Poland Spring, Maine <u>www.firstlighthabitats.com</u> Facebook Instagram LinkedIn

#ThePersonalEcologist



### BIO

I am a wildlife ecologist with 30 years of experience in my field, and a lifelong commitment to wildlife conservation. Before settling down in my native State of Maine, I was a roving field biologist for many years, conducting fieldwork and wildlife research throughout North America, from the deserts of New Mexico to the remote tundra landscape of the Canadian Arctic. As the owner of First Light Wildlife Habitats, and as "**The Personal Ecologist**", I co-create thriving yard, farm, and forestland habitats with stewards throughout the Northeast. I live with my husband and daughter in Poland Spring, and enjoy being outdoors as much as possible with my family.

### **PROFESSIONAL PROFILE**

Consulting wildlife ecologist, educator, and conservation professional with 30 years of work experience in public, private, and academic institutions throughout North America. Extensive background in wildlife research and habitat planning (has advised clients on over 14,000 acres of habitat since 2010). Skilled writer and communicator, particularly well-suited to translating science for a broad range of audiences.

### EDUCATION

2004	Master of Science in Zoology, University of Maine
	Thesis: "The Breeding Ecology and Behavioral Endocrinology of Ruddy Turnstones (Arenaria interpres)
	in the Eastern Canadian Arctic"
1997	Bachelor of Science in Wildlife Biology, University of Montana
1993	Associate of Arts in Natural Resource Management, Sterling College, Vermont

## WORK & RESEARCH EXPERIENCE

Wildlife Ecologist and Sole Proprietor: First Light Wildlife Habitats Poland Spring, Maine Jan 2010-present

- Consultant and independent contractor specializing in <u>wildlife habitat design</u> and planning.
- Certified Technical Service Provider for the Natural Resources Conservation Service (NRCS).
- Develop Wildlife and Pollinator Habitat Conservation Activity Plans for private landowners enrolled in NRCS programs.
- Lead <u>interpretive nature walks</u>, workshops, and presentations on various topics related to wildlife and ecology.
- Independent development of over 50 plans for the enhancement of habitat for a wide range of species (e.g. woodcock, grouse, beaver, brook trout, deer, bats, raptors, forest songbirds, grassland birds, pollinators, and waterfowl).
- Assess invasive plants and recommend site-specific control measures.
- Work with a variety of clients throughout Maine including residential homeowners, hobby farmers, large-scale farms, forestland owners, land trusts, municipalities, and commercial fruit producers.
- Past clients include: private landowners, Maine Department of Inland Fisheries and Wildlife, the Committee on the Status of Endangered Wildlife in Canada, the Biodiversity Research Institute, the Trust to Conserve Northeast Forestlands, the Northeast Master Logger Program, Emory University, Western Foothills Land Trust, Sebasticook Regional Land Trust, and ReTreeUS/Davis Conservation Foundation.

### Wildlife Habitat Planning Program Director: Biodiversity Research Institute Portland, Maine

- Sept 2011-May 2013
- Wildlife biologist and Certified Technical Service Provider for the NRCS.

Wrote grant proposals to the National Fish and Wildlife Foundation and the U.S. Fish & Wildlife Service for additional funding.

# Maine Projects Director: Northern Forest Alliance (NFA) Augusta, Maine

- June 2007-April 2008 Directed and coordinated the local, state and federal initiatives of the NFA in Maine; the NFA was a coalition of conservation, recreation, and forestry organizations united in their commitment to protect and enhance the natural and human communities of the Northern Forest of Maine, New Hampshire, Vermont and New York.
- Coordinated the activities of the Maine Caucus of NFA and worked to maintain and enhance member group support for and engagement in NFA initiatives; convened regular meetings and facilitated the development of collective outreach strategies: implemented action plans.
- Acted as a liaison between NFA's Maine Caucus groups and other interest groups, government entities, and stakeholders regarding controversial and emerging conservation issues; arranged and facilitated meetings and briefings with high-level staff within state and local government.
- Led the Maine outreach team of the Mahoosuc Initiative, a collaborative working to develop a long-term, sustainable community and locally led conservation vision for the Mahoosuc region of western Maine and northeastern New Hampshire.

### Alaska Forest Program Manager: The Wilderness Society (TWS) Anchorage, Alaska March 2005-April 2007

- Served a key collaborating and coordinating role within a broad coalition of organizations (including other conservation, public interest, and business groups), to advance the conservation of public lands in Alaska.
- Identified opportunities to influence U.S. Forest Service policy on the Chugach and Tongass National Forests and implemented strategies designed to influence those policies.
- Served a critical role in developing TWS' Center for Conservation Science in Alaska as part of a small team; co-wrote a successful half-million dollar grant proposal that funded the Center.
- . Worked within a small team in the Alaska Regional Office to develop science initiatives and to incorporate ecological and economic research into regional outreach and program work.
- . Represented TWS in a high-profile collaborative process (Tongass Futures Roundtable) consisting of a diverse group of stakeholders (the timber industry, the Forest Service, commercial fishermen, native corporations, small business owners, and local mayors) seeking a new paradigm for the future of the Tongass region.
- . Informed, educated, and lobbied legislators, government personnel, and Congressional staff on Capitol Hill.
- . Cultivated strong working relationships with Alaska Native governments (tribes) and agency personnel.
- . Developed and authored citizen guides, fact sheets, and comments on agency plans, policies, and proposals.

# M. S. in Zoology: University of Maine Orono, Maine

- May-Aug. 2002, 2003 Independently developed study design, generated research funds, and performed research for M.S. thesis project in the eastern Canadian Arctic (a behavioral and ecological study of a shorebird, the Ruddy Turnstone); conducted nest-searching, trapping, banding, radiotelemetry, behavioral observation, blood sampling, and laboratory analysis.
- . Coordinated the Program for Regional and International Shorebird Monitoring at the East Bay study site.
- Coordinated field logistics for Canadian Wildlife Service (CWS) remote Arctic field camp (camp leader).
- Assisted CWS research team in nest-trapping, blood sampling, and attaching radio transmitters to eider ducks for a demographic and reproductive ecology study.
- Worked on a study of the breeding behavior and body condition of seabirds (Northern Fulmars) in the High Arctic as a member of a CWS research team.

# Graduate Research Assistant: University of Maine Orono, Maine

- Performed laboratory experiments for a study of the behavioral and physiological differences in migratory strategies of two species of warblers (Principal Investigator: Dr. R.L. Holberton).
- . Conducted hormone manipulation of 30 captive warblers to study the role of corticosterone (the major energy regulating hormone in birds) in migratory feeding and fattening.
- Mist-netted, banded, and collected blood samples from passerines in Maine and Manitoba.

# National Science Foundation (NSF) Graduate Teaching Fellow

# **NSF Teaching Fellowship Program**

# University of Maine Orono, Maine

The State of Maine Brewer High School (Grades 11-12); Old Town High School (Grades 9-10); Nobleboro Central School (Grade 5); Indian Island School, Old Town (Grades 6-8); Lewis Libby School, Milford (Grade 4)

- Independently developed curricula and taught science lessons in public schools as a NSF teaching fellow while pursuing a Master of Science degree.
- Accrued over 300 classroom hours teaching grades 4-12 (~40% high school; ~30% middle school; ~30% . elementary).

Sept. 2001-May 2002

2002-2004

- Taught over 156 students in the following content areas: microscopy, taxonomy, astronomy, physiology, animal behavior, wildlife biology, cellular and molecular biology, genetics, physics, chemistry, geology, population biology, environmental science, biodiversity, and hydrology.
- . Developed and led hands-on laboratory exercises for high school classes including Environmental Science (advanced placement) and Biology (college preparatory and general).
- Designed, planned, and led field trips.
- Appeared on local television and radio stations with Maine's governor-elect to announce NSF grant renewal. .

### Wildlife Biologist, Technician, & Intern: Maine Dept. of Inland Fisheries & Wildlife Bangor, Maine 1995, 1998-2001

- Conducted field research for bear population monitoring project, lynx conservation project, and endangered and threatened species projects throughout Maine.
- Trapped and immobilized black bears, visited winter dens to collect reproductive and survival data, and leg-hold trapped foxes, coyotes, and lynx.
- . Conducted pioneering research on the endangered New England Cottontail rabbit by determining presence or absence at historically occupied sites.
- Assisted in Peregrine Falcon release program and monitored fledglings.
- Authored American Woodcock research progress report to the Outdoor Heritage Fund, managed databases with Lotus Approach<sup>TM</sup>, and interpreted aerial photos.
- Established landowner contacts and educated the public regarding departmental concerns.

### Wildlife Biologist: U.S Fish & Wildlife Service Old Town, Maine

- Independently conducted weekly point counts of breeding birds (by sight and/or sound), particularly Nelson's and Saltmarsh Sharp-tailed Sparrows
- . Compiled results and wrote a full report to aid in management decisions for salt marsh habitat restoration project.

Identified shorebirds during fall migration and estimated flock sizes for habitat suitability assessment.

# Research Consultant: Marine Environmental Research Institute Blue Hill, Maine

- Advised investigators in study design and research methods for a pilot study on harbor seal ecology.
- Supervised field logistics and reconnaissance work at study site.
- Collected reproductive and behavioral data on large seal colony during pupping season. .
- Recorded time budget data on mother-pup pairs.
- Collected scat samples on ledges for diet composition analysis. .
- Researched fish ecology and abundance in the Gulf of Maine and suggested sampling protocols for foraging study. .

### Wildlife Biologist: The Hornocker Wildlife Institute Bozeman, Montana

- Supervised research on 200 mi<sup>2</sup> study area for New Mexico Black Bear Ecology Study.
- . Trapped, immobilized, and radio-tracked bears to collect population and habitat suitability data.
- . Navigated through mountainous terrain to remote winter dens and collected reproductive and survival data on adults and offspring.

### Seabird Researcher: US Fish & Wildlife Service Milbridge, Maine

- Researched productivity, chick provisioning rates, and prey utilization of a large seabird colony for the Gulf of Maine Seabird Restoration Project.
- Trapped and banded Arctic, Common, and Roseate Terns.
- Censused nesting seabirds, banded Atlantic Puffins and Black Guillemots, conducted daily bird surveys, determined age classes of eider ducklings, and re-sighted nasal-marked eider hens.
- . Implemented gull control measures to facilitate tern recovery efforts.

### Biological Technician: The National Park Service Katmai National Park, Alaska

- May-Sept. 1998 Conducted behavioral research for Coastal Brown Bear-Human Interaction Study (results from this study formed the basis for park management decisions regarding ecotourism and bear-human conflicts).
- Collected data on foraging ecology, social behavior, bear-human interactions, bear viewing, and aircraft activity with the use of palm-top computers, behavioral research software (Noldus Observer <sup>TM</sup>), and high powered scopes (350+ total hours of independent observation).

### Field Technician: The Interagency Grizzly Bear Study Team Bozeman, Montana

- Assisted in trapping, handling, and radio-collaring grizzly bears in the Greater Yellowstone Ecosystem for a study of population status and trend, habitat use, diet, and the effects of land management practices.
- Assisted in the design of non-intrusive population monitoring techniques for hair collection and DNA analysis.

### May-Aug. 2000

### May-July 1999

May-Aug. 1996

1997-1998, 2000

June-Oct. 2000

Intern: University of Tennessee Knoxville, Tennessee

Jan.-March 1993

- Worked closely with graduate students in the field and laboratory to collect reproductive and survival data for a long-term black bear study of population dynamics in Great Smoky Mountains National Park.
- Independently operated radiotelemetry equipment to locate den sites.
- Compiled and interpreted five years of bait station data to create a comprehensive map showing areas of high bear density.
- Aged over 500 bears using tooth sectioning techniques in the laboratory.

# **BOARD & COMMITTEE MEMBERSHIPS**

- Ex-officio Board Member Desert of Maine <u>Center for Arts and Ecology</u>. 2021 present.
- Board Member At Large for The Maine Chapter of The Wildlife Society. 2012-2015.
- Invited board member of the Certification Board of the **Northeast Master Logger Certification Program** which offers third-party independent certification of logging companies' harvesting practices. 2007-2010.
- Chaired and facilitated the **Economics Subcommittee** of the **Alaska Rainforest Campaign**. 2006-2007.
- Member of the Kenai Brown Bear Committee (Alaska), comprised of tourism, hunting, fishing, conservation, and government interests, to develop and implement the educational component of the collaborative Kenai Peninsula Brown Bear Conservation Strategy. 2005-2007.
- Working member of the **Rural Destination Tourism Collaborative**, an effort to create and market tourism experiences thematically organized around Maine's inland outdoor sporting resources and opportunities. 2008.

## **GRANTS, AWARDS & FELLOWSHIPS**

Grants and awards for graduate research and travel (2001 to 2004):

- Frank M. Chapman Memorial Fund research grant, American Museum of Natural History
- University of Maine Association of Graduate Students research grant
- Kathleen S. Anderson Award, Manomet Center for Conservation Sciences
- Percy A. Taverner Award, Society of Canadian Ornithologists
- Exploration Fund research grant, Explorer's Club
- New Jersey Division of Fish and Wildlife research grant
- Waterbird Society Meeting Best Student Poster Presentation Award
- Marcia Brady Tucker Travel Award, American Ornithologists' Union
- Association of Graduate Students travel grant, University of Maine
- Department of Biological Sciences travel grant, University of Maine
- Alumni Association travel grant, University of Maine

Fellowships and Scholarships

- National Science Foundation Teaching Fellowship, University of Maine, 2002-2003
- National Science Foundation Teaching Fellowship, University of Maine, 2003-2004
- James D. Salinas Memorial Scholarship, University of Montana, 1996

## PUBLICATIONS & REPORTS

The Trust to Conserve Northeast Forestlands. 2012. Logger's Guide: Protecting Water Quality. (Authored by **D. E. Perkins**).

The Trust to Conserve Northeast Forestlands. 2011. Logger's Guide: Understanding Forest Biodiversity. (Authored by **D. E. Perkins**).

COSEWIC. 2010. Status appraisal summary for the Long-billed Curlew *Numenius americanus*. Committee on the Status of Endangered Wildlife in Canada. Ottawa. 11 pp. (Authored by **D.E. Perkins** and C. L. Gratto-Trevor).

**Perkins, D.E.**, P.A. Smith, and H.G. Gilchrist. 2007. The breeding ecology of Ruddy Turnstones (*Arenaria interpres*) in the eastern Canadian Arctic. Polar Record 43:2:135-142.

**Perkins, D.E**. and R.L. Holberton. 2006. Indicators of body condition, energy demand, and breeding success in the Ruddy Turnstone, *Arenaria interpres*, species of concern. Waterbirds around the world, Eds. G.C. Boere, C.A. Galbraith & D.A. Stroud. The Stationary Office, Edinburgh, UK. pp. 551-552.

**Perkins, D.E.** 2004. Proximate physiological factors associated with parental investment in an Arctic-breeding shorebird (*Arenaria interpres*) at Southampton Island, Nunavut, Canada. Frank M. Chapman Memorial Fund report submitted to the American Museum of Natural History. University of Maine, Orono, Maine, USA.

**Perkins, D.E.** 2002. Reproductive success and breeding density of Ruddy Turnstones (*Arenaria interpres*) at East Bay, Southampton Island, Nunavut, Canada. Grant report to the New Jersey Division of Fish And Wildlife Endangered and Nongame Species Program. University of Maine, Orono, Maine, USA.

**Perkins, D.E.** 2000. Protocol for documenting Canada lynx habitat associations during aerial telemetry monitoring. Maine Department of Inland Fisheries and Wildlife, unpublished report, Bangor Maine, USA.

**Perkins, D.E.** 2000. Weskeag River Marsh Sharp-tailed Sparrow point counts and shorebird surveys. Summary report to U.S. Fish & Wildlife Service, Old Town, Maine, USA.

**Perkins, D.,** E. Shanahan, B. French, G. Dicus. 1998. Brown Bear and human activity along the coast of Katmai National Park and Preserve. 1998 Katmai Coastal Bio-technician field season report. National Park Service, King Salmon, Alaska, USA.

Allen, R. Bradford and **D. E. Perkins**. 2000. Effects of hunting on survival and habitat use by American Woodcock (*Scolopax minor*) during fall on breeding areas. Final report submitted to the Maine Outdoor Heritage Fund Board. Maine Department of Inland Fisheries and Wildlife, Bangor, Maine, USA.

Costello, C.M., D. E. Jones, R.M. Inman, J.L. Cashman, **D.E. Perkins**, S.D. Tomson, T.S. Beall, H.B. Quigley, M.G. Hornocker. 1998. Population characteristics and ecology of New Mexico black bears. Annual Report. Hornocker Wildlife Institute, Moscow, Idaho, USA.

### **PROFESSIONAL PRESENTATIONS**

- Perkins, D.E. 2004. Wind Birds in the Land of the Midnight Sun: How Do Ruddy Turnstones Cope with Severe Time and Energy Constraints? Oral Presentation at the University of Maine Biological Sciences Seminar Series (Thesis Presentation), Orono, Maine.
- Perkins, D.E. and R.L. Holberton. 2004. Patterns of Hormone Secretion Reflect Shared Parental Effort in a Monogamous Arctic-breeding Shorebird. Oral Presentation at the 122<sup>nd</sup> Meeting of the American Ornithologists' Union and Annual Meeting of the Society of Canadian Ornithologists (joint meeting), Université Laval, Quebec, Canada.
- Perkins, D., D. King, S. Brawley, S. Norton, B. Cole, and R. Yehle. 2004. The Impact of the University of Maine's NSF GK-12 Program. Oral Presentation at the 2004 National Summer Conference: Integrating Science and Mathematics Education Research into Teaching, University of Maine, Orono, Maine.
- Perkins, D.E. and R.L. Holberton. 2004. Indicators of Body Condition, Energy Demand, and Breeding Success in Ruddy Turnstones, a Species of Concern. Poster Presentation at the Waterbirds Around the World Conference, Edinburgh, Scotland.
- Perkins, D.E. and R.L. Holberton. 2004. Proximate Physiological Factors Associated with Parental Investment in an Arctic-breeding Shorebird. Oral Presentation at the Northeast Biological Graduate Student Conference, University of Maine, Orono, Maine.
- Perkins, D.E. and R.L. Holberton. 2002. Sex Differences in the Adrenocortical Stress Response of Incubating Ruddy Turnstones. Poster Presentation at the Waterbird Society Annual Meeting, La Crosse, Wisconsin.

## **OTHER SKILLS & CERTIFICATIONS**

Winter camping & survival

Motor boat, ATV, and snowmobile operation

Proficiency with firearms (handgun, rifle, and shotgun)

Whitewater canoeing, backpacking, cross-country skiing, and rock climbing

Certified in: 1) wilderness first aid & CPR 2) hunter safety, and 3) fixed wing and helicopter safety

Assistant guiding experience on wilderness canoe trips with Sunrise International (St. Croix River, Maine/New Brunswick)