

Midwest Deer and Wild Turkey Study Group 2022 Meeting

- Annual gathering of wildlife managers sanctioned by and affiliated with MAFWA.
- 2023 Meeting was hosted by the Kansas Department of Wildlife and Parks at the Rock Springs 4-H Ranch near Junction City, Kansas on August 15-18



Joint Meeting with Midwest and



- Both the SE and Midwest Deer and Turkey biologist elected to hold a joint meeting to provide fresh perspectives on topics of concern across the regions.
 - Tuesday morning was a joint session with the SE Wild Turkey Working Group, SE Cervid Working Group and Midwest Deer and Turkey Study Group.
 - Opening talks included a welcome from Kansas staff regarding statewide management as well as local management at the Rock Springs Ranch.
 - Following the welcome we received several presentations on Hunter Recruitment, Retention and Reactivation.





Breakout Sessions

- Tuesday Afternoon and Wednesday Morning
- Deer Topics Included:
 - Change Theory
 - Chronic Wasting Disease (CWD)
 - Communication, Surveillance, Management and Research
 - Disparities
 - Deer Abundance, Hunter Numbers and Hunting Opportunities
- Turkey Topics Included:
 - Summaries of regional turkey research and conservation efforts
 - Declining production and abundance
 - Habitat management funding
 - Harvest Management
 - Upcoming or in progress research projects



Business Meeting

- Meeting Funds are held by NWTF
 - No issues raised from members with NWTF holding funds
- State Reports
 - States have submitted reports and they have been consolidated and finalized
- Meeting Report
 - Summarized/Finalize and will be distributed to states and MAFWA
- Storage of past reports and documents by University of Wisconsin webpage
- 2023 Meeting will be hosted by North Dakota in Medora on September 25 – 28 at the Rough Riders Hotel and Conference Center.
- There are no Director Action Items
- Director Information Items include: Periodic joint meeting between adjoining regional cervid and wild turkey working groups will further information sharing and coordinate efforts of all participating states.



June
2023

Climate Change Committee

Report to Directors

Tara Bergeson, Species Management Team Leader/Invasive Species Team Leader
WI DNR, Bureau of Natural Heritage Conservation

2022-2023 Meetings

Six virtual meetings

- 09/22/22 – 1:30-3:00 pm CT – IA, MI, IL, SD, MN, Midwest CASC
- 11/03/22 – 12:00-1:30 pm CT – IA, MI, SD, MN
- 03/09/23 – 1:30-3:00 pm CT – IA, IL, MI, MN, NE, SD, Midwest CASC
- 04/13/23 – 2:00-3:30 pm CT – IL, MI, MN, NE, WI, Midwest CASC
- 05/04/23 – 2:00-3:30 pm CT - IA, IL, MI, MO, MN, NE, SD, WI Midwest CASC
- 05/22/23 – 2:00-3:30 pm CT – IA, IL, MI, MO, MN, SD

2023-2024 meetings – TBD (most will be virtual)



COMMITTEE MEMBERS

- IOWA – Katy Fullin
- ILLINOIS – Leon Hinz
- MICHIGAN – Chris Hoving, Amy Derosier
- MISSOURI – Matt Vitello
- MINNESOTA – Mike Larson
- NEBRASKA – Caroline Jezierski
- SOUTH DAKOTA – Eileen Dowd Stukel
- WISCONSIN – Tara Bergeson
- USGS Midwest Climate Science Center – Olivia LeDee





INFORMATION ITEM

The MAFWA Climate Committee partnered with the MAFWA Diversity Committee to develop a competitive State Wildlife Grants proposal on Assessing Climate Vulnerability and Adaptive Capacity of 538 Midwest Species of Greatest Conservation Need.



ACTION ITEM

RESOLUTION #1

APPENDIX 4 IN COMMITTEE REPORT



TRAINING PLAN

APPENDIX 4 IN COMMITTEE REPORT

MAFWA Climate Committee Training Plan

Updated 05/26/23

The Why

There have been a lot of tools that have been developed over the last couple of years related to adapting our work to changes in climate to ensure sustainability, and agency staff are now inundated and confused about what is relevant to their work.

We want to better translate what we know at the national/regional scale related to adaptation into tangible actions on the ground to ensure our management is sustainable in the long-term. To do this, we will develop virtual trainings that walk agency staff through the use of a couple of tools and show them how they can use the tools in their own work.

Framing what we are talking about: Adaptation

There are two approaches to climate change: mitigation (reducing emissions and increasing carbon sequestration) and adaptation (changing what we do or how we do it because the climate has changed or is expected to change). Adaptation tends to be less political and also more relevant to the work fish and wildlife agencies already do. Our trainings will be focused on adaptation.

Training 1: Connecting adaptation, annual work planning, and on-the-ground actions

We see an opportunity to support translating long-term and broad-scale climate and ecology science into actions and activities that are relevant to local fish and wildlife managers in their annual work planning. This training will focus on 2 tools that can support on-the-ground implementation and annual work planning: the recently developed [adaptation checklist](#) developed by EcoAdapt and four state wildlife agencies, and the recently developed “quick version” of the [NIACS adaptation workbook](#). The former tool is designed for managers who are extrinsically motivated (i.e., told to adapt) and the latter tool is designed for those who are intrinsically motivated (i.e., want to adapt).

Two virtual trainings will be held and open to any staff within the MAFWA region and will be led by NIACS and the MAFWA Committee. This approach will allow staff from across the region to learn from each other and hear from regional experts in adaptation.

Learning Objectives:

- Participants will understand that climate change represents a risk to their everyday activities rather than a stand-alone conservation program, including the difference between mitigation and adaptation.
- Participants will understand how smart adaptation can ensure long-term sustainability of investments.
- Participants will understand how to link projects with which they are familiar to adaptation strategies and example actions.
 - Including linkages to annual work plans and/or specific projects.
- Participants will know where to find answers to their questions related to climate projections and adaptation strategies.

Audience:

Core audience: boots-on-the-ground and planners, which includes public and private land managers, biologists, foresters, and planners.

The following audiences would also benefit:

Program managers, regional managers, division direction or agency head, research / monitoring staff, communications and outreach staff.

Training 2: Planning for change rather than past conditions: using RAD as a planning framework

The Resist-Accept-Direct (RAD) framework is a decision-making tool that helps resource managers make informed strategies for responding to ecological changes resulting from climate change. The National Park Service and several federal land management agency partners recently published a report titled Resist-Accept-Direct (RAD) to approach these issues on their lands. It is a useful tool when planning and prioritizing where to put resources in a sustainable way.

Multiple virtual or in-person trainings will be held either at the state-scale or multi-state scale, depending on state needs, and will be led by the MAFWA Committee. We will provide opportunities for state staff to have conversations pertinent to their needs and connects local staff with their adaptation expert.

Learning Objectives:

1. Participants will understand the ways current conservation paradigms assume a lack of trend in climate, and the management challenges this creates.
2. Participants will learn how to apply the resist-accept-direct framework to facilitate planning that incorporates long-term directional change in climate and ecosystem structure and composition.
 - Examples will be included that consider different levels of staff (e.g., regional planning vs local land managers)

Audience – may vary by state

Planners, public and private land managers, fisheries biologists/ manager, policy makers, managers, decision-makers.

The following audiences would also benefit: communications staff.

RESOLUTION #1

ENHANCING THE ABILITY OF MIDWEST FISH AND WILDLIFE AGENCIES TO IMPLEMENT LONG-TERM SUSTAINABLE MANAGEMENT

WHEREAS, fish, wildlife, and their habitats are being threatened by the impacts of changing weather patterns and climate; and

WHEREAS, climate across the Midwest has changed and continues to change at a scale and pace that is without recent precedent; and

WHEREAS, these changes are directly affecting and will continue to affect wildlife, fish, and their habitats, and indirectly, by multiplying other risks (e.g., invasive species); and

WHEREAS, thoughtful changes in management to better meet the needs and risks of a changed or changing environment (adaptation) is needed for the future sustainability of fish and wildlife; and

WHEREAS, seeking efficient and resilient ways to adapt will help us better meet our Trust responsibilities; and

WHEREAS, in the face of change at a scale and pace that is without recent precedent, our decisions will need to consider different scenarios, instead of looking at how things worked in the past; and

WHEREAS, articulating adaptation strategies that are being implemented will facilitate better communication and understanding with stakeholders;

NOW, THEREFORE, BE IT RESOLVED, that the Midwest Association of Fish and Wildlife Agencies hereby

1. Urges that staff within their agency take at least Training 1 held by the MAFWA Climate Committee.
2. Urges that staff who develop plans or set management direction within their agency take Training 2 held by the MAFWA Climate Committee.



THANK YOU!

Tara Bergeson

Phone

715-448-0974

Email

tara.bergeson@wisconsin.gov

MAFWA Climate Committee Training Plan

Updated 04/13/23

The Why

There have been a lot of tools that have been developed over the last couple of years related to climate adaptation, and agency staff are now inundated and confused about what is relevant to their work.

We want to better translate what we know at the national/regional scale related to adaptation into tangible actions on the ground to ensure our management is sustainable in the long-term. To do this, we will develop virtual trainings that walk agency staff through the use of a couple of tools and show them how they can use the tools in their own work.

Framing what we are talking about: Adaptation

There are two approaches to climate change: mitigation (reducing emissions and increasing carbon sequestration) and adaptation (changing what we do because the climate has changed or is expected to change). Adaptation tends to be less political and also more relevant to the work fish and wildlife agencies already do. Our trainings will be focused on adaptation.

Regionwide Training: Linking broad-scale threats like climate change into annual work planning

As stated, this would be a difficult training to design for two reasons: first and foremost, annual work planning varies from state to state, and secondly, linking annual work planning to long-term planning is a broader challenge than climate adaptation. However, we do see an opportunity to address part of this issue, and that is translating long-term and broad-scale climate and ecology science into actions and activities that are relevant to local fish and wildlife managers in their annual work planning.

This training will focus on 2 tools that can support on-the-ground implementation and annual work planning: the recently developed [adaptation checklist](#) developed by EcoAdapt and four other state wildlife agencies, and the recently developed “quick version” of the [NIACS adaptation workbook](#). The former tool is designed for managers who are extrinsically motivated (i.e., told to adapt) and the latter tool is designed for those who are intrinsically motivated (i.e., want to adapt).

Two virtual trainings will be held and open to any staff within the MAFWA region and will be led by NIACS and the MAFWA Committee. This approach will allow staff from across the region to learn from each other and hear from regional experts in adaptation.

Learning Objectives:

- Participants will understand that climate change represents a risk to their everyday activities rather than a stand-alone conservation program.**
 - Including the difference between mitigation and adaptation.
- Participants will understand how smart adaptation can ensure long-term sustainability of investments.
- Participants will understand how to link projects with which they are familiar to adaptation strategies and example actions.
 - Including linkages to annual work plans and/or specific projects.
- Participants will know where to find answers to their questions related to climate projections and adaptation strategies.

Audience:

Core audience: boots-on-the-ground and planners, which includes public and private land managers and biologists, foresters, planners

The following audiences would also benefit:

Program managers, regional managers, division direction or agency head, research / monitoring staff, communications and outreach staff

Stateside Training: Planning for change rather than past conditions: using RAD as a planning framework

[The Resist-Accept-Direct \(RAD\) framework](#) is a decision-making tool that helps resource managers make informed strategies for responding to ecological changes resulting from climate change. The National Park Service and several federal land management agencies partners recently published a report titled Resist-Accept-Direct (RAD) to approach these issues on their lands. It is a useful tool in when planning and prioritizing where to put resources in a sustainable way.

These virtual or in person trainings will be held for each state and led by state staff (e.g., the MAFWA climate committee representative). This allows for state staff to have conversations pertinent to their needs and connects local staff with their adaptation expert. As a MAFWA committee, we will develop a common slide deck, script, and list of discussion questions. We will have a train the trainer session to make sure each state staff leading these trainings will be presenting and approaching the materials in a similar way but tweaked to fit the needs and biological context of that state.

Learning Objectives:

1. Participants will understand the ways current conservation paradigms assume a lack of trend in climate, and the management challenges this creates.
2. Participants will learn how to apply the resist-accept-direct framework to facilitate planning that incorporates long-term directional change in climate and ecosystem structure and composition.
 - o Examples will be included that consider different levels of staff (e.g., regional planning vs local land managers)

Audience – may vary by state

1. Planners, public and private land managers, fisheries biologists/ manager, policy makers, managers, decision-makers

The following audiences would also benefit: communications staff

Other considerations for this training:

- Commitment from MAFWA climate committee to host at least 1 training in their state; states may want back up support from another state with more depth in this work (1-3 members from the group at each state to help support and help brand this work as this committee)
- This training will have more tailored examples to the specific state, more discussion about how to use it in your state, and opportunity for people to get to know their MAFWA Climate Committee representative better.

One Health: Shifting the Paradigm toward an Ecosystem Approach

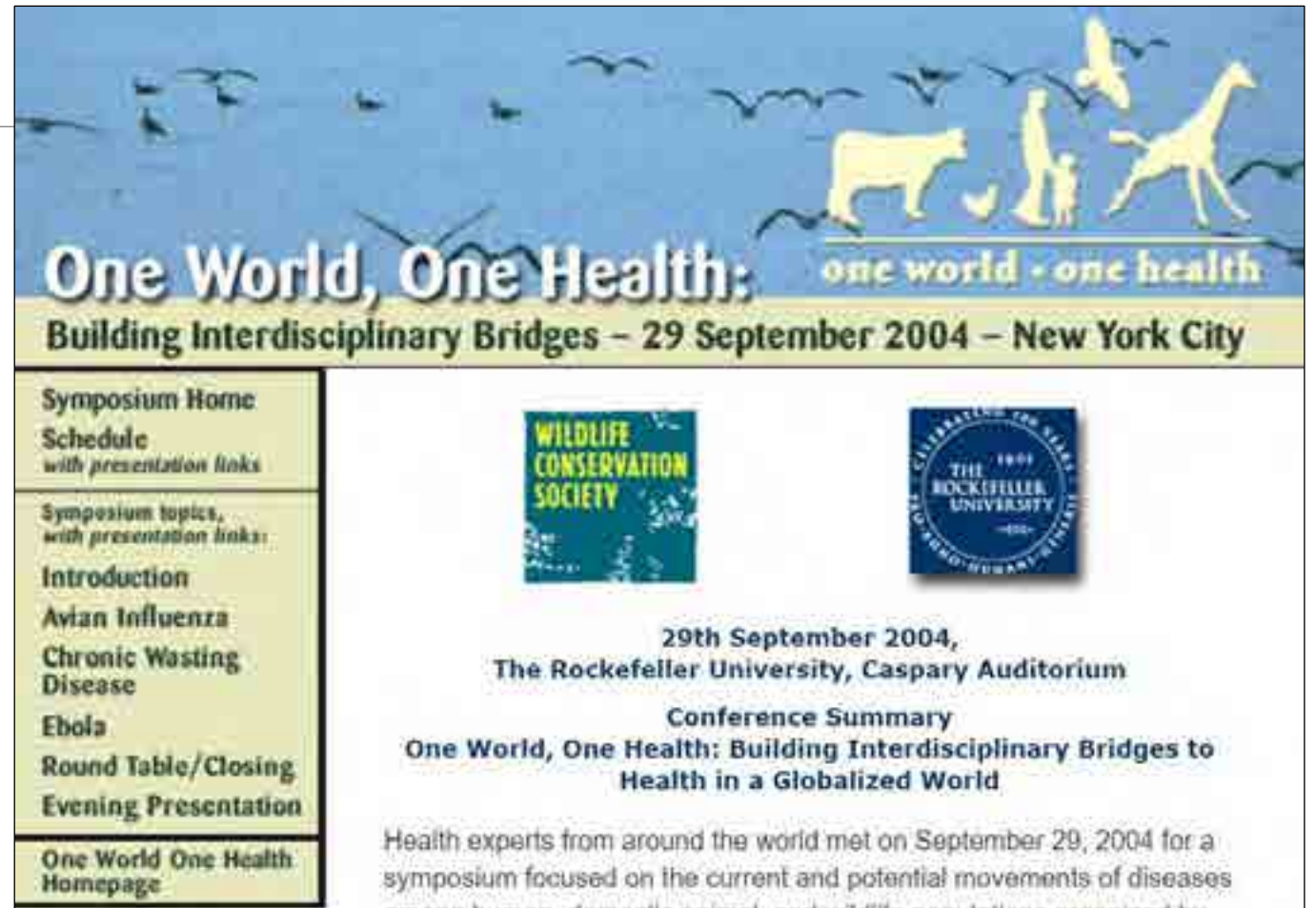
MAFWA DIRECTORS MEETING

27 JUNE 2023

A solid green horizontal bar at the bottom of the slide.

One Health in the 21st Century

- ❖ “A broader understanding of health and disease demands a unity of approach achievable only through a consilience of human, domestic animal and wildlife health – One Health.
- ❖ “The rise of emerging and resurging infectious diseases threatens not only humans..., but also the fauna and flora comprising the critically needed biodiversity that supports the living infrastructure of our world.



One World, One Health: *one world · one health*
Building Interdisciplinary Bridges – 29 September 2004 – New York City

Symposium Home
Schedule
with presentation links

Symposium topics,
with presentation links:
Introduction
Avian Influenza
Chronic Wasting Disease
Ebola
Round Table/Closing
Evening Presentation

One World One Health
Homepage

WILDLIFE CONSERVATION SOCIETY

THE ROCKEFELLER UNIVERSITY
1899
CELEBRATING 105 YEARS OF HUMANITARIAN SERVICE

29th September 2004,
The Rockefeller University, Caspary Auditorium

Conference Summary
One World, One Health: Building Interdisciplinary Bridges to Health in a Globalized World

Health experts from around the world met on September 29, 2004 for a symposium focused on the current and potential movements of diseases

http://www.oneworldonehealth.org/sept2004/owoh_sept04.html

Conservation Medicine

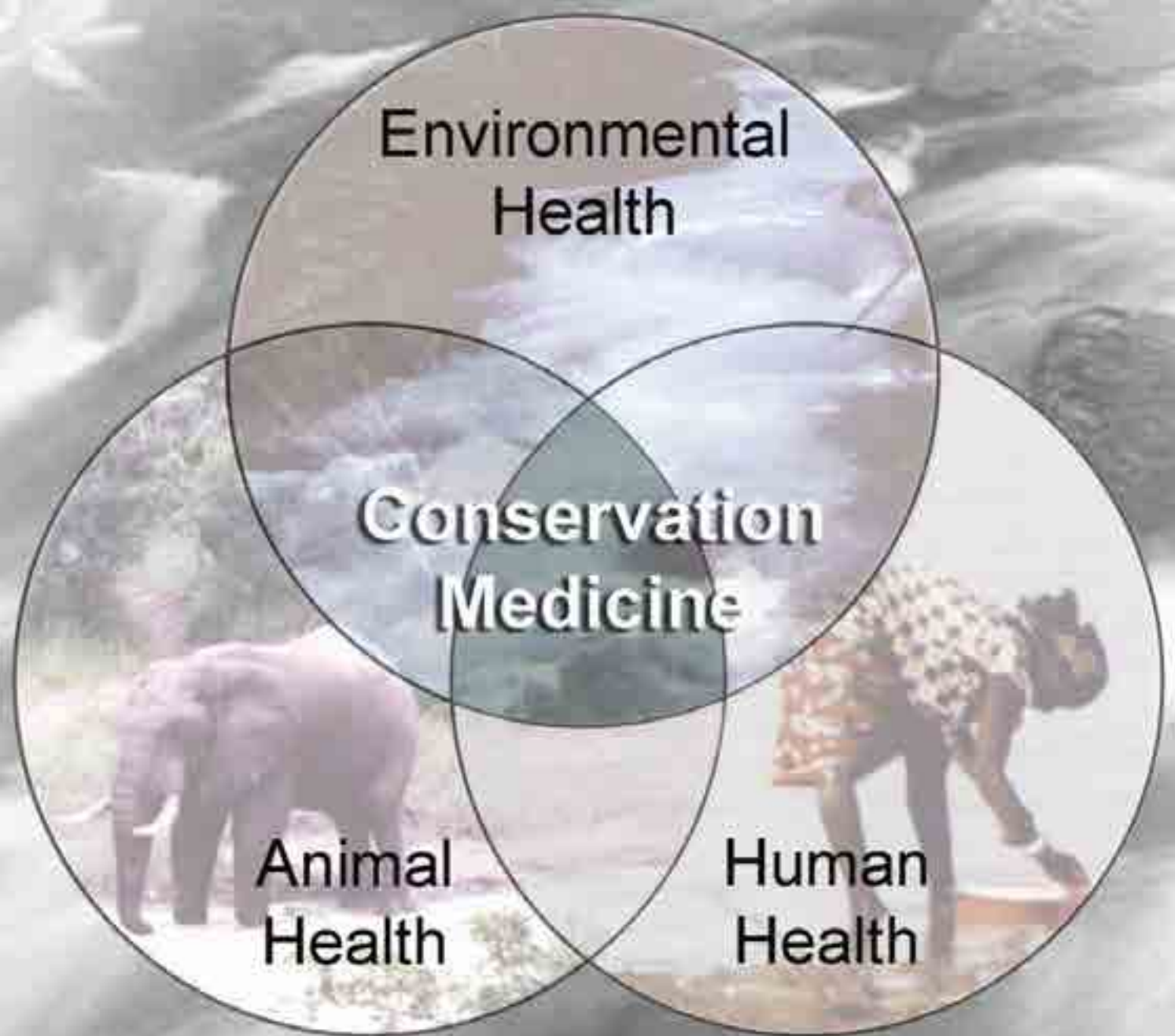


Conservation medicine is an emerging, interdisciplinary field that studies the relationship between human and animal health, and environmental conditions. Also known as ecological medicine, environmental medicine, or medical geology.

Meffe, G. *Conservation Biology*. 13 (5) 1999

Conservation Rings

[http:// www.tufts.edu/vet/ccm/](http://www.tufts.edu/vet/ccm/)



One Health is the idea that the health of people is connected to the health of animals and our shared environment.



When we protect **one**,
we help protect **all**.

www.cdc.gov/onehealth



Jay Watson



"Bummer of a birchmark, Hal!"

Emerging Infectious Diseases:

Global Trends (Jones et al 2008)

- EID events have risen over time (controlling for reporting bias)
- 60.3 % zoonotic
 - 71.8% originating in wildlife
- 54.3% bacterial or rickettsial in origin



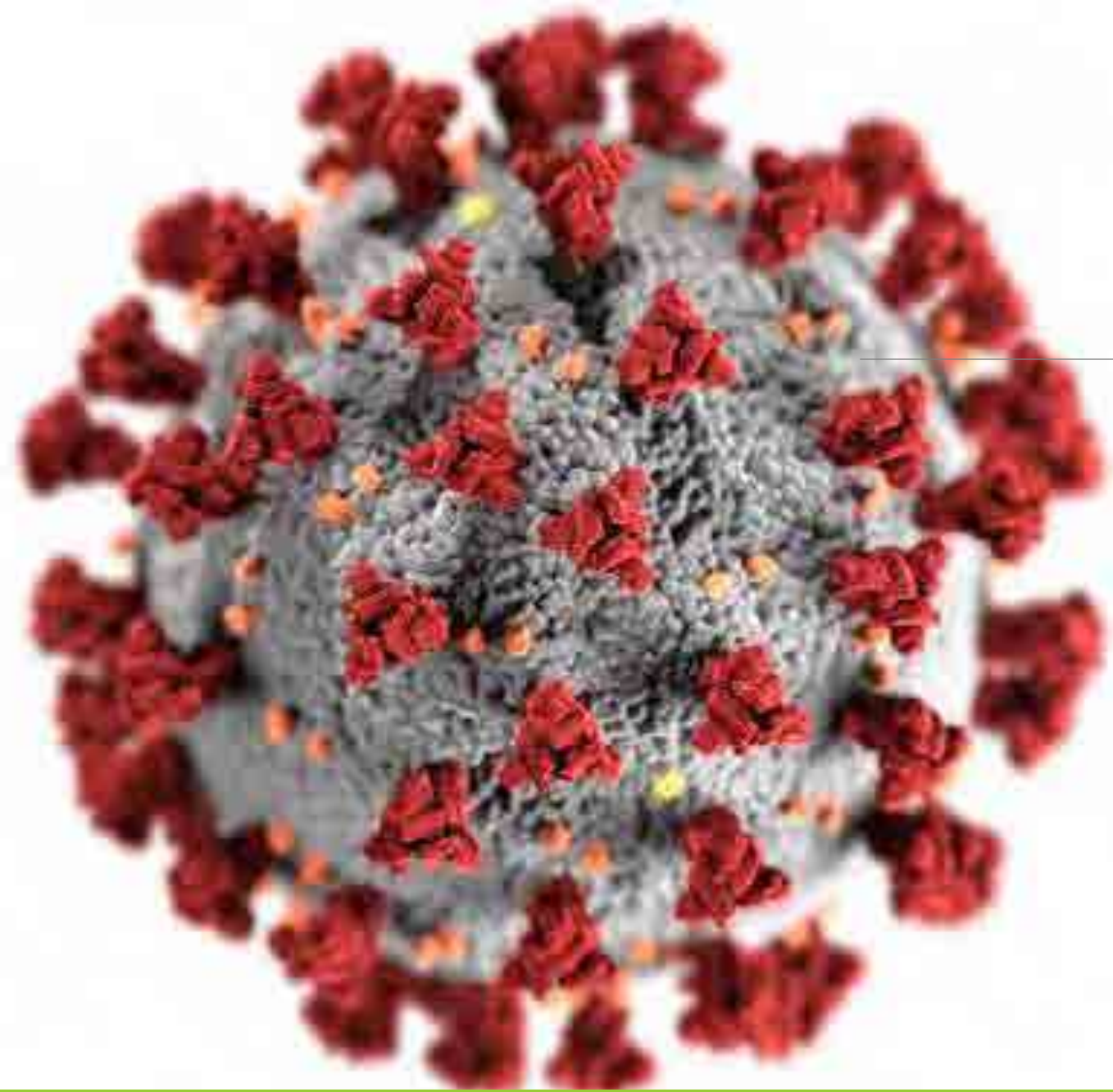
Emerging Infectious Diseases

In a list of 1407 human pathogens

- 58% Zoonotic
- 177 categorized as emerging or reemerging – zoonotic twice as likely to be in this category (Cook, 2008)



Credit: USFWS



The screenshot shows the CDC website with the following elements:

- Header:** CDC Centers for Disease Control and Prevention. CDC 24/7. Saving Lives. Protecting People™. Search bar with a magnifying glass icon.
- Green Banner:** Healthy Pets, Healthy People
- Breadcrumbs:** CDC > Healthy Pets, Healthy People > Information about COVID-19, Pets, & Other Animals
- Left Sidebar:**
 - Home icon > Healthy Pets, Healthy People
 - Information about COVID-19, Pets, & Other Animals (highlighted)
 - Pet Owners
 - Handling Wildlife
 - Keeping Pets and People Healthy
- Main Content:**
 - ## Reducing the Risk of SARS-CoV-2 Spreading between People and Wildlife
 - [Print](#)
 - ### What You Need to Know

 - These recommendations may make it less likely for the virus that causes COVID-19 to spread between people and wildlife. This can protect human and animal health.
 - Some species of wildlife can be infected with SARS-CoV-2, and there is evidence that some free-ranging wildlife have been infected in the United States. However, the risk of getting

OH-FICC

One Health – Federal Interagency Covid Coordination (transitioned from Covid specific to Coordination Committee).

Provided opportunity for state and federal human and animal health (wild and domestic) agencies representatives to play a role in surveillance, knowledge sharing, research, and recommendations.

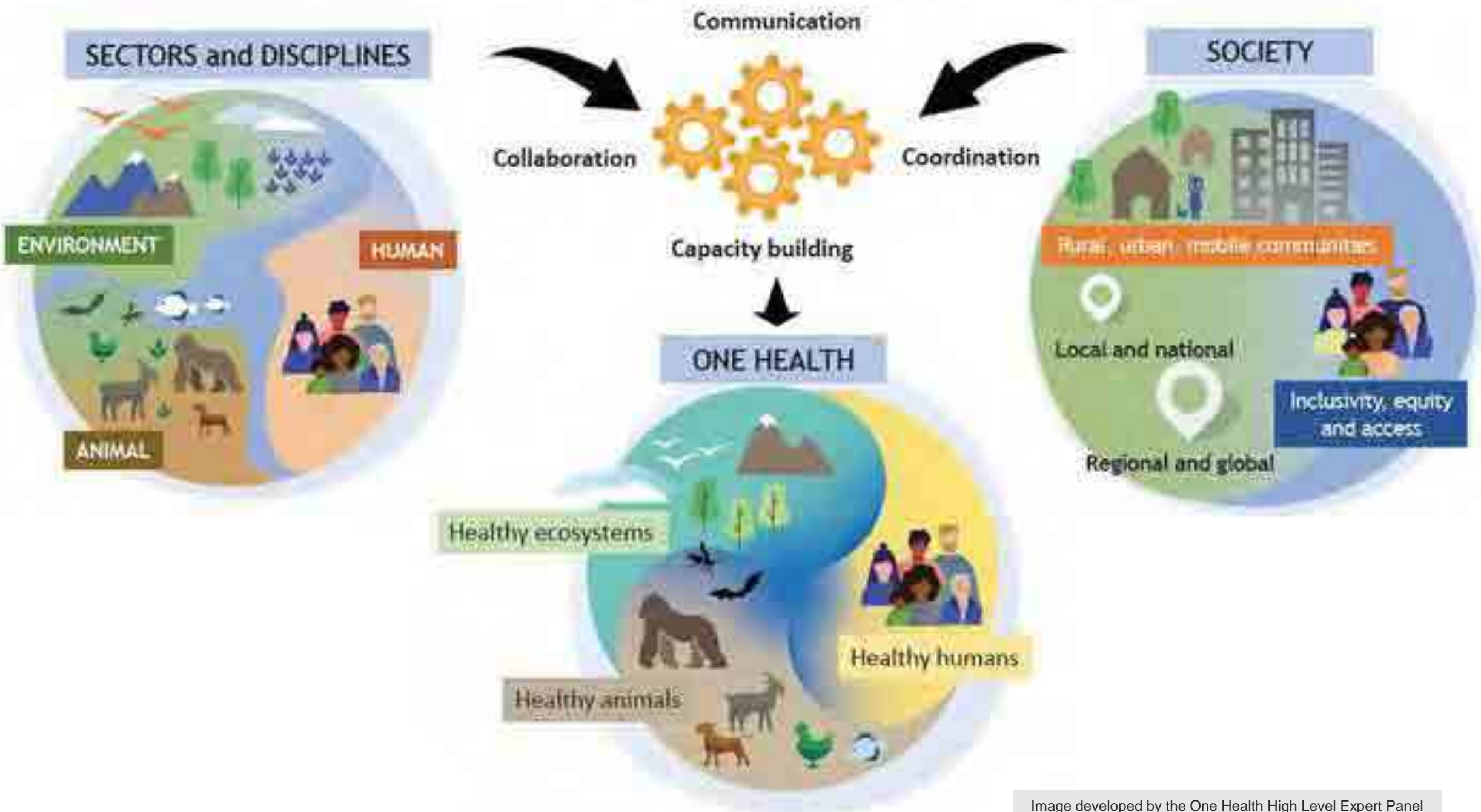


Image developed by the One Health High Level Expert Panel



Returning to the beginning:

PARADIGM SHIFT BACK TO
ECOSYSTEM HEALTH

Resiliency and ecosystem health

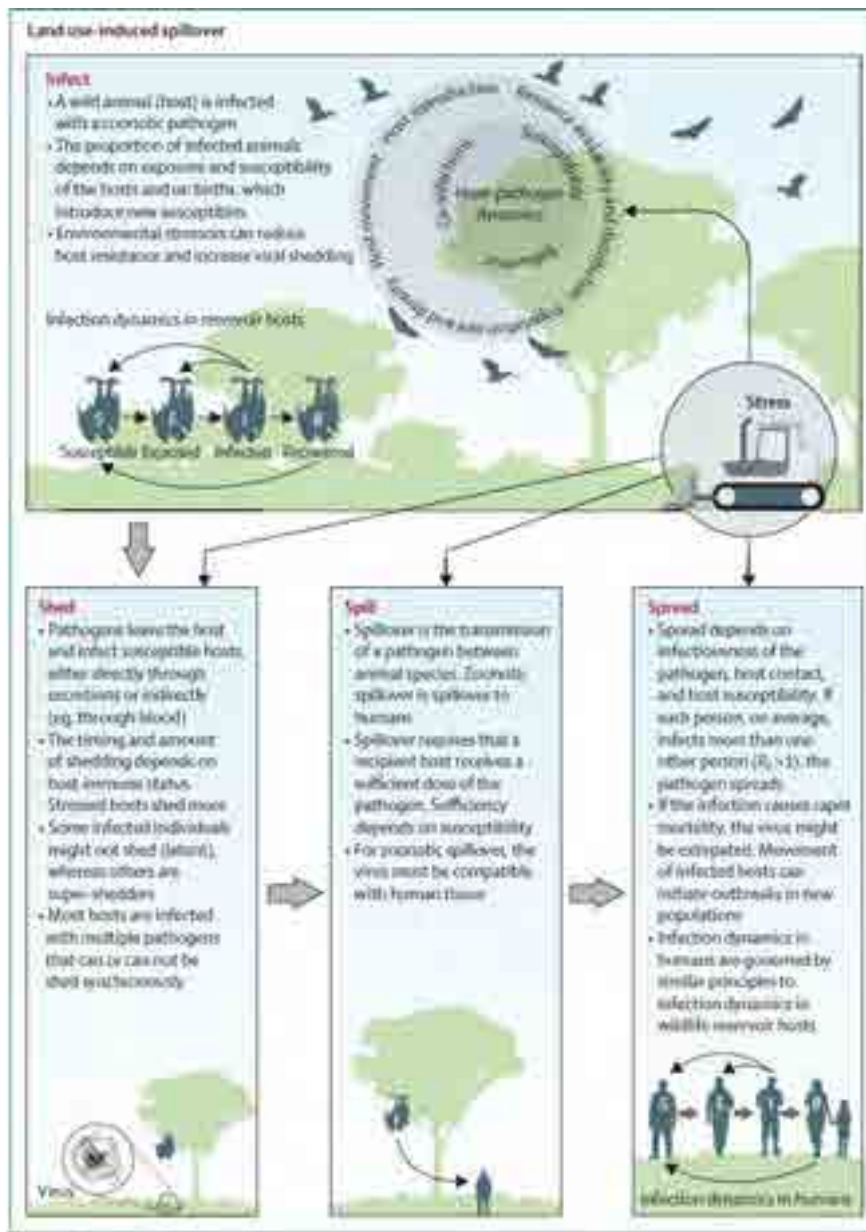


Figure 1: Land use-induced spillover



The North American Model of Wildlife Conservation (Geist et al, 2001)

1. **Wildlife resources are a public trust**
2. Markets for game are eliminated
3. Allocation of wildlife is by law
4. Wildlife can be killed only for a legitimate purpose
5. Wildlife is considered an international resource
6. Science is the proper tool to discharge wildlife policy
7. Democracy of hunting is standard



This is the time of opportunity

In short, a land ethic changes the role of Homo sapiens from conqueror of the land-community to plain member and citizen of it. It implies respect for his fellow-members, and also respect for the community as such.

“A land ethic, then, reflects the existence of an ecological conscience, and this in turn reflects a conviction of individual responsibility for the health of the land. Health is the capacity of the land for self-renewal. Conservation is our effort to understand and preserve this capacity”



photo courtesy Aldo Leopold Foundation 2001

AFWA and the One Health Approach

The fate of North American Wildlife is again at a crossroads with primary threats to biodiversity including: Habitat alteration and destruction, Climate change, and Disease

Concurrently, humans continue to occupy and manipulate greater expanses of wildlife habitat, increasing risks of disease transmission;

AFWA has a direct responsibility and plays a critical role in monitoring and helping prevent disease in wild animals

“Extending AFWA’s leadership into the One Health Space is an appropriate and necessary expansion of AFWA’s expertise and influence to achieve optimal outcomes for itself and for wildlife conservation.”

Convergence at the National Level

- (1) the recent AFWA “One Health White Paper,” authored by Shane Mahoney,
- (2) the AFWA Director’s resolution endorsing “One Health,”
- (3) the AFWA President’s Task Force on One Health,
- (4) sessions at the North American and AFWA regarding the future of the North American Model,
- (5) the AFWA Healthy Fish & Wildlife Initiative,
- (6) the second Wildlife Health Forum, sponsored by FWS, and
- (7) a recent workshop on the future of surveillance and wildlife health (the Conservation and Health Community of Practice)
- (8) USFWS grant positions for Regional Wildlife Health Coordinators

MAFWA integration and support

RESOLUTION TO PROMOTE FISH AND WILDLIFE AGENCY ENGAGEMENT IN THE ONE HEALTH APPROACH

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

WHEREAS, the One Health approach is understood to acknowledge the fundamental interconnections of human, animal (wild and domestic), and ecosystem or environmental health, and

WHEREAS, the One Health approach is increasingly accepted and adopted as necessary for the optimization of public health, animal health, and ecosystem or environmental health, and

WHEREAS, the increasing emergence of zoonotic diseases, exemplified by the current global COVID-19 pandemic, demands increased attention to wildlife health and wildlife disease prevention, surveillance, and response, and

WHEREAS, approximately 70% of emerging zoonotic diseases are caused by pathogens with a wildlife origin, arising from human activities that increase interspecies interactions, and recognition of this fact requires engagement and collaboration of partners across health disciplines for effective management, and

WHEREAS, wildlife health can be negatively impacted by and can serve as a sentinel for environmental contaminants or conditions and infectious diseases affecting both humans and animals, and

WHEREAS, management of human and domestic animal health can impact wildlife and ecosystem or environmental health and vice versa,

NOW, THEREFORE, BE IT RESOLVED, that the Fish and Wildlife Health Committee hereby urges the Midwest Association of Fish and Wildlife Agencies directors to adopt and promote the One Health approach in wildlife health management within their agencies, and

BE IT FURTHER RESOLVED, the Midwest Fish and Wildlife Health Committee encourages member states and provinces to work towards defining, clarifying, and strengthening the role and authority of fish and wildlife agencies in health management within their state, and

BE IT FURTHER RESOLVED, the Midwest Fish and Wildlife Health Committee urges the Midwest Association of Fish and Wildlife Agencies Directors to support active engagement and establishment of official representation for their agency in state/provincial discussions and decision making regarding One Health issues. This interagency collaboration should include agency wildlife health representatives or wildlife health representatives interacting with federal, state/provincial, and local public health and agricultural and domestic animal health management partners to represent the wildlife perspective on relevant health and disease concerns affecting their state or province and to collaborate on solutions promoting One Health, 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 2020.



Where do we go as agencies
from here?

Integration of One Health initiatives at the state level: Examples from Missouri

**HUNTER AND ANGLER
RECRUITMENT AND RETENTION
TECHNICAL WORKING GROUP**



**2023 MIDWEST DIRECTORS ANNUAL
REPORT**

Annual Meeting **OVERVIEW 2023**

Overland Park KS February 14-15, 2023

- Over 50 in attendance
- Social listening project results
- Evaluation of in-person vs. virtual education platform
- Persona journey mapping for new hunters in Missouri
- Council to Advance Hunting and the Shooting Sports
- Small game toolkit pilot
- Learnhunting.org from IHEA
- Multi-state grant projects for 2024.

Multi State Conservation Grant Proposals

MAFWA 2024

- Recruiting Females and Ethnically Diverse Youth Participants into Shooting Sports Phase 2
- Exploring R3 Opportunities in State Parks
- The Public's Perceived Importance and Relevance of State Fish and Wildlife Agencies
- Reducing Churn Among Female Anglers



Next meeting: January 2024 Sioux Falls, SD