

## **PROFESSIONAL MEETINGS ATTENDED**

The Oregon Chapter of the Wildlife Society, Annual meeting (Newport, Oregon). February 7-8, 1969. Paper presented: “*A simulation study of animal trapping.*”

Joint Meeting of the AAAS, Pacific Division, and the Biometric Society, Western North American Region (Pullman, Washington). August 18-23, 1969. Paper presented: “*Robust estimation of population size from live trapping data.*”

International Symposium on Statistical Ecology (Yale - New Haven, Connecticut). August 21-28, 1969.

Biometric Society, Western North American Region (spring meeting) June 24, 1970; and parts of the 6th Berkeley Symposium on Mathematical Statistics and Probability (Berkeley, California). June 22-26, 1970.

Annual joint statistical meeting of the American Statistical Association, the Institute of Mathematical Statistics and the Biometric Society (Fort Collins, Colorado). August 23-26, 1971. Paper presented (coauthored by W. S. Overton): “*Toward a class of distribution-free multiple recapture population estimators.*”

Twenty-third Alaska Science Conference (in conjunction with the Alaska Division, AAAS), (Fairbanks, Alaska). August 15-17, 1972. Paper presented: “*Estimation of population size in multiple capture-recapture studies when capture probabilities vary among animals.*” Also, chaired the session on *Natural and Social Systems Modelling.*

Annual joint statistical meeting of the American Statistical Association, the Institute of Mathematical Statistics and the Biometric Society, (New York, New York). December 27-30, 1973. Invited paper presented (coauthored by C.T. Cushwa): “*Robust estimation of population density from live trapping studies.*”

Joint meeting of the Biometric Society, Eastern North American Region, the Institute of Mathematical Statistics, Central Region, and the American Statistical Association (St. Paul, Minnesota). March 24-26, 1975. Paper presented: “*Inference on variance components in the unbalanced one-way classification.*”

Forty-third North American Wildlife and Natural Resources Conference (Phoenix, Arizona). March 18-22, 1978. Invited coauthored paper presented by D. R. Anderson: “*Effect of hunting regulations on mallard survival rates.*”

International Conference on the Population Dynamics of Large Mammals (Logan, Utah). May 27-29, 1978.

Bureau of Land Management, Idaho Water Resources Workshop (Boise, Idaho). November 27-29, 1979. Invited paper presented: “*Some principles of valid study design.*”

Special National Workshop, *Research Methodology and Criminal Justice Program Evaluation*, sponsored by the U. S. Department of Justice (Baltimore, Maryland). March 17-19, 1980. Invited paper presented: “*Mark-recapture techniques for estimating animal populations - what has been done in ecology.*”

Biometric Society, Western North American Region (Davis, California). June 16-18, 1980. Invited paper presented (coauthored by D. R. Anderson): “*The Fourier series as the basis for a robust line transect estimator.*”

Joint annual meeting of the American Statistical Association, Biometric Society and the Institute of Mathematical Statistics (Houston, Texas). August 11-14, 1980. Invited paper presented: “*Is finite population sampling theory always applicable to finite populations?*”

*Bird Census Symposium* (Monterey, California). October 27-30, 1980. Invited paper presented (coauthored by D.R. Anderson and J.L. Laake): “*Line transect estimation of bird population density using a Fourier series.*” Also served as a session summarizer and presented a poster session.

*Workshop on Design and Analysis of Terrestrial Environmental Impact Studies*, Louisiana State University, March 31 to April 2, 1981. I helped organize this informal workshop and gave a presentation.

Annual USSES meeting, Aug. 1-3, 1984 (USSES-University Statisticians of Southern Experiment Stations), Blacksburg, Virginia (VPI).

Joint annual meeting of the American Statistical Association and the Biometric Society (Philadelphia, PA), August 13-16, 1984. Invited discussant for the session, *Estimating Animal Population Parameters*. Presented a contributed paper: “*A comment on maximum likelihood estimation for finite mixtures of distributions.*”

Biometric Society, Eastern North American Region (Raleigh, NC). March 24-27, 1985. Organized the invited paper session *Capture-Recapture Experiments*.

USDA-ARS Pest Simulation Workshop, Sept. 26-27, 1985, Pee Dee Research Center, Florence, S.C.

Invited participant in the EURING *Technical Conference on Ringing Recovery Analytical Methods*, Wageningen, Netherlands, March 4-7, 1986. Presented a paper and one discussion of a paper. (EURING stands for the European Union for Bird Ringing).

The XIII-International Biometric Conference, July 27-Aug. 1, 1986 (Seattle, WA). Coauthor of invited paper: D.H. Johnson, K.P. Burnham and J.D. Nichols, “*The role of heterogeneity in population dynamics.*”

The joint spring meeting of ENAR and WNAR, Biometric Society, March 22-25, 1987 (Dallas, Texas).

Joint annual meeting of the American Statistical Association, the Biometric Society and the Institute of Mathematical Statistics, August 17-20, 1987, in San Francisco

Conference on Fish Protection at Steam and Hydro Power Plants, Oct. 28-30, 1987, in San Francisco. Sponsored by EPRI (Electrical Power Research Institute). Paper presented: “*New methodology for fish survival experiments based on release-recapture,*” with coauthors D. R. Anderson and G. C. White.

Participated in the Symposium-Workshop *Estimation and Analysis of Insect Populations*, Jan. 25-29, 1988, at the University of Wyoming, Laramie, WY (sponsored by NSF & New Zealand Cooperative Science Program, and U. of W.). I presented a paper: “*Numerical survival rate estimation for capture-recapture models using SAS PROC NLIN.*”

Attended the spring meeting of the Eastern North American Region (ENAR) of the Biometric Society, March 27-30, 1988, in Boston, MA. While there, I participated in the meeting of the ENAR Regional Advisory Board (RAB).

Joint annual meeting of the American Statistical Association and the Biometric Society ENAR and WNAR regions (New Orleans, LA), August 21-25, 1988. Presented a contributed paper: “*Release-recapture model fitting with SAS.*” While there, participated in the joint meeting of the ENAR Regional Committee and Regional Advisory Board (RAB).

Attended the spring meeting of the Eastern North American Region (ENAR) of the Biometric Society, March 19-22, 1989, in Lexington Kentucky. While there, I participated in the meeting of the ENAR Regional Advisory Board (RAB).

Invited participant at the (second) EURING technical conference on *The statistical investigation of avian population dynamics using data from ringing recoveries and live recaptures of marked birds*, April 11-15, 1989 at Sempach, Switzerland. About 45 scientists attended from 12 countries: about 7 statisticians, the rest ornithologists - to exchange information on the state of the art on bird ringing and the modeling and analysis of the resampling data. I was chairman of the first session; I demonstrated ESTIMATE and BROWNIE in one evening session; I presented a paper in a different session.

Participant, and invited speaker, at the *Workshop on Estimation and Analysis of Survival*, April 4, 1990, at Patuxent Wildlife Research Center (Laurel, Maryland). This was a meeting of top Fish and Wildlife statisticians and quantitative biologists (about 55 were there) in the US. I spoke on “*Modelling the survival process in marked populations: recent advances.*” Most of my talk was based on joint work with Drs. D. R. Anderson, J. D. Lebreton and J. Clobert.

Invited speaker at the 1990 International Statistical Symposium in Taipei, Taiwan (R.O.C.), June 28-30, 1990. Talk title: “*A unified theory for release-resampling studies of animal populations.*”

Attended the Ecological Society of America (ESA) annual meeting July 29 to Aug. 2 1990 at Snowbird Resort, Utah. I participated in the policy meeting there of the Editorial Board of Ecology and Ecological Monographs.

Attended the annual joint meeting of the American Statistical Association and the ENAR and WNAR regions of the International Biometrics Society in Anaheim, California, August 6-9, 1990. Was therein inducted as a Fellow of ASA.

Invited participant in the 10<sup>th</sup> annual spring Statistics Conference of the CO-WY Chapter of the ASA, April 26, 1991, NCAR in Boulder. I participated in the session entitled *Adjusting the Census: Pro and Con*. This session was in regards to the (differential) undercount in the 1990 US Census. I spoke briefly on capture-recapture in wildlife applications and lessons therein re use of 2 by 2 tables (Lincoln-Petersen) methods in the Census adjustment.

Participated in the scientific conference *Wildlife 2001: Populations* (a follow up on Wildlife 2000), held July 28-31 1991, in Oakland California. I presented (in the first joint session) a paper jointly written with D. R. Anderson entitled “*Data-based selection of an appropriate biological model: the key to modern data analysis.*”

Attended the 1991 Annual Meeting of the Central Mountains and Plains Section of the Wildlife Society, held August 2, 1991, in Rocky Mountain National Park, Estes, Colorado. Was co-investigator on a presentation (given by Andelt): “*Relative effectiveness of repellents for reducing damage by elk,*” by Bill Andelt, Dan Baker and Ken Burnham.

Participated (by invitation) in the fiftieth anniversary conference of the Department of Statistics, North Carolina State University (Raleigh, NC), October 10-12, 1991. I presented a 30 minute talk, “*Wildlife population abundance estimation and sampling theory.*”

Invited participant, April 7-11 1992, at the EURING92 technical conference (the third in a series) in Montpellier, FRANCE. Conference title, long version: *The Use of Marked Individuals in the Study of Bird Population Dynamics: Models, Methods and Software*. I was on the Scientific Organizing Committee; organized and chaired one Session; presented a paper in a different session (“*A theory for Combined Analysis of Ring Recovery and Recapture Data*”), and gave a demo of program CAPTURE at the Software Session.

Attended the Ecological Society of America annual meeting Aug. 9-13 1992 in Honolulu, Hawaii. I participated there in the annual policy meeting of the Editorial Board of Ecology and Ecological Monographs; served as a judge for the Buell and Braun awards (best student paper and student poster awards); and presented a talk: Burnham and Anderson, “*Assessing bias from undetectable senescence on indirectly estimated finite population rate of change,  $\lambda^{\wedge}$ .*”

Attended the 16th International Biometric Conference in Hamilton, New Zealand, December 7-11, 1992; hosted by the University of Waikato; I presented the paper “*Valid inference as a function of model selection strategy in the analysis of capture-recapture data;*” by me, G. C. White and D. R. Anderson.

Attended the 12<sup>th</sup> annual spring Statistics Conference of the Colorado-Wyoming Chapter of the ASA, April 30, 1993, in Boulder.

Attended the 73<sup>rd</sup> Annual Meeting of the American Society of Mammalogists, in Bellingham, WA June 19-23, 1993; hosted by The Western Washington University. I presented the talk "*Estimation of boundary strip width for small-mammal livetrapping grids.*" I was also involved via the talk of Gail Olson (Olson and Burnham, "*Modeling survival rates of Townsend's ground squirrels*"), and the poster session on our Townsend's ground squirrel work.

Attended the IMS/WNAR Western Regional Meeting at the University of Wyoming (Laramie, WY), 28-30 June, 1993. For this meeting I organized an invited papers session (*Capture-recapture and Northern spotted owls: statistics in action*), and presented a paper in this session: "*Survival rate modelling and model selection for capture-recapture (with a spotted owl example).*"

Attended the Joint Annual Meeting of the CO Chapter of The Wildlife Society and the CO/WY Chapter of the American Fisheries Society, held January 20-21, 1994 in Fort Collins, CO. The theme was morality and ethics in fisheries and wildlife management.

Participated, September 19-24, 1994, at the EURING94 technical conference (the fourth in a series) at Patuxent Wildlife Research Center, Laurel, MD, USA. EURING is the European Union for Bird Ringing; the meeting at Patuxent was entitled *State of the Art Data Analysis for Studies of Marked Birds*. I was on the Scientific Organizing Committee and the Finance Committee. I organized and chaired a session of papers, and presented (at a difference session) a paper jointly produced with David Anderson and Gary White: "*Selection among open population capture-recapture models when there is heterogeneity in capture probabilities.*"

Attended the 9<sup>th</sup> Annual Meeting of the Society for Conservation Biology, held at Colorado State University June 7-11, 1995.

Attended the annual meeting of the Ecological Society of America, held July 30 to Aug. 3, 1995 at Snowbird Resort, Utah. I gave a contributed talk ("*Pseudopower and the design of experiments*") and served as a judge (one of many) for the Buell and Braun Awards for best student talk and poster.

Participated in the 2<sup>nd</sup> annual meeting of The Wildlife Society, in Portland Oregon, September 13-17, 1995. Presented a 30 minute invited talk, "*Meta-analysis: synthesizing research results,*" and was coauthor on another invited talk (David Anderson, Gary White and Ken Burnham), "*Model selection the critical element in the analysis of empirical data.*"

Attended the one day winter meeting (Jan. 19, 1996; in Denver, CO) of the Colorado-Wyoming Chapter of the ASA; this was a series of talks on aspects of meta-analysis.

Invited participant in a workshop (30 people) arranged by the American Statistical Association, funded by EPA-EMAP, on “*Statistical Issues for Ecological and Natural Resources Monitoring Programs in the United States;*” held March 14-16, 1996, in Washington, DC. It dealt with issues of combining and otherwise coordinating, Federal agency national-level environmental monitoring surveys in the USA.

Attended the *Second International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences*, May 21-23, 1996 at Colorado State University. It was a mix of statisticians, computer scientists, GIS experts and remote sensing experts dealing with topics on errors and quality of spatial-temporal data, especially as collected by remote sensing and map digitization, and issues of error propagation in the analysis of such data.

Presented an invited talk at the spring 1996 Biometric Society (WNA) and IMS regional meeting in Pullman, Washington (at WSU), June 23-26: “*AIC-based model selection: an approach to a critical issue in model based data analysis.*”

Attended the annual joint meetings of the American Statistical Association, ENAR and WNA regions of the International Biometrics Society, Institute of Mathematical Statistics, and the Statistical Society of Canada, in Chicago, Illinois, August 4-8, 1996. I was an invited discussant for the invited papers session *Capture-recapture models and applications*.

Attended the annual meeting of the American Fisheries Society, in Dearborn Michigan, August 26-29, 1996. I went because I was an invited participant in the Symposium *Recovery of Endangered Species: What is it?* I presented therein the talk, “*Assessing demographic criteria necessary for recovery.*”

Attended the Annual winter Meeting of the Colorado Chapter of The Wildlife Society, January 23-24, 1997, in Fort Collins, CO.

Invited participant in the scientific meeting EURING97 on the campus of the University of East Anglia in Norwich, England, April 7-12, 1997. This meeting was the 6th in a series on state-of-the-art statistical analysis of ringing (banding) data from birds; it was organized by the BTO (British Trust for Ornithology) and sponsored by The European Union for Bird Ringing. The formal meeting name was *Large-scale studies of marked birds: methods, software and applications to conservation and management*. At the April 7 one-day short course I presented an invited 90 minute lecture, “*Types of data and basic models: recaptures, recoveries and radio-tracking.*” In the technical meeting (April 8-12) I presented the invited talk “*Random effects models in ringing and capture-recapture studies.*” I collaborated with David Anderson and Gary White on three other invited talks they presented at EURING97.

Invited talk given at the 4<sup>th</sup> Annual Conference of The Wildlife Society, September 21-27, 1997, at Snowmass Village, Colorado (Most of the meeting talks were 23-27, and I attended on those days). The talk was in the full day Symposium, *How to Practice Safe Modeling: the Interpretation and application of Models in Resource Management*; my talk was “*Models based on, and justified by, data: why parsimonious (i.e. simple) models are necessary.*”

Attended the Annual winter Meeting of the Colorado Chapter of The Wildlife Society, January 21-23, 1998 in Grand Junction, CO. The focus of this meeting was habitat fragmentation.

Invited talk give at the 5<sup>th</sup> Annual Conference of The Wildlife Society, September 22-26, 1998, in Buffalo, NY (I only attended on September 24-26). The talk was in the half-day Symposium, *Evaluating the Role of Hypothesis Testing/Power Analysis in Wildlife Science*. My talk, based on joint work (i.e. our book) with David Anderson, was “*New AIC model selection theory and methods: inference from more than one model.*”

Contributed talk (given by David) at the conference *Population Viability Analysis: Assessing Models for Recovering Endangered Species*. The conference (I attended it all) was March 15-16, 1999, in San Diego, CA. Our talk: “*Formal inference from a suite of PVA models*” (David R. Anderson and Kenneth P. Burnham).

Attended 1999 annual spring statistics meeting of the CO-WY Chapter of the ASA (April 9, 1999), at NCAR in Boulder.

Invited talk given at the Annual Meeting of the American Fisheries Society (August 29 - September 2, 1999, in Charlotte, North Carolina; I attended the entire meeting). The talk was the lead talk in the half day Symposium, *Development of New Tagging Models*. The talk, based on joint work (i.e. our book) with David Anderson, was “*Multi-model inference for tagging data.*”

Invited (and active) participant in a small workshop (about 40 people) consisting of experts on bats and others on quantitative ecology and statistics, held September 19-23, 1999 in Estes Park, Colorado: *Workshop on monitoring trends in U.S. Bat Populations: Problems and Prospects*. Sponsored by USGS, Bat Conservation International, National Fish and Wildlife Foundation, USFS, and BLM. The objectives were to explore the scientific feasibility of and develop recommendations for long-term, cost effective, collaborative national programs to monitor bat population trends in the United States and Territories.

Invited speaker at SEEM3 (*Statistics in Ecology and Environmental Monitoring*, 3<sup>rd</sup> one; these are international meetings), held December 6-10, 1999, at the University of Otago, Dunedin, New Zealand. There were only 6 invited speakers, one of whom was the honoree, Professor George Seber (U. of Auckland, NZ.). The particular title, and subject, of SEEM3 was *Estimation of Animal Abundance and Related Parameters* (same as Seber's 1972 book). I presented the talk “*A random effects model for band recovery and capture-recapture data;*” chaired the session *Analysis of long-term ecological data sets*; and was on the panel (it was the 6 invites) that gave the *Conference Review and forum* as the last session.

Invited participant in the scientific meeting EURING2000 at the Marconi Conference Center, near Point Reyes, California, October 2-7, 2000 (Point Reyes Bird Observatory was the local organizer). I presented an invited plenary paper (with Gary White) entitled "*Evaluation of some random effects methodology applicable to bird ringing data.*" I was the invited discussant on another plenary paper (*Understanding Bayesian methodology for analyzing ringing data*). Also, coauthor of a paper (Franklin, Anderson, Burnham, "*Estimation of long-term trends and variation in avian survival probabilities using random effects models*"). This meeting was the 7th in a series on state-of-the-art statistical analysis of ringing (banding) data from birds, sponsored by The European Union for Bird Ringing. The formal meeting name was *Developing, understanding and integrating new methodologies in the analysis of ringing data.*

Invited Participant in the first *International Conference on Distance Sampling (ICODS)*, July 29 to Aug. 3, 2001. It was held on the campus of the University of St. Andrews and was organized and sponsored by the Research Unit for Wildlife Population Assessment (RUWPA), which is in the School of Mathematics and Statistics. I presented an invited talk ("*Some thoughts on distance sampling and long-term large scale population monitoring*"), and chaired on session of two invited talks (invited talks were 40 minutes long). The conference had 85 participants; it was a mix of biologists and statisticians presenting both applied and theory papers; there were no concurrent sessions.

Participated in the annual Joint Statistics Meetings (basically the annual meeting of the American Statistical Association, but also, IMS, ENAR, WNAR, SSC), in Atlanta, August 6 to 9, 2001 (full meetings went Aug. 5-9). I presented an invited talk ("*Capture-recapture open models in the past ten years: a decade of phenomenal advances*"), in an invited talks session (*Recent developments in capture-recapture methods*), organized by the ASA Section for Statistics and the Environment.

Attended The Wildlife Society's 8<sup>th</sup> Annual Conference, September 25-29, 2001, in Reno, Nevada. I went for administrative reasons (i.e., some special work was done there) and in order that all four of us were there to accept, in person, the Society's award in Outstanding Monograph Category for "*Climate, habitat quality, and fitness in northern spotted owl populations in northwestern California,*" in *Ecological Monographs* 70:539-590, by Alan Franklin, David Anderson, Rocky Gutierrez, and Ken Burnham.

Attended the annual winter meeting of the Colorado chapter of The Wildlife Society (CWS), held Jan. 16-18, 2002 in Colorado Springs.

Attended the 51<sup>st</sup> Annual Meeting of the Wildlife Disease Association, July 28 through August 1, 2002 at Humboldt State University in Arcata, CA. I did not present anything, but was listed as contributor on two talks on chronic wasting disease given in an invited session on CWD.

Attended the annual winter meeting of the Colorado chapter of The Wildlife Society (CWS), held Jan. 15-17, 2003 at Colorado State University, Fort Collins.

Attended the 2003 WNAR/IMS Joint Meeting held on the campus of the Colorado School of Mines, Golden CO, June 22-25.

Attended The Wildlife Society 10<sup>th</sup> Annual Conference, Sept. 6-10, 2003, in Burlington, Vermont. Presented an invited talk in a symposium (*Modeling, estimation, and decision making in natural Resource Management*): “AIC as a Bayesian procedure, with contrasts to BIC, and model averaging.” In a different session a contributed talk was presented by my Ph.D. student Paul Lukacs: Lukacs and Burnham, “*Statistical aspects of using genetic markers for individual identification in capture-recapture studies.*”

Participated in the technical meeting EURING 2003, Oct. 6-10, 2003 in Radolfzell, Germany. The conference title: *The quantitative study of marked individuals in ecology, evolution and conservation biology*. This meeting was the 8<sup>th</sup> in a series on state-of-the-art statistical analysis of ringing (banding) data from birds, sponsored by The European Union for Bird Ringing. For this meeting I was on the scientific organizing committee, for which I organized and chaired a session (on random effects). I presented two talks (in two different sessions): Burnham and White (Gary), “*Evaluation of some Bayesian MCMC random effects inference applicable to bird ringing data.*” and Burnham, “Computing issues concerning hierarchical models.” Moreover, Ph.D. candidate Paul Lukacs gave a talk, (Lukacs and Burnham), “*Statistical aspects of using genetic markers for individual identification in capture-recapture studies.*” And finally, White and Burnham presented a poster (there was an evening poster session), “*Profile likelihood intervals: a new feature of program MARK to solve a problem of 'standard theory'.*” The meeting has no concurrent sessions and has one focus; it was very useful; there 107 attendees.

*The Third International Wildlife Management Congress* was held December 1-5, 2003 in Christchurch, New Zealand, on the campus of the Canterbury University. I attended it. I co-organized and co-chaired a symposium session (with Gernot Segelbacher, of Germany): *Application of genetic techniques in wildlife management*, in which one talk was that of Lukacs and Burnham, given by Paul: “*Statistical aspects of using genetic markers for individual identification in capture-recapture studies.*” A poster presented there was Brett McClintock, Gary White, and Ken Burnham, “*Variation in sighting probabilities and mark-resight closed population abundance estimators: A simulation study and its implications for model selection.*”

Gave an invited talk at, and attended the meeting denoted as *2004 Applied Statistics Symposium*, which was the annual meeting of the International Chinese Statistical Association (ICSA). This scientific meeting was held in La Jolla, CA June 6-9, 2004. I spoke in the session on Statistics for Natural Resources (3 invited talks therein), talk title: “*On the current status of capture-recapture models in Wildlife Research.*”

Attended the 2004 WNAR/IMS meeting, June 27-30, 2004, on the campus of the University of New Mexico, Albuquerque, NM. The key reason to go was to participate in meetings of the Regional Committee (I am on it 2004-2006; it is the “board of directors” of WNAR); there were two such business meetings of that regional committee). Of course I also went to technical and general scientific sessions, as possible.

Invited participant to an international meeting in Amsterdam, The Netherlands 27-29 August, 2004. The actual title: *Amsterdam Workshop on Model Selection* (this was really a scientific meeting, despite the title). The meeting was organized by the Department of Psychology, University of Amsterdam. On day one there were 3 tutorial lectures, each 2 hours long. I presented the second of those tutorials; my title: *Understanding AIC and multimodel inference, with contrasts to BIC*. The

next 2 days we had 10 talks, each 45 minutes long with another 15 minutes for questions. The meeting ended with an open-ended discussion. There were about 42 people at the meeting – which made for a nice format with a lot of interactions.

Presented an invited talk September 22, 2004 at the *Monitoring Science & Technology Symposium*, held in Denver, Sept. 20-24 (note: this was a large international event, with many talks); I was only able to attend on the one day. My talk, *Wildlife monitoring: success requires more than a good sampling design*, was given in the session “Realities of conducting natural resource surveys.”

Invited participant to the *Conference on New Developments of Statistical Analysis in Wildlife, Fisheries and Ecological Research* (the Fifth Winemiller Symposium), October 13-16, 2004 at the University of Missouri. It was Sponsored by NSF and the University of Missouri and hosted by the U. of M. Department of Statistics. All talks were 45 minutes, there were only 18 talks spread over three days. I spoke on *Multimodel inference: Understanding AIC and BIC in model selection*.

Invited plenary speaker to the 29<sup>th</sup> Annual Conference of the Quebec Society for the Study of Animal Behavior; held in Sherbrooke, Quebec (Canada), November 12-14 2004, held on the campus of the University of Sherbrooke. The title (and subject) of this meeting was *New Statistical Approaches in for the Study of Animal Behavior*. My talk, “**Model based inference in ecology – recent extensions to likelihood theory,**” was the opening talk, Friday evening.

Attended the 2005 WNAR/IMS annual meeting, June 21-24, 2005, on the campus of the University of Alaska, Fairbanks, Alaska. There I participated in the two meetings of the Regional Committee (I am on it 2004-2006; it is the “board of directors” of WNAR) and the general business meeting. A talk was given by Paul Lukacs on his Ph.D.work: Statistical aspects of using genetic markers for individual identification in capture-recapture studies (Lukacs and Burnham). Of course I also went to technical and general scientific sessions, as possible.

Attended the annual Joint Statistical Meetings Aug. 7-11, 2005, in Minneapolis, MN; this is the annual meeting of the American Statistical Association, the Institute of Mathematical Statistics, the Canadian Statistical Society and ENAR and WNAR of the International Biometrics Society. I chaired the session entitled “Mapping Quantitative Trait Loci.”

Attended the annual meeting of The Wildlife Society Sept. 25-29, 2005 in Madison Wisconsin. I was involved there with (not the speaker) two presented talks: *Relationship of relative variable importance from Akaike weights and correlations*, Gary C. White and Kenneth P. Burnham; *Estimating population size from dung-based DNA capture-recapture data*, Paul M. Lukacs, Lori S. Eggert, and Kenneth P. Burnham.

Attended the 2006 WNAR/IMS annual meeting, June 27-30, 2006, on the campus of the Northern University of Arizona, in Flagstaff, AZ. In 2006 I am President-elect of WNAR, hence on the WNAR Executive Committee. I participated in the two meetings of the Regional Committee (a subset of which is the Executive Committee); RECOM is the “board of directors” of WNAR. I also participated in the meeting of the Regional Advisory Board, which has a different function from the RECOM. I participated in the open WNAR general business meeting. I also went to technical and general scientific sessions, as possible.

Attended the annual Joint Statistical Meetings (JSM) August 6-10, 2006, in Seattle, WA (at the Seattle Convention Center). Special events attended: long-time members session (I have 39 years in ASA); participated in the COPSS annual business meeting (4 hours), as WNAR President-elect I am on COPSS: Committee of Presidents of Statistical Societies. I went to several plenary talks and the COPSS awards session, and a variety of technical talks.

Participated in the scientific meeting EURING 2007, January 14-20, 2007 at the University of Otago in Dunedin, New Zealand. This was the 8<sup>th</sup> EURING conference (I have been to all 8). This years informal title was “development, understanding and integration of new methodologies in the analysis of ringing data.” I was on the scientific organizing committee, for which I co-organized, and solely chaired, a session on Bayesian applications in capture-recapture. I was involved in two talks (given by others) and two posters. This meeting had no concurrent sessions and one focus (capture-recapture); it was very useful; there were about 100 attendees.

Poster session posters:

Thompson, D. L., M. J. Conroy, D. R. Anderson, K. P. Burnham, E. G. Cooch, C. M. Francis, J. D. Lebreton, M. S. Lindberg, B. J. T. Morgan, D. L. Otis, and G. C. White. Standardizing terminology and notation in the analysis of demographic rates.

White, G. C. K. P. Burnham, and R. J. Barker. Evaluation of some Bayesian MCMC random effects methodology applicable to bird ringing data.

Talks:

Lukacs, P. M., K. P. Burnham, B. P. Dreher, K. T. Scribner, S. R. Winterstein. Extending the robust design for DNA-based capture-recapture data incorporating genotyping error and laboratory data.

McClintock, B. T., G. C. White, and K. P. Burnham. A robust design mixed effects model for estimating abundance with mark-resight data.

Participated in the WNAR/IMS annual meeting, June 24-27, 2007 on the campus of the University of California at Irvine (40 miles from LA, CA). It was hosted by the Statistics Department, in a new building – official opened on June 20<sup>th</sup>, 2007. Because I was the President of WNAR for 2007 I was very involved in this meeting (being president means chairing the Regional Committee, which is the governing board of WNAR). So, I chaired a 2.5 hour business meeting of the WNAR board (Sunday 24<sup>th</sup>), a meeting I set up. I attended a luncheon meeting of the WNAR Regional Advisory Board (Monday, 25<sup>th</sup>); I chaired a luncheon business meeting of the board on Tuesday, 26<sup>th</sup>). I chaired an open-to-all members WNAR short business meeting the afternoon on the 26<sup>th</sup>. I served as a judge on the student oral presentations competition. These are regular talks but given by students (15 were given, spread over 1.5 days); the winner gets \$300, two runners-up get \$150 each (prize money is from WNAR). These same students could also enter a written paper version of their talk and those papers were judged (not by me) before the meeting and the same prize scenario applied. At the WNAR/IMS banquet dinner Tuesday (26<sup>th</sup>) evening I “MCed” the brief ceremony of announcing the names of the student winners of these competitions and handed the winners their checks. On Wed., 27<sup>th</sup>, I chaired an invited papers session that I organized and after that I chaired a contributed papers session. Both of these sessions were on statistical applications to environmental sampling or wildlife/ecology.

Attended the annual Joint Statistical Meetings (JSM) July 29-August 2, 2007, in Salt Lake City, UT (at the Salt Lake Convention Center, which is in the center of the city). I went as WNAR President, hence participated in the COPSS annual business meeting (4 hours Tuesday morning; COPSS: Committee of Presidents of Statistical Societies; it is a closed meeting), and was invited to the new Fellows reception (a by-invitation-only event) on Tuesday evening (a very classy affair). I also went to the Monday evening one-hour reception for long-time ASA members (also by-invitation-only event; I have been an ASA member for 40 years). I participated in a round table luncheon on Wednesday (a fee-event) where the subject at our table was model selection. I served as one of several judges for the WNAR poster competition (new to WNAR – to give a prize for the best poster of those entered by members of WNAR). I went to several plenary and special talks and to the IMS, ASA and COPSS awards sessions (these are 3 different sessions), and to a variety of technical talks.

Participated in the WNAR/IMS annual meeting, June 22-25, 2008 on the campus of the University of California at Davis (15 miles from Sacramento, CA). It was hosted by the Statistics Department. I attended as the Past President of WNAR: attended the WNAR official board meeting (Sunday), the RAB luncheon meeting (Monday), the extended board luncheon on Tuesday, the open-to-all members WNAR short business meeting (Tuesday afternoon). Went to plenary sessions, some other sessions, and the banquet (Tuesday evening). In 2007 as WNAR President I had a role in arranging and facilitating this meeting.

Invited participant to the International Statistical Ecology Conference (ISEC), July 9-11, 2008, in St. Andrews, Scotland. The conference was held on the campus of the University of St. Andrews; it was organized by National Centre for Statistical Ecology (NCSE). NCSE is distributed over the University of St. Andrews, University of Kent, and Cambridge University (all in the UK). At St. Andrews NCSE is associated with the long-established (by Steve Buckland) Centre for Research into Ecological and Environmental Modelling (CREEM). ISEC was a satellite conference of the International Biometric Conference (IBC) held the next week in Dublin, Ireland. At ISEC I presented an invited, plenary talk (45 minutes long) entitled *Capture-recapture data analysis in ecology: where we are and how we got there*. I attended many of the talks while there. They were all quite good and they focused on inference about animal populations (esp. capture-recapture and distance sampling). I also served as a judge (one of several) of the student (oral) paper competition (about 20 entries) and the poster competition (about 12 entries). (There were about 200 people at the Conference, representing many countries).

<http://www.creem.st-and.ac.uk/ocs/index.php/isec/isec2008/>

Participant (“delegate”) in the 24<sup>th</sup> International Biometric Conference (IBC) of the International Biometric Society (IBS) held July 13-18, 2008, in Dublin, Ireland, on the campus of the University College Dublin. I attended many talks, and as an officer of the Western North American Region of IBS I attended a Regional Officers luncheon followed by an official meeting of said officers, presided over by the president of IBS (it was a very informative meeting). I attended a special, excellent, centenary session on W.S. Gosset (“Student” of Student’s t-test). Gosset worked at Guinness, in Dublin, from 1899 to 1935. In 1908 he published his paper presenting what became the t-test. This paper was foundational for 20<sup>th</sup> century statistics. (1908 was also the year of the Model T automobile!).

<http://www.cpreregistrations.com/ibc/2008/>

Attended the annual Joint Statistical Meetings (JSM) August 3-7, 2008, in Denver, CO (at the Colorado Convention Center, which is in the center of the city). I went as WNAR past-President, and represented the current WNAR president, who could not be there. Hence, I participated in the COPSS annual business meeting (4 hours Tuesday morning; COPPS: Committee of Presidents of Statistical Societies; it is a closed meeting). I also went to the Monday evening one-hour reception for long-time ASA members (also by-invitation-only event; I have been an ASA member for 41 years). I went to several plenary and special talks and to the ASA and COPSS awards sessions (these are 2 different sessions), and to a variety of technical talks. Last, but not least I gave a short talk, in a technical session; talk title: *Criterion-based model selection and model selection philosophy*.

Attended the annual WNAR/IMS meeting held June 14-17, 2009, on the campus of Portland State University, Portland Oregon. On Sunday (14<sup>th</sup>) I took the full day short course offered as part of these WNAR/IMS meetings: Generalized linear mixed models, given by Charles E. McCulloch. He senior-authored a recent book on this subject. I had no duties at this meeting as my time as an officer of WNAR has expired!

Went to some of the technical sessions of the wildlife meeting held August 18-20, 2009, in Fort Collins. I also went to the meeting banquet, which is a fund-raising event for the organizing entities. This meeting is billed as the Joint CWS Summer meeting and the CMPS Annual meeting; these are both part of The Wildlife Society (TWS). CMPS: Central Mountains and Plains Section of TWS. CWS: Colorado Wildlife Society – the Colorado state Chapter of TWS.

Invited participant at EURING 2009, September 14-20, 2009, in Montesilvano, Italy (next door to Pescara, Italy). Held off-season at the Serena Majestic Hotel, a beach-side resort. This was the 9<sup>th</sup> EURING conference (I have been to all 9). This year's conference title was "Estimation, modelling and conservation of vertebrate populations using marked individuals." I gave the key-note ("honorary speaker") talk, which was just before the conference banquet (only one honorary speaker per EURING meeting – last time it was George Seber). I was also involved in one technical-session talk (not give by me) and one poster. This meeting had no concurrent sessions and one focus (capture-recapture). It was very useful; there were about 120 attendees. See <http://www.phidot.org/euring2009/>

Poster session poster:

Devineau, O., G.C. White, P.F. Doherty, T.M. Shenk, P.M. Lukas, K.P. Burnham, and W.L. Kendall. Advancing the analysis of telemetry and other "known fate" data with the use of multi-state models.

Talks:

Doherty, P.F., G.C. White, and K.P. Burnham. Comparison of model building strategies when all possible model structures cannot be constructed.

Burnham, K.P. Reflections on capture-recapture and the EURING scientific meetings.