EBTJV Science Coordinator Contract

- The term of this agreement is from the date it's fully executed to December 31, 2016.

Scope of Work:

1. Provide the science necessary to undertake strategic Brook Trout conservation actions across the geographic range encompassed by the Eastern Brook Trout Joint Venture (EBTJV).

   Tasks:

   - Network with the National Fish Habitat Partnership's National Science and Data Committee, Atlantic Coastal Fish Habitat Partnership, Southeast Aquatic Resources Partnership, Appalachian Land Conservation Cooperative, North Atlantic Land Conservation Cooperative, Northeast Climate Science Center, Leetown Science Center, and Chesapeake Bay Program to assist in directing research that provides resource managers with decision-support tools needed for effective conservation delivery.

   - Facilitate the development and implementation of multi-state Brook Trout resource assessments and long-term monitoring programs among EBTJV partners.

   - Oversee science-based refinements of the EBTJV's Brook Trout conservation priorities and focus areas.

2. Manage the EBTJV's science-related data and information platforms.

   Tasks:

   - Serve as the lead for the EBTJV's GeoNode Mapping Server; including assisting with the further development activities, uploading and managing data sets, and providing technical support to partners.

   - Assist with the development of processes needed for evaluating and reporting the benefits of Brook Trout conservation projects.

   - Periodically review EBTJV research and data management strategies and make recommendations to revise these strategies as necessary.

   - Ensure all EBTJV science products, assessments, and tools are fully documented and that the documentation is stored within the partnership's website.

Agreement Budget:

Salary - $30,000
Travel - $ 6,000
Indirect - $ 4,000 (WMI)

Sole Source Justification:

Mark Hudy has 34 years of professional experience in the field of fisheries science (see appended resume) and was previously involved with the Eastern Brook Trout Joint Venture (EBTJV) having served on the partnership's Steering Committee, its Science and Data Sub-Committee and he led the original range-wide Brook Trout status assessment in the eastern portion of the U.S.

Mark is particularly well suited to perform the scope of work described in this agreement as he has provided valuable advice and support to the EBTJV and its partners for map making; methods documentation; and, development of databases (e.g. occupancy, GIS layers, catchment and patch databases). Mark has established effective working relationships with many landscape-scale conservation organizations operating within the EBTJV's geographic scope. This is demonstrated by the national award he received from the National Fish Habitat Partnership in recognition of the scientific support he provided towards implementing the National Fish Habitat Action Plan; the work he's done for the Appalachian Land Conservation Cooperative in assisting with the development of a riparian restoration decision support tool; administrating the US Geological Survey's Fisheries Research Program that included the development of a Brook Trout research plan; and, developing a climate change model for brook trout and catchment assessment methods/patch metrics being used by the Chesapeake Bay Program.

Mark was instrumental in leading the development of the EBTJV's initial status assessment of Brook Trout (2005) as well as the partnership's most recent assessment at a finer scale. As a result of his efforts, Mark has hands on experience working with all the EBTJV state agencies responsible for managing the Brook Trout resources within their respective jurisdictions. Mark participated as a member of the original work groups that established the EBTJV's initial set of conservation priorities, as well as range-wide and regional metrics for success. Additionally, he has developed models and publications aimed at identifying priority focus areas for Brook Trout restoration and enhancement activities.

While serving as the project lead for a project to restore Brook Trout habitat in Smith Creek (VA), Mark successfully established quantifiable metrics for measuring the success of this project. Moreover, he's led the development of metrics for monitoring the outcomes of restoration projects at the national level for both the Department of Agriculture and the Department of Interior. Mark also has extensive experience with developing GIS datasets, which he has done in the past for the EBTJV, and has made the metadata associated with these databases readily accessible through the EBTJV website, USGS data portals, and the Appalachian Land Conservation Cooperative.

Appendix:

Resume

Mark Hudy - mxhudy@gmail.com

Education:

M.S. Fisheries and Wildlife, 1980 Utah State University, Logan, UT
B.S. Fisheries and Wildlife (with distinction), 1978 Virginia Tech, Blacksburg, VA

Work Experience:

(A) Senior Science Advisor – Fisheries; USGS Ecosystems Mission Area
Reston, VA
July 2012 to current

Duties: Serves as Senior Science Advisor for Fisheries within the Ecosystems Mission Area of the USGS. Provide leadership for the Fisheries Program to promote and enhance basic and applied research at the USGS Science Centers. **Accomplishments:** I represented the USGS on the Multi Agency Strategy for Unconventional Oil and Gas (UOG) Research and serve as the technical team lead for ecological effects team; developed Flagship project and proposed budget increase for UOG research. Represented USGS on the Blueways Steering Committee and lead the development of performance metrics for this DOI wide program. Developed and received funding for three supplemental funding initiatives: Headwaters: Extreme Events; Dam Removal and USGS American Eel Implementation Strategy. I serve as management liaison for the Diversity Council (headquarters sub-council).

(B) National Aquatic Ecologist - USDA Forest Service
Washington D.C. (stationed at James Madison University)
November 2005 to July 2012

Duties: Serves as a National technical and scientific authority with knowledge of ecology and fisheries resources. Expert agency representative working in consultation with national level and other agency officials, to provide technical and scientific leadership, staff level coordination, and consultation for major ecological and aquatic resource programs for the USDA Forest Service. **Accomplishments:** I led a large scale assessment (over 10,000 subwatersheds) for the Eastern Brook Trout Joint Venture that has changed the way natural resource managers view the status of this fish. The goals and objectives derived from this science based assessment are used by all federal and state agencies and NGO's in setting and prioritizing brook trout work in the eastern United States. The current Executive Order on the Chesapeake Bay uses these same goals and objectives in monitoring headwater streams. I provided agency leadership on several national teams of significance to both the Forest Service and partners. These include: Travel Management (Subpart A); Watershed Condition Frame Work (WCF); Water Strategy; National Fish and Wildlife Climate Adaptation Technical Team; Science and Data Committee of the National Fish Habitat Plan; Aquatic Ecological Unit Inventory (AEUI) development team, Steering Committee of the Eastern Brook Trout Joint Venture (EBTJV), and Aquatic Organism Passage (AOP).

(C) National Aquatic Ecologist - East – USDA Forest Service
Washington D.C. (stationed at James Madison University)
May 2001 to November 2005

Duties: Serves as a regional technical and scientific authority with knowledge of ecology and fisheries resources. Expert agency representative working in consultation with regional level and other agency officials, to provide technical and scientific leadership, staff level coordination, and consultation for major ecological and aquatic resource programs for the eastern and southern regions of the Forest Service. **Accomplishments:** Key accomplishments include: I developed challenge cost share projects with four Universities; three USDA Forest Service Research Stations and seven national forests.; I developed and obtained funding for the following cooperative projects Conservation of Status of Crayfishes ($40k) JMU graduate student funded with this project; Water Quality Impacts on Aquatic Biodiversity ($30k) JMU undergraduates (6) involved through undergraduate research and/or employment; Bio-monitoring ($20k); Fish Passage Issues in the Eastern United States ($90k) JMU undergraduates (2) involved through undergraduate research and/or employment; Aerial and ground based video and photography for aquatic monitoring utilizing an integrated GPS system ($15k) JMU undergraduates (2) involved through undergraduate research and/or employment ; Watershed characteristics of 5th order HUC's of National Forest Lands in the East ($10K) JMU undergraduates (1) involved through undergraduate research and/or employment; Hemlock Wooly Adelgid impacts on riparian ecosystems ($5k JMU undergraduates (3) involved through undergraduate research and/or employment); Human Population trends by watershed area (1790-2000) ($5k JMU undergraduates (1), faculty (1) and graduate students (2) involved through research and/or employment); Rusty Crayfish distribution on the Superior NF Boundary Waters ($20k); Macroinvertebrate IBI's: A Comparison of two methods ($6k) JMU undergraduates (2) involved through undergraduate research and/or employment; Fish Xing National Inventory Regional Protocols ($10k); Evaluating the Biotic Integrity of Watersheds through GIS ($20k) JMU undergraduates (1), faculty (1) and graduate students (2) involved through research and/or employment). I co-developed the curriculum and the teaching cadre for the 2002 continuing education course Special Topics FIW 5984 (2 graduate credit hours): Fish Habitat Management 2002 at Virginia Tech.

(D) National Fisheries Program Leader – USDA Forest Service
Washington D.C.
December 1997 to May 2001

Duties: Leadership responsibilities for implementing and evaluating the USDA Forest Service National Fisheries Program with duties and responsibilities to: serve as principle Washington Office spokesperson ; provide principle leadership in the formulation and recommendation of policies , standards, and plans of national scope for development, coordination, and management of aquatic habitats on national forest system lands; provide principle leadership for informing Regional Offices and appropriate staff of major issues involving aquatic habitat and fauna; review policies, plans and standards developed and recommended by other staff, staff groups and field units; lead program and activity reviews; develop budgets, budget advice and justifications; develop responses to Congressional and other external queries; supervise Assistant Fish Program

Leader and detailers; provide leadership for implementation and coordination of national plans and initiatives; develop communication packages in a variety of media that portray objectives, activities and accomplishments of the fisheries program; assist in fisheries training course development; act for Assistant Director, Director in their absence. **Accomplishments:** Key accomplishments include: I led the development of a National Fisheries and Aquatic Ecology Strategy which identified and prioritized aquatic resource related issues and actions. Highlighting issues and needs in the strategy resulted in the identification of 50 key positions needed to implement the Natural Resources Agenda and was instrumental in the subsequent hiring of many of these positions. The strategy was also paramount in the continuing development of business plans for each national forest unit. These business plans have focused resources on strategic aquatic issues. During my tenure I have made significant accomplishments in getting and delivering additional funds to the field. The national fisheries budget has increased 38% with the average forest budget increasing 33%. There was an increase of 80% in funding to the poorest (bottom quartile) funded forests. Fisheries budgets are currently at an agency high. I have made improvements in the program's effectiveness and response time to requests from both internal and external sources by developing a "Fisheries Data Book". This data book uses relevant WFRP and budget data to provide key national, regional, and forest summaries in a short time period. The budget model used in this book is now being copied and used by the budget shop. I have improved the national "Rise to the Future Awards Program" by involving external partners (they now host the event and serve on evaluation teams) and increased the scope by linking it to a national leadership team meeting.

(E) Forest Fisheries Program Manager – USDA Forest Service
George Washington and Jefferson National Forest
Harrisonburg, VA
December 1996 to December 1997

Duties: Fisheries Program Manager on George Washington and Jefferson NF with responsibility for: planning, administrating, and providing professional expertise in fisheries programs; serving on interdisciplinary teams; coordinating programs with state agencies and cooperators; developing partnerships and challenge grant cooperators; training of wildlife biologists (tech transfer); development of monitoring plans and guidelines for FLMP; review of prescriptions and implementation of KV funds; marketing fisheries programs and successes on the forest. **Accomplishments:** Developed challenge cost share projects with: James Madison University (2), University of Virginia (2), Virginia Tech (3) and Virginia Department of Game and Inland Fisheries (2); developed partnerships with 16 other groups related to aquatic ecosystem programs; developed extensive monitoring program of aquatic ecosystem health using aquatic macroinvertebrates; served as Forest New Perspectives Coordinator; served as Forest Ecosystem Management Coordinator; served as Forest representative to Mountain Physiographic Core Team; served as ID team member on FLMP; served as supervisor for co-op education student; developed non-game and aquatic TES program through increased funding and challenge cost share projects; see publications.

(F) Forest Fisheries Program Manager - USDA Forest Service
George Washington National Forest
Harrisonburg, VA
January 1991 to December 1996

Duties: Fisheries Program Manager on George Washington NF with responsibility for: planning, administrating, and providing professional expertise in fisheries programs; serving on interdisciplinary teams; coordinating programs with state agencies and cooperators; developing partnerships and challenge grant cooperators; training of wildlife biologists (tech transfer); development of monitoring plans and guidelines for FLMP; review of prescriptions and implementation of KV funds; marketing fisheries programs and successes on the forest.
Accomplishments: see accomplishments from previous job.

(G) Forest Fisheries Program Manager - USDA Forest Service
Francis Marion and Sumter National Forest
Columbia, SC
April 1989 to January 1991

Duties: Fisheries Program Manager on Francis Marion and Sumter NF with responsibility for: planning, administrating, and providing professional expertise in fisheries programs; serving on interdisciplinary teams; coordinating programs with state agencies and cooperators; developing partnerships and challenge grant cooperators; training of wildlife biologists (tech transfer); development of monitoring plans and guidelines for FLMP; review of prescriptions and implementation of KV funds; marketing fisheries programs and successes on the forest.
Accomplishments: Developed new partnership with B.A.S.S., Erskine College, Emerald City Bass Masters and U.S. Army COE; increased number of projects with existing cooperators (Trout Unlimited, SCS, SC Wildlife and Marine Resources); developed kids fishing day projects; developed fish habitat project on Strom Thurmond reservoir; developed fish monitoring on piedmont streams; assisted on ID teams for gold mining, Hurricane Hugo; developed channel catfish fishery on four lakes; assisted in planning, permitting and design of three new lakes.

(H) Statewide Trout Biologist – Arkansas Game and Fish Commission
Mountain Home, Arkansas
March 1985 to April 1989

Duties: Statewide Trout Program Manager for Arkansas Game and Fish Commission with responsibility for: all operations and activities of statewide trout program on 200 miles of stream and tailwater fisheries and 126,00 acres of reservoir trout fisheries; design, coordinate and carry out statewide research projects, management plans, public meetings, public relations and coded wire tagging program; prepare and manage trout program budget ($600,000); prepare and manage stocking schedule (2.3 million trout annually); write monthly, annual, technical, journal and popular reports; supervise technicians and large volunteer groups; coordinate trout program activities and plans with interdisciplinary groups, state, federal and private agencies (EPA, USFWS,USFS, US COE, State Parks and Tourism, Trout Unlimited, Federation of Fly Fishers and numerous outfitter and guide associations and chambers of commerce; present public

presentations on trout program to popular and technical audiences through slide shows, radio, TV, and state , regional and national magazines. **Accomplishments:** computerized statewide stocking schedule and record keeping; designed and built electrofishing equipment for previously unsampled tailwater habitats, developed stocking raft for spreading out stocked fish to improve survival, developed coded wire tagging program for trout program and agency, recruited and used over two person years of volunteer labor,
developed first special regulations on trout waters in the state; developed first children's only fishing area; developed first cooperative projects with Trout Unlimited; developed first statewide survey of trout anglers preferences and economic impact; developed first trout habitat improvement project on tailwater habitats; instigated minimum water flow studies for tailwater habitats; see publications list.

(I) Research Coordinator II – University of Georgia
Georgia Cooperative Fish and Wildlife Research Unit
Athens, GA
February 1983 to March 1985

Duties: Program coordinator and manager of cooperative acid rain research project involving EPA, USFS, USFWS, NPS and the University of Georgia; design, conduct and coordinate fisheries, macroinvertebrate and water quality research on acid sensitive streams of the Southern Blue Ridge Province; write quarterly, annual, technical and journal reports, manage budgets, supervise technicians and graduate students; manage quality control and assurance of data and data bases. **Accomplishments:** Documented and increased awareness of acidification impacts in the Southern Blue Ridge Province; see publications list.

(J) Project Leader – University of Florida
Florida Cooperative Fish and Wildlife Research Unit
Gainesville, FL
November 1980 to February 1983

Duties: Design and conduct fisheries and liminological research to develop mitigation plans for rock mining excavations in south Florida; evaluate habitat, water quality, mitigation measures, fish and macroinvertebrate populations; write proposals, technical reports and journal articles; prepare and manage budgets, supervise field technicians; coordinate mitigation recommendations with interdisciplinary team members from industry and other state agencies. **Accomplishments:** Research led to changes in mitigation for rock mining industry; see publications list.

(K) Graduate Research Assistant – Utah State University
Utah Cooperative Fishery Research Unit
Logan, UT
June 1978 to November 1980

Duties: Design and conduct research on non-captive performance of rainbow trout strains stocked as fingerlings in mountain reservoirs; evaluate growth, survival, catchability, fishing pressure, angler attitudes and trout habitat. **Accomplishments:** Research led to changes in broodstock and stocking practices; see publications list.

(L) Trout Stream Technician –
Virginia Department of Game and Inland Fisheries
Statewide stream survey
Verona, VA
June 1977 to September 1977
June 1976 to September 1976

Duties: Carry out statewide trout stream inventory; evaluate fish populations, fish habitat, water quality and aquatic macroinvertebrate populations. **Accomplishments:** Sampled the majority of cold-water habitat in the state.

Awards

2014 Aldo Starker Leopold Wild Trout Medal
2014 Certificate of Merit (Quality Step Increase)
2010 Certificate of Merit (cash award), Watershed Condition Framework Team
2008 National Fish Habitat Board-Scientific Achievement Award for support of the National Fish Habitat Action Plan
2008 Conservationist of the Year; Virginia Council Trout Unlimited
2008 National Fisheries Program - Mentoring Award
2004 Certificate of Merit (cash award), Eastern Brook Trout Joint Venture Assessment
2003 Special Assignment, Acting Deputy Director WFRP staff 6/03 to 9/03
2000 Certificate of Merit (cash award) , " Increasing budgets to field …"
1999 Certificate of Merit (cash award) , "Contributions to fisheries program …"
1999 Certificate of Merit (cash award) , "Contributions to program leaders …"
1999 CATT award , "Support of the Center for Aquatic Technology Transfer .."
1997 Special Assignment, Member of WO team (WFRP) that developed an Aquatic Conservation Assessment for the Daniel Boone NF.
1997 Special Assignment, Detail to Costa Rica under the Sister Forest Program to train natural resources staff in aquatic monitoring techniques.
1995 Special Assignment , Team member for Region 8 to produce an T&E Conservation Strategies for private lands participating in State & Private matching programs
1995 Certificate of Merit (cash award), "Outstanding contributions to the Forest …"
1995 Certificate of Merit (cash award) "Contributions as ID team member APCO …"
1995 Chairpersons Award – Virginia Council of Trout Unlimited
1995 Certificate of Merit (cash award),"Outstanding contributions to Forest merger …"
1994 to 97 Special Assignment , Southern Regions FHR Coordinator
1994 Certificate of Merit Quality Step Increase , "Outstanding Performance …"
1993 Special Assignment ,George Washington NF Ecosystems Management Coordinator
1992 Region 8 Fisheries Program , " Rise to the Future Award …"
1992 Certificate of Merit (cash award) , Revision of Forest Plan
1991 Special Assignment, George Washington NF New Perspectives Coordinator
1991 Take Pride in America Award , " Kids fishing day programs …"
1988 Outstanding Paper Award (co-author), Southern Division AFS
1988 Friend of the Southern Council Award, Federation of Fly Fishers

1980 Outstanding Paper Award (co-author), Bonneville Chapter AFS
1978 Outstanding Fisheries Science Student, Virginia Tech Chapter AFS

Membership Professional Societies:

American Fisheries Society (Life member 1980; Certified Fisheries Scientist 1983)
Virginia Chapter AFS (Charter member) 1991-2012; President elect - 2002
Trout Committee Southern Division AFS, 1986 – 2012, Chairperson 1988-90
South Carolina Chapter AFS: 1990-91; Arkansas Chapter AFS (Charter member): 1986-89; Georgia Chapter AFS (Charter member): 1984-85; Florida Chapter AFS (Charter member): 1980-83; Utah Chapter AFS: 1978-80.

Publications:

Trumbo, B.A., K.H. Nislow, J. Stallings, M. Hudy, E.P. Smith, D.K. Kim, B. Wiggins and C.A. Dolloff. 2014. Ranking Site Vulnerability to Increasing Temperatures in Southern Appalachian Brook Trout Streams in Virginia: An Exposure-Sensitivity Approach. Transactions of the American Fisheries Society. 143 (1): 173-187.

Whitely, A.R., J.A. Combs, M. Hudy, Z. Robinson, A.R. Colton, K.H. Nislow, and B.H. Letcher. 2013. Fragmentation and Patch Size Shape Genetic Structure of Brook Trout Populations. Canadian Journal of Fisheries and Aquatic Sciences. 70: 678-688.

Hudy, M., K.H. Nislow, E.P. Smith, A.R. Cooper and D.M. Infante. 2013. The Importance of Scale: Assessing and Predicting Brook Trout Status in its Southern Native Range. Proceedings of the Wild Trout XI Symposium, West Yellowstone, MT. September 2013.

Whitely, A. R., J.A. Coombs, M. Hudy, Z. Robinson, K.H. Nislow and B.H. Letcher. 2012. Sampling Strategies for Estimating Brook Trout Effective Population Size. Conservation Genetics. 13:625-637.

Velasco-Cruz, C., S.C. Leaman, M.Hudy, E.P. Smith. 2012. Assessing the Risk of Rising Temperature on Brook Trout: A Spatial Dynamic Linear Risk Model. Journal of Agriculture, Biological and Environmental Statistics. 17(2): 246- 264.

Trumbo, B.A., L.M. Wise, M.Hudy. 2012. Influence of Protective Shielding Devices on Recorded Air Temperature Accuracy for a Rugged Outdoor Thermal Sensor Used in Climate Change Modeling. Journal of Natural and Environmental Sciences. 3(1): 42-50.

Nislow, K.H., M. Hudy, B.H. Letcher and E.P. Smith. 2011. Variation in Local Abundance and Species Richness of Stream Fishes in Relation to Dispersal Barriers: Implications for Management and Conservation. Freshwater Biology, doi:10.1111/j.1365-2427.02634.x

Hudy, M., J.A. Coombs, K.H. Nislow and B.H. Letcher. 2010. Dispersal and Within-Stream Spatial Population Structure of Brook Trout Revealed by Pedigree Reconstruction Analysis. Transactions of the American Fisheries Society 139: 1276-1287.

Trumbo, B., M. Hudy, E.P. Smith, D. Kim, B.A. Wiggins, K.H. Nislow and C.A. Dolloff. 2010. Sensitivity and Vulnerability of Brook Trout Populations to Climate Change. 2010. Proceedings of the Wild Trout X Symposium, West Yellowstone, MT. September 2010.

Siderhurst, L. A., H.P. Griscom, M. Hudy, Z.J. Bortolot. 2010. Changes in Light Levels and Stream Temperature with Loss of Eastern Hemlock at a Southern Appalachian Stream: Implications for Brook Trout. Forest Ecology and Management. 260 (10): 1,677- 1,688.

Hudy, M. and J. Shiflet. 2009. Movement and Recolonization of Potomac sculpin (*Cottus giardi*) in a Virginia stream. North American Journal of Fisheries Management 29:196-204.

Hudy, M., T.M. Thieling, N. Gillespie and E.P. Smith. 2008. Current Distribution and Status of Brook Trout Within the Eastern United States. North American Journal of Fisheries Management 28: 1069-1085.

Zhang,H., T.Thieling, S.C. Bates Prins, E.P. Smith and M. Hudy. 2008. Model-Based Clustering in a Brook Trout Classification Study within the Eastern United States. Transactions of the American Fisheries Society 137:841-851.

Hudy, M., B.Roper and N. Gillespie. 2007 Large Scale Assessments: Lessons learned for Wild Trout Management. Proceedings of the Wild Trout 9 Symposium, West Yellowstone, MT. October 2008.

Hudy, M., T.M. Thieling, and J.K. Whalen. 2004. A large-scale Risk Assessment of the Biotic Integrity of native Brook Trout Watersheds**.** Proceedings of the Wild Trout VIII Symposium, West Yellowstone, MT. September 2004.

Hudy, M., D.M. Downey and D.W. Bowman. 2000. Successful restoration of an acidified native brook trout stream through mitigation with limestone sand. North American Journal of Fisheries Management 20:453-456.

Hudy, M. 1985. Mortality of rainbow trout and brook trout from high voltage electrofishing (alternating current) in a controlled environment. North American Journal of Fisheries Management 5: 475-479.

Hudy, M. and C.R. Berry. 1983. Performance of three strains of rainbow trout in a Utah reservoir. North American Journal of Fisheries Management 3: 136-141.

Berry, C.R. and M. Hudy. 1982. Survival of stocked rainbow trout of distinct lactate Dehydrogenase phenotypes. The Progressive Fish Culturist 45 (1): 13-16.

Selected Presentations:

Fink, D.B. and M.Hudy. 2008. The use of artificial shading to evaluate the feasibility of brook trout restoration. Mid –Year Southern Division of American Fisheries Society, February 28- March 1, Wheeling, West Virginia.

Hudy, M. and T.M. Thieling. 2008. Riparian Characteristics of Brook Trout Subwatersheds in the Eastern United States: Can They Predict Status? American Water Resources Association (AWRA). Summer Specialty Conference: Riparian Ecosystems and Buffers: Working at the Waters Edge. June 2008. Virginia Beach, Virginia (abstract).

Hudy, M and T.M. Thieling. 2008. Landscape Characteristics of Brook Trout Subwatersheds in the Eastern United States. Mid –Year Southern Division of American Fisheries Society, February 28- March 1, Wheeling , West Virginia.

Hudy, M., T.M. Thieling and E.P. Smith. 2008. Prioritizing Fish Habitat Protection, Restoration and Enhancement Work for the Eastern Brook Trout Joint Venture. Annual Meeting of the Society of Conservation Biologists, July 14 – 17, Chattanooga, Tennessee. (abstract).

Hyatt, M. and M. Hudy. 2008. The Natural Range of Variability in a Headwater Brook Trout Population: Mountain Run (1993 – 2007). Joint Annual Meeting of the Virginia and Virginia Tech Chapters American Fisheries Society February 5-7, 2008, Virginia Tech Blacksburg, VA

Shiflet, J. and M. Hudy 2008. Response of white sucker densities to artificial shading of pool habitats in Smith Creek, VA. Mid –Year Southern Division of American Fisheries Society, February 28- March 1, Wheeling, West Virginia.

Sweeten, S. and M. Hudy. 2007. Home Range, Hibernacula Fidelity, and Best Management Practices for Wood Turtles in Virginia– Northeastern Association of Fish and Wildlife Agencies Conference, April 2008, Galloway, New Jersey.

Hudy, M. 2000. A century of progress – A millennium of opportunity. Keynote address East Coast Trout Conference, Abstracts East Coast Trout Conference, June 6 - 8, 2000, Frostburg, MD.

Hudy, M., J.R. Voshell and S.K. Evans. 1997. An aquatic macroinvertebrate index for Monitoring ecosystem health in National Forest streams in Virginia. Abstracts Virginia Chapter American Fisheries Society Annual Meeting, Lexington, VA.

Hudy, M. 1995. The truth about electrofishing – Déjà vu all over again. Abstracts East Coast Trout Conference, Southern and Northeastern Divisions American Fisheries Society, June 15-20, 1995. Penn State University, PA.

Hudy, M., L.O. Mohn and D.M. Downey. 1994. Acidified aquatic ecosystems: Changes and restoration in Fridley Gap. Abstracts Virginia Chapter American Fisheries Society, April 1994, Luray, VA.

Hudy, M., L.O. Mohn, P.E. Bugas, C.A. Dolloff and P.A. Flebbe. 1993. Movement, Growth, and habitat relations of brook trout in a stressed ecosystem. Abstracts Virginia Chapter American Fisheries Society Annual Meeting, January 15-16, 1993. Virginia Beach, VA.

Odom, M.C., M. Hudy and D.M. Downey. 1993. Fish community response to limestone sand mitigative treatment in an Appalachian headwater stream. 123rd Annual Meeting of the American Fisheries Society, August 29 – September 2, 1993, Portland, OR.

Hudy, M. and L.R. Rider. 1990. Brown trout management in the Natural State. Proceedings Wild Trout IV, West Yellowstone, Montana. pp 67-71.

Hudy, M. and L.R. Rider. 1990. The effects of reduced creel (2) and minimum size limits (16 inches) on tailwater brown trout fisheries. Trout management in two story reservoirs and tailwaters, May 10, 1990, Gatlinburg, TN, Trout Committee Southern Division American Fisheries Society.

Rider, L.R. and M. Hudy. 1990. Economic value of Arkansas's two-story and tailwater trout fisheries. Trout management in two-story and reservoirs and tailwaters, May 10, 1990, Gatlinburg, TN, Trout Committee Southern Division American Fisheries Society.

Hudy, M. 1989. Dry Run Creek: A children's catch and release stream. Abstracts Arkansas Chapter American Fisheries Society Annual Meeting, March 28-29, 1989, Pine Bluff, AR.

Hudy, M. 1988. Brown trout population structure in White River tailwaters currently managed under no special regulations. Proceedings brown trout workshop, April 28-30, 1988, Asheville, NC. Trout Committee Southern Division American Fisheries Society.

Hudy, M. 1988. Brown trout population structure in the White River tailwaters. Abstracts Arkansas Chapter American Fisheries Society Annual Meeting, March 11-12, 1988, Fayetteville, AR.

Hudy, M. 1987. Analysis of trout permit sales: A case study and management implications. Abstracts Arkansas Chapter American Fisheries Society Annual Meeting, August 15, 1986, Little Rock, AR

Hudy, M. 1985. History of salmonid stockings in the southeast. Abstracts Southeastern Trout Management Workshop, May 1-2, 1985, Syria, Virginia. Trout Committee Southern Division American Fisheries Society.

Laiser, P.J., P.L. Winger, M. Hudy and M.J. Van Den Avyle. 1985. Water chemistry of Southern Blue Ridge Province trout streams. Abstracts Southeastern trout management workshop, May 1-2, 1985, Syria, Virginia. Trout Committee Southern Division American Fisheries Society.

Hudy, M. and R.W. Gregory. 1984. Some limnological characteristics of eight limestone excavation lakes in south Florida. U.S. Fish & Wildlife Service FWS/OBS/-83/84. 84 pp.

Hudy, M and C.R. Berry. 1982. Co-convener and moderator special session. Strain evaluation research with salmonids, 112th Annual Meeting of the American Fisheries Society, September 22-25, 1982, Hilton Head, SC.

Berry, C.R. and M. Hudy. 1980. Consumptive and non-consumptive recreational use of kokanee salmon. Transactions of the 1980 Annual Meeting Bonneville Chapter of American Fisheries Society, January 30-31, 1980, Salt Lake City, UT.

Hudy, M. and C.R. Berry. 1980. Coded wire snout tag for inland fisheries studies. Transactions Annual Meeting Bonneville Chapter American Fisheries Society, January 30-31, 1980, Salt Lake City, UT.

Hudy, M. and C.R. Berry. 1980. The recreational fishery of Porcupine Reservoir Cache County, Utah. Utah Academy of Science, Arts and Letters. Encyclia 57:175.

Hudy, M. and C.R.. 1980. Non-captive evaluation of six strains of rainbow trout stocked as fingerlings in a fluctuating Utah reservoir. Abstracts 110th Annual meeting of the American Fisheries Society, September 21-24, 1980, Louisville, KY.

Hudy, M. and C.R. 1979. Evaluation of rainbow trout streams for captive and non-captive performance. Abstracts 109th Annual Meeting of the American Fisheries Society, September 12-15, 1979, West Yellowstone, MT.