



Committee Reports 2021

2021

Committee Reports

Climate Change

Deer & Wild Turkey (*2020, meet August*)

Feral Swine

Furbearers

Hunter & Angler Recruitment & Retention (R3)

Law Enforcement (AMFGLEO)

CITES

Private Lands

Public Lands

Wildlife Diversity

Fish & Wildlife Health

Climate Change

Midwest Association of Fish and Wildlife Agencies: Climate Change Technical Working Committee Report

June 2021

Meeting Time and Place

Committee met by conference call on September 10th 2020 and April 22nd 2021.

Attendance:

In September, 5 states in attendance: IN: Brad Feaster; MI: Chris Hoving, Amy Derosier; MO: Jacob Westoff; NE: Caroline Jezierski; SD: Eileen Dowd Stukel, USGS: Olivia LeDee.

And in April, 6 states were in attendance: IL: Leon Hinz; IA: Katy Reeder; MI: Chris Hoving, Amy Derosier; NE: Caroline Jezierski; SD: Eileen Dowd Stukel; WI: Tara Bergeson; USGS: Olivia LeDee.

Executive Summary:

The committee met twice over the past year. Our first meeting focused on updates from both states and USGS's Midwest Climate Adaptation Science Center. In April, we met to discuss research priorities for the Association of Fish and Wildlife Agencies.

Director Action Items:

1. none

Director Information Items:

1. USGS launched the Midwest Climate Adaptation Science Center (CASC) in FY20, which was an ask by the Midwest states and this committee. The Midwest CASC has filled a niche that our state agencies cannot due to competing internal priorities that are often urgent and immediate. The overall CASC network has been very responsive to the needs of state agencies, both in proactively asking us what we need, as well as funding research projects to address those needs. The Midwest CASC has ensured that states have a role on their advisory committee; Chris Hoving from Michigan is our representative on the committee. Dr. Olivia LeDee, the Midwest Acting Director, also participates on our MAFWA Climate Committee. This has really been a great partnership.
2. On April 22, 2021 the MAFWA Climate Change Committee met to brainstorm and prioritize research needs, for the AFWA Science and Research Committee. We provided climate research needs in each of the 5 categories of interest; we also added a category focused on human dimensions and social science research needs. See attached.

Time and Place of Next Meeting:

In 2021-2022, the committee will meet quarterly by conference call.

Suggested Research Related to Climate Change

In response to AFWA's Science and Research Committee's 2021 request for science and research management needs, the MAFWA Climate Change Committee submits the following research / management questions. Climate change impacts to fish and wildlife cut across all five priority areas. We also added a category focused on human dimensions and social science research needs.

Climate Change and Wildlife Health

What diseases should we be worried about moving north and impacting fish or wildlife in our jurisdiction?

How are vectors of pathogens changing in a changing climate?

Need for greater interdisciplinary collaboration, including wildlife veterinarians and climatologists.

Climate Change and Invasive Species

What changes to invasive species monitoring and rapid response approaches are necessary in the face of climate change?

If invasive species are going to continue to be an ever-expanding problem, how do we think about and manage for novel ecosystems? When is an invasive species just a plant making its way naturally into a new place because the climate is now suitable?

How is climate change altering the ways that we conduct prescribed burns? This need is both a retrospective and a modeling need.

Is climate change altering the effectiveness of control methods?

How does climate change affect the ways that managers should prioritize the needs for invasive species management? (You can't treat everything)

Should management priorities sometimes shift to toleration and even protection if they now fill a gap in a wildlife species' habitat needs or provide a valuable ecosystem service?

Climate Change and Emerging Technologies

Tools to allow managers to quickly use remote sensing of habitat shifts and invasives to provide management relevant information within relevant time periods.

Green energy will be a massive transformation of land use. What are the indirect effects of green energy development on other land uses? What are the cumulative effects of increasing size and density of large green energy development projects themselves? What new technologies can mitigate wildlife impacts?

Climate Change and Inter-agency Cooperation

What research topics are ripe for co-production of knowledge (cooperation between universities and agencies)? How can co-production be done in ways that do not overwhelm (or underwhelm) agency staff?

There is a need for data sharing frameworks that will meet the needs of multiple agencies.

There is a need for common language or lexicon across various jurisdictions. Similarly, there is a need to find common ground with agencies that do not always work together, such as agriculture departments and natural resources departments.

Where geographically are movement corridors that fish and wildlife species might use to move to more suitable climates? Where are the connections between adjacent jurisdictions? Where are there gaps or dead-ends?

Weather and Wildlife

Can wildlife adapt to changing disturbance regimes caused by more frequent extreme weather events? What can managers do to help populations or species cope with changing frequencies of extreme weather events? How can managers change built infrastructure to better cope with extreme events to maintain valuable wildlife habitat (i.e., water control structures in restored wetlands)?

What are the indirect effects of less snow on ecosystems (e.g., drought stress to northern hardwoods), and are there threshold effects?

A national strategy is needed to analyze climate data in ways that are relevant to Wildlife Action Plans for the next revisions. At present analyses are very location-specific.

How do we value novel communities – to decide where to put management resources?

Human dimensions / social science

With the exception of a few high-quality natural areas, climate change and invasive species are causing species mixes without historical precedent. These are called novel communities; and wildlife in them have novel interactions. How do we value novel communities/ecosystems to decide where to put resources towards management? (This was mentioned across three topics and received the most interest across multiple states.)

Methods and approaches for climate change-related management on private lands. What do private landowners need, and how can they best be motivated to engage in climate-adaptation-oriented wildlife management?

Are there opportunities to better connect environmental justice and wildlife conservation?

Deer & Wild Turkey

2020 Proceedings
44th Annual Meeting
Midwest Deer & Wild Turkey Study Group Meeting
August 18th, 2020



Submitted by:

Mike Tonkovich, Mark Wiley, and Clint McCoy

Ohio Department of Natural Resources, Division of Wildlife

October 2020

Table of Contents

Background	3
Meeting Summary.....	3
Business Meeting	3
Breakout Group Discussions	4
Director Action Items.....	4
Director Information Items	4
Appendix 1: Attendance List	5
Appendix 2: State Deer Reports.....	6
Illinois	7
Indiana	13
Iowa.....	22
Kansas	32
Kentucky.....	47
Michigan	48
Minnesota	56
Missouri	70
Nebraska	76
North Dakota	85
Ohio.....	100
Ontario	109
Wisconsin.....	115
Appendix 3: State Turkey Reports	127
Illinois	128
Indiana	135
Iowa.....	143
Kansas	150
Kentucky.....	157
Michigan	165
Minnesota	234
Missouri	243
Nebraska	253
North Dakota	261
Ohio.....	263
Ontario	273
South Dakota.....	276
Wisconsin.....	281

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 at 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 Summary

The Ohio Department of Natural Resources, Division of Wildlife organized and moderated the 2020 MDWTSG meeting via Zoom on August 18, 2020. Thanks to Nebraska Game and Parks Commission for agreeing to host the meeting using their Zoom account. A total of 37 state deer and wild turkey biologists from all 14 Midwest member states/provinces, as well as two invited speakers, joined the virtual meeting. Due to the unusual circumstances of 2020, the schedule was shortened to include only a business meeting and separate deer/turkey breakout discussions.

Business Meeting

The business meeting was called to order by M. Tonkovich (OH) at approximately 10:00 ET on Tuesday, August 18. The following items were discussed:

1. Host state for 2021 meeting
 - a. Since OH was supposed to host the 2020 meeting that was ultimately conducted virtually, they have volunteered to try again for an in-person meeting at Maumee Bay State Park on Lake Erie in August 2021.
2. Meeting timing
 - a. The Deer and Turkey committee is the only MAFWA committee that meets after the Director's meeting in June. The committee discussed the history of the meeting that led to a late-summer meeting window and potential options for moving the meeting to a more traditional time period (March). However, the group cited multiple conflicts at that time of year including: sharpshooting in CWD zones, preparing regulation packages, interference with breeding surveys, insufficient time to analyze harvest and survey data to prepare a state report given that many deer seasons run through January, and competition with other meetings. It was decided to table the discussion at this time and gather more information, potentially via a survey to the group to identify a time window that would fall more in line with other MAFWA committees.

3. Use of a “banker” to handle funds for hosting annual meetings
 - a. Most state have seemed to have few if any issues using their state Wildlife Society chapter to act as the banker for meetings, but OH ran into issues. During their search for a banker, OH was approached by the National Wild Turkey Federation (NWTF) who offered to be banker not only for OH this year, but for all MDWTSG meetings moving forward. After a bit of discussion within the group, rather than have a single banker for every meeting, it was decided that responsibility to secure a banker for the meeting will fall upon the host state each year. Most states have good working relationships with their TWS state chapter, so in most cases this is a non-issue.
4. Minnesota DNR staff update
 - a. B. Keller (MN) suggested that the MDWTSG, in conjunction with the Midwest Wildlife Health Committee, send a letter of appreciation to Lou Cornicelli for his many years of dedication to the profession and countless contributions to these MAFWA committees. A. Stewart (MI) motioned to move forward with a letter from the committee, seconded by B. Jensen (ND). Motioned passed with no one opposed.

Business meeting adjourned at 11:33 ET.

Breakout Group Discussions

Following the business meeting and a lunch break, deer and turkey biologists discussed species-specific issues in their own virtual breakout rooms.

- Deer Group
 - Emily McCallen, a biometrician with the Indiana Division of Fish and Wildlife, presented an idea for a CWD risk assessment model that could potentially be used across the Midwest. She, along with other biologists in IN and OH, plan to use various risk factors (to be identified by the Midwest deer biologists) to create a model that would help prioritize CWD sampling to areas with the greatest risk of spread or introduction. Biologists in other states then could plug in their own data to evaluate risk in their respective state, thus targeting specific areas for disease sampling.
 - Kelley Meyers with the U.S. Fish and Wildlife Service provided an update on the CWD Value Stream Mapping project being conducted by the Midwest Landscape Initiative.
 - Biologists took turns updating the group on some of the more relevant and pressing matters happening in their respective states.
- Turkey Group
 - Biologists provided updates on recent turkey management or research issues in their respective states.
 - Luke Garver with the Illinois Dept. of Natural resources summarized results of the Illinois Turkey Hunter Satisfaction Survey.

Director Action Items

The MDWTSG does not have any action items for directors to report from this meeting.

Director Information Items

The MDWTSG does not have any information items for directors to report from this meeting.

Appendix 1: Attendance List

First Name	Last Name	Agency	Email
Luke	Garver	Illinois Dept. of Natural Resources	luke.garver@illinois.gov
Peter	Schlichting	Illinois Dept. of Natural Resources	peter.schlichting@illinois.gov
Dan	Skinner	Illinois Dept. of Natural Resources	daniel.j.skinner@illinois.gov
Steve	Backs	Indiana Dept. of Natural Resources	SBacks@dnr.IN.gov
Joe	Caudell	Indiana Dept. of Natural Resources	jcaudell@dnr.in.gov
Olivia	Vaught	Indiana Dept. of Natural Resources	Ovaught@dnr.in.gov
Jim	Coffey	Iowa Dept. of Natural Resources	james.coffey@dnr.iowa.gov
Dale	Garner	Iowa Dept. of Natural Resources	dale.garner@dnr.iowa.gov
Tyler	Harms	Iowa Dept. of Natural Resources	tyler.harms@dnr.iowa.gov
Dan	Kaminski	Iowa Dept. of Natural Resources	dan.kaminski@dnr.iowa.gov
Kent	Fricke	Kansas Dept. of Wildlife, Parks & Tourism	kent.fricke@ks.gov
Levi	Jaster	Kansas Dept. of Wildlife, Parks & Tourism	levi.jaster@ks.gov
Zak	Danks	Kentucky Dept. of Game & Fish	zak.danks@ky.gov
Gabe	Jenkins	Kentucky Dept. of Game & Fish	gabriel.jenkins@ky.gov
Kyle	Sams	Kentucky Dept. of Game & Fish	kyle.sams@ky.gov
David	Yancy	Kentucky Dept. of Game & Fish	david.yancy@ky.gov
Chad	Stewart	Michigan Dept. of Natural Resources	stewartc6@michigan.gov
Al	Stewart	Michigan Dept. of Natural Resources	stewart1@michigan.gov
Brian	Haroldson	Minnesota Dept. of Natural Resources	brian.haroldson@state.mn.us
Barb	Keller	Minnesota Dept. of Natural Resources	barbara.keller@state.mn.us
Eric	Michel	Minnesota Dept. of Natural Resources	eric.michel@state.mn.us
Jason	Isabelle	Missouri Dept. of Conservation	jason.isabelle@mdc.mo.gov
Reina	Tyl	Missouri Dept. of Conservation	Reina.Tyl@mdc.mo.gov
Kevyn	Wiskirchen	Missouri Dept. of Conservation	kevyn.wiskirchen@mdc.mo.gov
Luke	Meduna	Nebraska Game & Parks Commission	luke.meduna@nebraska.gov
RJ	Gross	North Dakota Game & Fish Dept.	ragross@nd.gov
Bill	Jensen	North Dakota Game & Fish Dept.	bjensen@nd.gov
Clint	McCoy	Ohio Dept. of Natural Resources	john.mccoy@dnr.state.oh.us
Mike	Tonkovich	Ohio Dept. of Natural Resources	mike.tonkovich@dnr.state.oh.us
Mark	Wiley	Ohio Dept. of Natural Resources	mark.wiley@dnr.state.oh.us
Chris	Godwin	Ontario Ministry of Natural Resources & Forestry	Chris.Godwin@ontario.ca
Patrick	Hubert	Ontario Ministry of Natural Resources & Forestry	patrick.hubert@ontario.ca
Andrew	Norton	South Dakota Dept. of Game, Fish & Parks	andrew.norton@state.sd.us
Brian	Dhuey	Wisconsin Dept. of Natural Resources	brian.dhuey@wisconsin.gov
Keith	McCaffery	Wisconsin Dept. of Natural Resources	keith.mccaffery@wisconsin.gov
Chris	Pollentier	Wisconsin Dept. of Natural Resources	christopher.pollentier@wisconsin.gov
Dan	Storm	Wisconsin Dept. of Natural Resources	danielj.storm@wisconsin.gov

Appendix 2: State Deer Reports

Appendix 3: State Turkey Reports

Feral Swine

MAFWA Ad-hoc Feral Swine Committee – 2021 Annual Report

Complied and Submitted by Terri Brunjes, Chr., MAFWA Ad-hoc Feral Swine Committee 5/20/2021



Ryan Dinehart and Amberly Hauger of USDA-Wildlife Services Indiana take blood samples from a wild pigs. *(Photo credit: S. Backs)*

The Midwest Association of Fish and Wildlife Agencies (MAFWA) established the Midwest Ad-hoc Feral Swine Committee (MFSC) in 2013. The purpose of the feral swine committee is to further MAFWA's function of promoting the conservation and management of wildlife resources in the face of rapidly expanding feral swine populations which directly endanger those wildlife resources. The Committee is to collect and compare feral swine information among the member States and Provinces, and to provide management and policy recommendations to the Directors of MAFWA.

MISSION: Develop results-driven and science-based management actions to prevent the introduction and spread of feral swine and promote the eradication of existing populations of these animals in the Midwest.

CHARGES:

- 1) Develop management plans for feral swine based on sound scientific and proven methods.
- 2) Promote and encourage research on economically feasible and effective methods of feral swine control.
- 3) Encourage uniform policies on the translocation and interstate movement of feral swine.
- 4) Discuss the role of federal entities in the control of feral swine in the Midwest.
- 5) Encourage partnerships among states and between state and federal entities to unify the battle against the spread of feral swine.
- 6) Advise the MAFWA Directors on issues relating to feral swine policy, inform the Directors of committee actions and execute any directives given by them.

MAFWA Ad Hoc Feral Swine Committee 2021 Annual Meeting/Progress Report

Meeting Time and Place: The annual meeting of the MAFWA Feral Swine Committee (MFSC) was held jointly with the Southeast Association of Fish and Wildlife Agencies (SEAFWA) Wild Hog Working Group at the 2021 Animal Damage Management Conference via Teams virtual platform. A venue was secured for 2022 International Wild Pig Conference in Nashville, TN, in April. The MAFWA and SEAFWA pig group chairs will likely seek a joint meeting again at one of the venues.

Summary: The MAFWA Feral Swine Committee annual report is summarily reduced to the respective State and Provincial reports submitted with the primary function of the MAFWA Feral Swine Committee being information and exchange network among states and provinces. The number of feral swine/wild pigs removed continues to increase in the more heavily wild pig populated states in the Midwest, with significant reductions in wild pig numbers and distributions in some Midwest states with lower pig numbers. Most of the work in the Midwest states is being conducted by USDA-APHIS-Wildlife Services through cooperative agreements with states as part of the National Feral Swine Damage Management Program (NFSDMP).

In Illinois, technical assistance and/or direct control assistance has been provided to numerous State, County, and private landowners throughout the state since 2011 and a total of 527 FS have been removed. A total of four known, self-sustaining breeding populations of FS in Illinois have been successfully eliminated. IDNR and WS continue to monitor reports of FS received from deer and turkey hunters as well as citizens throughout the state.

Indiana has shifted into Detection phase. It appears that wild pigs may have been eliminated from all 3 counties that constituted the known Eurasian wild pig range. Although Indiana experienced a lack of cooperation from some private property owners in this area, they were able to successfully remove these pigs on adjacent properties.

Iowa agencies did not kill any hogs during this year, however investigations of a few dead hogs turned out to be escaped/released domestic swine. No disease testing was completed on any animals. Iowa plans to continue with feral hog information in their DNR hunting regulations booklet for 2021-2022.

Kentucky appears to be gaining some ground in feral swine removal in some parts of the state but as we reported this year, still have a few sizable populations to address. Kentucky was officially reduced from a Level 3 state to Level 2 at the beginning of fiscal year 2021 by the USDA National Feral Swine Damage Management Program (NFSDMP), after surveillance efforts determined that wild pig numbers have continued to decline across the state, due to an aggressive removal campaign.

Missouri has strategically increased removal efforts in high density areas. Beginning in January 2020, soon after the U.S. Forest Service banned hog hunting on all Forest Service land, the Missouri Feral Hog Elimination Partnership (Partnership) began conducting supplemental hog elimination efforts. From January through March 2020 an additional 50 MDC staff along with staff from other members of the Partnership were deployed to southeastern Missouri each week to scout and trap hogs. Another effort involving about 30 additional staff was conducted from June through early September 2020. These supplemental efforts will continue throughout 2021.

Minnesota has created an Emergency Disease Management Committee consisting of state and federal agencies, university staff and commercial pork producers on the African Swine Fever (ASF) issue. The Minnesota Department of Natural Resources Wildlife damage program is one of the representatives on that committee. Since Minnesota is the second largest pork production state in the United States, there is a lot of concern for ASF. The committee developed a statewide communications and response plan for all swine in the state and continues to meet to perform updates based on new findings.

Michigan Department of Natural Resources (MDNR) maintains a voluntary online feral pig reporting system and received 10 reports in 2020. Because of the low number of voluntary reports received, MDNR asked all hunters registering a harvested deer about feral pig sightings. This provided 44 additional reports of sightings for USDA-WS follow up.

Nebraska is still free of feral pigs after removing incentives for release and possession through statutory changes that prohibit pig hunting in 2003. This has been the most important factor in allowing for the complete eradication of feral pigs in Nebraska. No feral pigs were removed during 2020 and there is no present research taking place. Nebraska does have minor issues with escaped pet (pot-bellied) and domestic pigs, as do many states, but they are not aware of any populations of wild-living feral pigs in Nebraska.

In Ohio, USDA Wildlife Services conducted feral swine surveillance and removal efforts on over 4 million acres of federal, state, and private lands. A total of 70 feral swine were removed from 5 counties (49 trapping, 18 aerial operations, 2 sharpshooting and 1 hand caught) and 115 biological samples were collected from 38 animals. In FY20 Ohio Wildlife Services (WS) verified a total of \$17,676 of damage caused by feral swine via UAS, aerial (fixed wing/helicopter), and ground surveillance. This is an increase of verified damage about \$10,000. This increase is largely due to the increase use of the UAS drones to survey areas that were previously found to be difficult to locate and accurately report damage.

Wisconsin currently does not have a confirmed free-ranging feral pig presence in the state. The last substantial population of feral hogs was back in 2002-2014 in Crawford County. To ensure feral swine remain eradicated, public reports are strictly monitored with WS ensuring owners of escaped pets and livestock have recovered their animals or assisting with trapping pigs off the landscape when necessary.

The recent involvement of the Canadian provinces in the MAFWA Feral Swine Committee was stimulated in part by concerns over the possible arrival of African Swine Fever (AFS) from Asian countries and their desire to know about wild pig control techniques used in the states. Canada's Federal department of Environment and Climate Change recently provided project funding to the Canadian Wildlife Health Cooperative (CWHC) to coordinate efforts across Canadian jurisdictions. The CWHC has since established two working groups; one strategic group to lead policy development and strategic planning for national priorities and goals, and one operational group to facilitate information sharing of technical information and expertise.

In 2018, Manitoba staff began working collaboratively with a local wildlife association to pilot corral trapping of wild boar sounders. This project has received funding from the Fish and Wildlife Enhancement Fund, the Manitoba Pork Council, and the Manitoba Government. The club now operates nine corral traps for swine removal in the Spruce Woods Provincial Park area, where signs of wild boar presence are most frequently reported.

Based on the sightings received to date, it does not appear that wild pigs are established (i.e., self-sustaining and breeding) in Ontario and the ministry is working to keep it this way. The ministry has proposed to regulate pigs as an invasive species under Ontario's *Invasive Species Act, 2015*. If passed, new rules would apply, including prohibiting the release of any pig into the natural environment; prohibiting hunting of wild pigs with exceptions for activities to protect property from damage caused by wild pigs; and, a gradual phasing out of Eurasian wild boar and their hybrids by prohibiting their import, possession, transport, propagation, buying, selling, leasing or trading.

As in previous years, the resistance and lack of cooperation by some landowners continues to be an obstacle to eliminating wild pigs, essentially creating 'wild pig refuges' or source populations that eventually disperse back into areas where pig removal was successful. The paradox is that some of these uncooperative, "recreation" type landowners is that they are frequently recipients of State and Federal incentives for conservation practices or easements.

Related to the pig refuge issue, is a new work around of existing feral swine regulations in at least one state, is to ear tag captured wild pigs, call them domestic, and then hunt them inside high fence. In some states, high fence operations procure domestic heritage breeds for hunting purposes. This work around allows them to legally import domestic pigs into the states. Regardless of their wild or domestic status, there is risk of escape and disease transmission, when stocking them in enclosures with other species.

An increasing problem facing all States and Provinces is the abandonment, poor confinement, and illegal release of pot-bellied, Heritage, Heirloom pigs or hybrids thereof. Inherent to their existence, are issues related to their legal definition or status within a respective jurisdiction, which often compromise removal or elimination. These pigs can fall under the

authority of several agencies including agriculture, wildlife, or animal control agencies. Unfortunately, these types of pigs will persist as free-ranging populations, will cause damage to native flora and fauna, residential lawns, or agricultural row crops and are potential disease sources, something of particular interest with AFS concerns. Fortunately, if removal is possible, their general lack of wariness and relative athleticism due to their likely origin, facilitates removal. However, removal efforts tax limited personnel time and resources that could be addressing more critical feral swine/wild pig problems.

Director Action Items: Charge 1: Begin development of a broad Midwest feral swine management plan based on sound scientific and proven methods. The MFSC continues to table this charge due to the continual evolution of more effective wild pig control techniques, ever increasing and fast evolving body of knowledge from ongoing research, increasing efforts of the (USDA-AHPIS-WS), facilitated by the existence of the NWPTF. Charges 2-6 are being accomplished through continued networking among the Committee representatives, attendance at the IWPC and representative participation in the NWPTF that unfortunately put on temporary hold with the COVID-19 outbreak. Most states are participating in partnerships or agreements with USDA-APHIS-Wildlife Services as part of the National Feral Swine Damage Management Program (NFSDMP) funded under the 2014 and 2018 Farm Bills.

Director Information Items: The value of the information exchanged at the IWPC and NWPTF meetings is invaluable to keeping abreast of the rapidly evolving “state of the art and science” of wild pig population control and hopefully, eventual elimination. The MFSC encourages providing support for representative attendance at both the IWPC and NWPTF meetings when possible, recognizing that participation of all MFSC representatives is beyond their primary or even secondary job responsibilities. The NWPTF website is now housed at The Berryman Institute at Utah State University and now handles organizing and communications related to the NWPTF and IWPC’s. The NWPTF has received some temporary funding (\$20K/Year) to allow the NWPTF time to secure more permanent collective funding sources, e.g. Association of Fish and Wildlife Agencies (AFWA) or regional organizations, e.g., SEAFWA and MAFWA. One proposed funding mechanism is to secure membership funding in the form of a group or regional organization level dues from SEAFWA and MAFWA. The NWPTF and The Berryman Institute are developing a list of future “deliverables”. The MAFWA Feral Swine Committee would like the MAFWA Directors to consider this group membership dues proposal and advise the Committee how this might be pursued.

MAFWA RESEARCH PRIORITIES

MAFWA Feral Swine Committee members were tasked with developing science-based management priorities by the Science and Research Committee of the Association of Fish and Wildlife Agencies (AFWA). MAFWA FSC divided these priorities specifically by feral swine and other species of interest.

Management Priorities Specific to Feral Swine

Wildlife Health

- a. Disease transmission between feral swine and both native wildlife and livestock
- b. Chronic Wasting Disease (CWD) -interspecies CWD infection: risks of feral swine contracting and spreading CWD
- c. African Swine Fever
- d. Pseudorabies
- e. Swine Brucellosis

Weather and Temperature-related Concerns

- a. Indirect and direct effects of climate change on feral swine populations

Invasive Species

- a. Feral Swine

Emerging Technologies

- a. Approval and use of feral swine toxicants and feeders

- b. Improved trap technology
- c. Accurate techniques to determine feral swine densities
- d. Development of bait that attracts pigs without attracting non-target species, such as white-tailed deer and turkey, whose baiting seasons often curtail wild pig trapping efforts.

Inter-jurisdictional Cooperation

- a. Collaborative nation-wide plan for feral swine eradication

Human Dimensions

- a. Solutions to counter the release of unwanted pot-bellied pigs
- b. Effectively communicate to sport hunting industry the negative effects of hunting feral swine
- c. Solutions to eradicate feral swine in pig refuges where private landowners prohibit removal.

Management Priorities Specific to Other Species

Wildlife Health

- a. Chronic Wasting Disease (CWD)
- b. White-nose syndrome (WNS)
- c. Bsal (Batrachochytrium salamandrivorans)
- d. Snake fungal disease (Ophidiomyces ophiodiicola)
- e. Highly Pathogenic Avian Influenza
- f. EHD (Epizootic hemorrhagic disease)
- g. BTV (Bluetongue disease)
- h. Emerald Ash Borer
- i. Rabbit Hemorrhagic Disease Virus

Weather and Temperature-related Concerns

- a. Indirect and direct effects of climate change on wildlife populations
- b. Increase in tick numbers with increasing temperature

Invasive Species

- a. Asian Carp
- b. Emerald Ash Borer
- c. Exotic Earthworms

Inter-jurisdictional Cooperation

- a. Collaborative nation-wide plan for CWD

MAFWA Ad Hoc Feral Swine Committee – State and Provincial Representatives

IA	Jim Coffey	james.coffey@dnr.iowa.gov	P 641-774-2958
IL	Dan Skinner	Daniel.j.skinner@illinois.gov	217-782-7580
IN	Steve Backs	sbacks@dnr.IN.gov	812.849.4586 ext 222
KS	Shane Hesting	shane.heisting@ksoutdoors.com	620-342-0658
KY	Terri Brunjes	Terri.Brunjes@ky.gov	502-892-4548

MI	Dwayne R. Etter Melissa Nichols	ETTERD@michigan.gov 517-641-4903, ext 256 NicholsM2@michigan.gov
MN	Eric Nelson	eric.nelson@state.mn.us 218-203-4336
MO	Alan Leary	alan.leary@mdc.mo.gov (573) 522-4115 ext. 3693
ND	not participating	
NE	Sam Wilson	sam.wilson@nebraska.gov 402 471-5174
OH	Clint McCoy	john.mccoy@dnr.state.oh.us 740.362.2410 Ext. 130
SD	not participating	
WI	Brad Koele	Bradley.Koele@wisconsin.gov 715-356-5211 ext 234
ON	Bree Walpole	Bree.Walpole@ontario.ca 705-313-6753
MB	Janine Wilmot	Janine.Wilmot@gov.mb.ca , 204-281-2924
SK	keep informed:	Todd Whiklo todd.whiklo@gov.sk.ca 306-778 8262

Furbearers

**MIDWEST FURBEARER GROUP
ANNUAL REPORT
May 19, 2021**

MEETING TIME AND PLACE

The 2021 MAFWA Furbearer Workshop was held virtually on April 28 and May 5, 2021. The virtual meeting was hosted by the state of Michigan.

ATTENDANCE

Furbearer biologists, from 13 Midwest member states and 3 provinces (Arkansas, Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin, Manitoba, Ontario and Saskatchewan) participated in the 2021 virtual meeting. Attendees also included presenters for the workshop. In order to streamline the virtual meeting and provide opportunities for workgroup members to participate in discussions, attendance was limited to workgroup members and presenters. In addition, presentations were only solicited from workgroup members with a focus on state/province funded research or management issues. A complete list of presenters and contact information for state/province furbearer biologists is available in Appendices 1 and 2.

EXECUTIVE SUMMARY

Forums such as the Midwest Furbearer Workshop provide valuable opportunities for state furbearer biologists to become acquainted with emerging issues and exchange information and ideas related to furbearer research and management. As such, the need for state fish and wildlife agencies to establish/maintain furbearer biologist positions and support travel of furbearer biologists to the annual Midwest Furbearer Workshop is critical to maintaining quality furbearer management and research in each state. It is more important than ever that state agencies are in the forefront of issues related to furbearer management and regulated trapping in order to ensure abundant populations, address conflicts, and provide sustainable recreational opportunity.

At the 2021 virtual workshop, participants heard 16 presentations, all directly related to furbearer management issues within a member agency or related to research projects funded by a member agency. As requested, the work group discussed and have provided (Appendix 5) furbearer research priorities for consideration for AWFA.

The work group enjoyed their discussions and a chance to exchange ideas, as well as to hear presentations on research and management topics after missing this part of the workshop last year. However, participants missed the breaks and evening hours of an in-person meeting which typically allow much exchange of information on current results from population and harvest surveys, current challenges, and issues in furbearer management within each state, and an opportunity to discuss new or proposed research projects. The full in-person workshop provides a good venue for discussing new ideas or issues that affect multiple state agencies.

The work group had no Director Action Items for discussion but did have several Information Items which were discussed at the business meeting.

DIRECTOR ACTION ITEMS

None

DIRECTOR INFORMATION ITEMS

1. COVID-19 - Information primarily from zoos and other captive facilities such as mink farms suggests that mustelids are susceptible to COVID-19 while other families such as felids and canids may also be susceptible to COVID-19. Some states have developed handling protocols for research on these species to reduce the risk of human-wildlife transfer. However, much is unknown about the ability of the virus to transfer from humans to wildlife or from wildlife to humans. Even less is known about the potential population level impacts of COVID-19 on furbearing animals. Given the economic and human impacts from COVID-19, the work group encourages funding on research to examine these issues related to COVID-19 and furbearing animals.
2. Support for BMPs – The group continues to support the ongoing BMP testing procedures. Recommendations are needed for trap types to test along with varying trap placement and baiting protocol for multiple species. The work group recommends continued support for BMPs at the regional level along with promotion of ongoing research and the need for more public, agency, and trapper outreach.
3. CITES Issues - The USFWS again granted a national no-detriment finding for bobcat harvest in February 2021, allowing Midwest (and other) states the ability to continue bobcat harvest management programs and processing CITES requirements as they have been doing. A national non-detriment finding also exists for river otters.
4. Spotted Skunk ESA Review - The Plains subspecies of the eastern spotted skunk 12-month review for potential Endangered Species Act listing by USFWS is set to begin in 2021 with

the listing decision in 2022. The first “kick-off” meeting with external organizations is scheduled for May 27, 2021. . Listing could seriously impact trapping in Midwestern states.

5. Large Carnivore Report - The group will continue to annually update the Directors on changes in large carnivore management in the Midwest via Appendix 5.
6. Muskrat Declines –There is substantial evidence from trapping records corrected for effort that there has been a decline in muskrat abundance throughout much of their range in Midwest and Eastern North America over the past several decades. A research project funded by GLFWRA to assess potential factors associated with declines in the Great Lakes Basin is ongoing. The group will continue to seek funding for cooperative research projects to assess causes for those declines with an emphasis on developing management actions to reverse declines where feasible.
7. Wolf and Lynx Delisting- USFWS delisted Great Lakes gray wolves on January 2, 2021. However, there is pending litigation on the delisting. Canada lynx delisting was recommended in 2018, and a proposal was expected in the Federal Register last year. This action has not been completed. The group encourages MAWFA to express concern over the delay with USFWS leadership.

The group thanks state Directors for their continued support of travel of state furbearer biologists to the annual Midwest Furbearer Workshop. With tight budgets and restricted travel this annual workshop continues to be a critical component of sound resource management in the Midwest. Annual meetings allow for an open, thorough exchange of information and knowledge resulting in efficient, effective, and sound management of these unique species.

TIME AND PLACE OF NEXT MEETING

Nebraska Game and Parks will host the 2022 Midwest Furbearer Workshop. An exact time and location are yet to be determined. A complete list of previous host states is available in Appendix 3.

APPENDICES

Appendix 1. Midwest Furbearer Biologists – Contact Information.....	4
Appendix 2. 2021 Furbearer Workshop Presentations.....	7
Appendix 3. Host States of Midwest Furbearer Workshops.....	9
Appendix 4. Large Carnivore Sub-Committee Status Report.....	10
Appendix 5. Research Priorities Assignment.....	13

APPENDIX 1. CONTACT INFORMATION FOR MIDWEST ASSOCIATION OF FISH AND WILDLIFE AGENCIES FURBEARER WORK GROUP MEMBERS.

Illinois

Stan McTaggart, Illinois Department of Natural Resources
1 Natural Resources Way, Springfield, IL 62702
217-558-6623; Stan.McTaggart@Illinois.gov

Indiana

Gerianne Albers, Indiana Department of Natural Resources
5596 E State Road 46, Bloomington, IN 47401
812-822-3304; GAlbers@dnr.IN.gov

Iowa

Vince Evelsizer, Iowa Department of Natural Resources
Fish & Wildlife Research Station, 1203 North Shore Dr., Clear Lake, IA 50428
Office: 641-357-3517; vince.evelsizer@dnr.iowa.gov

Kansas

Matt Peek, Kansas Department of Wildlife, Parks and Tourism
PO Box 1525, Emporia, KS 66801
620-342-0658 & 620-340-3017; Matt.Peek@ks.gov

Kentucky

Laura Palmer, Kentucky Department of Fish and Wildlife Resources
1 Sportsman's Lane, Frankfort, KY 40601
800-858-1549 ext. 4528; laura.palmer@ky.gov

Michigan

Adam Bump, Michigan Department of Natural Resources
4166 Legacy Parkway, Lansing, MI 48911
517-285-2678; bumpa@michigan.gov

Dwayne Etter, Michigan Department Of Natural Resources
4166 Legacy Parkway, Lansing, MI 48911
517-284-4725; etterd@michigan.gov

Minnesota

John Erb, Minnesota Department of Natural Resources
1201 East Hwy 2, Grand Rapids, MN 55744
218-328-8875; john.erb@state.mn.us

Missouri

Laura Conlee, Missouri Department Of Conservation
3500 E. Gans Road, Columbia, MO 65201
573-815-2900 ext 2903; laura.conlee@mdc.mo.gov

Nebraska

Sam Wilson, Nebraska Game and Parks Commission
2200 North 33rd Street, Lincoln, NE 68503
402-471-5174; sam.wilson@nebraska.gov

North Dakota

Stephanie Tucker, North Dakota Game and Fish Department
100 N. Bismarck Expressway, Bismarck, ND 58501
701-220-1871; satucker@nd.gov

Ohio

Katie Dennison, Ohio Department of Natural Resources
2045 Morse Rd., Columbus, OH 43229
614-265-6383; Catherine.dennison@dnr.state.oh.us

South Dakota

Keith Fisk, South Dakota Department of Game, Fish and Parks
523 East Capitol, Pierre, SD 57501
605-773-7595; keith.fisk@state.sd.us

Wisconsin

Shawn Rossler, Wisconsin Department of Natural Resources
101 S. Webster St.
Madison, WI 53707
608-267-9428; shawn.rossler@wisconsin.gov

Nathan Roberts, Wisconsin Department of Natural Resources
107 Sutliff Avenue, Rhinelander, WI 54501
715-365-8917; NathanM.Roberts@wi.gov

Manitoba

Dean Berezanski, Manitoba Department of Sustainable Development
Wildlife and Fisheries Branch
Box 24, 200 Saulteaux Cresc., Winnipeg MB R3J 3W3
204-945-7469; Dean.Berezanski@gov.mb.ca

Ontario

Stephen Mills, Ontario Ministry of Natural Resources
Wildlife Section
5th Flr N
300 Water St
Peterborough ON K9J8M5
705-755-1207; stephen.mills@ontario.ca

Jeff Bowman, Ontario Ministry of Natural Resources
Wildlife Research and Monitoring Section
DNA Bldg, 2nd Flr Blk B
2140 East Bank Dr
Peterborough ON K9J7B8
705-755-1555; Jeff.Bowman@ontario.ca

Saskatchewan

Travis Williams, Saskatchewan Ministry of Environment
Fish, Wildlife and Lands Branch
112, Research Drive, Saskatoon SK S7N 3R3
(306)527-6185; travis.williams@gov.sk.ca

APPENDIX 2. LIST OF PRESENTATIONS AND PRESENTERS AT THE MIDWEST FURBEARER VIRTUAL WORKSHOP APRIL 28 AND MAY 5, 2021.

Assessing influences on muskrat populations in Great Lakes coastal wetlands

Kylie McElrath

Assessing decline of a keystone wetland species, the muskrat, (*Ondatra zibethicus*)

Dwayne Etter

Assessment of reproductive success for North Dakota fishers and river otters by examining post-mortem tissue

Tristan Darland

Statistical population reconstruction of North American river otter using a chi-square objective function

Sergey Berg

A new update about an old topic – beavers and non-lethal control

Vince Evelsizer

An eDNA evaluation of river otter (*Lontra canadensis*) diet with respect to fishes

Erangi Heenkenda

Establishment of Missouri's first black bear hunting season

Laura Conlee

Evaluating species-specific responses to camera-trap survey designs

John Erb

Assessing population viability and susceptibility to harvest of Ohio's recovering bobcats (*Lynx rufus*)

Marissa Dyck

Identifying scale of effect improves predictors of site occupancy by swift fox at the edge of their range

Ty Werdel

Landscape composition and proximity to water structure American badger (*Taxidea taxus*) distributions in shortgrass prairies

Colleen Piper

Wetland occupancy by muskrats is influenced by local habitat quality, presence of mink

Caleb Bomske

AFWA Communication Plan – One state’s approach

Matt Peek

New York City fur ban: Experiences and lessons from my attempt to testify to the NY City Council

Matt Peek

Update on Indiana Research Projects

Gerianne Albers

Evaluating illegal take of furbearers in Michigan

Jessica Bell Rizzolo

APPENDIX 3. HOST STATES FOR MIDWEST FURBEARER WORKSHOPS, 1979-2021.

Year	State	Year	State
1979	Kansas	2017	Iowa
1983	Wisconsin	2018	North Dakota
1984	Illinois	2019	Oklahoma
1985	Iowa	2020	Michigan (virtual business meeting)
1987	Minnesota	2021	Michigan (virtual)
1988	Indiana		
1989	Missouri		
1990	Nebraska		
1991	South Dakota		
1992	Ohio		
1993	Oklahoma		
1994	North Dakota		
1995	West Virginia		
1996	Michigan		
1997	Illinois		
1998	Kansas		
1999	Wisconsin		
2000	Missouri		
2001	Ohio		
2002	Iowa		
2003	Minnesota		
2004	Illinois		
2005	North Dakota		
2006	Michigan		
2007	Nebraska		
2008	Kansas		
2009	Kentucky		
2010	South Dakota		
2011	Wisconsin		
2012	Missouri		
2013	Illinois		
2014	Ohio		
2015	Indiana		
2016	Minnesota		

APPENDIX 4. LARGE CARNIVORE STATUS REPORT FOR MOUNTAIN LIONS, BLACK BEARS, AND WOLVES.

MOUNTAIN LIONS

	Protected (Y/N) ¹	Estimated population	Harvest (Y/N/NA) ²	Recent changes in distribution
Illinois	Y	No breeding population	NA	Rare visitor
Indiana	Y	0	NA	Rare visitor
Iowa	N	<5	NA	Occasional visitor
Kansas	Y	0	NA	None, still getting infrequent dispersers
Kentucky	Y	0	NA	
Michigan	Y	No breeding population	NA	A few transients each year, 68 confirmed sightings since 2008. All but 1 in Upper Peninsula.
Minnesota	Y	No breeding population	NA	Decline in transients apparent from 2014 – 2017 compared to 2010 – 2013, and then recent uptick in confirmations from 2018 - 2021.
Missouri	Y	No breeding population	NA	Several transients confirmed each year; 86 confirmations since 1994
Nebraska	Y	No statewide estimate; Pine Ridge Unit: 34 (2019 survey)	Y	3 populations formed since mid-2000s
North Dakota	Y	None available	Y	No
Ohio	N	0	NA	
South Dakota	Y	Approximately 260 in Black Hills, no statewide estimate	Y	No
Wisconsin	Y	No breeding population	NA	Rare transients; 93 confirmed/probable reports since 2015

¹Yes indicates the species is protected by state or provincial laws (e.g. listed as a game animal with an open or closed season).

²NA indicates the question is not applicable because no known breeding populations exist with the state or province.

BLACK BEARS

	Protected (Y/N) ¹	Estimated population	Harvest (Y/N/NA) ²	Recent changes in distribution
Illinois	Y	No breeding population	NA	Occasional visitor
Indiana	Y	0	N	Occasional visitor
Iowa	N	<5	NA	Occasional visitor
Kansas	Y	0	NA	None, still getting infrequent dispersers
Kentucky	Y	800-1,000 in core area	Y	Expanding population
Michigan	Y	~12,500	Y	Stable population in Upper Peninsula (80% of MI bear population), expanding population in Lower Peninsula
Minnesota	Y	12 ~ 15,000	Y	Decline from late 90's to ~ 2010, slight increase since
Missouri	Y	~800	N	Growing and expanding population; First bear hunting season scheduled for October 2021.
Nebraska	N	0	NA	Rare visitor, have confirmed 3 since 2002
North Dakota	Y	No breeding population	N	Regular visitor, with some individual bears overwintering
Ohio	Y	5-10	N	50-100 transients confirmed each year (increasing trend); <5 confirmed reproducing females
South Dakota	Y	0	NA	Rare occurrence
Wisconsin	Y	~23,300	Y	Stable population across northern Wisconsin, expanding southward

¹Yes indicates the species is protected by state or provincial laws (e.g. listed as a game animal with an open or closed season).

²NA indicates the question is not applicable because no known breeding populations exist with the state or province.

WOLVES

	Protected (Y/N) ¹	Estimated population	Harvest (Y/N/NA) ²	Recent changes in distribution
Illinois	Y	No breeding population	NA	Rare visitor
Indiana	Y	0	NA	Rare visitor
Iowa	Y	<5	NA	Occasional visitor
Kansas	Y	0	NA	None, have only confirmed 2
Kentucky	Y	0	NA	N/A
Michigan	Y	~695 (2020)	N	UP fully occupied. Minimum population estimate.
Minnesota	Y	~2700 (in winter 2019-20)	N	Slight expansion, most suitable habitat occupied
Missouri	Y	0	NA	Occasional visitor, 7 confirmations since 2001
Nebraska	Y	0	NA	Rare visitor
North Dakota	Y	0	NA	Occasional visitor
Ohio	N	0	NA	
South Dakota	Y	0	NA	Rare occurrence
Wisconsin	Y	~1,195 (in winter of 2019-20)	Y	Distribution stable, most suitable habitat likely occupied

¹Yes indicates the species is protected by state or provincial laws (e.g. listed as a game animal with an open or closed season).

²NA indicates the question is not applicable because no known breeding populations exist with the state or province.

APPENDIX 5. RECOMMENDED RESEARCH PRIORITIES IN AFWA IDENTIFIED SCIENCE-BASED MANAGEMENT NEEDS FOCUS AREAS.

In priority order within each category. Ranking score (lower is better) in parentheses at end of each description.

A. Wildlife Health

- 1. Establish standardized/systematic surveillance of furbearer disease prevalence across the region.** Need for more proactive regional monitoring of diseases. Example motivation - concerns with regional gray fox declines and early localized data to suggest distemper may be part of the problem, perhaps attributable to high raccoon populations (23).
- 2. Emerging contaminant concerns with furbearers.** Examples include questions/concerns associated with potential effects of neonicotinoids and PFAS on aquatic furbearers, but relevant to all wildlife taxa (36).
- 3. Research/recommendations associated with Covid.** Examples include guidance for researchers handling wildlife, spillover potential from mink farms in to wild populations, and potential population effects on wildlife (e.g., mustelids and felids) (47).
- 4. Research or risk assessment on potential human health and economic impacts from furbearer diseases or parasites.** Some diseases have/may emerge or expand due to climate change or increasing population density (e.g., due to reduced harvest pressure on populations). Disease risks both to hunters/trappers from handling animals as well as the 'general public'. Economic impacts could be associated with human illness, loss of hunting/trapping income or opportunity, or increasing nuisance animal management costs (49).
- 5. Review/research on potential role (none, good, or bad) of carnivores in CWD prevalence/transmission.** Many states getting questions on this topic, appears to be limited data on the subject (56).

B. Weather and Temperature-Related Concerns

- 1. Research on population effects and mitigation options/recommendations associated with increasing water extremes (droughts, floods) and impacts to aquatic furbearers and their habitats.** Effects are compounded by tiling/channelization/urban runoff/water demand in arid areas (14).

2. Range retraction/expansion of furbearers and potential ecological impacts. Some northern species' range could retract outside of U.S. (e.g., martens, lynx), whereas others could expand northward (e.g., armadillos, nutria, opossums, raccoons). Needs include systematic regional monitoring to detect changes, research/modeling on potential ecological impacts (disease, interspecific competition, predation), and potential mitigation recommendations (25).

C. Invasive Species

1. Research on population effects of aquatic invasives (carp, hybrid cattail, loosestrife, phragmites) on semi-aquatic furbearers. Effects on muskrats a key need, but also relevant to other semi-aquatic furbearers. Research on control methods for aquatic invasives often does not include assessment of effects/responses of furbearers to those treatments (15).

2. Feral cat impacts on furbearers. Potential impacts of feral cats on furbearer prey species, disease transmission, and their potential role in emerging concerns about suspected or known weasel population declines (29).

3. Potential for range expansion and detection of nutria into parts of the Midwest. Will it be detected fast enough, novel methods (e.g., eDNA) for detection, identification of high-risk areas and strategies for response (34).

D. Emerging Technologies

1. User-friendly/flexible/adaptable software for managing trail camera images and identifying species using AI. Cameras will play an increasing role in monitoring wildlife. AFWA/MAFWA should play a role in coordinating with state agencies and a software company to encourage development of camera/image management apps that meet the needs of agency biologists and researchers and can be utilized by all states. Pooling resources can allow for better products accessible to all (27).

2. Acquisition, development, and more frequent use of technology to remotely assess habitat and populations (e.g., drones, LIDAR flights, thermal/other imagery, cellular trail cameras). More consistent habitat assessments at small and regional scale, as well as for assessing/counting populations of animals or indications of their presence (e.g., muskrat house counts, beaver dams/houses, aerially detecting animals in forest) (31).

3. More research/development/acquisition/training related to use of e-DNA tools for various wildlife sampling/monitoring goals. e-DNA tools are seeing increasing use in monitoring for rare

or invasive species, diet studies, predation/depredation studies, etc. Agencies should expand their capabilities/knowledge in this arena (34).

4. Encourage research and development of cheaper, smaller, and more reliable GPS collars (38).

E. Interjurisdictional cooperation (surveillance, management, assessment)

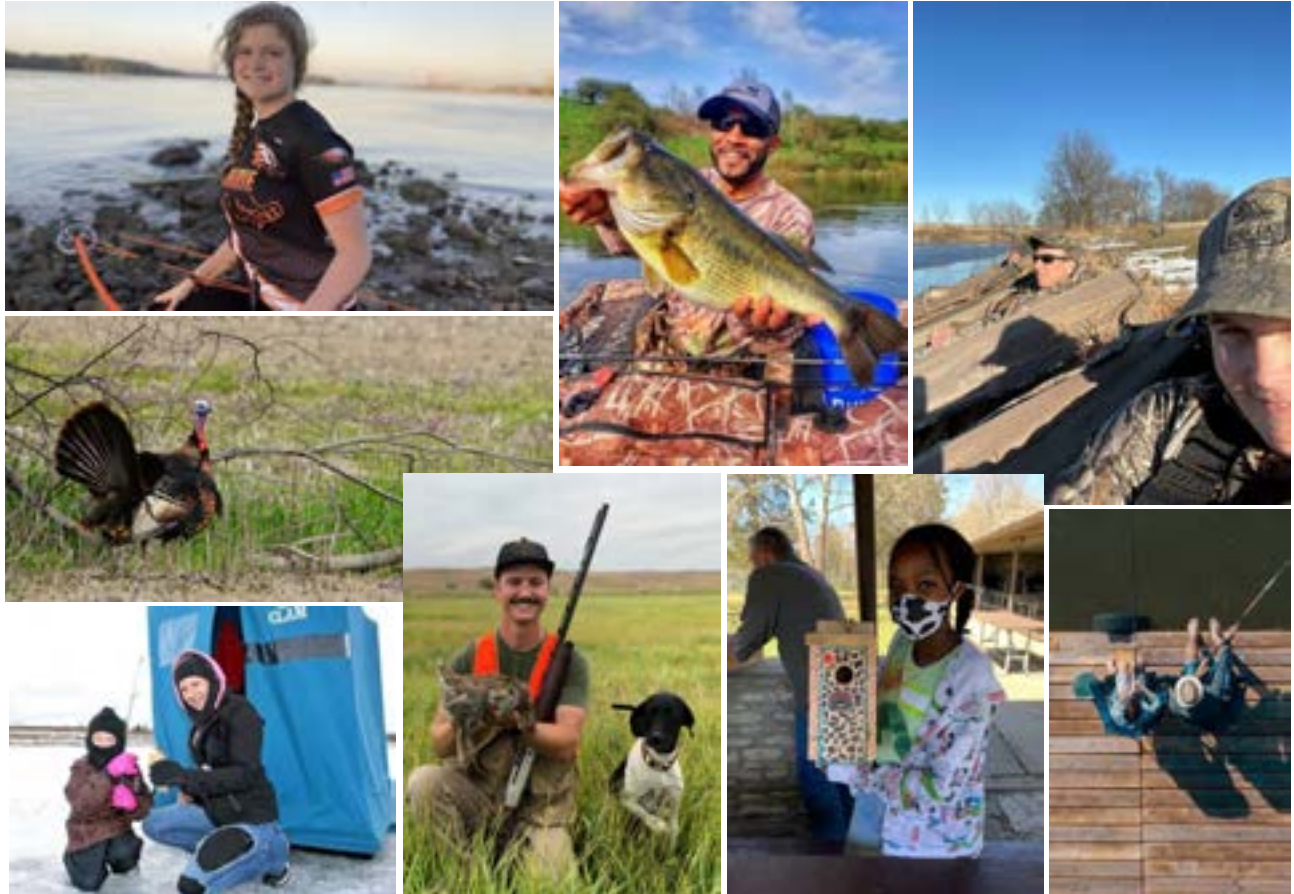
1. Promote the benefits/role of trapping in research/conservation/management. More regional collaboration on agency and public outreach on trapping, more incorporation of trapping in to R3 programs, encourage agency leaders to support/implement a state action plan on trapping outreach (AFWA Fur Committee has developed an Outreach Plan for guidance), standardized agency website template for trapping outreach, support for biologists in one state to testify on anti-trapping bills in another state when their staff are not allowed, etc (20).

2. Support/development for regional "Living with Wildlife" content. Managing human-wildlife conflicts is likely to increase (e.g., low fur prices, fewer trappers, changing human demographics). There is a need for more research to assess/develop best practices for resolving specific conflicts, more development of user-friendly online 'do-it-yourself' resources and resources that connect citizens with private trappers/NWCOs, etc. AFWA/MAFWA should pool resources to develop regional/national best practices and online resources that all agencies can utilize in working and communicating with the public. Can also be an opportunity to promote the role of wildlife harvest in managing/minimizing certain types of conflicts. Some regions have already been doing this, but more is needed (28).

3. Support/encouragement for standardized regional population/trend/disease monitoring. Although resources and infrastructure vary by state, management and conservation would be improved if regional protocols were developed/used by all states. This takes both collective research to develop recommended protocols and a collective commitment by state agencies to pursue those monitoring protocols when possible (30).

Hunter & Angler Recruitment & Retention (R3)

**Midwest Association of Fish and Wildlife Agencies
Hunter and Angler Recruitment, Retention and Reactivation
Technical Working Group Committee
2021 Directors Report**



Report Compiled By:

**Keith Warnke, Director (Wisconsin)
Megan Wisecup, Chair (Iowa)
Jeff Rawlinson, Vice-Chair (Nebraska)**

Hunter and Angler Recruitment, Retention and Reactivation Technical Working Committee Members

Agency/Organization	Name	Title
Archery Trade Association	Josh Gold	Senior Manager of R3 and State Relations
Becoming an Outdoors Woman	Peggy Ferrel	R3 Coordinator
Illinois DNR	Nicky Strahl	Hunting Heritage and Wildlife Biologist
Indiana DNR	Anthony Barenie	R3 Manager
Iowa DNR	Barb Gigar	Angler R3 Coordinator
Iowa DNR	Megan Wisecup	Education and Outreach Section Supervisor
Iowa DNR	Rachel Alliss	Hunter Education and Shooting Sports
Iowa PF	Jamie Cook	Iowa State Coordinator
Kansas DWPT	Tanna Fanshier	R3 Program Coordinator
Kentucky DFWR	Oliva Dangler	R3 Coordinator
Michigan DNR	Dennis Fox	Recruitment and Retention Section Manager
Minnesota DNR	James Burnham	R3 Coordinator
Missouri DOC	Eric Edwards	Education Outreach Coordinator
Nebraska GPC	Jeff Rawlinson	Education Manager
North Dakota GFD	Cayla Bendel	R3 Coordinator
Ohio DNR	Eric Postell	Program Manager
Pass it on Outdoors Mentors	Brittany French	Director of Field Operations
Pheasants Forever	Colby Kerber	Hunting Heritage Program Manager
South Dakota GFPC	Taniya Bethke	Wildlife Division Education Specialist
Wisconsin DNR	Emily Iehl	Hunting and Shooting Sports R3 Coordinator
Wisconsin DNR	Theresa Stabo	Angler R3 Coordinator
Wisconsin BHA	Joe Steffen	R3 Coordinator
Wisconsin NWTF	John Motoviloff	R3 Coordinator
Wisconsin PF	Marty Moses	R3 Coordinator
USFWS	Kyle Daly	Region 3 Fish and Wildlife Biologist
USFWS	Fabian Romero	Region 3 Grant Administrator

Hunter and Angler Recruitment, Retention and Reactivation Technical Working Group Committee Year in Review

January – March 2020:

Approximately 25 agency R3 staff, NGO, and industry partners were in attendance for our half day in-person meeting held in conjunction with the Midwest Fish and Wildlife Conference on January 26th in Springfield, IL. An organized R3 Symposia was also held on January 28th. This symposium served as a venue for R3 professionals to provide updates on individual and collaborative R3 projects in the Midwest. Several staff and a few partners presented during this symposium on efforts such as mentoring, research, women-focused efforts, and learn to hunt for food initiatives.

Subcommittees continued to meet over conference calls and through email to address the priority projects identified during the annual meeting in January. Communication was routine amongst committee members until COVID-19 hit the nation in March virtually halting everything for the coming weeks.

April – June 2020:

With the roll out of the Modern Multistate Conservation Grant Program and funding opportunities opening to the states, the committee was able to reconvene virtually in late April/early May to discuss potential projects. The three priority areas that rose to the top were marketing, evaluation, and mentoring. The decision was made to begin drafting a proposal for a small game diversity marketing toolkit. Taniya Bethke (SD) led a small subcommittee comprised of member states and partners through the application process and we were able to successfully submit our first LOI and full proposal for the project.

Discussions also began on potential MMSCG 2021 projects. Multiple meetings were held between all four AFWA region's evaluation subcommittee members and Matt Dunfee (WMI). Over the course of these meetings, we were able to flush out priority needs for the regions and settle on an evaluation training project designed specifically for R3 professionals. Megan Wisecup (IA) worked with Matt and Loren Chase (Chase and Chase Consulting) to draft a proposal for the four regional R3 committees. Jeff Rawlinson (NE) led a small subcommittee comprised of member states and partners through the development of a draft proposal for a mentor communication project.

A meeting was conducted between the committee chair, vice chair, Director Keith Warnke (WI) and Ollie Torgerson (MAFWA) to discuss the committee's priorities and the potential regional R3 coordinator position. Guidance was provided on the steps necessary to bring items forward to the MAFWA Directors.

July – September 2020:

MMSCG 2021 LOIs and full proposals were successfully submitted for the evaluation and mentoring projects. Funding was awarded for all three projects. Project subcommittees were officially formed, and regular communication and meetings were held to kick-off project discussions.

Meeting was held between members of the Midwest Wildlife and Fish Health Technical Working Committee, Hunter and Angler Recruitment, Retention and Reactivation Technical Working Committee and the North American Non-Lead Partnership organization. An overview of the organization was provided to committee members along with information regarding the recent decision for MAFWA to sign on as a supporting partner. The committees were tasked to work together jointly to come up with recommendations to set the framework for individual state and regional action in accordance with this partnership.

Several committee members participated and presented at the two-day virtual National R3 Forum held August 26th & 27th by the Council to Advance Hunting and the Shooting Sports.

October – December 2020:

Multiple subcommittee and full committee calls were held through the remainder of the year to address the MMSCG projects, annual meeting planning and general collaboration and sharing on R3 related topics.

MAFWA Hunter and Angler Recruitment, Retention and Reactivation Technical Working Group Committee 2021 Annual Meeting Recap

The MAFWA R3 Committee met virtually during the annual Midwest Fish and Wildlife Conference on February 3rd and 4th. Record attendance was sustained over the two-day meeting with over 70 R3 professionals in attendance each day. The themes surrounding this year's meeting included retaining the COVID-19 participation surge, increasing diversity, equity and inclusion in outdoor recreation and updates on the three multi-state conservation grants the committee applied for and received in 2020 and 2021, respectively. This meeting was just the start of many conversations to come over the course of the upcoming calendar year as we strive to continue to grow and collaborate more effectively as a region on various R3 efforts.

Wednesday, February 3 - Day One:

09:00AM - 9:10AM: Welcome, Introductions, Housekeeping Keith Warnke, WI
09:10AM - 9:40AM: COVID-19 Impact on License Sales 2020 Angler & Hunter Data
Rob Southwick, Southwick Associates
09:40AM - 10:00AM: COVID-19 Impact on Hunter & Boater Education - A Vendor's Perspective
Greg Gulliver, Fresh Air Educators and Rebecca Medeiros, Kalkomey
10:00AM - 10:20AM: Retaining the Surge of Angler and Boater Participation
Stephanie Hussey, RBFF
10:20AM - 10:30AM: Break
10:30AM - 11:15AM: COVID-19 Induced Innovations & Successes State/Partner Highlights
11:15AM - 11:50AM: Marketing/Licensing/HD Panel State/Partner Representatives
11:50AM - 12:00PM: Wrap Up/Day Two Preview
Megan Wisecup, IA and Jeff Rawlinson, NE

Thursday, February 4 - Day Two:

09:00AM - 9:10AM: Welcome, Introductions, Housekeeping Keith Warnke, WI
09:10AM - 9:30AM: CAHSS Update
Steve Leath and Samantha Pedder, CAHSS
09:30AM - 10:00AM: Evaluation MSCG
Megan Wisecup, IA and Loren Chase, Chase & Chase Consulting
10:00AM - 10:30AM: Mentoring MSCG
Jeff Rawlinson, NE and Rob Southwick, Southwick Associates
10:30AM - 10:40AM: Break
10:40AM - 11:00AM: Regional R3 Coordination Jamie Cook, IA PF
11:00AM - 11:20AM: Small Game Marketing Toolkit MSCG
Taniya Bethke, SD
11:20AM - 11:50AM: Getting Comfortable with Being Uncomfortable: DEI and the Challenges We
Face in R3 to Build Diversity
James Burnham (MN) and Theresa Stabo (WI)
11:50AM - 12:00PM: Wrap Up/Next Steps
Megan Wisecup, IA and Jeff Rawlinson, NE

MAFWA Hunter and Angler Recruitment, Retention and Reactivation Technical Working Group Committee Scientific-Based Management Needs

The Association of Fish and Wildlife Agencies Director's Executive Committee has asked the Association to develop clear national priorities for science-based management needs. This task has been assigned to the Science and Research Committee. Because needs likely differ across the country, the Science and Research Committee is asking each of the regional associations to provide their priority challenges in each of five areas. Below are the responses from the MAFWA Hunter and Angler Recruitment, Retention and Reactivation Technical Working Group Committee.

Wildlife Health Priority

Overwhelming among the MAFWA R3 Committee states responding identified CWD as the biggest wildlife health priority. It appears that many agency's research and surveillance efforts are limited due to staffing and/or operational budget constraints. Many would greatly benefit from outside funding sources and/or partnerships dedicated to surveillance and/or research. Change management is also a desired need regarding CWD. What communication approaches most effectively lead to a shift in hunter behavior towards lower-risk behaviors? What builds, lasting public support for more controversial measures? There are numerous human dimensions studies that provide insight into where the public is at. How do we start to move the needle on this? Disease management – how much actual value do various management techniques provide compared to others? Where is our best bang-for-the buck? What techniques are most effective in controlling prevalence? Of the mechanisms of transmission documented in challenge studies, which are most important in nature. In areas where environmental transmission has become prominent, how localized are these areas? Is there a way to mitigate them?

Other wildlife health related priorities/areas of interest submitted by the committee include:

- White Nose Bat Syndrome
- Chytrid Fungus
- COVID-19/SARS
- Mycoplasma Ovipneumonia
- Bovine Tuberculosis
- Avian Influenza
- Wild Turkey – decline in reproduction and perceived decline in populations – causes?

Weather and Temperature-Related Concerns Priority

Priorities varied among the MAFWA R3 Committee states responding to what weather and temperature-related concerns are biggest in their respective states.

Some of the top challenges included:

- Shifts in species distributions in relation to weather.
 - White-tailed deer expanding north and bringing parasites that negatively affect moose.
 - Warming waters that favor smallmouth bass over walleye which are exacerbated by and interconnected to the impacts of introduced aquatic invasive species like zebra mussels.
- Shorter and warmer winters affecting outdoor recreation opportunities.
- Increase in more intense, less predictable storms that can have significant impacts on human and wildlife populations.
- Maintaining native plant and animal diversity to adapt to weather and temperature related concerns.
- Knowledge of impacts on terrestrial and aquatic ecosystems – abatement strategies.
- Fluctuating water levels with particular concern for drought in managing our fisheries for the long-term, especially as it relates to angler R3. Drought impacts on other wildlife including small game directly and indirectly through grassland management amidst droughts.

Invasive Species Priority

Priorities varied among the MAFWA R3 Committee states responding to what invasive species are the biggest priority in their respective states.

Some of the top priorities included:

- Mitigation of impacts from introduced aquatic invasive species to local lakes.
 - Limiting their spread
 - Monitoring their impacts
 - Quantifying what it means for the native species and aquatic systems where they are found.
- Emerald Ash Borer
- Zebra mussels
 - How they affect ecosystems in general along with fish culture and fish hatchery productions.
- Invasive plants
 - Red cedar
 - Honeysuckle
 - Sericea lespezeza
 - Leafy spurge
- Invasive Asian Carp
- Hydrilla
- Wild Pigs

Emerging Technologies Priority

Funding, staffing, and remaining relevant appear to be the common themes among the MAFWA R3 Committee states responding when it comes to challenges facing emerging technologies. It is difficult for state agencies to stay on top of emerging opportunities due to rigid policies, lack of flexibility, funding constraints, and staff comfort level (or lack of training for staff to learn how to use new technologies). There are also some mild concerns regarding wind and solar energy development impacts. It is a low-level terrestrial problem currently but still a significant threat.

Interjurisdictional Cooperation (Surveillance, Management, Assessment) Priority

A top challenge identified by the MAFWA R3 states responding regarding interjurisdictional cooperation surrounds standardizing how we communicate across jurisdictions and exchange information. It is often difficult because our internal policies and structures do not match each other so it can lead to a misalignment of resources like staff or funding to apply towards these types of efforts. Funding and capacity are needed to work across state lines for mutually beneficial outcomes. States have greatly appreciated landscape level initiatives such as the Midwest Landscape Initiative. A landscape level understanding of regional species of greatest need is important to identifying priorities at a regional or landscape level.

Other Priority Areas of Need Identified

- Sustainably funding the operation of management and conservation. It underlies almost any discussion on management, engagement, equity in access to the outdoors or recruiting, retaining, and reactivating new hunters and anglers.
- RAWA – having sustainable funding sources to impact SGCN.
- Relevancy roadmap and be able to meet the diversity of recreational interests and balancing compatible uses.
- Total participation declines and engaging new audiences.

Law Enforcement (AMFGLEO)



AMFGLEO 2021 Annual Meeting Minutes

Virtual Meeting via Microsoft Teams

June 16, 2021 – 10:00am – 1:00pm (Eastern Time)

June 17, 2021 – 10:00 am – 1:00pm (Eastern Time)

JUNE 16, 2021

I. Call to order and welcome by President Ken Fitz (OH)

II. Roll Call by Bob Thompson, Executive Secretary

Members present: Steven Cross (AB), Ty Petersburg (CO), Jed Witchurch (IL), Steve Hunter (IN), Deborah Vitko (IA), Earl Simmons (MB), Gary Hagler (MI), David Shaw (MI), Rodmen Smith (MN), Randy Doman (MO), Scott Winkelman (ND), Harvey Pierrot (NT), Ken Fitz (OH), Matthew Leibengood (OH), Leighland Arehart (OH), Rick Watchorn (ON), Sam Schelhass (SD), Chad Jones (TX), Jason Jones (TX), Casey Krueger (WI), John Brooks (USFWS)

Other Guests and Speakers: Steve Rathman, Kevin Willis (MI), Robert Stroess (WI), Terry Short (MI), Brenda Koenig (ON) Michael Feagan (WI)

III. Leading Across Generational Difference - Steve Rathman, Chief of Police, Plattsmouth, NE Police Dept.

There is a growing awareness of the “generational diversity” that exists in today’s workplace. Leaders are faced with the clashing of older, middle-aged and younger staff members who may share common work tasks, but their values, approaches to work, communication styles and perceptions of each other may differ greatly. Chief Rathman explores some of the generational differences and provides useful approaches to creating a work environment that is productive and compatible for everyone.

**ASSOCIATION OF MIDWEST FISH AND GAME LAW ENFORCEMENT OFFICERS
ESTABLISHED 1944**

- IV. Injurious Aquatic Invasive Species Enforcement - Great Lakes Fishery Commission Law Enf. Committee
- Presenters Brenda Koenig (ON), Terry Short (MI) and Matthew Leibengood (OH) gave a short introduction on Aquatic Invasive Species (AIS) and covered in their presentation the impacts of AIS, a timeline outlining the committee's involvement with AIS in the Great Lakes, current efforts with AIS enforcement, the future of AIS enforcement and ways the AMFGLEO Chiefs can be involved.
- V. Wrapped Up Day One

JUNE 17, 2021

- I. Call to order of business meeting and welcome by President Ken Fitz (OH)
- II. Roll Call by Bob Thompson (Executive Secretary)
- Members Present: Steven Cross (AB), Ty Petersburg (CO), Jed Whitchurch (IL), Deborah Vitko (IA), Gary Hagler (MI), Rodmen Smith (MN), Randy Doman (MO), Duane Arp (NE), Scott Winkelman (ND), Harvey Pierrot (NT), Ken Fitz (OH), Jared Roof (OH), Leighland Arehart (OH), Sam Schelhaas (SD), Chad Jones (TX), Jason Jones (TX), Casey Krueger (WI), John Brooks (USFWS)
- III. The Minnesota Experience by Rodmen Smith (MN)
- Minnesota Chief Rodmen Smith gave some insights to what they have faced as an agency in the past 12 months and some of the challenges that still lay ahead. MN DNR had a substantial involvement in the law enforcement response to civil unrest in Minnesota. George Floyd's death resulted in DNR activating about 100 officers initially and continuing turmoil through Derek Chavin's trial. One silver lining is that it did elevate DNR standing with other law enforcement agencies and legislators. In the wake of the death of George Floyd and an officer-involved shooting earlier in Minnesota in 2021, the state legislature is taking a close look at potential police reform bills. It has changed the Use of Force Policies and basically you have to be shot at to use deadly force. The legislature also wants to get rid of qualified immunity for peace officers. Staff has been stressed and worn out. Troopers got an 8.4% pay increase but DNR officers did not, which is causing moral issues. MN DNR has experienced a lot of personnel loss in the last 4-5 years causing a lot of pain and stress but implementation of a peer counselor program has really helped.
- IV. Executive Secretary/Treasurers Report by Bob Thompson (CO)

**ASSOCIATION OF MIDWEST FISH AND GAME LAW ENFORCEMENT OFFICERS
ESTABLISHED 1944**

The 2020 Virtual Meeting Minutes were sent out via email. It was asked if there was any addition or deletions to the 2020 minutes. There were no additions or deletions and President Fitz called for a motion to approve the minutes. A motion was made by Rodmen Smith (MN) to approve the minutes as written and a second by Scott Winkelman (MD). No further discussion and motion passed.

The AMFGLEO 2020 taxes were filed by our CPA with no dollars due to the IRS. The cost to do the taxes by our CPA was \$840.

To date, 16 agencies have paid their 2021 membership dues of the 23 agencies that are normally members of the Midwest.

The AMFGLEO website (<http://midwestgamewarden.org>) was updated and the annual website hosting fee (\$210.43) was paid.

Ordered and received 250 more *Wildlife Forensic Field Manual*. Since last June, 242 manuals have been sold and have about 50 left in stock. A discussion about a 5th Edition will be under Old Business.

Under the Treasurer's Report there is a balance in the checking account as of June 1, 2021 of \$87,568.452. Total income from June 1, 2020 to June 1, 2021 is \$17,327.69 with the income coming from membership dues and sale of forensic manuals. Total expenditures from June 1, 2020 to June 1, 2021 is \$15,176.40 with expenses mainly coming from shipping of manuals, OOOY plaques and shipping of the plaques, executive secretary contract wages, website hosting fees, tax preparation, and line-of-duty death donations. President Fitz called for a motion to accept the Treasurer's report. A motion was made by Casey Krueger (WI) to accept the Treasurer's report as given and a second by Randy Doman (MO). No further discussion and motion passed.

V. Committee Chair Reports

Auditor - Nate Erdman (Auditor) was not in attendance but sent an email to President Fitz saying that the results of the audit was that everything looked good and no issues were found. President Fitz entertained a motion by Ty Petersburg (CO) and a second by Gary Hagler (MI) to accept the email audit report. The motion passed with no further discussion.

Legislative - VACANT - Jason Ott from Kansas resigned in December, 2020 - No Report

Resolution - Randy Doman (MO) - No resolutions to bring forward

**ASSOCIATION OF MIDWEST FISH AND GAME LAW ENFORCEMENT OFFICERS
ESTABLISHED 1944**

Awards - VACANT - Joe Morelock from IL retired in September, 2020. Executive Secretary Bob Thompson took on duties as chair. Officer of the Year (OOY) recipients are: Alberta-Mike Ewald, Colorado-Tony Bonacquista, Illinois-Louis Farber, Indiana-Matt Landis, Iowa-Steven Reighard, Michigan-Kris Kiel, Minnesota-Hanah Mishler, Missouri-Chris Ely, North Dakota-Kylor Johnstons, Ohio-Leighland Arehart and Brett Barnes, Ontario-Peter Koskela, South Dakota-Josh Carr, and Wisconsin-Mike Disher. OOO plaques will be sent to the Chiefs so they can present to their recipients at a venue of their choice.

Forensics/Research - Gary Hagler (MI) advised that a plan to do a 5th Edition of the *Wildlife Forensic Field Manual* will be discussed under Old Business later in the agenda.

Annual Newsletter - Casey Krueger (WI) took on these duties as First Vice-President. Thirteen member agencies sent in their reports. The annual newsletter (agency reports) was compiled and sent to all member agencies.

Intelligence and Special Investigations - Casey Krueger - Nothing to report

Fallen Officer Report - VACANT - Jason Ott (KS) was the Chair but due to his resignation, Executive Secretary Bob Thompson took on those responsibilities. It is with great sadness that we had two line-of-duty deaths from our member agencies this past year. Iowa DNR Officer Steven Reighard died on January 8, 2021 from work related COVID-19 and Minnesota DNR Conservation Officer Sarah Grell died on May 24, 2021 when her department vehicle was struck by a semi-truck. A moment of silence was taken to honor the memories of these two officers. Per bylaws, Executive Secretary Bob Thompson sent a \$1,000 check to Iowa Chief Kendig and another \$1,000 check to Minnesota Chief Smith to deliver to immediate families.

Technology - Jason Jones (TX) - Nothing to report

Nominating - Rodmen Smith (MN) - Reported that due to the pandemic and rotation schedule of MAFWA our Association is out of sync with our rotation schedule. The MAFWA is meeting in 2022 at Custer State Park in South Dakota and the venue is too small to host both of our Associations. Therefore it is recommended that Iowa host next year's (2022) meeting with the Investigators and then Wisconsin host with MAFWA in 2023. Michigan would then host the Chief's only meeting in 2024 and Ken Fitz would then become Past President. Audit Officer Nathan Erman will be entering his third year of a three-year term as Audit Officer and Bob Thompson is entering his second year of a three-year term as Executive Secretary. Therefore, the recommended 2021/2022 Executive

**ASSOCIATION OF MIDWEST FISH AND GAME LAW ENFORCEMENT OFFICERS
ESTABLISHED 1944**

Board is President-Trace Kendig (IA); First Vice-President-Casey Krueger (WI); Second Vice-President-Gary Hagler (MI); Past President-Ken Fitz (OH); Auditor-Nathan Erdman (OK); and Executive Secretary-Bob Thompson (CO). President Ken Fitz (OH) called for a motion of 2021/2022 Executive Board Officers as presented by the Chair of the Nominating Committee. A motion was made by Gary Hagler (MI) to accept the nominating committee recommendations as presented for the Executive Board and a second by Scott Winkelman (ND). A vote was called for and passed.

VI. Old Business

Wildlife Forensic Field Manual - Membership has discussed for the past two years the need to do a 5th Edition of the *Wildlife Forensic Field Manual*. Michigan Chief Gary Hagler and Chair of the Forensics Committee and Executive Secretary Bob Thompson (CO) had a conference call in January, 2021 to discuss the process. Executive Secretary Thompson to contact the previous contributing editors for updates or deletion of outdated materials. This was done and there is enough old material that needs to be removed and enough new material to do a 5th Edition. Gary Hagler (MI) put a proposal in front of the membership. Editors for the 4th Edition were Danny Walker and Bill Adrian. Bill Adrian is deceased. Danny Walker is willing to take on the task as an editor with Bob Thompson as the second editor for the 5th Edition. The editors of the 4th Edition were paid \$2,000 each for their work upon completion of the project. A motion was made by Gary Hagler to move forward with the 5th Edition and pay the Editors, Danny Walker and Bob Thompson \$2,000 each for completion of the 5th Edition. Deb Vitko (IA) second the motion. President Fitz called for any further discussion and in addition to the 5th Edition being available for print the membership wants to have it in a downloadable electronic security protected version to sell as well. Technology Chair Jason Jones is to explore options for making this possible. President Fitz called for a vote and it passed. The goal is to try and have the 5th Edition in print by summer of 2022.

VII. New Business

Credit Card Payments - Executive Secretary Thompson (CO) brought up that the Association does not currently have the capability to accept credit card payments. Member agencies would like the capability to pay the dues and ordering of forensic manuals by credit card. Other people, educational institutions and book vendors that buy the forensic manual have also expressed an interest in paying by credit card. Executive Secretary Thompson (CO) asked the membership how they wanted to handle the credit card processing fee. Scott Winkelman (ND) suggested that the Association eats the processing fee as part of the transaction and the membership was in agreement. A motion was made by Casey Krueger (WI) and a second by Jason Jones (TX) for Executive Secretary Thompson (CO) to explore credit card options such as Square or Venmo and pick the best one to suit the Association's needs and implement. President Ken Fitz (OH) asked for further discussion and Scott Winkelman (ND) asked Executive Secretary Thompson (CO) to report at next year's meeting what the processing fees were resulting in dollar loss to the Association. President Fitz (OH) called for a vote and motion passed.

**ASSOCIATION OF MIDWEST FISH AND GAME LAW ENFORCEMENT OFFICERS
ESTABLISHED 1944**

Appointment of Committee Chairs - President Trace Kendig (IA)

Audit Committee - Nate Erdman (OK)

Legislative Committee - Ty Petersburg (CO)

Resolution Committee - Randy Doman (MO)

Awards Committee and Officer of the Year Report - Jed Witchurch (IL)

Forensics/Research Committee - Gary Hagler (MI)

Deceased Officers Committee - Garty Hagler (MI)

Annual Newsletter Committee - Casey Krueger (WI)

Intelligence & Special Investigations Committee - Scott Winkelman (ND)

Nominating Committee - Rodmen Smith (MN)

Technology Committee - Jason Jones (TX)

VIII. Agency Updates

Alberta - Steven Cross introduced himself and reported that there has been a reorganization of their agency. They have had several grizzly bear attacks in the last few weeks.

Colorado - Ty Petersburg reported their agency is following up due to the civil unrest that is leading to policy changes from police reforms. Experiencing a lot of retirements. There is some new funding coming through for the agency. COVID-19 has resulted in heavy use of parks and state wildlife areas.

Illinois - Jed Whitchurch reported the same issues with COVID-19 and civil unrest. Some funding came through with 25 new officers coming on board. Also policy changes with police reforms.

Manitoba - Earl Simmons reported that their agency is down 17 officers. Having a big problem with illegal night hunting. Last year they used a helicopter equipped with a FLIR system which worked really well.

Michigan - Gary Hagler reported that they have ten new conservation officers. Can hire 30 new recruits this year to bring them up to full staff of 252 officers. Still trying to figure out what the future looks like post-pandemic.

**ASSOCIATION OF MIDWEST FISH AND GAME LAW ENFORCEMENT OFFICERS
ESTABLISHED 1944**

Iowa - Deb Vitko reported that the legislative session was good to them with some clean up language such as around dog tracking. There are challenges around COVID-19 and the increased use of outdoors. Were able to hire four Conservation Officers last year and are hiring an additional two this year. Was able to establish a full-time criminal investigator position and a full-time criminal analyst.

Minnesota - See section above under the Minnesota Experience by Rodmen Smith.

Missouri - Randy Doman reported that his agency spent some time in several cities to assist with civil unrest. Implemented first ever K-9 Unit with five single purpose K-9's. Losing officers due to stress of LE officers to other non-LE jobs. Legislation to prevent officers from going on private property without permission but it did not reach the Governor's desk. Missouri had its first elk season and first bear season the past year. Feral hogs and CWD continue to be an issue in Missouri.

Nebraska - Duane Arp reported that their agency assisted in the civil unrest by taking some of the outlying calls in the bigger cities and assisted with security in some of the smaller cities. Their agency will have a new Director this fall. Their agency has replaced 25-30% of staff in the last couple of years. They have created a new investigations unit. This is their first full year of e-citations. They had a rough legislative session with one of them being responsible for depredation by elk on corn fields and row crops.

North Dakota - Scott Winkelman reported a lot of personnel turnover and will be getting a new Director. COVID is no longer an issue in North Dakota. The number of cases are way down in North Dakota. Having hiring issues with the number of applicants going down. Have lowered the requirement to a two year degree and two years experience. In this last legislative session we are still dealing with open fields. It was defeated again this year for the second year. It will probably come up again next year. Still dealing with lawsuits and open record requests due to pipeline protests. We are getting a new radio system.

Ohio - Ken Fitz reported that they did a reorganization of their enforcement program last year. Had an investigator shot and seriously injured on a decoy operation. Have CWD in the wild deer herds and the challenges there. Do have a very supportive Governor.

South Dakota - Sam Schelhaas reported that they went to a direct line law enforcement section. Open fields came up again in this legislative session sponsored by the Governor. It passed and became effective on July 1, 2021. It prohibits Conservation Officers from entering onto private property without permission from the landowner. Exceptions are 1) unless an officer has reasonable suspicion or probable cause to believe that a violation occurred, 2) to dispatch wildlife, 3) In emergency situations. This law also states that Conservation Officers cannot be held criminally or civilly liable for a violation of this law.

**ASSOCIATION OF MIDWEST FISH AND GAME LAW ENFORCEMENT OFFICERS
ESTABLISHED 1944**

Texas - Chad Jones reported that officers have received between a 12 and 16 percent raise. They will start a new recruitment class in 2022. There has been an uptick in boating accidents and may be attributed to COVID-19 with more people getting outside.

Wisconsin - Casey Krueger reported that their Bureau of Law Enforcement has changed to a Division within DNR and has 260+ officers. Public use is extremely high on parks and outdoor recreation areas. Had a wolf hunt and is dealing with the public outcry from that. The public is becoming a lot more confrontational. Have put in a request for body cameras. Have asked for a new records management system and right now it is a "soft no". Went to a new radio system last year and new computers for staff this year. Currently most vehicles are unmarked but going to most field officers having marked vehicles.

USFWS - John Brooks reports that their agency is undergoing a lot of changes personnel wise. They are down to 120 field agents in the continental U.S. Working to get people hired and agent and inspector spots filled. Their agency has been tasked to do a lot of other duties such as working the presidential nomination and crowd control and providing security on COVID-19 infected cruise ships. The DOJ has come out with new body camera policies for the FBI and DEA to wear on arrest/search warrants. USFWS is looking at a policy to go to body cameras.

IX. Motion to Adjourn

President Fitz (OH) called for a motion to adjourn. Randy Doman (MO) made the motion to adjourn and it was seconded by Jason Jones (TX). No further discussion and President Fitz called for a vote and it was passed.

CITES

2021 MAFWA Committee Report on the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

MEETINGS TIME & PLACE

(meetings attended by one or more CITES Technical Work Group Representative)

110th AFWA Annual Meeting, September 2020; virtual

Joint State/Federal CITES Meeting & AFWA International Relations Committee

CITES Technical Work Group/USFWS International Affairs, February 2021; virtual

“Enhancing Cross-Jurisdictional Partnerships to Confront the Illicit Turtle Trade in the
Southeastern U.S.” Workshop, hosted by Southeast PARC- Turtle Networking Team,
February 2021; virtual

86th North American Wildlife & Natural Resource Conference, March 2021; virtual

CITES 73rd Standing Committee, May 2021; virtual

25th Trilateral Committee for Wildlife & Ecosystem Conservation/Management, May 2021;
virtual

CITES Interagency Coordination Committee, hosted quarterly by USFWS; virtual

CITES Technical Work Group also conducted business via phone and virtual platforms

CITES TECHNICAL WORK GROUP REPRESENTATIVES

Carolyn Caldwell- MAFWA (MAFWA CITES Technical Work Group Representative)

Michael Bednarski- NEAFWA (Virginia Department of Wildlife Resources)

Buddy Baker- SEAFWA (Louisiana Department of Wildlife & Fisheries)

Stewart Liley- WAFWA (New Mexico Department of Game & Fish)

Deborah Hahn- Association of Fish & Wildlife Agencies

Rick Jacobson- U.S. CITES Delegate Representing the State Fish & Wildlife Agencies and
International Relations Committee Co-Chair (Connecticut Department of Energy &
Environmental Protection)

CITES OVERVIEW

The Convention on the International Trade in Endangered Species of Wild Flora and Fauna (CITES) is an international trade agreement among 182 countries (and the European Union) to ensure that international trade in specimens of wild animals and plants does not threaten species' survival. CITES works by subjecting international trade in specimens of selected species to certain controls. These require that all imports, exports, re-exports, and introductions from the sea of species covered by CITES have to be authorized. The species covered by CITES are listed in three Appendices, according to the degree of protection they need. Appendix I includes species threatened with extinction. Trade in specimens of these species is only permitted in exceptional circumstances. Appendix II includes species not necessarily threatened with extinction, but for whom trade must be controlled in order to avoid utilization incompatible with their survival. Appendix III contains species that are protected in at least one country, which has asked other CITES countries for assistance in documenting trade.

The U.S. Fish and Wildlife Service (USFWS), Office of International Affairs, administers CITES for the United States. The USFWS solicits input and feedback on issues of importance from the state fish and wildlife agencies through the CITES Technical Work Group of the International Relations Committee of AFWA. The Technical Work Group consists of one representative from each of the four regional associations who work on behalf of states in concert with the USFWS on CITES matters. This state-federal partnership has been effectively working since 1994.

EXECUTIVE SUMMARY OVERVIEW

CITES updates presented in greater detail include: 1) CITES Treaty Implementation When In-Person Meetings May Not be Possible; 2) Zoonotic Diseases, Wildlife Trade, and CITES; 3) USFWS Modernization of its Permit System; 4) CITES Technical Work Group/USFWS International Affairs Meeting; and 5) Stewart Liley, WAFWA CITES Technical Work Group Representative.

DIRECTOR ACTION ITEM

No action items at this time.

DIRECTOR INFORMATION ITEMS

CITES Treaty Implementation When In-Person Meetings May Not be Possible

Annually CITES conducts most of its work through three in-person committee meetings. During 2020 all face-to-face meetings were postponed and, lacking approved rules of procedure for holding virtual committee meetings, the CITES Secretariat and the member countries struggled with how best to conduct business. Late last year several inter-sessional work groups were formed in an attempt to make progress on some matters typically handled at these meetings. In early May 2021, the CITES 73rd Standing Committee held its first formal meeting using a virtual platform. While this meeting had its largest attendance (800 participants representing 100 countries and 111 NGOs), discussions of agenda items were abbreviated and most participants only observed proceedings due to time restraints of the condensed meeting. This will likely be the same scenario for the upcoming Animals and Plants Committee meetings.

Obtaining more active participation by member countries in CITES has long been a goal of the Convention and we have supported measures that enhance communication and minimize barriers to countries and observer organizations wishing to participate. Future CITES Committee meetings that provide in-person and virtual participation opportunities would be ideal. Conducting Committee meetings solely through a virtual format significantly reduces the CITES Technical Work Group's ability to maintain our highly visible Regional Association presence, reduces opportunities to present positions/interventions on behalf of the state agencies, and hampers our ability to maintain and enhance strong working relationships with country representatives, the CITES Secretariat, and other sustainable use organizations. This topic will be further discussed in upcoming CITES meetings.

Zoonotic Diseases, Wildlife Trade, and CITES

The COVID-19 pandemic has heightened interest in zoonotic disease and the role of domestic and international wildlife trade. Throughout 2020 we witnessed calls for the complete ban of all import and export of live wildlife and the strengthening of the CITES treaty to prohibit international wildlife trade to reduce the risk of future pandemics. But CITES has no mechanism to include zoonotic diseases in its mandate. CITES regulates international trade in wildlife listed in its appendices, but it only does so to prevent species from over-exploitation. Nowhere in the text of the convention are countries obligated to stop or restrict trade because of the potential spread of zoonoses. The large majority of wildlife species internationally traded for human consumption are not even covered by CITES. An inter-sessional working group is being formed through the CITES Standing Committee to discuss and develop recommendations concerning the role of CITES in reducing the risk of future zoonotic disease emergence associated with international wildlife trade. There is overwhelming interest by countries and many NGOs to be invited to participate. Several of the CITES Technical Work Group representatives have requested authorization to participate through the CITES Secretariat. The Standing Committee

Chair will select members of the working group and will also lead the effort. Working Groups must have an equal ratio of country representative to NGOs. The working group is expected to complete its task in the next six months.

USFWS Modernization of its Permit System

The CITES Technical Work Group has been working with the USFWS on methods to simplify and expedite the process for CITES related permits since 2014. While early discussions focused on the need to streamline processes for issuing permits to state fish and wildlife agency research programs that were shipping black bear parts internationally for scientific purposes, we continued to be engaged as the USFWS moved forward with more comprehensive modernization of the permitting program. A key part of the modernization was the launch of the new ePermits system in October 2020 which allows the public to submit, track, and view most permits online, and the migration of existing active permits from the old system to ePermits. The USFWS will continue to tweak the ePermit process making it more efficient and allowing for more robust data analysis (visit: fws.gov/epermits).

CITES Technical Work Group/USFWS International Affairs Meeting

The CITES Technical Work Group held a virtual meeting with USFWS International Affairs staff in February 2021 to discuss pertinent CITES issues. While this was an abbreviated meeting, we discussed a variety of topics with emphasis on upcoming virtual Standing, Animals, and Plants Committee meetings, ePermitting, implementation of the Treaty when meetings cannot be held in-person, and the possible implications and restrictive measures for wildlife trade related to human health concerns. These meetings continue to offer meaningful information exchanges and provide opportunities to maintain and build connections with the staff.

Stewart Liley, New WAFWA CITES Technical Work Group Representative

Stewart Liley, Chief of Wildlife at the New Mexico Department of Game and Fish, is the new WAFWA CITES Technical Work Group representative. He replaced Jim deVos (Arizona) in December 2020. Mr. Liley has participated in other international forums including the Trilateral Committee for Wildlife and Ecosystem Conservation and Management. We are pleased to have Stewart join the team.

SCIENCE-BASED MANAGEMENT PRIORITIES

CITES deals with the legal and sustainable international trade of plants and animals listed in its three appendices. For this reason, the CITES Technical Work Group will not be proposing any science-based management priorities at this time.

TIME & PLACE OF NEXT MEETING

The next meeting will be the CITES 31st Animals Committee and Joint Plants Committee Meeting, May/June 2021; virtual.

Respectfully submitted May 28, 2021,

Carolyn Caldwell
MAFWA CITES Technical Work Group Representative
Division of Wildlife, ODNR
2045 Morse Road, G-3
Columbus, Ohio 43229-6693
MAFWACITES@gmail.com
614.403.3756 (Cell)

Private Lands



2021 MAFWA Private Lands Working Group Directors Report

Submitted by: Cody Strong, Wisconsin Department of Natural Resources, Wildlife Management

Meeting Time and Place

May 12th from 8:30 AM to 1:15 PM. Held via conference call hosted by WI DNR. An in-person meeting was again canceled due to continued concerns and restrictions associated with COVID-19.

Attendance

There were 19 participants in the meeting which was held via conference call. All member states were represented at the Private Lands Working Group (PLWG) except Minnesota. See Appendix 1 for participant names. Greg Pilchak, AFWA Ag Policy, provided updates on government affairs, the 2023 Farm Bill platform, and CRP policy changes. Scott Taylor, the National Pheasant Plan Coordinator, provided an update on the Pheasant Plan which is currently in revision.

Executive Summary

The 2021 MAFWA Private Lands Working Group met via video-conference call to discuss topics relevant to wildlife management on private lands and consider Action and Information Items for the Directors' attention. Discussions focused on the structure and capacity of states' private lands staff, innovative private lands initiatives, and federal policy with emphasis on the Farm Bill. See Appendix 2 for meeting agenda. Attendees thought the meeting was productive and worthwhile. Discussing how natural resource challenges and opportunities are handled in other states is invaluable for staff to better perform their own duties. **A common theme during this meeting was the importance of continued wildlife agency involvement on private lands to affect landscape-level outcomes for wildlife. Particularly in predominantly privately owned Midwestern states.**

Director Action Items:

Director Information Items:

The following Information Items were discussed by the Working Group:

Opportunity/Issue: Several issues related to VPA-HIP funding complicate implementation by state agencies. USDA-NRCS limits a maximum of 10% of an award being used for technical assistance. There is also a lack of funding across Farm Bill periods. Both create difficulties maintaining consistent program staffing.

Action: Members of the PLWG recommended considering addressing this in the 2023 Farm Bill platform.

Opportunity/Issue: Many states are currently or have recently reorganized private lands units. There is an opportunity for AFWA to provide guidance or training on best practices for private lands program implementation.

Action: Members identified that this opportunity would be best addressed in the AFWA Private Lands Working Group given existing parallel efforts there. Many of the attending representatives also sit on that working group.

Opportunity/Issue: VPA-HIP funding expansion is currently part of AFWA 2023 Farm Bill Platform.

Action: Member states should identify if they anticipate having opportunity to utilize expanded funding. A survey will be forthcoming from Greg Pilchak of AFWA.

State Updates – Private Lands Staff Capacity and Innovative Initiatives

States provided a verbal report during the meeting in addition to a more detailed written report. Detailed written reports can be found in Appendix 4.

Illinois: The Illinois DNR does not have a dedicated private lands team and relies on Farm Bill Biologists (FBBs) to implement private lands programs. Illinois received a \$2.1 million grant to fund the Illinois Recreational Access Program (IRAP). Approximately 100 sites are currently enrolled in IRAP, with preference given to first time or youth hunters. At 830,000 acres, CRP is the largest driver of putting habitat on Illinois private lands. Current research projects are examining SAFE CRP enrollment and wildlife responses.

Indiana: The Division of Fish & Wildlife was reorganized in 2019, invasive species work, environmental permitting and the lake and river enhancement program are now included under private lands. Indiana continues to grow its private lands biologist program. 96% of Indiana is privately owned, so it is important to continue growing private lands impact. There is a renewed focus on the Kankakee river basin and Indiana is working on an RCPP with private landowners to manage this area. Land easements and voluntary conservation practices are priorities of this work.

Iowa: Iowa's private lands program fits within the wildlife bureau and is robust. Includes biologists, wildlife specialists, foresters, and contract employees. EQIP cost share was increased to 90% (from 75%) for 10 priority practices including wetland enhancement, conservation cover, and brush management. Working with USDA-NRCS on Working Lands for Wildlife (WLFW) Northern Bobwhite Quail initiative. Progress has been very slow on Emergency Watershed Protection (EWP) flood plain easement implementation following catastrophic floods in 2019.

Kansas: Reorganization in Kansas occurred in 2016, where several sections including private lands became their own division. The private lands division has 32 employees. Kansas has

implemented an iSportsman program that helps them track and manage hunting pressure on Walk-In Hunting Access (WIHA) and other public access properties. Kansas limits use on properties to 2 hunters at a time to satisfy landowner and user concerns. Since September 2020 there have been 6,000 check-ins on iSportsman; 22% of all check ins are on WIHA properties.

Kentucky: Kentucky is starting to restructure its program but has had private lands biologists for years. Currently 16 state staff with an additional 17 Farm Bill Biologist (FBB) partner positions. The private lands coordinator position is brand new to Kentucky and is looking for ways to improve implementation. The program partners with county conservation districts for outreach to landowners. Kentucky currently has 2 WLFW initiatives: a waterfowl and now a Northern Bobwhite Quail project. Approximately \$1.5 million has been allocated to improve waterfowl habitat in western Kentucky.

Michigan: There is only 1 private lands biologist in the state. Although there has typically also been a hunter access coordinator that position is currently vacant due to COVID hiring restrictions. The Michigan DNR primarily relies on partners to deliver private lands programs, although a budget pause resulted in the layoff of all FBBs. Currently working to refill these positions. Michigan is working on a wildlife partnership database, given its reliance on partner positions. The State Technical Committee and subcommittees are active again – this is important in order to have input on USDA-NRCS program implementation. State legislature recently authorized \$5 million for Michigan's CREP.

Minnesota: No representative from Minnesota was present to give a report.

Missouri: Reorganization began in July, previously private lands services division was supervised out of MDC headquarters. These staff are now locally supervised out of 8 regions. Some regions have tried to use private lands staff for public land work. There has been some difficulty maintaining this separation, but it's important otherwise private lands work becomes deprioritized. Added 20 new positions. MDC has had recent success promoting native warm season forage for grazing. Likely due to increased agricultural partner buy in and promotion. 2 new RCPP initiatives in Missouri: USDA easements for sand prairie habitat and another for precision agriculture implementation.

Nebraska: Nebraska has a dedicated private lands section. The Partners section has 26 full time staff but also heavily relies on external partnership positions. Nebraska has increased its capacity significantly through these partnerships. The Nebraska FBB partnership has 25 positions and has impacted 215,000 acres. The first iteration of the Berggren pheasant plan is now complete, with a total impact of 216,000 acres between 2016-2020. The Open Fields & Waters (OFW) public access program now has 372,000 acres enrolled and is funded in part by VPA-HIP grant award. A new USDA great plains grassland initiative will enhance Greater Prairie-chicken habitat and grow core areas with less impact by encroaching eastern red cedar. Nebraska has also had difficulty with slow pace of EWP flood plain project implementation.

North Dakota: Game & Fish has a dedicated private lands section with 12 staff. North Dakota unfortunately has fewer partnership positions however due to lack of popularity amongst agricultural groups. Private Land Open to Sportsmen (PLOTS) works with landowner to enhance habitat and requires access for hunting. Differing rates are available depending on landowner's interest in habitat work. State programs seem successful as many landowners prefer them over federal programs. New Meadowlark RCPP will use \$7 million in USDA and \$12 million in partner funding to establish, connect, and restore native grasslands. This program is short term and will help landowners transition native grasslands to grazing. North Dakota is also developing a one-stop shop website to consolidate information on available funding and programs for landowners.

Ohio: Ohio DNR private lands biologists are supervised by region and currently there are 6 positions. The DNR is hoping to expand to 12. These positions would take on some public lands responsibilities like writing management plans and supervising contractor work on public areas. Currently there are also 32 partnership positions (21 with conservation districts and 11 with PF/QF) in the state. Ohio legislature passed a \$148 million initiative that will increase emphasis on wetland restoration and CREP buffers to reduce phosphorous loading in Lake Erie. Ohio received its first VPA-HIP award to start the Ohio Landowner/Hunter Access Program, and the state plans to have the program ready for this fall's hunting season. Ohio DNR is entering into a new RCPP involving wetland restoration for carbon/water quality credits and ecosystem services that will also incorporate wildlife habitat.

South Dakota: Game & Fish recently reorganized its habitat section; these positions are now supervised regionally. There are 4 Game & Fish staff and 20 NGO partnership positions delivering private lands programs in the state. The state plans to add additional internal private lands staff and partner positions. Legislature increased license fees through the creation of a habitat stamp to increase CREP acreage and improve habitat on public lands. Currently 76,000 acres enrolled in CREP, looking to increase to 100,000. These acres are available for public hunting and fishing access. Game & Fish also received a VPA grant and is targeting big game hunting opportunities along riparian areas as well as land enrolled in conservation programs. Across all programs there are 1.4 million acres of private lands open to public access in South Dakota.

Wisconsin: Wisconsin's Wildlife Management Bureau has no dedicated private lands unit and relies heavily on partnership positions to implement programs. The DNR received \$1.9 million in 2020 to implement VPA-HIP and Turkey Hunting Access Program (THAP). At present there are approximately 39,000 acres enrolled in these 2 programs. Wisconsin's Deer Management Assistance Program (DMAP) provides assistance on private lands to improve habitat and manage deer abundance. 400,000 acres are enrolled in DMAP with recent increases in interest posing a challenge given a lack of private lands staff. The Wisconsin Young Forest Partnership provides a collaborative model for forest management that pools resources and expertise.

Other Information Items

AFWA Government Affairs Update – Recovering America’s Wildlife Act (RAWA) was reintroduced in the House with bipartisan support on Earth Day. This legislation would provide \$1.4 billion in dedicated annual funding to state and tribal fish and wildlife agencies. This funding would go toward the conservation and monitoring of at-risk species, known in states as Species of Greatest Conservation Need (SGCN), in order to work toward reversing population declines.

In response to USDA’s Request for Comments on the Executive Order on Tackling the Climate Crisis at Home and Abroad AFWA provided input on the importance of grassland, wetland, and forest conservation, restoration, and avoided conversion. The AFWA Energy and Wildlife Resources Committee also provided comments on renewable energy siting.

2023 Farm Bill Platform – Current Farm Bill platform based largely off the 2018 platform, with new sections being added to reflect the Administration and Congress’s focus on climate change and to address issues that have arisen since the 2018 Farm Bill’s passage.. This platform will be finalized later this summer to be submitted to Directors for their approval at AFWA’s September annual meeting. Directors should be briefed by their state’s private lands coordinator prior to this meeting. AFWA is still soliciting feedback from Congressional staff, USDA, and partners on this document. The group discussed several recommendations on which there is not yet consensus, including proposals by Congress to move CRP from an acre-based program cap to a dollar-based cap. An acre-based program may be more difficult to administer for FSA but also may be more relatable to landowners.

CRP Policy Changes and Issues – Currently CRP is at its lowest enrollment since 1986. Recent policy changes are largely positive, but increased crop prices may reduce any potential program enrollment gains from these measures. There is concern that as written a few of these changes may negatively impact wildlife benefit, however:

- CRP contracts not approved by April 22 must be rewritten. With a shortened timeline it’s expected this will put significant strain on partner and USDA staff. Interim plans being used during initial implementation may be one way to address this.
- Grassland Signup \$15/ac minimum may shift overall acreage enrollment increasingly to Grassland CRP and away from more beneficial practices that establish grassland on cropland.
- Highly Erodible Land Initiative (HELI) allows enrollment of tracts dominated by invasive non-native grass species that are not beneficial to wildlife.
- New Climate Smart Practice Incentives place greater value on certain low quality, introduced grasses compared to native grasses and other wildlife-friendly practices.

AFWA will continue to seek resolutions to several other ongoing CRP policy issues, including:

- Current lack of uniformity on how USDA communicates regarding CREP agreements is problematic.

- Emergency haying and grazing policy which allows for 100% of acres to be used in D2 drought scenarios, up from the previous levels 50 and 75%, respectively.

National Pheasant Plan Revision – The original National Pheasant Plan was passed in 2013 and is currently under revision. Of high importance to this plan is the question of, “How much CRP is needed to accomplish state pheasant management objectives?” Currently plan writers are looking at changes in nesting habitat acreage, changes in pheasant abundance, and the relative importance of different nesting habitat types to pheasant production. The intent is to calculate the CRP Acre Equivalents (CAEs) for different habitat types and determine how many CAEs are needed to accomplish state objectives. It’s anticipated that the final estimate will be 40-50 million acres of CAEs nationally, but this work is still in progress.

NABCI Private Lands Staff Forum – This inaugural forum originally scheduled for March 24-25, 2020 in Kansas City, MO was postponed until the same time next year. This forum was again postponed in 2021. Funding for this opportunity may expire in 2021 and communication is needed regarding contingency planning. It had over 100 registrations from federal, state, and NGO partner private land habitat professionals from across the country. The goal of this forum is to provide a high-quality environment for training and mentoring, exchange of ideas, and developing a community of practice that enhances the ability of private lands staff to effectively deliver Farm Bill and other conservation programs.

Science Needs Questionnaire – In order to make best use of available meeting time, participants utilized the exhaustively listed MLI Technical Committee Brainstorming Results. Where participants identified additional recommendations beyond those established by the MLI Technical Committee they were added to this preexisting list. See Appendix 3 for additional recommendations from the Private Lands Working Group.

Time and Place of Next Meeting

The next meeting will be held during May of 2022 in South Dakota

Appendix 1. Attendance List

Organization	Participant
AFWA	Greg Pilchak
Illinois Department of Natural Resources	Wade Louis
Indiana Department of Natural Resources	Sam Whiteleather
Iowa Department of Natural Resources	Nick Baumgarten
Iowa Department of Natural Resources	Todd Bogenschultz
Kansas Dept of Wildlife, Parks, & Tourism	Wes Sowards
Kentucky Dept of Fish & Wildlife Resources	Jacob Stewart
Michigan Department of Natural Resources	Mike Parker
Missouri Department of Conservation	Lisa Potter
Nebraska Game & Parks Commission	Eric Zach
Nebraska Game & Parks Commission	TJ Walker
North Dakota Game & Fish	Kevin Kading
Ohio Department of Natural Resources	John Kaiser
Pheasants Forever	Scott Taylor
Pheasants Forever	Marty Moses
Ruffed Grouse Society	Jon Steigerwaldt
South Dakota Game, Fish, & Parks	Mark Norton
Wisconsin Department of Natural Resources	Alaina Gerrits
Wisconsin Department of Natural Resources	Cody Strong

Appendix 2. Meeting Agenda



MAFWA Private Lands Working Group Meeting Agenda **May 12th, 2021** **Conference Call** Central Time

Member States: Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin

Time	Agenda Item	
8:30-8:45	Welcome	Kent Van Horn, WI DNR
8:45-10:20	State Updates	All state representatives
10:20-10:30	Break	
10:30-11:00	AFWA Update & 2023 Farm Bill Platform	Gregory Pilchak, AFWA
11:00-11:30	FSA CRP Announcement	Gregory Pilchak, AFWA
11:30-11:35	Revised National Wild Pheasant Conservation Plan	Scott Taylor, PF
11:35-12:00	30x30 Executive Order & Private Lands	Cody Strong, WI DNR
12:00-12:30	Action Items, Opportunities/Issues	Cody Strong, WI DNR
12:30-12:45	Break Grab your lunch	
12:45-1:15	Science Needs Questionnaire Discussion	Cody Strong, WI DNR

Appendix 3. PLWG Brainstorming Additions to Science Needs Questions

What fish and wildlife diseases are most important/challenging in the Midwest region? Why?

- Eyeworm disease (quail)
- Bovine TB
- Lymphoproliferative disease virus (LPDV) in Turkey

What changes in weather and/or precipitation regimes are impacting fish, wildlife, and habitat management at the present time?

- There is a need to look at prioritizing messaging to acknowledge negative impacts to priority species. It's important that the public understand that these impacts are real, observable, and relevant to their states' natural resources.

What are your concerns about changing regimes in the future?

- There is concern over the potential reallocation of funds to deal with invasive species and how this may reduce funding for other work.

Which aquatic and terrestrial invasive species are, at present, of greatest concern? Why?

The below species are particularly aggressive and/or deleterious invasive species in represented Midwestern states:

- Eastern redcedar
- Garlic mustard
- Honeysuckle
- Russian olive
- Cheatgrass
- Smooth brome
- Crested wheat
- Fescue
- Kentucky bluegrass

What are the greatest needs for alignment between multiple agencies in the region for the management of fish and wildlife? What management concerns would be better addressed through interagency science-based approaches?

- Social sciences research on best practices for outreach and inclusion of historically underserved landowners. Changing land ownership trends may necessitate different approaches.

Appendix 4. Detailed State Reports

Public Lands

MAFWA Public Lands Working Group

Respectfully submitted by
Anne Reis-Boyle, Public Lands Specialist
Wisconsin Department of Natural Resources



Meeting Time and Place

The MAFWA Public Lands Working Group met via video-conference on May 12, 2021. The continued concerns and restrictions associated with COVID-19 prevented an in-person meeting for the second year in a row.

Attendance

In attendance for the video-conference were the following members: Mitch Hess (IL), Brad Feaster (IN), Brian Hickman (IA), Dustin Mengarelli (KS), Derek Beard (KY), Earl Flegler (MI), Joel Porath (MO), Pat Molini (NE), Kent Luttschwager (ND), Mike Ervin (OH), Paul Coughlin (SD), Anne Reis-Boyle (WI) and Clayton Lenk (NWTF).

Executive Summary

The 2021 MAFWA Public Lands Working Group met via video-conference call to discuss topics relevant to management of state wildlife lands and consider Action and Information Items for the Directors' attention. Kent Van Horn, Chief of the Birds & Habitat Section in the Bureau of Wildlife Management kicked off the Public and Private Lands Working Group concurrent meetings with a brief welcome. Members of both groups also agreed to reset the state rotation so that South Dakota will host the 2022 joint meetings followed by Wisconsin in 2023. Public Lands topics included 5-10 minute state updates, implementation of Relevancy Roadmap strategies, public lands grazing, perceived non-resident overcrowding on WMAs and a brief discussion on the science needs questionnaire. Common themes across the states include discontinuing use of neonic-treated seeds and pesticides on state lands and in farming contracts, tracking cooperator compliance as well as testing seed for neonics, staffing vacancies and hiring frosts, covid restrictions and/or lack of restrictions, land acquisition barriers (state legislatures, boards), and a pandemic inspired increase in hunting license purchases.

Director Action Items

During the covid-19 pandemic, government and public health agencies promoted and emphasized the importance of outdoor recreation and the nation responded accordingly. Recent data show that the overall revenue for wildlife-dependent recreation increased in 2020. While some public lands saw an increase in visitors that resulted in conflicts and perceived overcrowding, other public land usership was seemingly unchanged. Without a comprehensive and standardized dataset to address public questions, agencies have had difficulty in accounting for public concerns.

We request that the MAFWA State Directors commit resources to creating a standardized process and/or application for quantifying short-term (daily) and long-term (decades) recreational use of wildlife areas and/or other public lands by various demographics, including

but not limited to residents, non-residents, hunters, non-hunters, urban and rural users. Wisconsin, Nebraska and Indiana currently have pilot projects to quantify and assess public use on wildlife areas and could serve as models for a larger study or research project.

We propose the AFWA Technology & Data Committee evaluate existing applications and explore developing new technological solutions to have consistency and standardization in data collection. This will allow member states to compare public lands use across various geographic scales, tie the use back to state R3 and Relevancy roadmap initiatives and outcomes, as well as investigate overcrowding and compatible use issues for the public.

Director Information Items

The following Information Items were discussed by the Working Group:

Opportunity/Issue | All MAFWA states are moving toward discontinuing use of neonicotinoid insecticides and neonic-treated seeds on public lands. Indiana, Ohio, Nebraska, Missouri, Minnesota and Wisconsin all have policies in place to prohibit neonic insecticide use and seed treatments. While public land is only a fraction of the landscape in MAFWA states, natural resource and fish and wildlife agencies must set the example for private lands. As we know, wildlife do not adhere to man-made boundaries. Of particular concern is research by Berheim et al (2019) that shows neonic insecticides have been found to accumulate in captive white-tailed doe and fawn organs and are correlated with negative physiological and reproductive impacts. In addition, a recent data analysis of non-neonic popcorn seeds in ND that showed residual concentrations in parts per billion of the following three neonicotinoids: clothianidin, imidacloprid and thiamethoxam. While non-neonic treated seeds are desired and are being used on public lands, states should continue monitoring and analyzing seeds and working with vendors to ensure non-detectable levels of neonicotinoid pesticides in corn, soybean, sunflower and other crops and habitat restoration seed mixes.

Action:

Opportunity/Issue: In many states, total unique hunter numbers have been declining over the past two decades. In response, states have implemented robust R3 (recruitment, retention and re-engagement) programs, but there is general concern regarding the outcomes of the efforts and initiatives. Questions remain regarding positive outcomes including: 1) recruitment translating to an increase in total unique hunters; 2) importance of connecting people to natural resources rather than hunting; and, 3) retention practices for new license buyers, especially during 2020. With the small increase in wildlife-dependent hunting and recreation, states should develop unique marketing plans to foster future engagement by new license buyers. MAFWA should continue tracking results of R3 efforts.

Action:

Opportunity/Issue We recommend an after-pandemic action review both for MAFWA as well as for the benefit of the member states. While individual state governments affected differences in public health guidelines, MAFWA should consider best management practices for communication and preparedness for future large-scale disasters or pandemics.

Action:

Time and Place of Next Meeting

South Dakota, early May 2022

Wildlife Action Plan

Midwest Association of Fish and Wildlife Agencies Wildlife Diversity Committee Report

Report submitted by Eileen Dowd Stukel, continuing Chair, to Ollie Torgerson on 28 May 2021.

Meeting Time and Place

The Wildlife Diversity Committee (WDC) held quarterly conference calls and one annual meeting over the last year. Conference calls were held on August 4 and November 3, 2020 and February 8, 2021. The annual meeting was held virtually on May 12 and 13, 2021. See Appendix 1 for the meeting agenda and Appendix 2 for attendance list.

Attendance

WDC members from all 13 states participated in the meeting. The WDC includes State Wildlife Action Plan Coordinators, Wildlife Diversity Coordinators, and Threatened and Endangered Species Coordinators from the MAFWA states (See Appendix 2); all were invited. Additional participants included invited speakers, U.S. Fish and Wildlife Service staff, and MAFWA-affiliated staff, leaders and consultants.

Director Information Items

Midwest Landscape Initiative (From the MLI website: “The Midwest Landscape Initiative identifies shared conservation and management priorities that require the development of scalable collaborative solutions to achieve healthy, functioning ecosystems in the Midwest.”)

WDC members participate in a variety of ways on MLI component parts. They are currently working on:

- Regional Species of Greatest Conservation Need (SGCN) list;
 - assessment of tools states use for habitat assessment and analysis;
 - inventory of wind mapping resources and expanded team to have more state representation;
 - PFAS topic (Per- and polyfluoroalkyl substances);
 - Communications and Engagement Team; and
 - Habitat Inventory & Assessment Work Group.
- WDC members also contribute to the AFWA Wildlife Action Plan and Landscape Conservation Work Group.

Regional SGCN Project

The WDC would like to thank the Directors for their support of the Midwest Regional SGCN project being carried out by the Midwest Landscape Initiative’s At-Risk (Species) working group (joint MLI-WDC). MAFWA and the MLI’s effort have benefitted by the lessons-learned from the two previous projects of this kind (NEAFWA, SEAFWA). A final report is expected in August 2021 and will include the database/list, report covering all major taxa and invertebrates, RSGCN grouped according to three levels of concern, watchlist species, environmental and habitat limiting factors for each RSGCN and online tools. This tool should help inform states during upcoming Wildlife Action Plan revisions and contribute to better coordination across state boundaries to benefit rare species and vulnerable habitats.

Recovering America's Wildlife Act (RAWA)

HR 2773 (Recovering America's Wildlife Act) was reintroduced on April 22, 2021 with the original bipartisan sponsors. Do not anticipate another committee hearing will be needed so a floor vote may come as early as June. A companion Senate bill has not yet been introduced. RAWA will redirect \$1.3 billion per year in existing revenues from the U.S. Treasury to provide federal match funds to help states implement wildlife action plans, deliver environmental education and wildlife-associated recreation programs, and assist tribes with wildlife conservation on their lands.

To achieve greater bipartisan and multi-stakeholder appeal some changes have been proposed. The apportionment formula has been changed to benefit states with more federal threatened or endangered (T/E) species. The complete formula is now based on proportions of land and water resources, human population, and federal T/E species in the state. Over the 5-year authorization, an average of 15% must benefit T/E species. States would still be required to provide 25% match, and no state could receive more than 5% of the total apportionment.

New language in RAWA clarifies the importance of plant conservation; adds "flora" to the definition of Species of Greatest Conservation Need; and federal T/E plants are included in the apportionment formula. States that include plants in their State Wildlife Action Plan may receive up to a 5% bonus to their apportionment.

WDC members appreciate Directors' continued support of the Act. Regional collaboration and species conservation among MAFWA states will be successful if there is continuity of implementation and monitoring that can only be achieved through the stable long-term funding this Act would provide. Suggested actions within your agencies:

- continued contact with stakeholders and state representatives to promote the need and value of RAWA;
- RAWA-readiness:
 - preparations for match;
 - strategy for internal apportionment of funds;
 - prepare for approving and hiring new FTEs and other ways to quickly increase capacity; and
 - shovel-ready projects lined up during transition while agencies and state governments ramp up for long-term implementation

State must be prepared to implement funds and demonstrate outcomes with the first appropriation. The Act covers many activities that overlap WDC's mission and current activities, which underscores the need for RAWA-readiness.

Federal T&E Species Updates

- Bats continue to dominate the discussion and are in various stages of the review/listing process: northern long-eared bat, tri-colored bat and little brown bat; status of hoary bat of increasing concern.
- Five mussel species are undergoing Species Status Assessments (SSA).
- Many 5-year listing reviews are underway.

- Legal challenges: rusty-patched bumble bee critical habitat, hellbender and gray wolf (notice of intent to challenge).
- MAFWA WDC members continue to assert their participation in SSAs and the listing process and improve how they collaborate with the USFWS Midwest Ecological Services, Endangered Species program.
- Some ESA changes and changes to Migratory Bird Treaty Act (MBTA) made under the previous administration are being reassessed.

National Science and Research Needs

See Appendix 3: Science-Based Management Needs - Responses from MAFWA Wildlife Diversity Technical Committee, May 2021.

Federal Budget Priorities

Federal budget priorities should coincide with Wildlife Diversity staff's science-based activities. Support federal priorities that contribute to the successful implementation of State Wildlife Action Plans, including comprehensive climate science support, robust Section 6 funding to assist with federal Endangered Species Act activities, support for continuation of MLI efforts, enhanced delivery of native plant community conservation and restoration on private and public lands, particularly native grasslands, support for federal agency involvement in Wildlife Action Plan revisions and assistance with increased consideration of invertebrate animal and native plant species in Wildlife Action Plans.

Director Action Item

None

Time and Place of Next Meeting

The working group will continue with quarterly conference calls. The next in-person meeting will be held in the spring of 2022, with the host state to be South Dakota, followed by Wisconsin in 2023.

APPENDICES

Appendix 1. Meeting Agenda, MAFWA Wildlife Diversity Working Group – May 12-13, 2021

SESSION 1: Updates from committees, work groups, and teams Moderator: Eileen Dowd Stukel

Introductions – Eileen

Team background – Eileen

Midwest Landscape Initiative – Claire Beck overview

- At-risk Work Group (Katy Reeder, Iowa DNR)
- Wind Work Group (Scott Hicks, USFWS)
- Habitat Inventory & Assessment Work Group, including Habitat and inventory assessment tools survey (Nate Muenks, Missouri Dept. of Conservation)
- Communications and Engagement Team (Melissa Panella, Nebraska Game and Parks Commission)

AFWA Wildlife Action Plan and Landscape Conservation Work Group update (Katy Reeder)

Other topics?

SESSION 2: Wildlife Action Plan Revisions, Recovering America's Wildlife Act, State and Tribal Wildlife Grant Funding Moderator: Katy Reeder

MAFWA Regional Species of Greatest Conservation Need List (Karen Terwilliger, Terwilliger Consulting, Inc.)

Recovering America's Wildlife Act

- Update on legislative progress (Mark Humpert, AFWA)
- Getting ready: New or renewed approaches to planning, promotion, inreach or outreach (All)
- Wildlife Action Plan revisions and opportunities for collaboration
- AFWA Update on review of essential elements, relevancy, and other topics (Mark Humpert)
- State Wildlife Grant 20-Year Anniversary plans (All)

Other topics?

SESSION 3: Pollinators and Threatened and Endangered Species and Recovery Planning:

Pollinators

- Monarchs (Claire Beck, MAFWA)
- Update from USFWS, including brief update on Monarch CCA, if appropriate (Lori Nordstrom, USFWS)

Federal T&E species updates, including ESA legal challenges update (Lori Nordstrom)

Other topics?

SESSION 4: Discussion of priorities, governance, and next steps Moderator: Tara Bergeson

- Identification of science needs as requested by MAFWA Directors (led by Katy Reeder)
- Identification of federal budget priorities (All)
- Director's Information and Action Items (All)
- Next Steps
 - Director's report and presentation
 - Discuss continuation of quarterly conference calls
- Role of WI and next lead in completing this meeting's commitments and beginning responsibilities for next chair

Appendix 2: Meeting attendance list

State	Attendee
IA	Katy Reeder
IA	Karen Kinthead
IL	Leon Hinz
IN	Scott Johnson
KS	Daren Riedle
KS	Chris Berens
KY	Laura Burford
MN	Kristin Hall
MN	Cynthia Osmundson
MN	Bridget Henning Randa
MO	Kelly Rezac
MO	Nathan Muenks
NE	Melissa Panella
NE	Caroline Jezierski
ND	Patrick Isakson
ND	Elisha Mueller
ND	Greg Link (MAFWA Director-Liaison)
OH	Kate Parsons
OH	Erin Hazelton
OH	John Navarro
SD	Eileen Dowd Stukel, Chair
WI	Shari Koslowsky
WI	Tara Bergeson
WI	Owen Boyle
USFWS Region 3	Lori Nordstrom
USFWS MI ES	Scott Hicks
AFWA	Mark Humpert
MAFWA - MLI	Ed Boggess
MAFWA – MLI	Claire Beck
Terwilliger Consulting, Inc.	Karen Terwilliger
Terwilliger Consulting, Inc.	Tracy Rice

Appendix 3: Science-Based Management Needs - Responses from MAFWA Wildlife Diversity Technical Committee, May 2021

Compiled by Katy Reeder, Iowa Department of Natural Resources

1. Wildlife Health Topic Area

WDTC Responses:

Most important wildlife diseases:

- White Nose Syndrome (WNS) in bats – this has the potential to have a large economic impact as it severely curtails bat populations in the region, leading to changes in insect populations.
- Chronic Wasting Disease in cervids – in addition to the impacts on deer populations, from a State Fish & Wildlife Agency perspective this disease is a drain on the capacity of wildlife health resources as well as other agency resources such as staff time and funding.
- Chytrid Fungus Disease and BSaI in amphibians – these have the potential for large impacts on frog, toad, and salamander populations.
- Snake Fungal Disease – This disease affects many snake species, including the Federally Threatened Eastern Massasauga Rattlesnake.
- Other wildlife diseases of potential concern include rabbit hemorrhagic disease, avian influenza, various tick-borne diseases which can infect humans, freshwater mussel die-offs and various coronaviruses. With respect to the covid-19 pandemic, other emergent diseases, and crossover between wildlife and human health impacts, there needs to be a concerted and unified approach on how we communicate about those concerns. We would benefit from messaging that avoids villainizing wildlife and stresses the importance of zoonotic disease research, and supports the multi-sector, interdisciplinary “One Health” approach (<https://www.cdc.gov/onehealth/basics/index.html>).

Most important plant diseases:

- Rapid White Oak mortality – the cause(s) of this phenomenon aren’t entirely clear, and it’s yet another impact on oak species, which are important hosts for butterflies and other insect species, in addition to producing mast for species like deer and turkey.
- Other plant diseases of potential concern include Thousand Cankers Disease in Walnuts, Beech Bark Disease, and Laurel Wilt.

2. Weather and Temperature-related Concerns Topic Area

WDTC Responses:

Changes in weather regimes that are impacting fish, wildlife, and/or habitat management in the Midwest most at present:

- Increased fluctuations in weather –
- Drought –
- Flooding
- Mis-matches in phenology between wildlife and their ecological needs
- Reduction in snowpack and late ice - in northern portions of region particularly

- More favorable climate conditions for invasive species – for example, longer growing seasons helps with establishment and proliferation of invasive species that might otherwise be unable to move into the region from warmer climates.
- Extreme temperatures

Greatest concerns about changing weather regimes in the future:

- Unknown interactions among native species/systems, invasive species, and diseases
- Interaction of habitat fragmentation and changes in weather regimes leading to impacts on low-mobility species
- Ecological system shifts to novel states; knowing when to Resist, Accept, or Direct these shifts
- For migratory species, unknown impacts to breeding and/or overwintering areas
- Unknown impacts of increased water temperatures in warm, cool, and cold-water systems
- Other concerns include impacts to water quality, potential changes in timing and intensity of wild and prescribed fire, pressure on agricultural systems to increase productivity, and impacts to cave/karst systems.

Need for step-down guidance from regional modelling:

- The response to this question was overwhelmingly “yes” from this technical committee.
- Climate modeling efforts are siloed, and we would like to see an integrated approach to combine efforts among agencies (Forestry, Ag, Soils, Wildlife, Water).

3. Invasive Species Topic Area

WDTC Responses:

Aquatic and terrestrial invasive species of greatest concern at present:

- Zebra Mussels
- Asian Carp
- Emerald Ash Borer
- Phragmites
- Sericea lespedeza
- Reed canarygrass
- Other invasive species of concern include gypsy moth, Asian long-horned beetle, spotted knapweed, buckthorn, callery pear, oriental bittersweet, leafy spurge, garlic mustard, cheat grass, eastern red cedar, and the introduction of the spotted lanternfly into the region.

Areas needing better science to inform management of invasive species:

- This Technical Committee supports the development of a strategic regional invasive species prioritization and management plan, which would incorporate the following elements:
 - Rapid Detection & Response systems
 - Research on the effectiveness of management options for various invasive species
 - Predictive modelling

4. Emerging Technologies Topic Area

WDTC Responses:

Most pressing needs for advanced technologies in the Midwest:

- Environmental DNA (eDNA) - the use of eDNA could fit into the Rapid Detection & Response System for invasive species, along with improving likelihood of detecting the presence of rare species. Building eDNA libraries is an investment that will assist with research going forward.
- Regionally coordinated habitat mapping – this would help improve landscape-scale conservation efforts in the region
- Rapid detection for new diseases and invasive species
- Improved methods for deterring bats from strikes with wind turbines
- Increased use of passive loggers associated computing power to store and analyze patterns in large datasets
- Live animal tests for CWD
- Expanded use of drones for wildlife management
- Other needs include a way to remotely sense warm vs. cool season grasses, increased machine learning for identification of invertebrate species, and expanded LiDAR coverage and a library for data storage and sharing

Cooperators best suited to helping develop needed technologies:

- Colleges and Universities
- U.S. Geological Survey
- Non-profit entities
- Private companies
- U.S. Fish & Wildlife Service
- Other potential cooperators include other states and the U.S. Forest Service

5. Interjurisdictional cooperation (surveillance, management, assessment) Topic Area

WDTC Responses:

Greatest needs for alignment between multiple agencies in the region for the management of fish and wildlife:

- Shared Resources/Capacity
- Common language - across jurisdictions (e.g., habitat classifications, ecosystem condition assessment, criteria for identifying conservation opportunities)
- Identification of potential points of convergence for fish and wildlife habitat, alternative energy development, carbon sequestration, regenerative agriculture and soil health, water quantity/quality management, and other potential energy/climate/food initiatives that may present opportunities to incorporate values beneficial to fish and wildlife
- Regional Species of Greatest Conservation Need (RSGCN) is a great start
- Priority Setting
- Shared monitoring approaches

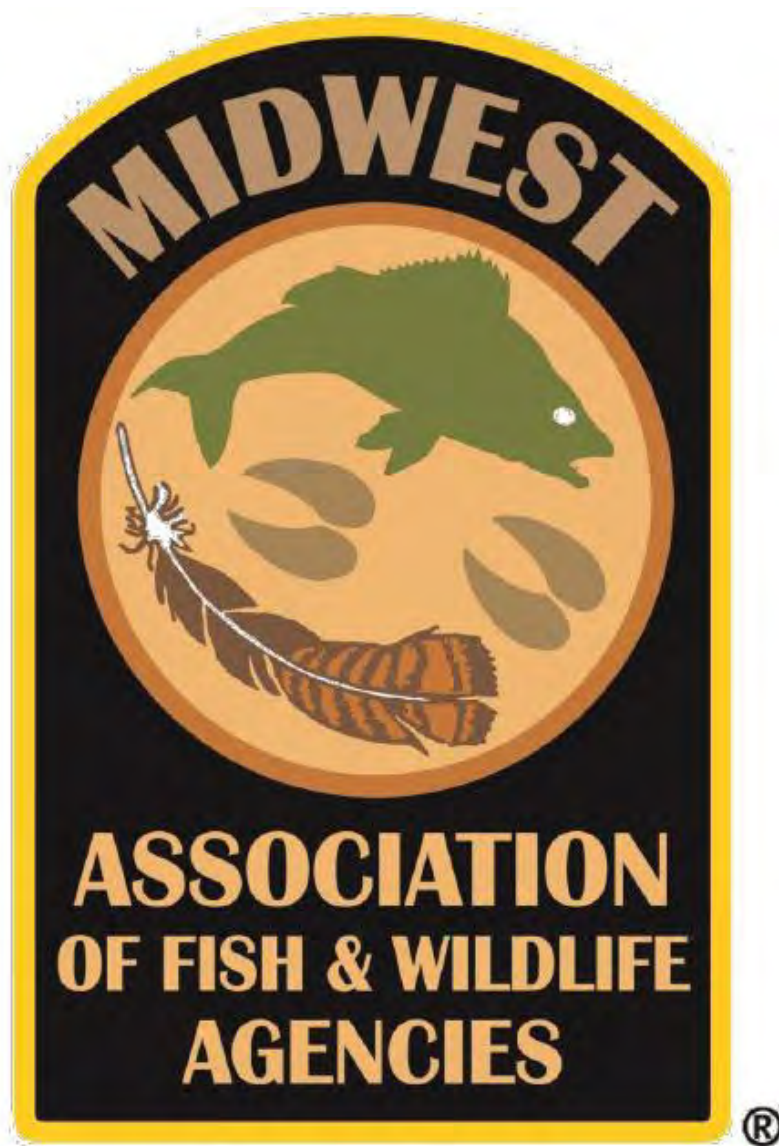
- Other needs include coordination on species management, human dimensions and social science work, and coordination of restrictions based on CWD (e.g., deer carcass movement, baiting, etc.)

6. Other Priorities outside of existing topic areas:

WDTC Responses:

- Pace of change is increasing need for Science and Research to develop tools to help us focus on what matters
- This group recognizes the need for coordinated preparation for Recovering America's Wildlife Act (RAWA) and 30x30 - a regional prioritization with identified desired future conditions and goals and objectives that the states can then scale down
- There needs to be a dedicated regional organization to implement these ideas. There is always a conflict of workload and priority for people who need to fulfill state-level responsibilities as well as regional interests.
- It is important for states to identify staff people within agencies to serve as liaisons or focus on regional-scale issues.
- This committee sees a need for creating a regional vision for a conservation landscape.
- Need to identify the impacts of solar development on species and diversity.

Fish & Wildlife Health



Midwest Fish and Wildlife Health Committee Annual Meeting

April 8th, 13th, and 14th, 2021

Video Conference

Table of Contents

Meeting Time and Place.....	3
Agenda	3
Attendance.....	3
Executive Summary, Meeting Presentations:.....	3
State and Provincial Wildlife Health Presentation Summaries	3
Supporting One Health: Missouri Example- Dr. Sherri Russel	3
SARS-CoV-2 Updates	4
National Deer Association: CWD Communication and Outreach-Kip Adams and Nick Pinizzoto	4
Why Size Matters: A Qualitative Discussion about CWD Prevalence – Dr. Michelle Carstensen and Kelsie LaSharr	4
PFAS Research State Updates and Discussion: MN, WI, MI	5
Committee Action Item:.....	5
Director Action Item	6
Resolution	6
Director Informational Items	9
Committee Elections	9
AFWA Science Needs Request	9
AFWA Federal Appropriations Recommendations for 2022 Federal Budget	14
Appendix I: Spring Meeting Agenda	15
Appendix II: Spring Meeting Attendees and Contact Details.....	16
Appendix III: State Reports	17

Meeting Time and Place

Our annual meeting took place via video conference with scheduled discussions occurring on April 8th, 13th, and 14th 2021. Travel restrictions and the ongoing COVID-19 pandemic required that the meeting this year, similar to last, be conducted in this way. The meeting was spread out over 3 days to allow for adequate time without video conference fatigue.

Agenda

See Appendix I

Attendance:

The 2021 Midwest Fish and Wildlife Health Committee Meeting was attended by representatives from 18 state or provincial wildlife agencies (MAFWA Members included: Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Ontario, South Dakota, Saskatchewan, and Wisconsin; guests from Arkansas, Tennessee, and Virginia) and 3 federal agencies: USDA-APHIS-Wildlife Services, USGS-National Wildlife Health Center, and the US Fish and Wildlife Service.

Executive Summary, Meeting Presentations:

State and Provincial Wildlife Health Presentation Summaries

Each state or province in attendance provide an update during the annual meeting on wildlife health initiatives, disease concerns, ongoing research in their jurisdiction, and work adjustments or problem solving to accommodate for public health initiatives during the COVID-19 pandemic response. Many provided corresponding written reports. These reports can be found in Appendix III.

Supporting One Health: Missouri Example- Dr. Sherri Russel

An overview was provided on the challenges wildlife health agencies have faced in being incorporated by or uniting under the One Health umbrella with agencies representing human and domestic animal health. This presentation and discussion was a follow-up on the resolution that the directors passed last year on the importance of integrating wildlife health programs into state and federal One Health discussions. This past year, the One Health Federal Interagency COVID-19 Coordination (OH-FICC) integrated wildlife health professionals from federal and state agencies into pertinent sub-groups and invited each state liaison to attend bi-weekly update calls on advancements of knowledge in relation to SARS-CoV-2 and animals, including wildlife. While this interaction and incorporation was a healthy advancement, it was based on urgency. This group has worked to ensure that while COVID-19 can be zoonotic it is primarily a disease of humans. The current focus on One Health can both be of benefit and detriment as people feel fatigue, hopelessness, and apathy. We discussed ways to change the narrative by discussing the value of protecting and striving to integrate wildlife health and ecological health discussions instead of focusing on wildlife disease. Much interest was given in how to incorporate wildlife health and how it can be a reflection of ecological health into existing agency frameworks, especially as we move out of the pandemic. The goal being to provide means to a vision of a healthy environment, healthy animals, healthy people. The Committee is planning additional meetings to address this topic and provide and share ideas on how to accomplish this at state/provincial, regional, and national levels.

SARS-CoV-2 Updates

Wildlife surveillance surrounding positive Mink Farms:

The committee was provided updates on SARS-CoV-2 farmed mink positive facilities in Michigan (1) and Wisconsin (2) and the subsequent surveillance in wildlife conducted around these farms. Both Michigan and Wisconsin wildlife health programs worked with their state agriculture and public health agencies as well as the CDC. USDA-APHIS-WIS assisted both states in providing trappers who were also able to collect and submit appropriate samples to the USDA -National Veterinary Services Laboratory for testing. Neither state found any positive wildlife around these facilities. Wisconsin is further collaborating with USGS-National Wildlife Health Center to further understand what Coronaviruses may be naturally occurring in some of our native wildlife species.

Wildlife Rehabilitation:

The committee further discussed and shared changes or planned changes to their rehabilitation guidance based on documented natural transmission of the SARS-CoV-2 virus in felids and mustelids, research that had identified the possibility of transmission of the SARS-CoV-2 virus between white-tailed deer, and continued concern for bat populations that have already faced severe population impacts from WNS. State regulations on rehabilitation are wildly varied as have been what changes are available. Overall, the committee identified the complexity of the issue and support for what could be integrated by each state in line with the precautionary principle to reduce the risk of transmission of the virus from human populations to wildlife. The CDC-OH-FICC Wildlife and Zoo subgroup prepared informational items on their Guidance to Reduce the Risk of SARS-CoV-2 Spreading between people and wildlife. This webpage provides guidance documents for wildlife managers, researchers, and for rehabilitation facilities to reduce the risk of transmission between people and wildlife based on the hierarchy of controls model. This model provides details on how best to reduce risk from the most effective (eliminate handling) to least effective providing agencies mechanisms to assess and integrate risk reduction protocols into actions for which they have oversight.

National Deer Association: CWD Communication and Outreach-Kip Adams and Nick Pinizzoto

Kip Adams and Nick Pinizzoto reached out to the committee to provide information on their current outreach efforts regarding CWD. As an organization that is concerned with the continued health and presence of wild deer, they are interested in providing the public with a place to learn more about CWD and what it's spread means. They currently have a website, have developed video outreach, and have been working with some states to identify further ways in which they can get messaging out on CWD and get hunters to be strong partners in the fight against CWD. They discussed a willingness to present what they can offer to individual state agencies or as a larger initiative to MAFWA.

Why Size Matters: A Qualitative Discussion about CWD Prevalence – Dr. Michelle Carstensen and Kelsie LaSharr

Michelle provided a review of the Minnesota CWD response plan elements with a focus on comparing and assessing prevalence within states in a way that can be more consistent across state lines. An MFWHC working group was initiated to identify how to assess prevalence in disease establishment progression within the region. The working group found that there were many differences between what samples are included in each states' reported data and the spatial unit that is reported out.

Utilized MN experiences to provide known examples on adjustments that have to occur based on data collection and possible changes to sample collecting. Described the known biases that are introduced into the process by collection strategies (hunter-harvested, post-season culling, vehicle-kills, sick or found deer), as well as landscape sampling. The conclusion of the group is to work on standardizing how we report our state/province prevalence, provide assistance in what the numbers mean (the constraints that may be in the data), and discuss the qualitative discussion with the quantitative researchers to assess what our numbers that we provide really mean and how we act on them.

PFAS Research State Updates and Discussion: MN, WI, MI

Representatives from each of these three states provided updates on ongoing sampling and research efforts and any current food consumption advisories occurring within their individual states.

Committee Action Item:

- **Organizational guidelines**

The committee reviewed the current charter and identified multiple inconsistencies within the document. The committee decided to initiate a working group to evaluate and determine recommendations on changes to make to the directors.

Director Action Item:

Resolution:

Resolution to promote awareness of and preparedness for Rabbit Hemorrhagic Disease²

The Midwest Fish and Wildlife Health Committee discussed and proposed the following resolution in support of promoting awareness of and preparedness for rabbit hemorrhagic disease.

RESOLUTION TO PROMOTE AWARENESS OF AND PREPAREDNESS FOR RABBIT HEMORRHAGIC DISEASE

WHEREAS, the first stated objective of MAFWA is to protect the right of jurisdiction of the Midwestern states over their wildlife resources on public and private lands; and

WHEREAS, rabbit hemorrhagic disease (RHD), caused by a *Lagovirus* in the family *Calciviridae* named Rabbit Hemorrhagic Disease Virus – Type 1 (RHDV1), likely emerged in the 1970s or 1980s in Europe, and spread globally, impacting domestic rabbits, but not wild lagomorphs; and

WHEREAS, rabbit hemorrhagic disease virus – type 2 (RHDV2), was first reported in 2010 in Europe and spread rapidly, likely due to humans moving infected domestic rabbits and contaminated materials; and

WHEREAS, RHDV2, unlike RHDV1, affects wild North American lagomorphs, with high mortality rates; and

WHEREAS, RHDV2 was detected in isolated instances in North America in 2018 and 2019 in domestic and feral domestic rabbits; and

WHEREAS, an RHDV2 outbreak began in the southwestern U.S. and adjacent northwestern Mexico in the spring of 2020, affecting wild, domestic, and feral domestic lagomorphs; and

WHEREAS, by May of 2021, RHDV2 had now been confirmed in wild and feral domestic lagomorphs in 77 counties in 12 U.S. states, and 21 municipalities in 12 Mexico states, but none in MAFWA jurisdictions (RHDV2 was recently reported in a domestic rabbit in Custer County, SD); and

WHEREAS, once RHDV2 is detected in wild lagomorph populations, management options are limited, it is critical that MAFWA jurisdictions take appropriate measures at this time,

NOW, THEREFORE, BE IT RESOLVED, that the Fish and Wildlife Health Committee hereby urges the Midwest Association of Fish and Wildlife Agencies Directors to support, adopt and implement appropriate precautionary measures to address the threat of rabbit hemorrhagic disease caused by RHDV2; and

BE IT FURTHER RESOLVED, the Midwest Fish and Wildlife Health Committee encourages member states and provinces to initiate baseline population-level monitoring of lagomorphs within their jurisdictions, such that any future disease-associated impacts may be assessed; and

BE IT FURTHER RESOLVED, the Midwest Fish and Wildlife Health Committee encourages member states and provinces to implement enhanced surveillance and monitoring that promote early detection of disease within their jurisdictions; and

BE IT FURTHER RESOLVED, the Midwest Fish and Wildlife Health Committee encourages member states and provinces to develop appropriate response plans to protect the integrity of any remnant, threatened or endangered lagomorph populations in their jurisdictions; and

BE IT FURTHER RESOLVED, the Midwest Fish and Wildlife Health Committee encourages member states and provinces to consider and promote development of appropriate informational materials regarding RHDV2, the risks associated with moving domestic or wild lagomorphs (and associated materials), that include appropriate biosecurity measures that can be applied, and encourage reporting of sick/dead lagomorphs, and making these materials broadly available to potentially affected audiences, including domestic rabbit and hunting communities; and

BE IT FURTHER RESOLVED, the Midwest Fish and Wildlife Health Committee encourages member states and provinces to consider working with agricultural authorities, as appropriate, to develop and implement appropriate restrictions on the importation and movement of domestic and wild rabbits; and

BE IT FURTHER RESOLVED, the Midwest Fish and Wildlife Health Committee encourages the Midwest Association of Fish and Wildlife Agencies directors to adopt this resolution at their annual meeting in 2021.

HELP PROTECT WISCONSIN RABBITS AND HARES FROM RHDV-2

Steps for hunters while training and afield

Rabbit Hemorrhagic Disease Virus Type 2 is highly contagious and deadly among rabbits, hares and pikas, both wild and domestic. Robust biosecurity is essential to preventing its spread.

Wisconsin hunters may encounter rabbits or hares while afield or when working with their dogs. This flyer provides steps you can take to help prevent RHDV-2 from coming to Wisconsin.

PREVENT THE INTRODUCTION OF RHDV-2 TO WISCONSIN



- Be aware of [where RHDV-2 has been found](#).
- Avoid purchasing live rabbits or hares from areas where RHDV-2 has been found.
- Follow all State [regulations for bringing live rabbits to Wisconsin](#) from other states.
- Avoid bringing to Wisconsin dead rabbits or hares from areas where RHDV-2 has been found.
- Report any mortalities involving 3 or more wild rabbits, hares or pika to the local state wildlife authority.



TAKE PRECAUTIONS WHEN TRAINING OR TRIALING WITH YOUR DOG OR HOUND



When you're in areas where RHDV-2 has been found:

- Clean and disinfect all surfaces and equipment that come into contact with rabbits or hares.
- Scrub first with soap and rinse thoroughly with water. Then disinfect with a 10% bleach solution.
- Bag any clothes you've worn while handling rabbits until they can be washed.

WHAT TO DO IF YOU FIND A DEAD RABBIT, HARE OR PIKA



- Report any mortalities involving 3 or more wild rabbits, hares or pika. In Wisconsin, contact your [local wildlife biologist](#).
- Do not touch any wild animal carcasses that you find dead.
- Do not allow dogs to eat found carcasses.
- Do not move the carcasses of rabbits, hares or pika.

dnr.wi.gov/topic/wildlifehabitat/rhdv2

Last updated: Aug. 18, 2020

Director Informational Items

Committee Elections

Due to unforeseen circumstances, Committee Chair, Dr. Nancy Boedeker, stepped down in June of 2020. The Committee is extremely thankful for her commitment to the committee and for her energy in advancing wildlife health issues and knowledge. Dr. Lindsey Long who had previously been elected Vice-Chair of the committee was elected to chair during a special summer meeting. Dr. Sherri Russel was elected to be the new Vice Chair of the Committee.

AFWA Science Needs Request

Science Based Management Needs: MAFWA Fish and Wildlife Committee Evaluation:

1. Fish and Wildlife Diseases of importance voted on by the committee (these were the top diseases as ranked, individual states may have additional elements that aren't represented)

1. CWD: Continued spread, impacts on cervid populations, what tools are available that may be successfully utilized by state agencies
2. Neonictinoids: environmental persistence, widespread distribution, and unknown impacts on species
3. RHDV-2: Impacts on lagomorph populations in addition to those species that rely on lagomorphs for food.
4. Bovine Tuberculosis: Susceptibility of numerous species when introduced into an ecosystem. Human health issue as well.
5. Emerging diseases (yet unknown, including tick borne diseases): Introduction or conditions that allow for the emergence of diseases that may be population impacting.
6. Rana viruses

Specific High Science questions or priorities:

1. CWD: objective assessments of suppression or control strategies
2. CWD: Environmental persistence and disposal of CWD positive material
3. Chytrid: Continued research into epidemiologic factors and susceptibility of species
4. What are the disease risks associated with rehabilitation of various species or close contact between species in rehab or commercial facilities?

2 -3. What are the main factors (pathogens, parasites, toxins, and vectors) that ultimately affect the health of the wildlife and fish?

General categories of Factors challenging Health:

1. Climate Change

- a. Parasite and vector change as a consequence of climate changes

- b. In addition, more frequent extreme weather events mean more frequent stranded/stunned wildlife. This has direct effects but also means more wildlife in rehab settings.
 - i. More rehab ALSO has direct implications, not least of which is an expanded human/wildlife disease interface
- c. Movement of larger species
 - i. Ex: Possums and Armadillos moving North
- d. Stress from climate disruption may erode health resilience, lending to higher susceptibility to emerging or established diseases.

2. Land Use Patterns and Management Practices

- a. Example: CWD and fragmented habitat to withstand disease
- b. Agriculture productivity pressures in conjunction with the use of neonicotinoids and long-term impacts to Wildlife

3. Toxins: both legacy and new contaminants

- a. Of particular concern are known, such as PFOS, PFAS, and neonicotinoids
- b. Of additional concern next generation agricultural pesticides

4. Bio- diversity loss

- a. Obligate species and the adjustments related to food scarcity
 - i. Example Loss of Milkweed impacting Monarchs
- b. Monoculture and possibility of disease agent abundance

5. Anthropogenic Disease factors

- a. Domestic and International Animal movement and management
- b. Captive / Commercial Management
- c. Rehabilitation
 - i. Efficacy and impact
 - 1. Survivability
 - 2. Antibiotic use and emerging tick borne disease
 - 3. Zoonotic disease transmission and maintenance
 - ii. Inconsistent standards by state
 - iii. Population/social impact
- d. Pet trade- especially relevant to propagation of B Sal

6. Risk/ Science Communication

- 7. Ecosystem changers:** Examples of ecosystem changers include: feral hogs, invasive carp (bighead, silver, black, etc.), feral cats, emerald ash borer, gypsy moth, Asian long-horned beetle, zebra mussels, cane toads, Burmese pythons, brown snake, hammerhead worm, bush honeysuckles, sericea lespedeza, Callery pears, cogon grass, cheat grass, hydrilla, etc.

What needs for more advanced technologies are most pressing in the Midwest region (e.g., animal side tests or decontamination regimes for CWD)?

- Rapid detection of new diseases and invasive species
- Joining in with precision agriculture
- Passive loggers and monitors and the associated computing power to store and analyze patterns in “big data”.
- Bat deterrents at wind turbines
- CWD field” rapid” test (animal side or at check stations)
- LiDAR coverage and libraries to accumulate/use
- Expanded use of drones – policy issues and assessments of impacts of use on species.
- More coordination of habitat mapping – regional coordinated mapping
- eDNA – emerging field for pollinators, invasive species detection, etc.
- Artificial Intelligence and machine learning – e.g., taxonomic identification for inverts
- System to remotely sense cool vs warm season grass

What are the greatest needs for alignment between multiple agencies in the region for the management of fish and wildlife? What management concerns would be better addressed through interagency science-based approaches?

- Species management
- Priority setting
- Threats surveillance (disease, invasive species, etc.)
- CWD related restrictions on carcass movement, baiting, etc.
- Shared collaboration with leadership approval, softening of jurisdictional boundaries, shared resources, and increased capacity
- Consistent wildlife rehabilitation standards
- Social science and human dimensions

- “Common languages” across jurisdictions for standardized habitat classification, ecosystem condition assessment, and criteria for identifying shared conservation opportunities
- Identification of potential points of convergence for fish and wildlife habitat
- Alternative energy development
- Carbon sequestration
- Regenerative agriculture and soil health
- Water quantity/quality management
- Other potential energy/climate/food initiatives that may present opportunities to incorporate values beneficial to fish and wildlife

Additional Factors:

What are the main factors (pathogens, parasites, toxins, and vectors) that ultimately affect the health of the wildlife and fish?

General categories of Factors challenging Health:

8. Climate Change

- Parasite and vector change as a consequence of climate changes
- In addition, more frequent extreme weather events mean more frequent stranded/stunned wildlife. This has direct effects but also means more wildlife in rehab settings.
 - More rehab ALSO has direct implications, not least of which is an expanded human/wildlife disease interface
- Movement of larger species
 - Ex: Possums and Armadillos moving North
- Stress from climate disruption may erode health resilience, lending to higher susceptibility to emerging or established diseases.

9. Land Use Patterns and Management Practices

- Example: CWD and fragmented habitat to withstand disease
- Agriculture productivity pressures in conjunction with the use of neonicotinoids and long-term impacts to Wildlife

10. Toxins: both legacy and new contaminants

- Of particular concern are known, such as PFOS, PFAS, and neonicotinoids
- Of additional concern next generation agricultural pesticides

11. Bio- diversity loss

- a. Obligate species and the adjustments related to food scarcity
 - i. Example Loss of Milkweed impacting Monarchs
- b. Monoculture and possibility of disease agent abundance

12. Anthropogenic Disease factors

- a. Domestic and International Animal movement and management
- b. Captive / Commercial Management
- c. Rehabilitation
 - i. Efficacy and impact
 - 1. Survivability
 - 2. Antibiotic use and emerging tick borne disease
 - 3. Zoonotic disease transmission and maintenance
 - ii. Inconsistent standards by state
 - iii. Population/social impact
- d. Pet trade- especially relevant to propagation of B Sal

13. Risk/ Science Communication

14. Ecosystem changers:

- a. Examples of ecosystem changers include: feral hogs, invasive carp (bighead, silver, black, etc.), feral cats, emerald ash borer, gypsy moth, Asian long-horned beetle, zebra mussels, cane toads, Burmese pythons, brown snake, hammerhead worm, bush honeysuckles, sericea lespedeza, Callery pears, cogon grass, cheat grass, hydrilla, etc.

AFWA Federal Appropriations Recommendations for 2022 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:

- Chronic Wasting Disease-Equine/Cervid Health line item for CWD surveillance, research and management on wild, free-ranging cervids (USDA APHIS): \$30M
- Bovine Tuberculosis- Ruminant Health line item for bovine TB surveillance, research and management on wild, free-ranging cervids (USDA APHIS): \$10M
- White Nose Syndrome-surveillance, research and management efforts (USFWS DOI): \$15M
- Neonicotinoids-research on impacts of neonicotinoids to wildlife species (USFWS DOI): \$3M
- Fish, Amphibian and Reptile Health-surveillance, research and management of emerging fish, amphibian and reptile health issues. (USGS DOI): \$5M
- USGS National Wildlife Health Center. The USGS National Wildlife Health Center is the only national center dedicated to wildlife disease detection, control, and prevention in the United States. Its mission is to provide national leadership to safeguard wildlife and ecosystem health through active partnerships and exceptional science.: \$1M
- Southeast Cooperative Wildlife Disease Study (SCWDS), a state-federal wildlife health cooperative providing research expertise, diagnostic capacity, and training to agencies. SCWDS is instrumental in the protection of this nation's wildlife resources, domestic livestock interests, and human health.: \$1M
- Wildlife Disease Monitoring and Surveillance program (USDA). This program provides wildlife disease assistance to states, such as CWD and bovine TB surveillance, feral hog control, and participation of wildlife disease biologists in state agency wildlife disease management activities.: \$1M

Appendix I: Spring Meeting Agenda

Midwest Fish and Wildlife Health Committee Meeting

April 8,13,&14th, 2021

Virtual via Zoom

Thursday, April 8th

9:00	Welcome	Lindsey Long
9:15	State Reports	State Representatives
11:00	Break: Meeting zoom room can stay open for further conversation	
1:00	State Reports Continued	State Representatives
1:45	Federal Partner Updates	Federal Partners
3:00	Adjourn for day	

Tuesday, April 13th

9:00	Agenda Repair	Lindsey Long
9:15	Discussion: Charter update and Budget	Lindsey Long
10:00	Discussion: Supporting OneHealth: Missouri Example	Sherri Russell
10:30	Discussion: AFWA Request: Science-Based Management Needs	Lindsey Long
11:00	Break: Meeting zoom room can stay open for further conversation	
1:00	Discussion Continued: AFWA Request	
2:00	Discussion: Rehabilitation and SARS-CoV-2/Mink	Sherri Russell
3:00	Adjourn for the day	

Wednesday, April 14

9:00	Director Liaison Introduction	Sara Parker Pauly
9:30	Invited Presentations	
	Topics: National Deer Association: CWD Communication and Outreach	Kip Adams Nick Pinizzoto
10:15	Why Size Matters: A Qualitative Discussion About CWD Prevalence	Michelle Carstensen
1:00	PFAS research state updates and Discussion	MN, WI, MI
2:00	Non-lead Partnership update	Lindsey Long
3:00	Spring meeting adjournment	

Appendix II: Spring Meeting Attendees and Contact Details

Name	State/province/agency	Email
Daniel Skinner	Illinois	Daniel.J.Skinner@Illinois.gov
Mitch Marcus	Indiana	mmarcus@dnr.in.gov
Rachel Ruden	Iowa	rachel.ruden@dnr.iowa.gov
Shane Hesting	Kansas	shane.hesting@ksoutdoors.com
Christine Casey	Kentucky	christine.casey@ky.gov
Kelly Straka	Michigan	StrakaK1@michigan.gov
Michelle Carstensen	Minnesota	michelle.carstensen@state.mn.us
Sherri Russell	Missouri	Sherri.Russell@mdc.mo.gov
Jasmine Batten	Missouri	jasmine.batten@mdc.mo.gov
Shaun Dunn	Nebraska	Shaun.dunn@nebraska.gov
Todd Nordeen	Nebraska	todd.nordeen@nebraska.gov
Charlie Bahnson	North Dakota	cbahnson@nd.gov
Mike Tonkovich	Ohio	mike.tonkovich@dnr.state.oh.us
Iga Stasiak	Saskatchewan	iga.stasiak@gov.sk.ca
Steve Griffin	South Dakota	steve.griffin@state.sd.us
Tami Ryan	Wisconsin	Tamara.Ryan@wisconsin.gov
Lindsey Long	Wisconsin	lindsey.long@wisconsin.gov
Tom DeLiberto	USDA/APHIS/WS	thomas.j.deliberto@usda.gov
Lee Jones	USFWS	lee_c_jones@fws.gov
Bryan Richards	USGS/NWHC	brichards@usgs.gov
Jenn Ballard	Arkansas	Jennifer.ballard@agfc.ar.gov
Dan Grove	Tennessee	dgrove@utk.edu
Megan Kirchgessner	Virginia	Megan.Kirchgessner@dgif.virginia.gov

Private Lands Working Group Meeting

Date: May 12, 2021 | Virtual Meeting, Hosted by Wisconsin

Member States: Illinois, Indiana, Iowa, Kansas, Kentucky,
Michigan, Minnesota, Missouri, Nebraska,
North Dakota, Ohio, South Dakota, and Wisconsin



Participants (19)

- All member states present, with exception of Minnesota
- Greg Pilchak (AFWA Ag Policy)
- Scott Taylor (PF National Wild Pheasant Plan Coordinator)
- Local NGO conservation partners



Agenda

Discussion focused on:

- Structure and capacity of states' private lands staff
- Innovative private lands initiatives
- Federal programs and policy related to private lands

Director's Action Item

None

Director's Information Item

- Concern that certain aspects of VPA-HIP funding complicate implementation
- There is opportunity for AFWA to provide guidance or training on best practices for new or reorganized private lands units
- Opportunity forthcoming for states to provide input on expanded VPA-HIP funding

Time & Place of Next Meeting

- May 2022, South Dakota

MAFWA Wildlife Diversity Committee Report



May 2021 annual meeting via Zoom

29 June 2021

Eileen Dowd Stukel, SDGFP, Chair; eileen.dowdstukel@state.sd.us

Greg Link, NDGFD, Director Liaison



RECOVERING AMERICA'S WILDLIFE ACT

- Reintroduced in the House on 4/22/2021
- Changes from last version (10)
 - Apportionment change based on T&E recovery
 - SGCN includes flora (5% \$\$ bonus)
 - Competitive innovation grants funding
- Do not fear match – WDPM summer meeting dedicated to this topic
- Rough estimate of annual allocation for 13 MAFWA states: \$237 million (w/o plant bonus)



WILDLIFE ACTION PLAN REVISIONS

- Majority of MAFWA states had WAPs approved in 2015; revision planning is ramping up
- Many opps. to improve coordination and effectiveness (AFWA tools, MLI, climate change analyses); WD Committee members actively engaged with AFWA and MAFWA priorities
- Our committee has developed a spreadsheet to help understand content and schedules for WAP revisions

REGIONAL SGCN LIST

- MLI initiative, contracted to Terwilliger Consulting, Inc.; follows examples in NEAFWA and SEAFWA; Aug. 2021 final
- 1818 SGCN; 12 teams; 140+ experts
- Improvements/changes for MAFWA
 - Midwest expertise allowed inclusion of Mayflies, Stoneflies, Caddisflies
 - Additional species for future consideration as SGCNs and watchlist species
- Another tool to encourage cross-state coordination and landscape-level conservation