

Deer & Wild Turkey

**MIDWEST DEER & WILD TURKEY STUDY GROUP
2013 ANNUAL MEETING
ROBERT ALLERTON PARK, MONTICELLO, IL
AUGUST 18 – 21, 2013**



Submitted by:

Tom Micetich and Patrick McDonald

Illinois Department of Natural Resources

May 2014

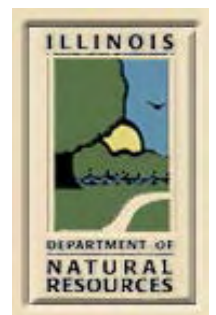


TABLE OF CONTENTS

Background	1
Meeting Time and Place	1
Attendance	1
Executive Summary	1
Business Meeting	2
Director Information Items	3
Tables	
List of Participants	4
Previous Meeting Locations	6
Appendices	
Agenda.....	7
Joint Meeting and Deer Breakout Session Notes.....	11
Notes on Interacting With the Press/Wildlife Photography	14
Agency Deer Reports	16
Illinois.....	17
Indiana	26
Iowa	27
Kansas.....	28
Kentucky	29
Michigan	30
Minnesota.....	31
Missouri	32
Nebraska.....	33
North Dakota	34
Ohio	62
South Dakota	63
Wisconsin	63
Agency Turkey Reports	64
Illinois.....	65
Indiana	72
Iowa	78
Kansas.....	86
Michigan	94
Minnesota.....	127
Missouri	135
Nebraska.....	152
North Dakota	159
Ohio	162
Ontario.....	170
South Dakota	171
Wisconsin	174

Background

The Midwest Deer and Wild Turkey Study Group (MDWTSG) meeting is an annual gathering of wildlife managers sanctioned by and affiliated with the Midwest Association of Fish and Wildlife Agencies. Primary objectives of the meeting include dissemination of deer and wild turkey management strategies, discussion of emerging or existing issues associated with deer and wild turkey management, and coordination of regional deer and wild turkey management or research efforts. The meeting location rotates among the Midwestern states that are active within the group.

Forums such as the MDWTSG meeting provide valuable opportunities for state deer and turkey biologists to become acquainted with emerging issues and exchange information and ideas related to deer and turkey research and management. The need for state fish and wildlife agencies to establish and maintain deer and turkey biologist positions and support travel of these biologists to the annual MDWTSG meeting is imperative for exchanging information to promote quality wildlife management and research in each state. It is more important than ever that state agencies are in the forefront of issues related to deer and turkey management in order to protect the heritage and recreational opportunities of hunting for future sportsmen and sportswomen.

Meeting Time and Place

The Illinois Department of Natural Resources (IDNR) hosted the 2013 Midwest Deer and Wild Turkey Study Group Meeting at the Robert Allerton Park, Monticello, IL, on August 18 – 21, 2013. The field trip on August 20 consisted of a hike through fire- managed timber on-site with a discussion led by John Griesbaum, Allerton Park Natural Areas Manager and Eric Smith, Natural Heritage biologist, IDNR.

The MDWTSG appreciates the financial support provided by the Illinois Natural History Survey/Prairie Research Institute; University of Illinois/Natural Resources and Environmental Sciences; Whitetails Unlimited; National Wild Turkey Federation; Quality Deer Management Association; Professional Association of Conservation Resource Mangers; Fairmont Farms; and “Killin’ Fields” Private Huntin’ Area. Additional sponsors were Hunter’s Haven (caps and CDs) and Scheel’s (orange caps and a print).

Attendance

Thirty-eight participants attended the workshop in 2013, including state deer and turkey biologists from 12 Midwest member states (Iowa, Illinois, Indiana, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, Ohio, South Dakota, and Wisconsin) and one Canadian Province, Ontario. Attendees from other organizations including the National Wild Turkey Federation, Whitetails Unlimited, Illinois Natural History Survey, University of Illinois, and Southern Illinois University.

A complete list of attendees and contact information for deer and turkey state biologists are available in Table 1.

Executive Summary

Attendees at the 2013 Midwest Deer and Wild Turkey Study Group meeting were welcomed by Derek Peterson, Associate Director of Park Operations and John Griesbaum, Allerton Park Natural Areas Manager (Appendix 1) and included a history of Robert Allerton Park.

Several other speakers addressed the attendees as a joint group prior to the separate deer and turkey breakout sessions. Professional presentations given during the joint session included the following:

- Deer Management history on Robert Allerton Park
- LPDV (lymphoproliferative disease virus) in Wild turkeys
- External home range movement of white-tailed deer in agricultural landscapes
- Wild Turkey ecology in two intensively farmed landscapes in Central Illinois.
- Interacting with the press and the importance of good photos to enhance our message.
- Elk restoration in Missouri
- Elk restoration and management in Kentucky and Missouri
- Chronic Wasting Disease (CWD) management in Illinois

Numerous speakers presented timely information on issues related to deer and turkey research and management during individual deer and turkey breakout sessions. These topics included:

- Deer productivity by age class from fetal counts in northern Illinois.
- USDA gap analysis/countermeasures workshop on Orbiviruses.
- Captive cervid legislation: current status and proposed expansion
- Discussion and input on Wisconsin's white-tailed deer review and recommendations
- Wild Turkey Federation – “save the habitat, save the hunt” in Illinois, 2013 - 2023
- Monitoring bird population response to woodland management – implementation of the Illinois State Wildlife Action Plan
- Update on wild turkey consortium

The group participated in numerous discussions throughout the course of the meeting. Participants in the breakout sessions delivered state status reports on deer or wild turkey for their state or province and discussion focused on management issues. All participating states and provinces provided copies of annual status reports for deer (Appendix 4) and turkey (Appendix 5).

Business Meeting

The Business Meeting was conducted as a joint session of the Deer and Wild Turkey groups on August 20, 2013 at 10 am. Several items of interest to the entire group were discussed as described below. Tom Micetich, Illinois DNR, moderated this session.

1. Future meeting location - No specific dates were proposed for the meeting, but it was identified that Missouri had always followed Illinois in the past; with Wisconsin and Iowa thereafter. Missouri will host 2014 meeting. A complete list of past host states is available in Table 2.
2. Cooperative deer genetics research update - Tom Litchfield (Iowa Department of Natural Resources) provided the group with an update from a deer research project at Iowa State University. The degree of relatedness of deer through space and how this may influence the spread of disease are of interest in this project. More to come.
3. Wild Turkey Consortium – Chad Parent offered an update of this ongoing project, and the potential importance of a regional framework for data sharing and management – which may be of assistance to biologists. To enable the management of a regional database to store these data and process analyses, financial support from numerous states or provinces has already been secured.

4. MDWTSG past proceedings/business collection and storage – an “atta boy” to North & South Dakota for creating a central storage location of past meeting information. Items included are past proceedings, resolutions, briefing papers, email surveys, and other historical documents. A website has been established to host all such information <http://mdwtsg.org/>. Bill Jensen worked on collecting all previous proceedings and some historical documents to be put on a CD, Andy Lindbloom developed a website for the Midwest Deer and Wild Turkey study group, 4 year cost is \$140.00
5. Midwest Deer-Vehicle Collisions – Project ongoing at Michigan State University, student interested in a geospatial statistical analysis of county level deer-vehicle collision data and traffic from across the region.
6. Discussion on what constitutes a summary report. Mike Tonkovich, Ohio, suggested adopting format similar to that of NE deer group. Our group decided to generate a list of items of interest from each state’s deer and turkey biologist. A smaller group will review the list and bring back suggestions for a summary “template” to be used in future reports.

Director Information Items

The Midwest Deer and Wild Turkey Study Group requests commitment by state Directors to support and encourage travel of state deer and turkey biologists to the annual Midwest Deer and Turkey Workshop.

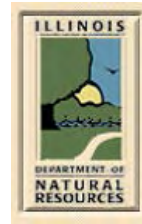
Table 1. List of participants of the 2013 Midwest Deer and Wild Turkey Study Group Meeting.

Last Name	First Name	Agency/Affiliation	State/Prov	Phone	Email
Autenreith	Ashley	Michigan Dept. of Natural Resources	MI	989-732-3541 ext. 5044	autenreitha@michigan.gov
Backs	Steve	Indiana Dept. of Natural Resources	IN	812-849-4586 ext. 222	sbacks@dnr.in.gov
Bottom	Christopher	Southern Illinois University, Carbondale	IL	618-536-776	christopher.bottom@siu.edu
Brewer	Paul	Illinois Dept. of Natural Resources (Ret.)	IL		
Brunjes	Tina	Kentucky Dept. of Fish & Wildlife Resources	KY	502-564-3400	tina.brunjes@ky.gov
Burk	John	National Wild Turkey Federation	MO	573-676-5994	jburk@nwtf.net
D'Angelo	Gino	Minnesota Dept. of Natural Resources	MN	507-642-8478 ext. 227	gino.dangelo@state.mn.us
Dufford	Doug	Illinois Dept. of Natural Resources	IL	815-369-2414	doug.dufford@illinois.gov
Fox	Lloyd	Kansas Dept. of Wildlife, Parks and Tourism	KS	620-342-0658	lloyd.fox@ksoutdoors.com
Garner	Dale	Iowa Dept. of Natural Resources	IA	515-281-6156	dale.garner@dnr.iowa.gov
Gosselink	Todd	Iowa Dept. of Natural Resources	IA	641-774-2958	todd.gosselink@dnr.iowa.gov
Griesbaum	John	Allerton Park - Natural Areas Manager	IL	217-333-3287 ext. 208	griesbau@illinois.edu
Hams	Kit	Nebraska Game and Parks	NE	402-471-5442	kit.hams@nebraska.gov
Hansen	Lonnie	Missouri Dept. of Conservation	MO	573-815-7901	lonnie.hansen@mdc.mo.gov
Haroldson	Brian	Minnesota Dept. of Natural Resources	MN	507-642-8478 ext. 229	brian.haroldson@state.mn.us
Hubert	Patrick	Ontario Ministry of Natural Resources	ON	705-755-1932	patrick.hubert@ontario.ca
Isabelle	Jason	Missouri Dept. of Conservation	MO	573-815-7901 ext. 3622	jason.isabelle@mdc.mo.gov
Lehman	Chad	South Dakota Game, Fish, and Parks	SD	605-255-4800 ext. 217	chad.lehman@state.sd.us
Lindbloom	Andy	South Dakota Game, Fish, and Parks	SD	605-223-7652	andy.lindbloom@state.sd.us
Litchfield	Tom	Iowa Dept. of Natural Resources	IA	641-774-2958	tom.litchfield@dnr.iowa.gov
Lusk	Jeff	Nebraska Game and Parks	NE	402-471-1756	jeff.lusk@nebraska.gov
Martin	Darel	Whitetails Unlimited - Field Director	IL/IN	309-369-8265	
Mateus-Pinilla	Nohra	Illinois Natural History Survey, UIUC	IL	217-333-6856	nohram@illinois.edu
McCaffery	Keith	Wisconsin Dept. of Natural Resources	WI	715-365-2641	keith.mccaffery@wisconsin.gov
McDonald	Patrick	Illinois Dept. of Natural Resources	IL	217-557-1189	patrick.mcdonald@illinois.gov
McInenly	Leslie	Minnesota Dept. of Natural Resources	MN	651-259-5198	leslie.mcinenly@state.mn.us
Micetich	Tom	Illinois Dept. of Natural Resources	IL	309-543-3316 ext. 231	tom.micetich@illinois.gov
Parent	Chad	Michigan State University	MI	517-432-4440	cparent@msu.edu
Prendergast	Jeff	Kansas Dept. of Wildlife, Parks and Tourism	KS	620-637-2748	jeffrey.prendergast@ksoutdoors.com
Rolley	Robert	Wisconsin Dept. of Natural Resources	WI	608-221-6341	robert.rolley@wisconsin.gov

Last Name	First Name	Agency/Affiliation	State/Prov	Phone	Email
Shelton	Paul	Illinois Dept. of Natural Resources	IL	217-557-1052	paul.shelton@illinois.gov
Springer	Matt	Southern Illinois University, Carbondale	IL	618-536-7736	matt.springer@siu.edu
Stewart	Chad	Indiana Dept. of Natural Resources	IN	812-334-1137	cstewart@dnr.in.gov
Sumners	Jason	Missouri Dept. of Conservation	MO	573-815-7901 ext. 3620	jason.sumners@mdc.mo.gov
Tebo	Ryan	Southern Illinois University, Carbondale	IL	618-536-7766	ryan.tebo@siu.edu
Tonkovich	Michael	Ohio Dept. of Natural Resources	OH	740-589-9922	mike.tonkovich@dnr.state.oh.us
Warner	Richard	Illinois Natural History Survey, UIUC	IL	217-333-6444	dickw@illinois.edu
Yancy	David	Kentucky Dept. of Fish & Wildlife Resources	KY	502-564-3400	david.yancy@ky.gov

Table 2. Previous Midwest Deer and Wild Turkey meeting locations.

Year	State	Location	Date
1977	Missouri	Fountain grove Wildlife Area	January 17-19
1978	Wisconsin	Wyalusing State Park	January 16-17
1979	Iowa	Rathburn Fish Hatchery	January 15-18
1980	Minnesota	Whitewater State Park	January 21-24
1981	Indiana	Harrison-Crawford State Park	January 19-22
1982	Ohio	Lake Hope State Park	January 18-21
1983	Nebraska	Louisville 4-H Camp	January 17-21
1984	Kansas	Camp Aldrich	January 16-19
1985	South Dakota	Black Hills	May 7-10
1986	North Dakota	Camp-of-the-Cross	January 20-23
1987	Michigan	Kellogg Biological Station	January 27-29
1988	Illinois	Touch of Nature	February 1-4
1989	Missouri	YMCA Camp of the Ozarks	January 23-26
1990	Wisconsin	Bethel Horizons Prairie Center	January 15-18
1991	Iowa	Conservation Education Center	January 14-17
1992	Minnesota	Whitewater State Park	January 13-16
1993	Indiana	Harrison-Crawford State Park	January 11-14
1994	Ohio	Canter's Cave 4-H Park	January 30 - Feb 2
1995	Nebraska	Mahoney State Park	January 15-18
1996	Kansas	Camp Pecusa	January 14-16
1997	South Dakota	Camp NeSoDak	August 24-27
1998	North Dakota	Camp Grafton	August 9-12
1999	Ontario	Blue Springs Scout Reserve	August 15-18
2000	Michigan	Thunder Bay Resort	August 20-23
2001	Illinois	Dixon Springs Ag. Station	August 19-22
2002	Missouri	Conception Abbey	August 18-21
2003	Wisconsin	Bethel Horizons Prairie Center	August 24-27
2004	Iowa	Conservation Education Center	August 22-25
2005	Minnesota	Eagle Bluff Envir. Learning Center	August 21-24
2006	Indiana	Camp Ransburg, BSA	August 20-23
2007	Ohio	Canter's Cave 4-H Park	August 19-22
2008	Nebraska	Fort Robinson State Park	September 14-17
2009	Kansas	Rock Springs 4-H Camp	September 14-17
2010	North Dakota	Camp Grafton	August 22-25
2011	Michigan	Ralph A. MacMullen Center	September 25-28
2012	South Dakota	Custer State Park	October 16-19
2013	Illinois	Allerton Park and Retreat Center	August 18-21



MEETING AGENDA

Midwest Deer and Wild Turkey Study Group

18-21 August 2013, Allerton House

Robert Allerton Retreat and Conference Center, Monticello, IL

<http://allerton.illinois.edu/>



The Wildlife Society allows a maximum of 9 contact hours in Category I of the Certified Wildlife Biologist Renewal/Professional Development Certificate Program for participation in the 2013 Midwest Deer and Wild Turkey Study Group Meeting.

Joint Meeting/Business Meeting/Field Trip: 5.25 CEUs

Breakout Meetings: 3.75 CEUs for each category

SUNDAY - AUGUST 18

6:00 PM	Light buffet – Allerton House
7:00 – 9:00	Social (open cash bar) Solarium
4:30 – 8:00	Registration

MONDAY – AUGUST 19

7:00 AM	Breakfast – <i>Allerton House Dining Room</i>
7:00 – 8:00	Registration

JOINT MEETING – The Library

8:00 – 8:10 AM	Opening remarks/logistics
8:10 – 8:50	Welcome to Allerton Park and Allerton History - John Griesbaum, Allerton Park Natural Areas Manager and Derek Peterson, Associate Director of Park Operations.
8:50 – 9:15	Lymphoproliferative (LPDV) Disease in Wild Turkeys, an Update from Missouri and National Trends – Jason Isabelle, Resource Scientist, Missouri Department of Conservation.

9:15 – 9:35	External Home Range Movements of White-Tailed Deer in an Agricultural Landscape – Matt Springer, Southern Illinois University – Cooperative Wildlife Research Lab.
9:35 – 10:00	Wild Turkey Ecology in Two Intensively Farmed Landscapes in Central Illinois – Dr. Patrick Hubert, Ontario Ministry of Natural Resources.
10:00	<i>Break</i>
10:30 – 10:55	Interacting With the Press/Wildlife Photography – Chris Young, Staff Writer/Photographer, The Illinois State Journal-Register.
10:55 – 11:25	Elk Restoration in Missouri – Dr. Lonnie Hansen, Resource Scientist, Missouri Department of Conservation.
11:25 – 11:40	Elk Restoration and Management Q & A – Dr. Tina Brunjes, Deer and Elk Program Manager, Kentucky Department of Fish & Wildlife Resources, Dr. Lonnie Hansen, Resource Scientist, Missouri Department of Conservation.
11:40 – 12:10	Chronic Wasting Disease Research in Illinois – Dr. Nohra Mateus-Panilla, Wildlife Veterinary Epidemiologist, Illinois Natural History Survey.
12:10 PM	<i>Lunch – Allerton House Dining Room</i>

DEER BREAKOUT MEETING – The Pine Room

1:20 – 1:40	Deer Productivity by Age Class from Fetus Counts in Northern Illinois – Dr. Nohra Mateus-Panilla, Wildlife Veterinary Epidemiologist, Illinois Natural History Survey
1:40 – 2:10	USDA Gap Analysis/Countermeasures Workshop on Orbiviruses – Jason Sumners, Resource Scientist, Missouri Department of Conservation.
2:10 – 2:40	Discussion of topics of interest to the group.
2:40 – 3:00	State Reports
3:00 PM	<i>Break – Solarium</i>
3:20 – 5:00	State Reports

TURKEY BREAKOUT MEETING – The Oak Room

1:20 – 1:45	How NWTF Will Work to “Save the Habitat, Save the Hunt” in Illinois – 2013-2023 – John Burk, Regional Biologist, National Wild Turkey Federation.
-------------	--

- 1:45 – 2:05 **Monitoring Bird Population Response to Woodland Management - Implementation of the Illinois State Wildlife Action Plan** – Dr. T.J. Benson, Avian Ecologist, Illinois Natural History Survey.
- 2:05 – 3:00 **Update – The Midwest Wild Turkey Consortium** – Dr. Chad Parent, MWTC Coordinator, Michigan State University
- 3:00 PM *Break – Solarium*
- 3:00 - 3:25 **Wild Turkey Response to Habitat Management** – Christopher Bottoms and Ryan Tebo, Southern Illinois University, Cooperative Wildlife Research Laboratory.
- 3:25 - 5:00 **State Reports**
- 6:00 PM *Supper – Allerton Mansion Dining Room*
- 7:00 PM **Evening Social – Solarium/Gallery/Terraces**

TUESDAY – 20 AUGUST

- 7:00 AM *Breakfast – Allerton Mansion Dining Room*

Deer Breakout Meeting – The Pine Room

- 8:00 – 10:00 **State Reports**

Turkey Breakout Meeting – The Oak Room

- 8:00 – 10:00 **State Reports**

Joint Meeting – The Library

- 10:00 AM *Break – Solarium*
- 10:20 – noon **Business Meeting – The Library**
- Noon *Lunch – Allerton Mansion Dining Room*
- 1:00 – 3:00 **FREE TIME** – Explore the grounds and formal gardens, check out downtown Monticello, informal group discussions.
- 3:00 – 5:00 **Field Trip – National Natural Landmark – South Unit Forest Management** – John Griesbaum, Allerton Park Natural Areas Manager.
- 6:00 PM *Banquet – Allerton Mansion Dining Room*

7:00 PM SOCIAL and CASH BAR – Solarium

WEDNESDAY – 21 AUGUST

7:00 AM Breakfast – Allerton Mansion Dining Room

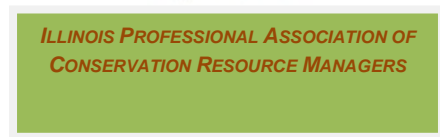
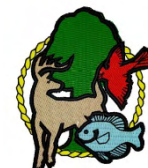
8:00 Depart



A big thank you to the sponsors below!

Illinois Natural History Survey/Prairie Research Institute - U of I - \$1000
University of Illinois/Natural Resources and Environmental Sciences - \$1000
Whitetails Unlimited - \$750
National Wild Turkey Federation – \$500
Quality Deer Management Association – \$500
Illinois Professional Association of Conservation Resource Managers - Breaks
Fairmont Farms - \$320
“Killin’ Fields” Private Huntin’ Area - \$320
Hunter’s Haven – caps and CDs
Scheel’s – orange caps and print
Champaign Surplus – travel mugs and socks

Please support our sponsors!



Appendix 2. Joint Meeting and Deer Breakout Session notes provided by Robert E. Rolley.

Welcome to Allerton. We were welcomed by Derek Peterson who explained the history of the center and John Griesbaum who described the history of deer management and research on the park. Allerton Park was an un hunted refuge and the deer population grew through the 1980s and 1990s to a peak of 730 deer in 2004 ($\sim 75/\text{mi}^2$). Deer were causing extensive damage to the formal gardens and impacting the natural areas with significant mortality to oaks and ground flora. Bow hunting started in 2004, annual harvest ~ 100 -150 deer. Hunting was supplemented in the early years with post-season sharpshooting. Deer counted on winter aerial surveys declined to 113 by 2012. There is continued monitoring of the response by spring wild flowers and hardwood regeneration. Surrounding farmers are satisfied with level of crop damage. Deer-vehicle accidents have declined. Number of hunters is restricted to 30, earn-a-buck policy is used, 30 hours of volunteer service is required in exchange for hunting opportunity.

Lymphoproliferative Disease in Wild Turkeys, and Update from Missouri and National Trends – Jason Isabelle, Missouri Department of Conservation. LPDV was first detected in Arkansas in 2009 and in Missouri in 2011. LPD is caused by a virus and produces pox-like lesions on the head and neck. Unlike avian pox lesions are also common on feet and legs. Yellow lesions in liver and spleen are common. LPDV has been documented in wild turkeys from 14 states from Maine to Georgia to Colorado. Prevalence rates have been as high as 40-50% but many birds did not show clinical signs of disease. LPDV was previously known from domestic turkeys in Europe and the Middle East. Missouri has been conducting surveillance by sending sampling kits to agency staff who are turkey hunters and having them submit bone marrow from leg bones. LPDV is not a threat to human health.

External Home Range Movements of White-Tailed Deer in an Agricultural Landscape and Effect of Mortality on Social Behavior of Groups – Matt Springer, Southern Illinois University. Described 2 studies that are underway at SIU. The mortality study is using GPS collars and proximity loggers to examine the dynamics of contact rates between social group members and non-members and how this changes with the mortality of particular individuals within social groups. Does the death of the matriarchal doe cause others in the group to mix more with non-group members, potentially increasing infectious contacts? The movement study is placing GPS collars on fawns to record details of dispersal and explorative movements. Documenting movement paths (step length and turning angles) and how these are affected by habitat features. Explorative movements have been documented in all seasons with some individuals making multiple movements in multiple directions. Plan to build an individual based movement model and compare it to an expert-based resistance map. Intent is to use model to assess potential for disease spread.

Wild Turkey Ecology in Two Intensively Farmed Landscapes in Central Illinois – Patrick Hubert, Ontario Ministry of Natural Resources. Reported on his study of turkey population dynamics in 2 counties in central Illinois, primarily hen survival and reproduction. The counties differed in turkey harvest success and reported turkey observations by deer hunters. These 2 citizen-based index to abundance suggested difference in abundance. Hen survival was similar between counties, relatively low; most mortality was during nesting season, primarily due to coyote predation. Nesting rates were similar between counties, low nest success and poult survival.

Habitat quality was low, large home range size, high predator density. Population dynamics were similar between counties. Believed citizen-based indices from 1 county was affected by attitudes of residents, more protective, less likely to report their observations to state.

Interacting With the Press/Wildlife Photography – Chris Young, Illinois State Journal-Register. Chris talked about the importance of good photographs for telling our stories in the media. Videos of people doing conservation work are critical as are pictures of rare plants and animals to connect the public with the work we do and the places we protect. Chris has a number of tips for getting the press to pick up agency press releases.

Elk Restoration in Missouri – Lonnie Hansen, Missouri Department of Conservation. Elk feasibility study was requested by Commission in 1999. DOC determined that a low density population could exist in the Ozarks. Mail/telephone surveys found general support by public but strong opposition was voiced at public meetings. Project was suspended. Interest was renewed in 2009. Obtained elk from Kentucky. Animals were held for 90-100 days in KY for disease testing and again in MO for soft release. Elk were released in 2011, 2012, and 2013. Survival of released elk was lower in 2012 (~60%) than in 2011 or 2013 (~90%). 2012 survival was affected by drought and brain worm. Documented mountain lion predation on brain worm affected elk in 2012. Known births were 9 in 2011, 26 in 2012, and 19 in 2013. Some births occurred inside of soft-release holding facility due to length of time elk were held. Research is documenting survival and reproduction, resource selection. All elk had GPS collars. Evaluating the use of aerial surveys without snow to monitor population size, potential competition between deer and elk. Considering creating food plots due to limited open habitat in area. Plan to start hunting as soon as possible; criteria of minimum population size, rate of growth, duration since release.

Elk Restoration and Management Q & A – Tina Brunjes, Kentucky Department of Fish & Wildlife Resources and Lonnie Hansen, Missouri Department of Conservation. Food plot creation may be controversial in southern MO. Population objective is 400-500 elk. KY has noted deer population decline in counties with elk, but whether there is significant competition is unclear. Elk love acorns. Some elk have moved out of MO's elk management zone, they have developed protocol for nuisance elk, includes hazing, trap and relocate, and as a last resort euthanasia.

Chronic Wasting Disease Management in Illinois – Nohra Mateus-Pinilla, University of Illinois - Illinois Natural History Survey. Described Illinois approach to CWD management, targeting specific sections where CWD positive deer have been identified for local culling while maintaining deer across broader areas. Compared prevalence trends between IL and WI. IL is showing a stable prevalence of ~1% while prevalence in WI is increasing. IL has seen a slight decrease in deer harvest in 2 of the 4 counties where most culling has occurred.

Deer Breakout Session

Deer Productivity by Age Class from Fetus Counts in Northern Illinois – Nohra Mateus-Pinilla, University of Illinois - Illinois Natural History Survey. Winter deer culling for CWD management has provided access to more than 4,000 fetuses during 2003-2013. The ability to detect pregnancy varied with calendar date, stabilized by February 1. Pregnancy rate was approximately 0.2 for fawns, 0.75 for yearling, and 0.82 for adult does. Mean litter size was 1.9 fetuses/pregnancy. Fetal mass was not affected by number of offspring. CWD positive and negative does had similar pregnancy rates and litter sizes. Sharpshooting intensity did not affect litter size or pregnancy rates.

USDA Gap Analysis/Countermeasures Workshop on Orbiviruses – Jason Sumners, Missouri Department of Conservation. A workshop was held at the request of US Animal Health Association to determine research needs and identify and prioritize intervention strategies for EHD and Blue Tongue due to concerns about potential spillover to domestic livestock. A report is expected in October. Concern is increasing for potential effects to

livestock producers, captive cervid industry and wild cervids due to increasing frequency of outbreaks, introduction of new serotypes, and geographic expansion of disease. This is a highly complex issue as there are 26 serotypes and antibodies to one serotype do not protect against other serotypes. There is lack of understanding about how exotic serotypes are introduced and questions about the potential role of other species as vectors. The geographic distribution of disease among cattle is poorly known. Potential to affect productivity of cattle, may have significant financial impacts. Current research is suggesting that EHD is of African origin and was introduced to Florida and Texas in late 1800s. In the Midwest EHD results in infrequent but severe outbreaks, cycles of 8-10 years, long enough that antibodies are not sustained in the population. The 2007 outbreak was mostly EHD2 while the 2012 outbreak included EHD6, lots of 2 and some 1. Florida maintains numerous serotypes but most have not yet spread. There is work on vaccines based on live viruses, but there is concern about incomplete attenuation of viruses and potential to spread disease. There are currently no good tools for vector control. Developing surveillance strategies for both viruses and vectors. A better understanding of impacts to deer populations and livestock is needed.

Appendix 3. Notes on interacting with the press and wildlife photography to tell your story, provided by Chris Young.

Press Release Guide: Dos and don'ts for getting the word out

1. In Journalism 101, they teach you the "Five Ws." Always include the who, what, where, why and when of the event. Put the most important information first.
2. Always include your contact number, including a good, reachable number (not the automated main number) and your e-mail address. Remember to include the area code.
3. Include addresses for events. Don't just say "VFW Hall." An address will allow someone to punch it into Google Maps.
4. Allow some lead-time for the event. Sending the release at least two weeks prior is helpful (more for holiday-themed events).
5. Fax machines are dead (at least our fax machine is, and faxes are really hard to read most of the time). Send notices by e-mail.
6. Attachments sometimes are hard to open. If you attach a Word document, also copy and paste the release into the body of the e-mail.
7. Avoid adding quotes that cannot be verified. Most sound made up. The exception is when statements are issued on big events, where all reporters likely will have the same question. "Weather was a big factor this deer season," said Director Leopold. "Two cold, rainy weekends depressed hunter turnout and kept harvest numbers lower than we would have liked." Quotes of this nature can be referenced in stories, and we understand you are being asked the same thing over and over.
8. Consider using AP Style. This is a general news-writing style used by most news organizations. It makes it easier to share stories back and forth.

Dates and times: In AP Style, the notice would read:

The event will be held at 7 p.m. Sept. 21.

DON'T write it this way: "The event will be held on Thursday, September 21 starting at 7:00 p.m." Time comes first. Then the date with the month abbreviated except for March, April, May, June and July. The general rule is that anything that creates extra characters (and thereby takes up more space) should be left out. For example: 7 p.m. instead of 7:00 p.m. (unless the time is 7:30 p.m.) The day of the week is not included, unless it is within the next seven days. Then you would simply say, "The event will be held at 7 p.m. Thursday." The less editing involved, the more likely the notice will be published quickly.

Capital letters: In AP Style, capital letters are reserved for proper names and titles when they appear directly before the proper name. Changing capital letters to lowercase takes a lot of time and makes it easy for mistakes to creep in. The "2013 Illinois firearm deer season," is fine. The "2013 Illinois Firearm Deer Season," is not a proper name. Some day, when deer seasons have title sponsors like stadiums, we'll revisit this one. Then, "The Remington 2013 Illinois Firearm Deer Season" would be appropriate. And there, I've just given you an idea for revenue enhancement.

In animal names, capital letters are reserved for proper names, such as place names or the scientist who discovered the bird or animal. For example: Cooper's hawk would be correct, but red-tailed hawk is lowercase. Genus is capitalized, but species is not. Scientific names are supposed to be italicized, but sometimes my editors do not leave it that way.

If you have specific questions, you can reach Chris Young at (217) 557-1240 or Chris.Young@illinois.gov.