's Education Programs. Aquatic Resources Education Association conference, Baltimore, MD.
- Gomez-Schmidt, C., & **Zint, M.** (1999). An evaluation of PLT's *Focus on Risk*. North American Association for Environmental Education conference, Cincinnati, OH.
- Gomez-Schmidt, C., & **Zint, M.** (1999). Risk education in the classroom: A formal evaluation of Project Learning Tree's *Focus on Risk*. Society for Risk Analysis conference, Atlanta, GA.
- Kraemer, A., Northway, H., & **Zint, M.** (1999). Evaluation of CBF's student field trips. North American Association for Environmental Education conference, Cincinnati, OH.
- Northway, H., Kraemer A., & **Zint, M.** (1999). Evaluation of CBF's middle school curriculum. North American Association for Environmental Education conference, Cincinnati, OH.
- Zint, M.**, Kraemer, A., & Northway, H. (1999). Evaluation of CBF's professional development courses. North American Association for Environmental Education conference, Cincinnati, OH.
- Covitt, B., & **Zint, M.** (1998). What determines responsible environmental behavior? North American Association for Environmental Education conference, Atlanta, GA.
- Crook, A., **Zint, M.**, & Babey, G. (1998). Working with what we have to identify what we still need: An AFS review of fisheries education materials for youth. American Fisheries Society conference, Hartford, CT.
- Zint, M.** (1998). Review of "EE" course instruction at higher education institutions in the US. North American Association for Environmental Education conference, Atlanta, GA.
- Zint, M.** (1998). Risk education: Where do we go from here? Society for Risk Analysis conference, Phoenix, AZ.
- Zint, M.**, & Crook, A. (1998). Results from an AFS review of fisheries education materials for youth. North American Association for Environmental Education conference, Atlanta, GA.
- Zint, M.** (1997). Educating citizens about risk through formal science education: Results from a needs assessment. Michigan Alliance for Environmental & Outdoor Education conference, Fenton, MI.

Refereed Presentations (continued)

- Zint, M.** (1997). Environmental education instruction at higher education institutions in the U.S.: Preliminary results from phase I. Poster presented at the North American Association for Environmental Education conference, Vancouver, British Columbia.
- Zint, M.** (1995). Evaluating curricula using AFS' fisheries education goals for youth. American Fisheries Society conference, Tampa, FL.
- Zint, M.** (1995). Working together to improve fisheries education for youth - Opportunities for cooperation between the National Marine Educators Association and the American Fisheries Society. National Marine Educators Association conference, San Diego, CA.
- Zint, M.** (1995). Symposium: Envisioning youth education about fish, fishing and fisheries management in the 21st century. American Fisheries Society conference, Tampa, FL.
- Zint, M., & Peyton, R. B.** (1995). A framework for environmental "risk" education. North American Association for Environmental Education conference, Portland, ME.
- Zint, M., & Peyton, R. B.** (1995). Improving risk decisions through formal science education: Final results of a teacher needs assessment. Society for Risk Analysis conference, Honolulu, HI.
- Zint, M., & Peyton, R. B.** (1994). Educating future citizens about risk through formal science education - A needs assessment. Society for Risk Analysis conference, Baltimore, MD.
- Swinehart, C., & **Zint, M.** (1993). The life of the Lakes: The Great Lakes fishery. Michigan Science Teachers Association conference, Detroit, MI.

GRANTS

- SEAS of change - Toward assessing student learning outcomes of environmental sustainability education. 2017-present. University of Michigan, Center for Research on Learning and Teaching, \$10,000 (Principal Investigator).
- Michigan Sustainability Cases: Transforming case-based teaching and environmental training. 2016-present. University of Michigan, Third Century Initiative, \$1.6 million (Co-Principal Investigator).
- Planting Roots, Branching Out: A proposal to continue exploring the benefits of an education program design to foster middle school students' understanding of Michigan's trees and forests – and – the impacts of climate change on these resources. 2014-2016. US Forest Service McIntire-Stennis Research Program, \$55,000 (Principal Investigator).
- “I want to make a difference” – Motivating students to learn by providing them with an opportunity to enhance campus sustainability efforts. 2013-2014. University of Michigan Transforming Learning for Third Century – Quick Wins, \$25,000 (Principal Investigator).
- Enhancing public interests in forests: Exploring the benefits of an education program to foster middle school students' understanding of local trees and forests –and- of the impacts of climate change on these resources. 2012-2014. US Forest Service McIntire-Stennis Research Program, \$60,000 (Principal Investigator).
- Showcasing SNRE research at Saginaw Forest: A proposal to enhance local formal and informal environmental science education opportunities to strengthen the “Broader Impacts” of SNRE research. 2011-2012. School of Natural Resources & Environment SEED, \$20,668 (Co-Principal Investigator with Ines Ibanez).

GRANTS (continued)

- NOAA B-Wet National Evaluation System. 2010-2011. National Oceanic and Atmospheric Administration \$72,775. (Co-Principal Investigator with Anita Kraemer).
- A collaborative model for STEM secondary teacher education. 2009-2015. National Science Foundation, \$1,416,250 (Co-Principal Investigator with Elizabeth Moje as Lead Investigator).
- The Environmental Educators' Web-Based Consultant to Effective Evaluation, Phase III. 2009-2010. US Forest Service/US Environmental Protection Agency, \$29,000. (Principal Investigator)
- The Environmental Educators' Web-Based Consultant to Effective Evaluation, Phase II. 2007-2008. US Forest Service/US Environmental Protection Agency, \$103,000. (Principal Investigator)
- The Environmental Educators' Web-Based Consultant to Effective Evaluation. 2005-2008. US Forest Service/US Environmental Protection Agency, \$250,000. (Principal Investigator)
- A web-based information clearinghouse for Great Lakes education. 2004-2006. Great Lakes Fishery Trust, \$90,000 (Principal Investigator).
- Evaluation of the U.S. Environmental Protection Agency funded Environmental Education and Training Partnership (Year 4). 2003-2004. University of Wisconsin, \$41,769 (Principal Investigator).
- Sustainability education for sustainable communities. 2001-2002. Environmental Protection Agency, \$74,000 (Formal Participant).
- Using the Environment as an Integrating Context to improve Michigan preserve teacher preparation. 2001-2002. Michigan Dwight D. Eisenhower Higher Education Professional Development Grant Programs, \$98,697 (Formal Participant).
- Chesapeake Bay Foundation Education program evaluation. 2001-2002. Chesapeake Bay Foundation, \$29,635 (Co-Principal Investigator with Anita Kraemer)
- Great Lakes fisheries education assessment and summary of needs. 2000-2001. Great Lakes Fishery Trust, \$79,108 (Co-Principal Investigator with Rosanne Fortner).
- Evaluating two models for fostering environmentally responsible behavior. 1999. Rackham Graduate School, Spring/Summer Research Grants Program, \$3,000 (Principal Investigator).
- Chesapeake Bay Foundation education program evaluation. 1998-1999. Chesapeake Bay Foundation, \$89,834 (Co-Principal Investigator with Anita Kraemer).
- Evaluation of Project Learning Tree's *Focus on Risk*. 1998-1999. Project Learning Tree, \$3,000 (Principal Investigator).
- Visibility, outreach and recruiting: A program for experimentation in Michigan. 1998-2002. Cook Family Foundation, \$197,000 (Principal Investigator).
- What determines responsible environmental behavior? Evaluation of an EE model. 1997-1999. National Environmental Education & Training Foundation, \$16,340 with \$9,000 match from Cook Family Foundation, Dow Chemical Co. Foundation, Holnam Inc., and Weyerhaeuser Co. Foundation (Principal Investigator).
- An evaluation of environmental education methods courses at higher education institutions in the US: How well are we preparing future environmental educators? 1997. North American Association for Environmental Education, \$2,712 (Principal Investigator).

GRANTS (continued)

Educating youth about fish, fishing and fisheries management issues: A needs assessment. 1996-1998. American Fisheries Society, Future Fisherman Foundation and National Fish and Wildlife Foundation, \$12,200 (with Youth Education Committee, Education Section, American Fisheries Society) (Principal Investigator).

Science and Environmental Education as a Means of Creating a Risk-Literate Great Lakes Citizenry. 1993-1995. Michigan Sea Grant College Program, \$70,324 (Formal Participant).

Zebra Mussel Outreach for Michigan. 1993-1995. National Sea Grant College Program, \$90,000 (Formal Participant).

Ph.D. STUDENT COMMITTEES

Dissertation Advisor/Chair

Jennifer Carman (Chair, Expected 2020)

Lori Kumler (Chair, Defended 2009)

Beth Covitt (Chair, Defended 2004)

Dissertation Member

Sarah Fick (Defended 2014)

Laura Smith (Defended 2013)

Kim Wolske (Defended 2012)

Brett Levy ((Defended 2011)

Cory T. Forbes (Defended 2009)

Anne Switzer (Defended 2009)

Marc Gaden (Defended 2007)

Amara Tandy Brook (Defended 2005)

Christine Brittle (Defended 2005)

PROFESSIONAL SERVICE

Reviewing

Editorial Board Member: *Conservation Biology* (2004-2009), *The Environmental Communication Yearbook/ Environmental Communication: a Journal of Nature and Culture* (2004-2009), *The Journal of Environmental Education* (2003-Present), *International Journal of Sustainability in Higher Education* (2014-2017).

Journals: *Conservation Biology*, *Education Sciences*, *Environmental Education Research*, *Evaluation and Program Planning*, *International Journal of Science Education*, *International Journal of Communication*, *International Journal of Sustainability in Higher Education*, *Journal of Applied Environmental Education and Communication*, *Journal of Environmental Education*, *Journal of Personality and Social Psychology*, *Journal of Risk Research*, *Research in Social Problems and Public Policy*, *Michigan Academician*, *Risk Analysis*, *Studies in Educational Evaluation*, *Zoo Biology*.

Books: *International Handbook of Research in Environmental Education*
Communication Skills for Conservation Professionals (2nd ed.)

Grants: Michigan Sea Grant College Program, National Science Foundation, Ohio Sea Grant College Program, Social Sciences and Humanities Research Council of Canada, USDA Cooperative Research and Extension Services.

Professional Leadership & Membership

- Leader, North American Association for Environmental Education Evaluation Clinic, October 2014 - present.
- Member, Pre-Service Training Advisory Committee, Environmental Education & Training Partnership, Summer 2001 to Summer 2005.
- Member, Michigan Environmental Science and Studies Teacher Certification Committee, Michigan Department of Education, Summer 2000 to 2002.
- Chair, Ad Hoc Committee on Environmental Science Education, National Association for Research in Science Teaching. Spring 2000 to Winter 2002.
- Member, Affiliates Conference Planning Committee, North American Association for Environmental Education. Fall 1998 to Summer 1999.
- Member, Conference Planning Committee, American Fisheries Society. Spring 1997 to Summer 1998.
- Member, Michigan Environmental Education Roundtable and subsequently Michigan Alliance for Environmental and Outdoor Education Advisory Committee. Fall 1996 to 2002.
- Member, Youth Education Committee, American Fisheries Society. Fall 1995 to Fall 1999.
- Member, Executive Committee, Risk Communication Specialty Group, Society for Risk Analysis. Fall 1995 to Fall 1997.
- Member, Conference Planning Committee, American Fisheries Society. Spring 1994 to Summer 1995
- Member, Membership Committee, Society for Risk Analysis. Winter 1994 to Fall 1996

Professional Leadership & Membership (continued)

- Chair, Youth Education Committee, American Fisheries Society. Spring 1994 to Summer 1995.
- Secretary, Habitat Advisory Board, Great Lakes Fishery Commission. Fall 1990 to Spring 1995.

PROFESSIONAL MEMBERSHIP

- American Association for the Advancement of Science, 1993 to 1997.
- American Education Research Association, 2001 to 2003.
- American Evaluation Association, 2003 to 2004, 2008 to 2009.
- American Fisheries Society, 1990 to 2004.
- Association for the Education of Teachers in Science, 1993 to 1996.
- Association for Supervision and Curriculum Development, 1993 to 2002.
- Michigan Alliance for Environmental and Outdoor Education, 1992 to present.
- National Marine Educators Association, 1993 to 2002.
- North American Association for Environmental Education, 1993 to present.
- National Association for Research in Science Teaching, 2000 to 2003.
- National Science Teachers Association, 1992 to 1994.
- Society for Conservation Biology, 2002 to 2009.
- Society for Risk Analysis, 1992 to 2003.