

# ANDRÉ R. BRETON

## Curriculum Vitae

**Wildlife & Quantitative Ecologist**  
**Owner, Architect, & Lead Developer**  
**[Insight Database Design & Consulting](#)**  
**970-215-3833, [andre.breton@colostate.edu](mailto:andre.breton@colostate.edu)**  
**Birth Year: 1971 Citizenship: USA**  
**Academic Status: Emancipated, 22 July 2015**  
**Curriculum Vitae Status: Complete 1990-2015**

### UNIVERSITY APPOINTMENTS:

Affiliate Assistant Professor of Biology, 2011-2012  
University of Alaska Anchorage (UAA)

### Graduate Student Thesis Committee Member

George G. Esslinger, UAA, MSc, Temporal Patterns in the Behavior and Body  
Temperature of Sea Otters in Alaska. Graduated Spring 2011.

### Undergraduate Student Honors Thesis Committee Member

Connor Jandreau, Colorado State University, BSc, Patterns of micro and macro scale  
selection among small mammals of the Yukon Flats National Wildlife Refuge,  
Alaska. Graduated Spring 2012.

### POSTDOCTORAL FELLOWSHIPS:

Colorado Cooperative Fish and Wildlife Research Unit, Nov 09 – July 15  
Department of Fish, Wildlife & Conservation Biology, CSU  
**Research Areas:** Wildlife, Fisheries & Quantitative Ecology  
Postdoctoral Supervisor(s): Dr. Kevin Bestgen, Director, Larval Fish Lab;  
Dr. Dana Winkelman, Unit Leader, Colorado Cooperative Fish and Wildlife  
Research Unit, US Geological Survey

Institute of Arctic Biology (IAB), Sept 07 - June 08  
University of Alaska Fairbanks (UAF)  
**Research Areas:** Wildlife & Quantitative Ecology  
Postdoctoral Supervisor: Dr. Brian Barnes, Director IAB

School of Fisheries and Ocean Sciences, UAF Aug 05 - Sept 07  
**Research Areas:** Wildlife & Quantitative Ecology  
Postdoctoral Supervisor: Dr. C. Loren Buck, Associate Professor,  
University of Alaska Anchorage (previously at UAF)

### EDUCATION:

Ph. D., Biology	University of New Brunswick Fredericton (UNBF)	2000 - 2005
B.A., Biology	Massachusetts College of Liberal Arts (MCLA)	1990 - 1994
6 Credits	Dean College, Massachusetts	1989 - 1990

**Ph. D. Dissertation:** Demographic Parameter Estimates and their Biological Implications for a Seabird Metapopulation. **Thesis Committee:** Drs. Antony W. Diamond (Supervisor), Stephen W. Kress, Richard Elliot, and Gregory Robertson

#### ACADEMIC AWARDS:

A. J. Levesque Award for an Outstanding Thesis in Biology, UNBF	2006
Best Student Paper Award, Pacific Seabird Group and Waterbird Society Joint Meeting, Portland, Oregon	2005
Biology Achievement Award (MCLA)	1994
Graduated with Honors, cum laude (3.4 GPA; MCLA)	1994
Deans List Scholar (MCLA)	1992 - 1994

#### GRANTS AND FELLOWSHIPS:

Kress, S.W., Hall S.C. and <b>Breton, A.R.</b> , US Department of the Navy <sup>1</sup> : \$100,000	2010 - 2011
National Audubon Society Research Grant: \$25,000	2000 - 2005
John S. Little International Study Fellowship (UNBF): \$1,200	2004

#### RESEARCH EXPERIENCE:

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**A. Publications** (PDFs available; †postdoc manuscript)

#### Peer-Reviewed Publications

- Williams, C. T. K. Wilsterman, A. D. Kelley, **A. R. Breton**, H. Stark, M. M. Humphries, A. G. McAdam, B. M. Barnes, S. Boutin, and C. L. Buck. 2014. Biologging in small mammals: light loggers reveal weather-driven changes in the daily activity patterns of arboreal and semi-fossorial rodents. *Journal of Mammalogy*
- Breton, A. R.**, I.C.T. Nisbet, C. S. Mostello, & J. J. Hatch. 2014. Age-dependent breeding dispersal and adult survival within a metapopulation of Common Terns *Sterna hirundo*. *Ibis* 156:534–547.
- Esslinger, G. G., J. L. Bodkin, **A. R. Breton**, & D. H. Monson. 2014. Temporal Patterns in the Foraging Behavior of Sea Otters in Alaska. *Journal of Wildlife Management* 78:689–700.
- A. R. Breton**, & A. W. Diamond. 2014. Annual survival of adult Atlantic Puffins *Fratercula arctica* is positively correlated with Herring *Clupea harengus* availability. *Ibis* 156:35-47.
- †**A. R. Breton**, J. Hawkins., & D. L. Winkelman. 2013. Correcting length-frequency distributions for imperfect detection. *North American Journal of Fisheries Management* 33:1156-1165.

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<sup>1</sup> This work was conducted at Marine Base Camp Pendleton in San Diego, California, USA. Research focused on the federally endangered California Least Tern (*Sternula antillarum browni*) and threatened Western Snowy Plover (*Charadrius alexandrinus nivosus*).

- †Wolff, B. A., B. M. Johnson, **A. R. Breton**, P. J. Martinez., D. L. Winkelman. 2012. Origins of invasive piscivores determined from the strontium isotope ratio ( $^{87}\text{Sr}/^{86}\text{Sr}$ ) of otoliths. *Canadian Journal of Fisheries and Aquatic Sciences*, 69: 724-739.
- †Oppel, S., A. Raine, J. J. Borg, H. Raine, E. Bonnaud, K. Bourgeois, **A.R. Breton**. 2011. Is the Yelkouan shearwater *Puffinus yelkouan* threatened by low adult survival rates? *Biological Conservation*, 144:2255-2263.
- Allard, K. A., H. G. Gilchrist, **A. R. Breton**, C. D. Gilbert, & M. L. Mallory. 2010. Adult survival of Thayer's and glaucous gulls nesting sympatrically in the Canadian High Arctic. *Ardea*, 98:43-51.
- †Buck, C. L., **A. R. Breton**, O. Toien, B. M. Barnes. 2008. Overwinter body temperature patterns of free-living arctic ground squirrels (*Spermophilus parryii*). Lovegrove, B.G. and McKechnie, A.E. (eds.). *Hypometabolism in animals: torpor, hibernation and cryobiology*. University of KwaZulu-Natal, Pietermaritzburg. pgs. 317-326.
- Breton, A. R.**, G. A. Fox, & J. Chardine. 2008. Survival of adult Herring Gulls (*Larus argentatus*) from a Lake Ontario colony over two decades of environmental change. *Waterbirds*, 31: 15-23.
- †**Breton, A. R.**, D. Kildaw, K. Murra, & C. L. Buck. 2008. Multilevel models reveal no cohort-level variation in time spent foraging to account for a collapse in kittiwake (*Rissa tridactyla*) breeding success. *Ecological Modeling*, 212:233-243.
- †Whidden, S. E., C. Williams, **A. R. Breton**, & C. L. Buck. 2007. Effects of radio-transmitters on Tufted Puffin (*Fratercula cirrhata*) reproductive success. *Journal of Field Ornithology*, 78:1-7.
- Keeler, R., **A. R. Breton**, D. Peterson, & R. Cunjak. 2007. Survival and movement of slimy sculpin (*Cottus cognatus*) in five New Brunswick streams. *Transactions of the American Fisheries Society*, 136:281-292.
- Allard, K. A., **A. R. Breton**, H. G. Gilchrist, & A. W. Diamond. 2006. Adult survival of herring gulls breeding in the Canadian Arctic. *Waterbirds*, 29:163-168.
- Breton, A. R.**, A. W. Diamond, & S.W. Kress. 2006. Surface wear on incoloy and darvic bands applied to Atlantic Puffin (*Fratercula arctica*) adults and chicks. *Journal of Field Ornithology*, 77:111-119.
- Breton, A. R.**, A. W. Diamond, & S.W. Kress. 2006. Encounter, survival, and movement probabilities from an Atlantic Puffin (*Fratercula arctica*) metapopulation. *Ecological Monographs*, 76:133-149.
- Breton, A. R.**, A. W. Diamond, & S.W. Kress. 2005. Adult survival estimates from two Atlantic Puffin (*Fratercula arctica*) colonies in the Gulf of Maine. *Auk*, 122:773-782.

### Submitted Peer-Reviewed Manuscripts

Ellis, J. C., **A. R. Breton**, W. L. Clark. First Estimates of Adult Survival and Fidelity for Great Black-backed (*Larus marinus*) and Herring Gulls (*L. argentatus*) Breeding in the Northeast, USA. *Invited paper, Special Issue, Waterbirds, Submitted 5 June 2014*

### B. Peer-reviewed Academic & Federal Reports, Single Author

Variance components analyses of reproductive parameters: federally endangered california least terns and threatened western snowy 2010 - 2011

- plovers, Marine Base Camp Pendleton, San Diego, California
- A review of modern statistical methods used by animal demographers and protocols for estimating population abundance of two Arctic ground squirrel colonies on the North Slope of Alaska 2008
- Annual Seal Island National Wildlife Refuge Research and Management Report, National Audubon Society's Seabird Restoration Program (NAS's SRP) and the United States Fish and Wildlife Service (USFWS) 1998 - 2001
- Annual Eastern Egg Rock Research and Management Report, NAS's SRP 1996 - 1997

### C. Peer-reviewed Academic & Federal Reports, Co-authored

- A user manual for running population dynamics simulations in the projection tool developed for smallmouth bass (*Micropterus dolomieu*) in the upper Colorado River basin 2014
- Population dynamics modeling of introduced smallmouth bass into the upper Colorado River basin 2013
- Management of Black-footed Albatross (*Phoebastria nigripes*) in the Face of Climate Change 2012
- Escapement rates of translocated smallmouth bass from Elkhead Reservoir to the Yampa River 2012
- A retrospective assessment of the Upper Colorado River Recovery Program's efforts to manage smallmouth bass 2011
- Gulf Apex Predator-Prey Project Final Report, School of Fisheries and Ocean Sciences, University of Alaska Fairbanks 2007

### D. Experiential History including a Research Component

- Research Supervisor/Refuge Warden (Maine), USFWS and NAS's SRP 1996 - 2001
- Research Biologist (Antarctica), for Dr. Wayne Z. Trivelpiece, National Oceanic and Atmospheric Administration, Southwest Fisheries Science Center, University of California at San Diego 1998 - 1999
- Bird Banding Assistant (Maine), Isles of Shoals Marine Lab - Cornell University and the University of New Hampshire 1996 - 1999
- Resource Manager, Corkscrew Swamp Sanctuary, Naples, Florida 1996, 1997
- Research Biologist (California), Point Reyes Bird Observatory 1997
- Student and Research Assistant (Maine), NAS's SRP 1993 - 1995

### SOFTWARE AND PROGRAMMING EXPERIENCE:

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- High: Adobe Photoshop & Acrobat, Band Manager, FTP software, MARK, Microsoft (MS) Access, MS Office, PC Anywhere, SigmaPlot, R, Reference Manager, SAS, Survive, U-CARE, Visual Basic (VB)
- Moderate: ArcGIS, ClockLab, Distance, Dreamweaver, Minitab, Presence, SQL
- Low: CANOCO, dBase, Macintosh Operating System, Netica (Bayesian Belief Networks), VB.NET, WinBUGS, WebSim, WordPerfect

**TEACHING EXPERIENCE:**

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**A. Courses Instructed, Classroom**

Managing data with Microsoft Access: goals, philosophy and practice, UAF, Fall Semester, 12 lectures, No exams or teaching assistant	2007
Principles of Ecology (BIO2113) <sup>2</sup> , UNBF, Fall Semester, 32 lectures, no lab, 132 students, 3 exams, 1 teaching assistant	2002

**B. Courses Instructed, Field**

Ometepe Biological Field Station on Ometepe Island, Nicaragua, Theory and application of Maximum Likelihood, Akaike's Information Criterion (AIC), capture-mark-recapture, distance sampling, and occupancy models, 10-15 Students, 22 June – 6 July	2007
Marine Field Course (BIO3173), Huntsman Marine Station, UNBF, Intersession, Instructed Bird Ecology Section, 16 Students	2005
National Audubon Ecology Camp in Maine, Hog Island, An overview of the human and natural history of the Maine coast, 15-30 students	1994

**C. Courses Providing Teaching Assistance**

Field Methods in Ecology (BIO2105), UNBF, Fall and Winter Semesters, two weekly lab sections, ca. 30 students/section	2001 - 2002
Man and the Biosphere (BIO1006, BIO1017), UNBF, Fall and Winter Semesters, two weekly lab sections, ca. 16 students/section	2000 - 2001

**D. Tutor for Students with Learning Disabilities<sup>3</sup>**

Statistics for the Social Sciences II (STAT3043), UNBF, Winter	2005
Statistics for the Life Sciences (STAT2264), UNBF, Fall	2004
Statistics for the Social Sciences I (STAT2043), UNBF, Fall	2004

**E. Workshops Instructed (I) Or Assisted (A)**

- (A) Intermediate Program MARK Workshop, Colorado State University, June 2011  
Instructed by Drs. Gary White, Ken Burnham, Bill Kendall and Paul Doherty.
- (I) A Rapid-prototyping Structured Decision Making Workshop: four climate change case studies. Volcano National Park, Hawaii, March 2011, five days.
- (A) Intermediate Program MARK Workshop, Colorado State University, June 2010  
Instructed by Drs. Gary White, Ken Burnham, Bill Kendall and Paul Doherty.
- (I) An Introduction to Capture-Mark-Recapture (CMR) and Program March 2006

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<sup>2</sup> For questions about my performance as the instructor of this course please contact [Dr. R. Allen Curry](#), Department of Biology, UNBF, 506-452-6208.

<sup>3</sup> For questions about my performance as a tutor please contact [Jane Howard](#), STEP Project Coordinator, Student Accessibility Centre, UNBF, 506-453-3515.

MARK. University of Hannover, Institute for Wildlife Research, Hannover, Germany, two-day workshop, 0900 – 1800hrs/day.

- (I) An Introduction to CMR and Program MARK. University of Potsdam, March 2006 Institute for Biochemistry and Biology, Potsdam, Germany, two-day workshop, 0900-1800hrs/day.
- (I) Modeling Philosophy, CMR Analysis, and program MARK. Fundy April 2004, Forest Managers, two-day workshop, 0900-1630hrs/day.
- (I) Modeling Philosophy, CMR Analysis, and program MARK. UNBF, March 2004, one-day workshop, 0900-1700hrs, 1900-2200hrs.
- (I) Managing data with Microsoft Access: design to data entry. UNBF, 2001, half-day workshop, 1300-1800hrs.

## F. Invited Seminars/Lectures (presenter in bold)

### Departmental Seminars

Graduate-Faculty Seminar Series, Colorado State University, 2011, An assessment of an Endangered Species Recovery Program's efforts to control smallmouth bass: past, present and future. **Breton, A. R.**, D. L. Winkelman, K. R. Bestgen, J. Hawkins, G. C. White & P. J. Martinez.

Graduate-Faculty Seminar Series, Colorado State University, 2010, An Application of Multilevel Mixed Regression Models: Demonstrating the Value of Random Effects and Variance Components. **Breton, A. R.**

Biological Sciences Department, University of Alaska Anchorage (UAA), 2007, In Pursuit of Reliable Knowledge: science, uncertainty, and planning. **Breton, A. R.**

Biological Sciences Department, UAA, 2007, Multilevel models reveal no cohort-level variation in time spent foraging to explain a collapse in kittiwake (*Rissa tridactyla*) breeding success. **Breton, A. R.**

Life Sciences Seminar Series, Institute of Arctic Biology, UAF, 2006, Exploring roles by dispersal and shared characteristics in local population dynamics. **Breton, A. R.**

Dept. of Biology, UNBF, 2004, Evidence versus significance in model selection problems. **Breton, A. R.**, A. W. Diamond, & S.W. Kress

Dept. of Biology, UNB St. John, 2003, A compelling and rigorous paradigm for investigating ecological processes. **Breton, A. R.**, A. W. Diamond, & S.W. Kress

### Undergraduate Course Lectures

Adaptive Fish & Wildlife Management, CSU, 2013. A Structured Decision Making Case Study: Persistence of Black-footed Albatross in the face of climate change. **Breton, A. R.**

Wildlife Population Dynamics, CSU, 2011. Managing smallmouth bass in the face of uncertainty: Population Projection. **Breton, A. R.**

Wildlife Techniques, UAF, Institute of Arctic Biology 2005. An introduction to capture-mark-recapture. **Breton, A. R.**

- Vertebrate Zoology, UNBF, Dept. Biology 2005. Research on Atlantic Puffin demography and insights into the life of a graduate student. **Breton, A. R.**, A. W. Diamond, & S.W. Kress
- Principles of Ecology, UNBF, Dept. Biology 2003. Use of movement rates to determine emigrant status and estimate emigration rates in Atlantic Puffin (*Fratercula arctica*). **Breton, A. R.**, A. W. Diamond, & S.W. Kress
- Population Biology, UNBF, Dept. Forestry & Environmental Management 2003. Adult survival of a long-lived seabird, the Atlantic Puffin (*Fratercula arctica*), at two colonies in the Gulf of Maine. **Breton, A. R.**, A. W. Diamond, & S.W. Kress
- Ornithology, UNBF, Dept. Biology 2002. Discovery, natural history, and ecology of the Sphenisciformes. **Breton, A. R.**
- Fields Methods in Ecology, UNBF, Biology Dept. 2002. An introductory strategy for bird identification. **Breton, A. R.**

### Management Seminars

Upper Colorado River Basin Endangered Fish Recovery Program's Non-native Fish Management Workshops: Sponsored by the USFWS

- 2013 Population trends of smallmouth bass in the upper Colorado River basin with an evaluation of removal effects. **Breton, A. R.**, K. R. Bestgen, D. L. Winkelman & J. A. Hawkins.
- 2013 Population dynamics modeling of introduced smallmouth bass in the upper Colorado River basin. **Breton, A. R.**, K. R. Bestgen, D. L. Winkelman & J. A. Hawkins.
- 2012 A Revised retrospective assessment of the Recovery Program's effort to control smallmouth bass: 2001-2011. **Breton, A. R.**, K. R. Bestgen, D. L. Winkelman, J. A. Hawkins & G. C. White.
- 2012 Escapement rates of translocated smallmouth bass from Elkhead Reservoir to the Yampa River. **Breton, A. R.**, K. R. Bestgen, D. L. Winkelman, J. A. Hawkins & G. C. White.
- 2012 Population dynamics modeling of introduced smallmouth bass in the upper Colorado River basin. **Breton, A. R.**, K. R. Bestgen, D. L. Winkelman, J. A. Hawkins & G. C. White.
- 2011 A Revised retrospective assessment of the Recovery Program's effort to control smallmouth bass: 2001-2010. **Breton, A. R.**, K. R. Bestgen, D. L. Winkelman, J. A. Hawkins & G. C. White.
- 2011 Escapement rates of translocated smallmouth bass from Elkhead Reservoir to the Yampa River. **Breton, A. R.**, K. R. Bestgen, D. L. Winkelman, J. A. Hawkins & G. C. White.
- 2011 A comprehensive, size-structured, smallmouth bass population dynamics model and projection tool. **Breton, A. R.**, K. R. Bestgen, D. L. Winkelman, J. A. Hawkins & G. C. White.
- 2010 A retrospective assessment of the recovery program's effort to control smallmouth bass. **Breton, A. R.**, K. R. Bestgen, D. L. Winkelman, J. A. Hawkins, G. C. White & P. J. Martinez.

2010 Population dynamics modeling of introduced smallmouth bass in the upper Colorado River basin. **Breton, A. R.**, K. R. Bestgen, D. L. Winkelman, J. A. Hawkins & G. C. White.

2009 Population dynamics modeling of introduced smallmouth bass in the upper Colorado River basin. **Breton, A. R.**, K. R. Bestgen, D. L. Winkelman, J. A. Hawkins & G. C. White.

#### All Other Management Seminars:

2005 (winter) Gulf of Maine Seabird Working Group (GoMSWG) meeting. Maine Dept. of Inland Fisheries and Wildlife, Bangor, Maine. Demographic parameter estimates and their biological implications for a seabird metapopulation. **Breton, A. R.**

2004 (fall) GoMSWG meeting. National Audubon Camp on Hog Island, Maine. Encounter, survival, and movement probabilities from an Atlantic Puffin (*Fratercula arctica*) metapopulation. **Breton, A. R.**, A. W. Diamond & S.W. Kress.

2003 (winter) GoMSWG meeting. Craig Brook National Fish Hatchery, Maine. Evaluating the reliability of covariate analysis using survival rates from colony-based studies. **Breton, A. R.**

2002 (fall) GoMSWG meeting. National Audubon Camp on Hog Island, Maine. Estimating survival and movement probabilities for a seabird metapopulation: *a summary of progress so far*. **Breton, A. R.**

2001 (winter) GoMSWG meeting. Campobello Island, New Brunswick. Colony and year effects on survival, intercolony movement, and emigration of Atlantic puffins (*Fratercula arctica*) in the Gulf of Maine. **Breton, A. R.**

#### Other Seminars including Job Interviews (position in parentheses)

2008 (Assistant Faculty) Eastern Kentucky University, Richmond, KY: A case study on the foraging ecology of black-legged kittiwakes (*Rissa tridactyla*): demonstrating the value of multi-level mixed models and their Variance Components. **Breton, A. R.**

2007 (Research Associate) Archbold Biological Station, Lake Placid, Florida: An ecological case study demonstrating the value of multi-level mixed models and their variance components. **Breton, A. R.**

2006 Institute for Molecular and Cellular Biology, University of Porto, Portugal: An Antarctic experience: life and research on King George Island, South Shetlands. **Breton, A. R.**

2005 UAF Student Chapter of the Wildlife Society: An Antarctic experience: life and research on King George Island, South Shetlands. **Breton, A. R.**

2005 Feathers on Friday, UAF: Encounter, survival, and movement probabilities from an Atlantic Puffin (*Fratercula arctica*) metapopulation. **Breton, A. R.**, A. W. Diamond & S.W. Kress.

#### G. Conference Presentations

Upper Colorado River Basin Endangered Fish Recovery Program's Researchers Meeting: Sponsored by the USFWS



- 2014 Population dynamics modeling of introduced smallmouth bass in the upper Colorado River basin. **Breton, A. R.**, K. R. Bestgen, D. L. Winkelman & J. A. Hawkins.
- 2014 Population trends of smallmouth bass in the upper Colorado River basin with an evaluation of removal effects. **Breton, A. R.**, K. R. Bestgen, D. L. Winkelman & J. A. Hawkins.
- 2013 Abundance and population trends of smallmouth bass in the upper Colorado River basin. **Breton, A. R.**, K. R. Bestgen, D. L. Winkelman & J. A. Hawkins.
- 2012 A Revised retrospective assessment of the Recovery Program's effort to control smallmouth bass: 2001-2011. **Breton, A. R.**, K. R. Bestgen, D. L. Winkelman, J. A. Hawkins & G. C. White.
- 2012 Escapement rates of translocated smallmouth bass from Elkhead Reservoir to the Yampa River. **Breton, A. R.**, K. R. Bestgen, D. L. Winkelman, J. A. Hawkins & G. C. White.
- 2011 A Revised retrospective assessment of the Recovery Program's effort to control smallmouth bass: 2001-2010. **Breton, A. R.**, K. R. Bestgen, D. L. Winkelman, J. A. Hawkins & G. C. White.
- 2010 Working towards A unified database and meta-analysis of the Recovery Program's smallmouth bass dataset: progress in data management, software and preliminary analyses. **Breton, A. R.**

All Other Conference Presentations:

- 34<sup>th</sup> Annual Pacific Seabird Group Conference, Monterey, California. 2007. Multilevel models reveal no cohort-level variation in time spent foraging to explain a collapse in kittiwake (*Rissa tridactyla*) breeding success. **Breton, A. R.**, S. D. Kildaw, K. Murra & C. L. Buck.
- 9<sup>th</sup> International Seabird Group Conference, Aberdeen, Scotland. 2006. Variation in nest attendance among years and colonies in the Black-Legged Kittiwake (*Rissa tridactyla*). **Breton, A. R.**, S. D. Kildaw, K. Murra & C. L. Buck.
- 33<sup>rd</sup> Annual Pacific Seabird Group Conference, Girdwood, Alaska. 2006. On the crucial importance of using databases to manage ecological data: seabird case studies from Kodiak Island and the Gulf of Maine. **Breton, A. R.**, S.W. Kress, A. W. Diamond, S. D. Kildaw, F. Huettmann & C. L. Buck.
- 2005 Pacific Seabird Group and Waterbird Society Joint Meeting, Portland, Oregon. Encounter, survival, and movement probabilities from an Atlantic Puffin (*Fratercula arctica*) metapopulation. **Breton, A. R.**, A. W. Diamond & S.W. Kress
- 9<sup>th</sup> Annual Atlantic Cooperative Wildlife Ecology Research Network (ACWERN) Conference. UNBF, 2004. Encounter, survival, and movement probabilities from an Atlantic Puffin (*Fratercula arctica*) metapopulation. **Breton, A. R.**, A. W. Diamond, & S.W. Kress.
- 8<sup>th</sup> Annual ACWERN Conference. Acadia University, Nova Scotia. 2003. Challenges in estimating seabird demographic parameters: *insights and uncertainty*. **Breton, A. R.**
- 2003 Annual Northeast Wildlife Graduate Student Conference (NWGSC). University of Prince Edward Island. Evaluating the reliability of covariate analysis using survival rates from colony-based studies. **Breton, A. R.**

- 11<sup>th</sup> Annual Graduate Student Association Conference on Student Research. UNBF, 2003. What is science? **Breton, A. R.**
- 2002 Annual NWGSC. UNBF. Adult survival of a long-lived seabird, the Atlantic Puffin (*Fratercula arctica*), in the Gulf of Maine. **Breton, A. R.**, A. W. Diamond & S.W. Kress.
- 6<sup>th</sup> Annual ACWERN Conference. Sackville, New Brunswick. 2001. Estimating age-specific survival and distribution of emigrants between colonies of Atlantic Puffin (*Fratercula arctica*) in the Gulf of Maine. **Breton, A. R.**, A. W. Diamond & S.W. Kress.
- 2001 Annual NWGSC. University of New Hampshire. Colony and year effects on survival, intercolony movement, and emigration of Atlantic Puffins (*Fratercula arctica*) in the Gulf of Maine. **Breton, A. R.**, A. W. Diamond & S.W. Kress.
- 5<sup>th</sup> Annual ACWERN Conference. Huntsman Marine Lab, New Brunswick. 2000. Sub-adult survival and intercolony movement of Atlantic Puffins (*Fratercula arctica*) in the Gulf of Maine. **Breton, A. R.**, A. W. Diamond & S.W. Kress.

## H. Conference Posters

- 9<sup>th</sup> International Seabird Group Conference, Aberdeen, Scotland. 2006. A comparative analysis of surface wear on incoloy and darvic rings applied to juvenile and adult Atlantic puffins (*Fratercula arctica*). **Breton, A. R.**, A. W. Diamond & S.W. Kress.
- 25<sup>th</sup> Anniversary Meeting of the Waterbird Society. Niagara Falls, Canada. 2001. Estimating age-specific survival and distribution of emigrants between colonies of Atlantic Puffin (*Fratercula arctica*) in the Gulf of Maine. **Breton, A. R.**, A. W. Diamond & S.W. Kress.
- The Application of Ecological Research to Conservation: *east meets west*. Simon Fraser University and Environment Canada, British Columbia. 2001. Estimating age-specific survival and distribution of emigrants between colonies of Atlantic Puffin (*Fratercula arctica*) in the Gulf of Maine. **Breton, A. R.**, A. W. Diamond & S.W. Kress.

## I. Experiential History including a Teaching Component

Research Supervisor/Refuge Warden (Maine), United States Fish and Wildlife Service (USFWS) and NAS's SRP	1996 - 2001
Outdoor Educator (Florida), NAS, Corkscrew Swamp Sanctuary	1996 - 1997
Interpretive Ranger (Arizona), National Park Service, Grand Canyon National Park	1994 - 1995
Student Assistant (Maine), NAS, Audubon Ecology Camp in Maine	1993 - 1994

## PROFESSIONAL ACTIVITIES:

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### A. Professional Consultation (contact in parentheses, lists not exhaustive)

Note: Much of my consulting activity has been through my sole proprietorship, [Insight Database Design & Consulting](#), a licensed company in the State of Colorado (previously, Alaska). My clients have been almost exclusively wildlife and fisheries science professionals from academia, state, provincial and federal government. To date, the

company has provided consulting in data management, data analysis, study design and professional writing/editing.

### Capture-Mark-Recapture Analysis

United States Fish & Wildlife Service, Maine Coastal Islands National Wildlife Refuge (Sara Williams)	2012 - present
Tufts University (Dr. Julie Ellis)	2013 - present
Utah Department of Natural Resources (Trina Hedrick)	2011 - 2012
I.C.T. Consulting, North Falmouth, Massachusetts (Dr. Ian Nisbet)	2010 - present
Canadian Wildlife Service, Ottawa, Ontario (Dr. Grant Gilchrist)	2010 - present
Atlantic Cooperative Wildlife Ecology Research Network (Dr. Antony Diamond)	2005 - present
Canadian Wildlife Service, Ottawa, Ontario (Dr. Glen Fox)	2003 - 2008

### Data Management, Microsoft Access and Visual Basic 6.0

Royal Society for the Protection of Birds, United Kingdom (Dr. Alex Bond)	2015 - present
United States Fish & Wildlife Service, Maine Coastal Islands National Wildlife Refuge (Sara Williams)	2012 - present
Tufts University (Dr. Julie Ellis)	2012 - present
Canadian Wildlife Service, Ottawa, Ontario (Dr. Grant Gilchrist)	2010 - present
National Audubon Society, New York, NY (Dr. Stephen Kress)	2000 - present
Atlantic Cooperative Wildlife Ecology Research Network (Dr. Antony Diamond)	2005 - present
United States Geological Survey, Alaska Science Center (Gary Drew)	2009 - 2011
United States Fish & Wildlife Service, Togiak National Wildlife Refuge, Dillingham, Alaska (Allen Miller)	2008
I.C.T. Consulting, North Falmouth, Massachusetts (Dr. Ian Nisbet)	2008-present
Specialist Group on Storks, Ibises, and Spoonbills (Dr. Malcolm Coulter)	2006 - 2007
Bureau of Land Management, US Department of the Interior, Fairbanks, Alaska (Jon Syder)	2006
United States Fish & Wildlife Service, California Seabird Restoration Project, Sacramento, California (Peter Kappes)	2005 - 2006
Canadian Wildlife Service, Ottawa, Ontario (Dr. Glen Fox)	2003 - 2008

### General Statistics

United States Geological Survey, Multi-level mixed models/GLMs (George Esslinger)	2008
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### Wildlife Ecology

<a href="#">Ganglion Films</a> , New York, NY, including on-film commentary in the natural history documentary <i>A Fish out of Water</i>	2001 - present
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**Professional Writing**

Integrative Physiotherapy, A Physical Therapy Clinic in Fort Collins, Colorado, website text (<http://integrativephysiotherapy.com/>) 2013, 2014

**B. Workshop and Conference Organizer** including responsibilities

Short Course Coordinator: Why Information-Theoretic Approaches are Replacing Tests and P-values, Dr. David R. Anderson (retired, Colorado State University and F&W Cooperative Unit), 34<sup>th</sup> Annual Pacific Seabird Group Conference, Monterey, CA Feb 2007

Planning Committee Participant, Multi-media Coordinator, Workshop Liaison: Model Selection and Multimodel Inference, Dr. David R. Anderson, UAF May 2006

Planning Committee Participant, Multi-media Coordinator, Web Page Design and Implementation, Conference Liaison: 9<sup>th</sup> Annual Atlantic Cooperative Wildlife Ecology Research Network Conference, UNBF Nov 2004

Planning Committee Participant, Multi-media, Publicity/Entertainment Coordinator: Northeast Wildlife Graduate Student Conference, UNBF March 2002

**C. Workshop/Short Course Participant**

Overview of Information-Theoretic Approaches to Formal Inference, Colorado State University (CSU), Dr. David Anderson, November, 2011.

R workshop, CSU, Dr. Mevin Hooten, September, 2011.

An Advanced program MARK Workshop, Drs. Gary White, Ken Burnham, Evan Cooch, William Kendall, Jeff Laake, Brett McClintock, Chad Bishop, Jake Ivan and Larissa Bailey. CSU, August 2011.

Overview of Information-Theoretic Approaches to Formal Inference, Colorado State University (CSU), Dr. David Anderson, November, 2010.

An Intermediate-level Workshop on Occupancy Models, Dr. Daryl Mackenzie, Proteus Wildlife Research Consultants, UAF, Institute of Arctic Biology, 2008.

Introduction to programming in R (open source statistical software), Dr. Naoki Takebayashi, UAF, Institute of Arctic Biology, 28 March and 4 April 2007.

International Multidisciplinary Metadata Workshop, Multiple Instructors, UAF 2001, 18 January 2007.

Why Information-Theoretic Approaches are Replacing Tests and P-values, Dr. David R. Anderson, 34<sup>th</sup> annual Pacific Seabird Group Conference, Monterey, CA, 7 Feb 2007.

Model Selection and Multimodel Inference, Dr. David R. Anderson, UAF, 27-28 March 2006.

Principle Components Analysis, Correspondence Analysis (CA), and Canonical CA Workshop, Dr. Kate Frego (instructor), UNB St. John, 29-30 January 2005

MITACS<sup>4</sup> Workshop on Dispersal and Invasions Research, Dr. James Watmough (moderator), Fredericton, New Brunswick, 15 November 2004.

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<sup>4</sup> Mathematics of Information Technology and Complex Systems

Multivariate Statistics and their Use in Interpretation of Ecological Data, Dr. Paul Van den Brink, Alterra Green World Research, Netherlands (instructor), UNBF 19 Feb 2004.

Program MARK Intermediate Level Workshop, Dr.'s David Anderson, Kenneth Burnham, Paul Doherty, and Gary White (instructors), Colorado State University and Colorado Cooperative Fish and Wildlife Research Unit, 1 - 6 June 2003 AND 13-18 June 2004.

Band Manager Workshop (Bird Banding Lab, US Geological Survey), Nicole Benjamin (instructor), UNBF, 26 November 2001.

Capture-Mark-Recapture Workshop, Dr. Greg Robertson (instructor), Canadian Wildlife Service, UNBF, 3 December 2000.

#### **D. Conference Attendee<sup>5</sup>**

International Statistical Ecology Conference, St. Andrews University, Scotland, 9-11 July 2008

24<sup>th</sup> Annual Meeting of the Waterbird Society, Plymouth, Massachusetts, USA, 2000

#### **E. Professional Memberships (Current)**

#### **F. Professional Memberships (Inactive)**

The Wildlife Society (TWS) (Western Section, Colorado Chapter)

TWS Biometrics Working Group

Ecological Society of America (ESA) (Rocky Mountain Chapter)

ESA Statistical Ecology Section

ESA Long Term Studies Section

Alaska Chapter of The Wildlife Society

Pacific Seabird Group

Seabird Group

#### **G. Reviewer**

Auk

Northeast Naturalist

Marine Ornithology

Biological Conservation

Ecology

Ibis

Journal of Applied Ecology

Ecological Applications

Ring and Migration

Journal of Avian Biology

Ecological Modeling

Wildlife Research

Journal of Field Ornithology

Ecography

#### **H. University Committee Contributions: Department of Biology, UNB**

Search Committee to fill position of Department Chair

2001, 2004

Space Committee

2002

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<sup>5</sup> At these conferences, I did not provide an oral or poster presentation.

**REFERENCES INCLUDING AFFILIATION:**

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Co-author/Co-worker, Postdoctoral Fellowship 2009-2015, Colorado State University:  
**John Hawkins, MSc**

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Postdoctoral Supervisor (2007-08): **Dr. Brian M. Barnes**

Status: Director, Institute of Arctic Biology; Professor of Zoophysiology  
Address: University of Alaska Fairbanks, 311 Irving 1 Bldg  
Phone, Fax, Email: 907-474-7649, [bmbarnes@alaska.edu](mailto:bmbarnes@alaska.edu)

Postdoctoral Supervisor (2005-08): **Dr. C. Loren Buck**

Status: Professor of Biology  
Address: Northern Arizona University, Department of Biological Sciences, Bldg. 88, room 213, Flagstaff, Arizona  
Phone, Fax, Email: 928-523-5976, [loren.buck@nau.edu](mailto:loren.buck@nau.edu)

Ph. D. Supervisor (2000-2005): **Dr. Antony W. Diamond**

Status: Research Professor, Wildlife Ecology, Departments of Biology and Forestry  
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Phone, Fax, Email: 506-453-5006, 453-3583 (fax), [diamond@unb.ca](mailto:diamond@unb.ca)

Ph. D. Thesis External Examiner (2005): **Dr. Paul F. Doherty, Jr.**

Status: Associate Professor  
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Supervisor (1995-2001) and Ph. D. Thesis Committee Member: **Dr. Stephen W. Kress**

Status: Director of the Seabird Restoration Program; and Vice President for Bird Conservation, National Audubon Society  
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