

Dr. Simon Bonner

Department of Statistics
333 - 6356 Agricultural Road
University of British Columbia
Vancouver, BC V6T 1Z2
Canada

Phone: w. 604-822-1299 ext. 364
h. 604-422-0056
E-mail: s.bonner@stat.ubc.ca
Webpage: www.simon.bonniers.ca

ACADEMIC EMPLOYMENT

Assistant Professor, University of Kentucky Starting Jan 2011
Post-Doctoral Fellow, University of British Columbia Jan 2009 – Present
Supervisor: Dr. Nancy Heckman

EDUCATION

Ph.D. Statistics, Simon Fraser University Sep 2004 – Dec 2008
Thesis: Heterogeneity in Capture-Recapture: Bayesian Methods to Balance
Realism and Model Complexity
Supervisor: Dr. Carl Schwarz

Visiting Scholar, University of Kent at Canterbury Jan 2006 – Apr 2006
Topic: Comparison of Methods for Incorporating Time-Dependent Covariates in
Capture-Recapture Models
Supervisor: Dr. Byron Morgan

M.Sc. Statistics, Simon Fraser University Sep 2001 – Apr 2003
Thesis: Continuous, Individual, Time-Dependent Covariates in the
Cormack-Jolly-Seber Model
Supervisor: Dr. Carl Schwarz

B.Sc. (Hons.) Mathematics, McGill University Sep 1997 – Apr 2001
Thesis: Detection of Changes in Brain Morphology using Multiple MRI
Supervisors: Dr. Keith Worsley and Dr. D. Louis Collins

RESEARCH AND CONSULTING EXPERIENCE

Junior Analyst Jan 2009
Northern Spotted Owl Monitoring Workshop, Corvallis OR

Accelerate BC Graduate Research Intern Mar – Jul 2007
Rescan Environmental Services Ltd., Vancouver BC

Statistical Consultant Jan 2005 – Aug 2006
Statistical Consulting Service, Simon Fraser University, Burnaby BC

Statistical Analyst Sep 2003 – Aug 2004
BC Centre for Excellence in HIV/AIDS, St. Paul's Hospital, Vancouver BC

Research Assistant Apr – Aug 2003
Department of Statistics and Actuarial Science, Simon Fraser University,
Burnaby BC

Research Assistant Sep 2000 – Aug 2001
Brain Imaging Centre, Montreal Neurological Institute, Montreal QC

RESEARCH AND CONSULTING EXPERIENCE (continued)

NSERC Undergraduate Summer Research Assistant Department of Mathematics and Statistics, McGill University, Montreal QC	May – Aug 2000
Field Research Assistant Department of Biology, University of Missouri, Columbia MO	May – Aug 1999
Volunteer Field Ornithologist Long Point Bird Observatory, Port Rowan ON	May – Sep 1998

TEACHING EXPERIENCE

Workshop on Out-Migration Population Estimation Trinity River Restoration Program/US Fish and Wildlife Service, Arcata, Cal	Oct 2009
Sessional Instructor, Simon Fraser University STAT450: Statistical Theory STAT101: Introduction to Statistics	Fall 2005 Summer 2003
Teaching Assistant, Simon Fraser University STAT650: Quantitative Analysis in Resource Management STAT403: Intermediate Sampling and Experimental Design STAT430: Statistical Design and Analysis of Experiments STAT350: Linear Models in Applied Statistics Statistics Workshop	Spring 2005 Fall 2004 Fall 2002 Summer 2001 Fall 2001/Spring 2002

SCHOLARSHIPS AND AWARDS

NSERC Post-Doctoral Fellowship	Jan 2009
PIMS Post-Doctoral Fellowship	Jan 2009
Statistical Society of Canada 2008 Student Presentation Award	May 2008
Accelerate BC Internship Award of Excellence	Nov 2007
SFU PhD Research Stipend (PhD)	Sep 2007
NSERC Canadian Graduate Scholarship (PhD)	Apr 2005 – Apr 2007
Scott Paper Ltd Graduate Entrance Fellowship (PhD)	Sep 2004 – Sep 2005
Special Graduate Entrance Scholarship (PhD)	Sep 2004 – Sep 2005
NSERC Post-Graduate Scholarship (MSc)	May 2002 – Apr 2003
SFU Graduate Fellowship Award (MSc)	May 2002
Graduate Entrance Scholarship (MSc)	Sep 2002
NSERC Undergraduate Student Research Award (BSc)	May 2000
James McGill Scholarship (BSc)	Sep 1997 – Apr 2001

WORKSHOPS AND COURSES ATTENDED

Managing Projects Workshop MITACS Skills Enhancement Program, MITACS	Apr 2009
Survival Skills for Post Docs: The People Side of Achieving Success Continuing Studies Life and Career Centre, University of British Columbia	Mar 2009
Graduate Institute on Modeling Environmental Space-Time Processes Pacific Institute of Mathematics, University of Washington	Jul 2007
Program MARK Workshop Department of Fishery and Wildlife, Colorado State University	Jun 2005
Certificate Program in University Teaching and Learning Learning and Instructional Development Centre, Simon Fraser University	Sep 2004 – Apr 2005
Instructional Skills Workshop Learning and Instructional Development Centre, Simon Fraser University	Apr 2003

SERVICE ACTIVITIES

Refereeing Manuscripts

During my Ph.D. and post-doctoral fellowship I have reviewed articles submitted to the following journals:

- *Biometrics*
- *The Canadian Journal of Statistics*
- *Ecology*
- *Environmental and Ecological Statistics*
- *The Journal of Applied Ecology*
- *The Journal of Field Ornithology*
- *The Journal of Ornithology*
- *The Journal of Wildlife Management*
- *The North American Journal of Fisheries Management*
- The proceedings of the 2007 EURING Technical Meeting, *Modelling Demographic Processes in Marked Populations*

On-site Organizer of 2010 IMS New Researchers Conference Institute of Mathematical Statistics	Jul 2010
On-site Organizer of 2009 SSC New Researchers Dinner Statistical Society of Canada Annual Meeting	Jun 2009
Chair Statistics and Actuarial Science Graduate Student Caucus, Simon Fraser Univ.	2002/03 & 2004/05

PROFESSIONAL SOCIETY MEMBERSHIPS

I am currently a member of the Statistical Society of Canada, the American Statistical Association, and the International Biometrics Society (Western North American Region). I am also a past member of the American Ornithologists' Union.

PUBLICATIONS

Articles in Refereed Journals

- Bonner, S.J., Morgan, B.J.T., and King, R. (2009). Continuous, time-varying covariates in mark-recapture-recovery analyses: A comparison of methods. *Biometrics*. In press.
- Calvert, A., Bonner, S.J., Jonsen, I., Flemming, J., Walde, S., and Taylor, P. (2009). A hierarchical Bayesian approach to multi-state mark-recapture: Simulations and applications. *Journal of Applied Ecology*, 46:610–620.
- Lampinen, T.M., Bonner, S.J., Rusch, M., and Hogg, R.S. (2007). High prevalence of smoking among urban-dwelling Canadian men who have sex with men. *Journal of Urban Health*, 83(6):1143–1150.
- Bonner, S.J. and Schwarz, C.J. (2006). An extension of the Cormack-Jolly-Seber model for continuous covariates with application to *Microtus pennsylvanicus*. *Biometrics*, 62(1):142–149.
- Hogg, R.S., Bangsberg, D.R., Lima, V.D., Alexander, C., Bonner, S., Yip, B., Wood, E., Dong, W.W., Montaner, J.S.G., and Harrigan, P.R. (2006). Emergence of drug resistance is associated with an increased risk of death among patients first starting HAART. *PLoS Medicine*, 3(9):e356.
- Wood, E., Hogg, R.S., Bonner, S., Kerr, T., Li, K., Palepu, A., Guillemi, S., Schechter, M.T., and Montaner, J.S.G. (2004). Staging for anti-retroviral therapy among HIV-infected drug users. *Journal of the American Medical Association*, 292:1175a–1177a.

Articles in Refereed Conference Proceedings

- Bonner, S.J., Thomson, D.L., and Schwarz, C.J. (2008). Time-varying covariates and semi-parametric regression in capture-recapture: An adaptive spline approach. In D.L. Thomson, E.G. Cooch, and M.J. Conroy (eds.), *Modelling Demographic Processes in Marked Populations*, vol. 3 of *Environmental and Ecological Statistics*, pp. 657–676. Springer, New York. Proceedings of the 8th EURING Technical Meeting.
- Gimenez, O., Bonner, S.J., King, R., Parker, R.A., Brooks, S.P., Jamieson, L.E., Grosbois, V., Morgan, B.J.T., and Thomas, L. (2008). WinBUGS for population ecologists: Bayesian modeling using Markov chain Monte Carlo methods. In D.L. Thomson, E.G. Cooch, and M.J. Conroy (eds.), *Modelling Demographic Processes in Marked Populations*, vol. 3 of *Environmental and Ecological Statistics*, pp. 883–916. Springer, New York. Proceedings of the 8th EURING Technical Meeting.
- Bonner, S.J. and Schwarz, C.J. (2004). Continuous time-dependent individual covariates and the Cormack-Jolly-Seber model. In J.C. Senar, A. Dhont, and M.J. Conroy (eds.), *Animal Biodiversity and Conservation*, vol. 27. Proceedings of the 7th EURING Technical Meeting.

Non Refereed Publications

- Zala, C., Alexander, C.S., Ochoa, C., Guillemi, S., Ting, L.S., Bonner, S., Cahn, P., Harrigan, P.R., and Montaner, J.S.G. (2005). Comparable pharmacokinetics of generic Indinavir (Inhibisam) versus brand Indinavir (Crixivan) when boosted with Ritonavir. *Journal of Acquired Immune Deficiency Syndromes*, 38(1):363–364. Letter to the Editor.

Technical Reports

- Bonner, S.J. (2008). The stratified-Petersen experiment: Effects of heterogeneity by strata on the estimate of run size and its variance. Technical report, BC Hydro.
- Bonner, S.J. and Schwarz, C.J. (2008). Analysis of variability in water quality, sediment quality, and abundance of benthic organisms in two lakes of the Koala watershed. Technical report, Rescan Environmental Services Ltd.
- Bonner, S.J. (2006). Analysis of the effects of 11 chemicals on wireworm mortality. Technical report, Pacific Agri-Food Research Centre.

Working Papers

- Bonner, S.J. and Schwarz, C.J. (2010). Smoothed estimates for time-stratified mark-recapture experiments using Bayesian p-splines. *Biometrics*. Submitted.
- Bonner, S.J., Schwarz, C.J., Pickard, D., and Marine, K. (2010). A Bayesian hierarchical model with splines for time-stratified Petersen experiments. *Canadian Journal of Fisheries and Aquatic Sciences*. Submitted.
- Bonner, S.J. and Schwarz, C.J. (2009). Bayesian estimation of abundance for open populations with covariate dependent capture and survival probabilities. *Journal of Agricultural, Biological, and Environmental Statistics*. Submitted.

PRESENTATIONS AND POSTERS

Invited Presentations

- Bonner, S.J. (2009). Bayesian estimation of abundance for open populations with covariate dependent capture and survival probabilities. *University of Victoria*. Victoria, BC Canada.
- Bonner, S.J. (2008). Application of Bayesian p-splines to the stratified two-stage capture-recapture study. *University of British Columbia*. Vancouver, BC Canada.

Conference Presentations

- Bonner, S.J. and Schwarz, C.J. (2009). Bayesian estimation of abundance for open populations with covariate dependent capture and survival probabilities. *9th EURING Technical Meeting*. Pescara, Italy.
- Bonner, S.J. and Schwarz, C.J. (2008). Hierarchical Bayesian modelling of two-stage capture-recapture experiments. *Joint Meeting of the Statistical Society of Canada and the Société Française de Statistique*. Ottawa, Ontario.
- Bonner, S.J. and Schwarz, C.J. (2007). Bayesian smoothing of the stratified-Petersen model. *WNAR/IMS Annual Meeting*. Irvine, California.
- Bonner, S.J., Thomson, D.T., and Schwarz, C.J. (2007). Time-varying covariates and semi-parametric regression in capture-recapture: an adaptive spline approach. *8th EURING Technical Meeting*. Dunedin, New Zealand.

- Bonner, S.J. (2006). Time-dependent covariates in mark-recapture. *3rd SFU/UBC Joint Student Statistics Workshop*. University of British Columbia, Vancouver.
- Bonner, S.J. (2005). An introduction to capture-recapture. *1st SFU/UBC Joint Student Statistics Workshop*. University of British Columbia, Vancouver.
- Hogg, R.S., Bonner, S.J., Daniel, M., Harrigan, P.R., Yip, B., Braistein, P., Wood, E., and Montaner, J.S.G. (2004). Impact of depression on all cause mortality among men and women initiating HAART. *15th International AIDS Conference*. Bangkok, Thailand. Presented by R. Hogg.
- Bonner, S.J. and Schwarz, C.J. (2003). Continuous individual time-dependent covariates in the Cormack-Jolly-Seber model. *7th EURING Technical Meeting*. Radolfzell, Germany.

Posters

- Bonner, S.J., King, R., and Morgan, B.J.T. (2007). Comparison of methods for incorporating covariates in mark-recapture-recovery analysis. *8th EURING Technical Meeting*. Dunedin, New Zealand.
- Bonner, S., Rusch, M., Lampinen, T.M., Miller, M.L., Devlin, B., and Hogg, R.S. (2004). Smoking behaviour among men who have sex with men. *13th Annual Canadian AIDS/HIV Research Conference*. Montreal, Quebec.
- Bonner, S.J., Hogg, R.S., Geller, J., Yip, B., Gataric, N., and Montaner, J.S. (2004). Concordance between two measures of adherence to anti-retroviral therapy. *13th Annual Canadian AIDS/HIV Research Conference*. Montreal, Quebec.
- Guillemi, S., Alexander, C.S., Bonner, S., Ting, L., Harris, M., Harrigan, P.R., and Montaner, J.S. (2004). Lopinavir trough concentration remains consistent for adult patients regardless of age. *13th Annual Canadian AIDS/HIV Research Conference*. Montreal, Quebec.
- Harris, M., Alexander, C., Bonner, S., Ting, L., McNabb, K., Harrigan, P.R., and Montaner, J.S.G. (2004). Soft gel and hard gel formulations offer similar exposure to Saquinavir in Ritonavir-boosted regimens. *5th International Workshop on Clinical Pharmacology of HIV Therapy*. Rome, Italy.
- Harris, M., Zalunardo, N., Bonner, S., Werb, R., Valyi, M., and Montaner, J.S. (2004). Use of estimated glomerular filtration rate (GFR) to predict renal toxicity in patients receiving Tenofovir DF (TDF). *11th Conference on Retroviruses and Opportunistic Infections*. San Francisco, California.