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CURRENT POSITON

Associate Professor/ Great Lakes Acoustic Telemetry Observation System Director, Michigan State University, Department of Fisheries and Wildlife. 5/19 – present

- Provide administrative (e.g., strategic vision, personnel management, budgeting) and scientific leadership for the Great Lakes Acoustic Telemetry Observation System consortium of researchers
- Develop new technologies and analytic tools for understanding fish movement and behavior
- Provide fishery managers and decision makers in the Great Lakes basin with new information regarding the movement, ecology, biology and population dynamics of native and invasive fish
- Communicate research findings to management, scientific and lay audiences
- Develop research partnerships and collaborations with tribal, domestic & international researchers
- Lead and assist with securing extramural funding to ensure program viability
- Mentor and oversee Department of Fisheries & Wildlife undergraduate and graduate students
- Serve as co-instructor for Fisheries Management (FW479; SS20, SS21)

EDUCATION

Doctor of Philosophy in Fisheries and Wildlife, May 2014

Michigan State University, East Lansing, MI, 48824

*Estimating mortality parameters for walleye (*Sander vitreus*) in Lake Erie.*

Master of Science in Biology, December 2001

Tennessee Technological University, Cookeville, TN, 38505

Stocking contribution, population dynamics and forage base of walleyes in Tennessee reservoirs.

Bachelor of Science in Forestry and Wildlife and Minor in Biology, December 1998.

Virginia Polytechnic Institute and State University, Blacksburg, VA, 24060

Associate of Science in Biology, July 1997.

County College of Morris, Randolph, NJ, 07869

PROFESSIONAL EMPLOYMENT

Research Fish Biologist, United States Geological Survey, Lake Erie Biological Station. 10/16- 04/19

- Utilize conventional and advanced sampling gears and methodologies to provide new scientific information describing fish population dynamics, demographics, ecology, and habitat use across large spatial and temporal scales.
- Provide fishery decision makers with information relevant for managing native and invasive fish species in the Great Lakes basin.
- Independently direct and coordinate all scientific and non-scientific phases of four base-funded assessment surveys administered out of the Lake Erie Biological Station.

- Coordinate scientific investigations ranging from mesocosm experiments to field-based studies conducted across the Great Lakes ecosystem.
- Collaborate with state, provincial, federal, academic, and non-governmental partners on scientific studies which provides decision makers with relevant conservation and management information.
- Evaluate existing stock assessment sampling gears and practices and develop novel assessment methodologies.
- Responsible for securing externally funded competitive research grants and project reporting.
- Analyze large, complex animal movement and behavior datasets using command line scripting language (R) and geographical information systems (ArcGIS) software.
- Disseminate research findings in oral and written formats to professional, academic, and lay audiences.

Fish Biology Supervisor, Ohio Department of Natural Resources, Division of Wildlife. 8/13-10/16

- Supervise and coordinate Lake Erie fisheries stock assessment and research activities (field and laboratory) at the Sandusky Fisheries Research Station (SFRS), including fishery biologists (4).
- Supervise SFRS staff including biologists (4), conservation workers (6), clerical staff (2), a research vessel operator, and an Ohio State University undergraduate research associate.
- Oversee facility operation, budgeting (\$712K personnel & facility), maintenance and safety.
- Responsible for purchasing and overseeing the safe operation of research vessels (18-55’).
- Oversee project development, planning, budgeting and implementation
- Administer.
- Review and collaborate on state and federally funded fisheries research projects.
- Collect, analyze, and disseminate research findings to constituent and professional audiences.
- Develop state and inter-jurisdictional fish and aquatic management and recovery programs.
- Analyze data, prepare reports and publish research findings to the scientific community related to fish biology, aquatic ecology and population dynamics of native Lake Erie fish populations.
- Administer and collaborate on inter-jurisdictional fisheries assessment and research projects.
- Prepare and review technical and scientific reports associated with the Lake Erie fishery resource.
- Make fisheries management recommendations to Ohio’s Lake Erie Program Administrator.
- Participate in developing and implementing strategic plans associated with the Lake Erie fishery.

Fish Research Biologist, Ohio Department of Natural Resources, Division of Wildlife. 8/02 – 8/13

- Responsible for designing and conducting fisheries research related to fish biology, aquatic ecology and population dynamics of native fish populations in Lake Erie.
- Analyze data, prepare reports and publish research findings to the scientific community related to fish biology, aquatic ecology and population dynamics of native fish population in Lake Erie.
- Participate in designing, implementing and analyzing the data collected through multi-agency tagging projects examining exploitation and movement of walleyes on Lake Erie.
- Collaborate with Lake Erie state, federal and Canadian resource agencies on fisheries research.
- Facilitate the wise management of yellow perch and walleye by serving as a scientific fisheries research expert for the Lake Erie Committee.
- Perform analysis and publish research papers using various quantitative, modeling and statistical approaches applied to fish ecology and population dynamics for Lake Erie fisheries research.
- Collect fisheries assessment data using trawl, gill net and hydroacoustic sampling gears aboard 53’ research vessel *RV Explorer* on Lake Erie on extended cruises in inclement weather.
- Evaluate existing sampling gears and conduct research investigating the feasibility of utilizing new sampling gears and technologies for sampling the fish assemblage on Lake Erie.
- Develop and manage financial and personnel budgets for assessment and research projects.

- Orally present fisheries research to Lake Erie stakeholders and the scientific community.
- Coordinate research and assessment surveys for lake sturgeon on Lake Erie.

Fisheries Specialist, Minnesota Department of Natural Resources, Division of Fisheries. 8/01- 8/02

- Conduct fish population assessments, analyze data and prepare final reports.
- Educate and inform the public regarding fisheries related topics.
- Implement fish propagation and distribution programs.
- Lead worker for 1 full-time fisheries technician and 3-4 seasonal/ student interns.

Graduate Research Assistant, Tennessee Cooperative Fishery Research Unit. 1/99- 8/01

- Responsible for designing, implementing and analyzing data collected from a two-year stocking contribution study for the Tennessee Wildlife Resources Agency.
- Present research findings to state biologists and professional audiences.
- Assist other Unit students with their graduate research.

AWARDED GRANTS

**continuing grants (non-competitive)*

Great Lakes Acoustic Telemetry Observation System. Great Lakes Research Initiative, Great Lakes Environmental Protection Agency. Principle investigator. Receive annual funding (\$1.1 million; FY 2010-2022) for developing, maintaining and expanding an acoustic telemetry network to monitor fish behavior and provide fishery managers with information necessary for protecting these ecologically and economically important fish species in the Great Lakes Basin.

**submitted and funded (competitive)*

Sources of walleye recruitment and natural reproduction in Saginaw Bay. Michigan Sea Grant. Principle investigator. Received funding (\$188,000; 2021) to identify aggregations of walleye during the spring in Saginaw Bay using acoustic telemetry.

Habitat use, survival, and movement patterns of juvenile lake sturgeon (Acipenser fulvescens) stocked in the Saginaw River System. Great Lakes Fishery Trust (\$253,992; 2021) and The Conservation Fund, Saginaw Bay Watershed Initiative Network (\$28,000; 2021). Co-principle investigator. Received funding to evaluate post-release movements and survival of juvenile lake sturgeon stocked in several tributaries of Saginaw Bay, Lake Huron.

Quantifying sources of mortality and behavior of stock fish across release depths in Lake Ontario: using acoustic telemetry to inform stocking methods. Great Lakes Fish and Wildlife Restoration Act. Co-principle investigator. Received funding (\$400,750; 2021) to evaluate post-release survival and movements of juvenile bloater and lake trout in Lake Ontario.

Contributions of different spawning strategies and locations to Lake Whitefish fisheries in Southern Green Bay. Great Lakes Fish and Wildlife Restoration Act. Co-principle investigator. Received funding (\$246,695; 2021) to evaluate different spawning strategies and survival of lake whitefish in Green Bay, Lake Michigan.

Improved control efficiency through better understanding of grass carp behavior in nearshore areas of the Great Lakes. U.S. Geological Survey, Cooperative Ecosystem Studies Units. Co-principle investigator. Received funding (\$168,707; 2021) to evaluate grass carp movements in the Sandusky River, Lake Erie to inform control efforts.

- Contemporary habitat selection and survival of Cisco in Lake Erie.* Department of Interior Coregonine Restoration Steering Committee. Co-principal investigator. Received funding (\$80,606; 2020) to determine if suitable habitat currently exists in Lake Erie to support Cisco reintroduction efforts.
- Habitat use, survival, and movement patterns of fingerling lake sturgeon (Acipenser fulvescens) stocked into the Maumee River.* Great Lakes Fishery Commission Science Support Program. Co-principal investigator. Received funding (\$78,150; 2020) to develop online tools for managers to view the movements of Walleye tagged with acoustic transmitters for making management decisions.
- Habitat use, survival, and movement patterns of fingerling lake sturgeon (Acipenser fulvescens) stocked into the Maumee River.* Department of the Interior Science Support Program. Co-principal investigator. Received funding (\$178,169; 2020) to evaluate different stocking strategies for juvenile Lake Sturgeon released in the Maumee River to support reintroduction in Lake Erie.
- Fine-Scale Space Use of Grass Carp in Lake Erie and Continuing Research into Grass Carp Tributary Use and Large-Scale Movement through Acoustic Telemetry.* Great Lakes Research Initiative, Michigan Department of Natural Resources. Co-investigator. Received funding (\$120,000; 2018-2020) to determine the in-stream locations and timing of use by grass carp in the Sandusky and Maumee rivers, describe the broad-scale movements in Lake Erie.
- Inventory and Assessment of Coregonine Spawning Locations in Lakes Erie and Ontario, Including Connecting Channels.* Great Lakes Research Initiative, Department of Interior Coregonine Restoration Steering Committee. Co-principal investigator. Received funding (\$140,000; 2018-2019) to assess the quality and distribution of nearshore and pelagic spawning habitat (past and present) for coregonines in lakes Erie, Huron and the connecting waters.
- Do Discrete Spawning Stocks Contribute Differently to Lake Erie's Walleye Fisheries?* Great Lakes Fishery Commission, Fishery Research Program, Great Lakes Research Initiative. Co-principle investigator. Received funding (\$273,000; 2016-2019) to determine which walleye spawning stocks contribute to the commercial and recreational fisheries throughout Lake Erie.
- Maumee River Lake Sturgeon Rearing Facility,* Great Lakes Fish and Wildlife Restoration Act. Co-principal investigator. Received funding (\$92,130; 2016-2017) to construct a stream-side rearing facility at the Toledo Zoo to assist with re-introduction efforts in the Maumee River.
www.toledozoo.org/donate#sturgeon
- Examination of Factors Influencing Lake Whitefish Recruitment in the Detroit River and Western Lake Erie,* USGS Cooperative Ecosystem Studies Unit Agreement. Collaborator. Received funding (\$95,000; 2016) to advance the scientific understanding of lake whitefish recruitment and how they respond to habitat restoration efforts and environmental conditions that affect spawning, egg, and larval vital rates.
- Contribution and Movement of Lake Whitefish in Lake Michigan,* Great Lakes Fish and Wildlife Restoration Act. Co-principal investigator. Received Funding (\$297,375) to evaluate the contribution and movement patterns of individual spawning stocks of Lake Whitefish in Green Bay, Lake Michigan.

Modelling Migration, Reproductive Behavior and Habitats of Lake Erie Walleye Populations Using an Acoustic Telemetry Network. Canada- Ontario Agreement. Co-principal investigator. Received funding (\$110,000 CND; 2015-2016) for a Post-doctoral researcher to analyze Walleye movement and spawning ecology data collected via a large-scale acoustic telemetry network on Lake Erie.

Understanding Lake Trout Spatial Structure and Spawning Habitat Occupancy in Lake Erie. Great Lakes Fish and Wildlife Restoration Act. Co-principal investigator. Received funding (\$205,244; 2016-2017) to describe seasonal intra-lake movement patterns, identify potential spawning sites and determine the thermal habitats used by adult Lake Trout in Lake Erie.

Spatial Ecology and Migration of Adult Walleye in the Eastern Basin of Lake Erie. New York Department of Environmental Conservation. Co-principal investigator. Received initial funding for a 3-year study (\$150,000; 2015-2017) investigating spatial ecology, and migration patterns of eastern basin Lake Erie. Obtained additional funding (\$72,080) to expand the study from the Great Lakes Fishery Commission, Fishery Research Program, Great Lakes Research Initiative. <http://data.glos.us/glatos/projects/13>

Maumee River Lake Sturgeon Restoration Plan. United States Fish and Wildlife Service. Co-principal investigator. Received funding (\$99,981; 2014-2016) for a University of Toledo graduate student to compile, analyze and synthesize information relevant for developing a Lake Sturgeon restoration plan, Maumee River, Ohio.

Understanding Dam Removal Impacts on a Formally Prolific Great Lake's Walleye Population. Ohio Sea Grant, National Sea Grant College Program, National Oceanic and Atmospheric Administration. Principal investigator. Received funding for a 3- year study (\$120,000; 2014-2016) investigating the effects of dam removal, spawning ecology and survival of Sandusky River Walleye. <http://data.glos.us/glatos/projects/20>

Identifying Migration Patterns and Spatial Ecology of Walleye in the Detroit River and Reef Spawning Stocks in the Western Basin of Lake Erie. Great Lakes Fishery Commission, Fishery Research Program, Great Lakes Research Initiative. Principal investigator. Received initial funding for a 4-year study (\$271,000; 2013-2017) investigating spatial ecology, migration patterns and estimating mortality parameters of Lake Erie walleye. Obtained additional funding to expand the study from the Ohio Department of Natural Resources (\$50,000), Ontario Ministry of Natural Resources (\$65,000 CND) in 2013 and 2015. <http://data.glos.us/glatos/projects/13>

Spatial Ecology, Migration and Mortality of Adult Walleye in Lake Huron and Western Lake Erie. Great Lakes Fishery Commission, Fishery Research Program, Great Lakes Research Initiative. Co-principal investigator. Received funding for a 4-year study (\$357,000; 2011-2014) investigating the use of acoustic transmitters for documenting spatial ecology and mortality patterns of walleyes in lakes Huron and Erie. <http://data.glos.us/glatos/projects/2>

Assessment of PIT Tags for Estimating Exploitation of Walleyes in Lake Erie and Saginaw Bay, Lake Huron. Great Lakes Fish and Wildlife Restoration Act. Principal investigator. Received funding for a 3-year study (\$105,000; 2004-2006) investigating the feasibility of using PIT tags to estimate exploitation and jaw tag loss on walleyes in lakes Erie and Huron.

Evaluation of Lake Sturgeon use of the Maumee River, Ohio. National Fish and Wildlife Foundation. Co-principal investigator. Received funding (\$56,000; 2003) to evaluate the habitat suitability of the Maumee River, Ohio for juvenile and adult lake sturgeon.

Early Mortality Syndrome in Tennessee walleye populations. Federal Aid in Sport Fish Restoration, United State Fish and Wildlife Service. Co-principal investigator. Received funding (\$29,750; 1999-2000) to investigate if walleye spawning in Tennessee reservoirs exhibit characteristics of a thiamine deficiency.

PUBLICATIONS

Collier, J. J., J. A. Chiotti, J. Boase, C. M. Mayer, C. S. Vandergoot, J. M. Bossenbroek. 2022. Assessing habitat for lake sturgeon (*Acipenser fulvescens*) reintroduction to the Maumee River, Ohio using habitat suitability index models. *Journal of Great Lakes Research* 48:219-228.

Dembkowski, D. J., D. A. Isermann, C. S. Vandergoot, S. P. Hansen, and T. R. Binder. 2021 Short-term survival of lake whitefish following surgical implantation of acoustic transmitters using two forms of anesthesia. *Advances in Limnology* 66:173-187.

Matley, J.K., N. V. Klinard, A.P. Barbosa Martins, K. aarestrup, E. Aspillaga, S.J. Cooke, P.D. Cowley, M.R. Huelpe, C.G. Lowe, S.K. Lowerre-Barbieri, H. Mitamura, J. Moore, C.A. Simpfendorfer, M.J. Stokesbury, M.D. Taylor, E.B. Thorsdad, C.S. Vandergoot and A.T. Fisk. 2022. Global trends in aquatic animal tracking with acoustic telemetry. *Trends in Ecology and Evolution* 37:79-94.

Reid, C. H., M. D. Faust, G. D. Raby, T. O. Brenden, S. J. Cooke and C. S. Vandergoot. Post-release survival and migration behaviour of adult walleyes following intracoelomic transmitter implantation using two methods of electro-immobilization. *Transactions of the American Fisheries Society* 151:100-111.

Stott, N. D., M. D. Faust, C. S. Vandergoot, and J. G. Miner. Acoustic telemetry detection probability and location accuracy in a freshwater wetland embayment. *Animal Biotelemetry* 9:19.

Peterson, L. K., M. L. Jones, T. O. Brenden, C. S. Vandergoot, and C. C. Krueger. 2021. Evaluating methods for estimating mortality from acoustic telemetry data. *Canadian Journal of Fisheries and Aquatic Sciences* 78:1444-1454.

Harris, C., T. O. Brenden, C. V. Vandergoot, M. D. Faust, S. J. Herbst, J. J. Buskiewicz, L. R. Nathan, J. L. Fischer, and C. C. Krueger. 2021. Movement and space use of grass carp in the Sandusky River, Ohio: implications for Lake Erie eradication efforts. *North American Journal of Fisheries Management* 41:513-530.

Harris, C., T. O. Brenden, C. V. Vandergoot, M. D. Faust, S. J. Herbst, and C. C. Krueger. 2021. Tributary use and large-scale movements of grass carp in Lake Erie. *Journal of Great Lakes Research* 47:48-58.

Nguyen, V. M., C. Delle Palme, B. Pentz, C. S. Vandergoot, C. C. Krueger, N. Young, and S. J. Cooke. 2021. Overcoming barriers to transfer of scientific knowledge: integrating biotelemetry

into fisheries management in the Laurentian Great Lakes. *Socio-Ecological Practice Research* 3:17-36.

DuFour, M. R., S. S. Song, C. M. Mayer, and C. S. Vandergoot. 2021. Embracing uncertainty to reduce bias in hydroacoustic species apportionment. *Fisheries Research* 223.

Fielder, D. G., T. A. Hayden, C. S. Vandergoot, and C. C. Krueger. 2020. Management implications of large-scale movement by the Saginaw Bay Stock of Walleyes as indicated by quantitative stock assessment. *Journal of Great Lakes Research* 46:633-642.

Matley, J.K., M. D. Faust, G. D. Raby, Y. Zhao, J. Robinson, T. MacDougall, C. C. Krueger, A. T. Fisk, and C. S. Vandergoot. 2020. Habitat use conflicts with harvest quota allocation strategies for an apex predator in a large freshwater system. *Journal of Great Lakes Research* 46:609-621.

Schmitt, J., C. S. Vandergoot, B. P. O'Malley, R. T. Kraus. 2020. Does Lake Erie still have sufficient oxythermal habitat to support Cisco *Coregonus artedii*? *Journal of Great Lakes Research* 46:330-338.

Hayden, T. A., C. S. Vandergoot, D. G. Fielder, S. J. Cooke, J. M. Dettmers, and C. 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.

Rogers, M. W., J. L. Markham, T. MacDougall, C. Murray, and C. S. Vandergoot. 2019. Life history characteristics of stocked humpback and lean Lake Trout in Lake Erie. *Hydrobiologia* 840: 363-377.

Reid, C. H., C. S. Vandergoot, J. D. Midwood, E. D. Stevens, J. Bowker, and S. J. Cooke. 2019. On the electroimmobilization of fishes for research and practice: opportunities, challenges, and research needs. *Fisheries* 44 (12):576-585.

Brownscombe J.W., E Ledee, G.D. Raby, D.P. Struthers, L.F.G. Gutowsky, V.M. Nguyen, N. Young, M.J.W. Stokesbury, C.M. Holbrook, T.O. Brenden, C.S. Vandergoot, K.J. Murchie, K. Whoriskey, J. Mills-Flemming, S. Kessel, C.C. Krueger, and S.J. Cooke. 2019. Conducting and interpreting fish telemetry studies: considerations for researchers and resource managers. *Reviews in Fish Biology and Fisheries* 29:369-400.

Gorman, A. M., R. T. Kraus, L. F. G. Gutowsky, C. S. Vandergoot, Y. Zhao, C. T. Knight, M. D. Faust, T. Hayden, and C. C. Krueger. 2019. Vertical habitat use of adult Walleye conflicts with expectations from fishery-independent surveys. *Transactions of the American Fisheries Society* 148: 592-604.

Bade, A. P., T. R. Binder, M. D. Faust, C. S. Vandergoot, T. J. Hartman, R. T. Kraus, C. C. Krueger, and S. A. Ludsin. 2019. Sex-based differences in spawning behavior account for male-biased harvest in Lake Erie Walleye (*Sander vitreus*). *Canadian Journal of Fisheries and Aquatic Sciences* 76: 2003-2012.

- DuFour, M.R., S.S. Qian, C.M. Mayer, and C.S. Vandergoot. 2019. Evaluating catchability in a large-scale gillnet survey using hydroacoustics: making the case for coupled surveys. *Fisheries Research* 211: 308-318.
- Vandergoot, C. S., M. D. Faust, J. T. Francis, D. W. Einhouse, R. Drouin, C. Murray, and R. L. Knight. 2019. Back from the brink: sustainable management of the Lake Erie Walleye fishery. Pages 431 – 466 *in* From catastrophe to recovery: stories of fisheries management success. C. C. Krueger, W. W. Taylor, and S. J. Youn, editors. American Fisheries Society, Bethesda, Maryland.
- Faust, M. D., C. S. Vandergoot, T. O. Brenden, R. T. Kraus, T. Hartman, and C. C. Krueger. 2019. Acoustic telemetry as a potential tool for mixed-stock analysis of fishery harvest: a feasibility study using Lake Erie Walleye. *Canadian Journal of Fisheries and Aquatic Sciences* 76:1019-1030.
- Kraus, R. T., C. C. Holbrook, C. S. Vandergoot, T. R. Stewart, M. D. Faust, D. Watkinson, C. Charles, M. Pegg, E. Enders, and C. C. Krueger. 2018. Evaluation of acoustic telemetry grids for determining aquatic animal movement and survival. *Methods in Ecology and Evolution* 9:1489-1502.
- Raby, G.D., C. S. Vandergoot, T. A. Hayden, M. D. Faust, R. T. Kraus, J. M. Dettmers, S. J. Cooke, Y. Zhao, A.T. Fisk, and C. C. Krueger. 2018. Does behavioural thermoregulation underlie post-spawning migrations in a freshwater teleost. *Canadian Journal of Fisheries and Aquatic Sciences* 75(3) 488-496.
- Krueger, C. C., C. M. Holbrook, T. R. Binder, C. S. Vandergoot, T. A. Hayden, D. W. Hondorp, N. Nate, K. Paige, S. C. Riley, A. Fisk, and S. J. Cooke. 2018. Acoustic telemetry observation systems: problems, solutions, and lessons learned in the Laurentian Great Lakes. *Canadian Journal of Fisheries and Aquatic Sciences* 75:1755-1763.
- Madenjian, C. P., T. A. Hayden, T. B. Peat, C. S. Vandergoot, D. G. Fielder, A. M. Gorman, S. A. Pothoven, J. M. Dettmers, S. J. Cooke, Y. Zhao, and C. C. Krueger. 2018. Temperature regimes, growth, and food consumption for adult walleye in Lake Huron and Lake Erie: A bioenergetics analysis. *Canadian Journal of Fisheries and Aquatic Sciences* 75:1573-1586.
- DuFour, M. R., C. M. Mayer, S. S. Qian, C. S. Vandergoot, R. T. Kraus, P. M. Kocovsky, and D. M. Warner. 2018. Inferred fish behavior and its implications for hydroacoustic surveys in nearshore habitats. *Fisheries Research* 199:63-75.
- Faust, M.D., C. S. Vandergoot, E. T. Hostnik, T. R. Binder, J. Mida Hinderer, J. T. Ives, and C. C. Krueger. 2017. Electrosedation as an alternative to chemical sedation of Lake Trout for intracoelomic implantation of acoustic transmitters. *North American Journal of Fisheries Management* 37: 768-777.
- Schoonyan, A., R. T. Kraus, M. D. Faust, A. H. Cook, C. S. Vandergoot, T. A. Hayden, S. J. Cooke, and C. C. Krueger. 2017. Estimating incision healing rate for surgically implanted acoustic transmitters from recaptured adult walleye (*Sander vitreus*). *Animal Biotelemetry* 5:15.

- Hayden, T. A., T. R. Binder, C. M. Holbrook, C. S. Vandergoot, D. G. Fielder, S. J. Cooke, J. M. Dettmers, and C. C. Krueger. 2017. Spawning site fidelity and apparent survival of Walleye (*Sander vitreus*) differs between a Lake Huron and Lake Erie tributary. *Ecology of Freshwater Fish* 1-11.
- DuFour, M. R., C. M. Mayer, P. M. Kocovsky, S. S. Qian, D. M. Warner, R. T. Kraus, and C. S. Vandergoot. 2017. Sparse targets in hydroacoustic surveys: balancing quantity and quality of in situ target strength data. *Fisheries Research* 188:173-182.
- Kraus, R. T., C. S. Vandergoot, P. M. Kocovsky, M. W. Rogers, H. A. Cook, and T. O. Brenden. 2017. Reconciling walleye catch differences from multiple fishery independent gill net surveys in Lake Erie. *Fisheries Research* 188:17-22.
- Hayden, T. A., C. M. Holbrook, T. R. Binder, J. M. Dettmers, S. J. Cooke, C. S. Vandergoot, and C. C. Krueger. 2016. Probability of acoustic transmitter detections by receiver lines in Lake Huron: results of multi-year field tests and simulations. *Animal Biotelemetry* 4:19.
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- Wilson, A. M., T. Hayden, C. Vandergoot, R. T. Kraus, J. M. Dettmers, S. J. Cooke, and C. C. Krueger. 2016. Do intracoelomic implantation of telemetry transmitters alter the short-term post-release behaviour of a migratory freshwater fish? *Ecology of Freshwater Fish* 26: 292–300. doi:10.1111/eff.12275.
- DuFour, M. R., C. May, E. Roseman, C. M. Mayer, S. A. Ludsin, C. S. Vandergoot, J. J. Pritt, M. E. Fraker, J. T. Tyson, J. Miner, and E. A. Marschall. 2015. Portfolio theory as a management tool to guide conservation and restoration of multi-stock fish populations. *Ecosphere* 6(12):296.
- Peat, T. B., T. A. Hayden, L. F. G. Gutowsky, C. S. Vandergoot, D. G. Fielder, C. P. Madenjian, K. J. Murchie, J. M. Dettmers, C. C. Krueger, 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.
- Brenden, T. O., K. T. Scribner, J. R. Bence, I. Tshaye, 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 Walleye fishery: evidence from genetic stock identification. *North American Journal of Fisheries Management* 35:567-577.
- Vandergoot, C. S., and T. O. Brenden. 2015. Accuracy and precision of fishery and demographic estimates from a spatial tag-recovery model when inter-regional movements are treated as fixed. *Fisheries Research* 164:8-25.
- Hayden, T. A., C. M. Holbrook, D. G. Fielder, C. S. Vandergoot, R. A. Bergstedt, J. M. Dettmers, C. C. Krueger, and S. J. Cooke. 2014. Acoustic telemetry reveals large-scale migration patterns of walleye in Lake Huron. *PLoS (Public Library of Science)* DOI: 10.1371/journal.pone.0114833.

- Vandergoot, C. S., and T.O. Brenden. 2014. Spatially varying population demographics and fishery characteristics of Lake Erie Walleyes inferred from a long-term tag recovery study. *Transactions of the American Fisheries Society* 143:188-204.
- Pritt, J. J., M. R. DuFour, C. M. Mayer, P. M. Kocovsky, J. T. Tyson, E.J. Weimer, and C. S. Vandergoot. 2013. Including independent estimates and uncertainty to quantify total abundance of fish migrating in a large river system: walleye (*Sander vitreus*) in the Maumee River, OH. *Canadian Journal of Fisheries and Aquatic Sciences* 70:803-814.
- Wang, H., D. Einhouse, D. Fielder, L. Rudstam, C. Vandergoot, A. VanDeValk, T. Zorn, and T. 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.
- Vandergoot, C. S., T. O. Brenden, M. V. Thomas, D. W. Einhouse, H. A. Cook, and M. W. Turner. 2012. Estimation of tag shedding and reporting rates for Lake Erie jaw-tagged walleyes. *North American Journal of Fisheries Management* 32:221-223.
- Vandergoot, C. S., K. J. Murchie, S. J. Cooke, J. M. Dettmers, R. A. Bergstedt, and D. Fielder. 2011. Evaluation of two forms of electroanesthesia and sodium bicarbonate as anesthetics for walleye. *North American Journal of Fisheries Management* 13:914-922.
- Vandergoot, C. S., P. M. Kocovsky, T. O. Brenden, and W. Liu. 2011. Selectivity evaluation of two experimental gill net configurations used to sample Lake Erie walleyes. *North American Journal of Fisheries Management* 31:832-842.
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- Vandergoot, C. S., H. A. Cook, M. V. Thomas, D. E. Einhouse, and C. Murray. 2010. Status of walleye Lake Erie. In Status of walleye in the Great Lakes: proceedings of the 2006 Symposium. Great Lakes Fishery Commission Technical Report 69. pp. 123-150.
- Wagner, T., C. S. Vandergoot, and J. Tyson. 2009. Evaluating the power to detect temporal trends in fishery-independent surveys: a case study based on gillnets set in the Ohio waters of Lake Erie for walleye. *North American Journal of Fisheries Management* 29:806-815.
- Vandergoot, C. S., M. Bur, and K. Powell. 2008. Lake Erie yellow perch age estimation based on three structures: precision, processing times and management implications. *North American Journal of Fisheries Management* 28:563-571.
- Honeyfield, D. C., C. S. Vandergoot, P. W. Bettoli, J. P. Hinterkopf, and J. L. Zajicek. 2007. Thiamine and fatty acid content of walleye tissue from three southern U.S. reservoirs. *Journal of Aquatic Animal Health* 19:84-93.
- Isermann, D.A., and C. S. Vandergoot. 2005. Predicting walleye total length from head and mandible measurements. *North American Journal of Fisheries Management* 25(1):316-321.

Vandergoot, C. S., and P. W. Bettoli. 2003. Relative contribution of stocked walleyes in Tennessee reservoirs. *North American Journal of Fisheries Management* 23:1036-1041.

Bettoli, P. W., C. S. Vandergoot, and P.T. Horner. 2000. Hooking mortality of saugers in the Tennessee River. *North American Journal of Fisheries Management* 20:832-836.

Brenden, T. O., B. R. Murphy, S. Manos, and C. S. Vandergoot. 1999. A submerged cage designed for aquatic research. *North American Journal of Aquaculture* 61: 359-362.

EDITED PUBLICATIONS

Roseman, E., P. Kocovsky, and C. S. Vandergoot [editors]. 2010. Status of walleye in the Great Lakes: proceedings of the 2006 Symposium. Great Lakes Fishery Commission Technical Report 69.

SELECTED ORAL PRESENTATIONS (since 2015)

Vandergoot, C. S. 2020. Tag it, track it, tell its story: understanding the mysterious movement of Great Lakes fish with acoustic telemetry. International Association of Great Lakes Research 63rd Annual Conference on Great Lakes Research, Virtual. (INVITED, KEYNOTE SPEAKER)

Vandergoot, C. S., M. D. Faust, J. T. Francis, D. W. Einhouse, R. Drouin, C. Murray, and R. L. Knight. 2018. Back from the brink: sustainable management of the Lake Erie Walleye fishery. 148th American Fisheries Society Annual Meeting, Atlantic City, New Jersey. (INVITED, PRESENTED)

Kraus, R. T., C. Holbrook, C. S. Vandergoot, T. R. Stewart, M. D. Faust, D. Watkinson, C. C. Krueger. 2018. Evaluation of Acoustic Telemetry Grids for Determining Aquatic Animal Movements and Survival. 148th American Fisheries Society Annual Meeting, Atlantic City, New Jersey. (PRESENTED)

Faust, M. D., C. S. Vandergoot, E. T. Hostnik, T. R. Binder, J. M. Hinderer, J. T. Ives, and C. C. Krueger. 2018. Use of electricity to sedate Lake Trout for intracoelomic implantation of electronic transmitters. 9th International Charr Symposium, Duluth, Minnesota. (PRESENTED)

Vandergoot, C., J. Markham, C. Murray, and T. MacDougall. 2018. Lake Trout management in Lake Erie: efforts to restore a formerly self-sustaining population. 9th International Charr Symposium, Duluth, Minnesota. (PRESENTED)

Faust, M. D., C. S. Vandergoot, and C. C. Krueger. 2018. Application of GLATOS to inform fishery management decision on Lake Erie during 2011-2017. 2018 Lake Erie Committee Meeting, Toronto, Ontario, Canada. [INVITED]

Harris, C., T. Brenden, S. Herbst, C. Vandergoot, M. Faust, and C. C. Krueger. 2018. Lake Erie grass carp movement and tributary use. International Association of Great Lakes Research, Toronto, Ontario, Canada.

Evans, M. and C. S. Vandergoot. 2018. Seasonal phosphorus retention in the Lake Erie western basin. International Association of Great Lakes Research, Toronto, Ontario, Canada.

- Schaefer, H. R. DeBryne, E. Roseman, C. S. Vandergoot, and J. Diana. 2018. Habitat suitability modeling of Coregonines in Lake Erie. International Association of Great Lakes Research, Toronto, Ontario, Canada.
- Isermann, D.A., T. Binder, S. Hansen, D. Caroffino, D. Dembkowski, C. Krueger, C. Vandergoot, and W. Larson. 2018. Spawning site contribution and movements of Lake Whitefish in northwestern Lake Michigan. Midwest Fish and Wildlife Conference, Milwaukee, WI.
- Isermann, D.A., T. Binder, S. Hansen, D. Caroffino, D. Dembkowski, C. Krueger, C. Vandergoot, and W. Larson. 2018. Spawning site contribution and movements of Lake Whitefish in northwestern Lake Michigan. International Association of Great Lakes Research, Toronto, Ontario, Canada.
- Chiotti, J., Collier, J., j. Bossenbroek, T. Crail, C. Mayer, J. Boase, K. Bekker, and C. Vandergoot. 2018. Maumee River Lake Sturgeon restoration program. Great Lakes Fishery Commission, Fish Health Committee Meeting, Cleveland, Ohio. February 6.
- Evans, M. A., and C. Vandergoot. 2018. Seasonal phosphorus retention in the Lake Erie western basin. Association for the Sciences of Limnology and Oceanography, Victoria, British Columbia, Canada.
- Vandergoot, C. S., J. Markham, T. MacDougall, A. Muir, and D. Gorsky. 2018. Where do stocked lake trout spawn in Lake Erie? Great Lakes Acoustic Telemetry Observation System Coordination Meeting, Ann Arbor, Michigan. (PRESENTED)
- Schaefer, H., E. Roseman, R. L. DeBruyne, C. Vandergoot, and J. Diana. 2018. Habitat suitability modeling of coregonines in Lake Erie.
- Harris, C., T. Brenden, S. Herbst, C. Vandergoot, M. Faust, and C. C. Krueger. 2018. Lake Erie grass carp movement and tributary use. Midwest Fish and Wildlife Conference, Milwaukee, WI.
- Evans, M. A., and C. Vandergoot. 2018. Seasonal phosphorus retention in the Lake Erie western basin. Midwest Fish and Wildlife Conference, Milwaukee, WI.
- Bade, A., S. Ludsin, T. Binder, M. Faust, and C. Vandergoot. 2018. Spawning phenology of Lake Erie walleye. Aquatic Ecology Laboratory/ Division of Wildlife Annual Research Review. Columbus, Ohio.
- Gorman, A. M., R. Kraus, C. Knight, C. Vandergoot, M. Faust, Y. Zhao, L. Gutowsky, T. Hayden, and C. Krueger. 2016. Vertical habitat use of walleye in Lake Erie: ecological and management implications. Aquatic Ecology Laboratory/ Division of Wildlife Annual Research Review. Columbus, Ohio.
- Benecke, A., J. McFee, M. Faust, T. Hartman, G. Steinhart, and C. Vandergoot. 2018. Population demographics of largemouth bass in western Lake Erie. Aquatic Ecology Laboratory/ Division of Wildlife Annual Research Review. Columbus, Ohio.
- Vandergoot, C. S., C. Holbrook, N. Nate, and C. C. Krueger. 2017. Using the GLATOS network to understand fish behavior and movement at unprecedented spatial scales. Lake Erie Millennium Network Meeting, Windsor, Ontario, Canada. (INVITED, PRESENTED)

- Vandergoot, C. S., and 10 co-authors. 2017. An overview of GLATOS Activity on Lake Erie. Great Lakes Acoustic Telemetry Observation System Coordination Meeting, Ann Arbor, Michigan. (PRESENTED)
- Vandergoot, C. S., A. Cook, J. Chiotti, J. Boase, and G. Steinhart. 2017. Do they stay or do they go? evaluating movement patterns of Lake Whitefish in Lake Erie. 13th International Coregonid Symposium, Bayfield, Wisconsin. (PRESENTED)
- Sherman Collier, J., J. Bossenbroek, T. Crail, C. Mayer, J. Boase, J. Chiotti, K. Bekker, and C. Vandergoot. 2017. Reintroducing Lake Sturgeon (*Acipenser fulvescens*) to the Maumee River, OH: habitat assessments using habitat suitability index models. American Fisheries Society Annual Meeting, Tampa, Florida.
- Sherman Collier, J., J. Bossenbroek, T. Crail, C. Mayer, J. Boase, J. Chiotti, K. Bekker, and C. Vandergoot. 2017. Collaborative efforts for reintroducing Lake Sturgeon: a case study from the Laurentian Great Lakes, USA. 8th International Symposium on Sturgeon, Vienna, Austria.
- Sherman Collier, J., J. Bossenbroek, T. Crail, C. Mayer, J. Boase, J. Chiotti, K. Bekker, and C. Vandergoot. 2017. Reintroducing lake sturgeon (*Acipenser fulvescens*) to the Maumee River, Ohio: an overview of collaborative efforts. Indiana and Ohio Joint American Fisheries Society Spring Meeting, Muncie, Indiana.
- Sherman Collier, J., J. Bossenbroek, T. Crail, C. Mayer, J. Boase, J. Chiotti, K. Bekker, and C. Vandergoot. 2017. Reintroducing lake sturgeon (*Acipenser fulvescens*) to the Maumee River, Ohio: an overview of collaborative efforts. Aquatic Ecology Laboratory/ Division of Wildlife Annual Research Review. Columbus, Ohio.
- Sherman Collier, J., J. Bossenbroek, T. Crail, C. Mayer, J. Boase, J. Chiotti, K. Bekker, and C. Vandergoot. 2017. Reintroducing lake sturgeon (*Acipenser fulvescens*) to the Maumee River, Ohio: an overview of collaborative efforts. 77th Midwest Fish & Wildlife Conference, Lincoln, Nebraska.
- Raby, G., C. Vandergoot, T. Hayden, R. Kraus, M. Faust, S. Cooke, J. Dettmers, Y. Zhao, A. Fisk, and C. Krueger. 2017. Does behavioural thermoregulation underline long-distance migrations in walleye. Great Lakes Acoustic Telemetry Observation System Coordination Meeting, Ann Arbor, Michigan.
- Raby, G. D., C. S. Vandergoot, T. A. Hayden, R. T. Kraus, M. D. Faust, S. J. Cooke, J. D. Dettmers, Y. M. Zhao, A. T. Fisk, and C. C. Krueger. 2017. Do sex- or size-dependent thermal preferences explain long-distance migrations in walleye? Canadian Conference for Fisheries Research, Montreal, Quebec, Canada.
- Raby, G., C. Vandergoot, T. Hayden, R. Kraus, M. Faust, S. Cooke, J. Dettmers, Y. Zhao, A. Fisk, and C. Krueger. 2017. Does behavioural thermoregulation underline long-distance migrations in a freshwater teleost. 4th International Conference Fish Telemetry, Cairns, Australia.

- Peterson, L., M. Jones, C. C. Krueger, C. M. Holbrook, E. Zipkin, T. Brenden, and C. S. Vandergoot. 2017. Simulating acoustic telemetry data to evaluate mortality estimation methods and study designs. 4th International Conference Fish Telemetry, Cairns, Australia.
- Markham, J., C. Vandergoot, A. Muir, T. MacDougall, C. Murray, A. M. Gorman, R. Kraus, and D. Gorsky. 2017. Understanding the spatial and temporal movement patterns of Lake Erie whitefish. Great Lakes Acoustic Telemetry Observation System Coordination Meeting, Ann Arbor, Michigan.
- Madenjian, C. P., T. A. Hayden, T. B. Peat, C. S. Vandergoot, D. G. Fielder, A. Gorman, S. A. Pothaven, J. M. Dettmers, S. J. Cooke, Y. Zhao, and C. C. Krueger. 2017. Temperature regimes, growth, and food consumption for adult walleye in Lake Huron and Lake Erie: a bioenergetics analysis. Great Lakes Acoustic Telemetry Observation System Coordination Meeting, Ann Arbor, Michigan.
- Krueger, C. C., C. M. Holbrook, T. R. Binder, T. A. Hayden, C. S. Vandergoot, N. Nate, and S. J. Cooke. 2017. Great Lakes Telemetry Observation System: Lessons learned after eight years. 4th International Conference Fish Telemetry, Cairns, Australia.
- Kraus, R. T., C. Holbrook, C. S. Vandergoot, T. R. Stewart, M. D. Faust, D. Watkinson, C. C. Krueger. 2017. Optimal Grid Spacing of Acoustic Telemetry Receivers for Determining Fish Survival and Migration. 4th International Conference Fish Telemetry, Cairns, Australia. (PRESENTED)
- Ives, J., M. Faust, T. Binder, C. Vandergoot, E. Hostnik, J. M. Hinderer, and C. Krueger. 2016. Feasibility of electrosedation as an alternative to chemical sedation of lake trout, *Salvelinus namaycush*. International Association of Great Lakes Research, Detroit, Michigan.
- Harris, C., T. Brenden, S. Herbst, C. Vandergoot, and C. Krueger. 2017. Tributary use and large-scale movement of grass carp; research to inform control efforts in Lake Erie. 20th International Conference on Aquatic Invasive Species, Fort Lauderdale, Florida.
- Harris, C., T. Brenden, S. Herbst, C. Vandergoot, and C. Krueger. 2017. Tributary use and large-scale movement of grass carp in western Lake Erie. International Association of Great Lakes Research, Detroit, Michigan.
- Dembkowski, D., D. A. Isermann, C. S. Vandergoot, S. P. Hansen, and T. R. Binder. 2021. Short-term survival of Lake Whitefish following surgical implantation of acoustic transmitters using two forms of anesthesia. 13th International Coregonid Symposium, Bayfield, Wisconsin.
- Cook, A., C. Vandergoot, J. Chiotti, G. Steinhart, and J. Boase. 2017. Understanding the spatial and temporal movement patterns of Lake Erie whitefish. Great Lakes Acoustic Telemetry Observation System Coordination Meeting, Ann Arbor, Michigan.
- Chiotti, J., Collier, J., j. Bossenbroek, T. Crail, C. Mayer, J. Boase, K. Bekker, and C. Vandergoot. 2017. Maumee River Lake Sturgeon restoration program. New York Chapter American Fisheries Society, Buffalo, New York.

- Benecke, A., M. D. Faust, E. Weimer, J. McFee, G. Steinhart, C. Vandergoot, and T. Hartman. 2017. Growth Potential and Mortality of Largemouth Bass in Lake Erie's Western Basin. American Fisheries Society Annual Meeting, Tampa, Florida.
- Bade, A. P., C. S. Vandergoot, T. R. Binder, M. D. Faust, T. J. Hartman, R. T. Kraus, C. C. Krueger, and S. A. Ludsin. 2017. Using knowledge of sex-specific reproductive behavior to inform the management of Lake Erie walleye. International Association for Great Lakes Research, Detroit, Michigan.
- Bade, A. P., C. S. Vandergoot, T. R. Binder, M. D. Faust, T. J. Hartman, R. T. Kraus, C. C. Krueger, and S. A. Ludsin. 2017. Sex-specific habitat use of Lake Erie's open-lake reef complex by walleye: implications for fisheries management. Aquatic Ecology Laboratory/ Division of Wildlife Annual Research Review. Columbus, Ohio.
- Bade, A. P., C. S. Vandergoot, T. R. Binder, M. D. Faust, T. J. Hartman, and S. A. Ludsin. 2017. From the bar to the bedroom: using sex-specific reproductive behavior to inform management of Lake Erie walleye. Contributed paper. World Recreational Fisheries Conference, Victoria, British Columbia, Canada.
- Amidion, Z., E. Roseman, R. DeBruyne, C. Mayer, C. S. Vandergoot, W. W. Taylor. 2017. Lake Whitefish early life history in Western Lake Erie. 13th International Coregonid Symposium, Bayfield, Wisconsin.
- Hayden, T. A., C. S. Vandergoot, D. G. Fielder, S. J. Cooke, J. M. Dettmers, and C. C. Krueger. 2017. Movement of walleye in the St. Clair-Detroit River system: Acoustic telemetry reveals limited between-lake exchange for a Lake Erie and Lake Huron population. 4th International Conference Fish Telemetry, Cairns, Australia.
- Vandergoot, C. S., M. Faust, T. Brenden, R. Kraus, J. Gostiaux, C. Krueger, and S Cooke. 2016. Traditional considerations for contemporary tags: factors influencing acoustic telemetry recaptures and recoveries when estimating mortality components. Aquatic Ecology Laboratory/ Division of Wildlife Annual Research Review. Columbus, Ohio. (PRESENTED)
- Vandergoot, C. S., M. Faust, T. Brenden, R. Kraus, J. Gostiaux, C. Krueger, and S Cooke. 2016. Traditional considerations for contemporary tags: factors influencing acoustic telemetry recaptures and recoveries when estimating mortality components. 147th Annual Meeting of the American Fisheries Society, Kansas City, Missouri. (PRESENTED)
- Sherman, J. J., J. M. Bossenbroek, T. Crail, C. M. Mayer, J. M. Boase, J. C. Chiotti, and C. S. Vandergoot. 2016. A habitat suitability index model to assess lake sturgeon reintroduction in the Maumee River, Ohio. North American Sturgeon and Paddlefish Society Meeting, Hood River, Oregon.
- Sherman, J. J., J. M. Bossenbroek, T. Crail, C. M. Mayer, J. M. Boase, J. C. Chiotti, and C. S. Vandergoot. 2016. A habitat suitability model for possible lake sturgeon (*Acipenser fulvescens*) reintroduction in the Maumee River. 76th Midwest Fish & Wildlife Conference, Grand Rapids, Michigan.

- Sherman, J., J. Bossenbroek, T. Crail, C. Mayer, J. Boase, J. Chiotti, and C. Vandergoot. 2016. A habitat suitability index model for possible lake sturgeon (*Acipenser fulvescens*) reintroduction in the Maumee River. International Association of Great Lakes Research, Guelph, Ontario, Canada.
- Schoonyan, A., R. Kraus, M. D. Faust, C. S. Vandergoot, A. Cook, C. Krueger, and S. Cooke. 2016. Estimating incision healing rate for surgically implanted acoustic transmitters from recaptured walleye. 147th Annual Meeting of the American Fisheries Society, Kansas City, Missouri.
- Roseman, E.F., D. Bennion, J. Boase, J. Chiotti, J. Craig, R. DeBruyne, R. Drouin, R. Ellison, J. Fischer, M. Foose, J. Hartig, J.M. Hessenauer, D. Hondorp, G. Kennedy, R.L. Knight, B. Manny, C. Mayer, J. Read, M. Selzer, M. Thomas, L. Vaccaro, C. Vandergoot, and T. Wills. 2016. Lessons learned from fish spawning habitat restoration in St. Clair and Detroit Rivers, North America. Workshop for the Future of Baltic Sea Whitefish Stocks - Heading for Sustainable Resources and Natural Reproduction. Natural Resources Institute of Finland (Luke), Helsinki, Finland.
- Roseman, E. F., S. David, R. DeBruyne, J. Fischer, W. Stott, M. Vinson, D. Yule, J. Myers, D. Clapp, R. Claramunt, K. Donner, M. Herbert, J. Jonas, A. Cottrill, C. Davis, M. Ebener, D. Fielder, J. He, R. Drouin, R. Kraus, J. Markham, T. MacDougall, G. Steinhart, C. Vandergoot, E. George, D. Gorsky, M. Hare, J. Hoyle, J. Johnson, T. Johnson, B. Lantry, L. Rudstam, M. Walsh, B. Weidel, J. Dettmers, and A. Muir. 2016. Overview of research on Coregonine Fishes in the Great Lakes. Workshop for the Future of Baltic Sea Whitefish Stocks - Heading for Sustainable Resources and Natural Reproduction. Natural Resources Institute of Finland (Luke), Helsinki, Finland.
- Roseman, E. F., D. Castle, D. Fielder, S. Hogler, J. Hoyle, P. Kocovsky, R. Kraus, J. Lantry, A. Liskauskas, J. Markham, R. O'Neal, J. Robinson, C. Vandergoot, T. Wills, and T. Zorn. 2016. Status of walleye in the Laurentian Great Lakes. Fourth International Percid Fishes Symposium. Tartu, Estonia.
- Raby, G. D., C. S. Vandergoot, T. A. Hayden, R. T. Kraus, S. J. Cooke, J. D. Dettmers, Y. M. Zhao, A. T. Fisk, and C. C. Krueger. 2016. Do size- and sex-dependent thermal preferences explain long-distance migrations in walleye? 12th International Congress on the Biology of Fish, San Marcos, Texas.
- Peterson, L.K., M.L Jones, and C. Vandergoot. 2016. Evaluating Methods for Estimating mortality of Great Lakes walleye using acoustic telemetry. International Association for Great Lakes Research Annual Conference, Guelph, Ontario, Canada.
- Peterson, L.K., M.L. Jones, and C. Vandergoot. 2016. Methods for estimating natural mortality using passive acoustic telemetry data. The Great Lakes Acoustic Telemetry Observation System Annual Meeting, Ann Arbor, Michigan.
- Gorman, A. M., R. Kraus, C. Knight, C. Vandergoot, M. Faust, Y. Zhao, L. Gutowsky, T. Hayden, and C. Krueger. 2016. Vertical habitat use of walleye (*Sander vitreus*) conflicts with expectations from gill net surveys. 147th Annual Meeting of the American Fisheries Society, Kansas City, Missouri.
- Faust, M., T. Binder, C. Vandergoot, E. Hostnik, J. M. Hinderer, J. Ives, and C. Krueger. 2016. Feasibility of electrosedation as an alternative to chemical sedation of lake trout, *Salvelinus namaycush*. 147th Annual Meeting of the American Fisheries Society, Kansas City, Missouri.

- DuFour, M., C. Mayer, S. Qian, P. Kocovsky, R. Kraus, C. Vandergoot, and D. Warner. 2016. Hydroacoustic abundance estimates and walleye behavior: a tale of two ships. International Association of Great Lakes Research, Guelph, Ontario.
- DuFour, M. S. Qian, C. Mayer, and C. Vandergoot. 2016. Accounting for sampling uncertainty in hydroacoustic species apportionment. 147th Annual Meeting of the American Fisheries Society, Kansas City, Missouri.
- Castle, D.K., C.G. Prichard, E.F. Roseman, R. Hunter, C. Vandergoot, M. Rogers, K. Hebebrand, C.M. Mayer, B.A. Schmidt, K.M. Keeler, W.W. Taylor. 2016. Time Warp: Examination of Age-0 Walleye Diets Reveals Foodweb Changes in Western Lake Erie Between 1990s and 2014. 76th Midwest Fish and Wildlife Conference, Grand Rapids, Michigan.
- Castle, D., E.F. Roseman, C. Prichard, R. Hunter, C. Vandergoot, M. Rogers, K. Keeler, K. Hebebrand, B. Schmidt, C. Mayer, and W. Taylor. 2016. Age-0 Walleye Diets Reveal Foodweb Changes in Western Lake Erie (Laurentian Great Lakes) Between 1990s and 2014. Fourth International Percid Fishes Symposium. Tartu, Estonia.
- Bade, A. P., C. S. Vandergoot, T. R. Binder, and S. A. Ludsin. 2016. Use of the Ohio reef complex during the spring spawning season by walleye. Great Lakes Acoustic Telemetry Observation System Coordination Meeting, Ann Arbor, Michigan.
- Vandergoot, C. S., T. Binder, S. Cooke, J. Dettmers, T. Hayden, C. Holbrook, D. Hondorp, and C. C. Krueger. 2015. From pings to animations: providing movement and ecology information to Great Lakes Fishery Managers. 3rd International Conference on Fish Telemetry, Halifax, Nova Scotia, Canada. (PRESENTED)
- Vandergoot, C. S., M. Faust, T. B. Brenden, R. Kraus, J. Gostiaux, C. Krueger, and C. Cooke. 2016. Traditional considerations for contemporary tags: factors influencing acoustic telemetry recaptures and recoveries when estimating mortality components. 147th Annual Meeting of the American Fisheries Society, Kansas City, Missouri. (PRESENTED)
- Vandergoot, C. S., and T. Hartman. 2016. Sex-specific habitat use of Lake Erie's open-lake reef complex by walleye: implications for fisheries management. Aquatic Ecology Laboratory/ Division of Wildlife Annual Research Review. Columbus, Ohio. (PRESENTED)
- Schoonyan, A., R. Kraus, M. D. Faust, C. S. Vandergoot, A. Cook, C. Krueger, and S. Cooke. 2015. Estimating incision healing rate for surgically implanted acoustic transmitters from recaptured walleye. Great Lakes Acoustic Telemetry Observation System Coordination Meeting, Ann Arbor, Michigan.
- Peterson, L. K., M. Jones, and C. S. Vandergoot. 2015. Acoustic telemetered walleye and mortality: A prospective look at a new project. The Great Lakes Acoustic Telemetry Observation System Annual Meeting, Ann Arbor, Michigan.

- Knight, C., R. Kraus, A. M. Gorman, C. S. Vandergoot, M. Faust, Y. Zhao, and M. DuFour. 2015. Vertical movement of walleye in Lake Erie: ecological and management implications. 145th Annual Meeting of the American Fisheries Society, Portland, Oregon.
- Herbst, S. J., N. Popoff, J. Francis, J. Tyson, C. S. Vandergoot, T. Somers and T. Newcomb. 2015. Approach for responding to aquatic invasive species in the Great Lakes. 145th Annual Meeting of the American Fisheries Society, Portland, Oregon.
- Gostiaux, J., C. S. Vandergoot, A. M. Gorman, M. Faust, R. Kraus, C. Krueger, and S. J. Cooke. 2015. Post-Release Survival and Behavior of Walleye Tagged with Internal Acoustic Transmitters: Do They Sink or Swim? 145th Annual Meeting of the American Fisheries Society, Portland, Oregon.
- Gostiaux, J., C. S. Vandergoot, A. M. Gorman, M. D. Faust, R. Kraus, C. Krueger, and S. Cooke. 2015. Post-release survival and behavior of acoustically tagged walleye: do they sink or swim? Contributed paper. Great Lakes Acoustic Telemetry Observation System Coordination Meeting, Ann Arbor, Michigan.
- Gostiaux, J., C. S. Vandergoot, A. M. Gorman, M. D. Faust, R. Kraus, C. Krueger, and S. Cooke. 2015. Post-release survival and behavior of acoustically tagged walleye: do they sink or swim? Contributed paper. 146th Annual Meeting of the American Fisheries Society, Portland, Oregon.
- Gorman, A. M., R. Kraus, C. Vandergoot, C. Knight, M. Faust, and Y. Zhao. Swimming depth of Lake Erie walleye. 2015. Great Lakes Acoustic Telemetry Observation System Annual Meeting, Ann Arbor, Michigan.
- Gorman, A. M., R. T. Kraus, C. T. Knight, C. S. Vandergoot, M. D. Faust, Y. Zhao, and M. DuFour. 2015. Vertical movement of Lake Erie Walleye: ecological and management implications. 3rd International Conference on Fish Telemetry, Halifax, Nova Scotia, Canada.
- Faust, M. D., T. A. Hayden, S. J. Cooke, C. S. Vandergoot, J. M. Dettmers, C. C. Krueger, and A. M. Muir. 2015. Environmental cues to walleye spawning in two Great Lakes tributaries. 3rd International Conference on Fish Telemetry, Halifax, Nova Scotia, Canada.

ORGANIZED SYMPOSIUM

Status of Walleye in the Great Lakes Symposium, co-organizer, 136th Annual Meeting of the American Fisheries Society, Lake Placid, New York, September 2006.

SCIENTIFIC/ TECHNICAL REVIEW

- *Scientific/ technical expert review panel, member*. Invited to serve as a subject and technical expert by the chair (Dr. Mike Jones, Michigan State University) of the Lake Erie Percid Management Advisory Group to review and provide recommendations of the population surveys and stock assessment model used to estimate Walleye abundance in Lake Erie. February 2012.
- *Scientific/ technical expert review panel, member*. Invited to serve as a subject and technical expert by the chair (Dr. Mike Jones, Michigan State University) of the Lake Erie Percid Management Advisory Group to review and provide recommendations of the population surveys and stock assessment model used to estimate Yellow Perch abundance in Lake Erie. February 2014.

- *Scientific/ technical expert review panel, member.* Invited by panel chair (Dr. Mike Jones, Michigan State University) to provide expertise pertaining to stock assessment and quantitative fisheries science for the Ontario Ministry of Natural Resources. A final report was produced during the review process (see 14.g.30). April 2016.
- *External review of Mille Lacs walleye fishery, chair.* Invited by the Fisheries Chief (Dr. Don Pereira) of the Minnesota Department of Natural Resources to assemble a panel of fisheries experts consisting of academic and agency scientists to review the status of the Mille Lacs Walleye fishery and population. I the members of the Tribal Band with fishing rights on the lake, stakeholders and administrators (Director, Commissioner and staff) of the Minnesota Department of Natural Resources to solicit input and present panel findings. I also provided Governor Mark Dayton (at his request) an overview of the panel findings. July 2017 – January 2018.

ACADEMIC COMMITTEE INVOLVEMENT

- *Graduate Program Committee Member (MS).* Jordan McKenna. University of Toledo, Department of Environmental Sciences. 2021 – present. Thesis title: **Factors affecting the early life history of lake whitefish (*Coregonus clupeaformis*) in western Lake Erie.**
- *Graduate Program Advisor (MS).* Tyler Funnell. Michigan State University, Department of Fisheries and Wildlife. 2020- present. Thesis title: Spatial and thermal ecology of lake trout (*Salvelinus namaycush*) in Lake Erie.
- *Graduate Program Committee Member (PhD).* Jessica (Sherman) Collier. University of Toledo, Department of Environmental Sciences. 2014 - 2018. Dissertation title: Creating a spatially-explicit habitat suitability index model for multiple life stages of lake sturgeon (*Acipenser fulvescens*) in the Maumee River, Ohio.
- *Graduate Program Committee Member (PhD).* Andrew J. Bade, The Ohio State University, Department of Evolution, Ecology and Organismal Biology. 2014- present. Dissertation title: Size-, sex-, and stock specific use of Ohio's reef complex by walleye during the spawning season.
- *Graduate Program Committee Member (MS).* Zach Amidon. University of Toledo, Department of Environmental Sciences. 2016 – present. Thesis title: Factors affecting the early life history of lake whitefish (*Coregonus clupeaformis*) in western Lake Erie.

UNDERGRADUATE MENTOR PROGRAM

As a Research Supervisor I was responsible for selecting an undergraduate student to receive a competitive research internship at the Ohio State University, Stone Lab Research Experience for Undergraduates Scholarship Program. I served as the student's mentor and assisted them with designing a project, collecting and analyzing data, and presenting their findings to peers.

Steven Gratz. 2009. *Determining the best method for ageing gizzard shad (*Dorosoma cepedianum*).*

Danielle Liebig. 2010. *Comparison between CO2 and electroanesthesia in Lake Erie walleye.* Results and concepts originating from this project lead to two published manuscripts.

John Grayson. 2011. *Lake Erie range testing for acoustic tags and receivers.* The concepts originating from this project lead to a published manuscript.

Jason Gostiaux. Ohio Sea Grant/ The Ohio State University, Stone Laboratory. 2012. *Evaluation of abiotic factors and performance of acoustic telemetry equipment*. The concepts originating from this project lead to a published manuscript.

Sarah Vanderhorst. 2013. *Assessment of walleye survival and post-surgery movement*. The concepts originating from this project lead to a published manuscript.

Sarah Zundel. 2014. *Post-surgery survival of Lake Erie walleye*. The concepts originating from this project lead to a published manuscript.

Zach Steffensmeier. 2015. *Walleye spawning mortality*.

Kevin Fisher. 2016. *Determination of a thermal coefficient for largemouth bass (Micropterus salmonids)*.

Kirsten Findley. 2017. *Intoxicated fishes: evaluating Aquil-S as an anesthetic for lake trout*.

INVITED ACADEMIC LECTURES

Using acoustic telemetry to understand movement patterns of walleye in Lake Erie, Lake Huron and Huron-Erie Corridor, The Ohio State University- Stone Laboratory, July 2015.

Following Lake Erie walleye: confirming previous movement perceptions or formulating new ones? University of Toledo, Lake Erie Center Lecture Series, February 2015.

Assessment of Lake Erie percid stocks. University of Toledo, Fisheries Management Issues in the Great Lakes EEES 4980/6980/8980, Fall 2012.

Lake Erie walleye movements and the Great Lakes Acoustic Telemetry Observing System (GLATOS). The Ohio State University- Stone Laboratory, July 2012.

Age and growth analysis. Michigan State University, Fisheries Management FW479, Spring 2010.

An alternative method of assessing exploitation of Lake Erie Walleye. The Ohio State University- Stone Laboratory, July 2009.

FACILITATED WORKSHOPS

Receiver Tending Workshop (1/2 day course, presentations, facilitated discussion), co-lead with Erick Larson (Hammond Bay Biological Station, Great Lakes Science Center). The focus of this workshop was to discuss lessons learned from receiver tending mistakes, problems encountered during receiver tending, creative solutions to common receiver tending problems, receiver tending in different environments, strategies for maximizing receiver tending efficiency, receiver tending challenges and new/alternative technologies associated with conducting acoustic telemetry studies. Great Lakes Acoustic Telemetry Observation Annual Meeting, February 2017.

Fish-aging Workshop (1/2 day course, lecture and hands-on lab), co-taught with Dr. Daniel Isermann (Wisconsin Cooperative Fishery Research Unit). The focus of this workshop was to familiarize fisheries students at Bowling Green State University (Dr. Jeff Miner) with errors associated with

aging errors in stock assessment, contemporary aging practices, data analysis, and utilizing age-length keys for collecting aging structures. Bowling Green State University, March 2004.

Fish-aging Workshop (1 day course, lecture and hands-on lab), co-taught with Dr. Daniel Isermann (Wisconsin Cooperative Fishery Research Unit). The focus of this workshop was to familiarize Ohio Department of Natural Resources Fisheries Biologists and students at The Ohio State University, Aquatic Ecology Laboratory (Dr. Stuart Ludsin) with errors associated with aging errors in stock assessment, contemporary aging practices, data analysis, and utilizing age-length keys for collecting aging structures. The Ohio State University, February 2004.

TECHNICAL REPORTS

- Vandergoot, C. S., R. Kraus, M. Faust, and C. Krueger. 2017. Understanding dam removal impacts on a formerly prolific Great Lakes walleye population. Annual Project Report for 2016. Ohio Sea Grant. 7 pp.
- Vandergoot, C., J. Markham, A. Muir, T. MacDougall, C. Murray, A. Gorman, M. Rogers, R. Kraus, and D. Gorsky. 2017. Understanding lake trout spatial structure and spawning habitat occupancy in Lake Erie. Project Performance Report for 2017, Great Lakes Fish and Wildlife Restoration Act, United States Fish and Wildlife Service. 5 pp.
- Vandergoot, C.S., M. Faust, and R. Kraus. 2017. Identifying migration patterns and spatial ecology of reef spawning stock of walleye in the western basin of Lake Erie. 2016 Progress Report, Project ID 2013-Van-44052. Great Lakes Fishery Commission.
- Vandergoot, C.S., M. Faust, and R. Kraus. 2018. Identifying migration patterns and spatial ecology of reef spawning stock of walleye in the western basin of Lake Erie. 2017 Progress Report, Project ID 2013-Van-44052. Great Lakes Fishery Commission.
- Vandergoot, C.S. and multiple co-authors. 2002-2015 (individual years). Ohio's Lake Erie Fisheries Report. Ohio Department of Natural Resources, Division of Wildlife, Columbus.
- Vandergoot, C.S. and multiple co-authors. 2003-2014 (individual years). Progress reports by the Lake Erie Walleye Task Group to the Lake Erie Committee. Great Lakes Fishery Commission, Ann Arbor, Michigan.
- Vandergoot, C.S., B. Locke, B. Haas, D. Fielder, D. Einhouse, and R. Kenyon. 2009. Assessment of PIT tags for estimating exploitation of walleyes in Lake Erie and Saginaw Bay, Lake Huron. U.S. Fish and Wildlife Service, Final Report.
- Vandergoot, C.S. 2005. Conservation tactics for endangered lake sturgeon in Lake Erie. Ohio Department of Natural Resources, Completion Report Project FSSR01, Columbus.
- Vandergoot, C.S. and P.W. Bettoli. 2001. Evaluation of current management practices and assessment of recruitment, growth and condition of walleyes in Tennessee reservoirs. Tennessee Wildlife Resources Agency, Fisheries Report 01-44, Nashville.
- Vandergoot, C.S., D.C. Honeyfield and P.W. Bettoli. 2001. An investigation of reproduction and early mortality syndrome in Tennessee walleye populations. U.S. Fish and Wildlife Service, Final Report.

Bettoli, P.W., C.S. Vandergoot and P.T. Horner. 1999. Hooking mortality of saugers in the Tennessee River. Tennessee Wildlife Resources Agency, Final Report, Nashville.

PROFESSIONAL CONTINUING EDUCATION

Hierarchical Modeling Workshop (2 day course), offered by The Ohio State University, Aquatic Ecology Lab, April 2015.

Telemetry Data Workshop, Ocean Tracking Network, Ottawa, Canada, June 2014.

Power-Based Standardization in Electrofishing Webinar, offered by the American Fisheries Society, May 2013.

STATS Alive Workshop (1 day course), offered by the American Fisheries Society at the 142nd Meeting of American Fisheries Society Meeting, Minneapolis, Minnesota, August 2012.

Surgical Techniques for Fishes Workshop (1 day course), offered by the American Fisheries Society at the 141nd Meeting of American Fisheries Society Meeting, Seattle, Washington, August 2011.

Maximum Likelihood Estimation Course (internet course), offered by Quantitative Fisheries Center, Michigan State University, East Lansing, Michigan, completed August 2009.

AD Model Builder Short Course I and II (3 day course), taught by Quantitative Fisheries Center, Michigan State University, East Lansing, Michigan, August 2009.

Analysis of Encounter Data from Marked Animal Populations MARK (4 day course), taught by Dr. G. White, sponsored by Central Michigan University, Mt. Pleasant, Michigan, May 2009.

An Introduction to R Software (2 day course), sponsored by Quantitative Fisheries Center, Michigan State University, Lansing, Michigan, February 2008.

United States Coast Guard Master's Level License Class (24 hour course), taught by Sea Tech Marine Training, sponsored by Ohio Department of Natural Resources, Huron, Ohio, February 2008.

United States Coast Guard Operator of Uninspected Passenger Vessel License Class (57 hour course), taught by Sea Tech Marine Training, sponsored by Ohio Department of Natural Resources, Huron, Ohio, February 2008.

United States Coast Guard Towing Assistance License Class (57 hour course), taught by Sea Tech Marine Training, sponsored by Ohio Department of Natural Resources, Huron, Ohio, February 2008.

Great Lakes GIS Workshop (2 day course), taught by C. Geddes, sponsored by Great Lakes Fishery Commission, at University of Michigan, Ann Arbor, Michigan, August 2007.

ADMB Model Builder Short Course I and II (4 day course), taught by Quantitative Fisheries Center, Michigan State University, East Lansing, Michigan, June 2006.

Introduction to ArcGIS I and II (2 day course) taught by ESRI, organized by NOAA Coastal Services Center, at Bowling Green University, Huron, Ohio, November 2004.

Acoustic Tools for Fish and Habitat Assessment (1 day course), taught by BioSonics, at the 134th Meeting of the American Fisheries Society, Madison, Wisconsin, August 2004.

Otolith Ageing Workshop (Facilitated 1 day course), at the Ohio Department of Natural Resources and The Ohio State University Annual Fisheries Research Review, Columbus, Ohio, February 2004.

Fishery Analysis and Simulation Tools FAST (1 day course), taught by Dr. J. Slipke, at the 62nd Midwest Fish and Wildlife Conference, Minneapolis, Minnesota, December 2003.

ArcView Training (2 day course), provided by the Minnesota Department of Natural Resources, St. Paul, Minnesota, December 2002.

LEADERSHIP TRAINING

Workplace Violence and Sexual Harassment Training (½ day course), taught by Scott Warrick, Human Resource Consulting, Employment Law & Training Services, sponsored by Ohio Department of Natural Resources, District 3 Headquarters, March 2010.

Systematic Development of Informed Consent Training (2 day course), taught by Institute for Participatory Management and Planning, sponsored by Ohio Department of Natural Resources, Atwood Lake Resort, February 2005.

CERTIFICATIONS/ AWARDS

Certified Fisheries Professional, American Fisheries Society, Bethesda, Maryland, 2015- 2020.

Certified Fisheries Professional, American Fisheries Society, Bethesda, Maryland, 2010- 2015.

Associate Fisheries Professional, American Fisheries Society, Bethesda Maryland, 2004-2009.

United States Coast Guard Captain License, 50 Ton Commercial Vessel Rating and Commercial Towing Assistance (currently held in continuity with U.S. Coast Guard).

Robert M. Jenkins Reservoir Research Scholarship, presented by the Southern Division of the American Fisheries Society Reservoir Committee, Savannah, Georgia, 1999.

PROFESSIONAL INVOLVEMENT

- Associate Editor, *North American Journal of Fisheries Management* (2018-present)
- Guest Associate Editor, Proceedings of the 13th Symposium on the Biology and Management of Coregonid Fishes, *Hydrobiologia*
- Scientific journal/ book chapter reviewer for: *Biology and Management of Inland Striped Bass and Hybrid Striped Bass*; *Canadian Journal of Fisheries and Aquatic Sciences*; *Conservation, Ecology, and Management of Worldwide Catfish Populations and Habitats*; *Fisheries Management and Ecology*; *From Catastrophe to Recovery: Stories of Fishery Management Success*; *Journal of Aquatic Animal Health*; *Journal of Great Lakes Research*; *North American Journal of Fisheries Management*; *Ohio Journal of Science*; *Transactions of the American fisheries Society*
- American Fisheries Society member (1999-present)
- American Institute of Fisheries and Research Biologists member (2009-2010)
- Ohio Chapter of the American Fisheries Society member (2003-2009)
- Ohio Fish and Wildlife Management Association member (2003-2009)
- Minnesota Chapter of the American Fisheries Society member (2002)
- Tennessee Chapter of the American Fisheries Society member (1999-2001)

- Student Fisheries Association, Tennessee Technological University member (1999-2001)
- Virginia Tech. Chapter of the American Fisheries Society member (1996-1998)

COMMITTEES

- International Conference on Fish Telemetry, Executive Steering Committee, 2019- present.
- Coldwater Task Group Member, Lake Erie Committee, 2016- 2019.
- U.S. Geological Survey, Great Lakes Science Center, Coregonine Technical Team, 2016- 2019.
- Great Lakes Acoustic Telemetry Observation System Annual Meeting, Steering Committee, 2015.
- St. Clair/ Detroit River System Initiative, Executive Steering Committee, 2014-2016.
- Lake Erie Percid Management Advisory Group, member, 2014-2016.
- Lake Erie Standing Technical Committee Member, Great Lakes Fishery Commission, 2014-2016.
- Lake Erie Walleye Task Group Member, Great Lakes Fishery Commission, 2002-2014.
- Lake Erie Walleye Task Group Co-chair, Great Lakes Fishery Commission, 2004-2008, 2010-2014.
- Thiamine Deficiency Complex Steering Committee, Great Lakes Fishery Commission, 2003.
- Ohio Chapter of the American Fisheries Society Aquatic Stewardship Committee, chairman, 2003.

REFERENCES

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