

EDUCATION

1997 Bachelor of Science (B.Sc.), University of Guelph, Guelph, Ontario – Honours
Specialization in Marine Biology.

PROFESSIONAL EXPERIENCE

June 2003 to present Planning Ecologist, LGL Limited, Cambridge, Ontario

2001 Biologist and Consultant - Vancouver Aquarium Marine Science Centre, Vancouver,
British Columbia

1998 - 2001 Zoologist - Greater Vancouver Zoo, Aldergrove, British Columbia

1997 Biologist - United States Fish and Wildlife Service, Homestead, Florida

1995 - 1997 Biologist and Naturalist – Halton Region Conservation Authority, Campbellville, Ontario

1996 - 1997 Biologist and Naturalist - NEST Inc., Eden Mills, Ontario

1994 - 1996 Biologist and Junior Naturalist Coordinator - The Arboretum, Guelph, Ontario

1991-1994 Biologist – University of Guelph Marine Annex

1990 - 1991 Environmental Technician - Conestoga Rovers and Associates Ltd., Waterloo, Ontario

VOLUNTEER EXPERIENCE

February 2006 to present Ecological and Environmental Advisory Committee, Region of Waterloo

PROFILE

Since joining LGL in June 2003, she has been involved with natural heritage investigations in support of Environmental Assessments for sewer, water and transportation projects, Renewable Energy Projects, Comprehensive Broad Scale Environmental Studies and Environmental Impact Statements. She has participated in benthic and fisheries collections, wildlife monitoring, tree surveys and wildlife habitat assessments for amphibians including Jefferson salamander. She has coordinated one of the largest Jefferson salamander studies to date in the Province and possibly the range of the species, in order to address the requirements of the Endangered Species Act, 2007. Ms. Featherstone's role is to work as the project ecologist/biologist to provide a consolidated view of environmental sensitivities for a project and to work through project issues with the project team and approval agencies. Her experience as project manager and as part of a natural science team includes planning, investigating and preparing environmental impact studies, natural sciences reports, management plans, tree preservation plans and environmental inspection reports, permitting issues, including the determination of environmental constraints, development of monitoring strategies, recommendation of mitigation measures and attendance at public consultation centres for many projects.

PROJECT EXPERIENCE

Environmental Assessments (Highlighted Projects)

- Project Biologist for Burloak Water Purification Plant Class EA and Gore Bay Water Treatment Plant Class EA, involving assessment of fisheries habitats and terrestrial constraints for siting of water treatment plants and intake pipes into Lake Ontario and Lake Huron respectively.
- Project Biologist for Permit to Take Water 16th Avenue Trunk Sewer Phase 2 involving a detailed natural heritage environmental assessment based on secondary information, field investigations, and environmental monitoring of fisheries and terrestrial impacts.
- Project Biologist for Duffins Creek WPCP Upgrade EA, assessing the expansion of the plant.
- Project Biologist for the Oshawa WTP Upgrade and Expansion, involving the assessment of the expansion on the terrestrial and wetland features.
- Project Biologist for the 16th Ave Yong to McCowan Class EA, involving assessing the impacts relating to road improvements.
- Project Biologist for the South Kitchener Transportation Study Class EA, involving the assessment of transportation options, including detailed amphibian surveys.

- Project Biologist for Etobicoke Creek Sanitary Sewer Replacement, involving assessment of a sewermain replacement within the Etobicoke Creek floodplain.
- Project Biologist for Proprietary Wind Farm Project, involving screening of Natural Heritage Features at a broad environmental scale as well as a Bat Screening Assessment for determination of field efforts for pre-construction monitoring.
- Project Biologist for the Guelph Waste Water Treatment Plant involving a comprehensive benthic invertebrate investigation, which included the collection of benthic invertebrates, habitat information and detailed assessment of outfall, including the collection of data to satisfy the Ontario Benthos Biomonitoring Network protocol.
- Project Biologist for the Corner Brook Water Treatment Plant Upgrade EA and CEAA screening, involving a detailed desktop investigation of Natural Heritage Features.
- Project Biologist for a 4th Propriety Wind Farm Project, involving the completion of the Natural Heritage Review, field investigations, public and first nation's consultation to satisfy the new Green Energy Act and other project requirements.
- Project Biologist for the Grand and Nith River Water Quality Monitoring Program participating in the extensive benthic invertebrate sampling and water quality sampling portion of the project.
- Project Biologist for the River Road Extension Class EA, a transportation corridor project involving a complex Species at Risk permitting application under the Endangered Species Act, 2007.
- Project Biologist and coordinator for the Toronto Basement Flooding project, which is a large and complex project that involves assessing various flooding salutations at a large scale and small scale within a large geographic area.
- Project Biologist and coordinator for the Zone 1 and Zone 3 Burlington Oakville Interconnecting Watermains EAs (two separate EAs) involving a detailed and extensive program in support of the potential watermain crossing of Bronte Creek.

Comprehensive Environmental Studies, Environmental Impact Studies and Detailed Design (Highlighted Projects)

- Project Biologist for the Rockfort Quarry, proposed quarry application by James Dick Construction, involving detailed amphibian surveys.
- Project Biologist for Old Major Mackenzie Drive Fill Violation involving the preparation, approval, and implementation of a restoration plan as a result of a fill violation of TRCA policies along the Humber River valley.
- Project Biologist for the Etobicoke Creek Trunk Sewer Detailed Design which involved a detailed tree and vegetation survey and coordination with TRCA regarding their Habitat Implementation Programs for restoration of natural areas.
- Project Biologist and Project Manager for the Conestoga College Master Plan Environmental Impact Study for the new Cambridge Campus location.
- Project Biologist for the Credit Valley Trunk Sewer Rehabilitation Detailed Design involving the detailed assessment of impacts to natural heritage features within the Credit Valley River corridor.
- Project Biologist and Project Manager for the Brampton Christian School Natural Heritage Evaluation in support of the school expansion on table land adjacent the Etobicoke Creek valley in Brampton.

CERTIFICATIONS

2009 First Aid, Level I
1993 Sport SCUBA Diver – ACUC and NAUI Certification

EDUCATION

- 2001 Master of Science (M.Sc.), Phycology, University of Guelph, Guelph, Ontario.
Thesis: Evolution of the carpogonial branch system in the red algal genus *Batrachospermum* (Batrachospermales)
- 1998 Honours Bachelor of Science (B.Sc.), University of Waterloo, Waterloo, Ontario.
Thesis: Assessment of the periphyton community of a small campus pond, with emphasis on blue-green algae.

PROFESSIONAL EXPERIENCE

- 2005-Present Aquatic Biologist, LGL Limited, Cambridge, Ontario.
- 2004 Research Technician, Department of Fisheries and Oceans Canada, Ontario Great Lakes Region Office, Burlington, Ontario.
- 2002-04 Management Biologist, Ontario Ministry of Natural Resources, Upper Great Lakes Management Unit, Owen Sound, Ontario.
- 2002 Environmental Technician, Chadwick Ecological Consultants, Denver, Colorado.
- 1999-01 Graduate Teaching Assistant, University of Guelph, Guelph, Ontario.
- 1999 Fisheries Intern, Department of Fisheries and Oceans, Burlington, Ontario.
- 1998 Field Biologist, Applied Biometrics Inc., Waddington, New York.
- 1997 Field Ecologist, Halton Region Conservation Authority, Burlington, Ontario.
- 1996 Field Technician, Ministry of Natural Resources, Timmins, Ontario.

PROJECT EXPERIENCE

Water Quality and Biological Assessments

- Grand River and Nith River Surface Water Assessment. Lead a team in a multi year program to assess the impacts of WWTPs on the water quality in the Grand River watershed using seasonal water samples as well as fish and benthic communities.
- Surface Water Assessment of Cobalt, ON. Helped lead a team in the assessment of historical mining impacts on the surface water and biological communities in Cobalt, Ontario. The project involved an intense field program to collect water and sediment samples along with flow measurements to assess the contamination levels in the area and estimate loading of these contaminants in the system. A survey of the benthic and fish communities in lakes and streams was also conducted to assess the impacts the contaminants may have on the biological community in the area.

Mining

- Xstrata Biodiversity Projects - Part of a team that created a GIS database using existing data. Analyzed available data to estimate potential biodiversity surrounding several mine sites. Compiled existing impact assessment reports and analyzed them for spatial and temporal trends. Completed a Risk Assessment for the mining activities at each mine. Co-wrote the final reports. Projects included:

Environmental Assessments

- 16th Avenue Trunk Sewer Project - Led a field team in the collection of fisheries data using the MNR OSAP protocol. Analyzed changes in water quality and habitat using the fisheries data. Compiled the data in an access database created by the project team and summarized the findings in monthly reports.
- DRIC Project - Led a field team in the collection of benthic invertebrates for the assessment of water quality in Windsor streams. Surveyed various drains within Windsor to assess for fish habitat potential and habitat mapped those reaches with fish habitat. Surveyed watercourses for fish species and prepared a report on our findings.
- Mississauga Trunk Sewer – Surveyed all potential routes for natural heritage constraints. Assessed the fish habitat potential of all potential watercourse crossings. Prepared the natural heritage assessment report for the EA.
- Goreway Dixie– Completed desktop assessment of natural heritage constraints for two alternative

alignments. Prepared the natural heritage assessment report for the EA.

- 16th Avenue Yonge to McCowan – Surveyed route for natural heritage constraints. Surveyed watercourse crossings for fish habitat potential. Provided input into the EA natural heritage assessment report.
- 16th Avenue McCowan to York Durham– Surveyed route for natural heritage constraints. Surveyed watercourse crossings for fish habitat potential. Provided input into the EA natural heritage assessment report.
- Palgrave Humber Crossing – Surveyed the Humber River for fish habitat potential. Provided input for the final report.
- Yonge Aurora – Inventoried trees within the potential alignments. Provided input for the final report

Fisheries surveys

- Catholic School Board Aurora – Surveyed a watercourse for fisheries potential. Prepared a letter of intent for a fisheries act authorization to realign the watercourse.
- Schomberg Water Supply – Assessed the fish habitat potential for a watercourse crossing of a water supply pipe. Prepared a report on the findings using historical information and field surveys. Chose most environmentally sound route for the pipeline.
- Stouffville GO Station - Surveyed various watercourses for fish habitat potential and prepared a report outlining potential for realignment.
- Timmins WTP – Surveyed the Mattagami River for fish habitat potential and prepared a report.
- R.C. Harris WTP – Completed a desktop survey of potential fisheries impacts related to the dredging of an intake pipe.

MTO Fisheries surveys

- HWY 556 and 532 Sault Ste. Marie Fisheries Survey - Surveyed various culvert crossings for fish habitat potential and habitat mapped those reaches with fish habitat. Surveyed watercourses for fish species using a backpack electrofisher.
- Shewfelt Bridge Sault Ste. Marie Habitat Assessment – Surveyed area around bridge for fish habitat and prepared maps.
- HWY 400 Fisheries Survey – Surveyed various culvert crossings for fish habitat potential and habitat mapped those reaches with fish habitat. Surveyed watercourses for fish species and prepared a report on our findings.
- HWY 532 Habitat Assessment– Confirmed fish habitat assessment of a previous survey
- HWY 17 Fisheries Survey - Surveyed various culvert crossings for fish habitat potential and habitat mapped those reaches with fish habitat. Surveyed watercourses for fish species.
- HWY 401 Belleville Fisheries Survey – Surveyed a tributary of Potter Creek in Belleville. Collected fish species using an electrofisher and mapped habitat.

Environmental Impact Studies

Independently surveyed properties for environmental constraints with respect to vegetation and fisheries concerns as well analyzed the proposed effects of the proposed developments on the environment. Produced several reports outlining these environmental effects and constraints to clients. Projects included:

- Glanbrook scoped EIS
- Stonehenge EIS
- Ridgecore Development EIS
- Port Hope EIS

CERTIFICATIONS

- Certified in Stream Assessment Protocol for the Province of Ontario, MNR, 2005
- Certified Electrofishing Crew Leader, 2nd Class Backpack MNR, 2009
- Certified in Fisheries Assessment Specialist and Fisheries Contracts Specialist, MTO, 2006

EDUCATION

1999 Honours Bachelor of Science (B.Sc.) in Environmental Science
Brock University, St. Catharines, Ontario.

PROFESSIONAL EXPERIENCE

2012-Present Aquatic Biologist, LGL Limited, Burlington, Ontario
2002-2012 Aquatic Biologist, Ecoplans (a member of MMM Group), Kitchener, Ontario
2000 Environmental Technician, Meadowbrook Golf & Country Club, Gormley, Ontario;
Granite Golf Inc., Uxbridge, Ontario
1999 Field Technician for M.Sc. Grassland Passerine study in North Dakota, USA. (employed
by University of Montana, Missoula, MT)

PROJECT EXPERIENCE

Subwatershed Studies

- South Waterdown Subwatershed Study –Conducted aquatic habitat and fisheries assessments, benthic inventories and analysis and assessment of salamander habitat. Involved in the development of aquatic constraints and opportunities for development, conducting preliminary impact assessments and provided input to future aquatic monitoring plans.

Linear Corridor Infrastructure Planning and Design

- Highway 69 Route Planning and Preliminary Design Study (Class EA) north of Parry Sound (70 km). Conducted wetland inventories, aquatic habitat assessments and impact analysis at proposed culvert/bridge crossings. Created an extensive photographic inventory on land and by helicopter and Massasauga rattlesnake gestation/hibernation surveys.
- Highway 427 Extension (north of Highway 7), Route Planning and Preliminary Design- Involved in assessing several routes in relation to impacts to aquatic habitat. Prepared aquatic impact assessment report for preferred alignment and worked closely with fluvial hydrogeologist throughout study.
- Highway 69 Detail Design Study- north of Highway 522 to north of Highway 64- Conducted aquatic habitat and fisheries assessments and completed risk assessments using DFO protocol framework, for all future highway crossings. Provided input into design specifications, drawings and details for the Contract package relating to fish and wildlife. Co-ordinated and conducted SAR turtle surveys during post-hibernation.

Municipal Infrastructure

- Dundas Class EA study from Cedar Springs Road to Trafalgar Road - Assessed all watercourse crossings in study area to determine fisheries potential (assessed connectivity, seasonal habitat conditions, background fisheries information). Co-ordinated field activities and agency correspondence.
- Bronte Road EA Study, Preliminary and Detail Design from Upper Middle Road to North Service Road- Prepared EA report and compiled vegetation and aquatic technical information for contract specifications/drawings.

Construction and Post-Construction Monitoring

- Fergus Mill Turbine Installation- Conducted regular construction monitoring (as required by the DFO HADD authorization) during the installation of a turbine adjacent to the shore of the Grand River. Also conducted post construction monitoring of riparian habitat to ensure site was stabilized.
- Forbes Creek restoration- Conducted post-construction monitoring of the creek which underwent natural channel design. Conducted photo monitoring, trout spawning surveys, benthic monitoring and riparian assessments.

- Post construction monitoring for DFO Authorizations including Westmount Road Extension (realignment of Laurel Creek), Breslau By-pass (realignment of Hopewell Creek), and monitoring fish habitat installations at H2 and H4 watercourses (Humber River tributaries) in Brampton. Conducted fish rescues at all sites during construction stages.

Species at Risk Investigations and Monitoring

- Union Gas -Proposed Brooke to Strathroy Pipeline- Conducted preliminary aquatic surveys for fish and mussel habitat (many SAR potentially present) at pipeline crossing locations. Conducted a fish and mussel rescue for a one day isolated crossing of the Sydeham River. Recovered/relocated mussels and fish according to approved management plans.
- Fairway Road Bridge, Region of Waterloo- Conducted mussel surveys along the edges of the Grand River within the vicinity of the proposed temporary construction zone. Identified and relocated mussels (including several Wavyrayed Lampmussels (SAR) away from construction zone and assisted with compilation of SARA and ESA permits and completion of monitoring reports.
- Salamander Movement Studies (SW Kitchener)- Participated and helped co-ordinate study which involved silt fence and pit fall trap surveys to capture migrating amphibians and vernal pool trapping (using minnow traps). Processed amphibians captured in traps and sampled potential Jefferson Salamander specimens (tail clipping) using appropriate protocols. Also participated in road mortality and amphibian calling surveys.

Benthic Invertebrate Studies

- North Waterloo Subwatershed Study- Developed a benthic invertebrate monitoring program in consultation with the GRCA. Co-ordinated sampling and prepared yearly monitoring reports.
- Sheldon Creek Watershed Plan Update- Conducted water quality and benthic invertebrate assessments and analyzed data to determine potential impacts to water quality in the watershed.
- Milton Quarry Expansion- Conducted annual benthic monitoring along a groundwater fed stream before and during extraction activities. Prepared annual reports comparing results of hydrogeology and fish surveys and previous benthic results.

VOLUNTEER WORK EXPERIENCE

2012	Member of the City of Guelph Environmental Advisory Committee (EAC).
Fall 2009	Credit Valley Conservation –Trout spawning surveys. Assisted with Brook and Brown Trout spawning surveys in the Credit River.
Oct 2000	Field Assistant. University of Sydney, Sydney, NSW Australia. Assisted with Ph.D. project studying desert ecosystems at different stages of succession following prescribed burns-captured, identified, measured and released small mammals and reptiles in the Simpson Desert.
Sept 1999	Bird Bander. U.S. Fish and Wildlife Service, Upham, ND USA. Responsible for preparing waterfowl banding sites (rocket net set-up) and banding and identifying waterfowl. Also assisted biologists with avian botulism checks in marshes aboard airboats.

CERTIFICATIONS/WORKSHOPS

- Natural Channels Conference, Mississauga, ON, 2010
- Ontario Benthic Biomonitoring Network (OBBN) Training Course, 2008
- Technical Training Course for MTO/DFO/OMNR Fish Habitat Protocol, 2006
- DFO Freshwater Mussels Identification, 2006
- ROM Identification of Ontario Fishes workshop, 2004
- Class 2 Electrofishing Crew Leader Certification, 2004
- Pleasure Craft Operators Certification, 2010
- Open Water Scuba Diver (PADI), 2002

EDUCATION

- 2008 Graduate Diploma in Science Communication (G.Dip.), Laurentian University, Sudbury, Ontario.
- 2007 Bachelor of Science (B.Sc. Hons.), Wildlife and Habitat Ecology, Laurentian University, Sudbury, Ontario

PROFESSIONAL EXPERIENCE

- 2011 to 2012 Biologist/Environmental Technician, LGL Limited, King City, Ontario
- 2010 Herpetologist, Laurentian University, Sudbury, Ontario
- 2008 Reptile Outreach/Educator, Scensational Ssnakes, Orillia, Ontario
- 2007 Field Surveyor, Ontario Ministry of Natural Resources, Sudbury, Ontario
- 2006 Field Technician, Laurentian University, Sudbury, Ontario

PROJECT EXPERIENCE

Highway 144 new left turn lane at New Cobden Road, City of Greater Sudbury - Wildlife survey for the proposed new lane. Sudbury, Ontario.

Detroit River International Crossing, MTO – 2011 Eastern Foxsnake key habitat assessment, Colicroot seed collection and planting, and inspection of mitigation efforts.

Bath Institution, SNC-Lavalin - Herpetofauna inspection for a proposed new firing range at Bath Institution, Bath, Ontario.

York University Master Plan Update, York University - Wood frog presence/absence assessment in the Boyer Woodlot.

Hwy 15 to Seeley's Bay, Transenco - Bobolink surveys along the construction corridors for proposed lane widenings, and devising reptile SAR mitigation measures for construction. Rideau Lakes, Ontario

Town of Uxbridge NHE, Town of Uxbridge - Electrofishing survey of a creek which had seen recent construction and flow alterations. Uxbridge, Ontario.

East Durham Wind Farm, GENIVAR, Inc. Herpetofauna and breeding bird surveys of proposed wind turbine and service road sites. Durham, Ontario.

Oshawa Harbour, SNC-Lavalin - Herpetofauna surveys for the proposed expansion of Oshawa Harbour. Oshawa, Ontario.

Highway 407 East Extension, Delcan - Surveys for Blanding's turtle on a property through which the new highway will extend, compiling migratory bird data gathered in the field, and updating SAR lists to conform with upcoming SARO assessments. Clarington, Ontario.

Ngig Wind Power Farm, GENIVAR Inc - Migratory and breeding bird surveys of the proposed wind farm site. Henvey Inlet, Ontario.

VIVA Next Highway 7, York Consortium - Fish rescue from creeks at the construction areas, breeding bird surveys. Whitby, Ontario and Vaughn, Ontario.

GO Transit EA DVP, Arup Canada Inc. - Wildlife assessment along the Don Valley paralleling the Don Valley Parkway. Toronto, Ontario.

TECHNICAL PAPERS AND REPORTS

2011 Hughes, G.N., and Smith D.T. *Investigation to confirm the presence/absence of Blanding's turtle (Emydoidea blandingii) near the new Highway 407 East crossing of Wilmot Creek.* Submitted to Delcan.

2011 Hughes, G.N., and Agnew, C.J. *Species at Risk Assessment, Bath Institution, Bath Ontario - Herpetofauna Assessment.* Submitted to Public Works and Government Services Canada.

2011 Hughes, G.N. and Agnew, C.J. *Species at Risk Assessment, Oshawa Harbour, Oshawa Ontario - Herpetofauna Assessment.* Submitted to Public works and Government Services Canada.

2011 Smith, D.T. and Hughes, G.N. *RE: Bobolink screening survey conducted for the Highway 15 Improvements from Back Street to Thomas Road/Sweet Corners Road, Leeds and the Thousand Islands Township, Ontario, and Bush Road to Smith Road/Franks Road, Rideau Lakes Township, Ontario.* Technical memo submitted to Shaun Thompson, District Ecologist MNR-Kemptville.

PUBLICATIONS

Hughes, G.N., W.G. Greaves, and J.D. Litzgus. 2009. Nest-site selection by wood turtles (*Glypsemys insculpta*) in a thermally-limited environment. *Northeastern Naturalist* 16(3): 321 - 338.

Rev. Nov/11

EDUCATION

- 2004 Master of Science (M.Sc.), Watershed Ecosystem Graduate Program, Environmental Science, Trent University, Peterborough, Ontario
- 2000 Bachelor of Science Honours Conservation and Restoration Ecology
Laurentian University, Sudbury, Ontario
- 2000 Certificate in Environmental Biology
Laurentian University, Sudbury, Ontario

PROFESSIONAL EXPERIENCE

- Present Botanist, and ISA Certified Arborist, LGL Limited, Cambridge, Ontario
- 2006 Ecologist, Watershed Management Ecology, Milton, Ontario
- 2005 Terrestrial Monitoring Assistant, Credit Valley Conservation, Mississauga, Ontario
- 2005 Data Manager, Ontario Soybean Growers, Guelph, Ontario
- 2004 Class Two Electrofishing Instructor, MRN Nipigon, Ontario
- 2004 Fisheries Research Technician, Trout Unlimited, Guelph, Ontario
- 2001-04 Graduate Teaching Assistant, Trent University, Peterborough, Ontario
- 2001 Biological Science Technician (Botany), USGS, Corvallis, Oregon
- 2001 Biology Research Assistant, MNR Fish Co-op Unit Sudbury, Ontario
- 1998-2001 Biology Research Assistant, Laurentian University, Sudbury, Ontario
- 1997 Field Technician, Ecological Service Group for Planning, Timmins

PROFILE

Jennifer Noël joined LGL's Cambridge Office in 2006, after 10 years of experience working for various stakeholders which include educational institutions, government agencies, conservation authorities, non profit organizations and the private sector. She has participated in a variety of projects including due diligence surveys, environmental impact studies, class environmental assessments, tree health assessments, hazard tree assessments, species at risk surveys, butternut health assessments, wetland identification and delineation, biodiversity assessments and natural heritage investigations. Ms. Noël has extensive experience in field sampling and analysis of aquatic and terrestrial ecosystems using a wide range of sampling gear such as seine nets, electrofishing gear, flow gauge, pH meters, conductivity meter and various plot sampling devices. Ms. Noël is certified in electrofishing, ecological monitoring and land classification (ELC), Ontario Wetland Evaluation System (OWES), tree assessments (ISA), butternut health assessment (BHA) and is familiar with the identification of aquatic and terrestrial plant, fish, and amphibians in Ontario. Ms. Noël has experience with project management, design and monitoring. She is fluent in both English and French.

PROJECT EXPERIENCE

Transportation Planning

- Bathurst Street Road Extension Green Lane Northerly to Yonge Street - Detail Design Class EA, York Region
- Bathurst Street Widening from Highway 7 to Teston Road – Detail Design, Town of Richmond Hill
- Bolton Arterial Road King Street to Highway 50 – EIS Regional Municipality of Peel
- Highway 50 from Castlemore Road to Mayfield Road –NHR Schedule C Class EA, York Region
- Detroit River International Crossing – Species at Risk Survey, Windsor

Species at Risk

- Bathurst Street Road Extension – Butternut Assessment and Permit Application, York Region
- Evergreen EIS – Butternut Screening and Assessment, Burlington
- Piller EIS – Butternut Screening and Assessment, Fort Erie
- Ipperwash Species at Risk Screening surrounding unexploded ordinance; bluehearts, American ginseng, heart-leaved plantain, goldenseal, butternut, dwarf hackberry, and spike blazing star
- Central Avenue EIS – Butternut Screening and Permit Application, Grimsby
- Highland Gardens Water Reservoir – Butternut Assessment and Permit Application, Hamilton
- Strasburg Road – salamander surveys, Kitchener
- DRIC – Species at Risk Surveys: spike blazing star, butternut, Kentucky coffee tree, willow leaf aster, colic-root, butternut, fox snake, butler garter snake, Windsor
- Meaford LFTC – Butternut, American Ginseng, Heart’s-tongue fern, Meaford
- Bronte Creek Interconnecting Watermain- butternut, eastern flowering dogwood, Burlington

Biodiversity

- Belledune Risk Assessment New Brunswick
- Biodiversity Assessment of Xstrata’s Mines 12 and 6. New Brunswick
- Vegetation Stress Analysis using NDVI of Xstrata’s Mine 12. New Brunswick

Municipal infrastructure

- Lornewood Creek Sewer Replacement – Schedule C Class EA
- Highland Gardens Water Reservoir Improvements – Detail Design Class EA
- Coatsworth Cut CSO and Stormwater Outfalls Control in the City of Toronto– Preliminary Assessment Schedule “C” Class EA
- Watermain improvements EIS Meadowvale Pumping Station to Mill Creek Drive Mississauga - Natural Heritage Report
- Bronte Creek Interconnecting Watermain- Tree survey, Restoration Plan Recommendations and SAR Screening , Burlington

Arborist Tree Assessments

- Toronto Basement Flooding - Toronto
- Bronte Creek Interconnecting Watermain – Burlington
- Bathurst Street – Toronto, York Region
- D’Arcy Street to Gerard Tree Inventory for watermain – Toronto
- Tree inventory and Appraisal plan of subdivision - Beaton

Fisheries/Wildlife Biology Studies

- Deer survey - Meaford
- Fisheries investigation Highway 11 Frederick House and Kendal River Bridge –Cochrane.
- Amphibian surveys – Kitchener

Wetlands

- Jocic wetland delineation – Township of West Lincoln
- Conestoga College wetland delineation – Kitchener
- Conservation Halton wetland verification – Milton
- Windsor significant wetland evaluation - Windsor
- Rockfort wetland photo monitoring – Credit Valley Watershed
- Pine Ridge wetland photo monitoring – Milton

- Conservation Estates photo monitoring - Guelph
- Dolphin wetland impact and restoration – Georgina
- Shaver Road wetland delineation – Ancaster

CERTIFICATES

- 2010 ISA Hazard Tree Assessment Workshop, Toronto, Ontario
2009 ISA Certified Arborist, Gormley, Ontario
2008 Ontario Wetland Evaluation System, North Bay, Ontario
Butternut Health Assessment Workshop, Burlington, Ontario
2007 Ecological Land Classification for Southern Ontario, Turkey Point, Ontario.
2005 Ecological Monitoring Assessment Network, Turkey Point, Ontario.

SELECTED TECHNICAL PAPERS AND REPORTS

- 2004 Noël, J. Growth, reproduction and control of an invasive aquatic plant, *Cabomba caroliniana* in Kassarabog Lake, Ontario and its potential dispersal. M.Sc. Thesis, Trent University, Peterborough, ON. 89 pp.
2000 Noël, J. Killarney sinkhole bog, a wetland investigation. B.Sc. Thesis, Sudbury, Laurentian University, ON 43 pp.

CONFERENCES AND WORKSHOPS

- May 2008 Butternut Health Assessment Workshop, Burlington, Ontario
June 2008 Sedges Workshop, RBG, Burlington, Ontario
May 2009 Grasses Workshop, University of Guelph, Ontario
July 2009 Wetland Plant Identification Course, Guelph, Ontario

EDUCATION

- 1998 M.Sc. Zoology (Fisheries), University of British Columbia, Vancouver, BC
- 1993 B.A. (Biology), Hamilton College, Clinton, N.Y.

PROFESSIONAL EXPERIENCE

- 2004 to present Fisheries Biologist - LGL Limited, King City, Ontario.*
- 1999 to 2004 Biologist - Golder Associates Ltd., Mississauga, Ontario*
- 1999 Coastal Ecologist - Environmental Services Section - Toronto and Region Conservation Authority, Downsview, Ontario*
- 1999 Fisheries Biologist - Resource Science Section - Toronto and Region Conservation Authority, Downsview, Ontario*
- 1997 to 1998 Fisheries Biologist - Florida Department of Environmental Protection, Marathon, Florida*

Provincial Transportation Projects

- Highway 401 Improvements from 1.0 km west of Highway 402 Easterly to 1.0 km east of Wellington Road, MTO Southwestern Region, Group B Class Environmental Assessment
- Reconstruction of Highway 15 from Smiths Falls to Franktown, MTO Eastern Region, Group B Class Environmental Assessment
- Improvements to Highway 60 from the Renfrew County/District of Nipissing Boundary to the West Limit of Barry's Bay and the Repair of Three Culverts on Highway 127, MTO Eastern Region, Group B Class Environmental Assessment
- Highway 400 Improvements from 1.2 km South of Muskoka Road 5 Interchange Northerly 22.7 km, Township of Georgian Bay, District Municipality of Muskoka, MTO Northeastern Region, Group C Class Environmental Assessment
- Highway 400 Interchange and Service Roads Construction, Township of Georgian Bay, District Municipality of Muskoka, MTO Northeastern Region, Group B Class Environmental Assessment
- Highway 401 / Homer Watson Boulevard Interchange Improvements, Cities of Kitchener and Cambridge, MTO Central Region, Group B Class Environmental Assessment

Municipal Transportation Projects

- Simcoe Street / Columbus Road Intersection Improvements, City of Oshawa, Schedule B Municipal Class Environmental Assessment
- Highway 404 Mid-block Crossing, Cities of Markham and Richmond Hill, Schedule C Municipal Class Environmental Assessment
- Upper Middle Road Improvements, City of Oakville, Schedule C Municipal Class Environmental Assessment

- Main Street Widening from Highway 48 to Ninth Line, Town of Whitchurch-Stouffville, Detail Design and Contract Administration

General Aquatic Projects

- Aquatic Ecosystem Monitoring (water quality, sediment quality, benthic invertebrate community, fish community, aquatic habitat) for Municipal Landfill Effects on Natural Embayments within the Scugog River, City of Kawartha Lakes, Lindsay
- Moira River Study, Impact Assessment of Deloro Mine on Aquatic System (sediment quality, fish health, human health risk), Ontario Ministry of Environment, Belleville
- Fuel Oil Spill Impact Assessment, Focusing on Benthic Invertebrates in Etobicoke Creek, Ford Motor Company, Bramalea
- Municipal Landfill Expansion, Aquatic (benthic invertebrate and fish communities) and Terrestrial (amphibians, birds, mammals) Environmental Impact Assessment, Township of Laurentian Valley, Pembroke
- Sediment and Water Quality Analysis in Detroit River for Canada Salt's Ojibway Mine, Windsor

Aggregate Resources

- Aquatic Habitat Surveys and Coldwater Creek Impact Evaluation Regarding Proposed Sand and Gravel Pit, O'Shanter Development Company, Lisle
- Level 1 and Level 2 Natural Environment Studies for Proposed Quarry, Halminen Building Corporation, Buckhorn
- Level 1 and Level 2 Natural Environment Studies for Proposed Quarry and Follow-up, Post-Operational Monitoring of Birds, Aquatic Habitat and Fisheries, R.W. Tomlinson Limited, Stittsville
- Level 1 Natural Environment Study for Proposed Sand and Gravel Pit, Andre Lafleche, Moose Creek

Large Scale Environmental Assessments

- Aquatic Environment Component of Federal Environmental Assessment for the Restart of Pickering A, Ontario Power Generation, Pickering
- Aquatic Environment Component of Federal Environmental Assessment for the Restart of Bruce A, Bruce Nuclear Power Development, Tiverton
- Aquatic Environment Component of Federal Environmental Assessment for the Second Phase of a Proposed Used Fuel Dry Storage Facility, Ontario Power Generation, Pickering
- Aquatic Environment Component of Federal Environmental Assessment for a Used Fuel Dry Storage Facility, Ontario Power Generation, Darlington
- Environmental Impact Assessment and Baseline Information Review for a Proposed Gold Mine, Pangea Minerals Ltd., Tanzania

EDUCATION

- 1991 Bachelor of Education (B.Ed.), University of Western Ontario, London, Ontario
- 1989 Bachelor of Science (B.Sc.Hons.), Biology – Environmental Sciences, Trent University, Peterborough, Ontario

PROFESSIONAL EXPERIENCE

- 2009 to present Aquatic Biologist, LGL Limited, Cambridge, Ontario
2007 - 2009 McNeil Consumer Healthcare, Guelph, Ontario
- 2003 - 2009 Self Employed, Guelph, Ontario
- 2006 - 2007 University of Guelph, Laboratory Services, Guelph, Ontario
- 2003 - 2004 Teacher, Upper Grand District School Board, Guelph, Ontario
- 1993 - 2001 Teacher, Abbotsford District School Board, Abbotsford, British Columbia
- 1995 Lab Supervisor, Kwantlen University College, Surrey, BC
- 1991 - 1993 Teacher, Academia Inter Americana, Guayaquil, Ecuador
- 1989-1991 Research Technician and Teaching Assistant, Trent University, Department of Biology, Limnology, Department of Environmental Science
- 1987 - 1989 Environmental Investigator, Ministry of the Environment

PROFILE

Ms Renzetti's work in the field of aquatic biology began in 1987 and has included field sampling, lab analysis, benthos identification, and limnological research. Lynette began her career in environmental science conducting research to investigate the role of feeding patterns on the uptake of heavy metals by benthic invertebrates. During this time she worked as an instructor teaching water quality field techniques at the post secondary level. As a field investigator with the MOE Lynette collected and analyzed water quality data on the Trent Severn waterway, investigated the effects of fish farming on stream water quality, and reported on the effects of pulp and paper effluent on the life history of benthos. Ms. Renzetti has dedicated many years to teaching environmental science and ecology at both the secondary and post secondary levels, within Canada and abroad. More recently, Lynette has worked in quality controlled manufacturing and laboratory testing environments writing and reviewing SOPs and working with Quality Management Plans. Since 2003 Lynette has acted as the benthos specialist for LGL Ltd. environmental research associates on several projects related to environmental assessment and joined the staff at LGL on a full time basis in 2009.

PROJECT EXPERIENCE

Renewable Energy Projects

- Natural Heritage Assessment for East Durham Wind Power
- Watercourse characterization and Water Body Report for Conestogo Wind Farm

Wastewater Water Quality Studies

- Surface Water Quality Monitoring Program for the Grand and Nith Rivers – Region of Waterloo
- Duffin Creek Water Pollution Control Plant EA – Regions of Durham and York

Invertebrate Studies

- Goderich Harbour Wharf Expansion EA – Goderich Port Management Corporation
- Earthworm Density Study, Detroit International River Crossing – Ministry of Transportation
- Biomonitoring of Wastewater Effluent Discharge on the Speed River – City of Guelph
- Grand and Nith River Biomonitoring – Region of Waterloo
- 16th Avenue Biomonitoring Program
- Nottawasaga River Biomonitoring Program

CERTIFICATIONS

- 2012 Standard First Aid and CPR (renewed annually)
- 2010 Swift Water Training, Access Rescue
- 2010 Working on Ice Safety Program, Access Rescue
- 2010 OBBN Benthos Identification Certificate, Ministry of the Environment
- 2010 Class 2 Backpack Electrofishing Certificate, Ministry of Natural Resources
- 2010 Ontario Stream Assessment Protocol, Ministry of Natural Resources

SELECTED TECHNICAL PAPERS AND REPORTS

- 2010 L.K. Renzetti, D.T. Summach, J.A. Fausto, and J.R. Bicudo. Surface Water Quality Monitoring Program on the Grand, Speed and Nith Rivers. Influent. Volume 5, Winter 2010
- 2010 Bicudo, J.R., Perrone, J., Anderson, M., Robertson, S., Summach, D. and L. Renzetti. A 'Grand' Challenge. Water Environment & Technology. November 2010
- 2009 Fausto, A., D. Summach, L. Renzetti. Surface Water Quality Monitoring Program for the Grand and Nith Rivers: Monitoring Reports. Prepared for the Region of Waterloo.
- 1991 Bigelow, Lynette, K. and David C. Lasenby. "Particle Size Selection in Cadmium Uptake by the Opossum Shrimp, *Mysis relicta*". Bulletin of Environmental Contamination and Toxicology (47):790-796.

CONFERENCES AND WORKSHOPS

- 2011 A.D. Latornell Conservation Symposium, Alliston, Ontario
- 2011 Water Environment Association of Ontario, Toronto Ontario; presenter
- 2010 Ontario Benthos Biomonitoring Network Identification Course, Oshawa, Ontario
- 2010 Ontario Stream Assessment Protocol Course, Oshawa, Ontario
- 2009 Grand River Watershed Conference, GRCA, Cambridge, Ontario

EDUCATION

- 2001 Fish and Wildlife Technologist Diploma, Sir Sandford Fleming College, Lindsay, Ontario.
2000 Fish and Wildlife Technician Diploma, Sir Sandford Fleming College, Lindsay, Ontario.
The Fish and Wildlife Technology program (fisheries aspect) focuses on advanced fisheries sampling and characterization techniques, laboratory techniques, data compilation and analysis, and report writing. The program examines the ecology, biology and taxonomy of common freshwater aquatic organisms along the aspects of water pollution, food web structure, and the impact of exotic species invasions.

PROFESSIONAL EXPERIENCE

- 2001 to Present Fish and Wildlife Technologist, ISA Certified Arborist, LGL Limited, Cambridge, Ontario
2001 Stream Rehabilitation Specialist, Credit Valley Conservation, Mississauga, Ontario
2000 Environmental Technician, Toronto and Region Conservation Authority, North York, Ontario
1999 Fisheries Technician, Ministry of Natural Resources-Lake Ontario Management Unit, Picton, Ontario
1998 Resource Technician, Ministry of Natural Resources, Aurora, Ontario

ENVIRONMENTAL PROJECTS

Martin O'Halloran is a Technologist specializing in ecology support for projects such as infrastructure upgrades, class environmental assessments, *Fisheries Act* authorizations, arborist reports and mining impact assessments. Martin is responsible for evaluation/characterization of aquatic and terrestrial habitat, screening for species at risk, tree inventories, mitigation/compensation planning, and contract administration. This balanced skill set allows for a well rounded professional contribution to projects. Martin has also demonstrated abilities in project management and personnel supervision. Martin holds certifications as an Arborist by the International Society of Arboriculture and a Canadian Certified Environmental Practitioner by the Canadian Environmental Certification Approvals Board.

REPRESENTATIVE PROJECT EXPERIENCE INCLUDES:

- Various undisclosed mining contracts - Conducted field data collection including stream morphological data, flow data, using instruments such as YSI 750, micro-acoustic Doppler velocimeter (ADV). The objective of the project is to quantify the extent of metal loading in the aquatic environment (from natural and anthropogenic sources).
- Woodward Avenue Waste Water Treatment Plant Expansion Project – Detailed Design Arborist Report, City of Hamilton. Construction occurring in 2011.
- Ellesmere Road 2km 1500mm Watermain from Markham Road to Neilson Road – Detailed Design Arborist Report, City of Toronto. Construction scheduled for 2011/2012.
- Hamilton Kenilworth Reservoir and East Barton Pumping Station Upgrades – Detailed Design Arborist Report, City of Hamilton. Construction occurring in 2011.
- (Government Organization) Chemical and Biological Study to Assess the Receiving Waters in the Cobalt Area, Ontario. The scope included a review of all aquatic studies in the Cobalt Area, as well as an assessment of water quality in lakes and streams within the defined study area, including analysis of historical and current impacts to receiving waters by Cobalt area mines. Fisheries, benthic invertebrate sampling, water and sediment chemistry, flow/discharge measurements, morphological surveys were employed. The study is ongoing.

- (Private Client) Conducted field data collection including fish habitat data, stream morphological data, flow data using instruments such as YSI 750, micro-acoustic Doppler velocimeter (ADV). The objective of the project is to quantify the extent of metal loading in the aquatic environment (from natural and anthropogenic sources).
- Spadina Avenue to D'Arcy Street Water Main – Detailed Design Arborist Report, City of Toronto.
- Rosehill Pumping Station Detailed Design Arborist Report, City of Toronto.
- Avenue Road to Duplex Avenue Detailed Design Arborist Report, City of Toronto.
- Yonge Street Arborist Investigations and Construction Inspection, Town of Aurora.
- Rennie Park Arborist Assessment, Sanitary Sewer Replacement with Arborist Report, Class Environmental Assessment.
- Sandalwood Parkway Improvements Arborist Assessment, municipal road widening.
- Tributary of Salt Creek Culvert Replacement/Fisheries Act Authorization, project management.
- Appleby Line Road Improvements, Class Environmental Assessment, Fisheries Act Authorization.
- Upper Middle Road, Class Environmental Assessment.
- Church Tree Saving Plan, project management.
- Development Industry, Tree Appraisal, project management.
- Lynden Park Mall Expansion, site alteration permitting, aquatic habitat assessment, project management.
- Minilakes Fisheries Act Authorization/Site Alteration Permitting, aquatic habitat assessment, project management.
- Mining Sector Watershed Study, aquatic habitat analysis.
- Development Sector Arborist Report and Fisheries Act Authorization, Burlington/Bolton.
- Storm Water Management Pond Environmental Monitoring. Benthic invertebrate monitoring, water chemistry monitoring, reporting.
- Amherstburg Pollution Control Plant Environmental Assessment, collected baseline benthic invertebrate data, compiled and analyzed data, liase with project team, graphics support;
- Alton Community Fisheries Act (Section 35) Authorization security, existing conditions summary, agency liase, mitigation and compensation plan;
- Grand River Watermain Crossing – Holmedale Water Treatment Plant, Construction inspection including mitigation and environmental compensation recommendations, environmental monitoring of construction;
- 6th Line Fish Rescue – Town of Milton, Project Management, Co-ordinated field efforts to relocate fish from an in-water construction zone, liase with agencies and supplied summary reports;

MEMBERSHIPS/CERTIFICATIONS

MTO/DFO/MNR Certified Contract Specialist
Canadian Certified Environmental Practitioner
(CCEP)
MNR Electrofishing Crew Leader (2nd Class)
International Society of Arboriculture – Arborist
Cert.
Marine Pleasure Craft Operator Card

St. John Ambulance Standard First Aid Certification
St. John Ambulance CPR Certification
St. John Ambulance Wilderness First Aid Certification
WHMIS Certification
Working on Ice – Ice Safety Training
WSIB Certification – Occupational Health and Safety
Worker Member (Part 1 and Part 2)

DAVE MARTIN
Consulting Faunal Biologist

EDUCATION: B. A. History, B. Ed. (U.W.O.)

EXPERIENCE related to Faunal Surveys

2009

- *Coordinated a crew of 6 surveyors on 8 wind turbine projects in Middlesex, Bruce, Grey, Norfolk and Haldimand for Genivar
- *Faunal surveys at 7 sites in Middlesex and Lambton Counties for Dave Hayman, BioLogic
- *Faunal surveys at 8 sites in Oxford, Norfolk and Haldimand Counties for Les Sztramko, Lynn Valley Consultants
- *Faunal surveys at 3 sites in Middlesex County for Mike Leonard
- *Faunal surveys in 37 woodlots in Tecumseh, Essex County for Waldron, Consulting Ecologist
- *Faunal surveys at 26 sites in the Big Creek Watershed, Essex County for Essex Region Conservation Authority
- * Bird surveys on 4 provincial highway improvement projects in Perth, Middlesex and Huron Counties for Tisha Doucette, Delcan London and Dave Hayman, BioLogic

2008

- *Coordinated a crew of 6 surveyors on 9 wind turbine projects in Chatham-Kent, Middlesex, Lambton and Timiskaming for AIM PowerGen, Boralex, Gengrowth and Genivar
- *Faunal surveys at 9 sites in Elgin, Middlesex, and Huron Counties for Dave Hayman, Biologic
- *Faunal surveys at 3 sites in Middlesex County for Mike Leonard
- *Faunal surveys at 2 sites in Norfolk County for Les Sztramko, Lynn Valley Consultants
- *Faunal surveys in 30 woodlots in LaSalle, Essex County for Waldron, Consulting Ecologist

2007

- *Coordinated a crew of 7 bird surveyors on 23 wind turbine projects in Essex, Chatham-Kent, Wellington, Grey and Bruce Counties for AIM PowerGen, Gengrowth Renewables, Invenergy, Dillon and Genivar
- * Faunal surveys at 8 sites in Elgin, Essex, Lambton and Middlesex Counties for Dave Hayman, BioLogic
- * Faunal surveys at 7 sites in Middlesex and Oxford Counties for Mike Leonard, BioLogic
- * Faunal surveys at 4 sites in Lambton, Norfolk and Brant Counties for Tisha Doucette, Delcan
- * Faunal surveys at 6 sites in Norfolk and Elgin Counties for Les Sztramko, Lynn Valley Consultants
- * Faunal surveys at 1 site in Essex County for Waldron, Consulting Ecologist
- *Coordinated surveys and habitat assessments for Acadian Flycatchers and Hooded Warblers at 20+ sites in Elgin, Middlesex, Oxford and Lambton Counties for Audrey Heagy, Bird Studies Canada
- * Coordinated 6 "expert" bird hike leaders in May at Point Pelee NP for Friends of Point Pelee

2006

- * Coordinated a crew of 7 bird surveyors on 17 wind turbine projects in Essex, Chatham-Kent and Wellington Counties for AIM PowerGen, Gengrowth, Invenergy and Dillon.
- * Faunal surveys at 12 sites in Elgin, Lambton, Middlesex and Oxford Counties for Dave Hayman, BioLogic
- * Faunal surveys at 5 sites in Middlesex and Lambton Counties for Mike Leonard, BioLogic
- * Faunal surveys at 5 sites in Essex, Middlesex and Lambton Counties for Waldron, Consulting Ecologist

- * Bird surveys in 20 woodlots for the Town of Lakeshore (Essex County) for Waldron, Consulting Ecologist
- * Faunal surveys at 2 sites in Lambton and Middlesex Counties for Tisha Doucette, Delcan
- * Faunal surveys at 6 sites in Norfolk and Elgin Counties for Les Sztramko, Lynn Valley Consultants
- * Interpretive hawk watches on 6 days at Port Burwell PP. Ontario Parks
- * Coordinated 6 "expert" bird hike leaders and 84 bird hikes in May at Point Pelee NP. Friends of Point Pelee
- * Authored Wildlife Viewing at Aylmer Wildlife Management Area through the seasons. Elgin Stewardship Council
- * Authored Acadian Flycatcher species account for Ontario Breeding Bird Atlas

2005

- * Spring faunal surveys for wind turbine project in Essex County. Dave Hayman, BioLogic
- * Spring faunal surveys for wind turbine projects Huron and Bruce Counties. Michael Enright. Dillon Consulting
- * Surveys for Acadian Flycatchers in southwestern Ontario. Lyle Friesen. CWS
- * Faunal surveys at 9 sites in Middlesex, Elgin and Oxford Counties. Mike Leonard, BioLogic - London
- * Faunal surveys at 4 sites in LaSalle and Windsor. Waldron, Consulting Ecologist - Essex County
- * Faunal surveys at 10 sites in Lambton, Huron, Elgin, Essex, Oxford Counties, Chatham-Kent, Pelee Island, Ancaster. Dave Hayman, BioLogic - London
- * Faunal surveys at 4 sites in Huron, Elgin Counties. Les Sztramko. Lynn Valley Consultants
- * Faunal surveys at the Toyota site, Woodstock, Oxford County. Gary Epp. Earth Tech Canada Inc.
- * Species at Risk surveys at Southwold, Fort Malden, Bois Blanc Island. Vicki McKay. Parks Canada
- * Faunal surveys at Ladney/Bickford site Lambton County. Lambton County Stewardship/OMNR
- * Faunal survey of Aylmer Woodlot. Tony DiFazio. Catfish Creek Conservation Authority
- * Interpretive hawk watches on 6 days at Port Burwell PP. Henry Valks. Ontario Parks
- * Guided bird hikes in May at Point Pelee NP. Friends of Point Pelee
- * Authored Acadian Flycatcher/Hooded Warbler Recovery Strategy. Lyle Friesen. CWS

2004

- * Year long bird surveys for wind turbine project in Essex County. Dave Hayman, BioLogic - London
- * Surveys for Acadian Flycatchers in southwestern Ontario. CWS
- * Faunal surveys at 6 sites in the London area. Mike Leonard, BioLogic - London
- * Surveys for Eastern Fox Snake in LaSalle. Waldron, Consulting Ecologist – Essex County
- * Faunal surveys at 2 sites in Lambton and Huron Counties. Dave Hayman, BioLogic - London

2003

- * Faunal surveys for Hwy 407 extension east of Toronto. Ecoplans -Kitchener
- * Surveys for Acadian Flycatchers in southwestern Ontario. CWS
- * Faunal surveys at 9 sites in Middlesex, Elgin and Huron. BioLogic - London
- * Faunal survey at Lambton County Forest - Watson property. Nature Conservancy of Canada - Ontario
- * Faunal survey at 5 sites in Airport Road planning area London. Ecoplans - Kitchener
- * Faunal survey at Schiller=s Bush - Tecumseh - Essex. Waldron, Consulting Ecologist
- * Faunal survey at Bruce County quarry site. Ian Seddon - London
- * Hawk migration monitoring Port Burwell PP. Ontario Parks

2002

- * Faunal surveys at Clear Creek, Chatham-Kent. Nature Conservancy of Canada - Ontario
- * Faunal surveys for the Fort Erie Natural Areas Inventory. Dugan and Associates - Guelph
- * Faunal surveys and habitat assessment at 9 sites in Middlesex, Perth, Essex, Elgin. BioLogic
- * Faunal surveys and habitat assessment at 2 sites in Essex for Waldron, Consulting Ecologist
- * Faunal surveys at Bickford Oak Woods, Lambton. OMNR - Lambton Stewardship Council

- * Amphibian surveys at Komoka PP Reserve, Middlesex. Ontario Parks
- * Surveys for Acadian Flycatcher and Hooded Warblers at southwestern Ontario Core sites. CWS

2001

- * Faunal surveys and habitat assessment at 5 Middlesex and 2 Elgin County sites. BioLogic
- * Faunal surveys and habitat assessment at 2 Essex County sites. Waldron, Consulting Ecologist
- * Assembled published and anecdotal faunal records for Eastern Hognose Snake and other fauna for Komoka PP Reserve updated Life Science Inventory. Ontario Parks
- * Habitat assessment and nest productivity of Acadian Flycatcher in southwestern Ontario. CWS and OMNR

2000

- * Surveyed Manitoulin Island and Bruce Peninsula for Loggerhead Shrikes. Loggerhead Shrike Recovery Team
- * Surveys for Acadian Flycatcher and Hooded Warblers at southwestern Ontario Core sites. CWS
- * Faunal surveys at various development sites in Essex, Middlesex and Oxford Counties and Kitchener-Waterloo for Waldron Consulting, BioLogic and Ecoplans.

1999

- * Started three year pre-development faunal monitoring program at Sifton Bog, London. BioLogic
- * Faunal surveys at 1 London, 1 Oxford County and 1 Middlesex County sites. BioLogic
- * Faunal surveys at 5 Essex County sites. Gerry Waldron, Consulting Ecologist
- * Searched for Acadian Flycatchers at ravine and upland forest sites in Elgin, Middlesex and Lambton Counties. Bird Studies Canada.
- * Faunal surveys in Dorchester Swamp Banks Tract for proposed trail location. UTRCA, County of Middlesex

1998

- * Faunal surveys at 6 London and 1 Woodstock sites. BioLogic
- * Searched for breeding Acadian Flycatchers, Hooded Warblers and other VTE species at known sites in southwestern Ontario and noted habitat features at breeding territories. Bird Studies Canada, Canadian Wildlife Service, World Wildlife Fund Canada
- * Conducted twice daily waterfowl counts at Aylmer Wildlife Management Area from March 16 to 31. Elgin Stewardship Council, Ministry of Natural Resources
- * Conducted literature searches and interviews for data needed to nominate 25 Important Bird Areas in southwestern Ontario. Bird Studies Canada

1997

- * Monitored hawk, passerine and butterfly migration on 6 days at Port Burwell PP. Ontario Parks.
- * Faunal surveys at 7 London, 1 Woodstock, 1 Strathroy and 1 Maitland River sites for BioLogic.
- * Searched for breeding Acadian Flycatchers, Hooded Warblers and Prothonotary Warblers and other VTE species at known sites in southwestern Ontario and noted habitat features at breeding territories. Bird Studies Canada, Canadian Wildlife Service, World Wildlife Fund Canada

1996

- * Surveyed 70 woodlots for breeding birds for the Oxford County Terrestrial Ecosystems Study. Jane Bowles / Upper Thames River Conservation Authority.

1982+ Co-ordinated volunteers and data collection for the following projects:

- * Ontario Breeding Bird Atlas (2001-2005) in 70 squares in Middlesex and Elgin Counties
- * Amphibian Monitoring Routes in Middlesex (1992)
- * Atlas of the Mammals of Ontario for Middlesex and central Elgin (1990-1992)
- * Ontario Herpetofaunal Atlas (1987)
- * Atlas of the Breeding Birds of Ontario for 70 squares in Middlesex, Oxford, Elgin (1983-1985)
- * Eastern Spiny Softshells in southwestern Ontario (1985 - 96)
- * Ingersoll Audubon Christmas Bird Count (1983+)
- * Fanshawe C.A. birdbanding and MAPS station (1982 - 1996)

1978

Recorded aspects of breeding ecology of Sandhill Cranes in Algoma District and analysed vegetation at nesting, feeding and staging sites. Field assistant for UWO Masters student.

1972+ Participated as a volunteer in the following data collection / monitoring programs

- * Audubon Christmas Bird Counts (50+ counts since 1972)
- * CWS Breeding Bird Surveys (13 years, 3 routes)
- * CWS Forest Bird Monitoring (Springwater Forest 1990s)
- * CWS Amphibian Pond Survey (1994+)
- * Mcllwraith Thames River Breeding Bird Census (1985 - 90)
- * Mcllwraith Life Science Inventories (Skunk's Misery, Komoka P.P. Reserve, Wyton Station Woods)
- * Shorebird surveys throughout southwestern Ontario (1996+)

Recent Publications

August 2006. *Acadian Flycatcher* species account in Atlas of the Breeding Birds of Ontario 2001-2005.

February 2006. *Wildlife Viewing at Aylmer Wildlife Management Area through the seasons*. Interpretive brochure for Elgin Stewardship Council.

Martin, Dave. March 2004. *Searching for Acadians*. In: The Cardinal, No 195, April 2004. The Mcllwraith Field Naturalists of London.

Birds of Elgin County- A Century of Change. 2004. Co-ordinating Committee member and part author. 307 pp.

Martin, Dave. April 2002. *Birding the Long Point Region. A birding and resource guide to the Long Point area* for customers of Journey's End/Comfort Inn, Simcoe, Ontario.

Martin, Dave. May 2002. *Marvels of Migration. Watching the Fall Migration at Port Burwell and along the Lake Erie Shoreline*. Coloured brochure for Port Burwell Provincial Park, Ontario Parks.

Martin, Dave. October 2001. *Fall Birding in Elgin County along the Lake Erie Shoreline*. In: OFO NEWS, Newsletter of the Ontario Field Ornithologists. Volume 19 Number 3. Ontario Field Ornithologists.

Martin, Dave. 2001. *The Double-crested Cormorant in Middlesex, Elgin and Oxford Counties*. In: The Cardinal, No 184, August 2001. The Mcllwraith Field Naturalists of London.

Martin, Dave. June 2001. Birds of Port Burwell. Bird checklist for Port Burwell Provincial Park, Ontario Parks.

Martin, Dave. 2001. The Northern Cardinal *Cardinalis cardinalis*. In: The Cardinal April No. 183, April 2001. The Mcllwraith Field Naturalists of London.

Martin, Dave. March 2001. The Maidenhair Fern Trail. Trail guide for Sibbald Point Provincial Park, Ontario Parks.

Martin, Dave. March 2001. The Lookout Trail. Trail guide for Balsam Lake Provincial Park, Ontario Parks.

Martin, Dave. March 2001. The Plantation Trail. Trail guide for Balsam Lake Provincial Park, Ontario Parks.

Bisson, Isabelle, Dave Martin, Bridget J. M. Stutchbury. 2000. *Acadian Flycatcher, Empidonax virescens, Nest Site Characteristics at the Northern Edge of its Range*. The Canadian Field-Naturalist. Volume 114, Number 4.

Martin Dave. 1999. Significant Breeding Birds at Port Franks Woodlands Important Bird Area. [Background report for the Port Franks IBA Conservation Plan.]

Martin Dave, Jon McCracken and Mike Cadman. 1999. *Acadian Flycatchers in Ontario Ravines*. In; OFO NEWS, Newsletter of the Ontario Field Ornithologists. Ontario Field Ornithologists.

Martin Dave, 1999. *Bog Coppers and Brown Elfins at Sifton Bog*. In: The Cardinal, No 175, April 1999. The Mcllwraith Field Naturalists of London.

Martin Dave. 1998. *Skunk's Misery Revisited*. In: The Cardinal, No. 173, November 1998. The Mcllwraith Field Naturalists of London.

Martin, Dave. 1998. *Hawk Cliff: Where do we go from here?* In: OFO NEWS, Newsletter of the Ontario Field Ornithologists. Ontario Field Ornithologists. Volume 16 Number 2, June 1998.

Martin, Dave. 1998. *Visible Migration - Loons*. In: The Cardinal, No. 171, April 1998. The Mcllwraith Field Naturalists of London.

Martin, Dave. 1998. *Deep Forest Denizens* (habitat requirements for 3 VTE forest interior birds in southern Ontario forests). In: Carolinian Canada Newsletter, March 1998. Carolinian Canada.

Friesen, Lyle and Dave Martin. 1998. *National Recovery Plan for the Acadian Flycatcher and the Hooded Warbler*. Environment Canada: Recovery of Nationally Endangered Wildlife Committee.

McCracken, Jon, Dave Martin, Isabelle Bisson, Mary Gartshore and Richard Knapton. 1998. 1998 *Surveys of Acadian Flycatchers and Hooded Warblers in Ontario*. Bird Studies Canada, Port Rowan, ON.

Heagy, Audrey, Dave Martin and Jon McCracken. 1997. *Acadian Flycatcher and Hooded Warbler Recovery Activities: 1997 Field Surveys in Southwestern Ontario*. Ontario Birds at Risk. Long Point Bird Observatory.

Martin, Dave. 1996. "Mammals of Middlesex County". In: Focus on the Thames: Natural and Cultural Heritage of the River, Anita Caveney, editor. Mcllwraith Field Naturalists of London, Upper Thames River Conservation Authority.

Read, P. and Dave Martin, editors, 1996. *Butterflies of Middlesex County*. Mcllwraith Field Naturalists, Upper Thames River Conservation Authority, London Community Foundation.

Read, P. and David Martin. Compiled 1990, revised 2009. *Bird Checklist for Middlesex County*. Mcllwraith Field Naturalists of London, Upper Thames River Conservation Authority, London Community Foundation.

Related Affiliations / Memberships / Positions

Acadian Flycatcher/Hooded Warbler Recovery Team (member 1997-2007)
Eastern Spiny Softshell Recovery Team (member late 1990s to 2003)
Loggerhead Shrike Recovery Team (former affiliate)
Federation of Ontario Naturalists
Long Point Bird Observatory/Bird Studies Canada
Mcllwraith Field Naturalists of London
Ontario Field Ornithologists
St. Thomas Field Naturalists
Coordinator Birding Wing meetings for Mcllwraith Field Naturalists since 1988

Awards

The Mcllwraith Field Naturalists of London, Ontario 1996 **Conservation Award** in recognition of outstanding contributions to conservation.

The Kettle Creek Conservation Authority 1992 **Conservation Stewardship Award** in recognition of contributions to natural resources conservation in the watershed.

Bio for Dave Martin and his faunal survey team

Dave Martin's faunal survey team consists of Linda Wladarski, Ross Snider, James Holdsworth, Pete Read and Sue Read. All have been birding for 20 to 40 years. All have participated extensively in volunteer and paid surveys. Currently, all make a small to substantial portion of their yearly income working as freelance faunal biologists, either working for Dave Martin or for other companies and government agencies at the local, provincial and national levels.

Volunteer Projects

Volunteer participation over the years ranges from extensive involvement in the first and second Ontario Breeding Bird Atlases, Christmas Bird Counts, Breeding Bird Surveys, Forest Bird Monitoring, Project Feederwatch and reporting to various bird data collection schemes such as eBird, American Birds and Ontbirds. Volunteer work ranges from participating to coordinating at a regional or local level. Here are a few examples. Dave Martin, Ross Snider and Pete Read have coordinated the Ingersoll and London CBCs, respectively, for over 20 years. Dave Martin, Linda Wladarski and Pete Read have run Breeding Bird Surveys for over 20 years. Dave Martin and Linda Wladarski ran the Forest Bird Monitoring at Springwater Forest for 10 years. Dave Martin was the coordinator for Region 4 for both the first [1981-1985] and the second [2001-2005] Ontario Breeding Bird Atlas.

Professional work

All have worked as professional paid faunal biologists with an emphasis on birds although in recent years requests for surveys for reptiles, butterflies and odonates have increased. All have been involved in small and large-scale projects that involve completion of federal and provincial Environmental Assessments and regional and local Environmental Impact Assessments. The variety of projects includes highway work, subdivision and industrial park developments, Natural Area Studies, sanitary and water systems and wind turbine projects. All have been involved to some degree or another with work for the private and public sectors. Public sector projects include surveys for Bird Studies Canada, Nature Conservancy and various Conservation Authorities, Stewardship Councils, OMNR and CWS. For example, Martin's team has collected data for the Nature Conservancy at Lambton County Forest, Clear Creek, Bickford Oak Woods and the Ladney properties. Dave Martin's team has been involved in various surveys for endangered species including Loggerhead Shrike, Acadian Flycatcher, Hooded Warbler and Prothonotary Warbler. Martin's team works for a number of companies in the private sector. These include BioLogic [London], Ecoplans [Kitchener], Dugan and Associates [Guelph], Lynn Valley Consulting [Simcoe], Gerry Waldron [Essex County], Earth Tech [Kitchener], Delcan [London] Genivar [King City], LGL [Burlington] and Dillon [Toronto]. Since 2004, Dave Martin's team has completed the avifaunal studies for 45 different wind turbine projects.

In summary, Dave Martin and his team have been extensively involved in private and public sector, volunteer and paid faunal monitoring projects for 20 to 40 years.