

LEETOWN SCIENCE CENTER
FISCAL YEAR 2003 PUBLICATION LIST

03-001//AE

Julian SE, King TL, Savage K. 2003. Isolation and characterization of novel tetranucleotide microsatellite DNA markers for the spotted salamander, *Ambystoma maculatum*. *Molecular Ecology Notes* 3(1):7-9.
Notes: Article

03-002//FH

Yang X, Peterson DS, Baumann PC, Lin ELC. 2003. Fish biliary PAH metabolites estimated by fixed-wavelength fluorescence as an indicator of environmental exposure and effects. *Journal of Great Lakes Research* 29(1):116-23.
Notes: Article

03-003//FH

Reimschuessel R, Giesecker CM, Driscoll C, Baya A, Kane AS, Blazer VS, Evans JJ, Kent ML, Moran JDW, Poynton SL. 2003. Myxosporean plasmodial infection associated with ulcerative lesions in young-of-the-year Atlantic menhaden in a tributary of the Chesapeake Bay, and the possible links to *Kudoa clupeiidae*. *Diseases of Aquatic Organisms* 53(2):143-66.
Notes: Article

03-004//FH

Gauthier DT, Rhodes MW, Vogelbein WK, Kator H, Ottinger CA. 2003. Experimental mycobacteriosis in striped bass *Morone saxatilis*. *Diseases of Aquatic Organisms* 54(2):105-17.
Notes: Article

03-005//FH//AE

Blazer VS, Waldrop TB, Schill WB, Densmore CL, Smith D. 2003. Effects of water temperature and substrate type on spore production and release in eastern *Tubifex Tubifex* worms infected with *Myxobolus cerebralis*. *Journal of Parasitology* 89(1):21-6.
Notes: Article

03-006//TF

Letcher BH, Gries G. 2003. Effects of life history variation on size and growth in stream-dwelling Atlantic salmon. *Journal of Fish Biology* 62(1):97-114.
Notes: Article

03-007//TF

Rees CB, McCormick SD, Vanden Heuvel JP, Li W. 2003. Quantitative PCR analysis of CYP1A induction in Atlantic salmon (*Salmo salar*). *Aquatic Toxicology* 62(1):67-78.
Notes: Article

03-008//TF

Kynard B, Suci R, Horgan M. 2002. Migration and habitats of diadromous Danube River sturgeons in Romania: 1998-2000. *Journal of Applied Ichthyology* 18:529-35.
Notes: Article

03-009//TF

Singer TD, Finstad B, McCormick SD, Wiseman SB, Schulte PM, McKinley RS. 2003. Interactive effects of cortisol treatment and ambient seawater challenge on gill Na⁺. K⁺-ATPase and CFTR expression in two strains of Atlantic salmon smolts. *Aquaculture* 222(1-4):15-28.
Notes: Article

03-010//TF

Hendry AP, Letcher BH, Gries G. 2003. Estimating natural selection acting on stream-dwelling Atlantic salmon: implications for the restoration of extirpated populations. *Conservation Biology* 17(3):795-805.
Notes: Article

03-011//TF

Magee JA, Obedzinski M, McCormick SD, Kocik JF. 2003. Effects of episodic acidification on Atlantic salmon (*Salmo salar*) smolts. *Canadian Journal of Fisheries and Aquatic Sciences* 60(2):214-21.
Notes: Article

03-012//TF

Shrimpton JM, McCormick SD. 2003. Environmental and endocrine control of gill corticosteroid receptor number and affinity in Atlantic salmon (*Salmo salar*) during smolting. *Aquaculture* 222(1-4):83-99.
Notes: Article

03-013//TF

McCormick SD, O'Dea MF, Moeckel AM, Bjornsson BT. 2003. Endocrine and physiological changes in Atlantic salmon smolts following hatchery release. *Aquaculture* 222(1-4):45-57.
Notes: Article

03-014//FH

Blazer VS. 2002. Histopathological assessment of gonadal tissue in wild fishes. *Fish Physiology and Biochemistry* 26(1):85-101.
Notes: Article

03-015//FH

Gauthier DT, Cartwright DD, Densmore CL, Blazer VS, Ottinger CA. 2003. Measurement of *in vitro* leucocyte mitogenesis in fish: ELISA based detection of the thymidine analogue 5'-bromo-2'-deoxyuridine. *Fish and Shellfish Immunology* 14(4):279-88.
Notes: Article

03-016//AE

Pooler PS, Smith DR, Loveland RE, Botton ML, Michels SF. 2003. Assessment of sampling methods to estimate horseshoe crab (*Limulus polyphemus* L.) egg density in Delaware Bay. *Fishery Bulletin* 101(3):698-703.
Notes: Article

03-017//AE

Webber HM, Haines TA. 2003. Mercury effects of predator avoidance behavior of a forage fish, golden shiner (*Notemigonus Crysoleucas*). *Environmental Toxicology and Chemistry* 22(7):1556-61.
Notes: Article

03-018//AE

Haines TA, May TW, Finlayson RT, Mierzykowski SE. 2003. Factors affecting food chain transfer of mercury in the vicinity of the Nyanza site, Sudbury River, Massachusetts. *Environmental Monitoring and Assessment* 86(3):211-32.

Notes: Article

03-019//TF

Kynard B, Zhuang P, Zhang L, Zhang T, Zhang Z. 2002. Ontogenetic behavior and migration of Volga River Russian sturgeon, *Acipenser gueldenstaedtii*, with a note on adaptive significance of body color. *Environmental Biology of Fishes* 65(4):411-21.

Notes: Article

03-020//AE

Kerby JH, Everson JM, Harrell RM, Geiger JG, Starling CC, Revels H. 2002. Performance comparisons between diploid and triploid sunshine bass in fresh water ponds. *Aquaculture* 211(1-4):91-108.

Notes: Article

03-021//TF

Shrimpton JM, McCormick SD. 2002. Seasonal changes in androgen levels in stream- and hatchery-reared Atlantic salmon parr and their relationship to smolting. *Journal of Fish Biology* 61(5):1294-304.

Notes: Article

03-022//TF

McCormick SD, Shrimpton JM, Moriyama S, Bjornsson BT. 2002. Effects of an advanced temperature cycle on smolt development and endocrinology indicate that temperature is not a zeitgeber for smolting in Atlantic salmon. *Journal of Experimental Biology* 205():3553-60.

Notes: Article

03-023//SAL

Boetsch JR, Van Manen FK, Clark JD. 2002. Predicting rare plant occurrence in Great Smoky Mountains National Park, USA. *Natural Areas Journal* 23(3):229-37.

Notes: Article

03-024//AE

Smith DR, Vilella RF, Lemarie DP. 2003. Application of adaptive cluster sampling to low-density populations of freshwater mussels. *Environmental and Ecological Statistics* 10(1):7-15.

Notes: Article

03-025//AE

Smith DR, Pooler PS, Loveland RE, Botton ML, Michels SF, Weber RG, Carter DB. 2002. Horseshoe crab (*Limulus polyphemus*) reproductive activity on Delaware Bay beaches: interactions with beach characteristics. *Journal of Coastal Research* 18(4):730-40.

Notes: Article

03-026//FH

Cipriano R. 2002. In Memoriam Dr. Kenneth Edward Wolf October 22, 1921-October 31, 2002. *Journal of Aquatic Animal Health* 14(4):311-2.

Notes: Article

03-027//FH

Cipriano RC. 2002. Kenneth Wolf 1922-2002. Bulletin of the European Association of Fish Pathologists 22(6):349-50.

Notes: Article

03-028//FH

Smith SB, Donahue AP, Lipkin RJ, Blazer VS, Schmitt CJ, Goede RW. 2002. Illustrated field guide for assessing external and internal anomalies of fish. Information and Technology Report (U.S. Geological Survey, Biological Resources Division) USGS/BRD/ITR--2002-0007:46 pages.

Notes: Report

03-029//SAL

Peine JD. 2001. A framework for integrated science in the Appalachian mountain range. Open File Report (U. S. Geological Survey) 01-406:7-13.

Notes: Article

03-030//SAL

Murrow JL, van Manen F.T., Clark JD, Vaughan MR. 2001. A metapopulation analysis for black bears in the southern Appalachians. Open File Report (U. S. Geological Survey) 01-406:47 .

Notes: Abstract

03-031//SAL

Peine JD. 2001. Land use change adjacent to protected areas. Open File Report (U. S. Geological Survey) 01-406:48-9.

Notes: Abstract

03-032//SAL

van Manen FT, Clark JD, Schlarbaum SE. 2001. A model to predict the occurrence of surviving butternut trees in the southern Blue Ridge Mountains. Open File Report (U. S. Geological Survey) 01-406:55.

Notes: Abstract

03-033//AE

Julian JT, Snyder CD, Young JA, King TL, Lemarie DP. 2001. Landscape influences on ambystomatid salamander populations in the Delaware water gap National Recreation Area. Open File Report (U. S. Geological Survey) 01-406:118 .

Notes: Abstract

03-034//AE

Morton DD, Young JA, Hurlbert D. 2001. Forest change within Shenandoah National Park. Open File Report (U. S. Geological Survey) 01-406:127 .

Notes: Abstract

03-035//AE

Snyder CD, Young JA, LeMarie DP, Villella RF, Smith DR, Johnson ZB. 2001. Landscape influences on aquatic

assemblages: fish, bugs and salamanders. Open File Report (U. S. Geological Survey) 01-406:132.
Notes: Abstract

03-036//AE

Villella RF, Smith DR, King TL, Lemarie DP. 2001. Research on freshwater mussels (Bivalvia: Unionidae) in Appalachian streams. Open File Report (U. S. Geological Survey) 01-406:134.
Notes: Abstract

03-037//AE

Villella RF, Smith DR, Lemarie DP. 2001. Sample design for estimating distribution and abundance of freshwater mussels (Bivalvia: Unionidae) within a watershed. Open File Report (U. S. Geological Survey) 01-406:135.
Notes: Abstract

03-038//AE

Young J, Walton D, Fleming G, Morton D. 2001. Assessing vegetation community composition in relation to environmental gradients in Shenandoah National Park, Virginia. Open File Report (U. S. Geological Survey) 01-406:138.
Notes: Abstract

03-039//NF

Ross RM. 2001. Mesohabitat use of threatened hemlock forests by breeding birds of the Delaware water gap National Recreation Area. Open File Report (U. S. Geological Survey) 01-406:148.
Notes: Abstract

03-040//NF

Ross RM, Lellis WA, Bennett RM, Johnson CS. 2001. Landscape determinants of nonindigenous fish invasions. Open File Report (U. S. Geological Survey) 01-406:149.
Notes: Abstract

03-041//FH

Cipriano RC, editor. 2003. Proceedings of the 28th Annual Eastern Fish Health Workshop, Eisenhower Inn and Conference Center, Gettysburg, Pennsylvania, 21-25 April 2003. Kearneysville, West Virginia: U. S. Geological Survey, National Fish Health Research Laboratory.
Notes: Book

03-042//FH

Bullock GL, Schill WB. 2003. Establishment of *Aeromonas salmonicida* and *Yersinia ruckeri* in fluidized sand biofilters of a recycle culture system and subsequent transmission of these pathogens to newly stocked salmonids. Proceedings of the 28th Annual Eastern Fish Health Workshop; 2003 Apr 21-2003 Apr 25; Eisenhower Inn and Conference Center, Gettysburg, PA.
Notes: Abstract

03-043//FH

McAllister PE, Densmore CL, Barbash PA. 2003. Infectious salmon anemia virus: injection challenge and waterborne transmission monitored by hematology and polymerase chain reaction assay. Proceedings of the 28th Annual Eastern Fish Health Workshop; 2003 Apr 21-2003 Apr 25; Eisenhower Inn and Conference Center, Gettysburg, PA.
Notes: Abstract

03-044//FH

Starliper CE, Neves R, Henley W, Hanlon S, Griffin A, Whittington P. 2003. Use of bacterial flora databases from selected unionids to identify disease causing agents. Proceedings of the 28th Annual Eastern Fish Health Workshop; 2003 Apr 21-2003 Apr 25; Eisenhower Inn and Conference Center, Gettysburg, PA.
Notes: Abstract

03-045//NF

Honeyfield DC, Fitzsimons JD, Tillitt DE, Zajicek JL, Brown SB, Ross P, Gross TS, Sepulveda MS. 2003. Use of bacterial flora databases from selected unionids to identify disease causing agents. Proceedings of the 28th Annual Eastern Fish Health Workshop; 2003 Apr 21-2003 Apr 25; Eisenhower Inn and Conference Center, Gettysburg, PA.
Notes: Abstract

03-046//FH

Ottinger CA. 2003. Mycobacteriosis and Chesapeake Bay striped bass: an integrated cooperative research program. Proceedings of the 28th Annual Eastern Fish Health Workshop; 2003 Apr 21-2003 Apr 25; Eisenhower Inn and Conference Center, Gettysburg, PA.
Notes: Abstract

03-047//FH

Densmore CL. 2003. Mycobacteriosis in striped bass: comparative analysis in four Chesapeake Bay tributaries. Proceedings of the 28th Annual Eastern Fish Health Workshop; 2003 Apr 21-2003 Apr 25; Eisenhower Inn and Conference Center, Gettysburg, PA.
Notes: Abstract

03-048//FH

Burge EJ, Gauthier DT, Ottinger CA, Van Veld PA. 2003. Increases in short term *in vivo* expression of natural resistance-associated macrophage protein, *Nramp*, in striped bass (*Morone saxatilis*) following mycobacterial challenge. Proceedings of the 28th Annual Eastern Fish Health Workshop; 2003 Apr 21-2003 Apr 25; Eisenhower Inn and Conference Center, Gettysburg, PA.
Notes: Abstract

03-049//FH

Cipriano RC, Miller O Jr. 2003. Infectious Salmon Anemia: the current state of our knowledge. Technical Bulletin//United States Department of Agriculture Animal and Plant Health Inspection Service//U. S. Department of the Interior//U. S. Geological Survey//U. S. Department of Commerce, National Marine Fisheries Service// (1902):1-11.
Notes: Article

03-050//FH

Miller O, Cipriano RC, Technical Coordinators. (). 2003. Washington, D. C.: U.S. Department of Agriculture, Animal and Plant Health Inspection Service//U. S. Department of the Interior//U. S. Geological Survey//U. S. Department of Commerce, National Marine Fisheries Service//. Technical Bulletin 1902.
Notes: Report

03-051//NF

Campbell C. 2002. Temperature and growth in Atlantic salmon. in. 132nd Annual Meeting of the American

Fisheries Society//Program "Turning the Tide" Forging Partnerships to Enhance Fisheries; 2002 Aug 18-2002 Aug 22; Baltimore, Maryland.
Notes: Abstract//CD Rom

03-052//NF

Campbell C, Kelly MC, Meade JW. 2002. The Fisheries and Aquatic Resources (FAR) node of the National Biological Information Infrastructure (NBII). in. 2002 Annual Meeting and National Fish and Wildlife Data Summit; 2002 Nov 1-2002 Nov 5; Baltimore, Maryland.
Notes: Abstract

03-053//NF

Campbell CA, Kelly MC. 2003. Making fisheries and aquatic resources information available online: the NBII Fisheries and Aquatic Resources (FAR) node. in. Fifty-ninth Annual Northeast Fish and Wildlife Conference Abstracts: Partnerships - Celebrating Our Common Mission; 2003 Apr 13-2003 Apr 16; Newport, Rhode Island: U. S. Fish and Wildlife Service - Northeast Region//Rhode Island Division of Fish and Wildlife//.
Notes: Abstract

03-054//FH

Ottinger C, Densmore C, Blazer V, Panek F, Vogelbein W, Rhodes M, Gauthier D, Kator H, Mangold M, Swihart G and others. 2003. Mycobacteriosis in striped bass (*Morone saxatilis*) from Chesapeake Bay tributaries. IAAAM (International Association for Aquatic Medicine) Proceedings 34:125-6.
Notes: Abstract

03-055//FH

Cipriano RC. 2002. Infectious Salmon Anemia Virus. U.S. Geological Survey, Fish Disease Leaflet 85:11 pages.
Reprint: www.lsc.usgs.gov
Notes: Article//Electronic

03-056//FH

Cipriano RC, Bullock GL. 2001. Furunculosis and other diseases caused by *Aeromonas salmonicida*. U.S. Fish and Wildlife Service, Fish Disease Leaflet 66:33 pages.
Reprint: www.lsc.usgs.gov
Notes: Article//Electronic

03-057//FH

Cipriano RC. 2001. *Aeromonas Hydrophila* and motile aeromonad septicemias of fish. U.S. Fish and Wildlife Service, Fish Disease Leaflet 68:24 pages.
Reprint: www.lsc.usgs.gov
Notes: Article//Electronic

03-058//RT

Hammarstrom JM, Sibrell PL, Belkin HE. 2003. Characterization of limestone reacted with acid-mine drainage in a pulsed limestone bed treatment system at the Friendship Hill National historical site, Pennsylvania, USA. Applied Geochemistry 18:1705-21.
Notes: Article

03-059//RT

Ebeling JM, Sibrell PL, Ogden SR, Summerfelt ST. 2003. Evaluation of chemical coagulation-flocculation aids for the removal of suspended solids and phosphorus from intensive recirculating aquaculture effluent discharge. *Aquacultural Engineering* 29(1):23-42.
Notes: Article

03-060//RT

Adler PR, Sibrell PL. 2003. Sequestration of phosphorus by acid mine drainage floc. *Journal of Environmental Quality* 32():1122-9.
Notes: Article

03-061//AE

Eackles MS, King TL. 2002. Isolation and characterization of microsatellite loci in *Lampsilis abrupta* (Bivalvia: Unionidae) and cross-species amplification within the genus. *Molecular Ecology Notes* 2():559-62.
Notes: Article

03-062//AE

Henderson-Arzapalo A, King TL. 2002. Novel microsatellite markers for Atlantic sturgeon (*Acipenser oxyrinchus*) population delineation and broodstock management. *Molecular Ecology Notes* 2():437-9.
Notes: Article

03-063//AE

Julian SE, King TL. 2003. Novel tetranucleotide microsatellite DNA markers for the wood frog, *Rana sylvatica*. *Molecular Ecology Notes* 3():256-8.
Notes: Article

03-064//AE

Julian SE, King TL, Savage WK. 2003. Novel Jefferson salamander, *Ambystoma jeffersonianum*, microsatellite DNA markers detect population structure and hybrid complexes. *Molecular Ecology Notes* 3(1):95-7.
Notes: Article

03-065//AE

Spidle AP, Kalinowski ST, Lubinski BA, Perkins DL, Beland KF, Kocik JF, King TL. 2003. Population structure of Atlantic salmon in Maine with reference to populations from Atlantic Canada. *Transactions of the American Fisheries Society* 132(2):196-209.
Notes: Article

03-066//SAL//AE

Boersen MR, Clark JD, King TL. 2003. Estimating black bear population density and genetic diversity at Tensas River, Louisiana using microsatellite DNA markers. *Wildlife Society Bulletin* 31(1):197-207_
Notes: Article

03-067//AE

Castleberry SB, King TL, Wood PB, Ford WM. 2002. Microsatellite DNA analysis of populations structure in Allegheny woodrats (*Neotoma magister*). *Journal of Mammalogy* 83(4):1058-70.
Notes: Article

03-068//FH

Bebak-Williams J, McAllister PE. 2002. Effects of fish density and number of infectious fish on the survival of rainbow trout fry, *Oncorhynchus mykiss* (Walbaum), during epidemics of infectious pancreatic necrosis. *Journal of Fish Diseases* 25(12):715-26.
Notes: Article

03-069//FH

Rhodes MW, Kator H, Kotob S, van Berkum P, Kaattari I, Vogelbein W., Quinn F, Floyd MMBWR, Ottinger CA. 2003. *Mycobacterium shottsii* sp. nov., a slowly growing species isolated from Chesapeake Bay striped bass (*Morone saxatilis*). *International Journal of Systematic and Evolutionary Microbiology* 53():421-4.
Notes: Article

03-070//TF

Henderson JN, Letcher BH. 2003. Predation on stocked Atlantic salmon (*Salmo salar*) fry . *Canadian Journal of Fisheries and Aquatic Sciences* 60(1):32-42.
Notes: Article

03-071//AE

Wirgin I, Waldman J, Stabile J, Lubinski B, King T. 2002. Comparison of mitochondrial DNA control region sequence and microsatellite DNA analyses in estimating population structure and gene flow rates in Atlantic sturgeon *Acipenser oxyrinchus*. *Journal of Applied Ichthyology* 18:313-9.
Notes: Article

03-072//RT

Watten BJ, Summerfelt ST. 2003. Preface 2001 Aquacultural Engineering Society Issues Forum, November 11-14, 2001, in Shepherdstown, West Virginia, USA. *Aquacultural Engineering* 28(1):1-2.
Notes: Article

03-073//FH

Kiryu Y, Shields JD, Vogelbein WK, Kator H, Blazer VS. 2003. Infectivity and pathogenicity of the oomycete *Aphanomyces invadans* in Atlantic menhaden *Brevoortia tyrannus*. *Diseases of Aquatic Organisms* 54(2):135-46.
Notes: Article

03-074//TF

Kynard B, Kieffer M. 2002. Use of a borescope to determine the sex and egg maturity stage of sturgeons and the effect of borescope use on reproductive structures. *Journal of Applied Ichthyology* 18():505-8.
Notes: Article

03-075//TF

Carlson SM, Letcher BH. 2003. Variation in brook and brown trout survival within and among seasons, species, and age classes. *Journal of Fish Biology* 63(3):780-94.
Notes: Article

03-076//SAL

Post LS, Schlarbaum SE, van Manen F, Cecich RA, Saxton AM, Schneider JF. 2003. Development of hardwood seed zones for Tennessee using a Geographic Information System`. *Southern Journal of Applied Forestry* 27(3):172-5.

Notes: Article

03-077/TF

Haro A, Castro-Santos T, Whalen K, Wipplehauser G, McLaughlin L. 2003. Simulated effects of hydroelectric project regulation on mortality of American eels. in: Dixon DA, editor. American Fisheries Society Symposium 33; 2000 Aug 21-2000 Aug 22; St. Louis, Missouri. Bethesda, Maryland: American Fisheries Society.

Notes: Conference Paper

03-078/FH

Iwanowicz LR, Densmore CL, Ottinger CA. 2003. Calcein AM release-base cytotoxic cell assay for fish leukocytes. in. 2003 Meeting of the American Fisheries Society Fish Health Section and 44th Western Fish Disease Workshop; 2003 Jul 14-2003 Jul 17; Seattle, Washington.

Notes: Abstract

03-079/FH

Ottinger CA. 2003. Mycobacteriosis and Chesapeake Bay striped bass: an integrated cooperative research program. in. 2003 Meeting of the American Fisheries Society Fish Health Section and 44th Western Fish Disease Workshop; 2003 Jul 14-2003 Jul 17; Seattle, Washington.

Notes: Abstract

03-080/FH

Vogelbein W, Gauthier D, Densmore C, Rhodes M, Blazer V, Kator H, Baya A, Ottinger CA. 2003. Mycobacteriosis in striped bass (*Morone saxatilis*) from Chesapeake Bay: Fall 2002 survey results. in. 2003 Meeting of the American Fisheries Society Fish Health Section and 44th Western Fish Disease Workshop; 2003 Jul 14-2003 Jul 17; Seattle, Washington.

Notes: Abstract

03-081/FH

Rhodes MW, Kator H, Kaattari I, Gauthier D, Vogelbein W, Ottinger C. 2003. Isolation and characterization of *Mycobacterium* spp. from striped bass, *Morone saxatilis*, from the Chesapeake Bay. in. Abstracts: 103rd General Meeting of the American Society for Microbiology; 2003 May 18-2003 May 22.

Notes: Abstract

03-082/AE

[Anonymous]. 2003 Strayer DL, Smith DR. A Guide to Sampling Freshwater Mussel Populations. Bethesda, Maryland: American Fisheries Society. American Fisheries Society Monograph; 8).

Notes: Book

03-083/FH/

Densmore C, McAllister P, Blazer V, Ottinger C. 2003. Susceptibility of *Myxobolus cerebralis* infected rainbow trout to two salmonid pathogens: infectious pancreatic necrosis virus and *Yersinia ruckeri*. in. Proceedings 9th Whirling Disease Symposium "Managing the Risk"; 2003 Feb 6-2003 Feb 7; Bell Harbor Conference Center.

Notes: Abstract

03-084/FH

Kiryu Y, Blazer V, Baumann PC. 2003. Histopathology of feral brown bullhead, *Ameiurus nebulosus*, from Cape

Cod, Massachusetts, USA. in. 2003 Meeting of the American Fisheries Society Fish Health Section and 44th Western Fish Disease Workshop; 2003 Jul 14-2003 Jul 17; Seattle, Washington.
Notes: Abstract

03-085//FH

Burge EJ, Gauthier DT, Ottinger CA, Van Veld PA. 2003. The natural resistance-associated macrophage protein (*Nramp*) in striped bass (*Morone saxatilis*): sequence analysis, tissue expression, and induction by mycobacterial infection. in. Aquatic Animal Models of Human Disease Conference; 1929 Sep 2-2003 Oct 2; University of Miami, Florida. National Center for Research Resources of NIH//American Type Culture Collection.
Notes: Abstract

03-086//RT

Sibrell PL, Watten BJ. 2003. Evaluation of sludge produced by limestone neutralization of AMD at the Friendship Hill National Historic Site. in. Joint Conference of the 9th Billings Land Reclamation Symposium and the 20th Annual Meeting of American Society of Mining and Reclamation; 2003 Jun 3-2003 Jun 6; Billings, Montana.
Notes: Conference Paper

03-087//RT

Sibrell PL, Watten B, Boone T. 2003. Remediation of acid mine drainage at the Friendship Hill National Historical site with a pulsed limestone bed process. in. Hydrometallurgy 2003 - Fifth International Conference in Honor of Professor Ian Ritchie - Volume 2: Electrometallurgy and Environmental Hydrometallurgy; 2003 Aug 24-2003 Aug 27; Vancouver, Canada.
Notes: Conference Paper

03-088//NF//AE

Ross RM, Bennett RM, Snyder CD, Young JA, Smith DR, Lemarie DP. 2003. Influence of eastern hemlock (*Tsuga canadensis* L.) on fish community structure and function in headwater streams of the Delaware River basin. Ecology of Freshwater Fish 12(1):60-5.
Notes: Article

03-089//NF

Bennett RM, Ross RM, Lellis WA, Redell LA. 2003. Terrestrial salamander preference for artificial cover objects made from four species of wood. Journal of the Pennsylvania Academy of Science 76(2/3):77-9.
Notes: Article

03-090//NF

Campbell CA, Ross RM, Bennett RM. 2003. Habitat suitability under varying flow regimes and subsequent risks to brook trout in Pennsylvania streams. In. Abstracts: 133rd Annual Meeting//Worldwide Decline of Wild Fish Populations//American Fisheries Society; 2003 Aug 10-2003 Aug 14; Quebec City, Quebec.
Notes: Abstract

03-091//FH

Shivappa RB, McAllister PE, Santi N, Evensen O, Vakharia VN. 2003. Development of a subunit vaccine for infectious pancreatic necrosis virus using a baculovirus insect/larvae system. In. 3rd International Symposium on Fish Vaccinology Programme and Abstracts; 2003 Apr 9-2003 Apr 11; Bergen, Norway.
Notes: Abstract

03-092//RT

Watten B, Summerfelt S, editors. 2003. Special Issue 2001 Aquacultural Engineering Society Issues Forum Aquacultural Engineering; Volume 28 Issue 1/2).
Notes: Editors

03-093//FH

McAllister PE. 2003. Virulence assessments of isolates of Infectious Pancreatic Necrosis (IPNV) endemic and exotic to the Great Lakes Basin. in. Minutes of the 2003 Annual Meeting of the Great Lakes Fish Health Committee; 2003 Feb 25-2003 Feb 27; South Bend, Indiana.
Notes: Abstract

03-094//FH

McAllister PE. 2003. Epizootic Epitheliotropic Disease (EED): Detection and identification of the causative virus (EEDV) . in. Minutes of the 2003 Annual Meeting of the Great Lakes Fish Health Committee; 2003 Feb 25-2003 Feb 27; South Bend, Indiana.
Notes: Abstract

03-095//NF

Fitzsimons JD, Jonas J, Claramunt R, Marsden E, Ellrott B, Williston B, O'Neil P, Honeyfield D. 2003. A method for assessing the effects of physical disturbance and egg predation on lake trout egg mortality. In. Abstracts: 133rd Annual Meeting//Worldwide Decline of Wild Fish Populations//American Fisheries Society; 2003 Aug 10-2003 Aug 14; Quebec City, Quebec.
Notes: Abstract

03-096//NF

Ketola HG, VanDusen PJ, Lewis GE, Chiotti TL, Fitzsimons JD, Honeyfield DC. 2003. Thiamine influences spawning migration capability and reproduction of rainbow trout in Cayuga Inlet (Ithaca, New York). In. Abstracts: 133rd Annual Meeting//Worldwide Decline of Wild Fish Populations//American Fisheries Society; 2003 Aug 10-2003 Aug 14; Quebec City, Quebec.
Notes: Abstract

03-097//NF

Campbell CA. 2003. The NBII Fisheries and Aquatic Resources (Far) Node: An Information System to Aid Conservation and Restoration. In. Abstracts: 133rd Annual Meeting//Worldwide Decline of Wild Fish Populations//American Fisheries Society; 2003 Aug 10-2003 Aug 14; Quebec City, Quebec.
Notes: Abstract

03-098//FH

Cipriano RC, Shchelkunov IS, editors. 2003. 2003 Second Bilateral Conference United States - Russia: Aquatic & Marine Animal Health. Shepherdstown, West Virginia: United States Department of the Interior, U. S. Geological Survey, National Fish Health Research Laboratory//All-Russian Research Institute of Freshwater Fisheries-Laboratory of Ichthyopathology .
Notes: Book

03-099//SAL

Clark JD, Huber D, Servheen C. 2002. Bear reintroductions: lessons and challenges. Ursus 13:335-45.
Notes: Article

03-100//SAL

Csiki I, Lam C, Key A, Coulter E, Clark JD, Pace RMI, Smith KG, Rhoads DD. 2003. Genetic variation in black bears in Arkansas and Louisiana using microsatellite DNA markers. *Journal of Mammalogy* 84(2):691-701.
Notes: Article

03-101//AE

Nelson RG, Vellella RF, Smith DR. 2003. Double sampling to estimate density and distribution of rare freshwater mussel populations in a large free flowing river. 3rd Biennial Symposium Freshwater Mollusk Conservation Society//Connections...A Focus on Habitat Conservation//; 2003 Mar 16-2003 Mar 19; Sheraton Imperial Hotel. Durham, North Carolina.
Notes: Abstract

03-102//AE

Morrison CL, Eackles MS, King TL. 2003. Phylogeography of the dwarf wedge mussel, *Alasmidonta heterodon* (Unionidae). 3rd Biennial Symposium Freshwater Mollusk Conservation Society//Connections...A Focus on Habitat Conservation//; 2003 Mar 16-2003 Mar 19; Sheraton Imperial Hotel. Durham, North Carolina.
Notes: Abstract

03-103//FH

Starliper C, Neves R, Henley WF, Hanlon SD. 2003. Development of expected, normal bacterial flora databases (from selected unionids) and their use to identify disease causing agents. 3rd Biennial Symposium Freshwater Mollusk Conservation Society//Connections...A Focus on Habitat Conservation//; 2003 Mar 16-2003 Mar 19; Sheraton Imperial Hotel. Durham, North Carolina.
Notes: Abstract

03-104//FH

Cipriano RC. 2003. Atlantic salmon restoration in New England: significance of certain diseases. in. Second Bilateral Conference 2003 United States - Russian//Aquatic & Marine Animal Health; 2003 Sep 21-2003 Sep 28; Clarion Inn and Conference Center. Shepherdstown, West Virginia: Department of the Interior, U. S. Geological Survey, National Fish Health Research Laboratory//All Russian Research Institute of Freshwater Fisheries, Laboratory of Ichthyopathology.
Notes: Abstract

03-105//FH

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