

T. Douglas Beard, Jr.

WORK ADDRESS

USGS, National Wildlife Health Center
6006 Schroeder Rd, Madison, WI 53711
e-mail [REDACTED]

HOME ADDRESS

[REDACTED]
[REDACTED]

EDUCATIONAL BACKGROUND:

Degree Earned	Institution	Date
B.S. – Biology (<i>magna cum laude</i>)	University of WI – Eau Claire	1987
M.S. – Fish & Wildlife	Pennsylvania State University	1990
Ph.D. – Zoology/Applied Statistics	University of WI - Madison	2002

PROFESSIONAL EXPERIENCE:

Current

United States Geological Survey/Ecosystem Mission Area, Reston, VA –Chief, National Climate Change and Wildlife Science Center. 2009-2017, 2019 – present

Serve as director for National Climate Adaptation Science Center (NCASC) for the U.S. Geological Survey. Responsible for developing and managing the national NCASC and standing up the Department of Interior Climate Adaptation Science Centers (CASC). Develop, manage and implement \$64 million NCASC program. Identify priorities for national climate change and wildlife science and develop budget activities and work with multiple Federal, State and Local partners to develop the science agenda. Work across DOI bureaus to develop and implement the DOI Climate Science Centers. Lead strategic planning efforts on NCASC research priorities and determine national/international priorities for NCASC research that include state, federal and NGO partners. Build and maintain partnerships with international, federal, state and NGO partners. Serve as advisor on national policies for NCASC priorities and work to integrate national research priorities into international initiatives. Service as member of official U.S. delegations to the Convention of Biological Diversity, OECD Biodiversity and Water Working Group and as alternate head of delegation to the Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES). Hire, manage and supervise staff in leading development of the NCASC and CASCs. Work with and brief senior levels of the administration and Congress to advance goals and objectives of NCASC and CASC. Foster partnerships with States, NGO's and others interested in climate change effects on fish, wildlife and their habitats. Lead definition, supervision and development of information management system in support of data and information managed by NCASC. Manage budget, for implementation of the NCASC. Develop goals, objectives and strategic guidance for the program, evaluate proposals and recommend for funding research priorities, evaluate progress of the research program and report on national goals.

Prior Positions

United States Geological Survey/Land Resources Mission Area, Reston, VA – Acting Associate Director. 2017-2018.

Serve as Associate Director for Climate and Land Use Mission Area (CLU) for the U.S. Geological Survey. Responsible for overseeing, setting broad strategic direction for, development and management of the \$160 million annual CLU missions. Develops and manages all aspects of CLU, including the National Climate Change and Wildlife Science Center (NCASC) and the Department of Interior Climates Science Centers, the Climate Research and Development program, the Land Change Science program and the Land and Remote Sensing Program (including management of the LandSat Satellite program). Direct supervision of two national capabilities, NCASC and the Earth Resources Observation Systems (EROS) Data Center (EDC) in Sioux Falls, SD. Direct authority to manage fiscal and human resources to achieve the mission and strategic objectives of the CLU mission area. Work across DOI and with other federal agencies to develop and implement the CLU mission area. Lead strategic planning efforts on CLU to identify research priorities and determine national/international priorities for CLU research that include state, federal and NGO partners. Build and maintain partnerships with international, federal, state and NGO partners.

United States Geological Survey/Biological Resources Discipline, Reston, VA – Program Coordinator Fisheries; Aquatic & Endangered Resource Program. 2005-2009.

United States Geological Survey/National Biological Information Infrastructure, Reston, VA – Program Manager Fisheries and Aquatic Resources Node, Program Manager Aquatic Gap Program. 2003-2005.

Wisconsin Department of Natural Resources-Staff Fisheries Biologist, Madison, WI. 1990-2003.

Minnesota Department of Natural Resources-Natural Resource Specialist-Fisheries. Duluth, MN. 1990.

HONORS AND AWARDS (Selected)

Wisconsin Chapter AFS Best Paper Award-1992

North Central Division AFS Best Paper Award-1994

Honorable Mention, Best Paper in North American Journal of Fisheries Management – 2003

U.S. Department of State Meritorious Honor Award – 2004, 2011

U.S. Geological Survey Annual Performance Awards – 2004 -2021

Zayed International Prize for Scientific/ technological achievements in environment – Millennium Ecosystem Assessment, Zayed Prize International for the Environment, 2005.

American Fisheries Society Distinguished Service Award – 2008.

Japanese Society for the Promotion of Science, Short Term Fellowship - 2009

U.S. Geological Survey Diversity Award – Supervisor 2011

U.S. Department of Interior Meritorious Service Award -2017

American Fisheries Society Fellowship Award – 2020

Associate of Fish and Wildlife Agencies – Climate Adaptation Leadership Award -2021

PEER REVIEWED PUBLICATIONS

Embke, H.S., Nyboer, E.A., Robertson, A.M. **T. D. Beard, Jr.** et al. Global dataset of species-specific inland recreational fisheries harvest for consumption. *Sci Data* 9, 488 (2022).
<https://doi.org/10.1038/s41597-022-01604-y>

Embke, H.S., S. R. Carpenter, D.A. Iserman, G. Coppola, **T. D. Beard Jr.**, A. J. Lynch, G. G.

- Sass, Z. S. Feiner, M. J. Vander Zanden. 2022. Resisting ecosystem transformation through an intensive whole-lake fish removal experiment. *Fisheries Management and Ecology* online.
- Twardek, W. M., I. G. Cowx, N.W.R. Lapointe, C. Paukert, **T. D. Beard**, E. M. Bennett, D. Browne, A. K. Carlson, K. D. Clarke, Z. Hogan, K. Lorenzen, A. J. Lynch, P. B. McIntyre, P. Pompeu, M. Rogers, A. Sakas, W. W. Taylor, T. D. Ward, Z. Basher, S. J. Cooke. 2022. Bright spots for inland fish and fisheries to guide future hydropower development. *Water Biology and Security*.
<https://doi.org/10.1016/j.watbs.2022.100009>
- Myers, B.J., S. R. Weiskopf, A.N. Shiklomanov, S. Ferrier, E. Weng, K. A Casey, M. Harfoot, S. T. Jackson, A.K. Leidner, T. M. Lenton, G. Luikart, H. Matsuda, N. Pettorelli, I. M D Rosa, A.C. Ruane, G. B. Senay, S. P. Serbin, D. P. Tittensor, **T. D. Beard**. 2021. A New Approach to Evaluate and Reduce Uncertainty of Model-Based Biodiversity Projections for Conservation Policy Formulation. *BioScience* 71:1261-1273
- Lynch, A. J., N. Sievert*, H. S. Embke*, A. M. Robertson*, B. J. E. Myers*, M. S. Allen, Z. S. Feiner, F. Hoogakker, S. Knoche, R. M. Krogman, S. R. Midway, C. L. Nieman, C. P. Paukert, K. L. Pope, M. W. Rogers, L. Wszola, **T. D. Beard, Jr.** 2021. The U.S. Inland Creel and Angler Survey Catalog (CreelCat): Development, Applications and Opportunities. *Fisheries* 46:574-583.
- Harper, M., H. S. Mejbek, D. Longert, R. Abell, J., **Beard, T. D.**, R. Bennett, S. M. Carlson, W. Darwall, A. Dell, S. Domisch, D. Dudgeon, J. Freyhof, I. Harrison, K. A. Hughes, S. C. Jähnig, J. M. Jeschke, R. Lansdown, M. Lintermans, A. J. Lynch, H. M. R. Meredith, S. Molur, J. D. Olden, S. J. Ormerod, H. Patricio, A. J. Reid, A. Schmidt-Kloiber, M. Thieme, D. Tickner, E. Turak, O. L. F. Weyl, S. J. Cooke. 2021. Twenty-five essential research questions to enhance the protection and restoration of freshwater biodiversity. *Aquatic Conservation*. DOI: 10.1002/aqc.3634
- Cooke, S. J., E. Nyboer, A. Bennett, A. J. Lynch, D. M. Infante, I. G. Cowx, **T. D. Beard, Jr.**, D. Bartley, C. P. Paukert, A. J. Reid, S. Funge-Smith, E. Gondwe, E. Kaunda, J. D. Koehn, N. J. Souter, G. L. Stokes*, L. Castello, N. J. Leonard, C. Skov, S. Berg, W. W. Taylor. 2021. The Ten Steps to Responsible Inland Fisheries in Practice: Reflections from Diverse Regional Case Studies Around the Globe. *Reviews in Fish Biology and Fisheries*. DOI: 10.1007/s11160-021-09664-w
- Stokes, G. L.*, A. J. Lynch, S. Funge-Smith, J. Jørgensen, **T. D. Beard, Jr.**, B. S. Lowe, J. P. Wong, S. J. Smidt. 2021. A global dataset of inland fisheries expert knowledge. *Scientific Data*. 8:182.
- Jeanson, A. L., A. J. Lynch, J. D. Thiem, W. Potts, T. Aapasalo, A. J. Danylchuk, **T. D. Beard, Jr.**, R. Arlinghaus, K. Hyder, L. Hunt, N. Young, S. J. Cooke. 2021. A bright spot analysis of inland recreational fisheries in the face of climate change: : learning about adaptation from small successes. *Reviews in Fish Biology and Fisheries*.

- Murray, D. D. B. Bunnell, M. W. Rogers, A. J. Lynch, **T. D. Beard, Jr.**, S. Funge-Smith. 2020. Inland commercial fisheries in the United States: carp, catfish, and gaps in national reporting. *Fisheries*. 45(11):585-596.
- Terando, A., D. Reidmiller, S. W. Hostetler, J. S. Littell, **T. D. Beard, Jr.**, S. R. Weiskopf, J. Belnap and G. S. Plumlee. 2020. Using Information From Global Climate Models to Inform Policymaking—The Role of the U.S. Geological Survey. U.S. Geological Survey Open-File Report 2020–1058, 25 pgs.
- Kao, Y., M. W. Rogers, D. B. Bunnell, I. G. Cowx, S. S. Qian, O. Anneville, **T. D. Beard, Jr.**, A. Brinker, J. R. Britton, R. Chura-Cruz, N. J. Gownaris, J. R. Jackson, K. Kangur, J. Kolding, A. A. Lukin, A. J. Lynch, N. Mercado-Silva, R. Moncayo-Estrada, F. J. Njaya, I. Ostrovsky, L. G. Rudstam, A. L. E. Sandström, Y. Sato, Humberto Siguayro-Mamani, A. Thorpe, P. A. M. van Zwieten, P. Volta, Y. Wang, A. Weiperth, O. L. F. Weyl and J. D. Young. 2020. Effects of climate and land-use changes on fish catches across lakes at a global scale. *Nat Commun* 11, 2526 <https://doi.org/10.1038/s41467-020-14624-2>.
- Lynch, A. J., D. M. Bartley, **T. D. Beard, Jr.**, D. B. Bunnell, S. J. Cooke, I. G. Cowx, S. Funge-Smith, C. P. Paukert and M. W. Rogers. 2020. InFish: A Professional Network to Promote Global Conservation and Responsible Use of Inland Fish. *Fisheries*. <https://doi.org/10.1002/fsh.10419>.
- Embke, H.S., **T.D. Beard, Jr.**, A.J. Lynch and M.J. Vander Zanden. 2020. Fishing for food: quantifying recreational fisheries harvest in Wisconsin lakes. *Fisheries*. <https://doi.org/10.1002/fsh.10486>
- Lynch, Abigail; D. M. Bartley, **T. D Beard, Jr.**, I.G. Cowx, S. Funge-Smith, W. W. Taylor, and S. J. Cooke. 2020. Examining progress toward achieving the Ten Steps of the Rome Declaration on Responsible Inland Fisheries. *Fish and Fisheries* 21:190-203.
- Stevance Anne-Sophie, P. Bridgewater, S. Louafi, N. King, **T. D. Beard, Jr.**, A. S. Van Jaarsveld, Z. Ofir, R Kohsaka, K. Jenderedijan, M. Rosales Benites, K. J. Mulongoy, K. L. Chaudhari, J. Painter and A. Meter. 2020. The 2019 review of IPBES and future priorities: reaching beyond assessment to enhance policy impact, *Ecosystems and People*, 16:1, 70-77, DOI: 10.1080/26395916.2019.1702590
- Paukert, C.P., A.J. Lynch, **T.D Beard, Jr.**, Y. Chen, S. J. Cooke, M. S. Cooperman, I. G. Cowx, L. Ibengwe, D. M. Infante, B. J. E. Myers, H. Phú Nguyễn & I. J. Winfield 2017 Designing a global assessment of climate change on inland fishes and fisheries: knowns and needs. *Rev Fish Biol Fisheries* **27**, 393–409 <https://doi.org/10.1007/s11160-017-9477-y>
- Lynch, Abigail J., I. G. Cowx, E. Fluet-Chouinard, S. M. Glaser, S. C. Phang, **T. D. Beard, Jr.**,

- S. D. Bower, J. L. Brooks, D. B. Bunnell, J. E. Claussen, S. J. Cooke, Y.-C. Kao, K. Lorenzen, B. J. E. Myers, A. J. Reid, J. J. Taylor, and S. Youn. 2017. Inland fisheries – Invisible but integral to the UN Sustainable Development Agenda for ending poverty by 2030. *Global Environmental Change* 47:167-173.
- Deines, A.M., D. B. Bunnell, M.W. Rogers, D. Bennion, W. Woelmer, M. J. Sayers, A.G. Grimm, R.A. Shuchman, Z. B. Raymer, C. N. Brooks, J. G. Mychek-Londer, W.W. Taylor, and **T.D. Beard Jr.** 2017. The contribution of lakes to global inland fisheries production. *Frontiers in Ecology and Evolution* 15:293-298.
- Carlson, A.K., W.W. Taylor, K.M. Hartikainen, D.M. Infante, **T.D. Beard, Jr.** and A.J. Lynch. 2017. Comparing stream-specific to generalized temperature models to guide salmonid management in a changing climate. 27:443-462.
- Bonar, S. A., N. Mercado-Silva, W. A. Hubert, **T.D. Beard, Jr.**, D., Göran, and J. Kubečka, 2017. Standard Methods for Sampling Freshwater Fishes: Opportunities for International Collaboration. *Fisheries* 42:150-156.
- Lynch, A. J., S. J. Cooke, **T. D. Beard, Jr.**, Y.-C. Kao, K. Lorenzen, A. M. Song, M. S. Allen, Z. Basher, D. B. Bunnell, E. V. Camp, I. G. Cowx, J. A. Freedman, V. M. Nguyen, J. K. Nohner, M. W. Rogers, Z. A. Siders, W. W. Taylor, S. Youn. 2017. Grand challenges in the management and conservation of North American inland fish and fisheries. *Fisheries*. 42: 115-124.
- Beard, Jr. T. D.**, E. H. Allison, D. A. Bartley, I. G. Cowx, S. J. Cooke, C. Fuentevilla, A. J. Lynch, W. W. Taylor. 2016. Inland fish and fisheries: A call to action. In *Freshwater, fish, and the future: Proceedings of the global cross-sectoral conference*, W. W. Taylor, D. M. Bartley, C. I Goddard, N. J. Leonard, and R. Welcomme, eds., pp. 1-6. American Fisheries Society Press: Bethesda, MD.
- Cooke, S.J., D.M. Bartley, **T. Douglas Beard, Jr.**, I.G. Cowx, C.I. Goddard, C. Fuentevilla, N.J. Leonard, A.J. Lynch, K. Lorenzen, and W.W. Taylor. 2016. From ideas to action: ten steps to responsible inland fisheries that support livelihoods, food security and healthy aquatic ecosystems. In *Freshwater, fish, and the future: Proceedings of the global cross-sectoral conference*, W. W. Taylor, D. M. Bartley, C. I Goddard, N. J. Leonard, and R. Welcomme, eds., pp. 343-351. American Fisheries Society Press: Bethesda, MD.
- Cooke, S. J., E. H. Allison, **T. D. Beard, Jr.**, R. Arlinghaus, A. H. Arthington, D. M. Bartley, I. G. Cowx, C. Fuentevilla, N. J. Leonard, A. J. Lynch, V. M. Nguyen, S. Youn, W. W. Taylor, R. L. Welcomme. Online early access (DOI: 10.1007/s13280-016-0787-4). On the sustainability of inland fisheries: Finding a future for the forgotten. *Ambio* 45:753-764.
- Lynch, A.J., S. J. Cooke, A. M. Deines, S. D. Bower, D.B. Bunnell, I. G. Cowx, V. M. Nguyen, J. Nohner, K. Phouthavong, B. Riley, M. W. Rogers, W. W. Taylor, W.

- Woelmer, S.-J. Youn, and **T. D. Beard, Jr.** 2016. The social, economic, and environmental importance of inland fish and fisheries. *Environmental Reviews*. 24: 115-121.
- Lynch, A. J., **T. D. Beard, Jr.**, A. Cox, S. C. Phang, C. C. Arantes, R. E. Brummett, J. F. Cramwinckel, L. Gordon, M. A. Husen, J. Liu, P. H. Nguyen, P. K. Safari, Z. Zarnic. 2016. Drivers and synergies in the management of inland fisheries: Searching for sustainable solutions. In *Freshwater, fish, and the future: Proceedings of the global cross-sectoral conference*, W. W. Taylor, D. M. Bartley, C. I. Goddard, N. J. Leonard, and R. Welcomme, eds., pp. 183-200. American Fisheries Society Press: Bethesda, MD.
- Nguyen, V.M., A.J. Lynch, N. Young, I.G. Cowx, **T.D. Beard, Jr.**, W.W. Taylor, and S.J. Cooke. 2016. To manage inland fisheries is to manage at the social-ecological watershed scale. *Journal of Environmental Management*. 181:312-325.
- Deines, A.M., D. B. Bunnell, M. W. Rogers, **T. D. Beard, Jr.**, and W. W. Taylor. 2015. A review of the global relationship among freshwater fish, autotrophic activity, and regional climate. *Reviews in Fish Biology and Fisheries*. 25:323-336.
- Lynch, A.J., W.W. Taylor, **T.D. Beard, Jr.** and B.M. Lofgren. 2015. Climate change projections for lake whitefish (*Coregonus clupeaformis*) recruitment in the 1836 Treaty Waters of the Upper Great Lakes. *Journal of Great Lakes Research*. 41:415-421.
- Beard, T.D, Jr.** 2014. Creating professional networks for successful career enhancement. Pages 239-244 in W.W. Taylor, A.J. Lynch, and N.J. Leonard, editors. *Future of fisheries: perspectives for emerging professionals*. American Fisheries Society, Bethesda, MD.
- Cooke, S.J., R. Arlinghaus, D.M. Bartley, **T.D. Beard, Jr.**, I.G. Cowx, T.E. Essington, O.P. Jensen, A. Lynch, W.W. Taylor, R. Watson. 2014. Where the waters meet: sharing ideas and experiences between inland and marine realms to promote sustainable fisheries management. *Canadian Journal of Fisheries and Aquatic Sciences*. 71:1593-1601
- Matthias, B.G., M.S. Allen, R.N.M. Ahrens, **T.D. Beard, Jr.** and J.A. Kerns. 2014. Hide and seek: interplay of fish and anglers influences spatial fisheries management. *Fisheries* 39:261-269.
- Camacho, A. and **T.D. Beard, Jr.** 2014. Maintaining Resilience in the Face of Climate Change. In *Social-Ecological Resilience and Law*, edited by Ahjond S. Garmestani and Craig R. Allen. Columbia University Press.
- Youn, S. J., W. W. Taylor, A. J. Lynch, I. G. Cowx, **T. D. Beard Jr.**, D. Bartley, and F. Wu. 2014. Inland capture fishery contributions to global food security and threats to their future. *Global Food Security* 3: 142-148.

- Cooke, S. J., Lapointe, N. W. R., Martins, E. G., Thiem, J. D., Raby, G. D., Taylor, M. K., **Beard, T. D.** and Cowx, I. G. 2013. Failure to engage the public in issues related to inland fishes and fisheries: strategies for building public and political will to promote meaningful conservation. *Journal of Fish Biology*, 83: 997–1018.
- Brown, M.L., M.S. Allen and **T.D. Beard, Jr.** 2012. Data management and statistical techniques. Pages 15-78 in A. Zale, D. Parrish and T. Sutton eds. *Fisheries Techniques*, 3rd edition. American Fisheries Society, Bethesda, MD.
- Arlinghaus, R., **T. D. Beard, Jr.**, S.J. Cooke and I. Cowx. 2012. Benefits and Risks of Adopting the Global Code of Practice for Recreational Fisheries. *Fisheries* 37:165-172.
- Wang, L., D. M. Infante, P. Esselman, A. Cooper, D. Wu, W.W. Taylor, **T.D. Beard, Jr.**, G. Whelan, and A. Ostroff. 2011. A Hierarchical Spatial Framework and Database for the National River Fish Habitat Condition Assessment. *Fisheries* 36:436-449.
- Daedlow, K., **T. D. Beard, Jr.**, and R. Arlinghaus. 2011. A Property Rights-Based View on Management of Inland Recreational Fisheries: Contrasting Common and Public Fishing Rights Regimes in Germany and the United States. In Beard, T.D., Jr., A. Loftus and R. Arlinghaus (eds.) *The angler in the environment; proceedings of the 5th World Recreational Fisheries Conference*. American Fisheries Society, Bethesda, MD.
- Beard, T. D., Jr.**, R. Arlinghaus, S. J. Cooke, P. McIntyre, S. De Silva, D.M. Bartley, and I. G. Cowx. 2011. Ecosystem approach to inland fisheries: research needs and implementation strategies. *Biology Letters* 7:481-483.
- Beard, T.D., Jr.**, H. Allen, E.P. Anderson and K.L. Smith. 2008. Tradeoffs in management of freshwater ecosystem services under international environmental conventions: the case of inland waters fisheries. In M. Schechter, N.J. Leonard and W.W. Taylor eds. *International Governance of Fisheries Ecosystems: Learning from the Past, Finding Solutions for the Future*. American Fisheries Society, Bethesda, MD.
- Hayes, D. J., Hansen, M. J. and **T. D. Beard, Jr.** 2007. Sampling and experimental design. In M. L. Brown and C. S. Guy, eds. *Analysis and interpretation of freshwater fisheries data*. American Fisheries Society, Bethesda, MD.
- Rodríguez, J. P., **T. D. Beard, Jr.**, E. M. Bennett, G. S. Cumming, S. Cork, J. Agard, A. P. Dobson, and G. D. Peterson. 2006. Trade-offs across space, time, and ecosystem services. *Ecology and Society* 11(1): 28. [online] URL: <http://www.ecologyandsociety.org/vol11/iss1/art28/>
- Hansen, M. J., **T. D. Beard, Jr.** and S. W. Hewett. 2005. Effect of Measurement Error on Tests of Density Dependence of Catchability for Walleyes in Northern Wisconsin Angling and Spearing Fisheries. *North American Journal of Fisheries Management*. 25:1010-1015.

- Toth, F. L., E. Hizsnyik, J. Park, K. Saterson, A. Stott, **T. D. Beard, Jr.**, D. Deane, C. Ringler, D. van Vuuren. 2005. Policy Implications for Selected Stakeholders. In S.R. Carpenter and P. Pingali, eds., Millennium Ecosystem Assessment, Volume 2: Scenarios Assessment.
- Rodríguez, J. P., **T. D. Beard, Jr.**, J. Agard, E. M. Bennett, S. Cork, G. Cumming, D. Deane, A. P. Dobson, D. M. Lodge, M. Mutale, G. Nelson, G. D. Peterson, and T. Ribeiro. 2005. Interactions among ecosystem services. In S.R. Carpenter and P. Pingali, eds., Millennium Ecosystem Assessment, Volume 2: Scenarios Assessment.
- Rogers, M. W., M. J. Hansen and **T. D. Beard, Jr.**, 2005. Relationships between Recapture Rates from Different Gears for Estimating Walleye Abundance in Northern Wisconsin Lakes. 25:195-202.
- Sass, G.G., S. W. Hewett, **T. D. Beard Jr.**, A. H. Fayram and J. F. Kitchell. 2004. The role of density dependence in growth patterns of ceded territory walleye populations of Northern Wisconsin: effects of changing management regimes. North American Journal of Fisheries Management. 24:1262–1278.
- Beard, T.D., Jr.**, S. Cox, and S.R. Carpenter. 2003. Impacts of daily bag limit reductions on angler effort for Wisconsin walleye lakes. North American Journal of Fisheries Management. 23:1283-1293.
- Rogers, M. W., M. J. Hansen and **T. D. Beard, Jr.** 2003. Catchability of walleyes to fyke-nets and electrofishing in Northern Wisconsin lakes. North American Journal of Fisheries Management 23:1193-1206.
- Beard, T.D., Jr.**, P. W. Rasmussen, S.P. Cox and S.R. Carpenter. 2003. Evaluation of a management system for a mixed walleye spearing and angling fishery in northern Wisconsin. North American Journal of Fisheries Management 23:481-491.
- Beard, T.D., Jr.**, M. J. Hansen, and S.R. Carpenter. 2003. Development of a regional stock-recruitment model for understanding factors affecting walleye recruitment in northern Wisconsin lakes. Transactions of the American Fisheries Society 132:382-391 .
- Peterson, G.D., **T.D. Beard, Jr.**, B.E. Beisner, E.M. Bennett, S.R. Carpenter, G.D. Cumming, C.L. Dent, T.D. Havlicek. 2003. Assessing future ecosystem services: a case study of the Northern Highlands Lake District, Wisconsin. Conservation Ecology 7(3): 1. [online] URL: <http://www.consecol.org/vol7/iss3/art1>
- Cox, S., **T.D. Beard, Jr.**, and C.J. Walters. 2002. Harvest Control in open-access sport fisheries: hot rod or asleep at the reel? Bulletin of Marine Science 70:749-761.
- Beard, T. D., Jr.** 2002. The roles of recruitment, angler effort response, angler perception, and exploitation limits in structuring regional walleye fisheries in Northern Wisconsin.

Ph.D. dissertation, University of Wisconsin-Madison.

Fayram, A.H., S.H. Hewett, S.J. Gilbert, S.D. Plaster, and **T.D. Beard, Jr.** 2001. Evaluation of a 15-inch minimum length limit for walleye angling in northern Wisconsin. *North American Journal of Fisheries Management* 21:816-824.

M.J. Hansen, **T.D. Beard, Jr.** and S.W. Hewett. 2000. Catch rates and catchability of walleyes in angling and spearing fisheries in northern Wisconsin lakes. *North American Journal of Fisheries Management* 20:109-118.

Beard, T.D., Jr. and T.E. Essington. 2000. Effects of angling and life history processes on bluegill size structure: insights from an individual-based model. *Transactions of the American Fisheries Society* 129:561-568.

Beard, T.D., Jr. and J.M. Kampa. 1999. Changes in bluegill, black crappie and yellow perch populations in Wisconsin during 1967-1991. *North American Journal of Fisheries Management* 19:1037-1043.

Beard, T.D., Jr., and 9 coauthors. 1998. The multistate aquatic resource information system. *Fisheries* 23(5):14-18.

Jennings, M.J., J. Lyons, E. Emmons, G. Hatzenbeler, M. Bozek, T. Simonson, **T.D. Beard, Jr.** and D. Fago. 1998. Toward the development of an index of biotic integrity for inland lakes in Wisconsin. In T. P. Simon, ed., *Assessing the sustainability and biological integrity of water resource quality using fish assemblages*. CRC press.

Rasmussen, P.W., M.D. Staggs, **T.D. Beard, Jr.** and S.P. Newman 1998. Bias and confidence interval coverage of creel survey estimates evaluated by simulation. *Transactions of the American Fisheries Society* 127:469-480.

Beard, T.D. Jr., S.W. Hewett, Q. Yang, R.M. King and S. J. Gilbert. 1997. Prediction of angler catch rates based on walleye population density. *North American Journal of Fisheries Management* 17:621-627.

Beard, T.D. Jr., M.T. Drake, J.E. Breck and N.A. Nate. 1997. Effects of simulated angling regulations on stunting in bluegill populations. *North American Journal of Fisheries Management* 17:525-532.

Membership Concerns Committee, Situational Ethics Workgroup. 1993. Should we eat these fish? A situational ethics survey of AFS members. *Fisheries* 18(2):19-23.

Beard, T.D. Jr. and R.F. Carline. 1991. Influence of spawning and other stream habitat features on spatial variability of wild brown trout. *Transactions of the American Fisheries Society* 120:711-722.

Carline, R.F., **T.D. Beard Jr.**, and B.A. Hollender. 1991. Response of wild brown trout to

elimination of stocking and no-harvest regulations without tackle restrictions. North American Journal of Fisheries Management 11:253-266.

Beard, T.D. Jr. 1990. M.S. The effects of redd distribution and embryo survival on spatial variation in wild brown trout densities in Spring Creek, Centre County, Pennsylvania. Master of Science Thesis. The Pennsylvania State University, University Park, PA.

BOOKS

Beard, T.D., Jr., S. Sutton and R. Arlinghaus (eds.) 2011. The angler in the environment; proceedings of the 5th World Recreational Fisheries Conference. American Fisheries Society, Bethesda, MD.

Tsukamoto, K, T. Kawamura, T. Takeuchi, **T.D. Beard, Jr.** and M. Kaiser (eds.) 2008. Fisheries for global welfare and environment. Proceedings of the 5th World Fisheries Congress, Yokohama, Japan. Terra Scientific Publishing Company, Tokyo.

PROGRAM MANAGEMENT & GRANTS (Selected)

I have managed successfully larger programs in USGS, starting with an approximately \$2 million Fisheries Information Node, to \$25 million dollar Fisheries program, to a \$64 million National Climate Adaptation Science Center. While Acting Associate Director, I managed \$160 million, the largest external contract in DOI and oversaw operation of two Landsat Satellites.

Principle Investigator, Multistate Aquatic Resources Information System-\$150,000, Granted to Wisconsin, Illinois, Michigan, Iowa and Minnesota. State partnership grant from National Biological Service.

Principle Investigator, Identifying gaps and needs for improving large-scale biodiversity modeling through lessons learned from climate models. \$94,000. NASA Earth Sciences Program.

PROFESSIONAL SERVICE (Selected)

American Fisheries Society

Member of Following Committees – Membership committee, Membership Concerns Committee, Continuing Education Committee (Chair 1999-2000)

Computers Users Section (now FITS), Software Librarian and President 2001-2003

International Fisheries Section – President 2003-2005

Program Chair – Midwest Fish and Wildlife Conference 1997

International

World Council of Fisheries Societies, Chair Strategic Planning Committee, Vice President 2008-2012, President 2013-2016

Fifth and Sixth World Recreational Fisheries Conference Steering Committee – Member
Global Conference on Inland Fisheries, UN-FAO – Member International Steering

Committee

Other

Organization of Fish and Wildlife Information Managers – President 1998-1999.

EDITORIAL

North American Journal of Fisheries Management, Associate Editor, 1999-2001

Fisheries, Science Editor, 2002-2010

MANAGEMENT AND POLICY ACTIVITIES (selected)

Member - Global Code of Conduct for Recreational Fisheries. 2007. U.S. representative to the European Inland Fisheries Advisory Commission. Utrecht, Netherlands.

Chair - Ecosystem Approach to Inland Fisheries Workshop. 2010, Vientiane, Laos.

Chair - International intergovernmental platform on biodiversity and ecosystem services science priorities. 2010. Shepardstown, West Virginia, U.S.A.

Chair - Development of a Work Programme for the Intergovernmental Platform on Biodiversity and Ecosystem Services. 2012. SE-SYNC, Annapolis, MD.

Member – National Fish Habitat Planning Team – 2004-2005

Member – National Fish Habitat Board, 2018-present.

Co-Founder, Global Infish Network 2014- present (Infish.org)

Board Member – Fisheries Conservation Foundation 2007-2008

Vice Chair – Intergovernmental Platform on Biodiversity and Ecosystem Services (one of 10 International members) 2019-2022

TEACHING EXPERIENCE & EDUCATION

Water Pollution-Pennsylvania State University 1989.

Fisheries Management- Guest lectures, University of Wisconsin-Stevens Point

Microcomputer Software and Hardware Training-U.S. Fish and Wildlife Service, Silver Creek, CO, 1995, 1996, Atlanta, GA 1996, Omaha, NE 1996, Monterey, CA 1997, Washington, DC 1998.

Modeling Demystified, American Fisheries Society Annual Meeting, 1998.

Adaptive Management in Northern Wisconsin Lakes District, March 2002.

Eastern Mediterranean Basin Environmental Policy, MI State University Study Abroad Program, 2007, 2008.

Globalization of Fisheries – Guest Lectures, Michigan State University.

Graduate Students Committees

I have participated on six M.S. and six Ph.D. Committees at five research institutions

COMMUNICATION AND OUTREACH

Beard, T.D., Jr. 2003. NBII: providing access to data and information on U.S. Biological Resources. Fisheries 28(5):27.

Beard, T.D., Jr., P. Bueno and J. Fisher. 2006. Tsunami relief fund making an impact. Fisheries 31:190.

Beard, T.D., Jr. 2007. 5th World Fisheries Congress planning well underway. Fisheries 32:189.

Beard, T.D., Jr., W.W. Taylor, N.A. Graham, N.J. Leonard, and K.E. Waco. 2008. Study

abroad; a faculty perspective. *Fisheries* 33:39.

Beard, T.D., Jr., R. O'Malley, and J. Robertson. 2011. New Research on Climate's Front Lines understanding climate change impacts on fish and wildlife. *The Wildlife Professional* 5(3):26-31.

Haig, S.M., T.E. Martin, C.van Riper and **T.D. Beard, Jr.** 2013. Pathways for Conservation. *Science* 341 (6143): 215.

Organized and lead 12 scientific symposiums at national and international meetings.

Over 100 contributed and invited talks presented at local, national and international science meetings.

Briefed the President's Council of Advisors on Science and Technology, multiple Secretaries of the Department of Interior, Members of Congress, and CEOs of major NGOs.