

Curriculum Vitae

David G. Fielder Ph.D.
Fisheries Research Biologist
Alpena Fisheries Research Station
Michigan Department of Natural Resources

160 East Fletcher
Alpena, MI 49707
(989) 590-8956
(989) 356-1951 Fax
fielderd@michigan.gov

Education:

- Ph.D. in Fisheries Science at Michigan State University 2014
- M.S. in Fisheries Science, The University of Michigan, 1987
- B.S. in Ecosystem Biology, Eastern Michigan University, 1984

Professional Position:

- Great Lake Fisheries Research Biologist, Michigan DNR, September 1994 to present.

Research:

As a Great Lakes Fisheries Research Biologist for the Michigan DNR, I propose, plan and implement a series of investigations and surveys on Lake Huron with emphasis on coolwater species and the nearshore environment, including Saginaw Bay, Les Cheneaux Islands, and the St. Marys River. My research interests include:

- Dynamics of exploited fish populations
- Quantitative stock assessment
- Food web dynamics
- Decision analysis and associated simulation modeling

Most of my research is in support of fishery management decision making.

Select recent articles authored or co-authored:

Fielder, D. G., T. A. Hayden, C. S. Vandergoot, and C. C. Kruger. 2020. Large-Scale Fish Movement Affects Metrics of Management Importance as Indicated by Quantitative Stock Assessment. *Journal of Great Lakes Research*. 46:633-642.

Fielder, D. G., A. P. Liskauskas, J. C. Boase, and J. A. Chiotti. In Press. Status of the Nearshore Fish Communities. Pages ____ in S. C. Riley [editor], *The State of Lake Huron in 2017*. Great Lakes Fishery Commission, Ann Arbor.

Riley, S. C., E. S. Dunlop, D. G. Fielder, and A. P. Liskauskas. In Press. Lake Huron in 2017 and Beyond. Pages ____ in S. C. Riley [editor], *The State of Lake Huron in 2017*. Great Lakes Fishery Commission, Ann Arbor.

Liskauskas, A. P., B. Joldersma, D. G. Fielder, G. Mayne, and R. Hyde. In Press. Status of Habitat in Lake Huron. Pages ____ in S. C. Riley [editor], *The State of Lake Huron in 2017*. Great Lakes Fishery Commission, Ann Arbor.

O'Connor, L. M., R. Aikens, A. Bowen, S. Chong, D. G. Fielder, N. Godby 2019. Population dynamics of the St. Marys River Fish Community 1975-2017. Great Lakes Fishery Commission, Miscellaneous report. 49p.

- Godby, N. T. Claramunt. D. G. Fielder. S. Chong. A. Bowen. And E. Morrow. 2019. A synthesis of sport fishing activity in the St. Marys River May through October 2017. Great Lakes Fishery Commission, Miscellaneous report. 38p.
- Fielder, D. G. and J. P Baker. 2019. Recovery of Saginaw Bay Walleye, Lake Huron. Pages 411 - 430 in From Catastrophe to Recovery: Stories of Fishery Management Success, C. C. Kruger, W. W. Taylor, and S. Youn [editors]. American Fisheries Society , Bethesda, Maryland.
- Fielder, D. G., A. P. Liskauskas, J. C. Boase, and J. A. Chiotti. 2019. Status of the nearshore fish communities *in* S. C. Riley [editor] Lake Huron State of the Lake. Great Lakes Fishery Commission, In Press. Ann Arbor.
- Riley, S. C., E. S. Dunlop, D. G. Fielder, and A. P. Liskauskas. Lake Huron in 2017 and beyond. *in* S. C. Riley [editor] Lake Huron State of the Lake. Great Lakes Fishery Commission, In Press. Ann Arbor.
- Liskauskas, A. P., B. Joldersma, D. G. Fielder, G. Mayne, and R. Hyde. 2019. Status of habitat in Lake Huron in 2017. *in* S. C. Riley [editor] Lake Huron State of the Lake. Great Lakes Fishery Commission, In Press. Ann Arbor.
- Fielder, D. G., T. A. Hayden, C. S. Vandergoot, and C. C. Kruger. Management implications of large-scale movement by Saginaw Bay Stock of Walleyes as indicated by quantitative stock assessment. In submission. Canadian Journal of Fisheries and Aquatic Sciences.
- Fielder, D. G., A. S. Briggs, and M. V. Thomas. 2019. Status and Trends of the Fish Community of Saginaw Bay, Lake Huron 2012–2017. Michigan Department of Natural Resources, Fisheries Report *In Press*. Lansing.
- Hayden, Todd A., Christopher S. Vandergoot, David G. Fielder, Steven J. Cooke, John M. Dettmers, and Charles C. Krueger. 2019. Telemetry reveals limited exchange of walleye between Lake Erie and Lake Huron: Movement of two populations through the Huron-Erie corridor. Journal of Great Lakes Research 45:1241-1250.
- Madenjian, C.P., Hayden, T.A., Peat, T.B., Vandergoot, C.S., Fielder, D.G., Gorman, A.M., Pothoven, S.A., Dettmers, J.M., Cooke, S.J., Zhao, Y. and Krueger, C.C. 2018. Temperature regimes, growth, and food consumption for female and male adult walleye in Lake Huron and Lake Erie: a bioenergetics analysis. Canadian Journal of Fisheries and Aquatic Sciences, 75:1573-1586.
- Door, B. S., and D. G. Fielder. 2017. Double-crested Cormorants: too much of a good thing? Fisheries. 42:468-477.
- Fetzer, W. W., B. M. Roth, D. M. Infante, D. F. Clapp, R. M. Claramunt, D. G. Fielder, D. K. Forsyth, J. X. He, T. J. Newcomb, C. M. Riseng, K. E. Wehrly, and T. G. Zorn. 2017. Spatial and temporal dynamics of nearshore fish communities in Lake Michigan and Lake Huron. Journal of Great Lakes Research. 43:319-334.
- DeBruyne, R. L., D. G. Fielder, E. F. Roseman, and P. H. Butchko. 2017. Exploring potential effects of cormorant predation on the fish community in Saginaw Bay, Lake Huron. Journal of Great Lakes Research. 43:387-393.

- Schaeffer, J. S., A. K. Bowen, and D. G. Fielder. 2017. Community stability within the St. Marys River fish community: evidence from trawl surveys. *Journal of Great Lakes Research*. *Journal of Great Lakes Research*. 43:399-404.
- Zachary, S. Feiner, S. C. Chong, D. G. Fielder, J. A. Hoyle, C. Knight, T. E. Lauer, M. V. Thomas, J. T. Tyson, and T. O. Hook. 2017. Sex-based tradeoffs between growth, mortality, and maturation in Great Lakes yellow perch stocks. *Canadian Journal of Fisheries and Aquatic Sciences* 74:2059-2072.
- Hayden, T. A., T. R. Binder, C. M. Holbrook, C. S. Vandergoot, D. G. Fielder, S. J. Cooke, J. M. Dettmers, C. C. Kruger. 2017. Spawning site fidelity and apparent annual survival of walleye (*Sander vitreus*) differ between a Lake Huron and Lake Erie tributary. *Ecology of Freshwater Fish*. 2017:1-11.
- Dorr, B. S., and D. G. Fielder. 2017. The rise of double-crested cormorants; Too much of a good thing? *The Wildlife Professional* 11:27-31.
- He, J. X., J. R. Bence, E. F. Roseman, D. G. Fielder, and M. P. Ebener. 2016. Using time-varying asymptotic length and body condition of top piscivores to indicate ecosystem regime shift in the main basin of Lake Huron: a Bayesian hierarchical modeling approach. *Canadian Journal of Fisheries and Aquatic Sciences* 73:1092-1103.
- Honey, A.E., D. B. Bunnell, C.D. Troy, D.G. Fielder, M.V. Thomas, C.T. Knight, S.C. Chong, T.O. Höök. 2016. Recruitment synchrony of yellow perch (*Perca flavescens*, Percidae) in the Great Lakes region, 1966-2008. *Fisheries Research* 181: 214 - 221
- Fielder, D. G., M. J. Jones, and J. R. Bence. 2016. Use of a Structured Approach to Analysis of Management Options and Value of Information for a Recreationally Exploited Fish Population: A Case Study of Walleyes in Saginaw Bay. *North American Journal of Fisheries Management* 36:407-420.
- Bence, J. R., C. P Madenjian, J. X. He, D. G. Fielder, S. A. Pothoven, N. E. Dobiesz, J. E. Johnson, M. P. Ebener, R. A. Cottrill, L. C. Mohr, and S. R. Koproski. 2016. Reply to comments by Riley and Dunlop on He et al. (2015). *Canadian Journal of Fisheries and Aquatic Sciences* 73:1-4.
- Peat, T. B., T. A. Hayden, L.F., Gutowsky, C. S. Vandergoot, D. G. Fielder, C. P. Madenjian, and S. J. Cooke. 2015. Seasonal thermal ecology of adult walleye (*Sander vitreus*) in Lake Huron and Lake Erie. *Journal of thermal biology* 53: 98-106.
- Johnson, J. E., J. X. He, and D. G. Fielder. 2015. Rehabilitation stocking of walleye and lake trout: restoration of reproducing stocks in Michigan waters of Lake Huron. *North American Journal of Aquaculture* 77: 396-408.
- Tsehay, I., M. J. Jones, B. J. Irwin, D. G. Fielder, J. E. Breck, and D. R. Luukkonen. 2015. A predictive model to inform adaptive management of double-crested cormorants and fisheries in Michigan. *Natural Resource Modeling* 28:348-376.
- Brenden, T. O., J. R. Bence, I. Tsehay, K. T. Scribner, J. Kanefsky, C. S. Vandergoot, and D. G. Fielder. 2015. Contributions of Lakes Erie and St. Clair Walleye Populations to the Saginaw Bay, Lake Huron Recreational Fishery: Evidence from Genetic Stock Identification. *North American Journal of Fisheries Management* 35:567-577.

- Hayden, T. A., C. M. Holbrook, D. G. Fielder, C. S. Vandergoot, R. A. Bergstedt, J. M. Dettmers, C. C. Kruger, S. J. Cooke. 2014. Acoustic telemetry reveals large-scale migration patterns of walleye in Lake Huron. PLoS ONE. 9: E114833.
- He, J. X., J. R. Bence, C. P. Madenjian, S. A. Pothoven, N. D. Dobiesz, D. G. Fielder, J. E. Johnson, A. R. Cottrill, L. C. Mohr, S. R. Kroposki. 2015. Coupling age-structured stock assessment and fish bioenergetics models: a system of time-varying models for quantifying piscivory patterns during the rapid trophic shift in the main basin of Lake Huron. Canadian Journal of Fisheries and Aquatic Sciences. 72:7-23.
- Chong, S., A. Bowen, D. G. Fielder, N. Godby, L. O'Connor, and G. Wright. 2015. Population dynamics of the St. Marys River Fish Community 1975-2013. Great Lakes Fishery Commission, Miscellaneous report. 40 p.
- Fitzgerald, D.G., L.G. Rudstam, J. M. Casselman, B.J. Irwin, D. G. Fielder, T.J. Paoli, and C. E. Kraft. 2016. Fish community responses to environmental perturbations: comparisons of Oneida Lake with three bays of the Great Lakes. Pages 497-523 in L. G. Rudstam, E. L. Mills, J. R. Jackson, and D. J. Stewart, editors. Oneida Lake: Long-term Dynamics of a Managed Ecosystem and its Fisheries. American Fisheries Society, Bethesda, Maryland.
- Fielder, D. G. 2014 Mortality, Exploitation, Movement, and Stock Size of Saginaw Bay Walleyes, 1981-2011; 31 years of tag return analysis. Michigan Department of Natural Resources, Fisheries Report 04. Lansing.
- Fielder, D. G., and J. R. Bence. 2014. Integration of auxiliary information in statistical catch-at-age analysis of the Saginaw Bay stock of walleye in Lake Huron. North American Journal of Fisheries Management 34:970-987.
- Schaeffer, J. S., M. W. Rogers, D. G. Fielder, N. Godby, A. Bowen, L. O'Connor, J. Perish, S. Greenwood, S. Chong, and G. Wright. 2014. Designing long-term fish community assessments in connecting channels: lessons from the Saint Marys River. Journal of Great Lakes Research 40:15-22.
- Ivan, L. N., D. G. Fielder, M. V. Thomas, and T. O. Hook. 2014. Changes in the Saginaw Bay, Lake Huron, fish community from 1970-2011. Journal of Great Lakes Research 40(4) 922-933.
- Roseman, E. F., J. S. Schaeffer, E. Bright, and D. G. Fielder. 2014. Angler-caught piscivore diets reflect fish community changes in Lake Huron. Transaction of the American Fisheries Society 0:1-16.
- Staton, J.M., C.R. Roswell, D.G. Fielder, M.V. Thomas, S.A., Pothoven, T.O. Höök. 2014. Condition and diet of yellow perch in Saginaw Bay, Lake Huron (1970-2011). Journal of Great Lakes Research 40:139 – 147.
- Fielder, D. G., T. L. Kolb, T. M. Goniea, D. L. Wesander, and K. S. Schrouder. 2014. Fisheries of Saginaw Bay, Lake Huron 1986-2010. Michigan Department of Natural Resources, Fisheries Report 02. Lansing.
- Fielder, D. G., and M. V. Thomas, 2014. Status and Trends of the Fish Community of Saginaw Bay, Lake Huron 2005–2011. Michigan Department of Natural Resources, Fisheries Report 03. Lansing.

- Ridgeway, M. S., and D. G. Fielder. 2013. Double-Crested Cormorants in the Laurentian Great Lakes: Issues and Ecosystems. Pages 733-764 *In* Great Lakes Fisheries Policy and Management, second edition, W. W. Taylor, A. J. Lynch and N. J. Leonard. editors. Michigan State University Press, East Lansing.
- Wang, HY., D. W. Einhouse, D. G. Fielder, L. G. Rudstam, C. S. Vandergoot, A. J. VanDeValk, T. G. Zorn, T. O. Höök. 2012. Maternal and stock effects on egg-size variation among walleye *Sander vitreus* stocks from the Great Lakes region. *Journal of Great Lakes Research* 38:477-489.
- Fielder, D. G., A. Liskauskas, and L. Mohr, and J. Boase. 2013. Nearshore fish community, Pages 60-70 *in* S. Riley, editor, State of Lake Huron 2010. Great Lakes Fishery Commission., Special Publication 13-01.
- Dorr, B. S., S. L. Hanish, P. H. Butchko, and D. G. Fielder 2012. Management of double-crested cormorants to improve sport fisheries in Michigan: 3 case studies. *Human–Wildlife Interactions* 6(1):140-153.
- Ivan, L. N., T. O. Hook, M. V. Thomas, and D. G. Fielder, and. 2011 Long-term and interannual dynamics of walleye and yellow perch in Saginaw Bay, Lake Huron. *Transactions of the American Fisheries Society*. 140:1078–1092
- Schaeffer, J. S., D. G. Fielder, N. Godby, A. Bowen, L. O'Connor, J. Parrish, S. Greenwood, S. Chong, G. Wright. 2011. Long-term trends in the St. Marys River open water fish community. *Journal of Great Lakes Research* 37:70-79.
- Vandergoot, C. S., K. J. Murchie, S. J. Cooke, M. Dettmers, R. A. Bergstedt, and D. G. Fielder. 2011. Evaluation of two forms of electroanesthesia and sodium bicarbonate as anesthetics for intracoelomic implantation of telemetry transmitters in walleye. *North American Journal of Fisheries Management* 31:914-922.
- Fielder, D. G., A. P. Liskauskas, D. J. A. Gonder, L. C. Mohr, and M. V. Thomas. 2010. Status of walleye in Lake Huron. *In* Status of walleye in the Great Lakes: proceedings of the 2006 Symposium. Edited by E. Roseman, P. Kocovsky, and C. Vandergoot . Great Lakes Fish. Comm. Tech. Rep. 69. pp. 71-90.
- Fielder, D. G. 2010. Response of yellow perch in Les Cheneaux Islands, Lake Huron to declining numbers of double-crested cormorants stemming from control activities. *Journal of Great Lakes Research*. 36: 207–214.
- Wang, HY., H. A. Hook, D. W. Einhouse, D. G. Fielder, K. A. Kayle, L. G. Rudstam, and T.O. Hook. 2009. Maturation Schedules of Walleye Populations in the Great Lakes Region: Comparison of Maturation Indices and Evaluation of Sampling-Induced Biases. *North American Journal of Fisheries Management* 29:1540–1554.
- Fielder, D. G. 2008. Examination of factors contributing to the decline of the yellow perch population and fishery in Les Cheneaux Islands, Lake Huron, with emphasis on the role of double-crested cormorants. *Journal of Great Lakes Research*. 34:506-523.
- Fielder, D. G., A. Liskauskas, L. C. Mohr, and J. Boase. 2008. Nearshore Fish Community, *In* The state of Lake Huron in 2004. Edited by J.R. Bence and L.C. Mohr. Great Lakes Fish. Comm. Spec. Pub. 08-01. pp. 47-51.

- Fielder, D. G., J. S. Schaeffer, and M. V. Thomas. 2007. Environmental and ecological conditions surrounding the production of large year classes of walleye (*Sander vitreus*) in Saginaw Bay, Lake Huron. *Journal of Great Lakes Research*. 33 (Supplement 1):118-132.
- Fielder, D. G. and seven coauthors. 2007. Population Dynamics of the St. Marys River Fish Community 1975-2006. Great Lakes Fishery Commission, <http://www.glfcc.org/lakecom/lhc/SMR2006rpt.pdf> Ann Arbor.
- Fielder, D. G., and M. V. Thomas. 2006. Fish Population Dynamics of Saginaw Bay, Lake Huron 1998 – 2004. Michigan Department of Natural Resources, Fisheries Research Report. No. 2083. Ann Arbor.
- Fielder, D. G. 2004. Increasing Predation through Walleye Fingerling Stocking: A Recovery Tool for Saginaw Bay, Lake Huron. *In Proceedings of the use of Propagated Fishes in Fisheries Management*. American Fisheries Society Symposium 44:105-112.
- Fielder, D. G. 2004. Collapse of the yellow perch fishery in the Les Cheneaux Islands, Lake Huron, and possible causes. Pages 129-130 *In Proceedings of the Percis III; The Third International Percid Fish Symposium*, T. P. Barry and J. A. Malison *editors*. University of Wisconsin Sea Grant Institute. Madison.
- Fielder, D. G. 2002. Sources of Walleye Recruitment in Saginaw Bay, Lake Huron. *North American Journal of Fisheries Management*, 22:1032-1040.
- Fielder, D. G. 2002. Methodology for immersion marking walleye fry and fingerlings in oxytetracycline hydrochloride and its detection with fluorescence microscopy. Michigan Department of Natural Resources, Fisheries Technical Report, 2002-1. Ann Arbor.
- Fielder, D. G. 2000. Lake herring spawning grounds of the St. Marys River with some potential implications for early spring navigation. *North American Journal of Fisheries Management*, 20:552-561.