

# Dr. MICHAELA T. ZINT

March 2022

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## **ACADEMIC EDUCATION**

Michigan State University, Michigan USA:

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

## **ACADEMIC PROFESSORSHIPS**

- 2015-present Professor of Environmental Education and Communication,  
School for Environment & Sustainability (SEAS), University of Michigan (UM)
- 2019 Visiting Professor, Institute for Ecological Economics, Vienna University of  
Economics and Business, Austria
- 2019-present Partial appointment in the College of Literature, Science and the Arts, UM
- 2005-present Courtesy appointment in the School of Education, UM
- 2003-2015 Assoc. Professor of Environmental Education and Communication,  
School of Natural Resources & Environment (SNRE, now SEAS), UM
- 1996-2003 Asst. Professor of Environmental Education and Communication, SNRE, UM

## **ACADEMIC LEADERSHIP**

University of Michigan, Michigan, USA:

### **Associate Dean for Academic Affairs, School for Environment & Sustainability (SEAS)**

Responsible for all aspects of the Schools' graduate academic programs, August 2019-present, renewed in 2021).

### **Acting Associate Dean for Academic Affairs, School of Natural Resources & Environment [(SNRE), now School for Environment and Sustainability]**

Responsible for all aspects of the School's graduate academic programs, January-August, 2016.

### **Acting Associate Director, Program in the Environment (PitE), School of Natural Resources & Environment & College of Literature, Science and the Arts**

Responsible for supporting the Director in the execution of this undergraduate program's goals and leading select administrative tasks, January-May, 2010.

## **COMPLETED ACADEMIC LEADERSHIP TRAINING**

- 2021 Principles & Techniques of Fundraising, Indiana University
- 2016-2017 Leadership Coaching Program, College of Literature, Science, and the Arts,  
University of Michigan, MI, USA|
- 2016 Leadership Training for Women in Higher Education, Higher Education Resource  
Services ("HERS"), Denver, CO, USA

## **RESEARCH AWARDS**

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.

Society for Risk Analysis: *Student Award* (1995) awarded annually to select graduate 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.

## **TEACHING AWARDS**

University of Michigan:

*Arthur F. Thurnau Professorship* (2019) awarded annually to 4-6 individuals from among the ~6,000 tenure-track faculty at the University, accompanied by \$20,000 grant.

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

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

## **OTHER HONORS & AWARDS**

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.

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.

## **RESIDENTIAL AND ONLINE COURSES**

University of Michigan:

Undergraduate courses:

Environ 211                      *Social Sciences & Environmental Problems*

Environ 367                      *Global Enterprise and Sustainable Development*

Environ/Edcurins 382 *Introduction to Environmental Education for Sustainability*

Graduate courses:

NRE 515/EIH 579                *Environmental Risk Communication*

NRE/EDUC 581                 *Advanced Environmental Education*

NRE 677-012                  Seminars on cutting-edge environmental education/communication topics

NRE 677-158                  *Responsible Conduct of Research of Scholarship*

Coursera:

*Act on Climate: Steps to Individual, Community, and Political Action*  
*Sustainable Food*

K-12 Unit:

*Climate Change & Michigan Forests*  
(<https://climatechangeandforests.org/>)

## SCHOLARLY PUBLICATIONS

Refereed (graduate students' names are underlined)

### *In Review*

Bohunovsky, L., & Keller, L. Bildung und Wissenschaft für ein klimafreundliches Leben. Mit Beiträgen von G. Michelsen, G. Steiner, **M Zint**. In C. Görg, V. Madner, A. Muhar, A. Novy, A. Posch, K. Steiniger, & E. Aigner (Hrsg.), *Strukturen für ein klimafreundliches Leben*. Springer.

Ostrow Michel, J, Siciliano, P. & **Zint, M.** Toward Diversifying Higher Education Sustainability Competency Scholarship: Findings and Implications from a Bibliometric Analysis. *Higher Education*.

**Zint, M.**, Porter, P. & Bellino, M. Developing leadership on climate change through Massive Open Online Courses (MOOCs). In Ostrow Michel, J & Zint, M. (Eds) *Special Issue: Innovative Pedagogies for Cultivating Leadership Amidst the Climate Change Crisis. Sustainability*.

**Zint, M.**, Ostrow Michel, J., Collins, S.R., Sloan, E.C., Piñeiro, M.E., Balotin, L., Correa, V., Dabrowski, M.I., Davoodi, B., Dierdorf, J., Fernández Méndez Jiménez, D., Miller, J., Nakisher, I., Roessler, C., Schurr, P., Siciliano, P. & Thompson J. Environmental and Sustainability Education in the USA: Pathways to achieving the SDGs. In Rieckmann, M. (Ed) *World Review: Environmental and Sustainability Education in the Context of the Sustainable Development Goals*. CRC Press.

**Zint, M.**, Bressler, A. & Quintana, R. Co-Designing a Massive Open Online Course: Motives and motive fulfillment of faculty and students. *The Internet and Higher Education*.

### *Published*

**Zint, M.**, Porter, P. & Ostrow Michel, J. 2022. Education for sustainability through Massive Open Online Courses (MOOCs). In Bush A., Birke, J. (eds) *Nachhaltigkeit und Social Media: Bildung fuer eine nachhaltige Entwicklung in der digitalen Welt*. Springer-Verlag. Springer, Germany, pp. 241-257.

Carman, J.P., **Zint, M.**, Burkett, E. & Ibanez., I. 2021. The role of interest in climate change instruction. *Science Education*. 105(2): 309-352

Brundiers, K., Barth, M, Cebrian, G., Cohen, M, Diaz, L., Doucette-Remington, S, Dripps, W, Habron, G. Harre, N, Jarchow, M, Losch, K., Michel, J, Mochizuki, Y, Rieckmann, M, Parnell, R, Walker, P & **Zint, M.** (2021). Key competencies in sustainability in higher education-toward an agreed-upon reference framework. *Sustainability Science* 16, 13-29.

Carman, J.P. & **Zint, M.** (2020). Defining and classifying personal and household climate change adaptation behaviors. *Global Environmental Change* 61(102062): 1-14.

Morse, B., Carman, J.P. & **Zint, M.** (2019). Fostering environmental behaviors through observational learning. *Journal of Sustainable Tourism* 27(10): 1530-1552.

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.
- 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.
- 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.

#### Book

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

#### Invited National and International Presentations

**Zint, M.** (2019). *Transforming higher education for a sustainable future: A collective impact approach*. UNESCO Chair Conference, University of Wuppertal, Germany.

- Zint, M.** (2019). Introduction to the co-creation of the “Act on Climate” MOOC & Associated Research. Presented at University of Natural Resources and Life Sciences as well as University of Economics and Business, Vienna, Austria.
- Zint, M.** (2019). Obtaining a PhD, post-doc or faculty position in the USA. Presented at University of Natural Resources and Life Sciences as well as University of Economics and Business, Vienna, Austria.
- Zint, M.** (2015). *Ideas and tools for effective evaluation*. Webinar presented for North American Association of Environmental Education.
- 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.** (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.** (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.
- 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). *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.
- 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.** (1997). *Defining risk education*. Paper presented as part of a University of Michigan Decision Consortium meeting.
- 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.

#### Invited University of Michigan Presentations

- Zint, M.** (2018). *Using technology to support peer learning*. Paper presented at the University of Michigan Center for Research on Learning and Teaching organized Campus-Wide New Faculty Orientation.
- 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.

#### Refereed Conference 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.

**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.
- 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.
- 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.
- 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.

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.
- 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 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 21<sup>st</sup> 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.

#### Websites

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 over 220 countries and territories as listed by google analytics.

Social Sciences for Sustainability: Leveraging Research to Advance Campus Environmental Sustainability. (2014-2017). <http://www.campus-sustainability.org> provides access to social science research synthesized by Environ 211 undergraduate students, to answer questions about how campus' environmental sustainability performance can be improved.

Great Lakes Fisheries Education Teacher's Corner. (2000-2010). Provided 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 had an average of 1,500 unique visitors per month, with a 60% return rate.

#### Professional Magazine Article

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

#### **GRANTS**

##### *In Review*

Center for Clean and Equitable Battery Ecosystem for Sustainable Transportation (CE-BEST), NSF Engineering Research, \$26 Million for first 5 years, NSF Engineering Research (Director of Workforce Development Education).

##### *Awarded*

Innovative Pedagogies for Cultivating Leadership Amidst the Climate Change Crisis. University of Michigan, School for Environment & Sustainability. 2020-present \$55,000 (Lead PI).

Toward Mastery: Re-envisioning Master's student learning through a competency-based approach and multi-model mentoring. University of Michigan, Rackham Graduate School. 2019-present \$60,000 (Lead-PI).

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).

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).

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, Defended 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

### University of Michigan

Member, Council on Global Engagement (2021-present)

Member, Dean Search Committee, University of Michigan & Shanghai Jiao Tong University Joint Institute (2021)

Member, Academic Program Group, University of Michigan & Shanghai Jiao Tong University Joint Institute (2020-present)

Member, Associate Dean's Group Planning Committee (2020-present)

Member, Rackham's Faculty Committee on Mentoring (MORE) (2017-present)

Member, Faculty Advisory Board, Center for Research on Learning and Teaching (2012-2014)

### 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

Creator & Leader, North American Association for Environmental Education Evaluation Clinic, October 2014 - 2017.

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  
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.

### **PERSONAL**

Born 12, February, 1965  
Citizenship: Austria & Canada, USA green card holder  
Languages: Fluent in English and German, novice French  
First Generation University Student  
Divorced, 1 child (born 2002)