

# Wildlife Toxicology Working Group Newsletter

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## From the Chair

**Jeff Levengood**

[jleven@inhs.uiuc.edu](mailto:jleven@inhs.uiuc.edu)

Hello Working Group members. I hope you all had a rejuvenating holiday season. The start of a new year brings the promise of new challenges and accomplishments. Your WG has been busy “behind the scenes”, both with ongoing programs and new initiatives.

Joe Sullivan, Tim Bargar and Carrie Marr presented the second wildlife toxicology workshop for managers, **Pollutants and Wildlife Management: Ecotoxicology for Biologists and Land Managers**, at the Annual TWS meeting this year in Portland. There were 11 attendees, which we considered a decent-sized class. This year the class will be expanded from ½ to full day in length.

Through the initiative of WTWG member and SETAC Past-President Barnett Rattner and WTWG Past-Chair and SETAC board member Tom Augspurger, we are forging a closer relationship with SETAC. This year we sponsored a session “Wildlife Ecotoxicology Supporting Management Decision Making”, and also had a booth display at the SETAC conference in Long Beach, manned by Chair-Elect Brian Hiller, Richie Erickson, Tom Augspurger, Katrina Leigh, Tim Bargar, Joe Sullivan, and Harry Ohlendorf. See the article in this newsletter.

Currently, WTWG member Katrina Leigh is working with Kevin Castle of the Wildlife Disease Working Group to develop and submit a joint proposal for a symposium on the topic of immunotoxicology at this year’s TWS conference in Milwaukee.

We also had requests for: continued involvement in the Student Development Working Group; ideas for wildlife toxicology texts from a representative of Taylor and Francis Group (CRC Press); development of a “Lead and Wildlife” online resource; and a contribution to a TWS pamphlet. We also awarded 2 student travel grants; see article in the last newsletter. Speaking of newsletter, I’d be remiss if I didn’t give kudos to Louise Venne for the excellent job she has done keeping all of us informed through our most excellent newsletter!

As you can see, WTWG Board members have been busy promoting both the WG and the field of wildlife toxicology. One thing we see is that frequently it is the same “movers and shakers” that actively contribute to the group beyond their annual dues. We would like to see some of you in the silent majority become involved, either by volunteering or succumbing to arm-twisting! We can use you!

## Member Profile - Anne Justice-Allen

*Who are you (employer, job title/description, degrees, etc.)?*

My official title is Wildlife Health Specialist but my role is wildlife veterinarian for the Arizona Game and Fish Department (AGFD). I started with the Department in 2009 after completing coursework for a MS at Utah State University (USU). I was awarded my M.S. in 2010 after defending my thesis on *Mycoplasma* spp. which included molecular detection methods for tissues and milk, environmental survival, and disease ecology. Before returning to school at USU, I practiced veterinary medicine around the southwest U.S. for 21 years. I earned my D.V.M. from UCD in 1986.

*What got you interested in wildlife and/or wildlife toxicology?  
Any specific issues or species?*

My interest in wildlife began at a very young age – I often accompanied my dad, Keith Justice, into the field for his research on *Neotoma* sp. and when he was leading students. I became a veterinarian because of my interest in the effects of diseases on animals and a desire for a more applied and less academic career. After 20 years of clinical practice, I wanted to broaden my horizons. I had become involved with disaster response medicine and the effects of animal health (domestic and wildlife) on public health and from there the “One Health” concept.

I returned to graduate school to learn to assess disease effects at the population level. I actually hadn't planned on working for a wildlife agency but when the position for what I had only considered briefly very early in my career, I decided to give it a shot.

*Who were some of your role models/mentors in wildlife and/or wildlife toxicology and why?*

My two biggest role models are my dad and the first wildlife veterinarian that I ever met, Dave Jessup. I think that I first considered being a wildlife veterinarian after hearing him speak about working on caribou. As an epidemiologist, I've always considered toxicants to be a different category of wildlife diseases with different disease dynamics because of the mode of exposure and lack of transmission. I grew up when the environmental movement was coming of age with Rachel Carson, DDT, the elimination of lead ammo for waterfowl hunting, and Kesterson reservoir.

*What was a project you've worked on that you think had the best outcome/biggest success?*

My current research projects include the epidemiology of Pigeon paramyxovirus 1, mycoplasma pneumonia in desert bighorn sheep, and identifying the pathogens of collared peccaries (*Pecari tajacu*) and pronghorns (*Antilocapra americana*). I'm also interested in capture stress and physiology of pronghorns, and the influence of capture methods on stress level.

I work on a lot of different projects here at AGFD: mortality investigations, training, wildlife capture and translocation, population health assessments, and policy development. In 3 years, I think I've made a positive contribution to the Department and to wildlife management. It's difficult for me to pick a best or biggest but my work with our Wildlife Managers (Game Officers) on wildlife attacks and illegal take cases is both exciting and rewarding. I also take satisfaction in my contributions in the areas of bighorn sheep pneumonia and Sonoran pronghorn management.



## Member Publications

Sullivan, J.P. and J.D. Wisk. *In Press*. Using the Terrestrial Residue EXposure (T-REX) Model to Assess Threatened and Endangered Bird Exposure to and Risk from Pesticides. Integrated Environmental Assessment and Management. DOI: 10.1002/ieam.1390

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### WTWG Workshop at TWS Annual Conference

*By Joe Sullivan, Carrie Marr, and Tim Bargar*

At the Annual Conference in Portland, the WTWG conducted a second half-day workshop entitled "Pollutants and Wildlife Management: Ecotoxicology for Biologists and Land Managers." We built upon the base developed for the 2011 workshop conducted in Hawaii. The workshop consisted of an introduction to toxic impacts caused by many different classes of contaminants and to the risk assessment process. We presented a number of case studies ranging from impacts from agricultural run-off, pesticides, persistent organic pollutants, and mining. We thank those who allowed us to present their work as these case studies: Dan Anderson, Michael Fry, Mike Hooper, W. Nelson Beyer, and Cindy Schexnider.

We had 11 participants. The workshop materials were well-received. Because of the wealth of information to present and due to questions from the participants, we ran a little over the time allotted. Despite going over, many of the participants expressed a willingness to keep going. Conversations with some of the participants indicated that they would have been interested in even more information, and did not mind the bonus time.

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### WTWG Session at SETAC

*By Tim Bargar and Katrina Leigh*

The WTWG organized and chaired a half-day session entitled "Wildlife Ecotoxicology Supporting Management Decision Making" at the 33rd annual meeting of SETAC North America in Long Beach, California. The talks encompassed a wide range of topics including ecological risk assessment, pesticide incident monitoring schemes in Europe, Natural Resource Damage Assessment, spatially-explicit exposure modeling, toxicity reference values for bald eagles, effects of PCBs on heart development in birds, and even homing pigeons as monitors of atmospheric pollution. The diversity of topics overall led to a well-attended session. Readers can access the program book on the SETAC site at [http://longbeach.setac.org/sites/default/files/2012-LB-presentations-web-10\\_19.pdf](http://longbeach.setac.org/sites/default/files/2012-LB-presentations-web-10_19.pdf) and then search for the session.

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### SETAC Wildlife Toxicology Advisory Group

During the 2012 SETAC meeting in Long Beach, there were several discussions regarding the establishment of a Wildlife Toxicology Advisory Group within SETAC. The objectives and goals for this Advisory Group are yet to be formulated; however, there appears to be interest among some members of SETAC and TWS, especially members of TWS WTWG, to take initial exploratory steps for such a group. Following an informal meeting at the Terrestrial Bioaccumulation Workshop in Florida, a paper is being drafted to begin this process. Additional information will be provided to members of TWS WTWG as they are available.

## Report from WTWG booth at SETAC 2012, Long Beach, CA

*By Brian Hiller*



Richie Erickson (left) and Brian Hiller (center) in the WTWG facilitated booth at SETAC

In a reciprocal agreement between TWS and SETAC, the WTWG was provided booth space at the 2012 SETAC conference held Nov. 11-15, in Long Beach, CA. The idea/goal of the agreement was to increase promotion opportunities and awareness of each group within the membership of the other. From our standpoint, there are a large number of toxicologists working on wildlife related issues who belong to SETAC and it would be beneficial to have those experts as members of TWS and the WTWG as well.

Although the SETAC conference actually began on Sunday, I was unable to arrive until Tuesday morning. Thankfully, Tom Augspurger and Richie Erickson were able to set things up and to work the booth on Monday. Over the course of the next couple of days the booth space was occupied by several WTWG members including Tom, Richie, Katrina Leigh, Tim Bargar, Joe Sullivan, Harry Ohlendorf, and me. In general, the booth was very well received and was successful in raising awareness of the WTWG and our mission/role, within the membership of SETAC. The two sentiments I heard repeated time and again were 1) surprise that we were there and 2) former TWS members lamenting the fact that while they were members there wasn't really "a place" for them in TWS. Our message was that there is a place for toxicologists within TWS and that we are trying to increase the number of experts in the WTWG in order to better advise wildlife managers on toxicology related issues they may face. At this point I don't know if TWS and/or the WTWG has seen any increase in new or returning members but it is something I will be looking into soon. I did discuss the prospect of SETAC taking us up on the offer of booth space for them at the TWS Milwaukee meeting in 2013, but this has not been confirmed at this point. I would sincerely like to thank those members who were able and willing to help out with the booth and make this effort successful.



Thank you to the following contributors to this newsletter.

- Tim Barger
- Richie Erickson
- Anne Justice-Allen
- Richard Halbrook
- Brian Hiller
- Katrina Leigh
- Jeff Levengood
- Carrie Marr
- Barnett Rattner
- Joe Sullivan

**WTWG Executive Board**

|                             |                |                                                                        |
|-----------------------------|----------------|------------------------------------------------------------------------|
| Chair                       | Jeff Levengood | <a href="mailto:jleven@inhs.uiuc.edu">jleven@inhs.uiuc.edu</a>         |
| Chair-Elect                 | Brian Hiller   | <a href="mailto:bhiller@bemidjistate.edu">bhiller@bemidjistate.edu</a> |
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| Vice Chair                  | Beth MacCallum | <a href="mailto:ovis@telusplanet.net">ovis@telusplanet.net</a>         |
| Vice Chair of Communication | Louise Venne   | <a href="mailto:lsvenne@gmail.com">lsvenne@gmail.com</a>               |



**WTWG NEWSLETTER NOTES**

The WTWG newsletter is a quarterly publication. Email contributions such as citations, member news, research highlights, and conferences by March 31 to Louise at [lsvenne@gmail.com](mailto:lsvenne@gmail.com).

The WTWG is online. Archived newsletters, meeting minutes, and more are included at <http://joomla.wildlife.org/toxicology/index.php>

The WTWG is now on Facebook. Visit and/or “Like” us, even if you don’t have a Facebook account. [www.facebook.com/WildlifeToxicology](http://www.facebook.com/WildlifeToxicology)

*Louise Venne, Editor*