Midwest Association of Fish and Wildlife Agencies

Private Lands Working Group

And

Public Lands Working Group

Annual Report

2017

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Respectfully submitted by

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Nebraska Game and Parks Commission

Public and Private Lands Committee Reports

Meeting Time and Place
The Nebraska Game and Parks Commission (NGPC) hosted the annual joint meeting from May 2 - 4, 2017 at Fort Robinson State Park in Crawford, NE.

Attendance
There were 48 attendees of the joint meeting. All member states were represented except for Wisconsin and Illinois. The AFWA Agriculture Policy Program Manager, National Wild Pheasant Plan Coordinator, and U.S. Fish and Wildlife Service representatives also attended. See Appendix for attendee list.

Executive Summary
The meeting began with both groups attending a morning session kicked off by a talk from the Deputy Director of the Nebraska Game and Parks Commission, Tim McCoy and followed with talks on Nebraska's Berggren Pheasant Plan, Hunter Research, Nebraska Natural Legacy Plan, CWD, Mountain Lions, and Big Game topics.

Private Lands Working Group
This year's Private Lands Working Group meeting focused on issues related to the upcoming 2018 Farm Bill but also included updates on several topics of interest to the working group. Each state presented their report and contributed information on the opportunities and challenges of addressing local conservation needs on private land.

National Wild Pheasant Plan
The Committee heard an update on the National Wild Pheasant Conservation Plan from Scott Taylor on the activities of the past year. The Technical Committee of the NWPCP met in Kansas in September. Scott discussed the results of a recent survey of member states asking them to prioritize the 2018 AFWA Farm Bill platform. Nineteen states responded with increasing the CRP acreage cap being the #1 priority for respondents. He will be sending out the results of that survey to member states. The Committee also discussed the possibilities of a new Conservation Reserve Program (CRP) practice focused on increasing the early successional habitat within a CRP tract.

AFWA Farm Bill Update
Andrew Schmidt, AFWA Agriculture Policy Program Manager gave the Committee an update on Conservation Program Funding for the remainder of 2017. EQIP funding was cut somewhat but the majority of conservation programs retained full funding. Conservation Technical Assistance will receive $7 million more dollars than FY16. The House of Representatives is in the process of conducting subcommittee hearings and the Senate has held field hearings. Agriculture Committee leaders want a Farm Bill draft to be on the floor by the end of the year. AFWA Directors adopted the AFWA platform for the 2018 Farm Bill at the North American

meeting in March. AFWA continues to engage partner organizations, Ag groups, and Congressional staffers on 2018 Farm Bill topics.

Conservation Reserve Program

A group discussion was held on various CRP program topics. State Acres for Wildlife Enhancement (SAFE) allocations from January are already fully enrolled in many states. MAFWA member states are concerned whether SAFE acres that will begin expiring in 2018 will be able to reenroll without additional SAFE allocations. The issue of Palmer Amaranth showing up in CRP seedings has been getting lots of attention in the past year. FSA and NRCS sent letters to producers who have planted CP 42 and CP 33 recently.

A marker bill was introduced by Senator Thune with proposed changes to CRP. There are concerns with several of the proposals within the bill and AFWA will continue to monitor. Senator Thune's staff are open to revisions and have met with Mark Norton to get feedback. AFWA will be proactive and provide recommendations.

One of the most important items in the AFWA Farm Bill platform is the request that the CRP cap be increased to 36-40 million acres from the current 24 million acres. The question however is how to do so without adding billions of dollars in cost to the program. The Committee discussed several cost saving options and it was determined that a small group should be convened to work on a list of ideas. Related to this is the desire by some in Congress to transition CRP acres that have been in the program for 25 to 30 years out of CRP.

FSA reviewed each state's MCM activities last year and some states are getting notified of the changes to their activities. Some states are no longer able to use certain MCM activities on certain practices and there seem to be inconsistencies with one state having one thing allowed, one state calling it something different, etc. Member states should gather more information so that AFWA can effectively communicate the state's needs.

While at the meeting FSA put a hold on new CRP application acceptance. The last day for FY17 offers was May 3rd, and for FY18 it has to be in the system or it won't be accepted right now. Secretary Perdue will decide what to do with remaining acres (general sign up, SAFE, etc.). Producers can still make offers on SAFE but no decision will be made. This does not apply to CREP projects where offers can continue to be made and approved.

Thune Proposal

Senator Thune has introduced the Soil Health and Income Protection Program (SHIPP) to help raise commodity prices. Overall the wildlife benefits from this program would be minimal. It's not designed to be a wildlife program but states could use it this way if they would like to offer incentives. Senator Thune is open to feedback on it and changes/improvements.

Monarch Updates

The states present gave updates on their respective Monarch Programs and Plans. Several states are working on or have finished plans. There is some frustration that NRCS's Monarch initiative has excluded some states although those states are considered key habitat as shown on NRCS Monarch maps. States will continue to work on monarch planning implementation.

The Private Lands Working Group participated in a field tour on Wednesday to explore several habitat enhancement projects in the area.

Public Lands Working Group

This year's Public Lands Working Group meeting focused on issues related to compatible uses on public lands but also included topics of interest to public lands management. State reports were given which generated many discussion items that are included below.

Drones

The use of drones, both by agencies and the public generated much discussion. Drones can be a valuable management and research tool used for a variety of activities. Management and research uses include monitoring species, determining vegetation composition, prescribed burning (monitoring and ignition), training and taking video for agency use. Public use of drones is becoming a problem as sales are soaring and hobbyists are looking for areas to operate drones, including on public lands. Hobbyist use of drones on public lands could result in interfering with other area users, harassment of wildlife and in some cases to aid in hunting, which is illegal in most states. Most states are using existing regulations and rules to control drone use, but it was felt that specific drone rules were needed.

UTV Use Restrictions and Resulting Impacts

This is a newly emerging issue regarding the restrictions imposed on utility task vehicles (UTV) by manufacturers that have the potential to limit the usefulness of these vehicles by agency staff. As these vehicles become more powerful and faster, manufacturer imposed restrictions limit the practicality as a working machine for public lands work i.e. prohibiting the carrying of fuel or fuel containing devices which would limit their use for prescribed burning, spraying and many other uses. UTV's are typically categorized as ROV (Recreational Off-road Vehicles) or MOHUV (Multi-use Off-highway Utility Vehicles) which have different operating standards. MOHUV UTV's typically have less stringent requirements and therefore work better for utility vehicles for public lands work. Minnesota experienced an accident with a staff member in an UTV in which an injury occurred. OSHA became involved and subsequently levied a penalty against the agency due to alteration of side restraints. As a result of this incident, Minnesota now strictly adheres to the owner' manual for this and similar machines and strives to use UTV options more effectively, not how to avoid using them. Although UTV's will continue to be purchased by agencies, careful scrutiny should be taken when selecting specific models to ensure that manufacture restrictions do not compromise their use as a management tool.

Compatible Uses

Public lands managed for wildlife are seeing an increase in non-traditional uses such as Pokemon Go and geocaching, which are bringing a new type of user to these areas that compete with traditional hunters, fishers and trappers. Although these uses tend to wax and wane in their popularity, these typical younger users tend to concentrate on these types of activities rather than the natural world around them. Some feel that even if these uses are non-traditional, they still bring users to the outdoors and agencies should encourage them to take notice of the outdoors. Requests for establishment of trails on public lands is another non-traditional use that continues to increase yearly. Requests for trails for hiker/bikers, horseback riding, ATV/UTV are problematic for some states who see conflicts with hunters and hunting on wildlife areas. Some states are getting requests to open up access on public lands from organizations such as North Country Trails and Backcountry Hunters & Anglers. North Country Trails has developed a trail system from New York to North Dakota. This organization helps to maintain these trails, but are tending to request more liberties with the operation of these trails. Horseback riding tends to be a more acceptable use on public lands in western states compared to eastern states, although restricting horseback riding trails is sought by the majority of MAFWA states.

Federal Budget Issues

Federal grants are very important to states management of the hundreds of thousands of acres of public lands managed for wildlife. Pittman Robertson wildlife restoration grants, State Wildlife grants, Section 6 grants, Tribal grants, etc. are an extremely important funding source for research, habitat and species management. States all expressed their support to maintain federal funding levels in the federal agencies that administer these grants.

Federal Aid Issues

Paul Glander, USFWS Region 3 Federal Aid office provided the following issues and information items. The Secretary of the Interior directed that federal grants over $100,000 will be first reviewed by the Secretary's Office before going through the approval process. Fish and Wildlife leadership has asked that "mandatory" grants such as PR and SFR be exempted from this review process. AFWA has sent a letter to the Secretary expressing concerns with the grant review requirement. Nationwide, WSFR is developing the TRACS grant management tool, a web based reporting and decision support tool to track the performance effectiveness of grants that provide for conservation of natural resources. The current guidance in the FWS Manual concerning land acquisition grants through the PR and DJ programs is old and inadequate. Federal Aid staff in regional and Headquarters offices have been working on development of new guidance for land acquisition grants, appraisals, appraisal reviews, review, etc.

Neonicotinoids

The Public Lands Working Group, in 2016, submitted a resolution to evaluate the use of neonicotinoid treated seed on public lands managed for wildlife, while pursuing alternatives and supporting the discontinued use of neonic treated seed. This group continues to support this position and individual states are in various stages of implementation.

Pollinators

Nebraska indicated that pollinators will be emphasized at the upcoming MAFWA Director's Meeting in June. Discussion centered around the use of commercial beekeepers on public lands and the impact of those pollinators as well as different management activities taking place.

Solar Eclipse
This eclipse, which will take place on August 21st, will take a "path" through Nebraska and the northwest corner of Missouri. Towns along the path are gearing up for an eclipse celebration that will attract many visitors for viewing and related activities. Alliance with a population of 9000, is expecting 40,000 – 50,000 visitors for this event. One local Chamber of Commerce has indicated that a nearby wildlife management area, Smith Lake WMA, will host a crowd of up to 1000 visitors for this event. This could be problematic as this area has minimal facilities and was not designed for events of this type and crowds of this size. Nebraska is working with this Chamber of Commerce and will expect to have to deal with this same issue on other WMA's along the path of the eclipse.

The Public Lands Working Group participated in a tour on Wednesday to the Petersen and Chadron Creek Ranch Wildlife Management Areas to hear presentations from area Biologists regarding management activities that have occurred and are taking place on these areas.

Overall the meeting was extremely successful and several productive discussions were held during the committee meeting which led to items that will continue to be deliberated further.

Director Action Items
None

Director Information Items-Private Lands Working Group

OPPORTUNITY: At the North American Fish and Wildlife Resources Conference in Spokane, WA this past March, the Directors adopted the 2018 Farm Bill Policy Priorities. This platform will ensure that MAFWA member states communicate a unified set of goals and objectives during the development of the 2018 Farm Bill. At each Director's discretion, the platform can be disseminated to partner organizations, agricultural groups, and Congressional staff to encourage state-led and partnership-driven proactive, voluntary, incentive based conservation.

ACTION: None

Director Information Items-Private Lands Working Group

OPPORTUNITY: The 2018 AFWA Farm Bill Policy Priorities outlines the need to increase the CRP cap from 24 million acres to 36-40 million acres. Adding 12 to 16 million acres to the CRP program will require innovative cost-saving measures be developed. The AFWA CRP Working Group will be exploring the economics of CRP in an effort to prevent sticker-shock from a larger CRP. Among the economics of interest is the comparison of the costs of enrolling an acre into CRP vs. the cost of Crop Insurance on that same acre as well as modifying the current incentives available for enrollment.

ACTION: None

Director Information Items-Public Lands Working Group

OPPORTUNITY: At both the 2016 and 2017 Public Lands Working Group meetings, discussion took place on the use of drones, both by hobbyists on public lands and agency use of drones to serve as a management and research tool. Currently very few states have specific existing rules, regulations or policies regarding the use of drones by the public or for their own use. Drones have the potential to be a beneficial tool for agencies i.e. marketing promotions or habitat monitoring, yet have the potential to be a disruptive force on public lands. Lacking specific drone protocols, states tend to use existing rules and regulations (airborne hunting acts, use of electronic devices, fair chase, and hunter harassment) to enforce the public's use of drones on public lands and struggle to develop agencies policies and protocols for agency use. With the proliferation of private drone ownership and the potential for use as a management tool, states see a need for the development of official agency policies regarding drone use on public lands. States should continue to document conflicts and research the impacts to wildlife, such as the physiological impacts to bears from drone use in Minnesota.

ACTION: None

Director Information Item – Public Lands Working Group

A perennial discussion item at these annual meetings is compatible uses on public lands managed for wildlife. These lands were purchased primarily for consumptive uses such as hunting, fishing and trapping although secondary uses (hiking, wildlife viewing…etc.) occur and are accepted. These traditional uses of public lands are now being supplanted by new activities such as geo-caching and Pokemon Go and conflicts between these user groups and traditional users are occurring. There is also the concern that this new group of area users might not recognize that habitat management and conservation, hunting, fishing and trapping are the primary and original reasons these areas were purchased. Because conflicts are occurring, states feel that we need to protect the intended use of the area and its' traditional users, although we do not want to alienate non-traditional users who may provide future support for these areas. Two approaches are suggested to address this issue. First, educate the public about the funding sources used to purchase and operate these areas and secondly, clearly specify in acquisition grants, the intended use of the area as well as indicating that secondary uses are allowed as long as they do not conflict with primary uses.

ACTION: None

Director Information Item-Public Lands Working Group

In 2016, the Public Lands Working Group submitted a resolution for consideration to encourage evaluation of neonicotinoid treated seed use on public lands, while pursuing and implementing

wildlife friendly alternatives and supporting the discontinued use of neonicotinoids on state managed land under state's authority. This Working Group wishes to re-affirm their support of this resolution.

ACTION: None

Time and Place of Next Meeting
The next annual meeting will be held in early May 2017 in central or western North Dakota.

Appendices:

Appendix A: Attendance List
Appendix B: Private Lands Meeting Agenda
Appendix C: Public Lands Meeting Agenda

Appendix A

MAFWA Private and Public Lands Committee Attendance List

First Name	Last Name	Organization
Andrew	Schmidt	Association of Fish and Wildlife Agencies
Kelly	Smith	Iowa DNR
Scott	Taylor	MAFWA/PF
Jeff	Burris	Ohio Division of Wildlife
Mike	Parker	Michigan DNR
Mark	Norton	SD Game, Fish and Parks
Kevin	Kading	North Dakota Game and Fish Department
Jake	George	Kansas Dept. of Wildlife, Parks & Tourism
Wesley	Sowards	Kansas Dept. Wildlife, Parks & Tourism
Lisa	Potter	Missouri Department of Conservation
Jason	Sykes	Missouri Department of Conservation
Jodie	Provost	Minnesota DNR-Division of Fish and Wildlife
Sara	Thompson	State of Michigan
Mark	Wiley	Ohio Dept. Natural Resources, Div. of Wildlife
Nate	Harling	ND Game and Fish Dept.
Levi	Jacobson	North Dakota Game and Fish
Sam	Whiteleather	Indiana Fish and Wildlife, Private Lands Unit
Kelsi	Wehrman	Pheasants Forever
John	Laux	Nebraska Game & Parks Commission
T. J.	Walker	Nebraska Game and Parks Commission
Logan	Shoup	Nebraska Game and Parks Commission
Eric	Zach	Nebraska Game and Parks Commission

Scott	Luedtke	Nebraska Game and Parks Commission
Shelley	Steffl	Nebraska Game and Parks Commission
Matt	Steffl	Nebraska Game and Parks Commission
Cassidy	Wessel	Nebraska Game and Parks Commission
Michele	Fuhrer-Hurt	Nebraska Game and Parks Commission
Adam	Kester	Nebraska Game and Parks Commission
Scott	Wessel	Nebraska Game and Parks Commission
Michaela	Wilson	Nebraska Game and Parks Commission
Scott	Aden	Nebraska Game and Parks Commission
Alicia	Hardin	Nebraska Game and Parks Commission
Tom	Despot	Indiana Fish and Wildlife, Public Lands Unit
Pete	Hildreth	Iowa DNR
Earl	Flegler	Michigan DNR, Wildlife Division
Paul	Coughlin	SD Game and Fish
Bob	Welsh	Minnesota DNR-Division of Fish and Wildlife
Lee	Hughes	Missouri Department of Conservation
Kent	Luttschwager	North Dakota Game and Fish Department
Dan	Halstead	North Dakota Game and Fish Department
Mike	Ervin	Ohio Division of Wildlife
Jeff	Hoffman	Nebraska Game and Parks Commission
Micah	Ellstrom	Nebraska Game and Parks Commission
Chris	Garland	Kentucky Fish and Game
Ryan	Stucky	Kansas Department of Wildlife, Parks & Tourism
Dustin	Mengarelli	Kansas Department of Wildlife, Parks & Tourism
Stuart	Schrag	Kansas Department of Wildlife, Parks & Tourism
Paul	Glander	USFWS
Anthony	Hewitt	USFWS

Appendix B

Private Lands Working Group Meeting
May 1 - 4, 2017
Fort Robinson State Park
Crawford, NE

Meeting Purpose: Share and discuss information regarding issues and opportunities affecting private land forest, fish and wildlife resources and provide input on suggested action and informational items to the Midwest Association of Fish & Wildlife Agency Directors.

Tuesday May 2, 2017

1:00 Introductions
1:10 Review of actions since May 2016 meeting – Lisa Potter
1:20 State Reports (5 - 10 minutes each)
3:15 Break
3:30 National Wild Pheasant Conservation Plan Coordinator Update – Scott Taylor
3:45 2018 Farm Bill Update and Brainstorming – Andrew Schmidt
5:00 Adjourn

Wednesday May 3, 2017

8:00 CRP
- SAFE Acres
- Improvements to Grassland CRP
- Palmer Amaranth
- Thune Proposals for Haying and Grazing
- Cost savings ideas for a bigger CRP program
- Transitioning CRP to working lands

10:00 Field Tour

Thursday May 4, 2017

8:00 Soil Health and Income Protection Program
8:30 Monarch Programs Updates - All
9:30 **Break**
9:45 Soil Health practices impacts on wildlife habitat – Mark Norton
10:15 Wrap-up Discussions
11:30 **Action Items for Directors - All**
12:00 Adjourn!

Appendix C

MAFWA Public Lands Working Group Agenda
May 1 – 4, 2017
Fort Robinson State Park
Crawford, Nebraska

Meeting Purpose: Share and discuss information regarding issues and opportunities affecting public lands managed for wildlife and provide input on suggested action and informational items to the Midwest Association of Fish & Wildlife Agency Directors.

Tuesday, May 2, 2017

1:00	Welcome, introductions, miscellaneous	
1:15	2016 MAFWA Committee Report	Missouri
1:30	State Reports (5-10 minutes each)	Group
3:00	Break	
3:20	Issues	

- UTV Restrictions — Minnesota
- Drone Use — Kentucky
- Neonicotinoids — Group
- Solar Eclipse — Nebraska
- Pollinators — Group
- Federal Budget/Federal Aid — Group
- Compatible Uses — Group
    - Shed hunting
    - Pokemon Go…etc.
    - Geocaching
    - Mushroom hunting
    - Trails

Wednesday, May 3, 2017

8:00	Continue discussion on issues	Group
10:00	Field trip – Petersen WMA Chadron Creek Ranch WMA	

Thursday, May 4, 2017

8:00	Finalize issues, information items	Group
12:00	Adjourn	

Midwest Association of Fish and Wildlife Agencies
State Wildlife Action Plan Technical Working Committee Report
June, 2017

Meeting Time and Place – The technical committee met once over the last year. A call-in meeting was held on May 12, 2017 (Appendix 1).

Attendance: 12 committee members from 10 of the 13 states participated (Appendix 2).

Executive Summary – The Committee discussed multiple regional and national opportunities and challenges for addressing the needs of Species of Greatest Conservation Need and State Wildlife Action Plan (SWAP) implementation. With the momentum and support for pursuit of the Blue Ribbon Panel recommendations, and potential threatened and endangered species listings that will impact the Midwest, the committee will increase the frequency of meetings and agency expertise for discussions. The annual rotating of co-chair positions will continue. The co-chairs will be the SWAP coordinators for the state hosting that year's MAFWA Director's meeting, and the previous year's host state. This will provide some continuity across years.

States shared the concern that national administration changes may impact State Wildlife Grant (SWG) funding. Concerns continue that allocating a larger proportion to the SWG competitive grants, while reducing the formula-based SWG allocation will reduce resources to implement SWAPs at a time when more is being expected of the SWAPs.

Landscape Conservation Cooperatives (LCCs) are increasing collaboration and shared SWAP priorities among MAFWA states. Challenges continue as boundaries for LCCs do not align with Joint Ventures or state boundaries. Communication among MAFWA states will be increased to address this challenge.

The Committee identified the following ways that this technical committee will facilitate SWAP implementation over the next year:

- Communicate state approaches regarding national calls to action regarding Alliance for America's Fish and Wildlife and Recovering America's Wildlife Act.
- Communicate updates regarding USFWS ESA potential listings and collaborate regarding pre-listing conservation planning.
- Receive updates regarding revised guidance for SWAP revision process.
- Support USFWS Region 3 collaboration of eight states to implement shared SWAP priorities (pollinators, grasslands and mussel conservation) and interest of other MAFWA states in participating in the initiative (supported by the Upper Midwest Great Lakes LCC and Region 3 USFWS).
- Communicate and support Monarch/pollinator initiatives and opportunities. Invertebrate conservation provides unique challenges that significantly benefit from regional collaboration and integration from SWAPs.
- Continue and foster emerging LCC opportunities for collaboration.
- Identify ways to collaborate and share resources across state boundaries.
- Identify and communicate success at a regional scale.

Director Action Items

1. The SWAP Technical Working Committee respectfully requests consideration and adoption of the submitted resolution, "Midwest Association of Fish and Wildlife Agencies (MAFWA) support for the recommendations of the Blue Ribbon Panel on Sustaining America's Diverse Fish and Wildlife Resources and ongoing work." (Appendix 3)

Director Information Items

1. The Wildlife Action Plan Technical Working Committee's director liaison position was vacant at the time this report was submitted. This position was vacated with Kelley Myers' resignation.

2. State Wildlife Grants (SWG) are the primary source of funding nationally for SWAP implementation and continues to be an annual appropriation. Given the uncertainty of annual appropriations, the need to continue providing Congress information regarding SWAP implementation is imperative. In FY18, through Dear Colleague Letters, 38% of the US House of Representatives supported SWG, while MAFWA states saw 25% support. In FY 17, the US Senate overall had a 37% support rate, while MAFWA states demonstrated 26% support rate through Dear Colleague Letters.

3. There continues to be a concern given that 2010 funding levels ($90 million) have not been reinstated. The average SWG allocation from 2011-2017 has dropped to approximately $60 million. Match rates continue to be at the discretion of Congress, but has consistently been a 35% nonfederal match which is challenging. Concerns continue regarding potentially increasing the allocation of funds from the SWG formula-based apportionment to fund the multi-state SWG Competitive grants.

4. SWG funding is insufficient to implement State Wildlife Action Plans. The Blue Ribbon Panel recommendation of $1.3 billion will still only implement Wildlife Action Plans at 75%. The need continues to seek opportunities to support future state and/or federal policies, partnerships, and resources to implement needed conservation. The need requires commitments, resources, and efforts far beyond any state's diversity program capacity, but has potential to yield benefits to a wide variety of wildlife species, pollinators, water, and soil conservation values.

5. As of May 2017, 18 states have passed resolutions supporting recommendations of the Blue Ribbon Panel (Appendix 4). Appendix 5 contains AFWA and Kansas' resolutions as examples.

6. The Association of Fish and Wildlife Agencies is planning a national fly-in to follow up on the Blue Ribbon Panel's recommendation for dedicated funding. The intended participants are Wildlife Agency Directors.

7. USFWS Region 3 states (IA, IL, IN, MI, MN, MO, OH, and WI) continue to collaborate regarding effective and efficient Wildlife Action Plan implementation through 3 shared priorities: freshwater mussels, pollinators, and large grassland complexes. This effort continues to be supported by the Upper Midwest / Great Lakes Landscape Conservation Cooperative and the US Fish and Wildlife Service Region 3.

8. The Committee applauds MAFWA for their leadership of the international monarch butterfly crisis, and appreciates their continued support of the Monarch Mid-America planning efforts happening concurrently with implementation including habitat restoration, education and monitoring.
    a. Implementing the pending goals of the Mid-America Monarch Conservation Plan will require coordination across states and between multiple partners, and substantial resources. Continued support is appreciated.

9. A National SWAP meeting is in the middle planning stages for fall of 2017 with Georgia as the host state. The theme will focus on Seamless SWAP Implementation.

10. The State Wildlife Action Plan (SWAP) Revision Guidance Working Group was convened in November 2016 to review, gather feedback, and suggest changes to the 2007 Guidance for Wildlife Action Plan Review and Revisions. States and USFWS are both represented on the working group, which has compiled input from State Wildlife Action Plan Coordinators and agency directors, and is currently integrating suggested changes into the document. The proposed Guidance will be presented to State Directors at the September 2017 AFWA meeting. Similarly, Wildlife and Sportfish Restoration working group members will then seek approval for the updated guidance from the Fish and Wildlife Service Director.

Time and Place of Next Meeting: Quarterly conference calls are scheduled for September 5th, December 5th, and March 5th. A subset of this Committee will meet at the Region 3 SWAP meeting Sept. 25-29 in Missouri. The 2017 National SWAP Meeting will provide an opportunity for a committee meeting in October 2017.

Appendix 1: Meeting Agenda

Midwest Association of Fish and Wildlife Agencies State Wildlife Action Plan Technical Working Committee Meeting Agenda

May 12, 1:30 – 3:30.

Agenda

1) A Director is needed to fill our Liaison position – Discussion and potential recommendations

2) Resolutions supporting Recovering America's Fish and Wildlife Act for each of their own agencies

3) Directors participation in the upcoming Fly-In for Recovering America's Fish and Wildlife Act

4) Suggested Referendums: Resolution for MAFWA to support the America's Alliance for Fish and Wildlife/Recovering America's Wildlife Act

5) Updates and continued support of Mid-continent monarch work, add monarchs to SWAPS, support milkweed planting

6) Greater Midwest collaboration – Role of this committee especially with respect to the LCCs and the Midwest regional SWAP group

7) Team Membership Expansion to reflect action items/mission and annual meeting schedule

Appendix 2: May 12, 2017 MAFWA State Wildlife Action Plan Committee Meeting Attendance

Kinkead	Karen	IA
Reeder	Katy	IA
Feaster	Brad	IN
Berens	Chris	KS
Carr	Sunni	KY
Derosier	Amy	MI
Balch	Faith	MN
Rezac	Kelly	MO
Muenks	Nathan	MO
Stoner	Kristal	NE
Dowd-Stukel	Eileen	SD
Koslowsky	Shari	WI

Appendix 3: Proposed resolution for consideration.

RESOLUTION #_

MIDWEST ASSOCIATION OF FISH AND WILDLIFE AGENCIES SUPPORT FOR THE RECOMMENDATIONS OF THE BLUE RIBBON PANEL ON SUSTAINING AMERICA'S DIVERSE FISH AND WILDLIFE RESOURCES AND ONGOING WORK.

WHEREAS, the states play an essential role in the conservation and management of fish and wildlife and their habitats which contribute to our quality of life and economic well-being; and

WHEREAS, the Pittman-Robertson and Dingell-Johnson Acts established a fund to support conservation and science-based management of wild birds, mammals and sport fish species financed by hunters, recreational shooters, fishermen, and boaters; and

WHEREAS, a similar dedicated and sustainable funding mechanism is lacking for the many species of birds, mammals, fish, amphibians, reptiles and invertebrates that are not hunted or fished; and

WHEREAS, the states, territories and District of Columbia developed and recently updated historic, comprehensive and scientifically-based State Wildlife Action Plans that identified over 12,000 species of greatest conservation need; and

WHEREAS, there is a recognized need to expand the funding base for wildlife conservation throughout the Nation as effective implementation of State Wildlife Action Plans would require an annual investment of over $1 billion; and

WHEREAS, the Blue Ribbon Panel on Sustaining America's Diverse Fish and Wildlife Resources, was tasked with recommending a new funding mechanism to support state fish and wildlife conservation to ensure the sustainability of all fish and wildlife for current and future generations; and

WHEREAS, the Blue Ribbon Panel recommended that Congress dedicate up to $1.3 billion annually in existing revenue from the development of energy and mineral resources on federal lands and water to the existing unfunded Wildlife Conservation Restoration Program; and

WHEREAS, the Blue Ribbon Panel also recommended that the impact of societal changes on the relevancy of fish and wildlife conservation be examined and recommendation made on how programs and agencies can transform to engage and serve broader constituencies.

NOW, THEREFORE, BE IT RESOLVED, that the Midwest Association of Fish and Wildlife Agencies recognizes and appreciates the valuable contribution of co-chairs Mr. John Morris and former Governor David Freudenthal and the business and conservation leaders of the Blue Ribbon Panel; and

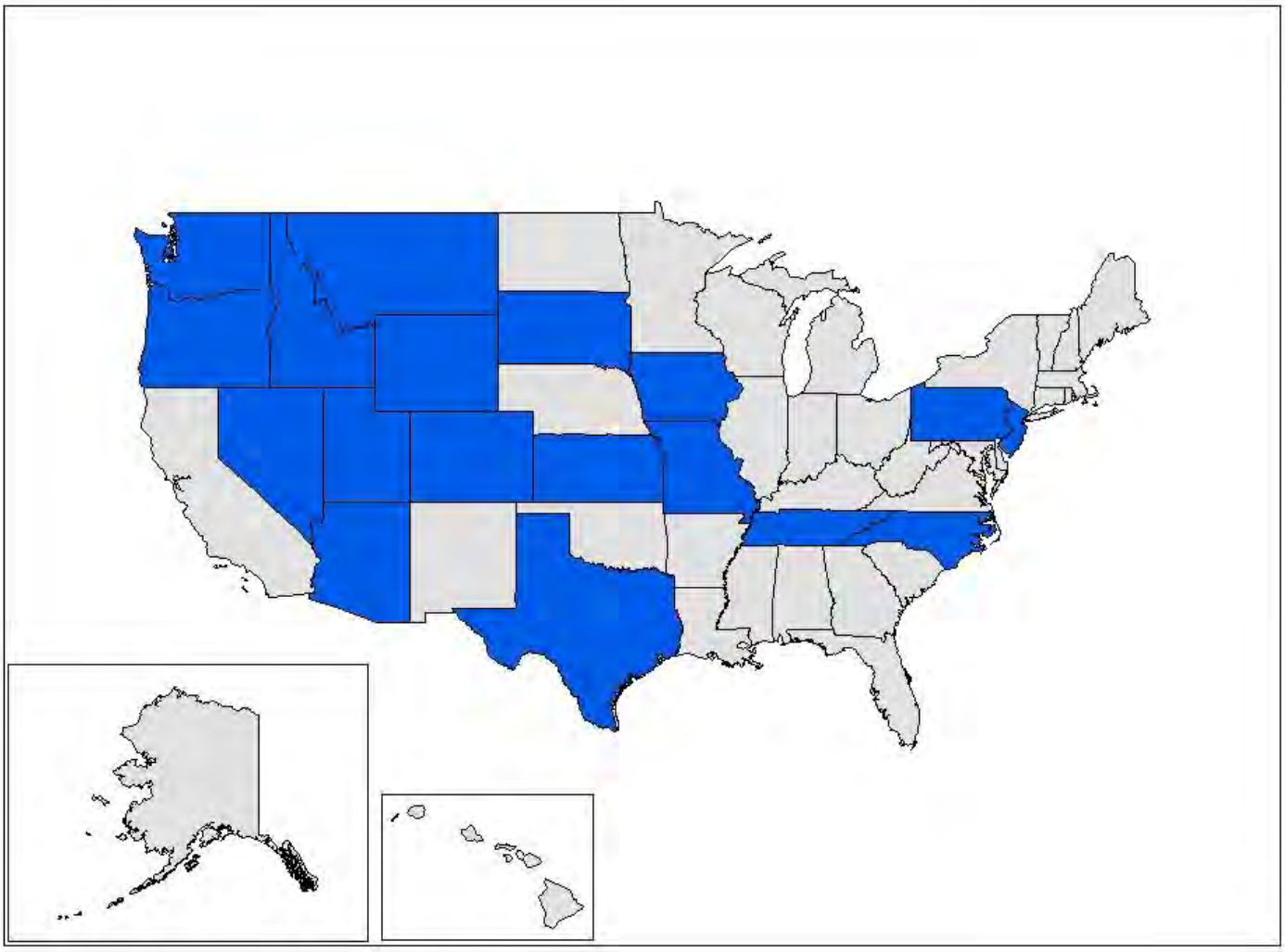
BE IT FURTHER RESOLVED, that the Midwest Association of Fish and Wildlife Agencies supports the recommendations of the Blue Ribbon Panel on Sustaining America's Diverse Fish and Wildlife Resources; and

BE IT FURTHER RESOLVED, that the Midwest Association of Fish and Wildlife Agencies notifies the Association of Fish and Wildlife Agencies by copy of this resolution that it stands ready to support and participate in national efforts and events of the Alliance for America's Fish and Wildlife campaign and the Blue Ribbon Panel to work with the US Congress and the Administration to pass legislation to create a 21st century conservation funding model that provides states, territories and the District of Columbia with sustained and dedicated funding to conserve all fish and wildlife and their habitats; and

BE IT FURTHER RESOLVED, that the Midwest Association of Fish and Wildlife Agencies also stands ready to support and implement continuing efforts by the Blue Ribbon Panel to develop recommendations that will ensure state fish and wildlife agencies remain relevant and supported by all citizens into the future.

Appendix 4: States that have passed resolutions supporting Blue Ribbon Panel recommendations

As of May 8th, 2017 Eighteen states have passed resolutions. In addition to states, AFWA, NWF, TWS and AFS have also passed resolutions. Other states have sent supportive letters to their congressional delegations.



Appendix 5: Example Resolutions

Two examples of resolutions passed in support of Blue Ribbon Panel recommendations from the Association of Fish and Wildlife Agencies and Kansas Wildlife, Parks and Tourism Commission.

Resolution #2016-03

Statement of appreciation to the Blue Ribbon Panel on Sustaining America's Diverse Fish and Wildlife Resources and support for its recommendations and ongoing work

The purpose of this resolution is to express gratitude to the members of the Blue Ribbon Panel on Sustaining America's Diverse Fish and Wildlife Resources (Blue Ribbon Panel) and support for their recommendations.

WHEREAS, the states play an essential role in the conservation and management of fish and wildlife and their habitats which contribute to our quality of life and economic well-being; and

WHEREAS, the Pittman-Robertson, Dingell-Johnson and Wallop-Breaux Acts and the contributions of hunters, recreational shooters, anglers, boaters and their industries led to the unprecedented recovery and sustainable management of our nation's game and sportfish; and

WHEREAS, the states, territories and District of Columbia developed and recently updated historic, comprehensive and scientifically-based State Wildlife Action Plans that identified over 12,000 species of greatest conservation need; and

WHEREAS, effective implementation of State Wildlife Action Plans would require an annual investment of over $1 billion annually; and

WHEREAS, the Association of Fish and Wildlife Agencies (Association) and the national Teaming With Wildlife coalition has been advocating for nearly three decades for dedicated funding so states can sustainably manage all fish and wildlife and their habitats to fulfill their missions and legal responsibilities; and

WHEREAS, the Blue Ribbon Panel was convened to develop a recommendation to sustainably fund fish and wildlife conservation to meet large and growing unmet conservation needs; and

WHEREAS, the Blue Ribbon Panel recommended that Congress dedicate up to $1.3 billion annually in existing revenue from the development of energy and mineral resources on federal lands and waters to the existing unfunded Wildlife Conservation Restoration Program; and

WHEREAS, the Blue Ribbon Panel also recommended that the impact of societal changes on the relevancy of fish and wildlife conservation be examined and recommendations made on how programs and agencies can transform to engage and serve broader constituencies.

NOW, THEREFORE, BE IT RESOLVED, that the Association recognizes and appreciates the valuable contributions of co-chairs Mr. John Morris and former Governor David Freudenthal and the business and conservation leaders of the Blue Ribbon Panel; and

BE IT FURTHER RESOLVED, that the Association stands ready to work with the US Congress and the Administration to implement the Blue Ribbon Panel's funding recommendation by passing legislation to create a 21st century conservation funding model that provides states, territories, and the District of Columbia with sustained and dedicated funding to conserve all fish and wildlife and their habitats; and

BE IT FURTHER RESOLVED, that the Association also stands ready to support continuing efforts by the Blue Ribbon Panel to develop recommendations that will ensure state fish and wildlife agencies remain relevant and supported by all citizens well into the future.

A RESOLUTION SUPPORTING ANNUAL FUNDING FOR THE WILDLIFE CONSERVATION RESTORATION PROGRAM

WHEREAS, Kansas is home to unique populations and tremendously diverse wildlife species; and

WHEREAS, Congress passed the Pittman-Robertson Act in 1937 and the Dingell-Johnson Act in 1950 that established dedicated funds supporting conservation and science-based management of fish and wildlife financed by hunters, recreational shooters, anglers, and boaters; and

WHEREAS, a similar dedicated and sustainable funding mechanism is lacking for the many species of birds, mammals, fish, amphibians and reptiles that are not hunted or fished; and

WHEREAS, Kansas created a State Wildlife Action Plan to provide a comprehensive vision for managing Kansas' fish, wildlife and wildlife habitats; and

WHEREAS, the Wildlife Action Plan focuses on 285 Species of Greatest Conservation Need and 13 priority habitat types that require prescriptive actions to ensure persistence for future generations; and

WHEREAS, there is a recognized need to expand the funding base for wildlife conservation in Kansas and throughout the Nation; and

WHEREAS, the recent Blue Ribbon Panel on Sustaining America's Diverse Fish and Wildlife Resources, composed of 26 business and conservation leaders, recommends a new funding mechanism to support state fish and wildlife conservation to ensure sustainability of all fish and wildlife for current and future generations; and

WHEREAS, securing dedicated federal funding is likely to require a non-federal state match similar to that in place for the Pittman-Robertson and Dingell-Johnson Acts.

NOW, THEREFORE BE IT RESOLVED that the Kansas Wildlife, Parks and Tourism Commission supports the Blue Ribbon Panel on Sustaining America's Diverse Fish and Wildlife Resources recommendation that Congress dedicate 1.3 billion dollars annually in existing revenue from the development of energy and mineral resources on federal lands and waters to the Wildlife Conservation Restoration Program to diversify funding and management of all wildlife; and

NOW, THEREFORE BE IT FURTHER RESOLVED that the Commission respectfully requests that the Kansas Congressional Delegation support federal legislation, including HR5650 entitled "Recovering America's Wildlife Act" that would implement this recommendation; and encourages other state fish and wildlife agencies throughout the nation to do the same; and

NOW, THEREFORE BE IT FURTHER RESOLVED that the Commission supports broader dedicated funding mechanisms for wildlife conservation and implementation of the Kansas State Wildlife Action Plan, as well as to serve as the State's 25 percent match in the event that new dedicated federal funding is secured.

Approved this the 20 day of October, 2016, in an official meeting by the Kansas Wildlife, Parks and Tourism Commission

Gerald Lauber, Chairman

Robin Jennison, Secretary

Midwest Wildlife and Fish Health Committee Meeting

April 17-18, 2017

Bellevue, IA

Hosted by:

The Iowa Department of
Natural Resources

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Meeting Time and Place

April 17-18, 2017
Bellevue, IA

Agenda: see Appendix I

Attendance

Attending this year's Midwest Wildlife and Fish Health Committee Meeting were representatives from 11 state fish and wildlife agencies: Illinois, Indiana, Iowa, Kentucky, Michigan, Minnesota, Missouri, North Dakota, South Dakota, Virginia, and Wisconsin; and representatives from three federal agencies:

- the United States Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services (USDA-APHIS-WS),
- the United States Geological Survey, National Wildlife Health Center (USGS-NWHC), and
- the United States Fish and Wildlife Service (USFWS)

A total of 26 individuals attended (Appendix II), including two invited guests from Iowa State University. In addition, 4 individuals participated in the meeting via WebEx, including representatives from 3 state or provincial fish and wildlife agencies (Ohio, Manitoba and Saskatchewan). Kansas, Nebraska and Ontario were not represented.

Executive Summary

Disease Reports

Each state or province in attendance (in person or via Web-ex), the National Wildlife Health Center, and USDA-Wildlife Services provided an update on the wildlife disease issues within their jurisdiction. The states or provinces that did not provide written disease updates were Nebraska, Ohio, and Saskatchewan. For your convenience, an index of disease reports is included in Appendix III.

Iowa's CWD Management Program, Dale Garner, Iowa DNR

Deer hunting is an important source of income for Iowa DNR. Deer license sales produces $10 million annually, which accounts for about 1/3 of the total license revenue and roughly 20% of the C&R Division (Wildlife, Fisheries and Law Enforcement Bureaus) revenue each year. Anything that has an impact on deer hunting from disease to regulations will have a direct impact on the agency's revenue stream.

On July 18, 2012, the first CWD positive animal was detected in Iowa on a private hunting preserve in Davis County. Iowa DNR does not have regulatory authority over cervid breeding facilities but it does regulate shooter facilities. Iowa DNR pays for CWD testing conducted on these shooter operations. The affected facility was placed under quarantine by Iowa Department

of Agriculture and by Iowa DNR. The facility was depopulated and the fence was maintained. There are still legal issues being handled in the court system.

There were trace outs to 3 facilities from the original Davis County facility; one in south central Iowa, one in north central Iowa and one in western Iowa. Animals were moved regularly between these facilities. There were 199 white-tailed deer and 9 elk on the Davis county facility. Two more positive deer were found in follow-up testing. The Cerro Gordo breeder facility sampled 14 deer and found 1 positive. The Pottawattamie County breeder facility tested 13 deer and found 9 positives. Ultimately the Cerro Gordo facility was indemnified and depopulated. There were 183 males and 173 females. A total of 284 animals were positive (79.8%); the remainder were fawns (<12 month old) and were not tested. In response, the Iowa DNR collected 351 samples from deer around these facilities and 405 from buffer zone near cases in Wisconsin. All wild deer samples were negative.

Statewide CWD surveillance started in 2002. 47,136 samples from wild deer and 3,124 from hunting preserves have been collected. During the 2013 hunting season, the first case of CWD in a wild deer in IA was identified in Allamakee County, which is located in northeast IA. In the 2015/2016 hunting season, 426 additional samples were collected and two more positives were found in northeast Iowa. In the 2016/2017 collection season, surveillance focused on road-kills, targeted, and hunter-harvested animal which a sample goal of 400. Eleven new positives were detected in Allamakee County which makes a total of 17 there, and 1 new case in Clayton County. During post-season, an additional 202 samples were collected and 1 more positive was found in Allamakee County. Post-season in Clayton County, 138 additional samples were tested and no new positives were found. To date 62,482 samples have been collected in Iowa for CWD surveillance. Plans for the 2017/2018 CWD surveillance include sampling along the Nebraska border as a result of the discovery of new positives in eastern Nebraska.

Population Genetic Structure of White-tailed Deer in Iowa, Dr. Julie Blanchong, ISU

Movement of infected animals plays a major role in the spread of CWD but landscape can also influence the movement and spread of disease. Distance and the direction that deer move is influenced by landscape features, such as forested versus agricultural lands, rivers, roads, and developed areas (e.g., cities and towns). The objective of the present study was to reconstruct the genetic structure of deer populations in Iowa and identify which, if any, factors influence the local transmission and spatial spread of CWD.

Genetic data from 29 study areas were collected from hunter-harvested lymph node samples. Investigators looked at 9 microsatellite foci to determine the local genetic structure and compare it to other study areas. From this information, they were then able to make inferences about deer movements via similarity of genes. The genetic information gives information about how generations have moved over time, but not specifically on movements occurring today. From 2010-2014, a total of 688 hunter-harvested deer were sampled; 25 deer per surveillance unit. Ideally, the majority of samples were females, since they have more limited movements. However, they looked at markers passed on by both sexes and at mitochondrial DNA.

The genetic structure *within* study sites and the proportion of closely related deer were examined, as well as the land composition within study areas such as row crop, agricultural, forested, and developed. They used deer density information from hunter-harvest data collected by Iowa DNR. Anything with more than 10% development was considered urban. There was a statistically significant relationship between forested habitat and genetic relatedness. The same thing held true for animals from urban areas. There was a negative correlation for row crops and genetic relatedness. As population densities increased, so did genetic relatedness, which is similar to studies in other states.

They also looked at genetic structure among study areas to see relationships between genetic distance versus geographic distance, males versus females, ecoregion, main interstates, and land use type. The genetic distances between study areas was relatively small. There was a male-biased dispersal, but overall there was a "medium" amount of genetic difference. Forest had the biggest difference on genetic differences and interstates had some difference, but not at a biologically significant level.

What are the genetic structure implications for local transmission of disease? There is a slightly stronger structure in forested and urban areas which means there is a greater chance of local disease spread in these areas with higher rates of disease transmission from local interactions. In urban environments with non-hunted populations, this promotes older females and higher transmission. There appeared to be no true barriers to spread of disease via genetic structure but rates of transmission may vary some by habitat type.

An annotated white-tailed deer genome will soon be publicly available which could eventually lead to more focused genetic studies that relate to specific genes and their function. There is an effort to develop a standardized method of sequencing WTD genetics so that comparisons across larger scales can made.

Wisconsin CWD Response Plan Review, Tami Ryan- Wisconsin DNR

After a lengthy review, Wisconsin's CWD management plan was changed to a CWD response plan. It was changed to a longer-term, 15 year plan, with reviews in 5-year increments. The first 5-year review period ended in 2015. The Natural Resources Board (NRB) requested a review process that began in the spring of 2016. As result, the Governor announced the following directives for WIDNR: 1) seek input using Citizen Deer Advisory Councils (CDAC); 2) a comprehensive study of deer population dynamics, 3) conduct more frequent fence inspections; 4) develop BMP's for urine- based scents; and 5) develop quicker test results for hunters. Overall the main goal has not changed and that is to minimize the area of WI affected by CWD.

An internal review of the plan started in December 2015 and has been completed. Input was sought from the conservation congress, which is a citizen-based delegate system unique to WI that is made up of 5 members from each county that advises the NRB, other state agencies, and the CDAC. Final recommendations went to NRB in March 2016. The review process resulted in the plan going from 24 to 62 action items. Most of the major action items will remain the same, just with more detail. Action items are grouped under Outreach, Research and Disease Assessment. New additions include working with adjacent states on CWD, developing an action

plan template for new detections, and preventing new introductions. Annual updates on CWD are provided to the NRB each December.

Minnesota CWD Update, Erik Hildebrand, Minnesota DNR

In 2010, Minnesota detected their first CWD positive wild white-tailed deer. It was found immediately outside of a captive elk facility in Pine Island that had been depopulated in 2009 due to CWD. During 3 consecutive years of aggressive sampling, no additional cases of CWD were found. In 2014, surveillance was started near the Iowa border in southeast MN in response to Iowa's finding of CWD in Allamakee County. In the fall of 2016, approximately 3,000 deer were tested in southeast MN and two CWD-positive animals were found from voluntary hunter-harvest sampling. An additional sample from a taxidermist was also positive. All 3 cases were adult males harvested in Fillmore County.

MNDNR response plan was to do surveillance in 10 mile circles around the positives and have mandatory testing on all animals harvested within these areas. This created a new CWD Management Area called Zone 603. A carcass movement ban was set in place, preventing deer from leaving the area until it tested negative. Deer feeding bans were put in place in the 5 counties surrounding the area. A special hunting season was created from Dec 31 to Jan 15, landowner shooting permits were issued for 4 weeks following the special hunt, and a follow-up cull was performed by USDA APHIS WS in February. A survey conducted in December 2016 estimated an average of 23.6 deer/mi^2 in Zone 603 and within the core areas immediately surrounding the CWD-positive cases, there were 35 deer/mi^2.

During the special hunt, 626 adult animals were sampled and 3 additional CWD positive animals were detected. A total of 411 shooting permits were issued to landowners and 3 more positives were detected. For landowner permits, 133 permit-holders removed at least one deer, 71 took only 1, and only 10 took 5 or more deer. USDA-WS removed 238 deer by sharpshooting, and 2 more positives were found. The estimated prevalence is 2% in the core areas but 0.6% overall for Zone 603. In the end, 10 of the 11 animals detected were non-clinical. Minnesota DNR believe this is a recent infection, given the limited spread and low prevalence of disease.

Surveillance is planned again in the fall of 2017 in Zone 603 and around newly detected CWD-positive game farms in north central MN (at least 2 farms, maybe more). There will be mandatory sampling for the first 2 days of the firearm season.

HPAI Surveillance in small birds and mammals, Dr. Jim Adelman, ISU

During the most recent HPAI outbreaks in the US the source of the spread of the avian influenza viruses was "elusive". The question arose as to what, if any, role small birds and mammals play in the transmission cycle for HPAI. Could these species have active infections or did they serve as a fomite?

In the fall of 2015 and spring of 2016, small bird and mammal surveys were conducted at poultry facilities and nearby wetlands in Iowa. Internal and external swabs were taken for avian influenza testing and pooled into batches. There were 450 individual animals collected

representing 39 species of animals. Some species were caught at both poultry facilities and at wetlands but most were caught at only one or the other. Overall the communities of small birds and mammals varied by sites. They used a multiplex qPCR and two viral matrix genes for testing. No HPAI was found. Additionally, no antibodies to HPAI were found.

Avian influenza viruses were on the landscape at the time of this study, but none of the species tested were carriers or exposed to AI virus. In four different studies conducted, only 3 out of 1485 animals tested positive. It is safe to conclude that the species tested were not likely the source of spread. Based on USDA work, biosecurity methods and practices are a better predictor of when and where an outbreak is likely to occur. More study needs to be done on those species that use both wetlands and poultry houses.

Bat activity monitoring and goat respiratory disease, Dr. Julie Blanchong, ISU

Brief overviews of several projects Dr. Blanchong is involved in were discussed.

Bat monitoring project in Iowa.

There are three big pressures on insectivorous bats: infectious diseases, windmill farms and habitat loss. Three large projects were undertaken to get a better idea of bat activity, monitoring techniques and distribution of bats. Iowa has a large wind farm industry and has White Nose Syndrome (WNS), so it is important to document baseline populations. More than a third of Iowa's electricity comes from wind power and wind towers have a huge impact on bat mortality during fall migration.

Acoustic sampling is used to identify the presence of individual bat species. Even after 4 years of data collection, it is apparent more data is needed. What can be determined at this point is that more bats are present in eastern Iowa and the bats of concern for contracting WNS are in eastern Iowa. Little brown bats (which are likely to be listed soon) have preferred habitat in north central Iowa and northern long eared bats (already listed) prefer this area too. The project is transitioning to a citizen-based data collection project where citizens collect the data and then it is analyzed by ISU.

Respiratory disease in mountain goats in Nevada.

This project was initiated following a pneumonia outbreak in bighorn sheep in the East Humboldt range to determine if mountain goats would act as a disease reservoir for respiratory diseases of bighorn sheep. Goat kids were identified by locating previously-collared does and observing the kids from a distance. Goat kids that died were collected and necropsies were performed. In total, 5 carcasses were recovered. All had some level of lung consolidation, lesions, adhesions, and otitis. All tested PCR positive for *Mycoplasma ovipnuemoniae* and some were culture positive for *Pasturella spp*.

Grazing behaviors of the kids were observed to identify whether or not that could be used as a metric for predicting disease. In most cases, decreased time grazing was a predictor of disease. Kids will show classic signs of respiratory disease. They have low overall summer survival,

similar to what is seen in bighorn sheep. Aerial surveys were observing less recruitment during the fall flights. Overall, many questions are left unanswered for the population of mountain goats in the East Humboldt range and which direction the population is heading. The finding of respiratory disease in mountain goats raises questions regarding reintroduction of bighorn sheep into areas where mountain goats exist. Additional evidence suggest that goats and sheep exchange bacterial strains when sympatric.

Global Highly Pathogenic Avian Influenza Update, Tom DeLiberto, USDA APHIS-WS

Avian influenza viruses are RNA viruses so there is a high mutation rate. Genetic drift is the result of point mutations between the eight genes that make up avian influenza viruses. The classification system (clades) was established to keep track of strains of avian influenza, more specifically H5 lineages. Clades are named based on 1.5% or less nucleotide diversity. This is the first time a particular lineage has been maintained in the wild for so long that it has evolved this far. The particular lineage of concern, Clade 2.3.4.4, found in outbreaks in China in 2005, is really good at reasserting itself and has a high rate of genetic drift.

Clade 2.3.4.4 circulated and reassorted in China from 2005-2014 (H5N1, H5N2, H5N5, H5N8) before moving intercontinentally. Termed icA's, these viruses moved into South Korea in the winter of 2014 and into Japan the following spring. As migratory birds moved to breeding grounds in the arctic that summer they brought the viruses with them. In the fall of 2014, wild birds likely brought the viruses south from the breeding grounds to North America (September/early October). These H5 viruses reassorted with North American lineage N1's.

Sampling efforts for detection has three components: year round passive sampling of morbidity and mortality events; active sampling of apparently healthy birds; year round targeted environmental sampling via fecal samples. Surveillance system is maximized to detect HPAI at a 1% prevalence.

Watershed sampling is prioritized based on several factors: areas open to wild duck occurrence; LPAI virus clusters detected in the nationwide surveillance from 2006-2011; and areas with high numbers of domestic poultry. In FY2016, it cost $7.5 million to sample 45,549 waterfowl. Only two birds, both mallards (one each in Utah and Oregon), were positive via unconfirmed PCR. In FY2017, funding was cut by $2 million and testing decreased to 34,744 birds. There were 2 confirmed-positive mallards, one each in Montana and Alaska. The risk may seem low based on the level of testing but looking to the lessons from Asia, the longer the viruses stick around and reassort the more problematic they become. Finding the virus in MT and AK this past year indicates the virus is still out there circulating.

Ducks are the primary reservoir for AIV. Experimental studies and testing of other wild birds have shown that Canada geese are susceptible, goslings are acutely sensitive and geese can act as a good sentinel species; raptors are acutely sensitive; experimentally passerines and small mammals can be infected but are not likely a reservoir based on field studies. Several other studies are pending at this point.

When outbreaks in poultry occur, it is typically in the spring and 3-4 months after peaks in wild birds. It takes time for the viruses to jump from wild birds into poultry, adapt to poultry and then cause mortality in poultry. So when there is a die-off in poultry, going in and looking at wild birds after the die-off occurs does not make biological sense. The time to have looked would have been 3-4 months prior.

Two more groups of viruses evolved through reassortment in Asia in the Clade 2.3.4.4 viruses both are H5N6's. These viruses are zoonotic and are circulating in Asia right now. Since February 2013 there has been an Influenza A (H7N9) virus Asia with pandemic potential. There have been 1,342 people confirmed infected with 494 deaths. The outbreak that occurred in the southern US in March 2017 was an unrelated H7N9 in commercial broiler flocks in TN. There has been LPAI H7N9 circulating in KY, TN, AL and GA. At the time of reporting, the outbreak was still being investigated.

Global CWD Update, Bryan Richards USGS NWHC

There have been a total of 83 CWD positive captive cervid facilities in the US and 96 in Canada. All 96 of the Canadian facilities have been depopulated. Since 2012, there have been 30 new positive facilities in the US in 9 different states, 8 were shooter facilities, 1 was an exhibition facility, and 21 were breeding facilities. Nearly 60% (12/2) of these farms had 5 or more years of CWD testing, and 43% (9/21) were enrolled in the USDA CWD monitoring program at the time there were found to be infected with the disease.

Norway has had three CWD-positive reindeer and two moose to date. The degree of lymphatic system involvement in infected reindeer is not yet known, which makes it hard to quantify shedding. Norway has a 100% cull planned on the affected reindeer herd which represents about 6% of the total population. The plan is to leave the land barren for 5 years before allowing animals back into the area. The genetics of the Norwegian CWD strains are not consistent with what has been found in North America.

ACTION ITEMS

- **Multistate Conservation Grant**
  Dr. Kelly Straka introduced the idea of applying for funding to create CWD national outreach materials that could be incorporated into state's hunting regulation books. This could take the form of a 2-page centerfold and billboard signs.

- **Committee Elections**
  After 5 years of serving in the role of Chair of this Committee, Dr. Michelle Carstensen is stepping down and Dr. Dan Grove is promoted from Vice-Chair to Chair, effective June 2017. Dr. Kelly Straka was nominated and elected to serve as the new Vice-Chair**.**

Director Action Item

Resolution in Support of Restricting the Importation of Hunter-Harvested Cervid Carcasses to Minimize Risks of Chronic Wasting Disease Spread

The Midwest Wildlife and Fish Health Committee discussed and proposed the following resolution in support of consistent language among states to restrict the importation of hunter-harvested cervid carcasses to minimize further spread of chronic wasting disease.

SUPPORTING RESTRICTING IMPORTATION OF HUNTER-HARVESTED CERVID CARCASSES FROM KNOWN CWD-INFECTED STATES AND PROVINCES.

WHEREAS, chronic wasting disease (CWD) is a fatal neurological disease of mule deer, white-tailed deer, elk, moose and reindeer/caribou;

WHEREAS, CWD has been detected in captive and/or free-ranging cervid populations in 24 states (including Arkansas, Colorado, Illinois, Iowa, Kansas, Maryland, Michigan, Minnesota, Missouri, Montana, Nebraska, New Mexico, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Texas, Utah, Virginia, West Virginia, Wisconsin, and Wyoming), 2 Canadian provinces (Alberta and Saskatchewan), the Republic of Korea, and Norway;

WHEREAS, the geographic distribution and prevalence of CWD continue to grow; yet there is a lack of consistency among states in CWD surveillance activities, and this poses increased risk of undiscovered areas with disease;

WHEREAS, CWD poses a threat to the health of cervid populations wherever it occurs;

WHEREAS, consequent to the ongoing spread of disease, domestic livestock and human exposure to the causative agent of CWD are increasing;

WHEREAS, all states have a percentage of resident hunters that travel out-of-state to pursue game hunting opportunities and, if successful, return to their home state with their harvest;

WHEREAS, some states already have regulations that prevent importation of cervid carcasses harvested from known CWD-affected areas or from anywhere outside their borders (e.g., blanket ban), with the exception of cut/wrapped meat, quarters with no part of the spinal column attached, deboned meat, cleaned skulls or skull cap, shed antlers, hides, canine teeth, and finished taxidermy mounts;

WHEREAS, efforts to educate hunters on importation laws remain a challenge; hunters are often directed to search for the CWD status of areas they intend to hunt or hunting regulation books in the destination state;

In an effort to minimize risk of further disease spread and simplify carcass importation laws for out-of-state hunters, all states should consider adoption of consistent language that

disallows intact cervid carcasses to come from the entirety of any state or province where CWD is known to occur, with the exception of cut/wrapped meat, quarters with no part of the spinal column attached, deboned meat, cleaned skulls or skull cap, shed antlers, hides, canine teeth, and finished taxidermy mounts.

NOW, THEREFORE, BE IT RESOLVED, that the Midwest Association of Fish and Wildlife Agencies Directors, at its annual meeting in Ashland, Nebraska on June 27, 2017, supports restricting importation of intact cervid carcasses from the entire states and provinces where CWD has been detected in either captive or free-ranging cervid populations, with the exception of cut/wrapped meat, quarters with no part of the spinal column attached, deboned meat, cleaned skulls or skull cap, shed antlers, hides, canine teeth, and finished taxidermy mounts. Nonresidents transporting whole or partial cervid carcasses on a direct route through states (e.g., interstate movements) are exempt from this restriction.

Director Information Item

Best Management Practices for Minimizing Disease Risks during Wildlife Captures

Introduction

As new diseases emerge in wildlife populations, wildlife managers are increasingly tasked with preventing disease spread into naïve populations. In certain instances, management activities could potentially play a role in introducing disease from one population to another. Natural movement of animals and controlling the flow of diseases amongst these populations is a difficult task to accomplish. Limiting and controlling the artificial movement of animals and potential disease spread falls to wildlife managers. Whether it is through regulations restricting carcass movements in and out of a known disease endemic area or by testing animals prior to translocations into new habitats, consideration must be given to the potential for people, including wildlife professionals, facilitating the movement of pathogens. The following information is a general overview of the considerations that should be taken into account before, during, and after capture operations to best mitigate the potential spread of disease. Not every scenario that applies to every disease, weather conditions, species, etc. can be addressed here, but basic concepts and strategies can be implemented and adapted to individual capture events, regardless of whether the disease status of a source population is known.

Disease Agents

It would be impossible to completely cover every disease agent, species, and specific disinfection strategy to minimize the risk of disease transmission in this document. Instead, these guidelines focus on the various ways in which capture projects can facilitate movement of pathogens, and the type of cleaning protocols that are needed to achieve the best decontamination to prevent capture-related spread of wildlife disease. If a disease is known to exist in an area, it is important to research the specific disease and what is currently known about its life cycle, mechanism of spread, species it infects and what sanitization is needed if capture work is to occur. Knowing this information will keep personnel and animals safe and help to mitigate disease spread. Some of the basic questions to be asked are:

- What kind of agent is it? Examples: virus-enveloped or non-enveloped, bacteria-lipid membrane or not, fungus, prion etc.
- What species does it infect? Examples: species specific, multiple species in the same class, multiple classes of animals, etc.
- How is it spread? Examples: bodily fluids, feces, urine, aerosolized, etc.
- How long can it persist outside of the host species?
- Is there concern for environmental contamination?
- Is it zoonotic?
- What cleaning agents work best on this class of disease agent?

The answers to these questions are useful in determining the risk level associated with spreading a disease via capture equipment and personnel, and what decontamination protocols are best for an individual capture operation.

Basics of Sanitization

Most if not all sanitizers are inactivated in the presence of organic material and many are inactivated when they come into contact with detergents or other chemicals. As such, all visible organic matter, debris, and other cleaning agents should be thoroughly removed prior to applying any sanitizer. Standard cleaning protocol is a multiple step process:

- Rinse away all visible debris.
- Scrub all surfaces with a detergent or degreasing agent.
- Rinse thoroughly. Allow to dry.
- Apply sanitizer according to recommendations to all exposed surfaces.
- Allow sanitizer to set for recommended time.
- Rinse thoroughly. Allow to dry.

Sanitizing products work based on contact time with the potentially contaminated surface, so allowing an appropriate amount of time for the sanitizer to be in contact with the potentially contaminated item is crucial. In the case of surgical equipment or instruments, an additional step of sterilization by autoclaving may be warranted. Many sanitizers, like bleach, are highly effective but can be caustic at high concentrations and damaging to the skin, the respiratory system, and to equipment. Always follow the manufacturer's recommendation for handling and diluting sanitizing products.

Field Equipment

Sampling tools and instruments: Thermometers, stethoscopes, pulse oximeter probes, biopsy punches, syringes, needles, mouth gags, ear tag applicators, etc.

The most likely source of cross contamination and potential disease spread amongst individual animals is the equipment that comes in direct contact with bodily fluids and excretions (e.g. saliva, feces, ocular secretions, urine). When possible, this kind of equipment should be disposable and, if not practical, the equipment should be readily sanitized and autoclaved. If field sanitization is not an option, then enough equipment should be available so that dirty equipment is not reused prior to appropriate sanitization. Having dedicated containers to store equipment in once it has been used is recommended. Placing dirty equipment back into packs, bags, or other containers without proper isolation increases the potential for cross-contamination of clean equipment by contact with potentially contaminated equipment.

Animal capture equipment: Hobbles, blindfolds, slings, stretchers, nets etc.

In most cases, capture equipment is used repeatedly in multiple regions and locations. It is impractical and cost prohibitive to dispose of this kind of equipment from one capture to the next. This kind of equipment should be made of durable, chemical resistant, non-porous materials when possible. These qualities allow for proper cleaning and sanitizing. Having enough equipment such as blindfolds and hobbles for single daily use would be ideal to prevent disease spread from animal to animal via equipment during capture events. In known disease endemic areas, having equipment dedicated for use only in these areas is preferred.

Personnel equipment: Clothing, gloves, boots etc.

Consideration should be given to cross-contamination by personnel via clothing and outerwear. In known endemic disease areas, use of disposable outer coverings (e.g., gowns, boot covers, nitrile gloves etc.) are ideal when practical. When using disposable outerwear is not practical,

frequent cleaning or changing of soiled outerwear is recommended. As with individual animal capture equipment, separate outerwear should be worn by personnel when working in known endemic areas and unknown disease status areas.

Contract Capture Companies

When agencies are hiring contractors to handle their animal captures, consideration should be given to where the capture company has been (including what species were targeted, methods used, and disease risks of those populations) prior to doing the capture work in their state. If they are working within a known disease endemic area within the contracting state's jurisdiction, consideration should be given to where the capture crew goes from the disease endemic area. All of the same procedures used within an agency for cleaning potentially contaminated equipment should be applied to the equipment used by these contract capture companies. Proper cleaning and sanitization of equipment or procurement of new equipment should be incorporated into the contract language to prevent the potential spread of disease from state to state.

AFWA Federal Appropriations Recommendations for 2019 Federal Budget

We recommend the following funding is needed to support state and tribal monitoring, research and management of these diseases in free-ranging wildlife:

- Ranking #1, Chronic Wasting Disease for $30M
- Ranking #2, Bovine Tuberculosis for $15M
- Ranking #3, White Nose Syndrome for $15M
- Ranking #4, Invasive Species for $30M
- Ranking #5, Neonicotinoids for $3M
- Ranking #6, Avian Health for $5M
- Ranking #7, Aquaculture/VHS for $3M
- Ranking #8, Amphibians and Reptile Health for $5M

We recommend funding is continued $500,000 for Southeast Cooperative Wildlife Disease Study. We also recommend funding for USDA-APHIS-WS for the Wildlife Disease Monitoring and Surveillance program for $10M. This program provides wildlife disease assistance to states at no cost, such as CWD and bovine TB surveillance, feral hog control, and participation of wildlife disease biologists in state agency wildlife disease management activities

Time and Place of Next Meeting

During the wrap-up, the committee decided the location for the 2018 meeting would be in Michigan in early April.

This year's meeting was a success and we want to thank the Directors who sent representatives to this meeting and encourage those who did not to consider sending one to next year's meeting. Also, we thank Iowa Department of Natural Resources for hosting this year's meeting.

Submitted by: Michelle Carstensen, Chair and Dan Grove, Vice-Chair

APPENDIX I. AGENDA

Monday, April 17

12:00	Arrival and welcome	Dale Garner
12:15	Opening remarks and introductions	Michelle Carstensen
12:30	State disease reports	State Representatives
2:15	*Break*	
2:30	State disease reports (continued)	State Representatives
5:00	*Break for dinner*	

Tuesday, April 18

8:00	Iowa CWD Management Program	Dale Garner
8:30	**Invited presentation:** Deer genetics and CWD	Dr. Julie Blanchong,
9:15	External review of Wisconsin's CWD Response Plan	Tami Ryan
9:45	Point source introduction of CWD in southeast Minnesota	Erik Hildebran
10:15	*Break*	
10:30	BMPs for minimizing disease risks during wildlife captures	Drs. Long, Straka & Grove
11:00	**Invited presentation:** HPAI surveillance in small birds and mammals	Dr. Jim Adelman
11:45	National Update on HPAI	Dr. Tom DeLiberto
12:15	*Lunch*	
1:15	**Invited presentation:** Research updates on bat monitoring for WNV and pneumonia in mountain goats	Dr. Julie Blanchong
2:00	CWD Surveillance & Management	Facilitator, Bryan Richards /All
3:30	*Break*	
3:45	Resolutions	Dan Grove, Tami Ryan
4:00	AFWA Federal Appropriations Recommendations	All
4:30	Action Items	All
5:00	Wrap up and next year's host	

Appendix II. ATTENDEE NAMES AND CONTACT INFORMATION

Attendees	Affiliation	E-mail	Phone
Adelman, Jim	Iowa State University	adelmanj@iastate.edu	515-493-4624
Batten, Jasmine	Missouri Department of Conservation	jasmine.batten@mdc.mo.gov	573-815-7901
Blanchong, Julie	Iowa State University	julieb@iasate.edu	505-294-9699
Carstensen, Michelle	Minnesota Department of Natural Resources	michelle.carstensen@state.mn.us	651-539-3309
Caudell, Joe	Indiana Department of Natural Resources	jcaudell@dnr.in.gov	812-322-2991
DeLiberto, Tom	USDA Wildlife Services	thomas.j.deliberto@aphis.usda.gov	970-988-1204
Dufford, Doug	Illinois Department of Natural Resources	doug.dufford@illinois.gov	815-535-2875
Ellingson, Ross	Iowa Department of Natural Resources	ross.ellingson@dnr.iowa.gov	563-929-6001
Garner, Dale	Iowa Department of Natural Resources	dale.garner@dnr.iowa.gov	515-725-8494
Griffin, Mike	Iowa Department of Natural Resources	Michael.griffin@dnr.iowa.gov	563-357-1733
Griffin, Steve	South Dakota Game Fish and Parks	steve.griffin@state.sd.us	605-394-6786
Grove, Daniel	North Dakota Game and Fish	dmgrove@nd.gov	701-202-0775
Haindfield, Terry	Iowa Department of Natural Resources	terry.haindfield@dnr.iowa.gov	563-380-3422
Hildebrand, Erik	Minnesota Department of Natural Resources	erik.hildebrand@state.mn.us	612-597-8141
Jansen, Jim	Iowa Department of Natural Resources	jim.jansen@dnr.iowa.gov	563-920-5915
Jones, Lee	US Fish and Wildlife Service	lee_c_jones@fws.gov	406-587-2169
Kemmerer, Curt	Iowa Department of Natural Resources	curt.kemmerere@dnr.iowa.gov	563-357-2035
Kirchgessner, Megan	Virginia Department of Game and Inland Fisheries	megan.kirchgesssner@dgif.virginia.gov	804-837-5666
Long, Lindsey	Wisconsin Department of Natural Resources	lindsey.long@wi.gov	608-219-5038
Marks, David	USDA Wildlife Services	david.s.marks@aphis.usda.gov	515-414-3292
O'Brien, Dan	Michigan Department of Natural Resources	obriend@michigan.gov	517-336-5035
Richards, Bryan	USGS National Wildlife Health Center	brichards@usgs.gov	608-270-2485
Russell, Sherri	Missouri Department of Conservation	sherri.russell@mdc.mo.gov	573-522-4115
Ryan, Tami	Wisconsin Department of Natural Resources	tamara.ryan@wi.gov	608-266-3143
Stasiak, Iga	Kentucky Department of Fish and Wildlife Resources	iga.stasiak@ky.gov	502-330-7588
Straka, Kelly	Michigan Department of Natural Resources	strakak1@michigan.gov	517-242-0061
Participated via WebEx			
Davis, Richard	Manitoba Sustainable Development	richard.davis@gov.mb.ca	204-622-2474
Mehl, Katherine	Saskatchewan Ministry of Environment	Katherine.mehl@gov.sk.ca	306-953-2695
Tonkovich, Mike	Ohio Department of Natural Resources	mike.tonkovich@dnr.state.ohio.us	740-589-9922
Reynolds, Mike	Ohio Department of Natural Resources	mike.reynolds@dnr.state.oh.us	740-594-2211

Current Wildlife Health Issues

John Fischer
Southeastern Cooperative Wildlife Disease Study
College of Veterinary Medicine
The University of Georgia

MAFWA Directors Meeting
June 27, 2017

Chronic Wasting Disease (CWD)

- Has been found in wild cervids in 21 states
- Still detectable in 20 of those states (NY is the exception)
- Has been found in new areas in states where it already was known to occur (MN, MO, TX [1st wild WTD], others)

Chronic Wasting Disease (CWD)

- Unmanaged, CWD foci expand and prevalence increases
- Population impacts in WTD and mule deer in WY
- Sustained, targeted sharpshooting in IL appears to have kept prevalence low while slowing expansion of the affected area

Chronic Wasting Disease (CWD)

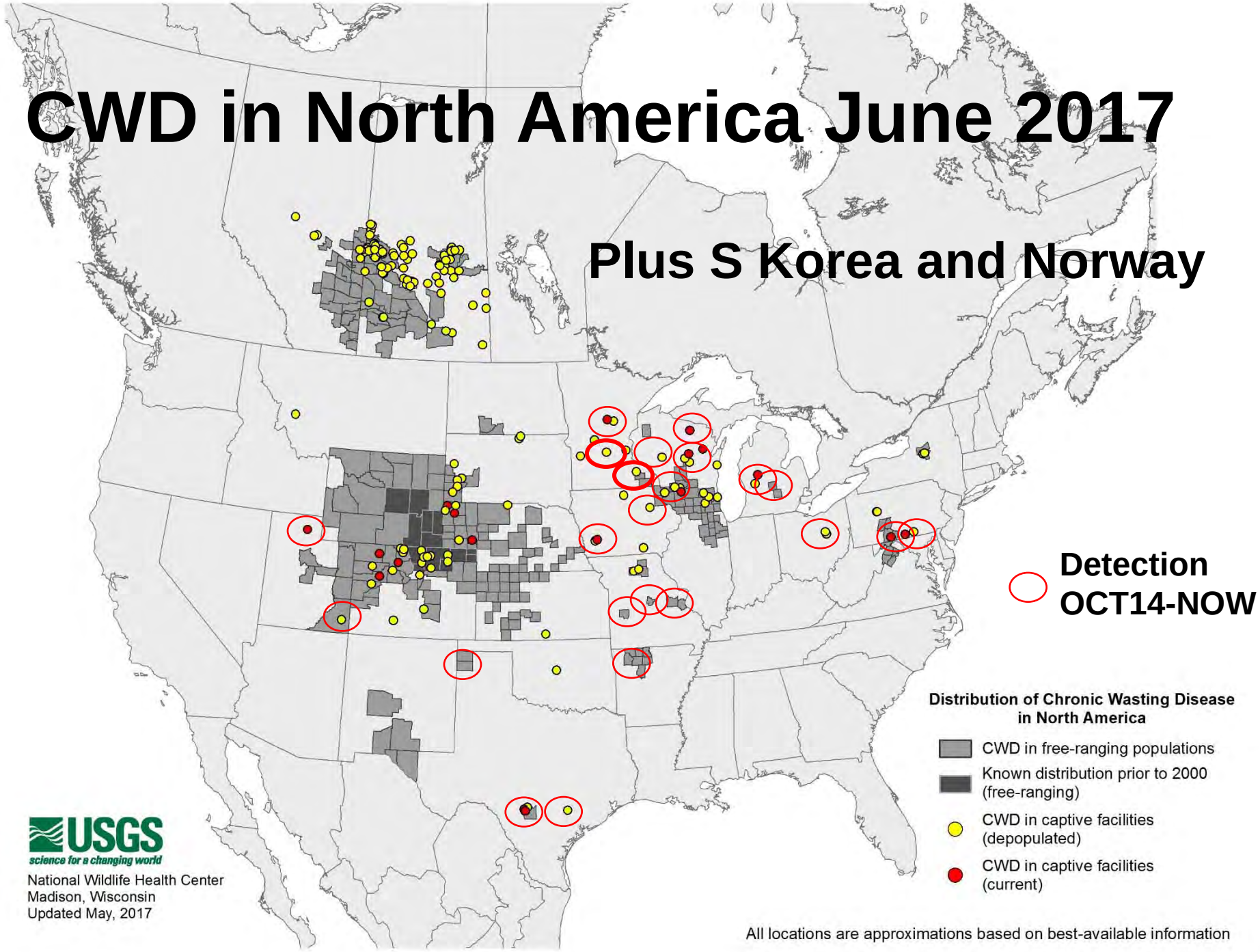
- Has been found in captive cervids in 16 states since 1997 (traced from Saskatchewan)
- Total = 84 captive herds
- Since implementation of USDA Herd Certification Program in 2014 = 22 herds

Chronic Wasting Disease (CWD)

- Since October 1, 2016 = 7 herds including 4 herds certified “as being at low risk of having CWD”
- There is no “certified free” herd status (not even for an individual animal)
- Awaiting publication of revised CWD Program Standards for public comment

CWD in North America June 2017

Plus S Korea and Norway



Chronic Wasting Disease (CWD)

NORWAY

- Since 2016, CWD detected in 2 moose and 6 reindeer
- Current plan is too exterminate the reindeer population in the affected region (~2200 animals)

CWD Research News: USDA-ARS

- Challenged 2-month-old pigs via intracranial (IC; 20) or oral (19) route

- Half of pigs culled at 6 months old (market weight); remaining pigs culled up to 6 years post challenge (PC)

CWD Research News: USDA-ARS

- Mesenteric lymph node, tonsil, retropharyngeal lymph node tested for CWD agent by several methods

- RESULTS: Overall, CWD agent was detected in mesenteric lymph node of 14/19 (74%) of samples examined; retropharyngeal node in 44%; tonsil in 40%

CWD Research News: USDA-ARS

CONCLUSIONS:

- **The CWD agent accumulates in lymphoid tissues of pigs challenged via IC or oral routes; detected as early as 4 months PC**
- **Infected pigs rarely develop clinical disease or only after very prolonged incubation period**
- **Infected pigs possibly shed prions into their environment long before clinical disease develops**
- **Lymphoid tissues of infected pigs could present a potential source of infectivity in the animal and human food chains**

https://www.ars.usda.gov/research/publications/publication/?seqNo115=337105

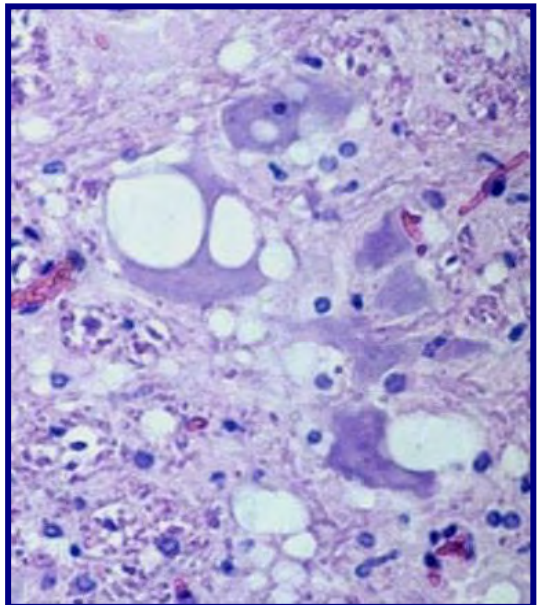
CWD Research News: Canada/Germany

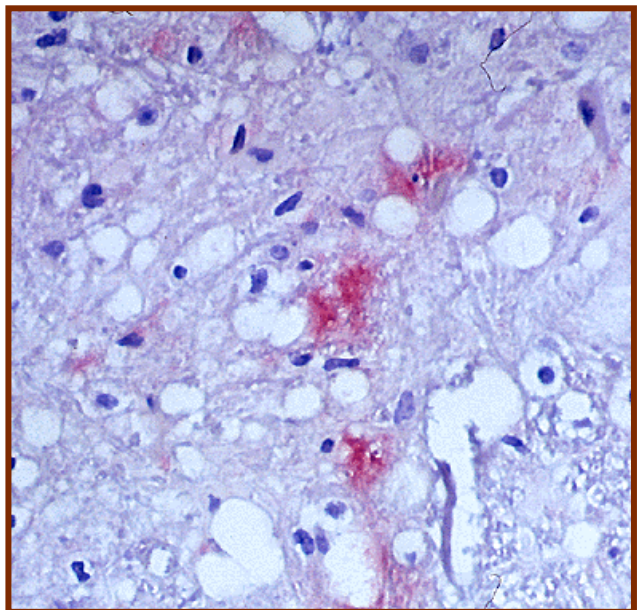
- **Macaques challenged with CWD (brain from elk or WTD, or muscle from WTD) from animals confirmed to have CWD**
- **Challenged via IC, oral, skin scarification, or blood transfusion**
- **Oral challenge = pooled brain of clinical WTD, or 5 KG of <u>muscle from preclinical WTD</u> over 2 years (200 G/1X/month)**

CWD Research News: Canada/Germany

RESULTS:

- **10/21 culled, died, or were euthanized for humane reasons; complete results available for 5 animals**
- **10 macaques remain 7 yr PC with no clinical signs; ends in 2018**
- **2 IC challenged macaques: both had microscopic lesions and were IHC+; 1 had clinical signs (ataxia, anxiety, tremor, wasting)**





CWD Research News: Canada/Germany

RESULTS:

- **3 oral challenged macaques (2 were fed muscle, 1 was fed brain)**
- **All 3 had clinical signs (wasting-3/3; ataxia-3/3; tremor-2/3; one each with anxiety, apathy)**
- **All 3 had microscopic lesions and were IHC+ in brain, spinal cord**

CWD Research News: Canada/Germany

CONCLUSIONS: ……..?

A video of the presentation is at ~1:31 in this youtube clip:
https://www.youtube.com/embed/Vtt1kAVDhDQ

CWD Research News: Canada/Germany

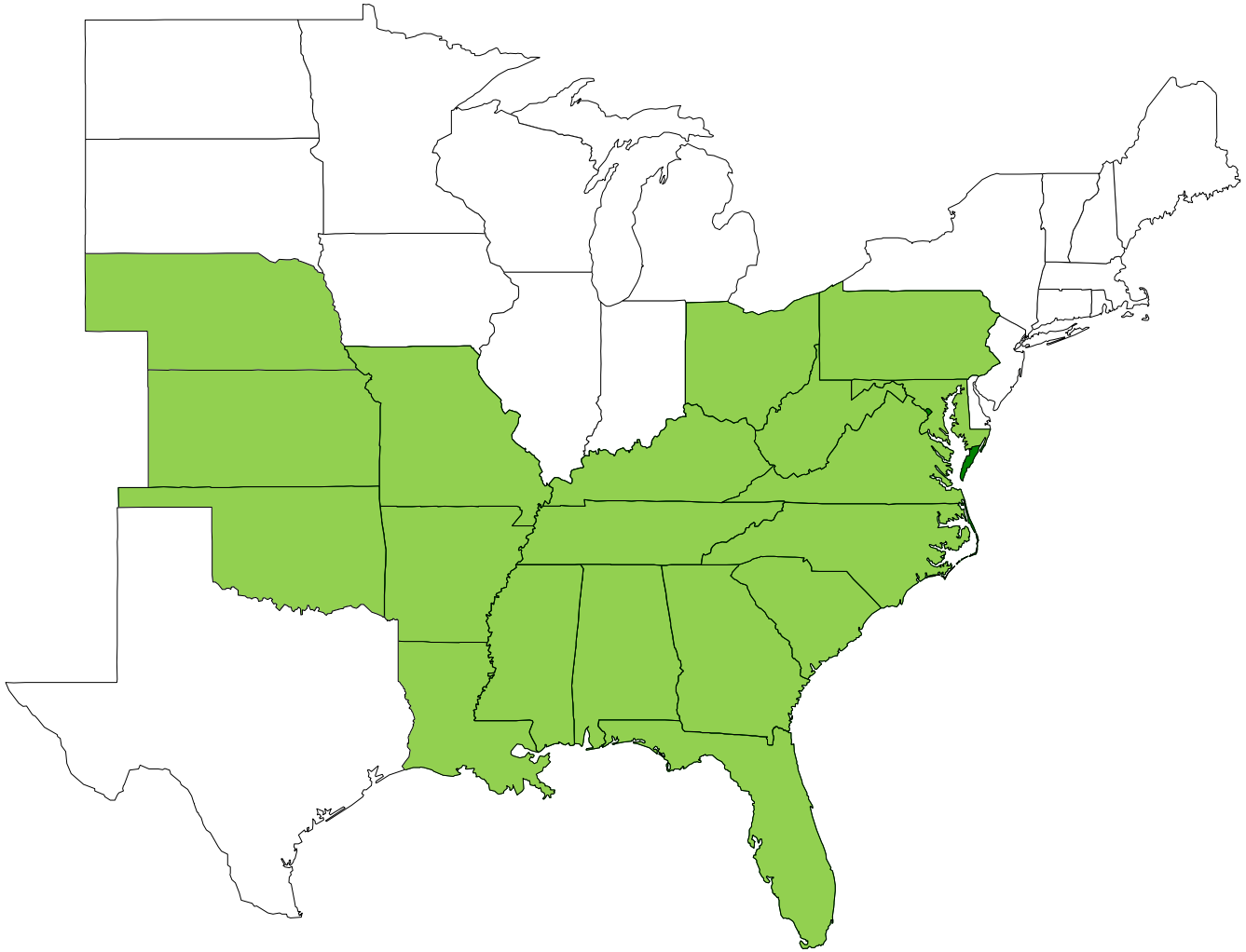
What's next?

- **Week of July 10 - a webinar with the PI of the macaque study;**
  - **State wildlife agencies will be invited (via AFWA) along with others including state DVMs and state public health DVMs**

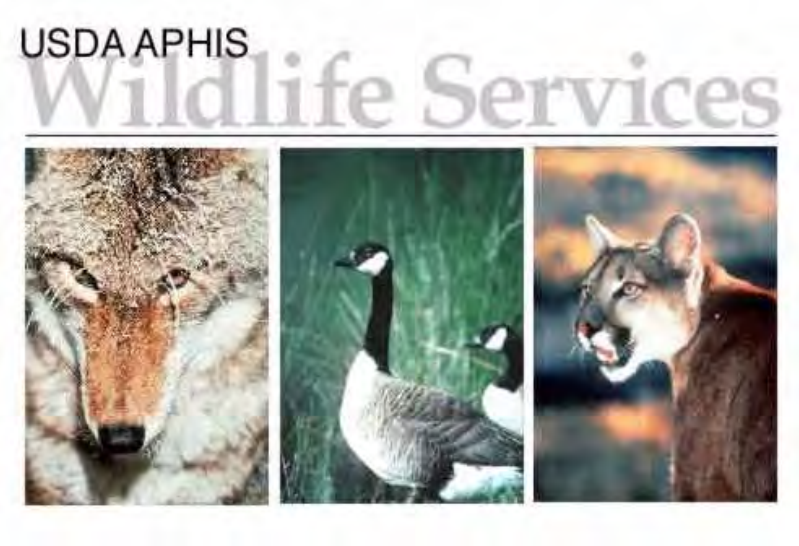
- **CDC is discussing a change to its guidance for prevention of CWD exposure to humans from *"Consider having the deer or elk tested for CWD"* to *"We recommend having the deer or elk tested…"***

https://www.cdc.gov/prions/cwd/prevention.html

HAPPY 60TH BIRTHDAY SCWDS!!



USDA APHIS Wildlife Services
June 27, 2017



MAFWA Directors' Meeting
Ashland, NE

WS Wildlife Services

Protecting People
Protecting Agriculture
Protecting Wildlife

USDA

USDA APHIS Wildlife Services

Charles S. Brown, Retired, April 2016

Janet L. Bucknall, Director, Eastern Region

Gary A. Littauer, Assistant Director,
Western Region

USDA APHIS Wildlife Services

- Livestock Protection/M44 Update
- Feral Swine
- Great Lakes Restoration Initiative
- Cormorants
- Budget

Livestock Protection / M44 Update

Wildlife Services

Protecting People
Protecting Agriculture
Protecting Wildlife

USDA

Livestock Protection

M-44 Policy

Wildlife Services

Protecting People
Protecting Agriculture
Protecting Wildlife

USDA

Feral Swine

Feral Swine

"APHIS will seek partners in all aspects of feral swine damage management."

Feral Swine

41 states

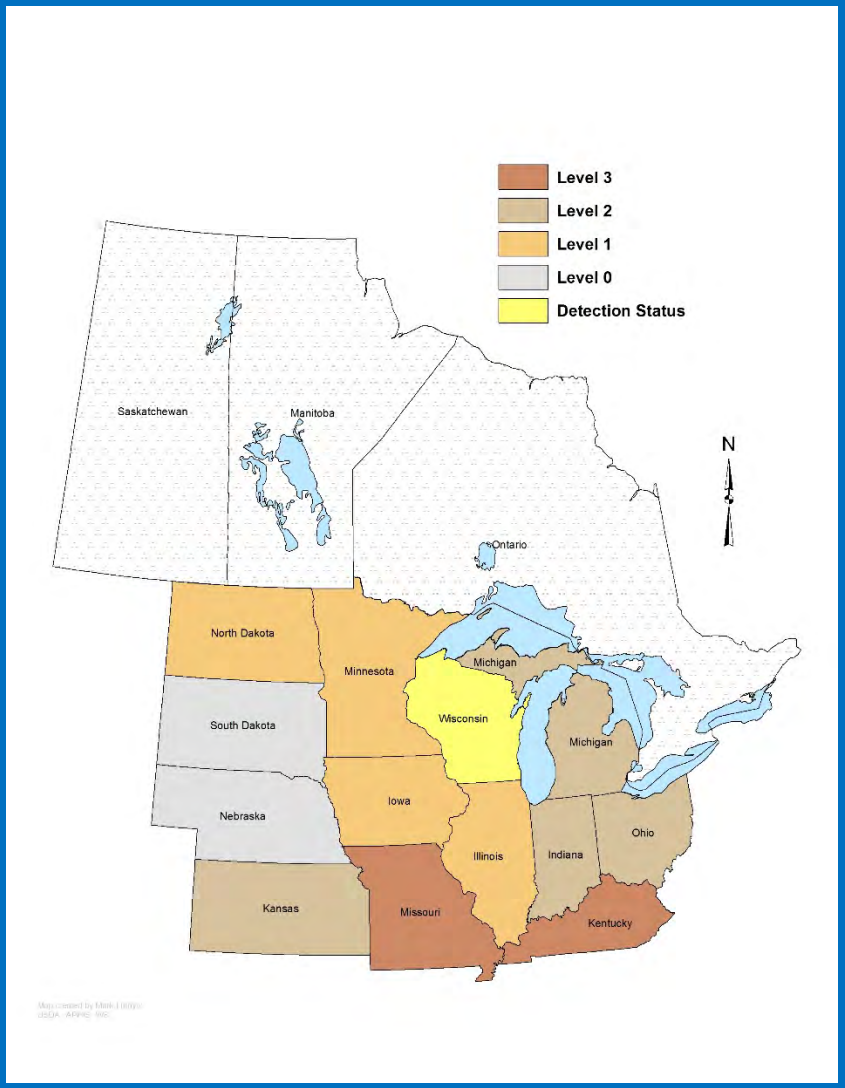
Wildlife Services

Protecting People
Protecting Agriculture
Protecting Wildlife

USDA

Feral Swine

Level 0
Detection Status
Levels 1-5



Great Lakes Restoration Initiative (GLRI)

GLRI

- **Invasive Species**
- **Nearshore Health**
- **Habitat**

Cormorants

Cormorants

- Depredation Orders vacated 2016
- FWS/WS EA underway

Budget

Budget

FY 2017 Federal appropriations bill signed on May 5.

- **The Budget emphasizes priority areas/increases:**
  - **Feral Swine : $5 M**
  - **Rabies : $2 M**
  - **Aquaculture: $600 K**

FY 2018 Budget …. still evolving

Thanks

Wildlife Services

Protecting People
Protecting Agriculture
Protecting Wildlife

USDA