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*Newsletter of the Biometrics  
Working Group, The Wildlife Society  
Edited by Bill Thompson  
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**Message from the Chair**

*Terry Shaffer*

Election time is just around the corner! Your nominations committee consisting of Mary Conner and Wayne Thogmartin has done a great job of lining up an impressive list of candidates. The list contains a nice balance of “new” and “old blood.” I’d like to thank all of the candidates for stepping up to the plate to serve our membership and profession. Their biographies and information on casting your vote are included below.

The annual meeting in Madison is coming up fast. Four BWG-sponsored symposia or workshops will be offered this year: *Introduction to R: Free Software for Statistics and Graphics; Statistics, Logistics, and the Estimation of Detection Rates from Aerial Surveys; Observational Studies: When You Can’t Control Nature; and Overview and Treatment of Spatial Errors in GIS Applications* (co-sponsored with GIS/Remote Sensing/Telemetry WG). Regrettably, the BWG-sponsored workshop, “Estimating Utilization Distributions: Methods and Applications,” had to be withdrawn because the organizers were unable to secure the necessary presenters under the approved budget, including one presenter who had recently relocated overseas. We can hopefully look forward to a future BWG-sponsored event that addresses this important topic.

Below you will find an article by three of our experienced members that offers advice and suggestions for organizing and putting on a successful workshop at a TWS annual meeting. This article and its companion piece on organizing a successful symposium that appeared in the last newsletter provide valuable resources that BWG members can draw on when developing ideas for future workshops or symposia. I’d like to thank Bill Thompson for coming up with the idea for these articles and for helping to make them happen!

We are still very interested in forming an ad hoc “Web Design and Content” committee to provide recommendations on enhancing the BWG website. We believe that our website has much potential for keeping our members informed of BWG activities--past and present--and for educating non-members. Please consider volunteering to serve on this important committee.

I’ll close by echoing a comment I made in the last newsletter. Each of us probably knows at least one TWS member who doesn’t belong to BWG, but who could contribute to our mission and benefit from being part of our organization. I call on you to use your network of professional contacts to help build membership and participation in BWG. Invite someone you know to become a member!

Hope to see you in Madison!

## BWG Elections

It's time to vote for BWG officers to serve in the upcoming year. Here are the instructions for casting your on-line ballot:

\* Visit the "WG Members Area" webpage:

<http://www.wildlife.org/wg/biometrics/members/index.cfm>

\* Enter your Member ID and Last Name to logon to the system

\* Click on "2005 Working Group Elections Ballot" at the bottom of the box on the left-hand side of the webpage to access the ballot webpage

\* Once you're on the ballot webpage, click the circle to the left of the name of the candidate of your choice for each office.

\* Once you have completed your selections, click on the "Click Here to Submit Ballot" button at the bottom of the ballot webpage.

**All votes are final so please check your ballot before clicking the Submit button.**

The list of candidates and their biographies are provided below as well as on the ballot webpage. Thanks to all who agreed to run for offices, and special thanks to Wayne Thogmartin and Mary Conner for their efforts in organizing such a great list of candidates.

### Candidates for Chair-elect:

**Douglas Johnson** is a research statistician with the USGS Northern Prairie Wildlife Research Center, currently stationed in St. Paul, Minnesota. He has served on the Biometrics Working Group board in the past and has been involved in developing several symposia at TWS annual meetings. This year, Terry Shaffer and he organized the

session on Observational Studies. Doug enjoys consulting with managers, researchers, and students and holds adjunct faculty appointments at the University of Minnesota and several other academic institutions. He is a long-time member of TWS, as well as a charter member of the Biometrics Working Group. He also belongs to the American Statistical Association, the Biometric Society, Institute for Mathematical Statistics, Royal Statistical Society, and several ecological and ornithological societies.

**Dave Otis** has been Unit Leader of the Iowa Cooperative Research Unit at Iowa State since 2001, after serving in the same position at the South Carolina Unit at Clemson for 11 years. Prior to these positions, he was a statistician and biologist at the Denver Wildlife Research Center. Dave received his graduate education in statistics at Colorado State, and was a post-doctoral student in the Utah Unit at Utah State. He has served on Executive Boards of state chapters in Colorado, South Carolina, and Iowa, and was Secretary of the Biometrics Working Group in 2002 and 2003. Dave's research agenda generally involves questions in population biology, and development and evaluation of quantitative ecological methods. He believes BWG has developed a strong reputation for the workshops and symposia that we sponsor at the annual TWS meeting, and we should work hard to maintain this reputation. Dave supports the position that we need to continue to think about creative ways to attract graduate students and young professionals into BWG, and we also might consider a discussion of how our group might play a role in establishment of statistical analysis and presentation policies for TWS publications.

### **Candidates for Treasurer:**

**Clint Moore** is a research statistician with the USGS Patuxent Wildlife Research Center stationed at the University of Georgia, where he holds an adjunct faculty appointment. After receiving degrees in wildlife biology (B.S. Forest Resources, Univ. Ga.) and statistics (M. Stat., N.C. State Univ.), he worked for the Florida Fish and Wildlife Conservation Commission, National Biological Service, and U.S. Fish and Wildlife Service before returning to the University of Georgia to earn his doctoral degree in wildlife biology. His primary areas of research interest are population and habitat modeling, statistical modeling, decision analysis, and their integration under adaptive resource management. Current projects include optimal forest harvest scheduling under uncertainty for bird conservation objectives and optimal strategies of bird release for establishing a viable non-migratory whooping crane population in Florida. Clint served on the steering committee (1995-1996) that established the BWG, acting as the working group's interim treasurer, developing its first membership database, and starting its newsletter.

**Mark Udevitz** is a Research Statistician with the USGS Alaska Science Center in Anchorage, Alaska, where he has worked since 1990. He earned B.S. and M.S. degrees in Wildlife Biology and Management at Colorado State University and West Virginia University, and a Ph.D. in Biomathematics and Statistics at North Carolina State University. His research focuses on methods for sampling, estimating demographic parameters, and modeling dynamics of wildlife populations. Mark has been a member of the Biometrics Working Group since its inception and has previously served as a Board Member. He feels that the

BWG has proven to be extremely valuable to its members and to The Wildlife Society as a whole and would like the opportunity to help facilitate the Group's work as Treasurer.

### **Candidates for Secretary:**

**Christine Bunck** is the Deputy Center Director at the USGS National Wildlife Health Center (NWHC) in Madison, Wisconsin and served as the Acting Center Director for extended periods from mid 2002 through the fall of 2003. She completed a BS in biological sciences & mathematics at Florida State University, a MS in zoology & wildlife biology at Ohio State University, and a MAS in statistics at Ohio State University. She worked as a biometrician at the Patuxent Wildlife Research Center (PWRC) from 1979-1995 and served as the Leader of the Biometrics Group at PWRC from 1986-1995. At PWRC, she worked collaboratively with many researchers and on a wide variety of studies and conducted statistical research on the estimation of survival rates, multiple comparison methods, multivariate analyses, and the design of monitoring and assessment programs. In 1995 she became the National Coordinator for the Biomonitoring of Environmental Status and Trends Program and worked closely with USGS Science Centers and the Fish and Wildlife Service to develop and implement strategies for regional and national assessment and monitoring of the effects of environmental stressors on wildlife. Her research interests continue to include the survey design and estimation of demographic parameters. She was active in the formation of the Biometrics Working Group (BWG) and held various offices during that time. She is looking forward to renewing her involvement in the BWG and statistical topics.

**Paul Lukacs** is a biometrician for the USGS Patuxent Wildlife Research Center. He is based at the National Park Service office in Fort Collins, CO assisting the Inventory and Monitoring Program with monitoring design and analysis problems. His research interests include expanding capture-recapture theory for noninvasive sampling, passive distance sampling methods and sampling designs for studying rare species. Paul received a B.S. in from the University of Montana and an M.S. and Ph.D. from Colorado State University. He is a member of the Wildlife Society and the International Biometrics Society.

#### **Candidates for Board Members (4 positions):**

**Larissa Bailey** is currently a Post-doc researcher with the University of Virginia. In September she will assume a role as a Research Wildlife Biologist with the USGS Patuxent Wildlife Research Center in Laurel, MD. Her primary responsibility will be Coordinator of the USGS Northeast Amphibian Research and Monitoring Initiative (ARMI). She holds a B.S. in Biology and B.A in History (Mesa State College, CO 1993, 1994), Masters in Biomathematics (North Carolina State University, 1997), and Ph.D. in Zoology (North Carolina State University, 2002). For the past 3 years Larissa has worked as a post-doc at USGS Patuxent Wildlife Research Center collaborating with biologist from National Park Service, USGS, and academic universities. Her research focuses mainly on developing and applying quantitative methods to address scientific and management questions about amphibian systems and their dynamics. Though a relatively recent member of Biometrics Working Group (since 2002), she has benefited from wealth of knowledge of its members, their willingness to work toward

common goals and their encouragement of young scientist.

**John Fieberg** is a biometrician with the Fish and Wildlife Division of the Minnesota Department of Natural Resources. John received a B.A. in Mathematics from Westminster College (1993), a M.S. in Biostatistics from the University of North Carolina-Chapel Hill (1996), and a Ph.D. in Biomathematics from North Carolina State University (2000). His research interests are broad, but generally involve the application of statistical and mathematical models to problems in ecology and natural resource management (e.g., assessing the role of parameter uncertainty in population viability and optimal harvest models). Recent collaborative projects have included an age-specific survival analysis of deer in northern MN and an evaluation of the cost effectiveness of mallard nesting structures.

**Bridgette Flanders-Wanner** is a wildlife biologist for the U.S. Fish & Wildlife Service at Huron Wetland Management District in South Dakota. She has a B.S. in Zoology from North Dakota State University and an M.S. in Wildlife Biology from Colorado State University. She is a member of the USFWS Dakota Working Group Grassland Monitoring Team, which works to coordinate and design Dakota-wide grassland research. She is currently the President-Elect of the South Dakota Chapter of The Wildlife Society and previously served as Secretary/Treasurer. She is a member of TWS, Central Mountains and Plains Section of TWS, the TWS Biometrics Working Group, the TWS Biodiversity Working Group, Society for Conservation Biology, Society for Range Management, North American Grouse Partnership, and Prairie Grouse Technical Council. Her professional interests include the use of sound monitoring and research techniques to

adaptively manage wildlife habitat, protecting biodiversity as opposed to local species diversity, and the restoration of grassland habitat for grassland-dependent wildlife.

**Christopher Fannesbeck** is a quantitative ecologist with the Fish & Wildlife Research Institute (Florida Fish & Wildlife Conservation Commission), and an adjunct professor at the Warnell School of Forest Resources, University of Georgia. Chris graduated with a Ph.D. in Wildlife and a M.S. in Statistics from the University of Georgia, and a M.S. in Ecology and a B.S. in Zoology from the University of British Columbia. His current research includes population estimation and monitoring issues related to the conservation of the Florida manatee and North Atlantic right whale. Chris also develops and maintains PyMC, a Markov chain Monte Carlo analysis software package.

**Brett T. McClintock** is pursuing a Ph.D. in Fishery and Wildlife Biology at Colorado State University. His primary interests lie in quantitative ecology focusing on terrestrial vertebrate population and community dynamics. He is also interested in evaluating current and developing new statistical methods for the estimation of demographic parameters in mark-resight (NOREMARK) studies. His M.S. program combined the theoretical development of a mark-resight abundance model with field application to bighorn sheep in Colorado. The focus of his current research is the development of a generalized mark-resight estimator robust to a variety of sampling conditions often problematic in these studies, including sighting heterogeneity and sampling with replacement. In the field, he is applying this model to black-tailed prairie dog colonies in Colorado. Brett is a member of TWS and the International Biometric

Society, and he is eager to become more involved with BWG. For more information on Brett and his research, please visit <http://holly.colostate.edu/~btm119>.

**Ryan Nielson** is a consulting statistician/biometrician with Western EcoSystems Technology, Inc. in Laramie, WY. Currently, he is project leader and statistician for monitoring moose density and distribution in the Alaska Peninsula/Becharof and Innoko National Wildlife Refuges, AK. During the next year, he will be part of an inter-agency team developing an Adaptive Management Plan for grizzly bears in the Cabinet-Yaak Ecosystem of northwestern Montana. Ryan has degrees in Environmental Studies (B.S. University of Oregon) and Statistics (M.S. Colorado State University). He has previously worked as a statistical analyst for the USDA-APHIS-NWRC in Fort Collins, CO, and as a fisheries field technician for the Oregon Department of Fish and Wildlife. His research interests include plotless density estimators, trend detection methods for long-term monitoring, and estimation of resource selection functions. Ryan is running for the Board because he would like to take a more active role in the BWG and looks forward to opportunities to learn from its members.

### **Student Travel Grant Recipient**

*Paul Lukacs and Glen Sargeant*

Dale Tessin was selected as the recipient of the BWG student travel grant for 2005. Dale will receive \$400 to help defray the cost of attending the 12th Annual Conference of The Wildlife Society in Madison, Wisconsin.

Dale received a B.S. in Wildlife Biology from Colorado State University. He is currently pursuing a Ph.D. jointly in

Ecology and Evolutionary Biology and Statistics at Iowa State University where he works with Drs. William Clark and Philip Dixon. Dale will present a paper entitled "Spatial and temporal variation in waterfowl nest initiation and predation" at the TWS conference. William Clark, Philip Dixon and David Howerter are coauthors on the paper.

### **Annual BWG Business Meeting at the 12th Annual Conference of TWS**

The 12<sup>th</sup> Annual Conference of The Wildlife Society will be held in Madison, WI during 25-29 September 2005. Conference information can be viewed at:

<http://www.wildlife.org/conference/index.cfm>

The Annual Business Meeting of BWG is scheduled to be held in the Monona Terrace Convention Center (Meeting PQ) during 3:00pm – 5:00pm on Tuesday, 27 September. Check the conference program for details and updates.

### **Call for 2006 Workshop/Symposium Proposals**

If you are interested in organizing a biometrics workshop or symposium at the 2006 TWS conference in Anchorage, Alaska please consider submitting a 1-2 page proposal describing your idea. In your proposal please include a brief introduction discussing the importance of the topic, a short description of the symposium or workshop, and (for symposia) a list of potential speakers and/or topics. Please email your proposals to Stephen J. Dinsmore ([sdinsmore@cfr.msstate.edu](mailto:sdinsmore@cfr.msstate.edu)) by 20 August so that they can be distributed to BWG members prior to the business meeting in Madison in late September 2005. Also, please feel free to contact Stephen J.

Dinsmore if you have any questions or you would like assistance developing an idea.

### **Suggestions for Organizing an Effective Workshop**

*Steve Sheriff, Bill Kendall, and Bill Thompson*

The January 2005 newsletter contained a short article providing recommendations for organizing an effective symposium. This article is the companion piece focused on organizing successful workshops.

#### ***Selecting a Topic***

- \* Choose a topic that is current, has broad appeal to TWS members, and will influence the future direction of wildlife management and the profession. It is important that the proposal reflect these attributes.
- \* If a topic is specific to only a small audience, such as BWG members, the proposal should be clear on this issue. It should also reflect the small number of expected participants. Further, the proposal should provide details as to why the annual TWS Conference is the appropriate venue for this type of workshop.
- \* Try to attend the BWG business meeting at the Annual Conference where proposals are discussed and voted on. You can obtain a lot of useful feedback from other BWG members during these discussions.
- \* Review workshops sponsored by BWG at previous annual conferences (see BWG webpage) to learn which topics have been sponsored in the past.

### ***Choosing Instructors***

\* Ensure the workshop instructors are authoritative on the topic. The instructors also should have solid reputations as trainers or lecturers. The better known the instructors are throughout the wildlife profession, the more likely the proposal will be selected.

\* Instructors from outside the wildlife profession may require additional expenses, which can be covered by higher workshop fees. However, higher fees may limit attendance (see *Fee/Budget*).

### ***Organization/Agenda***

\* Workshops can be half day or full day. A common complaint about workshops is that too much material is covered in too limited a time period so be generous in your estimate of time necessary for each (sub)topic. Be realistic in the breadth of material that can be effectively covered in the time allotted.

\* Be sure discussion time is sufficient and intermixed with all presentations. Attendees tend to be less communicative when discussions are relegated to the end of each presentation. Therefore, encourage instructors to not only be open to questions, but to pause in the middle of their presentations to elicit discussion. For instance, ask the audience who has encountered a particular situation or difficulty, and how they dealt with it.

\* Use hands-on computer exercises if relevant computer freeware or programs are available. In this case, attendees will likely be required to bring their own laptops. Ensure relevant software or programs are available to attendees prior to the workshop (see *Miscellaneous*).

### ***Logistics***

\* Work with the TWS Workshop Subcommittee of the Program Committee to ensure that the appropriate AV equipment, room size, seating arrangements, and scheduling is done to ensure the workshop can be conducted seamlessly. This may require the organizer to be a liaison between this subcommittee, the arrangements committee (room assignment group and their AV group), conference facility staff, and the instructors.

\* Ensure instructors, handout materials, attendance list, microphones, extension cords, electrical outlets, refreshments (especially water for instructors), and AV equipment are available prior to the start of the workshop. Check room lighting.

### ***Fee/Budget***

\* Maintain a balance between higher fees to cover workshop expenses and lower fees that may increase participation. This may influence choice of instructors if their expenses must be covered through fees. Be sure the budget is reasonable prior to submission.

\* Earlier this year, TWS instituted a baseline registration fee of \$25 for all workshops (see January 2005 newsletter), so this cost will have to be incorporated into proposed workshop budgets.

### **Miscellaneous**

\* A dedicated webpage containing workshop materials, notes, downloadable software, etc. is a great way to provide pre-workshop preparatory materials to attendees and post-workshop updates.

\* A post-workshop evaluation is important for improving future workshops. This evaluation should consist of a survey of attendees and a follow-up meeting with the instructors.

### **Workshop Announcement: Estimating Animal Abundance**

**Dates:** 17-21 October 2005

**Location:** *Disney's Animal Kingdom, Orlando, Florida, USA*

This five-day workshop will introduce participants to the most important methods of estimating animal abundance in a rigorous but accessible way. In the first half of the workshop, we cover plot sampling, distance sampling, mark-recapture, and removal methods. We explain the common key statistical concepts underlying these methods, use custom-written simulation software to understand how they work, and discuss which method to use when. In the second half, we focus on distance sampling in more detail. We discuss practical issues such as use of the software DISTANCE, field methods, and survey design.

The workshop is aimed at anyone who needs to estimate wildlife density or abundance, and is taught by leading researchers from the Centre for Research into Ecological and Environmental Modelling at the University of St Andrews, Scotland.

Registration for this workshop is now open. Because all of our previous workshops in the USA have been oversubscribed, we encourage those interested to register as soon as possible.

For more details, please see

<http://www.ruwpa.st-and.ac.uk/counting.critters/>

or contact Rhona Rodger, Workshop Organizer, CREEM, University of St Andrews, The Observatory, St. Andrews, Scotland KY16 9LZ. Tel: +44 1334 461842. Fax: +44 1334 461800. Email: [rhona@mcs.st-and.ac.uk](mailto:rhona@mcs.st-and.ac.uk).

### **Accessing/Joining STAT\_TWS**

To read messages previously posted on the BWG forum/listserv, STAT\_TWS, go to:

[http://rana.er.usgs.gov/read/?forum=stat\\_tws](http://rana.er.usgs.gov/read/?forum=stat_tws)

You must be a member of STAT\_TWS to post messages. To join STAT\_TWS, go to:

[http://rana.er.usgs.gov/read/all\\_forums/](http://rana.er.usgs.gov/read/all_forums/)

click on the “show more” button at the bottom, scroll down to “stat\_tws,” click on “subscribe” in the far right column of that line, and follow the instructions.

### **BWG WEBPAGE**

<http://www.wildlife.org/wg/biometrics/index.cfm>

## **BWG Contact Information**

### ***CURRENT OFFICERS***

Chair	Terry Shaffer, USGS Northern Prairie Wildlife Research Center, <b>terry_shaffer@usgs.gov</b>
Chair-elect	Bill Thompson, National Park Service, <b>bill_thompson@nps.gov</b>
Secretary	Mary Conner, Utah State University, <b>mconner@cc.usu.edu</b>
Treasurer	Glen Sargeant, USGS Northern Prairie Wildlife Research Center, <b>glen_sargeant@usgs.gov</b>
Past-Chair	Grey Pendleton, Alaska Department of Fish & Game, <b>grey_pendleton@fishgame.state.ak.us</b>
Board member – Nominating and Elections Committee	Wayne Thogmartin, USGS Upper Midwest Environ. Sci. Center, <b>wthogmartin@usgs.gov</b>
Board member – Membership Committee	Paul Lukacs, USGS/BRD and National Park Service, <b>Paul_Lukacs@partner.nps.gov</b>
Board member – Technical Sessions Committee	Steve Dinsmore, Mississippi State University, <b>sdinsmore@cfr.msstate.edu</b>
Board member – Advisory Committee	Paul Doherty, Colorado State University, <b>doherty@cnr.colostate.edu</b>