

Matthew Herbert

The Nature Conservancy
101 East Grand River Avenue
Lansing, MI 48906

Telephone: (517) 316-2283
Fax: (517) 316-9886
email: mherbert@tnc.org

- Education** *M.S., 1999 – Texas A&M University, College Station, Texas*
Major: Wildlife and Fisheries Sciences
Thesis: Fish assemblage structure along environmental gradients in a coastal plain drainage: influences from a reservoir.
- B.S., 1992 – Iowa State University, Ames, Iowa*
Major: Fisheries and Wildlife Biology
- Professional Experience** *Senior Conservation Scientist – The Nature Conservancy, Michigan Chapter – 2018-Present*
Aquatic Ecologist – The Nature Conservancy, Michigan Chapter – 2007-2018
Wildlife Biologist – Michigan Department of Natural Resources, Wildlife Division – 2003-2007
Aquatic Ecologist – The Nature Conservancy, Illinois Chapter – 1999-2003
Technical Research Scientist – Illinois Natural History Survey, Center of Aquatic Ecology – 1998-1999
Graduate Assistant – Texas A&M, Department of Wildlife and Fisheries – 1996-1998
Research Technician – Illinois Natural History Survey, Kaskaskia Biological Station – 1993-1996
Bioaid – Idaho Fish and Game, Sawtooth Fish Hatchery – 1992, 1993
Research Technician – Iowa State University, Dr. Robert Summerfelt – 1991-1993
- Research Activity** Refereed publications
Vinson, M., **M. Herbert**, A. Ackiss, J. Dobosenski, L.M. Evrard, O. Gorman, J.D. Lyons, S.B. Phillips, D.L. Yule. 2022. Lake Superior Kiyi (*Coregonus kiyi*) reproductive biology. Transactions of the American Fisheries Society (In Press). Available at: <https://doi.org/10.1002/tafs.10389>
- Paufve, M.R., S.A. Sethi, B.C. Weidel, B.F. Lantry, D.L. Yule, L.G. Rudstam, J.L. Jonas, E. Berglund, M.J. Connerton, D. Gorsky, **M.E. Herbert**, J. Smith. 2021. Diversity in spawning habitat use among Great Lakes Cisco populations. Ecology of Freshwater Fish 31:379-388.
- Kvistad, J.T., T.L. Galarowicz, D.F. Clapp, P. O'Neill, W.L. Chadderton, A.J. Tucker, **M. Herbert**. 2021. An evaluation of three trap designs for invasive rusty crayfish (*Faxonius rusticus*) suppression on critical fish spawning habitat in northern Lake Michigan. Management of Biological Invasions 12:975-996. Available at: https://www.reabic.net/journals/mbi/2021/4/MBI_2021_Kvistad_etal.pdf
- Kvistad, J.T., J.T. Buckley, K.M. Robinson, T.L. Galarowicz, R.M. Claramunt, D.F. Clapp, P. O'Neill, W.L. Chadderton, A.J. Tucker, **M. Herbert**. 2021. Size segregation and seasonal patterns in rusty crayfish *Faxonius rusticus* distribution and abundance on northern Lake Michigan spawning reefs. Journal of Great Lakes Research 47:1050-1064.
- Fitzpatrick, K.B., A.T. Moody, A. Milt, **M.E. Herbert**, M. Houry, E. Yacobson, J.A. Ross, P.J. Doran, M.C. Ferris, P.B. McIntyre, T.M. Neeson. 2021. Can indicator species guide conservation investments to restore connectivity in Great Lakes tributaries? Biodiversity and Conservation 30:165-182.
- Paufve, M., S.A. Sethi, L.G. Rudstam, B.C. Weidel, B.F. Lantry, M.A. Chalupnicki, K. Dey, and **M.E. Herbert**. 2020. Differentiation between lake whitefish and cisco eggs based on diameter. Journal of Great Lakes Research 46:1058-1062. Available at: <https://www.sciencedirect.com/science/article/abs/pii/S0380133020300307>.

- Claramunt, R.M., J. Smith, K. Donner, A. Povolo, **M.E. Herbert**, T. Galarowicz, T.L. Claramunt, S. DeBoe, W. Stott, J.L. Jonas. 2019. Resurgence of Cisco (*Coregonus artedii*) in Lake Michigan. *Journal of Great Lakes Research* 45:821-829.
- Robinson, K.M., T.L. Galarowicz, P. O'Neill, W.L. Chadderton, R.M. Claramunt, **M.E. Herbert** and A. Tucker. 2019. Monitoring shallow benthic fish assemblages in the Laurentian Great Lakes using baited photoquadrats: Enhancing traditional fisheries monitoring methods. *Journal of Great Lakes Research* 45: 45:333-339.
- Claramunt, R.M., T.L. Galarowicz, **M.E. Herbert**, A.J. Tucker, W.L. Chadderton. 2018. Managing Invasive Fish in the Laurentian Great Lakes; 'Darwin's Dreampond' or Nightmare? In: Hamilton D, K Collier, J Quinn, and C Howard-Williams (eds), *Lake Restoration Handbook: A New Zealand Perspective*. Springer International Publishing, Cham, Switzerland, pp 313 – 314.
- Milt, A.W., M.W. Diebel, P.J. Doran, M.C. Ferris, **M. Herbert**, M.L. Khoury, A.T. Moody, T.M. Neeson, J. Ross, T. Treska, J.R. O'Hanley, L. Walter, S.R. Wangen, E. Yacobson, P.B. McIntyre. 2018. Minimizing opportunity costs to aquatic connectivity restoration while controlling invasive species. *Conservation Biology* 32:894-904.
- Neeson, T.M., P.J. Doran, M.C. Ferris, K.B. Fitzpatrick, **M. Herbert**, M. Khoury, A.T. Moody, J. Ross, E. Yacobson, P.B. McIntyre. 2018. Conserving rare species can have high opportunity costs for common species. *Global Change Biology* 24:3862-3872.
- Christopher, S., J. Tank, U.H. Mahl, H. Yen, J.G. Arnold, M.T. Trentman, S.P. Sowa, **M.E. Herbert**, J.A. Ross, M.J. White, T.V. Royer. 2017. Modeling nutrient removal using watershed-scale implementation of the two-stage ditch. *Ecological Engineering* 108:358-369.
- Moody, A.T., T.M. Neeson, S. Wangen, J. Dischler, M.W. Diebel, **M. Herbert**, M. Khoury, E. Yacobson, P.J. Doran, M.C. Ferris, J.R. O'Hanley, P.B. McIntyre. 2017. Pet project or best project? Online decision support tools for prioritizing barrier removals in the Great Lakes and beyond. *Fisheries* 42:57-65.
- Hall, K.R., **M.E. Herbert**, S.P. Sowa, S. Mysorekar, S.A. Woznicki, P.A. Nejadhashemi, L. Wang. 2017. Reducing current and future risks: using climate change scenarios to test an agricultural conservation framework. *Journal of Great Lakes Research* 43:59-68.
- Ross, J.A., **M.E. Herbert**, S.P. Sowa, J.R. Frankenberger, K.W. King, S.F. Christopher, J.L. Tank, J.G. Arnold, M.J. White, H. Yen. 2016. A synthesis and comparative evaluation of drainage water management. *Agricultural Water Management* 178:366-376.
- Fales, M., R. Dell, **M.E. Herbert**, S.P. Sowa, J. Asher, G. O'Neil, P.J. Doran, B. Wickerham. 2016. Making the leap from science to implementation: Strategic agricultural conservation in Michigan's Saginaw Bay watershed. *Journal of Great Lakes Research* 42:1372-1385.
- Sowa, S.P., **Herbert, M.**, Mysorekar, S., Annis, G., Hall, K., Nejadhashemi, A.P., Woznicki, S.A., Wang L., Doran, P., 2016. How much conservation is enough? Defining implementation goals for healthy fish communities. *Journal of Great Lakes Research* 42:1302-1321.
- Yen, H., M.J. White, J.G. Arnold, S.C. Keitzer, M.V. Johnson, J.D. Atwood, P. Daggupati, **M.E. Herbert**, S.P. Sowa, S.A. Ludsin, D.M. Robertson, R. Srinivasan, C.A. Rewa. 2016. Western Lake Erie Basin: Soft-data-constrained, NHDPlus resolution watershed modeling and exploration of applicable conservation scenarios. *Science of the Total Environment* 569: 1265-1281.
- Keitzer, S., Ludsin, S.A., Sowa, S., Annis, G., Daggupati, P., Froelich, A.M., **Herbert, M.E.**, Johnson, M.V., Yen, H., White, M.J., Arnold, J.G., Sasson, A.M., Rewa, C.A., 2016. Thinking outside of the lake: can controls on nutrient inputs into Lake Erie benefit stream conservation in its watershed? *Journal of Great Lakes Research* 42:1322-1331.
- Sampath, P.V., H.S. Liao, Z.K. Curtis, **M.E. Herbert**, P.J. Doran, C.A. May, D.A. Landis, S.G. Li. 2016. Understanding fen hydrology across multiple scales. *Hydrological Processes*.
- Sampath, P.V., Liao, H.S., Curtis, Z.K., Doran, P.J., **Herbert, M.E.**, May, C.A. and Li, S.G., 2015. Understanding the groundwater hydrology of a geographically-isolated prairie fen: implications for conservation. *PloS One*, 10(10), p.e0140430.

- Legge, J.T., P.J. Doran, **M.E. Herbert**, J. Asher, G. O'Neil, S. Mysorekar, S. Sowa, and K. Hall. 2013. From model outputs to conservation action: Prioritizing locations for implementing agricultural best management practices in a Midwestern watershed. *Journal of Soil and Water Conservation* 68:22-33.
- B.L. Gruber, S.A. Alderstein Gonzalez, P.J. Badra and **M.E. Herbert**. 2012. Distribution of habitat of unionid mussels and invasive sea lamprey larvae in the Paw Paw River, a tributary of Lake Michigan. *Freshwater biology* 57: 1293–1305.
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- Lemke, A.M., K.G. Kirkham, T.T. Lindenbaum, **M.E. Herbert**, T.H. Tear, W.L. Perry, and J.R. Herkert. 2011. Evaluating agricultural best management practices in tile-drained subwatersheds of the Mackinaw River, Illinois, USA. *Journal of Environmental Quality* 40:1215-28.
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- Pegg, M.A., **M.E. Herbert**, A.M. Lemke. 2007. Fish community development during wetland restoration of an agriculturally impacted floodplain system, 1999-2003. Pages 23-24 in Heske, E.J., J.R. Herkert, K.D. Blodgett, and A.M. Lemke. *Spunky Bottoms: restoration of a big-river floodplain. Proceedings of the Spunky Bottoms Restoration Symposium, May 2003. Illinois Natural History Survey Special Publication 29. (SP29) Illinois Natural History Survey, Champaign, IL.*
- Herbert, M.E.** and F.P. Gelwick. 2003. Spatial variation of headwater fish assemblages explained by hydrologic variability and upstream effects of an impoundment. *Copeia* 2003(2): 273-284.

Reports

- Chadderton, L., A. Tucker, **M. Herbert**, D.F. Clapp, T. Galarowicz, J.T. Kvistad. 2021. Invasive control on spawning reefs—Rusty Crayfish. EPA Grant Number GLOOE02222 to the Great Lakes Office of the Environmental Protection Agency, Chicago, IL.
- Robillard, S.R., R.F. Elliott, **M.E. Herbert**, C.S. Schrank, J. Sheahan, D. Simkins, L. Walter. 2019. Habitat conditions in the Lake Michigan watershed in 2016. In *The state of Lake Michigan in 2016*. Edited by C.P. Madenjian [online]. Available from: http://www.glf.org/pubs/SpecialPubs/Sp19_01.pdf.
- Calabro, E.J., **M.E. Herbert**, R.M. Claramunt, S.K. Hanshue, T.L. Galarowicz. (In Review). Status and history of Cisco (*Coregonus artedii*) in Michigan inland waters. Michigan Department of Natural Resources Special Report, Lansing, MI.
- S.C. Keitzer, S.A. Ludsin, S.P. Sowa, A.M. Sasson, G. Annis, J.G. Arnold, A. Brennan, P. Daggupati, A.M. Froehlich, **M.E. Herbert**, C. Vollmer-Sanders, M J. White, C.J. Winslow, and H. Yen. 2016. Quantifying the potential water quality benefits of agricultural conservation practices for stream fish conservation in the western Lake Erie Basin. Final Report Submitted to the US Department of Agriculture, Natural Resources Conservation Service.
- Chadderton, L., A. Tucker, **M. Herbert**, R. Claramunt, T. Galarowicz, J. Gross. 2015. Invasive predator suppression on critical spawning reefs. Final Report submitted to the US Environmental Protection Agency, Great Lakes National Program Office, EPA Project Number: GL00E00811-0, Chicago, IL.

- Clapp, D.F., W.W. Fetzer, **M. Herbert**, and T. Zorn. 2013. A comprehensive plan for addressing gaps in understanding of near-shore fish communities in the Great Lakes. Michigan Department of Natural Resources, Lansing, MI.
- Herbert, M.**, M. Khoury, T. Bowe, and L. Cole. 2012. Development of Conservation Priorities for Migratory, River-spawning Fishes in the Michigan Waters of Lake Huron. Final Report submitted to the Michigan Coastal Management Program (MCMP) Of the Michigan Department of Environmental Quality. http://www.michigan.gov/documents/deq/deq-og1-cmp-TNC-ConservationPriorities-SpawningFish-LakeHuron_389155_7.pdf
- Pearsall, D., P. Carton de Grammont, C. Cavalieri, C. Chu, P. Doran, L. Elbing, D. Ewert, K. Hall, **M. Herbert**, M. Khoury, D. Kraus, S. Mysorekar, J. Paskus, and A. Sasson. 2012. Returning to a Healthy Lake: An International Biodiversity Conservation Strategy for Lake Erie. Technical Report. The Nature Conservancy, Nature Conservancy of Canada, and Michigan Natural Features Inventory, Lansing, MI, 340 pp. with appendices. Available at: <http://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/michigan/projects/biodiversity/Pages/default.aspx> ~accessed May 18, 2013!.
- Pearsall, D., P. Carton de Grammont, C. Cavalieri, P. Doran, L. Elbing, D. Ewert, K. Hall, **M. Herbert**, M. Khoury, S. Mysorekar, S. Neville, J. Paskus, and A. Sasson. 2012. Michigami: Great Water—Strategies to Conserve the Biodiversity of Lake Michigan. Technical Report. The Nature Conservancy and Michigan Natural Features Inventory, Lansing, MI, 313 pp. with appendices. Available at: <http://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/michigan/projects/biodiversity/Pages/default.aspx> ~accessed May 18, 2013.
- Sowa, S.P., **M. Herbert**, K.R. Hall, L. Cole, S. Mysorekar, M. Fales, T. Bowe, G. Annis, A. Nejadhashemi, and L. Wang. 2011. Assessing the Ability of Conservation Practices to Restore Biological Communities in Agricultural Watersheds. Final Report submitted to NRCS Conservation Effects Assessment Project. 69 pp.
- Sowa, S. P., **M. Herbert**, L. Cole, S. Mysorekar, J. Legge, T. Bowe, A. Nejadhashemi, M. Einheuser, and L. Wang. 2011. Assessing benefits of conservation practices to the biological integrity of agricultural streams in MI and WI. Final Report submitted to NRCS Conservation Effects Assessment Project. 56 pp.
- Franks Taylor, R., A. Derosier, K. Dinse, P. Doran, D. Ewert, K. Hall, **M. Herbert**, M. Khoury, D. Krause, A. Lapenna, G. Mayne, D. Pearsall, J. Read, B. Schroeder. 2010. The Sweetwater Sea: An International Biodiversity Conservation Strategy for Lake Huron – Technical Report. A joint publication of The Nature Conservancy, Environment Canada, Ontario Ministry of Natural Resources Michigan Department of Natural Resources and Environment, Michigan Natural Features Inventory Michigan Sea Grant, and The Nature Conservancy of Canada. 264 pp. with Appendices.
- Herbert, M.**, S. Sowa, and J. Draper. 2009. An Evaluation of a Stream Power Tool and a Rapid Field Assessment for Prioritizing the Siting of Two-Stage Ditches to Improve Bank Stability and Reduce Bank Erosion. A Final Report to The Joyce Foundation. The Nature Conservancy, Lansing, Michigan.
- Cleveland, K. and **M. Herbert**. 2005. Literature review of the impacts of wind power facilities on wildlife. Wildlife Division, Michigan Department of Natural Resources. 17pp.
- Eagle, A.C., E.M. Hay-Chmielewski, K. Cleveland, A. Derosier, **M. Herbert** R. Rustem. 2005. Michigan's Wildlife Action Plan. Michigan Department of Natural Resources, Lansing, MI.
- Herbert, M.E.** and T.H. Tear. 2003. A hydrologic assessment of the major tributaries of the Illinois River System. A report to The Nature Conservancy's Freshwater Initiative. The Nature Conservancy, Illinois Chapter, Peoria, IL.
- Herbert, M.E.** and J. Herkert. 2002. Mackinaw River Ecological Integrity Assessment. A report to The Nature Conservancy's Freshwater Initiative. The Nature Conservancy, Illinois Chapter.
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- Tear, T.H. and **M.E. Herbert**. 2000. The Mackinaw River Project scientific assessment grant. Final report to the US Environmental Protection Agency #X995714-02-0. The Nature Conservancy, Peoria, IL.
- Soluk, D.A., D.S. Zercher, L.M. Pintor, **M.E. Herbert**, A.B. Hults, E.J. Gittinger, and S.A. Stalzer. 2000. Evaluation of habitat and ecology of the larvae of Hine's emerald dragonfly (*Somatochlora hineana*) in Wisconsin and Illinois. Illinois Natural History Survey. 86 pp.
- Tear, T.H. and **M.E. Herbert**. 1999. The hydrology and water quality of the Upper Mackinaw River. A preliminary report on the Mackinaw River Paired Watershed Study. The Nature Conservancy, Illinois Chapter.

Presentations

- Annis, G.M., **M. Herbert**, S. Hickel, A. Verdeja, P. Kohn, J. Ross, E. Rutherford, D.B. Bunnell, N.W. Boucher, Y. Kao, E.F. Roseman. 2022. Mapping priority spawning and nursery habitat for Cisco and Lake Whitefish. Joint Aquatic Sciences Meeting, Grand Rapids, MI, May 2022.
- Annis, G.M., **M. Herbert**, S. Hickel, P. Kohn, E. Rutherford, D.B. Bunnell, N.W. Boucher, Y. Kao, A. Verdeja, J. Ross, D. Forsyth Kilijarczyk. 2021. Mapping priority spawning and nursery habitat for Cisco and Lake Whitefish. International Association of Great Lakes Research Annual Meeting, Virtual.
- Chadderton, L., A. Tucker, **M. Herbert**, D. Clapp, T. Galarowicz, J.T. Kvistad, K. Snyder, P. O'Neill, J. Milan, D. Castle, J. Jonas. 2021. Rusty Crayfish on native fish spawning reefs. Can fall suppression reduce overwinter egg predation?
- Pearsall, D.R. S. Lishawa, A.M. Monks, **M. Herbert**, C. May, A. Verdeja, D. Albert, W. Fink, J. Ross. 2021. Improving wetlands, soil health and water quality through invasive plant harvest and biomass use. International Association of Great Lakes Research Annual Meeting, Virtual.
- Herbert, M.E.**, M.R. Vinson, O.T. Gorman, D.L. Yule, L.L. Evard, C.L. Rosinski. 2021. Spawning assessment of Lake Superior Kiyi to inform potential restoration efforts. 82nd Annual Midwest Fish and Wildlife Conference, Virtual.
- Herbert, M.**, M. Vinson, O.T. Gorman, D.L. Yule, L.L. Evard, C.L. Rosinski. 2020. Spawning assessment of Lake Superior Kiyi to inform potential restoration efforts. International Association of Great Lakes Research annual meeting, Virtual meeting.
- Herbert, M.**, O. Gorman, M. Vinson, L. Evard, D. Yule, and C. Rosinski. 2020. Early winter Coregonid collections. Lake Superior Technical Committee of the Great Lakes Fishery Commission. Marquette, MI, January 2020.
- Smith, J., **M. Herbert**, D. Hayes, D. Clapp, K. Dey, M. Holtgren. 2020. Lake Whitefish in Lake Michigan (and other) tributaries. Lake Superior Technical Committee of the Great Lakes Fishery Commission. Marquette, MI, January 2020.
- Smith, J., **M. Herbert**, D. Hayes, D. Clapp, K. Dey, M. Holtgren. 2020. Lake Whitefish in Lake Michigan (and other) tributaries. Lake Huron Technical Committee of the Great Lakes Fishery Commission. Sarnia, ON, January 2020.
- Smith, J., **M. Herbert**, D. Clapp, D. Hayes, K. Dey, M. Holtgren. 2020. Lake Whitefish in Lake Michigan (and other) tributaries. Lake Michigan Technical Committee of the Great Lakes Fishery Commission. Michigan City, IN, January 2020.
- Herbert, M.**, J. Smith, D. Clapp, E. Crissman, M. Holtgren, D. Hayes, K. Dey and C. LaFaver. 2020. "Evaluation of potential Lake Whitefish spawning runs in tributaries of Lake Michigan." Michigan American Fisheries Society, Mt. Pleasant, Michigan. March 13, 2020.
- Kvistad, J., T. Galarowicz, **M. Herbert**, A. Tucker, W. L. Chadderton, D. Castle, and D. Clapp. 2020. "Comparing trap designs for efficient removal of invasive rusty crayfish from Northern Lake Michigan spawning reefs." Michigan American Fisheries Society, Mt. Pleasant, Michigan. March 13, 2020

- Clapp, D., D. Castle, W. L. Chadderton, T. Galarowicz, **M. Herbert**, J. Kvistad, P. O'Neill, E. Prior, K. Snyder, A. Tucker, and K. Urban. 2020. "Applying research results to invasive crayfish control in the Great Lakes." Midwest Fish and Wildlife Conference, Springfield, Illinois. February 2, 2020
- Kvistad, J., T. Galarowicz, **M. Herbert**, A. Tucker, W. L. Chadderton, D. Castle, and D. Clapp. 2020. "A trap comparison study for the physical removal of Rusty Crayfish on reef habitats in the Laurentian Great Lakes." Midwest Fish and Wildlife Conference, Springfield, Illinois. February 2, 2020
- Ludsin, S.A., N. Aloysius, S.C. Keitzer, D.A. Dippold, M.E. Fraker, J.F. Martin, S.P. Sowa, G. Annis, J. Arnold, A.M. Froehlich, M.E. **Herbert**, M.V. Johnson, M.L. Norfleet, A.M. Sasson, M.J. White, and H. Yen. 2019. Modeling physical, chemical, and biological responses to agricultural conservation in a changing climate: insights from Lake Erie. Ecological Society of America. Louisville, Kentucky.
- Herbert, M.**, M. Vinson, O. Gorman, L. Evrard, D. Yule, C. Rosinski, S. Howard. 2019. Early winter Lake Superior Kiyi collection: An evaluation to begin to address information needs laid out in the Planktivore Task Group white paper. Lake Michigan Technical Committee of the Great Lakes Fishery Commission. Green Bay, WI, July 2019.
- Herbert, M.E.**, M. Khoury, E. Yacobson, J. Ross, M. Kohls. 2019. Development of Tributary Conservation Priorities for Great Lakes Migratory Fishes. IAGLR, Brockton, NY.
- Annis, G., **M. Herbert**, J. Ross, S. Hickel. 2019. A new high-resolution historic substrate layer for the Laurentian Great Lakes. IAGLR, Brockport, NY.
- Castle, D., J. Kvistad, L. Chadderton, A. Tucker, **M. Herbert**, D. Clapp, T. Galarowicz. 2019. Evaluating experimental control method for invasive Rusty Crayfish in Lake Michigan spawning reefs. IAGLR, Brockport, NY.
- Paufve, M., S.A. Sethi, B. Lantry, J. Jonas, D. Yule, E. Berglund, M. Connerton, P. O'Neill, J. Smith, **M. Herbert**, K. Donner, B. Weidel, L. Rudstam. 2019. Cisco spawning habitat use in the Great Lakes. New York American Fisheries Society Meeting, February 2019. Poughkeepsie, NY.
- Herbert, M.E.**, E.J. Calabro, R.M. Claramunt, T.L. Galarowicz, W.L. Chadderton, and A.J. Tucker. 2016. "Restoration of critical Coregonid and Lake Trout reef spawning habitat in northern Lake Michigan." International Association for Great Lakes Research, Hamilton, Guelph, Ontario.
- Calabro, E.J., R. Claramunt, **M.E. Herbert**, T. Galarowicz, W.L. Chadderton, and A.J. Tucker. 2016. "Effectiveness of critical lake trout and coregonid reef spawning habitat restoration in northern Lake Michigan: Mitigating environmental and invasive egg predator impacts (Part 2)." Midwest Fish and Wildlife Conference, Grand Rapids, Michigan.
- Claramunt, R.M., E.J. Calabro, **M.E. Herbert**, T. Galarowicz, W.L. Chadderton, and A.J. Tucker. 2016. "Effectiveness of critical lake trout and coregonid reef spawning habitat restoration in northern Lake Michigan: Mitigating environmental and invasive egg predator impacts (Part 1)." Midwest Fish and Wildlife Conference, Grand Rapids, Michigan.
- O'Hanley, J., T. Neeson, A. Moody, M. Guyette, M. Diebel, M. Herbert, M. Khoury, E. Yacobson, P. Doran, M. Ferris, P. McIntyre. 2015. Prioritizing barrier removals in Great Lakes tributaries: balancing tradeoffs between native and invasive fish species. Fish Passage 2015, Groningen, The Netherlands.
- Moody, A.T., T.M. Neeson, M.Q. Guyette, M.W. Diebel, M. Herbert, M. Khoury, E. Yacobson, P.J. Doran, M. Ferris, J. O'Hanley, P.B. McIntyre. Rules of thumb for prioritizing barrier removals emerging from comprehensive analysis of Great Lakes tributaries. Ecological Society of America Annual Meeting, Baltimore, Maryland.
- Christopher, S.F., Sowa, S., **Herbert, M.**, Arnold, J. 2014. Watershed-scale assessment of stacked drainage practices in the Western Lake Erie Basin to improve water quality. Great Lakes SWAT modeling workshop, March 18-19, 2014. Ann Arbor, MI.
http://graham.umich.edu/media/files/watercenter/Christopher-et-al_Watershed-scale-assessment-stacked-drainage-practices-in-WBLE.pdf

- Claramunt, R.M., **M.E. Herbert**, T. Galarowicz, W.L. Chadderton, and J. Gross. 2014. The effects of pulse pressure water gun technology on rusty crayfish (*Orconectes rusticus*) and round goby (*Neogobius melanostomus*) non-native egg predators in Lake Michigan. 144th Annual Meeting of the American Fisheries Society, Quebec City, Quebec.
- Buckley, J., T. Galarowicz, W.L. Chadderton, R. Claramunt, **M. Herbert**, and A. Tucker. 2014. Monitoring invasive Rusty Crayfish on critical Lake Michigan spawning reefs. International Association for Great Lakes Research, Hamilton, Ontario, Canada.
- Cole, K.G, T. Galarowicz, R. Claramunt, W. L. Chadderton, **M. Herbert**, and J. Gross. 2014. Offshore movement of the invasive round goby (*Neogobius melanostomus*) in northern Lake Michigan: critical implications for native fish restoration. International Association of Great Lakes Research, Hamilton, Ontario, Canada.
- Cole, K., T. Galarowicz, R. Claramunt, W.L. Chadderton, **M. Herbert**, and J. Gross. 2014. Offshore movement of the invasive round goby (*Neogobius melanostomus*) in northern Lake Michigan: critical implications for native fish restoration. Michigan Chapter of the American Fisheries Society, Holland, Michigan.
- Herbert, M.**, M. Khoury, E. Yacobson, M. Guyette, T. Neeson, P. Doran, M. Diebel, P. McIntyre. 2014. Accounting for the benefits: mapping the key tributaries for migratory fish. Fish Passage 2014, Madison, WI.
- McIntyre, P., Diebel, M., Doran, P., Neeson, T., Januchowski-Hartley, S., Hartley, M., Guyette, M., Ferris, M., O'Hanley, J., **Herbert, M.** and Khoury, M., 2014. Using optimization models to support barrier removal decisions for native migratory fishes in Great Lakes tributaries. Fish Passage 2014, Madison, WI.
- Neeson, T., M. Guyette, M. Diebel, **M. Herbert**, M. Khoury, P. Doran, M. Ferris, D. Burkett, P. McIntyre. 2014. Accounting for sea lampreys in a Great Lakes barrier removal decision support tool. Fish Passage 2014, Madison, WI.
- Gross, J., R.M. Claramunt, **M.E. Herbert**, T.L. Galarowicz, W.L., Chadderton. 2014. The effects of pulse pressure water gun technology on Rusty Crayfish (*Orconectes rusticus*) and Round Goby (*Neogobius melanostomus*) non-native egg predators in Lake Michigan. American Fisheries Society, Quebec, Canada.
- Herbert, M.E.** 2014. Shiawassee River Wildlife. Invited Speaker for the Friends of the Shiawassee River, Owosso, MI.
- Buckley, J., T. Galarowicz, W L. Chadderton, R. Claramunt, **M. Herbert**, and A. Tucker. 2014. [Poster] Monitoring invasive Rusty Crayfish on critical Lake Michigan spawning reefs. Michigan Chapter of the American Fisheries Society, Holland, Michigan.
- Herbert, M.E.**, M. Khoury, P.J. Doran. 2013. Migratory, River-Spawning Fishes in the Great Lakes: Conserving the Whole Guild and Not Just the Megafauna. American Fisheries Society, Little Rock, AR.
- Buckley, J., R. Moser, T. Galarowicz, R. Claramunt, W.L. Chadderton, **M. Herbert**, and A. Tucker. 2013. Crayfish suppression on critical spawning reefs by intensive trapping. Michigan Chapter of the American Fisheries Society, Gaylord, Michigan.
- Cole, K., T. Galarowicz, R.M. Claramunt, W.L. Chadderton, **M. Herbert**, and J. Gross. 2013. [Poster] Offshore movement of the invasive round goby in northern Lake Michigan: critical implications for native fish restoration. International Association for Great Lakes Research, West Lafayette, Indiana.
- Herbert, M.E.**, M. Khoury, T. Bowe, L. Cole. 2012. Development of tributary conservation priorities for Great Lakes migratory fishes in Western Lake Huron. American Fisheries Society, Minneapolis-St. Paul, MN.
- Clapp, D. and **M.E. Herbert**. 2012. Measuring fish species richness for conservation action planning. American Fisheries Society, Minneapolis-St. Paul, MN.

- Doran, P.J., K. Hall, S.P. Sowa, **M.E. Herbert**, L. Cole, S. Mysorekar, T. Bowe, A.P. Nejadhashemi, L. Wang, C. Rewa. 2012. Protecting fish from agricultural impacts as climate changes: How much conservation is enough? American Fisheries Society, Minneapolis-St. Paul, MN.
- Sowa, S.P., **M. Herbert**, S. Mysorekar, L. Wang, A. Nejadhashemi, C. Fen, J. Bartholic, Y. Shi, P. Mantha, C. Rewa. 2010. Assessing benefits of agricultural best management practices to fish communities across MI and WI through integration of multiple geospatial datasets and physicochemical models. American Fisheries Society Annual Meeting.
- Herbert, M.E.**, P.J. Doran, J.T. Legge, S.P. Sowa, J. Asher, G. O'Neil. 2010. Prioritization of BMPs to maximize water quantity and quality benefits in the Paw Paw River Watershed, Michigan. American Fisheries Society Annual Meeting.
- Hohner, B., S. Alderstein, P. Badra, **M. Herbert**. 2009. Freshwater mussel habitat use in the Paw Paw River. Midwest Fish and Wildlife Conference.
- Herbert, M.**, P. Doran, J. Legge, S. Sowa, J. Asher, J. Bartholic, G. O'Neil. 2009. A sustainable approach to water use in Southwestern Michigan's Paw Paw River watershed. North American Benthological Society.
- Herbert, M.**, B. Schroeder, D. Pearsall, P. Doran, R. Franks Taylor, G. Mayne, A. Derosier, M. Khoury, D. Krause, J. Read, K. Hall, and D. Ewert. 2009. Developing a Lake Huron Biodiversity Conservation Strategy. Great Lakes Fishery Commission Annual Lake Committee Meeting.
- Herbert, M.** 2009. Utilizing a natural channel design to rehabilitate headwater streams. The Stewardship Network.
- Herbert, M.**, B. Schroeder, D. Pearsall, P. Doran, R. Franks Taylor, G. Mayne, A. Derosier, M. Khoury, D. Krause, J. Read, K. Hall, and D. Ewert. 2009. Developing a Lake Huron Biodiversity Conservation Strategy. Great Lakes Fishery Commission Lake Huron Tech Committee Meeting.
- Allan, J.D., R. Abell, P. Doran, **M. Herbert**, P.B. McIntire. 2008. Are terrestrial reserve networks sufficient to protect aquatic biodiversity? North American Benthological Society.
- Lemke, A.M., **M. Herbert**, W.J. Perry, and J.R. Herkert. 2006. Effectiveness of agricultural best management practices on freshwater conservation in an agricultural subwatershed of the Mackinaw River, Illinois. North American Benthological Society, Anchorage, AK.
- Lemke, A.M., **M. Herbert**, W.J. Perry, and J.R. Herkert. 2006. Effectiveness of agricultural best management practices on the ecological integrity of the Mackinaw River subwatershed, Illinois. Managing Agricultural Landscapes for Environmental Quality: Strengthening the Science Base. Soil and Water Conservation Society, Kansas City, MO.
- Lemke, M., **M. Herbert**, D. Kovacic, W. Perry. 2005. Effectiveness of agricultural best management practices on the ecological integrity of a Mackinaw River subwatershed, Illinois. Mississippi River Basin Nutrient Workshop.
- Gelwick, F., **M. Herbert**, N. Dictson, B. Healy, M. Morgan, C. Burgess, R. Li. September 2005. Fish assemblages from the shortgrass steppes, to the prairies and savannas in Texas: Evidence of shifting ecosystems? Ecology and Management of North American Prairie Streams Symposium, American Fisheries Society.
- Gelwick, F., **M. Herbert**, B. Healy, D. Peterson, M. Webb. 2005. Fish and Invertebrate Assemblages along Hydraulic and Land Use Gradients in the San Jacinto River: Coastal Perspectives on Instream Flow and Habitat Protection. North American Benthological Society
- Gelwick, F., **M. Herbert**, B. Healy, D. Peterson, M. Webb. 2005. Fish and Invertebrate Assemblages along Hydraulic and Land Use Gradients in the San Jacinto River: Coastal Perspectives on Instream Flow and Habitat Protection. American Geophysical Union.
- Lemke, M., J. Herkert, **M. Herbert**, T. Lindenbaum. October 2004. Effects of agricultural best management practices on water quality and biota in the Mackinaw River (IL) watershed. Natural Areas Conference.

- Herbert, M.E.** and T.H. Tear. 2003. Temporal trends in the hydrologic regime of the major tributaries of the Illinois River: implications for ecological restoration. Society for Conservation Biology.
- Herbert, M.E.** 2003. Restoration of streams and rivers at multiple scales. Central Michigan University, Restoration Ecology course (guest lecture)
- Herbert, M.E.** and T.H. Tear. 2000. Are rivers products of their watershed: complexity in the relationship between land use and stream ecosystems? Natural Areas Conference
- Herbert, M.H.,** T.H. Tear, M. Goodwin, K. Billo. 2000. A monitoring program to evaluate the impact of conservation practices on aquatic resources in an agriculturally dominated watershed. Natural Areas Conference
- Herbert, M.E.** and F.P. Gelwick. 1998. Upstream effects of a reservoir on spatial and temporal patterns of fish distributions and assemblage structure. Southwest Association of Naturalists Annual Meeting, Albuquerque, NM.
- Herbert, M.E.** and F.P. Gelwick. 1998. Spatial and temporal variation in fish distributions and assemblage structure in the Upper San Jacinto River System. Southern Division American Fisheries Society Midyear Meeting, Lexington, KY.
- Herbert, M.E.** and F.P. Gelwick. 1998. Spatial and temporal variation in a fish assemblage influenced by seasonal changes in stream discharge. Texas A&M Wildlife and Fisheries Symposium, College Station, TX.
- Herbert, M.E.** and F.P. Gelwick. 1998. Spatial and temporal variation in fish distributions and assemblage structure in the Upper San Jacinto River System. Texas Chapter of the American Fisheries Society Annual Meeting, Athens, TX.

Grant Awards

- Chadderton, W.L., A. Tucker, **M. Herbert**, D. Clapp, T. Galarowicz,. 2016. Invasive control on spawning reefs – Rusty Crayfish. \$555,070 from the U.S. Environmental Protection Agency, Great Lakes Restoration Initiative.
- Chadderton, W.L., **M. Herbert**, R. Claramunt, T. Galarowicz, J. Gross, and E. Olsen. 2011. Invasive Predator Suppression on Critical Spawning Reefs. \$667,971 from the U.S. Environmental Protection Agency, Great Lakes Restoration Initiative.
- Herbert, M.** and M. Houry. 2010. Development of conservation priorities for migratory, river-spawning fishes in Lake Huron. \$74,144 from the Michigan Department of Natural Resources and Environment, Coastal Management Program.
- May, C., **M. Herbert**, D. Pearsall, and S. Mackey. 2010. Development of a comprehensive management plan for coastal wetlands in North Maumee Bay with emphasis on scientifically-based management prescription for diked wetland complexes. \$44,922 from the Michigan Department of Natural Resources and Environment, Coastal Management Program.
- Herkert, J., W.L. Perry, **M.E. Herbert**. 2001. Annual primary producer dynamics in Mackinaw River headwater streams: response of an energetic food web base to watershed management. \$13,500 from The Nature Conservancy's Freshwater Initiative matching grants program
- Herkert, J., K.D. Blodgett, J. Nicklow, and **M.E. Herbert**. 2001. A Management Model for Controlling Hydrologic Alteration in the Illinois River. \$13,500 from The Nature Conservancy's Freshwater Initiative matching grants program
- Tear, T.H., K.D. Blodgett, J. Nicklow, and **M.E. Herbert**. 2000. Hydrologic alteration and its relation to water level management: A systems approach to managing the Illinois River. \$25,000 from The Nature Conservancy's Freshwater Initiative matching grants program
- Tear, T.H. and **M.E. Herbert**. 2000. Status and patterns in mussel distribution in the Mackinaw River Basin and the feasibility of reintroduction as a conservation strategy. \$7,500 from The Rodney Johnson/ Katharine Ordway Stewardship Endowment.

**Professional
Service and
Development**

Committees

Lake Michigan Technical Committee, Habitat Working Group, 2015-Present
Lake Michigan Committee, Native Planktivore Restoration Task Group, 2013-Present
Michigan Fish Technical Advisory Committee, 2019-Present
Michigan Mollusk and Crayfish Technical Advisory Committee, 2014-Present
Michigan Wildlife Action Plan, Mini-Plan contributor for Great Lakes Ciscoes, Inland Lake Ciscoes,
and Headwaters and Warmwater Streams, 2014-2015
Western Lake Erie Basin Conservation Effects Assessment Project Team, 2014-2018
Lake Erie Biodiversity Conservation Plan Core Team, 2011-2012
Lake Michigan Biodiversity Conservation Plan Core Team, 2011-2012
Lake Huron Biodiversity Conservation Plan Core Team, 2009-2010
Saginaw Bay Coastal Resource Guide Steering Committee, 2009-2010
Michigan Inland Lakes Partnership Coordinating Council Member, 2007-2010
Michigan Wildlife Action Plan Core Team, 2004-2005

Memberships

American Fisheries Society
International Association of Great Lakes Research

Reviewer for:

Fisheries – 1998, 2022
Journal of Great Lakes Research - 2020
Wetlands - 2020
Limnology and Oceanography Letters - 2019
Marine and Freshwater Research – 2014
Journal of Applied Ecology – 2013
Oryx – 2010
River Research and Applications – 2008, 2009
American Midland Naturalist – 2005, 2008
Transactions of the American Fisheries Society – 2004
North American Journal of Fisheries Management – 1998
(Grant Review) Great Lakes Fish and Wildlife Restoration Act - 2017
(Grant Review) University of Michigan Water Center - 2013
(Grant Review) National Fish and Wildlife Foundation - 2004

Honors:

Michigan United Conservation Club's 2006 Special Conservation Award
American Fisheries Society Southern Division, Warmwater Streams Committee's 1998 Outstanding
Student Research Award
Texas A&M University, Wildlife and Fisheries Science Department 1997-1998 Outstanding Master's
Student
American Fisheries Society, Texas A&M Chapter 1997-98 scholarship recipient

Additional service

Central Michigan University Graduate Faculty – 2010–2013, 2015–Present
Presenter for Chippewa Nature Center's BioBlitz – 2003, 2006, 2014, 2016, 2018
Guest Lecturer

- Pathways to Research in Biology, Central Michigan University - science at The Nature Conservancy, 2010, 2011, 2013

- Fisheries Biology, Central Michigan University – fisheries at The Nature Conservancy, 2016, 2018

Compiled the Conservation Biology section for the annual North American Benthological Society Bibliography, 1999-2004

Organization Committee for the Texas A&M Wildlife and Fisheries Symposiums, 1997, 1998

Editor of the Texas A&M, Wildlife and Fisheries Departmental Newsletter, The Osprey, 1996-98

Secretary of the Association of Graduate Wildlife and Fisheries Scientists, Texas A&M, 1997-98