



Christin McDonough

Wildlife Biologist

Summary

Ms. McDonough has over 9 years of professional experience working as a wildlife biologist. At New England Environmental, Inc. (NEE) she is responsible for monitoring rare amphibians and reptiles of New England using multiple methodologies, along with Geographic Information Systems (GIS) mapping. She conducts vernal pool surveys, wildlife habitat evaluations, and rare species assessments in compliance with state and federal permitting.

Areas of Expertise

- Expert amphibian and reptile identification (including tadpole/eggmass/egg)
- Multiple techniques for monitoring amphibians including: pitfall trap, egg mass count, dip-net, transect, plot sample, cover board array, radio telemetry, and surgical implantation of radio tracking device (surgical implantation of spotted salamander, eastern spadefoot toad, and fowler toad)
- Habitat mapping using GIS
- Wetland delineation
- Photo interpretation and wetland classification, using stereoscope, Cowardin et al. 1979, and/or GIS

Education

M.S., Environmental Sciences (Amphibian Ecology) - University of Rhode Island, Kingston, RI, December, 2005.

B.S., Wildlife Biology – minors in Environmental Science and Spanish– University of Massachusetts, Amherst, MA, 1998.

Credentials

Associate Wildlife Biologist, The Wildlife Society

OSHA 10 Hour

SCUBA (SDI) Open Water

Experience

New England Environmental, Inc. **2006-present**

Responsibilities include rare species sampling and habitat use; vernal pool identification and certification; GIS mapping; providing scientific data and guidance to assist clients to meet standards for Conservation and Management Permits under the Massachusetts Endangered Species Act; developing mitigation plans to minimize impacts to wildlife habitat; wetland classification and delineation; report writing.

University of Rhode Island **June 2005-Oct 2005**

Wildlife Biologist, Field Investigator

Monitored amphibian populations throughout Rhode Island using pitfall trap arrays, egg mass counts, dip-net surveys, call surveys and transects; contract GIS mapping.





University of Rhode Island**2003-2005****Graduate Research Assistant**

Assessed upland habitat use, resource selection, and migration behavior of 80 adult spotted salamanders (*Ambystoma maculatum*) using radio telemetry; surgical implantation of radio transmitters; field data collection, data entry, data analysis, and manuscript preparation; monitored amphibian populations in southeastern Connecticut using multiple techniques including: pitfall traps, egg mass counts, dip-net surveys, transects, plot samples, cover board arrays, radio telemetry, and surgical implantation of radio tracking devices; contract GIS technician and habitat mapping specialist. Other species sampled included wood frogs (*Rana sylvatica*), red spotted newts (*Notophthalmus viridescens viridescens*), four-toed salamanders (*Hemidactilium scutatum*), eastern spadefoot toads (*Scaphiopus holbrookii*), American toads (*Bufo americanus*), marbled salamanders (*Ambystoma opacum*), and red-backed salamanders (*Plethodon cinereus*).

University of Rhode Island**March 2003-Sept 2003****Wildlife Biologist**

Monitored 30 spotted salamanders using radio telemetry; surgical implantation of radio tracking devices; field data collection, data entry, and report preparation; plot sampling for various amphibian species in Rhode Island.

Massachusetts Cooperative Fish and Wildlife**Research Unit****April 2001-Nov 2001****Field Biologist**

Worked as part of a team of biologists to gather life history data and habitat use on Blanding's turtle (*Emydoidea blandingii*) using radio telemetry; worked with other state listed species including spotted turtle (*Clemmys guttata*) and eastern box turtle (*Terrepenne carolina*); conducted habitat evaluations.

University of Massachusetts**1996-1997****Laboratory Technician**

Assisted research on amphibian respiration, concentration on eastern hellbender (*Cryptobranchus alleganiensis*); amphibian surgeries, data entry, and video analysis; worked independently on weekends and holidays providing care for various species of amphibians, reptiles, and fish in the laboratory.

**Professional
Training/Education**

- Wetland Ecology and Field Techniques, URI, 2005
- Wetland Assessment and Field Techniques, U-Mass Amherst, MA, 2000
- Wetlands Wildlife Ecology and Management, U-Mass Amherst, 1997
- Graduate Courses and continuing Education in Wildlife Biology 1997-present





**Affiliations/
Memberships**

- Society for the Study of Amphibians and Reptiles (SSAR)
- Partners for Amphibian and Reptile Conservation (PARC)
- The Wildlife Society (TWS)
- Rhode Island Natural History Survey (RINHS)
- Association of Massachusetts Wetland Scientists (AMWS)
- Society for Women Environmental Professionals (SWEP)

Publications

McDonough, C. and P. W. C. Paton. 2007. Spotted salamander dispersal across a forested landscape fragmented by a golf course. *Journal of Wildlife Management* 71(4) 1163-1169.

Paton, P. W. C., McDonough, C., and K. Montieth. 2008. Migration Ecology of Spotted Salamanders on Golf Courses in Southern New England. *Herpetological Conservation* 3:293-301.

Presentations

- Migratory Behavior of Radio-tagged Adult Spotted Salamanders on a Golf Course, Christin McDonough-Haughey; scientific presentation given at joint meeting for Ichthyologists and Herpetologists, July 10, 2005.
- Dispersal Ecology of Radio-tagged Adult Spotted Salamanders, Christin McDonough-Haughey; educational poster presented at the Rhode Island Natural History Survey Conference "Rhode Island Forests", March, 2005.

Languages

Fluent Spanish (speaking, writing, reading)



Additional Project Detail

2010	Assessed wood turtle (<i>Glyptemys insculpta</i>) hibernation habitat prior to a riverbank restoration project in Cheshire, MA. Hibernating wood turtles were monitored for during construction.
2009-2010	Conducted species survey for blue spotted salamanders (<i>Ambystoma laterale</i>) using pitfall trap arrays, visual eggmass surveys, and larval surveys in Granby, Massachusetts, as part of a proposed project design.
2009-2010	Instructed an "Outdoor Classroom-Vernal Pool Workshop" for young children in Shelburne and Springfield. Field trips included identifying various amphibian eggmasses and larvae, invertebrates, reptiles, and vernal pool characteristics, in addition to a start-to-finish walk through of the Massachusetts vernal pool certification process.
2009	Surveyed for wood turtles (<i>Glyptemys insculpta</i>) during a riverbank restoration project on the Deerfield River. Surveys included both terrestrial and sub-aquatic (mask and fins) sweeps for turtles prior to site work and installation of turbidity control measures.
2009	Conducted vernal pool surveys, larval marbled salamander (<i>Ambystoma opacum</i>) surveys, wood turtle (<i>Glyptemys insculpta</i>) surveys and box turtle (<i>Terrapene carolina</i>) surveys in and around Douglas State Forest, Massachusetts.
2008-2009	Conducted construction oversight and surveyed for wood turtles (<i>Glyptemys insculpta</i>) during 3 different riverbank restoration projects along the Green River in Greenfield, Massachusetts.
2008	Conducted nesting Blanding's turtle (<i>Emydoidea blandingii</i>) survey at Hockomock Swamp in southeastern Massachusetts as part of a proposed commuter rail re-opening.
2008	Surveyed for black rat snakes (<i>Elaphe obsoleta</i>) in Sturbridge, Massachusetts for the Department of Conservation and Recreation (DCR) during expansion of the camping facilities.
2008	Surveyed for black rat snakes (<i>Elaphe obsoleta</i>), wood turtles (<i>Glyptemys insculpta</i>) and box turtles (<i>Terrapene carolina</i>) on Mount Toby in Sunderland, Massachusetts during the replacement of telephone poles along Telephone Trail.
2007-2010	Surveyed for wood turtles (<i>Glyptemys insculpta</i>) for the Massachusetts Department of Transportation (MassDOT) in Tyringham, Petersham, Monson, Palmer, Leverett, Athol, Amherst, Gill, and Northampton, Massachusetts.
2007-2010	Surveyed for endangered dragonflies including ringed boghaunter (<i>Williamsonia lintneri</i>), comet darner (<i>Anax longipes</i>), and spatterdock darner (<i>Aeshna mutata</i>). Additionally conducted surveys for common dragonfly species, assessed vernal pools, and assessed general wildlife habitat for a proposed development surrounding a sensitive wetland in northern Rhode Island.
2007-2009	Certified vernal pools for Town Conservation Commission in Otis, Hanover and Shelburne, Massachusetts.
2007-2009	Assessed habitat for wood turtles and box turtles prior to the development of a shopping center in Southington, Connecticut. Additionally conducted construction oversight for rare species on a weekly basis.

2007-2008	Monitored a local population of wood turtles (<i>Glyptemys insculpta</i>) using radio telemetry to map habitat use in an agricultural landscape in western Massachusetts.
2007-2008	Conducted calling surveys, eggmass surveys, and larval surveys for spadefoot toads (<i>Scaphiopus holbrookii</i>) in Sunderland and Hadley, Massachusetts.
2007	Conducted larval surveys for marbled salamanders (<i>Ambystoma opacum</i>), blue spotted salamanders (<i>Ambystoma laterale</i>), Jefferson salamanders (<i>Ambystoma jeffersonianum</i>), black rat snakes (<i>Elaphe obsoleta</i>) and timber rattlesnakes (<i>Corotatus horridus</i>) near Mount Tom in Holyoke, Massachusetts.
2007	Conducted larval survey for marbled salamanders (<i>Ambystoma opacum</i>) in Charlestown, Massachusetts, discovering a new metapopulation.
2006-2010	Conduct general wildlife habitat evaluations using the Department of Environmental Protection (DEP) Wildlife Habitat Protection Guidance for Inland Wetlands, Appendix A and B dataforms in addition to written reports and recommendations for avoiding impacts to wildlife habitat and mitigation throughout Massachusetts.
2006-2010	Surveyed for box turtles (<i>Terrapene carolina</i>) during the construction of a subdivision in Wrentham, Massachusetts.
2006-2008	Conducted four-toed salamander (<i>Hemidactylium scutatum</i>) nesting surveys and created nesting habitat maps in Natick, Hanover, Holliston, and Upton, Massachusetts.
2006	Surveyed for blue spotted salamanders (<i>Ambystoma laterale</i>) during a site remediation project involving the removal of several dozens of tires in and around a wetland where blue spotted salamander breeding was known to occur. One adult was found and moved from construction activities.
2006	Monitored a local population of spotted turtles (<i>Clemmys gutatta</i>) using radio telemetry to map habitat use and home range size in an area where a new development was proposed in Hadley, Massachusetts. The development never took place.
2006	Donated refurbished transmitters to the National Park Service for telemetry research on spadefoot toad (<i>Scaphiopus holbrookii</i>) habitat and movement ecology. Instructed and demonstrated the field crew on the surgical protocols to follow for spadefoot toads and for fowler's toads (<i>Bufo fowleri</i>).
2005	Volunteered for the National Park Service to conduct shorebird and wading bird nest count surveys on the Boston Harbor Islands. Species inventoried included American oystercatcher (<i>Haematopus palliatus</i>), least tern (<i>Sterna antillarum</i>), common tern (<i>Sterna hirundo</i>), common eider (<i>Somateria mollissima</i>), black-crowned night heron (<i>Nycticorax nycticorax</i>), glossy ibis (<i>Plegadis falcinellus</i>), spotted sandpiper (<i>Actitis macularia</i>), double-crested cormorant (<i>Phalacrocorax auritus</i>), herring gull (<i>Larus argentatus</i>), and great black-backed gull (<i>Larus marinus</i>).
2005	Monitored amphibian populations throughout Rhode Island using pitfall trap arrays, egg mass counts, dip-net surveys, call surveys and transects; contract GIS mapping.

2003-2005	Assessed upland habitat use, resource selection, and migration behavior of 80 adult spotted salamanders (<i>Ambystoma maculatum</i>) using radio telemetry as part of a graduate assistantship; surgical implantation of radio transmitters; field data collection, data entry, data analysis, and manuscript preparation; monitored amphibian populations in southeastern Connecticut using multiple techniques including: pitfall traps, egg mass counts, dip-net surveys, transects, plot samples, cover board arrays, radio telemetry, and surgical implantation of radio tracking devices; contract GIS technician and habitat mapping specialist. Other species sampled included wood frogs (<i>Rana sylvatica</i>), red spotted newts (<i>Notophthalmus viridescens viridescens</i>), four-toed salamanders (<i>Hemidactylium scutatum</i>), eastern spadefoot toads (<i>Scaphiopus holbrookii</i>), American toads (<i>Bufo americanus</i>), marbled salamanders (<i>Ambystoma opacum</i>), and red-backed salamanders (<i>Plethodon cinereus</i>).
2003	Monitored 30 spotted salamanders using radio telemetry; surgical implantation of radio tracking devices; field data collection, data entry, and report preparation; plot sampling for various amphibian species in Rhode Island.
2001	Worked as part of a team of biologists to gather life history data on Blanding's turtle (<i>Emydoidea blandingii</i>) using radio telemetry; worked with other state listed species including spotted turtle (<i>Clemmys guttata</i>) and eastern box turtle (<i>Terrapene carolina</i>); conducted habitat evaluations.
1996-1997	Assisted research on amphibian respiration, concentration on eastern hellbender (<i>Cryptobranchus alleganiensis</i>); amphibian surgeries, data entry, and video analysis; worked independently on weekends and holidays providing care for various species of amphibians, reptiles, and fish in the laboratory.
