

DOUGLAS E. FACEY

Department of Biology, Saint Michael's College
One Winooski Park, Colchester, VT 05439
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Current Position: Professor of Biology, Executive Director of the Lake Champlain Research Consortium

Teaching Interests: Human and Comparative Physiology, Biology of Exercise, Ichthyology, General Biology, scientific writing, interdisciplinary environmental courses

Research Interests: fish community diversity and stability; physiological indicators of environmental stress in fishes; indicators of water quality

Education:

B.S. in Biology, 1976. University of Maine-Orono

M.S. in Zoology, 1980. University of Vermont

Thesis title: Food habits, age and growth, and sex ratio of American eels in Lake Champlain, Vermont. Major professor: George W. LaBar

Ph.D. in Zoology, 1987. University of Georgia

Dissertation title: Metabolic constraints and microhabitat selection in four North American stream fishes. Major professors: Gary D. Grossman and Gene S. Helfman

Awards and Honors:

Danforth Leadership Training Scholarship (1974); Alpha Zeta Honor Society; Graduated University of Maine-Orono with Highest Honors and Highest Distinction; TIE (The Institute of Ecology) Ecological Internship (1980-81); University-wide Fellowship, University of Georgia; Honorable mention in Student Paper Award competition, 116th Annual Meeting of the American Fisheries Society (1986); Philomathean Man of the Year, Erskine College (1990); Class of 1995 Appreciation Award, Saint Michael's College (1995)

Professional Affiliations:

American Fisheries Society; American Institute of Biological Sciences; Lake Champlain Research Consortium; Sigma Xi Scientific Research Society

Teaching Experience:

Professor of Biology, Saint Michael's College; 2002 - present. Associate Professor 1996-2002, Assistant Professor 1990-1996. Teach or have taught courses in Animal Physiology, Aquatic Biology, Biology of Exercise, Ichthyology (summer), Biological Reading and Writing, General Biology, Sustainable Development, Field Biology, Environmental Science, Environmental Science and Policy, Comparative Vertebrate Anatomy

Visiting Instructor, Bamfield Marine Station; Summer 2001. Taught a 6-week field course on the Biology of Fishes at the Bamfield Marine Station on Vancouver Island, British Columbia. The Bamfield Marine Station is run by a consortium of five western Canadian Universities: the University of British Columbia, University of Victoria, Simon Fraser University, University of Calgary, and University of Alberta.

Assistant Professor of Biology, Erskine College; September 1987 - May 1990. Taught courses in Biological Concepts, Ecology, Environmental Science, Comparative Vertebrate Anatomy, Human and Comparative Physiology, Life Sciences for Elementary School Teachers, Invertebrate Zoology, Vertebrate Zoology, Environmental Ethics

Ichthyology Instructor, Lake Champlain Summer Institute, University of Vermont, Summer 1989, 1990, 1991 - one day segment ("The Fishes of Lake Champlain") of a two week course on the Geology and Ecology of Lake Champlain
 Instructor, Jamestown College, 1981 - Animal Physiology

Other Professional Experience:

Research on food web interactions among fishes in Missisquoi Bay. 2005 - present.
 Evaluation of the status of rare and endangered fishes in Vermont, 1992 – present
 Surveys of stream fishes in the Lake Champlain Basin of Vermont, 1989, 1991 - present
 Evaluation of physiological indicators of environmental stress in Lake Champlain fishes, 1992 – 1999
 Aquatic/Riparian ecologist, The Institute of Ecology on contract with the U.S. Fish and Wildlife Service, Northern Prairie Wildlife Research Center, Jamestown, North Dakota (1980-1981)
 Fisheries technician, University of Vermont, School of Natural Resources (1979-1980)
 Special project assistant, Atlantic Sea-Run Salmon Commission, Bangor, Maine (1975, 1976)

Grants and Contracts:

Survey of Fishes of the large Lake Champlain Tributaries in Vermont. \$25,000 from the Vermont Fish and Wildlife Department for research 2007-2009.
 Preparation of management plans for eastern sand darter and channel darter in Vermont. \$4000 from the Vermont Fish and Wildlife Department, spring 2002.
 Habitat utilization by eastern sand darters (*Ammocrypta pellucida*) in the Poultney River, VT and NY. \$6000 from The Nature Conservancy for work during the summer of 2001.
 Water Quality monitoring of Indian Brook Reservoir, Essex, VT. \$4400 from town of Essex for work during the summer of 2000.
 Fish surveys of the Ethan Allen Firing Range and Camp Johnson. \$8499 from the Army National Guard, Camp Johnson, Colchester, VT. For work during the summer of 1999.
 Do Lake Champlain fishes show evidence of disrupted gonadal development, diminished fecundity, or decreased egg size as a result of exposure to environmental contaminants? Unsuccessful pre-proposal to EPA-EPSCoR. 1997
 Biomarkers of exposure to contaminated sediments from inner Burlington Harbor, Lake Champlain. \$5420.50 from Vermont EPSCoR (includes \$1350 Faculty Development Grant as match for EPSCoR funding). Spring 1996 - Spring 1997
 Bringing Lake Champlain into the classroom. Unsuccessful proposal to NYNEX for \$31,777 to acquire computer equipment and develop WWW site focusing on Lake Champlain. Co-written with Megan Laslocky and Ken Rosenblad. 1996
 Curriculum Development Grant. \$1500 for the development of a new interdisciplinary course, "The Environment: explorations in science and policy". 1994
 Biological indicators of sediment contamination in Lake Champlain. \$39,936 (\$12,875 from the U.S. Geological Survey via the Vermont Water Resources and Lake Studies Center. Partially matched by St. Michael's College Faculty Research Grant of \$1600.) 1992-94
 Species status studies for American brook lamprey (*Lampetra appendix*), Northern brook lamprey (*Ichthyomyzon fossor*), and Eastern sand darter (*Ammocrypta pellucida*). \$8000 in contracts awarded by The Nature Conservancy for work from 1992 through 1995.
 Survey of fishes of Halnon Brook, Salisbury, VT. \$325 from the Addison County Solid Waste District for a site study. Summer, 1991
 A survey of the fishes of the Lake Champlain basin of Vermont. St. Michael's College Faculty Research Grant, \$1635. 1991

A survey of the fishes of Vermont waters of the southern Lake Champlain basin. \$11,805 from the Vermont Agency of Natural Resources. 1989

Publications:

- Haynes, T.B., E. Phillips-Mentzos, and D. E. Facey. Comparing the hyposaline tolerance of two intertidal fish species: The black prickleback (*Xiphister atropurpureus*) and the penpoint gunnel (*Apodichthys flavidus*). Northwest Science. (publication probably in late 2009 or 2010)
- O'Brien, Shannon M., and Douglas E. Facey. accepted. Habitat Use by the Eastern Sand Darter (*Ammocrypta pellucida*) in Two Lake Champlain Tributaries. Canadian Field-Naturalist (publication probably in late 2009)
- Helfman, G. S., B. B. Collette, D. E. Facey, and B. W. Bowen. 2009. The Diversity of Fishes, 2nd edition: Biology, Evolution, and Ecology. Wiley-Blackwell. (I wrote and revised three chapters on fish physiology for this second edition of an ichthyology textbook.)
- White, J. D., and D. E. Facey. 2009. Diet overlap between native yellow perch (*Perca flavescens*) and invasive white perch (*Morone americana*) in Missisquoi Bay, Lake Champlain, Vermont. Proceedings of the 30th Congress of the International Association of Theoretical and Applied Limnology. Montreal, Quebec. August 2007.
- Facey, D. E., V. S. Blazer, M. M. Gasper, and C. L. Turcotte. 2005. Using Fish Biomarkers to Monitor Improvements in Environmental Quality. Journal of Aquatic Animal Health 17: 263-266.
- Facey, D. E. 2005. The effect of juvenile hormone on metamorphosis of the mealworm beetle (*Tenebrio molitor*). Pages 223-230 in D.U. Silverthorn, B. R. Johnson, and A. C. Mills, editors. Laboratory Manual for Physiology. Benjamin Cummings publishers. San Francisco, CA.
- Facey, D. E., and S. M. O'Brien. 2004. Influence of sediment size and substrate composition on habitat selection and distribution of eastern sand darters (*Ammocrypta pellucida*) in the Poultney River. Pages 291-298 in T. Manley, P. Manley, and T. Mihuc, editors. Lake Champlain: Partnerships and Research in the New Millennium. Kluwer Academic Press.
- Facey, D. E., C. Leclerc, D. Dunbar, D. Arruda, L. Pyzocha, and V. Blazer. 1999. Physiological indicators of stress among fishes from contaminated areas of Lake Champlain. Pages 349-359 in T. O. Manley and P. L. Manley, eds. Lake Champlain in Transition: from Research toward Restoration. Water Science and Application 1. American Geophysical Union, Washington, DC.
- Facey, D. E. 1998. Status of the Eastern sand darter (*Ammocrypta pellucida*) in Vermont. Canadian Field-Naturalist 112: 596-601.
- Facey, D. E., C. Leclerc, D. Dunbar, D. Arruda, and V. Blazer. 1998. (abstract) Physiological indicators of stress among fishes exposed to contaminated sediments from Lake Champlain. Pages 83 – 88 in T. Barry, B. Barton, and D. MacKinlay, eds. Stress in Fish Symposium Proceedings. Proceedings of the July 1998 International Congress on the Biology of Fish.
- Helfman, G. S., B. B. Collette, and D. E. Facey. 1997. The Diversity of Fishes. Blackwell Science, Inc. 528 pp. (I wrote three chapters on fish physiology for this ichthyology textbook.)
- Blazer, V. S., D. E. Facey, J. W. Fournie, L. A. Courtney, and J. E. Summers. 1994. Macrophage aggregates as indicators of environmental stress. pages 169-185 in *Modulators of Fish Immune Responses, Vol. 1*. J. S. Stolon and T. C. Fletcher, editors. SOS Publications, Fair Haven, N.J.
- Facey, D. E., and G. D. Grossman. 1992. The relationship between water velocity, energetic

- costs and microhabitat use in four North American stream fishes. *Hydrobiologia* 239: 1-6.
- Facey, D. E., and G. D. Grossman. 1990. The metabolic cost of maintaining position for four North American stream fishes: effects of season and velocity. *Physiological Zoology* 63: 757-776.
- Nickerson, D. M., D. E. Facey, and G. D. Grossman. 1989. Estimating physiological thresholds using two-phase segmented regression. *Physiological Zoology* 62: 866-887.
- Freeman, M. C., M. K. Crawford, J. C. Barrett, D. E. Facey, M. G. Flood, J. Hill, D. J. Stouder, and G. D. Grossman. 1988. Fish assemblage stability in a southern Appalachian stream. *Canadian Journal of Fisheries and Aquatic Sciences* 45: 1949-1958.
- Helfman, G. S., D. E. Facey, L. S. Hales, and E. L. Bozeman. 1987. Reproductive ecology of the American eel. *American Fisheries Society Symposium* 1: 42-56.
- Facey, D. E., and G. S. Helfman. 1985. Reproductive migrations of American eels in Georgia. *Proc. 39th Ann. Conf. of the Southeastern Assoc. Fish and Wildlife Agencies* 39: 132-138.
- Krapu, G. L., B. Gehring, D. E. Facey, and M. I. Meyer. 1985. A resource inventory of sandhill crane staging areas in Nebraska. pages 364-370 in J. C. Lewis (ed.) *Proc. 1985 Crane Workshop*. Platte River Whooping Crane Trust. Grand Island, Nebraska.
- Krapu, G. L., D. E. Facey, E. K. Fritzell, and D. H. Johnson. 1984. Habitat use by migrant sandhill cranes in Nebraska. *Journal of Wildlife Management* 48: 407-417.
- LaBar, G. W., and D. E. Facey. 1983. Local movements of American eels (*Anguilla rostrata* LeSueur) in Lake Champlain, Vermont, with notes on estimated population size. *Transactions of the American Fisheries Society* 112: 111-116.
- Facey, D. E., and G. W. LaBar. 1982. Food habits, age and growth, and sex ratio of American eels in Vermont waters of Lake Champlain. p. 73 in K. H. Loftus (ed.), *Proceedings of the 1980 North American Eel Conference*. Ontario Fisheries Technical Series No. 4. Ontario Ministry of Natural Resources, Fisheries Branch, Toronto, Ontario.
- Facey, D. E., and G. W. LaBar. 1981. Biology of American eels in Lake Champlain, Vermont. *Transactions of the American Fisheries Society* 110: 396-402.
- LaBar, G. W., and D. E. Facey. 1980. Lake Champlain eels: Ecology and economics. pages 126-137 in *Proceedings of the Seventh Annual Lake Champlain Basin Conference*.
- Facey, D. E., J. D. McCleave, and G. E. Doyon. 1977. Responses of Atlantic salmon parr to output of pulsed ultrasonic transmitters. *Transactions of the American Fisheries Society* 106: 489-496.

Reports:

- Facey, D. E., and S. M. O'Brien. 2002. Management plan for the Eastern Sand Darter (*Ammocrypta pellucida*) in Vermont. Report for the State of Vermont Department of Fish and Wildlife.
- O'Brien, S. M., and D. E. Facey. 2002. Management plan for the Channel Darter (*Percina copelandi*) in Vermont. Report for the State of Vermont Department of Fish and Wildlife.
- Facey, D. E. and S. M. O'Brien. 2002. Influence of Sediment Size and Substrate Composition on Habitat Selection and Distribution of Eastern Sand Darters (*Ammocrypta pellucida*) in the Poultney River. Report to The Nature Conservancy's Southern Lake Champlain Office, West Haven, Vermont. March 2002.
- Facey, D. E. 2000. Indian Brook Reservoir Water Monitoring Project, Summer 2000. Contract work done for the town of Essex, VT.
- Facey, D. E. 1999. Results of Fish Surveys of the Ethan Allen Firing Range and Camp Johnson During Summer 1999. Report to the Army National Guard, Camp Johnson, Colchester VT.
- Facey, D. E. 1996. Final report of the citizen's advisory committee on commercial fishing in

- Vermont. Report to the Vermont Department of Fish and Wildlife and the Vermont State Legislature Committee on Fish, Wildlife, and Water Resources. January 1996.
- Facey, D. E., and J. E. Gersmehl. 1995. Status of the Northern brook lamprey (*Ichthyomyzon fossor*) in Vermont. Report to The Nature Conservancy and the Vermont Nongame and Natural Heritage Program of the Vermont Department of Fish and Wildlife. December 1995.
- Facey, D. E., and J. E. Gersmehl. 1995. Status of the American brook lamprey (*Lampetra appendix*) in Vermont. Report to The Nature Conservancy and the Vermont Nongame and Natural Heritage Program of the Vermont Department of Fish and Wildlife. December 1995.
- Facey, D. E. 1995. Status of the Eastern sand darter (*Ammocrypta pellucida*) in Vermont. Report to The Nature Conservancy and the Vermont Nongame and Natural Heritage Program of the Vermont Department of Fish and Wildlife. August 1995.
- Facey, D. E. 1991. Summary of fish survey of Halnon Brook. A report to the Addison County Solid Waste Management District, Middlebury, VT. 3 pp.
- Facey, D. E. 1991. Survey of fishes of the Lake Champlain Basin - 1991. A report to the Vermont Nongame and Natural Heritage Program, Department of Fish and Wildlife. Waterbury, VT. 18 pp.
- Facey, D. E., and G. W. LaBar. 1989. A survey of the fishes of Vermont waters of the southern Lake Champlain basin. Vermont Department of Fish and Wildlife, Nongame and Endangered Species Program. Waterbury, VT.
- Facey, D. E., and M. J. Van den Avyle. 1987. Species Profiles: Life histories and environmental requirements of coastal fishes and invertebrates (North Atlantic) --American eel. U.S. Fish and Wildlife Service. Biological Report 82(11). U.S. Army Corps of Engineers, TR EL-82-4. 28 pp.
- Facey, D. E., and M. J. Van den Avyle. 1985. Species Profiles: Life histories and environmental requirements of coastal fishes and invertebrates (South Atlantic) American Shad. U.S. Fish and Wildlife Service. Biological Report 82(11). U.S. Army Corps of Engineers, TR EL-82-4. 18 pp.
- The Platte River Ecology Study. Special Research Report. U. S. Fish and Wildlife Service, Northern Prairie Wildlife Research Center, Jamestown, North Dakota. June 1981. 187 p.

Research presentations:

- White, J. D., and D. E. Facey. 2008. Diet Overlap Between Native Yellow Perch and Invasive White Perch in Lake Champlain, Vermont, U.S.A. Poster presented at 138th Annual Meeting of the American Fisheries Society. August 2008. Ottawa, Ontario, Canada.
- White, J. D., and D. E. Facey. 2008. Diet overlap between native yellow perch (*Perca flavescens*) and invasive white perch (*Morone americana*) in two major Lake Champlain tributaries, Vermont. Poster presented at *Lake Champlain: Our Lake, Our Future* conference, January, 2008. Burlington, VT.
- White, J. D., and D. E. Facey. 2007. Diet overlap between native yellow perch (*Perca flavescens*) and invasive white perch (*Morone americana*) in Missisquoi Bay, Lake Champlain, Vermont. Presented at the 30th Congress of the International Association of Theoretical and Applied Limnology. Montreal, Quebec. August 2007.
- Gulka, A., L. Courtney, and D. Facey. 2006. Dietary overlap between invasive white perch and three native fishes in Missisquoi Bay. Poster presentation at annual meeting of American Fisheries Society in Lake Placid, NY, September 2006. Received "Best Student Poster" award.

- Facey, D. E., A. Gulka, and L. Courtney. 2005. Update on research investigating the diets of common fishes in Missisquoi Bay. PRIME research update meeting, September 2005.
- Facey, D. E., and S. M. O'Brien. 2003. Characteristics of channel darter habitat in the Winooski River, Vermont. A poster presentation at the 2003 annual meeting of the American Fisheries Society. August 2003, Quebec City, Quebec.
- O'Brien, S. M. and D. E. Facey. 2003. Habitat Use and Substrate Preference of Eastern Sand Darters in Vermont. An oral presentation at the 2003 annual meeting of the American Fisheries Society. August 2003, Quebec City, Quebec.
- Facey, D. E. and S. M. O'Brien. 2002. Influence of Sediment Size and Substrate Composition on Habitat Selection and Distribution of Eastern Sand Darters (*Ammocrypta pellucida*) in the Poultney River. Presented at the May 2002 Spring Symposium of the Lake Champlain Research Consortium. St. Jean-sur-Richelieu, Quebec.
- O'Brien, S. M., and D. E. Facey. 2002. Influence of Sediment Size and Substrate Composition on Habitat Selection and Distribution of Eastern Sand Darters (*Ammocrypta pellucida*) in the Poultney River. Presented at the April 2002 Northeast Natural History Conference, Albany, NY.
- Facey, D. E., C. Leclerc, M. Gasper, and V. Blazer. 2000. Using fish biomarkers to monitor improvements in environmental quality in inner Burlington Harbor, Lake Champlain, Vermont. Presented at the May 2000 annual meeting of the International Association of Great Lakes Research. Cornwall, Ontario, Canada.
- Facey, D. E., C. Leclerc, D. Dunbar, D. Arruda, and V. Blazer. 1998. Physiological indicators of stress among fishes exposed to contaminated sediments from Lake Champlain. Presented at the July 1998 International Congress on the Biology of Fish. Baltimore, Maryland.
- Facey, D. E. 1998. Using Web Site Construction for Active Learning in Comparative Animal Physiology. Presented at NSF sponsored workshop - Engaging Students as Active Learners in the Sciences, Norwich University, June 1998.
- Facey, D. E., C. Leclerc, D. Dunbar, D. Arruda, L. Pyzocha, and V. Blazer. 1998. Physiological indicators of stress among fishes from contaminated areas of Lake Champlain. Presented at the May 1998 symposium of the Lake Champlain Research Consortium.
- Facey, D. E. 1998. Status of the eastern sand darter (*Ammocrypta pellucida*) in Vermont. Poster presented at the May 1998 symposium of the Lake Champlain Research Consortium.
- Kujawa, R. S., and D.E. Facey. 1997. Commercial fishing in Vermont: a science and policy conundrum. Presented at the 53rd Annual Northeast Fish and Wildlife Conference. Framingham, MA. April 1997.
- Facey, D. E. 1995. Status of the Eastern sand darter (*Ammocrypta pellucida*) in Vermont. 1995. Annual meeting of the Atlantic International Chapter of the American Fisheries Society. Shelburne, NH. September, 1995.
- Facey, D. E., V. S. Blazer, and C. Leclerc. 1994. Evaluation of fish macrophage aggregates as indicators of sediment contamination in Lake Champlain. Presented at the 50th Annual Northeast Fish and Wildlife Conference, Burlington, VT. May, 1994.
- Facey, D. E., and V. S. Blazer. 1994. Lake Champlain Toxics: a fish's perspective. Invited speaker at the Lake Champlain Toxics Workshop. St. Michael's College, Colchester, VT. March, 1994.
- Facey, D. E., and V. S. Blazer. 1993. Biological indicators of sediment contamination in Lake Champlain. Presented at the 1993 Annual Meeting of the Vermont Water Resources and Lake Studies Center. Burlington, VT. May, 1993.
- Facey, D., V. Blazer, C. Leclerc, and A. Bell. 1993. Macrophage aggregates as indicators of exposure to contaminated sediments in Lake Champlain. Presented at the 1993 Annual

Meeting of the Fish Health Section of the American Fisheries Society. Denver, CO. July 1993.

Facey, D. E., G. D. Grossman, and G. S. Helfman. 1987. Is the cost of holding position important in microhabitat selection by stream fishes? 48th Annual Meeting of the Association of Southeastern Biologists. Athens, GA.

Facey, D. E., G. D. Grossman, and G. S. Helfman. 1986. Seasonal comparisons of oxygen consumption of four stream fishes at different water velocities. 116th Annual Meeting of the American Fisheries Society. Providence, RI.

Facey, D. E., and G. S. Helfman. 1985. Reproductive migrations of American eels in Georgia. 39th Annual Conference of the Southeastern Association of Fish and Wildlife Agencies. Lexington, KY.

Facey, D. E., and G. W. LaBar. 1980. Food habits, age and growth, and sex ratio of American eels in Lake Champlain, Vermont. North American Eel Conference. Toronto, Ontario.

Manuscripts in progress:

Helfman, G. S., B. B. Collette, and D. E. Facey. The Diversity of Fishes, second edition. Blackwell Science, Inc. I wrote three chapters on fish physiology for this ichthyology textbook, first published in 1997, and am currently making revisions for the second edition.

O'Brien, S. M., and D. E. Facey. Habitat Use by Eastern Sand Darters in Two Lake Champlain Tributaries. Presently under revision prior to submitting to journal.

Ongoing research activities:

Fish community structure in large Lake Champlain tributaries in Vermont

Diet of fishes in Missisquoi Bay – part of an ongoing Food Web analysis

Status and biology of the Eastern sand darter (*Ammocrypta pellucida*) and channel darter (*Percina copelandi*) in Vermont

Fish community structure in the Brown's River, Vermont

Meetings and Workshops attended (since fall of 1995):

Lake Champlain: Our Lake, Our Future, Burlington, VT. (Served as conference organizer and co-host.)

30th Congress of the International Association of Theoretical and Applied Limnology. Montreal, Quebec. August 2007.

American Fisheries Society, 136th annual meeting, Lake Placid, NY. September, 2006.

PRIME (Partnership for Research and Integration in the Missisquoi Ecosystem) research update meeting – September 2005

Ontario Eastern Sand Darter Recovery Team meeting – June 22, 2005

Lake Champlain Research Consortium research priorities meeting. October 2004.

American Fisheries Society, 133rd annual meeting, Quebec City, Quebec. August 10-14, 2003.

Lake Champlain in the New Millennium – 2002 Spring Symposium of the Lake Champlain Research Consortium. St. Jean-sur-Richelieu, Quebec, May 20-23, 2002.

Northeast Natural History Conference, Albany NY, April 2002.

Lake Champlain Biological Indicators Workshop, October 2001

Opening session of Biodiversity Workshop, Bamfield Marine Station, June 2001

LakeNet 2000, June 2000

International Association of Great Lakes Research, May 2000

Annual Meeting of the Lake Champlain Research Consortium and the Adirondack Research Consortium, May 1999

International Congress on the Biology of Fish, July 1998
 Engaging Students as Active Learners in the Sciences, June 1998
 May 1998 Symposium of the Lake Champlain Research Consortium
 53rd Annual Northeast Fish and Wildlife Conference, April 1997
 American Fisheries Society, Atlantic International Chapter annual meeting, 1995
 New England Board of Higher Education Vermont Environmental Internship Program Summer
 Workshops, 1995-1999
 FishBanks Workshop, 1995

Other Professional Activities:

Executive Director, Lake Champlain Research Consortium, July 2005 – present; this position also includes membership on the Lake Champlain Basin Program’s Technical Advisory Committee

Member of ECHO Science Advisory Committee, 2004 to present.

Chair of the Saint Michael's College Biology Department, fall 2002-spring 2005; also acting Department Chair spring 2006

Faculty representative to the Saint Michael’s College Board of Trustees, and member of the Faculty Executive Committee, 2003-04 academic year

Faculty representative to the Saint Michael’s College Board of Trustees Learning Committee, 2001 - 2003

Member of the Lake Champlain Basin Science Center Exhibit Review Committee, 2000-01.

Chair of Board of Directors of the Lake Champlain Research Consortium. 1996 - present

Coordinator of the Environmental Science major at St. Michael's College, 1993 - 1999

Member of St. Michael's College Teaching Resources Committee, 1998-2000

Chair of citizens advisory committee investigating commercial fishing in Vermont, 1995

Guest demonstrator at the Lake Champlain Basin Science Center, 1995 - 1999

Initiated and organized the Lake Champlain Research Consortium Spring Student Symposium - 1993 to present

Academic representative to the Vermont Nongame and Natural Heritage Program Advisory Committee, 1991 - 1994

Peer reviewer for manuscripts submitted for publication to Freshwater Biology (1993); Ecology of Freshwater Fishes (1995); Canadian Journal of Fisheries and Aquatic Research (1997)

Faculty representative to the St. Michael's College Board of Trustees Facilities Committee, 1991-1992

Chair of Education Subcommittee of St. Michael's Committee on Waste Reduction and Recycling, 1992

Participated in Governor's Institute on Science and Technology by introducing groups of high school students to stream fish sampling methods - 1992, 1993

Undergraduate research supervised (since 1990 at Saint Michael's College):

Diet overlap between native yellow perch and invasive white perch in Lake Champlain. Jeff White. 2006, 2007. This research was supported in part by the Saint Michael's College Hartnett endowment and research grants to Jeff from the Lake Champlain Research Consortium.

Diets of common fishes of Missisquoi Bay. Ann Gulka and Leilani Courtney. 2005. Poster is accepted for presentation at annual meeting of the American Fisheries Society, Lake Placid, NY, September 2006.

Habitat use and substrate preference of eastern sand darters in Vermont. Shannon O’Brien.

2001-2003. Papers based on this research were presented at the 2003 annual meeting of the American Fisheries Society (Quebec City, Que.), 2002 Northeast Natural History Conference (Albany, NY), and at the 2002 Lake Champlain Research Consortium Spring Student Symposium. This research was supported in part by two \$500 research grants to Shannon from the Lake Champlain Research Consortium, funding from The Nature Conservancy, and funding from the Clare Boothe Luce Foundation.

A study of the water quality of Crooked Creek, Colchester, VT. Amanda Baril. 2000-2001.

This paper was presented at the 2001 Lake Champlain Research Consortium Spring Student Symposium. This research was supported by a \$500 research grant from the Lake Champlain Research Consortium.

Macrophage aggregates as biological indicators – a comparison of environmental stress in rock bass at two sites in Burlington Harbor. Meredith Gasper. 1999-2000. This paper was presented at the 2000 Lake Champlain Research Consortium Spring Student Symposium. This research was supported by a \$500 research grant from the Lake Champlain Research Consortium.

Water quality in Smith Hollow Stream, Colchester. Emily Scally. 1999-2000. This paper was presented at the 2000 Lake Champlain Research Consortium Spring Student Symposium. This research was supported by a \$500 research grant from the Lake Champlain Research Consortium.

Microhabitat selection of the eastern sand darter (*Ammocrypta pellucida*) regarding substrate particle size. Leah Staniels. 1998-99. This paper was presented at the 1999 Lake Champlain Research Consortium Spring Student Symposium, and also was presented at the May 1999 joint Symposium of the Lake Champlain Research Consortium and the Adirondack Research Council. This research was supported by a \$500 research grant from the Lake Champlain Research Consortium.

Effects of environmental contamination on the reproductive system of rock bass, *Ambloplites rupestris*. Lori A. Pyzocha. 1997-98. This paper was presented at the 1998 Lake Champlain Research Consortium Spring Student Symposium, and also as a poster at the May 1998 Symposium of the Lake Champlain Research Consortium.

The effects of phosphorus loading on algal growth in a freshwater environment. Bradford Waldron. 1997-98. This paper was presented at the 1998 Lake Champlain Research Consortium Spring Student Symposium.

Macrophage aggregates as biological indicators of stress in fallfish (*Semotilus corporalis*) exposed to Burlington Harbor sediment. Joan Shaw. 1996-97. This paper was presented at the 1997 Lake Champlain Research Consortium Spring Student Symposium.

A comparison of rock bass macrophage aggregates between contaminated and reference sites in Lake Champlain. Denise Arruda. 1995-1996. This paper was presented at the 1996 Lake Champlain Research Consortium Spring Student Symposium.

Macrophage aggregates as indicators of environmental stress in rock bass. Diana Dunbar. 1994-1995. This paper was presented at the 1995 Lake Champlain Research Consortium Spring Student Symposium.

Macrophage aggregates as potential fish health and environmental stress monitors. Cynthia Leclerc. 1992-93. This paper was presented at the 1993 Lake Champlain Research Consortium Spring Student Symposium.

Biological indicators of water contamination in the hind kidneys of rock bass (*Ambloplites rupestris*). Andrea Bell. 1992-93. This paper was presented at the 1993 Lake Champlain Research Consortium Spring Student Symposium.

Effects of juvenile hormone on metamorphosis of mealworm beetles (*Tenebrio molitor*).

Martha Way. 1991-92.

Size and condition of white sucker livers as a biological indicator of water quality in four Vermont streams. Chris Ryan. 1991

Effects of water acidification on respiration of blacknose dace (*Rhinichthys atratulus*). Joe Guarnaccia. 1990-91. This paper was presented at the 1991 Vermont Academy of Art and Sciences Annual Meeting.