

**Samantha Franks**

[sfranks@sfu.ca](mailto:sfranks@sfu.ca)

Centre for Wildlife Ecology, Simon Fraser University  
8888 University Dr, Burnaby BC V5A 1S6  
(778) 782-5618

**Summary**

Extensive project organization and leadership experience

Bilingual in English and French

Hard-working, independent, motivated and good-natured in difficult conditions

Seven years of experience identifying, capturing, and handling birds

**Skills and Qualifications**

Environment Canada scientific sub-permit to capture and band migratory birds

US Geological Survey banding sub-permit

Canadian Firearms Licence, restricted and non-restricted firearms

Standard First Aid and CPR

British Columbia Driver's Licence

**Field work**

- banding of shorebirds, passerines, seabirds, seaducks and waterfowl
- capture using mist nets, noose mats, walk-in traps, gill nets, and noose mats
- biometrics, aging and sexing, blood sampling and radio telemetry
- shorebird surveys and identification of North American birds by sight and sound
- North American plant family identification

**Laboratory**

- stable isotope analysis using elemental analyzers and a DELTA<sup>plus</sup>XP mass spectrometer
- DNA Chelex extraction and PCR amplification

**Technology**

- word processing and data management in Microsoft Office and Corel WordPerfect Suite
- statistical analyses and data manipulation in R, JMP, Minitab and Sigma Plot
- survival analysis in Program MARK
- data management in Band Manager
- nest plot mapping using Garmin and Magellan GPS units and software
- web design in Macromedia Dreamweaver
- figure and illustration design in Adobe Photoshop and Illustrator

**Education**

**Doctor of Philosophy, Simon Fraser University (2006-present)**

Currently completing fourth year of thesis and degree requirements.

**Honours Bachelor of Science with High Distinction, University of Toronto (2001-05)**

Completed undergraduate degree in the Zoology specialist program with a cumulative 3.99/4.0 GPA.

## **Experience**

### **Ph.D. thesis, Centre for Wildlife Ecology, Simon Fraser University (*September 2006 - present*)**

My project examines what factors influence the migratory strategies and behaviour of shorebirds. Specifically, I am 1) determining the geographic origins and degree of migratory connectivity of wintering, migratory, and breeding populations of sandpipers using stable isotope analysis; 2) investigating the potential of multiple hypotheses to explain differences in sandpiper migration route, migration schedule, non-breeding distribution, and the timing of moult; 3) exploring the potential carry-over effects of different migratory strategies and behaviour on reproductive success. I have captured and banded shorebirds, mainly small calidrids, in Alaska, British Columbia, Kansas, South Carolina, Texas, Florida, Puerto Rico, Mexico and Panama. I have also attached radio tags and conducted radio telemetry using hand-held antennas and automated logging towers in British Columbia and Kansas.

### **Avian technician, School of Environment and Natural Resources, Ohio State University (*Spring 2006*)**

I assisted a study on the stopover ecology of neotropical/nearctic spring migrants in the western basin of Lake Erie. My duties included mist-netting and banding most eastern North American passerines, intensive radio telemetry and behavioural observations of Yellow-rumped Warblers and Red-eyed Vireos, and blood metabolite sampling Magnolia and Yellow-rumped Warblers and White-throated Sparrows. Field work began at dawn and often exceeded 12 hours each day.

### **Research assistant, Ornithology Department, Royal Ontario Museum (*Winter 2006*)**

I performed DNA Chelex extractions and PCR amplification on Red Knot blood and feather samples to determine sex ratios. I also compared osteological specimens from archaeological site at Fort Albany, ON to labelled specimens in ROM collection in order to identify species.

### **Migration monitoring field biologist, Long Point Bird Observatory, Bird Studies Canada (*Fall 2005*)**

I assisted in monitoring populations of migrating birds through daily census and banding routines. I gained extensive experience with mist netting, banding, standard morphometric measurements, and assessment of health, sex, age, and molt of eastern North American passerines.

### **Field crew, Triangle Island Seabird Research and Monitoring Program, Simon Fraser University & Canadian Wildlife Service (*Summer 2005, 2004*)**

I worked on projects examining phenology and reproductive success of six seabird species and American Black Oystercatcher. I measured chick growth and observed colony attendance daily, captured adults several times per week, and monitored chick-provisioning habits. Field work took place on a remote island with steep terrain and was often conducted at night.

### **Field crew, La Perouse Bay Research Station, Hudson Bay Project (*Summer 2003*)**

I assisted a study examining the reproductive successes of savannah sparrows nesting in intact and degraded habitat. I collected insect fauna in intact and degraded habitat and used serber-sampling to determine the diversity of stream invertebrates. I also assisted in capturing and banding Lesser Snow Geese. I gained familiarity with arctic ecology, flora, and fauna. Field work took place at a remote arctic field camp where polar bear sightings were frequent.

## **Publications & presentations**

## **Publications**

**Franks, S. E.,** D. B. Lank, D. R. Norris, B. K. Sandercock, C. M. Taylor, and T. K. Kyser. (2009) Stable isotope analysis discriminates age classes of Western, Least, and Semipalmated sandpipers when plumage methods are unreliable. *Journal of Field Ornithology* 80:51-63.

## **Academic conferences**

- Franks, S.** and D. B. Lank (2010) Explaining variation in the timing of flight feather moult: Feather Condition or Predation Danger? Joint meeting of the American Ornithologists' Union, Cooper Ornithological Society, and the Society of Canadian Ornithologists, San Diego, CA.
- Franks, S.** and D. B. Lank. (2009) Variability in the timing of annual cycle events in three long-distance migratory sandpiper species. 3<sup>rd</sup> Western Hemisphere Shorebird Group meeting, Mazatlan, Mexico.
- Fernandez, G., **S.E. Franks**, and D.B. Lank. (2009) Western Sandpiper migratory connectivity project: preliminary results from the Northwestern Mexico campaign. 3<sup>rd</sup> Western Hemisphere Shorebird Group meeting, Mazatlan, Mexico.
- Lank, D.B., D.R. Norris, T.K. Kyser, G. Fernandez, D. Irwin, **S.E. Franks**, B. Schwarz, and C. Taylor. (2009). Using intrinsic markers to develop management tools for migratory shorebirds. 3<sup>rd</sup> Western Hemisphere Shorebird Group meeting, Mazatlan, Mexico.
- Lank, D.B., D.R. Norris, T.K. Kyser, G. Fernandez, D. Irwin, **S.E. Franks**, B. Schwarz, and C. Taylor. (2009). Using intrinsic markers to develop management tools for migratory shorebirds. 32<sup>nd</sup> annual meeting of the Waterbird Society, South Padre Island, TX.
- Franks, S.** and D. B. Lank. (2008) Variability in the timing of annual cycle events in three long-distance migratory sandpiper species. 32<sup>nd</sup> annual meeting of the Waterbird Society, South Padre Island, TX.
- Franks, S.,** D. B. Lank, D. R. Norris, C. M. Taylor, and T. K. Kyser. (2008) Stable isotope analysis allows cryptic yearling identification in Western, Least, and Semipalmated sandpipers. Joint meeting of the American Ornithologists' Union, Cooper Ornithological Society, and the Society of Canadian Ornithologists, Portland, OR.
- Franks, S.** and D.B. Lank. (2007) Moulting and migration in least, semipalmated, and western sandpipers at a mid-continent stopover site. 26<sup>th</sup> annual meeting of the Society of Canadian Ornithologists, Lake Opinicon, ON.
- Franks, S.** and D.B. Lank. (2008) Moulting and migration strategies: Stopover duration and moult scheduling in shorebirds. Pacific Ecology and Evolution Conference, Bamfield, BC.
- Franks, S.** and D.B. Lank. (2006) Migration and moult of calidrid sandpipers at a mid-continent stopover site. 10th Western Sandpiper Workshop, Burnaby, BC.
- Franks, S.** and D.B. Lank. (2006) Use of engraved flags on sandpipers. 10th Western Sandpiper Workshop, Burnaby, BC.
- Franks, S.** and D.B. Lank. (2006) Migration and moult of calidrid sandpipers at a mid-continent stopover site. Simon Fraser University/University of British Columbia/University of Victoria Ecology and Evolution Retreat, Brackendale, BC.

## **Invited Seminars**

- Investigating variation in the migratory strategies of shorebirds. (2009) Evolution, ecology, and behaviour seminar, Department of Biology, Queen's University, Kingston, ON.
- Feathered fashions: Timing of moult and migration in sandpipers. (2008) Tofino Shorebird Festival, Tofino, BC.

Shorebird mating systems. (2005) Kachemak Bay Shorebird Festival, Homer, AK.

### **Awards**

Animal Behavior Society Student Research Grant (2009)  
American Ornithologists' Union Carnes Research Award (2009)  
NSERC Canada Graduate Scholarship (CGS-D) (2009)  
Western Hemisphere Shorebird Group Travel Award (2009)  
Simon Fraser University Graduate Fellowship (2008)  
Waterbird Society Travel Award (2008)  
American Ornithologists' Union Travel Award (2008)  
Simon Fraser University Graduate International Scholarship (2007)  
Kansas Ornithological Society Student Research Award (2007)  
NSERC Canada Graduate Scholarship (CGS-M) (2006-present)  
Simon Fraser University Special Graduate Entrance Scholarship (2006)  
Ontario Graduate Scholarship (2006, *declined*)  
University of Toronto Scholar Award (2005, 2001-03)  
Gordon Cressey Student Leadership Award, University of Toronto (2005)  
Donald A. Chant Marine Biology Scholarship, World Wildlife Fund Canada (2004)  
Edmund Murton Walker Scholarship in Zoology (2004)  
NSERC Undergraduate Student Research Award (2003)  
Edward Blake Scholarship in Life Sciences (2003)

### **Activities**

Department scholarship committee representative, Simon Fraser University Biology Graduate Caucus (2010-present)  
Student Affairs Committee, Joint meeting of the American Ornithologists' Union, Cooper Ornithological Society, and the Society of Canadian Ornithologists (2008 and 2010)  
Student Affairs Committee, Society of Canadian Ornithologists (2010-present)  
Organizing Committee Member, Pacific Ecology and Evolution Conference (2008)  
Treasurer, Simon Fraser University Biology Graduate Caucus (2007-08)  
Guider, 15<sup>th</sup> Vancouver Guides, Girl Guides of Canada (2006-present)

**References upon request**