

# Travis O. Brenden, Ph.D.

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## Work Address

Quantitative Fisheries Center  
Department of Fisheries and Wildlife  
Michigan State University  
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## Education

Ph.D. - Fisheries & Wildlife Science (05/2005)

Virginia Polytechnic Institute & State University

Dissertation title: Evaluation of current management strategies for the New River, Virginia, muskellunge fishery: modeling the effect of alternative harvest regulations and habitat selection

M.S. - Statistics (12/2001)

Virginia Polytechnic Institute & State University

M.S. - Fisheries & Wildlife Science (12/1999)

Virginia Polytechnic Institute & State University

Thesis title: Competition between age-0 largemouth bass and juvenile bluegills in a Virginia pond.

B.S. with Highest Honors - Biological Science (Criminal Justice Minor) (12/1996)

South Dakota State University

## Professional Experience

Associate Professor (Fixed Term)/Associate Director, Quantitative Fisheries Center, Department of Fisheries and Wildlife, Michigan State University, East Lansing, Michigan (7/2012 – present)

- Assignment: 30% Research, 30% Administrative, 20% Outreach, 20% Teaching
- Responsible for day-to-day administration of the QFC, including staff supervision, finances, report writing, and point-of-contact for QFC contributing partners and Board of Advisors
- Conduct and direct research on the ecology and population dynamics of managed fish populations in the Great Lakes

Assistant Professor (Fixed Term)/Associate Director, Quantitative Fisheries Center, Department of Fisheries and Wildlife, Michigan State University, East Lansing, Michigan (2/2006 – 6/2012)

- Assignment: 30% Research, 30% Administrative, 20% Outreach, 20% Teaching
- Responsible for day-to-day administration of the QFC, including staff supervision, finances, report writing, and point-of-contact for QFC contributing partners and Board of Advisors
- Conduct and direct research on the ecology and population dynamics of managed fish populations in the Great Lakes

Research Associate II, School of Natural Resources and Environment, University of Michigan, Ann Arbor, Michigan (3/2004 – 1/2006)

- Collaborated on an EPA Star Grant project entitled “Development of river classification systems for diagnosing of biological impairment in watersheds”
- Developed and programmed a spatially-constrained clustering procedure for delineation of river valley segments for digital GIS river networks
- Collaborated in the development of a GIS data model for analyzing multi-scale landscape variables across spatially extensive areas for river conservation and management
- Developed a stream classification system for Michigan river valley segments based on fish and stream physical attributes

Graduate Research Assistant, Virginia Polytechnic Institute & State University,  
Blacksburg, Virginia (1/1997 – 12/2003)

- Conducted dissertation research examining the effect of alternative harvest regulations on the New River muskellunge fishery and modeling muskellunge habitat selection through telemetry and hydroacoustic sampling of habitat availability
- Conducted thesis research examining competitive interactions between age-0 largemouth bass and juvenile bluegills

### **Teaching Experience**

Michigan State University

- Basics of Statistically-Based Stock Assessments (Short Course – Instructor)
- Introduction to AD Model Builder (Short Course – Instructor)
- Resampling Approaches to Data Analysis in Natural Resources and Ecology (Center for Statistical Training and Consulting Workshop – Instructor)
- Resampling Approaches to Data Analysis in Natural Resources and Ecology (Online Course – Course Developer)
- R Essentials for Natural Resource Professionals (Online Course – Course Co-Developer)
- Maximum Likelihood Estimation for Natural Resources and Ecology (Online Course – Course Co-Developer)
- Landscape Ecology (Guest Lecturer)

Virginia Polytechnic Institute and State University

- Graduate Seminar: Statistical Issues in Fisheries & Wildlife Sciences (Instructor)
- Fisheries Techniques (Instructor/Guest Lecturer/Teaching Assistant)
- Fisheries Management (Instructor/Teaching Assistant)
- Introduction to Renewable Natural Resources (Instructor/Teaching Assistant)
- Principles of Fisheries and Wildlife Management (Teaching Assistant)
- Ichthyology (Guest Lecturer/Teaching Assistant)
- Statistics for Engineering Applications (Teaching Assistant)

### **Fellowships/Awards and Certifications**

- AT&T Faculty-Staff Instructional Technology Award of Excellence for on-line course development (with Angie Leslie [lead developer], Jim Bence, Matt Catalano) (2011)
- IAGLR Appreciation Award for Journal of Great Lakes Research Special Issue Editing (2011)
- Associate Fisheries Professional, American Fisheries Society (2003)
- Georgia-Pacific Endowed Dean's Fellowship, College of Natural Resources, Virginia Tech (2001)
- Burd McGinnes Fellowship, Department of Fisheries & Wildlife Sciences, Virginia Tech (2000, 2003)
- Graduate Student Service Award, Virginia Tech (1999)
- Best Student Paper Award, Honorable Mention (1999) - Virginia - North Carolina Joint AFS Meeting
- Member-of-the-Year Award, Virginia Tech Chapter of the American Fisheries Society (1997-1998)
- Graduated with Highest Honor from South Dakota State University (1996)
- South Dakota Conservation Officer's Association Scholarship, South Dakota State University (1996)
- Wilbur Allen Scholarship, South Dakota State University (Spring & Fall 1995, Spring & Fall 1996)

### **Graduate Student Committee Service**

Advisor

- Chris Vandergoot, PhD, Michigan State University Department of Fisheries and Wildlife, Status: Advanced to candidacy
- Kyle Molton, MS, Michigan State University Department of Fisheries and Wildlife, Status: Graduated 2011, Current Position: Knauss Marine Policy Fellow, National Sea Grant College Program.

Committee Member

- Chris Holbrook, PhD, Michigan State University Department of Fisheries and Wildlife, Status: Advanced to candidacy
- Carolyn Schulz, PhD, Michigan State University Department of Fisheries and Wildlife, Status: Advanced to candidacy
- Andrew Winters, PhD, Michigan State University Department of Fisheries and Wildlife, Status: Advanced to candidacy
- Elena Millard, PhD, Michigan State University Department of Pathobiology and Diagnostic Investigation, Status: Advanced to candidacy
- Elizabeth Throckmorton, MS, Michigan State University Department of Fisheries and Wildlife, Status: In progress
- Arthur Cooper, MS, Michigan State University Department of Fisheries and Wildlife, Status: In progress
- Marty Williams, MS, Michigan State University Department of Fisheries and Wildlife, Status: Graduated 2012
- Tom Loch, PhD, Michigan State University Department of Pathobiology and Diagnostic Investigation, Status: Graduated 2012
- Heidi Ziegenmeyer, MS, Michigan State University Department of Fisheries and Wildlife, Status: Graduated 2011
- Brett Alger, MS, Michigan State University Department of Fisheries and Wildlife, Status: Graduated 2009

### **Professional Service**

- Member of Sea Lamprey Larval Assessment Task Force (2012 – present)
- Associate Editor for Transactions of the American Fisheries Society (2012 – present)
- Guest Editor for Special Issue in Journal of Great Lakes Research “Assessing the Health of Lake Whitefish Populations in the Laurentian Great Lakes” (2008 – 2010)
- Organized two workshops on early mortality of lake trout in the Great Lakes (2008 – 2010)
- Manuscript/book chapter peer review for
  - *Advances in Fish Tagging and Marking Technology*
  - *Balancing Fisheries Management and Water Uses for Impounded River Systems*
  - *Ecology*
  - *Environmental Management*
  - *Environmental Modelling and Software*
  - *Fisheries*
  - *Fisheries Management and Ecology*
  - *Fisheries Research*
  - *Influences of Landscapes on Stream Habitats and Biological Assemblages*
  - *Journal of Fish Biology*
  - *Journal of Great Lakes Research*
  - *North American Journal of Fisheries Management*
  - *Proceedings of the Annual Conference Southeastern Association of Fish and Wildlife Agencies*
  - *River Research and Applications*
  - *Status of Walleye in the Great Lakes: Proceedings of the 2006 Symposium*
  - *Transactions of the American Fisheries Society*

### **Grants Awarded**

Brenden, T.O., and J.R. Bence. 2012. Finding appropriate harvest policies for admixed fisheries to ensure long-term population sustainability of native Great Lake fishes. Funding Source: Great Lakes Fishery Trust, Amount: \$161,239.

Clark, R.D., Jr, J. R. Bence, T. Brenden, I. Tsehay, and R. Claramunt. Determining the fisheries management significance of Chinook salmon movement between lakes Michigan and Huron.

- Funding Source: Great Lakes Fishery Trust, Amount: \$270,805.
- Faisal, M., and T. Brenden. 202. Elucidating the role of herd immunity in protecting Lake Michigan fish against the viral hemorrhagic septicemia virus (VHSV). Funding Source: Great Lakes Fishery Trust, Amount: \$341,844.
- Scribner, K., T. Brenden, J. Bence, and W. Stott. 2012. Joint analysis of genetic and age data to estimate trends in strain-specific recruitment of emerging wild lake trout populations in Lake Huron. Funding Source: Great Lakes Fishery Commission, Amount: \$169,890.
- Bence, J., S. Winterstein, T. Brenden, S. Mayhew, and D. Etter. 2011. Statistical catch-at-age assessment of Michigan black bear population dynamics. Funding Source: Michigan Department of Natural Resources, Amount: \$109,231.
- Jones, M.L., J.R. Bence, and T.O. Brenden. 2010. Great Lakes Fishery Commission support for the Quantitative Fisheries Center. Funding Source: Great Lakes Fishery Commission, Amount: up to \$135,000.
- Peters, A.K., T.O. Brenden, J. Tsao, and M. Faisal. 2010. Viral hemorrhagic septicemia: an understanding of the disease ecology and risks in the Great Lakes basin. Funding Source: U.S. Fish and Wildlife Service, Amount: \$230,724.
- Bence, J.R., and T.O. Brenden. 2009. Enhancing fishery stock assessment modeling capacity in the Great Lakes. Funding Source: Great Lakes Fishery Commission, Amount: \$20,812.
- Brenden, T.O., J.R. Bence, and K.T. Scribner. 2009. Simultaneous analysis of genetic and age data to estimate stock contribution for mixed-stock and strain, open-water fisheries in the Great Lakes. Funding Source: Great Lakes Fishery Trust, Amount: \$338,424.
- Infante, D., A. Moerke, C. Huckins, and T. Brenden. 2009. Effects of temperature on functional relationships among Michigan's fluvial fish assemblages: identifying management opportunities in the face of environmental changes. Funding Source: Michigan Department of Natural Resources, Amount: \$46,899.
- Jones, M., J. Bence, T. Brenden, R. Claramunt, and D. Warner. 2008. Assessing Lake Michigan stocking policies using decision analysis. Funding Source: Great Lakes Fishery Trust, Amount: \$326,139.
- Brenden, T.O., and J. He. 2007. Coordination workshops concerning lake trout age-1 mortality in the Great Lakes. Funding Source: Great Lakes Fishery Commission, Amount: \$8,746.
- Brenden, T.O., J.R. Bence, and M.J. Jones. 2007. Development of an on-line course on resampling approaches to data analysis in natural resource sciences and an on-line module for data simulation and resampling programming using Microsoft Excel VBA. Funding Source: Michigan State University Graduate School, Amount: \$40,000.
- Bence, J.R., and T.O. Brenden. 2006. Estimating the relationship between sea lamprey-induced mortality on lake trout and observed marking rates. Funding Source: Great Lakes Fishery Commission, Amount: \$36,296.
- Wiley, M.J., C. Riseng, T.O. Brenden, L. Wang, E.S. Rutherford, and P.W. Webb. 2005. Evaluation and synthesis of methods for identifying and quantifying critical fisheries habitat for Great Lakes lower riverine and nearshore zones. Funding Source: Great Lakes Fishery Trust, Amount: \$94,631.
- Murphy, B.R., T.O. Brenden, and E.M. Hallerman. 2001. Assessment of Virginia's management of riverine muskellunge fisheries. Funding Source: Virginia Department of Game and Inland Fisheries, Amount: \$54,436.

### **Published Manuscripts**

- Wang, L., T. Brenden, J. Lyons, and D. Infante. 2013. Predictability of in-stream physical habitat for Wisconsin and northern Michigan Wadeable streams using GIS-derived landscape data. *Riparian Ecology and Conservation* 1:11-24.
- Brenden, T.O., and Y. Zhao. 2012. Simulation-based evaluation of the accuracy in estimating indirect gillnet selectivity. *Fisheries Research* 134-136:64-72.

- Brenden, T.O., J.R. Bence, and E.B. Szalai. 2012. An age-structured integrated assessment of Chinook salmon population dynamics in Lake Huron's main basin since 1968. *Transactions of the American Fisheries Society* 141:919-933.
- Brenden, T.O., R.W. Brown, M.P. Ebener, K. Reid, and T.J. Newcomb. 2012. Great Lakes commercial fisheries: historical overview and prognoses for the future. Pages 339-397 in W.W. Taylor, A.J. Lynch, and N.J. Leonard, editors. *Great Lakes fisheries policy and management: a binational perspective*, 2nd edition, Michigan State University Press, East Lansing, Michigan.
- Faisal, M., C. Schulz, A. Eissa, T. Brenden, A. Winters, G. Whelan, M. Wolmagood, E. Eisch, and J. VanAmber. 2012. Epidemiological investigation of *Renibacterium salmoninarum* in three *Oncorhynchus* spp. in Michigan from 2001–2010. *Preventive Veterinary Medicine* 107:260-274.
- Molton, K.J., T.O. Brenden, and J.R. Bence. 2012. Control rule performance for intermixing lake whitefish populations in the 1836 Treaty Waters of lakes Huron, Michigan, and Superior: a simulation-based evaluation. *Journal of Great Lakes Research* 38:686-698.
- 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* 32:211-223.
- Wang, L., T. Brenden, Y. Cao, and P. Seelbach. 2012. Delineation and validation of river network spatial scales for water resources and fisheries management. *Environmental Management* 50:875-887.
- Brenden, T.O., J.R. Bence, B.F. Lantry, J.R. Lantry, and T. Schaner. 2011. Population dynamics of Lake Ontario lake trout during 1985-2007. *North American Journal of Fisheries Management* 31:962-979.
- Vandergoot, C.S., P.M. Kocovsky, T.O. Brenden, and W. Liu. 2011. Selectivity evaluation of two experimental gillnet configurations used to sample Lake Erie walleyes. *North American Journal of Fisheries Management* 31:832-842.
- Faisal, M., W. Fayed, A. Nour, and T. Brenden. 2011. Spatio-temporal dynamics of gastrointestinal helminths infecting four lake whitefish (*Coregonus clupeaformis*) stocks in northern lakes Michigan and Huron, USA. *Journal of Parasitology* 97:760-774.
- Brenden, T.O., M.P. Ebener, T.M. Sutton, M.L. Jones, M.T. Arts, T.B. Johnson, M.A. Koops, G.M. Wright, and M. Faisal. 2010. Assessing the health of lake whitefish populations in the Laurentian Great Lakes: lessons learned and research recommendations. *Journal of Great Lakes Research* 36(Suppl. 1):137-141.
- Brenden, T.O., M.P. Ebener, and T.M. Sutton. 2010. Assessing the health of lake whitefish populations in the Laurentian Great Lakes: foreword. *Journal of Great Lakes Research* 36(Suppl. 1):1-5.
- Ebener, M.P., T.O. Brenden, G.M. Wright, M.L. Jones, and M. Faisal. 2010. Spatial and temporal distributions of lake whitefish spawning stocks in northern lakes Michigan and Huron, 2003-2008. *Journal of Great Lakes Research* 36(Suppl. 1):38-51.
- Faisal, M., W. Fayed, T.O. Brenden, A. Noor, M.P. Ebener, G.M. Wright, and M.L. Jones. 2010. Widespread infection of lake whitefish *Coregonus clupeaformis* with the swimbladder nematode *Cystidicola farionis* in northern lakes Michigan and Huron. *Journal of Great Lakes Research* 36(Suppl. 1):18-28.
- Faisal, M., T.P. Loch, T.O. Brenden, A.A. Easa, M.P. Ebener, G.M. Wright, and M.L. Jones. 2010. Assessment of *Renibacterium salmoninarum* infection in four lake whitefish (*Coregonus clupeaformis*) stocks from northern lakes Huron and Michigan. *Journal of Great Lakes Research* 36(Suppl. 1):29-37.
- Wagner, T., M.L. Jones, M.P. Ebener, M.T. Arts, M. Faisal, T.O. Brenden, D. Honeyfield, and G. Wright. 2010. Spatial and temporal dynamics of lake whitefish health measures: linking individual-based indicators to a management-relevant endpoint. *Journal of Great Lakes Research* 36(Suppl. 1):123-136.
- Brenden, T.O., M.L. Jones, and M.P. Ebener. 2010. Sensitivity of tag recovery mortality estimates to tag shedding, handling mortality, and reporting rate inaccuracies. *Journal of Great Lakes Research* 36(Suppl. 1):102-111.

- Ebener, M.P., T.O. Brenden, and M.L. Jones. 2010. Estimates of fishing and natural mortality rates for four lake whitefish stocks in northern lakes Huron and Michigan. *Journal of Great Lakes Research* 36(Suppl. 1):112-122.
- Wehrly, K.E., T.O. Brenden, and L. Wang. 2009. A comparison of statistical approaches for predicting stream temperatures across heterogeneous landscapes. *Journal of the American Water Resources Association* 45:986-997.
- Brenden, T.O., L. Wang, and P.W. Seelbach. 2008. A river valley segment classification of Michigan streams based on fish and physical attributes. *Transactions of the American Fisheries Society* 137:1621-1636.
- Brenden, T.O., L. Wang, and Z. Su. 2008. Quantitative identification of disturbance thresholds in support of aquatic resource management. *Environmental Management* 42:821-832.
- Wagner, T., M.E. Benbow, T.O. Brenden, J. Qi, and R.C. Johnson. 2008. *Buruli ulcer* disease prevalence in Benin, West Africa: associations with land use/cover and the identification of disease clusters. *International Journal of Health Geographics* 7:25. (Available at <http://www.ij-healthgeographics.com/content/7/1/25>)
- Brenden, T.O., T. Wagner, and B.R. Murphy. 2008. Novel tools for analyzing proportional size distribution (PSD) index data. *North American Journal of Fisheries Management* 28:1233-1242.
- Brenden, T.O., and J.R. Bence. 2008. Comment: use of piecewise regression models to estimate changing relationships in fisheries. *North American Journal of Fisheries Management* 28:844-846.
- Wang, L., T. Brenden, P. Seelbach, A. Cooper, D. Allan, R. Clark, Jr., and M. Wiley. 2008. Landscape based identification of human disturbance gradients and reference conditions for Michigan streams. *Environmental Monitoring and Assessment* 141:1-17.
- Brenden, T.O., L. Wang, P.W. Seelbach, R.D. Clark, Jr., M.J. Wiley, and B.L. Sparks-Jackson. 2008. A spatially-constrained clustering program for river valley segment delineation from GIS digital river networks. *Environmental Modelling and Software* 23:638-649.
- Brenden, T.O., E.M. Hallerman, B.R. Murphy, J.R. Copeland, and J.A. Williams. 2007. The New River, Virginia, muskellunge fishery: population dynamics, harvest regulation modeling, and angler attitudes. *Environmental Biology of Fishes* 79:11-25.
- Brenden, T. O., L. Wang, P.W. Seelbach, R.D. Clark, Jr., and J. Lyons. 2007. Comparison between model-predicted and field-measured stream habitat features for evaluating fish assemblage-habitat relationships. *Transactions of the American Fisheries Society* 136:580-592.
- Brenden, T.O., B.R. Murphy, and E.M. Hallerman. 2006. The effect of discharge on daytime habitat use and selection of muskellunge in the New River, Virginia. *Transactions of the American Fisheries Society* 135:1546-1558.
- Brenden, T.O., R.D. Clark, Jr., A.R. Cooper, P.W. Seelbach, L. Wang, S.S. Aichele, E.G. Bissell, and J.S. Stewart. 2006. A GIS framework for collecting, managing, and analyzing multi-scale landscape variables across large regions for river conservation and management. Pages 49-74 in R.M. Hughes, L. Wang, and P.W. Seelbach, editors. *Influences of landscapes on stream habitats and biological assemblages*. American Fisheries Society, Symposium 48, Bethesda, Maryland.
- Brenden, T.O., E.M. Hallerman, and B.R. Murphy. 2006. Sectioned pelvic fin ray ageing of muskellunge *Esox masquinongy* from a Virginia river: comparisons among readers, with cleithrum estimates, and with tag-recapture growth data. *Fisheries Management and Ecology* 13:31-37.
- Brenden, T.O., and B.R. Murphy. 2006. Variance-covariance estimation of standard weight equation coefficients. *Journal of Freshwater Ecology* 21:1-7.
- Brenden, T.O., B.R. Murphy, and E.M. Hallerman. 2005. Predatory impact of muskellunge on New River, Virginia, smallmouth bass. *Proceedings of the Southeastern Association of Fish and Wildlife Agencies* 58(2004):12-22.
- Lindell, S., B. Delbos, R. Perham, J. Goldman, E.M. Hallerman, T.O. Brenden. 2004. Hatchery and grow-out performance of sunshine bass and backcross hybrid striped bass in recirculating aquaculture systems. *International Journal of Recirculating Aquaculture* 5:43-54.

- Brenden, T.O., and B.R. Murphy. 2004. Experimental assessment of age-0 largemouth bass and juvenile bluegill competition in a small impoundment in Virginia. *North American Journal of Fisheries Management* 24:1058-1070.
- Brenden, T.O., B.R. Murphy, and E.M. Hallerman. 2004. Estimating total error in locating radiotelemetry transmitters by homing in a riverine environment. *Journal of Freshwater Ecology* 19:295-304.
- Brenden, T.O., B.R. Murphy, and J.B. Birch. 2003. Statistical properties of the relative weight ( $W_r$ ) index and an alternative procedure for testing  $W_r$  differences between groups. *North American Journal of Fisheries Management* 23:1136-1151.
- Brenden, T.O., and B.R. Murphy. 2002. Trophic dynamics of a slow growing age-0 largemouth bass cohort from a Virginia small impoundment. *Journal of Freshwater Ecology* 17:609-619.
- Brenden, T.O., and J.A. Williams. 2001. New records of *Esox niger* Lesueur, 1818 and *Lepisosteus osseus* (Linnaeus, 1758) in the New River, Virginia. *Banisteria (Journal of the Virginia Natural History Society)* 18:44.
- Brenden, T.O., B.R. Murphy, S. Manos, C.S. Vandergoot. 1999. A submerged cage designed for aquatic research. *North American Journal of Aquaculture* 61:359-362.

### **Completion and Technical Reports**

- Jones, M.L., T.O. Brenden, and B.J. Irwin. 2012. Evaluating integrated pest management in the St. Marys River. Great Lakes Fishery Commission, Project Completion Report, Ann Arbor, Michigan.
- Bence, J.R., and T. O. Brenden. 2011. Enhancing fishery stock assessment modeling capacity in the Great Lakes. Great Lakes Fishery Commission, Project Completion Report, Ann Arbor, Michigan.
- Brenden, T.O., and J.X. He. 2010. Coordination workshops concerning early mortality of lake trout in the Great Lakes. Great Lakes Fishery Commission, Project Completion Report, Ann Arbor, Michigan.
- Brenden, T.O., and W. Liu. 2010. Evaluation of regression approaches for predicting yellow perch (*Perca flavescens*) recreational harvest in Ohio Waters of Lake Erie. Quantitative Fisheries Center Technical Report T2010-01, East Lansing, Michigan.
- Brenden, T.O., and J.R. Bence. 2009. A model-based evaluation of how stocking Pacific salmonids influences the fish communities of lakes Huron and Ontario. Great Lakes Fishery Commission, Project Completion Report, Ann Arbor, Michigan.
- Irwin, B.J., T.O. Brenden, W. Liu, and J.R. Bence. 2009. Estimating the relationship between sea lamprey-induced mortality on lake trout and observed marking rates. Great Lakes Fishery Commission, Project Completion Report, Ann Arbor, Michigan.
- Jones, M.L., M.P. Ebener, M.T. Arts, M. Faisal, T. Wagner, T.O. Brenden, D. Honeyfield, and G. Wright. 2008. Magnitude and potential causes of mortality in four lake whitefish populations in Lakes Michigan and Huron: a multidisciplinary approach. Great Lakes Fishery Trust, Project Completion Report, Lansing, Michigan.
- Riseng, C., L. Wang, M. Wiley, E. Rutherford, and T. Brenden. 2008. State-of-the-art approaches for assessment of Great Lakes nearshore and large river fish habitat. Great Lakes Fishery Trust, Project Completion Report. Lansing, Michigan.
- Murphy, B.R., T.O. Brenden, and E.M. Hallerman. 2003. Assessment of Virginia's management of riverine muskellunge fisheries. Virginia Department of Game and Inland Fisheries, Federal Aid in Sport Fish Restoration, Project Number F-122-R, Project Completion Report, Richmond, Virginia.

### **Presentations (\*Presenter)**

- Li\*, Y., J.R. Bence, and T.O. Brenden. 2013. Addressing intermixing of lake whitefish populations comparing fishery management and assessment performance based on alternative assessment approaches. Oral Presentation: 2013 Canadian Conference for Fisheries Research, Windsor, Ontario.
- Vandergoot\*, C.S., and T.O. Brenden. 2013. Spatially varying population demographics and fishery characteristics of Lake Erie walleye estimated from a long-term tag-recovery study. Oral Presentation: 2013 Canadian Conference for Fisheries Research, Windsor, Ontario.

- Brenden\*, T., W. Liu, J. Bence, and K. Scribner. 2012. Simultaneous analysis of genetic and age data to estimate spawning population contribution to admixed fisheries in the Great Lakes. Invited Presentation: 2012 AFS Annual Meeting, Minneapolis, Minnesota.
- Throckmorton\*, E., A. Peters, M. Faisal, and T. Brenden. Disease ecology of viral hemorrhagic septicemia in an inland Michigan lake. Oral Presentation: 2012 AFS Annual Meeting, Minneapolis, Minnesota.
- 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. Oral Presentation: 2012 AFS Annual Meeting, Minneapolis, Minnesota.
- Brenden\*, T., W. Liu, J. Bence, and K. Scribner. 2012. Simultaneous analysis of genetic and age/length data to estimate spawning population contribution to mixed-stock or strain, open water fisheries in the Great Lakes. Oral Presentation: Lake Huron Technical Committee Meeting, Port Huron, Michigan.
- Brenden\*, T.O. 2011. Stock intermixing in the Great Lakes: challenges and solutions for fisheries management. Invited Presentation: College of Marine Science, Shanghai Ocean University.
- Brenden\*, T.O., and J.R. Bence. 2011. Model-based evaluation of how stocking *Oncorhynchus* influences the fish community of lakes Huron and Ontario. Invited Presentation: 2011 AFS Annual Meeting, Seattle, Washington.
- Molton\*, K., T. Brenden, and J. Bence. 2011. Influences of stock intermixing and productivity on harvest policy performance: a simulation-based evaluation of lake whitefish management in the upper Great Lakes. Oral Presentation: 2011 AFS Annual Meeting, Seattle, Washington.
- Newcomb\*, T., T. Brenden, R. Brown, M. Ebener, and K. Reid. 2011. Great Lakes commercial fisheries: historical overview and prognoses for the future. Invited Presentation: 2011 AFS Annual Meeting, Seattle, Washington.
- Wang\*, L., Y. Cao, and T. Brenden. 2011. Validation of river valley segments delineated for bioassessment and fisheries management using fish assemblages. Poster Presentation: 2011 AFS Annual Meeting, Seattle, Washington.
- Molton\*, K., T. Brenden, and J. Bence. 2011. Assessing the effects of stock intermixing on harvest policy performance for lake whitefish in the Upper Great Lakes. Oral Presentation: 2011 Michigan AFS Annual Meeting, Petoskey, Michigan.
- Vandergoot, C.S. \*, T.O. Brenden, P. Kocovsky, and W. Liu. 2010. Comparison of biological characteristics and mortality rates of walleye captured in two different types of experimental gill nets in Lake Erie. Oral Presentation: Annual Ohio State University and Ohio Division of Wildlife Research Review Meeting, Columbus, Ohio.
- Brenden\*, T.O., and J.R. Bence. 2010. Population dynamics of Lake Ontario lake trout during 1985-2007. Oral Presentation: Lake Ontario Sea Lamprey Damage Analysis Workgroup, Picton, Ontario.
- Brenden\*, T.O., and J.R. Bence. 2010. A model-based evaluation of how stocking *Oncorhynchus* influences the fish community of Lake Huron. Oral Presentation: Lake Huron Technical Committee Meeting, Port Huron, Michigan.
- Brenden\*, T.O., and J.R. Bence. 2009. Influence of *Oncorhynchus* stocking on fish communities in lakes Huron and Ontario. Oral Presentation: Council of Lake Committees Bi-Annual Meeting, Romulus, Michigan.
- Brenden\*, T.O., and J.R. Bence. 2009. Influence of *Oncorhynchus* stocking on fish communities in lakes Huron and Ontario. Oral Presentation: Michigan DNR Fisheries Division, Research Section Annual Meeting, Roscommon, Michigan.
- Vandergoot, C. \*, T. Brenden, P. Kocovsky, and W. Liu. 2009. Comparison of biological characteristics and mortality rates of walleye captured in two different types of experimental gill nets in Lake Erie. Oral Presentation: 2009 AFS Annual Meeting, Nashville, Tennessee.
- Brenden\*, T.O., and J.R. Bence. 2009. Update on the Lake Huron salmonid stocking decision analysis project. Oral Presentation: Lake Huron Technical Committee Bi-Annual Meeting, Sault Ste. Marie, Michigan.



- Brenden, T.O., L. Wang, and P. Seelbach\*. 2009. An ecological river segment classification of Michigan rivers based on statistical analyses of fish and physical attributes. Oral Presentation: 2009 North American Benthological Society Annual Meeting, Grand Rapids, Michigan.
- Brenden\*, T.O. 2009. Statistical considerations for implementing marking projects. Oral Presentation: Lake Ontario Mass Marking and Tagging Workshop, Pulaski, New York.
- Brenden\*, T.O., M.L. Jones, and M. Ebener. 2008. Sensitivity of tag recovery mortality estimates to tag shedding, handling mortality, and reporting rate inaccuracies. Oral Presentation: 2008 AFS Annual Meeting, Ottawa, Ontario.
- Wagner\*, T., M.L. Jones, M.P. Ebener, M.P. Arts, T.O. Brenden, D.C. Honeyfield, G.M. Wright, and M. Faisal, M. 2008. Spatial and temporal dynamics of lake whitefish health indicators: linking individual-based indicators to a management-relevant endpoint. 69th Midwest Fisheries and Wildlife Conference, Columbus, Ohio.
- Brenden\*, T.O., J.R. Bence, and M.L. Jones. 2006. Proposed QFC projects for 2007/2008 fiscal year. Oral Presentation: Council of Lake Committees Bi-Annual Meeting, Romulus, Michigan.
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