

1

Event Details

- Held in Columbia, MO in December 2019 and through subsequent conference calls and webinars
- Scope:
 - Examine the coordination efforts around various research, prevention and management, and communication efforts ongoing or in development around chronic wasting disease, within the boundaries of the Midwest Landscape Initiative, occurring at state, federal and non-governmental organizations.
 - Evaluate how those efforts interact, where opportunities exist among them for improved collaboration and what venues, forums or organizations may be most appropriate to pursue them.
- Objectives:
 - Understand existing authorities, priorities, basic functions, associated partners and users for the major CWD prevention, response and research efforts ongoing in the Midwest (and beyond, as relevant)
 - Compare goals of various efforts, including prior coordination efforts, and organizations and document gaps in research, prevention and management, and coordination opportunities
 - Identify areas of greatest need for further/improved collaboration (intra, interagency and external partners/stakeholders)
 - Develop, or detail what should be included in, a framework for communication of research, legal authorities, and prevention and management needs occurring across or arising from complex multi-jurisdictional issues

2

Original Participants

- Team Leaders: Jason Sumners, Missouri DOC and Kelley Myers, FWS
- Mark Chase, FWS
- Sonja Christensen, MSU
- Ryan Drum, FWS
- Matt Dunfee, CWD Alliance and WMI
- John Fischer, WMI
- Colin Gillan, Oregon DFW and AFWA Health Committee
- Scott Hull, Wisconsin DNR
- Will Inselman, Nebraska GPC
- Levi Jaster, Kansas DPWT
- Tamara McIntosh, Iowa DNR
- Bill Moritz, WMI
- Nick Pinizotto, NDA
- Bryan Richards, USGS
- Mike Tonkovich, Ohio DNR
- Later participating:
 - Dale Garner, Iowa DNR
 - Jonathan Mawdsley, AFWA
 - Jen Mock Schaeffer, AFWA
- Sponsor: Director Sara Parker Pauley, MDOC
- Facilitators: Ginny Wallace and Chuck Anderson, MDOC

3

VSM Outcomes and Recommendations

- Presented to MAFWA Board in October 2020 (other committees earlier in the year)
- Four main recommendations:
 - Engagement: MAFWA members should engage with the hunting community, related industry stakeholders, landowners and the public by exploring and using change management and public engagement expertise to help understand and incorporate motivations and values that shape behaviors in those communities to enable implementation of effective disease management strategies.
 - Coordination: MAFWA should more effectively utilize its governance structure and authority to coordinate and communicate efforts, outputs and outcomes of CWD actions within and outside MAFWA boundaries; MAFWA should serve as a hub for regional CWD-related activities in the region. Parallel efforts and some outcomes of this effort are already underway (e.g. Multistate CWD research consortium, USDA APHIS request for proposals, 4 Corners meeting of MAFWA members (NE, KS, MO, IA)).
 - Unified Position: MAFWA should define a clear and consistent message and position on CWD, including what MAFWA considers a successful outcome in light of the nature of CWD, and MAFWA's member states should align research, response and management where possible to endeavor to accomplish it
 - Coordinating Costs: MAFWA should evaluate the financial implications of CWD response, research and management.

4

Implementation Planning

- Team:
 - Mark Chase, FWS
 - Scott Hull, Wisconsin
 - Will Inselman, Nebraska
 - Levi Jaster, Kansas
 - Russ Mason, Michigan
 - Bill Moritz, WMI
 - Bryan Richards, USGS
 - Jason Sumners, Missouri
 - Kelly Straka, Michigan
 - Mike Tonkovich, Ohio
 - Mike Wefer, Illinois
- Goal of this group: to develop a plan to implement the recommendations from the VSM group
- Met virtually over the course of many months

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Implementation Plan Highlights

Recommended Actions:

1. MAFWA Board should establish a CWD Working Group, comprised of members of the MAFWA Wildlife Health Committee, Deer and Turkey Committee, and the Human Dimensions Committee (provided that the MAFWA Directors approve it's formation as proposed). This CWD Working Group would aim to address issues like the following:
 - Develop and propose for adoption an official position of MAFWA with respect to CWD.
 - External Communications: craft messages, partner with industry groups and provide recommendations for shared CWD information resources.
 - Internal Coordination:
 - Establish a forum among the various committees to meet and share, provide improved dialog and feedback loops with directors, and engage with other experts within FWS, USDA, FS, EPA and others.
 - Track and engage other national efforts, including forming task forces and research consortia, and make recommendations how to proceed.
 - Identify and evaluate ongoing funding and capacity needs, at state and MAFWA levels, for coordination.

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Implementation Plan Highlights

Recommendations, continued....

2. The MAFWA Board should support the development and continued iteration of shared information, research and funding resources with organizations within and outside of MAFWA, including engagement with evolving research and management consortia and endorse multi-state grant applications developing across the MAFWA states.
3. Individual states should continue to take actions, like sharing and disseminating their stories; meeting with neighboring states, where possible, to align actions; identifying single points of contact to simplify communications; and entering into MOUs with neighboring states.

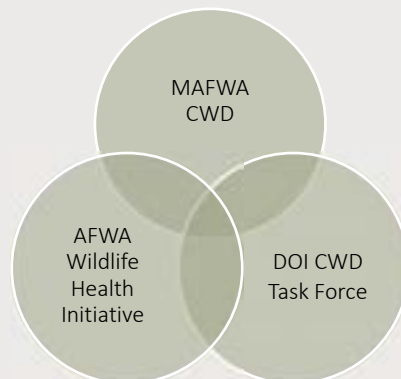
Logistics:

- Bylaws provide:
 - Ad Hoc Committee, by appointment of the President or vote of the members and operate as long as directed
- Charge from the MAFWA Board
- Representation from all three committees
- Chaired by MAFWA director or designee

7

Next Steps....

- MAFWA Board decision
- Population and meeting of Work Group regularly to address the charge
- Report to MAFWA ExCom in September and thereafter as a regular, standing item



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Kelley Myers, Midwest Landscape Initiative Coordinator
kelley_myers@fws.gov
515-401-4403



**Award Committee Report
Monday, June 29, 2021
(virtual meeting)**

Members of the Awards Committee are: Terry Steinwand, North Dakota; Pete Hildreth, Iowa; Jim Douglas, Nebraska; Brian Clark, Kentucky; and Kendra Wecker, Ohio. I want to thank them for their assistance in choosing the winners. We had 20 nominations for the five main awards.

Award winners are:

The Law Enforcement Officer of the Year award is given to the individual who in the past year has shown superior leadership, initiative, and dedication in their duties. This person should personify achievement, public service, education, and above all natural resource conservation. This award goes to **Detective Brian Lebel, Michigan**.

The Wildlife Biologist of the Year award is given to the individual who has shown an unparalleled initiative towards the better understanding of wildlife and their conservation. This award goes to **Laura Conlee, Missouri**.

The Fisheries Biologist of the Year award is given to the individual who has shown an unparalleled initiative towards the better understanding of fishes and their conservation. This award goes to **Dan Mosier II, Kansas**.

The Spirit of the Shack award is given to the individual who exemplifies the ideals of the great conservationist and educator, Aldo Leopold, and who has contributed to conservation in a superior way. This individual should epitomize stewardship and dedication to fish and wildlife conservation. There are two this year. These awards goes to **Jason Jensen, Missouri and Michael Parker, Michigan**.

Excellence in Conservation award is given to the agency that has shown excellence in conservation through a specific project. Each member agency would select one project completed in the awards year that exemplifies the goal of fish and wildlife conservation. This award also has a perpetual plaque. This award goes to **Ohio Birding Academy Team**.

Special Recognition award goes to **Doug Nygren, Kansas** for his dedication to Fisheries and **Noreen Walsh, USFWS**

Sagamore of the Forest, Fields and Streams

“A sagamore is the head of northeastern Native American tribe. The word is generally synonymous with sachem, although sometimes a sachem is considered a chief of the first rank, and a sagamore one of the second rank. Sagamore can also refer to great man among the tribe to whom the chief would look for wisdom and advice.”

This honor is bestowed on any Director or upper level staff member that has contributed significant service to MAFWA. To qualify for this recognition, recipients must provide 4 years of service to MAFWA, have a 75 percent meeting attendance rate and serve on one or more committees.

Dale Garner, Iowa (5 years working with MAFWA)

Kelly Hepler, South Dakota (5 years working with MAFWA)

Two additional Sagamore's that haven't retired yet but are in near future.

Terry Steinwand, North Dakota (6 years working with MAFWA)

Jim Douglas, Nebraska (10 years working with MAFWA)

2021 MAFWA President's Award

George Meyer, Wisconsin Wildlife Federation

Past President Award

None this year.



MIDWEST
Association of
Fish & Wildlife
Agencies

**Midwest Association of Fish and Wildlife Agencies
Awards Nomination Form (2020)**

I want to nominate: Jason McCullough, MI

Award (check only one per form)

☐

Spirit of the Shack

☐

Fisheries Biologist of the Year

☐

Wildlife Biologist of the Year

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Law Enforcement Officer of the Year

☐

Excellence in Conservation

☐

Special Recognition

Nominator information

Name: Gary Haglar

Organization: Department of Natural Law Enforcement Division

Title: Chief

E-mail: haglerg@michigan.gov

Phone number: 517-284-5992

- 1. Provide a brief (one page or less) overview explaining why the individual/agency meets the criteria for the award:**
- 2. Please list and/or describe specific projects, work or accomplishments relevant to the award. Please limit your information to one page.**

Conservation Officer Jason McCullough has been an officer for 18 years and currently is serving in Calhoun County, Michigan. Gary Hagler, Chief of Law Enforcement Division, Nominator

1. Provide a brief (one page or less) overview explaining why the individual/ agency meets the criteria for the award:

Conservation Officer (CO) Jason McCullough graduated with a dual concentration Bachelor of Science degree in Resource Ecology & Management and Environmental Policy & Behavior from the University of Michigan-Ann Arbor in 1999.

Achievement: CO McCullough always gathers intel and takes basic pieces of information and turns it in to large quality fish and game cases ending with successful prosecutions. Some cases have been made based on information gathered from the prior season. Officer McCullough maintains a patrol plan based on problem areas he hears about throughout the year and has made great cases targeting those areas when the season comes back around.

CO McCullough, on his own initiative, has led his area while serving as an Acting Sergeant. In this role, CO McCullough had several CO's as direct reports and was responsible for the daily operations of his area which included multiple counties. During this time, CO McCullough achieved a highly effective balance between direction and delegation.

Public Service: CO McCullough is often called upon to assist with special assignments within Calhoun County and surrounding areas. These include career days, science fairs, local chiefs' meetings, disabled veteran hunts, township meetings, local city/ village events, Boy Scout and Girl Scout Troops, Neighborhood Watch organizations, classroom presentations ranging from elementary school to the college level, career center programs, various security details, special group patrols targeting specific resource issues (e.g. Tip-up town, Bud Bash, salmon patrols, Operation Guard Hair, Belle Isle efforts) and a never-ending request for a CO to speak to outdoor user groups. One of his favorite presentations was at the City of Clare Police Department's Summer Youth Police Academy in Clare County. CO McCullough has volunteered to assist several times at the annual Coast Guard Festival in Grand Haven. CO McCullough has volunteered several times to work the entire week on Belle Isle with the Grand Prix detail.

Education: CO McCullough worked with another CO to establish a Hunter Education program for the local Amish community. CO McCullough conducted a public presentation on DNR Law Enforcement to the graders at Lakeview middle school. CO McCullough talked to four classes with a total of about 100 kids.

Natural Resource Conservation: Conservation Officer McCullough's job performance and dedicated investigative techniques have produced solid cases for the court(s) to succeed in prosecution time and time again. From the very basic to large complex investigations. CO McCullough has a vested interest in the Department as a trainer and instructor. CO McCullough has assisted recruit school academy staff and has assisted the

Parks & Recreation Division with their Park Ranger Academy. CO McCullough assists in the recruitment and training of officers by serving on pre-screening interview panels, background investigator and a Field Training Officer since 2008. He has been a First Aid Instructor since 2005 and a Tactical Tracking Instructor since 2016. CO McCullough is often called upon when information is needed on trapping, forest fires, nuisance animal control and snowmobiles. This knowledge is why the division has entrusted him in being one of our most highly regarded Field Training Officers the division has to offer. CO McCullough often takes young Probationary Conservation Officers and leads them in such a manner to where they are prepared to take the field on their own and be comfortable in doing so.

2. Please list and/or describe specific projects, work or accomplishments relevant to the award. Please limit your information to one page.

CO McCullough was contacted by the United States Army National Guard stationed at Fort Custer following a hunting incident where a deer was shot from the roadway after dark and after the close of the regular firearm deer season. A suspect was determined through some extraordinary efforts of some civilian employees working on the post. After gathering some suspect information and meeting with some of the base command staff personnel CO McCullough contacted the suspect. CO McCullough was able to obtain a confession from the subject for hunting deer with a firearm during the closed season on the base. A citation was issued for the violation CO McCullough witnessed during the investigation. The suspect was barred from entry onto the post until further notice.

CO McCullough observed an ORV operating at a high rate of speed down a Michigan highway. After turning around CO McCullough was able to catch up to the ORV as it was pulling in a driveway about a mile away. Upon contact the operator was found to have a suspended driver's license in addition to the unregistered ORV, operating the ORV without a helmet and operating on a public roadway. The operator claimed he was just riding the ORV home after leaving it at another family member's home. CO McCullough explained the rules for ORV operation and a citation was issued for the violation observed.

CO McCullough assisted Albion Public Safety with a drowning investigation involving a female subject who was swept through a water control structure along the Kalamazoo River. Unfortunately, the female was trapped underwater for too long and was pronounced deceased at the hospital.

CO McCullough assisted the staff of Dominate Cancer (DC) Strong based out of Plainwell, MI deliver Christmas presents to a boy who was recently diagnosed with Hodgkin's Lymphoma. The boy wants to work as a Conservation Officer when he grows up. CO McCullough contacted some National Wild Turkey Federation members to assist with donating items for boy.

CO McCullough served as acting Sergeant for District 8 Area 3 in 2016-2017. CO McCullough received a Certificate of Merit from the Clare County Sheriff's Office in 2015 for actions rendered in apprehending an attempted murder suspect. He was named the Michigan National Wild Turkey Federation Officer of the Year in 2013. CO McCullough was nominated by District 5 for Conservation Officer of the Year in 2011 & 2012.

While the District Sargent was off for several weeks on medical leave, CO McCullough was appointed to work out of class as his replacement as the acting Sargent. CO McCullough did an outstanding job and returned his Area back to him in tip top shape.



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Agencies

**Midwest Association of Fish and Wildlife Agencies
Awards Nomination Form (2020)**

I want to nominate: Alan Leary, Missouri

Award (check only one per form)

☐

Spirit of the Shack

☐

Fisheries Biologist of the Year

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Wildlife Biologist of the Year

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Law Enforcement Officer of the Year

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Excellence in Conservation

☐

Special Recognition

Nominator information

Name: Norman Murray

Organization: Missouri Department of Conservation

Title: Species & Habitat Unit Chief

E-mail: Norman.Murray@mdc.mo.gov

Phone number: 573-522-4115 ext. 3353; 417-299-0225 cell

1. Provide a brief (one page or less) overview explaining why the individual/agency meets the criteria for the award:

Alan Leary, Wildlife Management Coordinator, has demonstrated exemplary leadership during the last several years particularly illustrated by the outstanding success of the Feral Hog Eradication and Bear Aware Programs.

Alan re-established the Missouri Feral Hog Partnership with a renewed focus in 2015 with the co-leadership of USDA. The Partnership rapidly gained momentum with its vision of total removal of feral hogs from Missouri. Trapping and elimination efforts escalated as Department regional strike teams became formally coordinated. It soon became apparent that a formal strategic plan was needed to better coordinate the growing intensity of removal efforts and to convey the need for investment in removal and communication efforts. Alan and the USDA led development of the statewide strategic feral hog eradication plan that includes ranked eradication zones, placement of additional full-time USDA trappers, and a budget to fully implement the plan. He also led the budgeting of an additional \$1.8 million to fully fund the implementation of the plan. Simultaneously, Alan drafted a Department regulation prohibiting hunting of feral livestock on lands managed by MDC, which dramatically increased control success. Alan worked with O&E and other staff to implement a highly effective communication campaign that included billboards, radio and other media spots on commercial networks, many magazine and news articles, and has fielded a multitude of interview requests, information for legislators, and citizen inquiries. Many of these included short deadlines and were less than congenial. Through all this, Alan has remained professional, on point with the communication plan, and dedicated to ensuring that the strategic goals moved forward. His leadership was quickly recognized nationally and he was made chair of the Policy Subcommittee of the National Wild Pig Task Force and the Missouri Feral Hog Partnership continues to receive significant attention from USDA headquarters and others watching progress on this issue.

In 2015, several negative community encounters with juvenile bears occurred, one of which resulted in the death of the bear. These occurred in the spring with dispersing sub-adults and were due to lack of awareness by the public of how to respond to the presence of bears. Alan led development of a “Bear Aware” campaign that has been highly successful and has largely prevented similar instances. Most cases involving bears since resulted from bad behavior by bears creating nuisances and not just dispersing sub-adults. Alan worked with O&E and other staff to implement a successful communication plan that included media releases, billboards, magazine articles, and signs at hiking trailheads and campgrounds. He led the formation of an information packet on bears describing how to respond to their presence and worked with Protection staff to annually distribute these to city managers of targeted communities on the fringes of bear range where dispersal might occur. Alan also led staff to develop bear nuisance response guidelines that empower staff respond to different situations. With vision for what might occur, Alan coordinated Wildlife-Human Incident Training (WHIT) and established regional WHIT teams equipped to respond in case of a wildlife-human attack. Alan also worked with Administration to approve use of tasers for adverse conditioning of nuisance bears and coordinated training so staff could use this valuable tool. Except for Alan’s excellent vision, leadership, and work with excellent staff we would certainly have more extensive bear issues each year.

Alan has deployed and built on skills learned at the Kansas Leadership Center through the programs he leads and staff he supervises. His “can do” attitude, professional manner,

organizational skills, willingness to rely on skilled staff, and desire to improve his own skills are commendable and contribute to the tremendous successes of the programs he leads.

2. Please list and/or describe specific projects, work or accomplishments relevant to the award. Please limit your information to one page.

- a. Co-chair Missouri Feral Hog Partnership
- b. Co-led development of Missouri Feral Hog Strategic Plan
- c. Drafted regulation prohibiting take of feral livestock on Department-managed lands; served as model for other public land agencies
- d. Serves as statewide feral hog coordinator
- e. Chair of the Policy Subcommittee of the National Wild Pig Task Force
- f. Developed Missouri's Bear Aware Program with outreach plan and materials to city planners
- g. Coordinate with statewide Wildlife Damage Biologists to maintain programmatic approach
- h. Coordinated Wildlife-Human Incident Trainings for staff to prepare for the possibility of incidents involving large carnivore incidents



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**Midwest Association of Fish and Wildlife Agencies
Awards Nomination Form (2020)**

I want to nominate: Jacob Davis, South Dakota

Award (check only one per form)

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Spirit of the Shack

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Fisheries Biologist of the Year

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Wildlife Biologist of the Year

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Law Enforcement Officer of the Year

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Excellence in Conservation

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Special Recognition

Nominator information

Name: John Lott

Organization: South Dakota Game, Fish and Parks

Title: Aquatics Section Chief

E-mail: john.lott@state.sd.us

Phone number: 605.773.4508 (w) 605.280.9831 (c)

- 1. Provide a brief (one page or less) overview explaining why the individual/agency meets the criteria for the award:**
- 2. Please list and/or describe specific projects, work or accomplishments relevant to the award. Please limit your information to one page.**

Award Nomination: Jake Davis

It is my privilege to nominate Jake Davis for the MAFWA Fisheries Biologist of the Year Award. Jake is currently the Area Fisheries Supervisor for western South Dakota. In this position, he oversees management of the numerous Black Hills coldwater fisheries resources, as well as the large reservoirs, lakes, and ponds of the Western South Dakota prairie. Jake started his career with the South Dakota Department of Game, Fish and Parks as a summer intern, and worked as a seasonal for the Department while completing a master's degree from South Dakota State University. He was subsequently hired as a fisheries biologist in 2012 in Rapid City, focusing his research and management efforts on trout in the Black Hills. He made an immediate and positive impact on coldwater fisheries management. After only three years, Jake was promoted to his current position.

As an Area Fisheries Supervisor, Jake has built and continues to maintain strong relationships with other Department staff and a plethora of external partners. This is best exemplified by the highly productive collaborations he has developed with a very influential regional angler group, as well as the staff at South Dakota's two coldwater hatcheries. The positive rapport that he maintains with these groups in particular cannot be underemphasized and have been extremely productive. In his supervisory role, Jake oversees the fish habitat program for western South Dakota and champions its importance to fisheries management efforts. He prepared, and updated, an all-encompassing strategic management plan that clearly and succinctly outlines the questions, strengths, knowledge gaps, and future of the fisheries in his area. Jake has been instrumental in developing well thought-out, refined, and research-based management actions. The positive impact of his actions will be felt in western South Dakota fisheries, and those of the entire state, for years to come.

Jake's extensive knowledge of fisheries research and management, his outstanding interpersonal skills, and his positive, can-do attitude have made him an important part of fisheries research and management activities across the entire state. His sage advice is frequently sought for questions on topics such as statewide management initiatives, aquatic invasive species, fisheries regulation changes, study designs, and statistical analysis. The fruitfulness of his sharing his talents can be easily seen from his research output. Since 2012, Jake has been the lead author on four, and a coauthor on three, peer-reviewed journal publications. These papers were the result of applied research projects involving a wide range of professionals, requiring that Jake maintain positive relationships with hatchery, academic, and fisheries management staff.

Jake has represented South Dakota at state, regional and national levels. He has fulfilled several roles in the Dakota Chapter of the American Fisheries Society, including Student Subunit President, Chapter Secretary/Treasurer, and Chair of the Environmental Concerns Committee. His successful ability to act as an intermediary among public officials, university staff, angler groups, and individuals is well known, and he is sought out as a liaison among these entities.

The three qualities that make Jake such an outstanding fisheries biologist are his ability to really listen, his openness to change, and his willingness to collaborate. Jake has an uncanny knack to focus on individuals across the socio-economic spectrum and is just at home with urban professionals as he is with rural blue-collar workers. He hears what they have to say and takes it, and them, seriously. This ability to listen, when coupled with his openness to change and willingness to collaborate has led to dramatic changes in fisheries management and angler satisfaction, particularly in the Black Hills.

Respectfully submitted: John Lott, SDGFP Aquatics Resources Chief

Supporting Information: Jake Davis

Some of the highest-profile fisheries in South Dakota are Black Hills streams and reservoirs. Black Hills anglers are extremely engaged and expect the best possible fisheries at all times. Because many of these fisheries exist on land not owned by the Department of Game, Fish and Parks, partnering with other management authorities is essential to successful fisheries management. The U.S. Forest Service owns much of the land within the Black Hills and the U.S. Bureau of Reclamation manages reservoir releases for some reservoirs. The City of Rapid City is also an important partner. Under Jake's leadership, GFP's relationships and collaboration with these entities is better now than any time over the past 30 years. These partnerships have led to discussions about increasing overwinter flows to increase survival of brown trout in Rapid Creek, cooperation in conducting research projects on Forest Service lands, and financial contributions to stream habitat projects, including increasing stream connectivity and installation of in-stream habitat.

The Black Hills Flyfishers are a sportsman's group singularly focused on enhancing wild trout populations in Black Hills streams. Largely because of Jake's efforts, this relationship has changed from one that was strained, to one where the Flyfishers are a strong supporter of the Department's fish habitat improvement and research efforts. By involving the Flyfishers in the strategic planning process for Black Hills fisheries and his communication efforts, Jake has made this partnership extremely productive.

Jake has engaged the hydraulic engineering faculty and students at the South Dakota School of Mines and Technology to help address stream management issues. Graduate students and faculty have evaluated changes in stream hydraulics resulting from habitat improvement projects. They have also modeled how increasing overwinter releases from Pactola reservoir would affect reservoir operations in the coming year for Rapid City and downstream irrigators. This information is being used in discussions with the Bureau of Reclamation and the City to develop support for increasing overwinter releases to benefit trout in Rapid Creek.

Jake has maintained and enhanced the Department's working relationship with South Dakota State University on fisheries projects. He has used the Advanced Fisheries Management Class to help evaluate the effectiveness of an artificial-lures-only, catch-and-release section of Rapid Creek on wild brown trout. Working with the university and its USGS Cooperative Research Unit, Jake has been able to have several research projects completed that were identified in the strategic plan. Jake and his staff have assisted with field work and provided logistic support for graduate projects. He also served as a member on graduate committees and assisted with editing and writing manuscripts. Some of the projects include the influence of fish density on growth of Brown Trout, impacts of mink predation on brown trout survival and size-structure, factors affecting post-stocking survival of catchable size rainbow, and lake trout population status in Pactola reservoir.

The incredibly close and extremely collegial relationship between hatchery staff and fisheries managers is a direct result of Jake's efforts. Managers use hatchery resources to research management issues in the controlled hatchery environment. Through his leadership, collaboration between these entities has reached unprecedented levels, as

evidenced by the numerous peer-reviewed publications co-authored by Jake, his subordinates, and hatchery staff. Recent changes in fish stocking sizes and numbers in the Black Hills that have greatly increased angler satisfaction are due to Jake's willingness to listen to hatchery staff suggestions and make beneficial changes. In short, the decisions made by Jake Davis have dramatically improved fishing in the Black Hills, which should be the measuring stick for any fisheries manager.



**Midwest Association of Fish and Wildlife Agencies
Awards Nomination Form (2020)**

I want to nominate: WI DNR Warden Joe Paul

Award (check only one per form)

☒

Spirit of the Shack

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Fisheries Biologist of the Year

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Wildlife Biologist of the Year

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Law Enforcement Officer of the Year

☐

Excellence in Conservation

☐

Special Recognition

Nominator information

Name: Lt. Scott A. Bowe

Organization: WI DNR Bureau of Law Enforcement

Title: Warden Supervisor

E-mail: scott.bowe@wisconsin.gov

Phone number: 715-209-0140

1. Provide a brief (one page or less) overview explaining why the individual/agency meets the criteria for the award:

Wisconsin Conservation Warden Joe Paul is assigned to southern Price County, a very busy fish and game station. Joe has been very successful in his station because of his dedication to protecting our natural resources and his commitment to promoting outdoor opportunities; especially for kids with life threatening illnesses.

Joe's enforcement work emphasizes public safety and protection of fish and game and their habitat. He is a highly skilled and motivated investigator. He is willing to be patient and take the time needed to investigate serious violations. Joe's reputation as a thorough and trusted law enforcement officer has allowed him to develop a community of cooperators who are his eyes and ears in the field. Joe's enforcement efforts are always accompanied by a dose of compassion. If you receive a citation from Joe, it will probably come with some good advice and an understanding ear.

Joe also excels at community involvement and public education. Joe works with a wide variety of people and groups including schools, sportsman clubs, local units of government, and the media in his efforts to promote safety and the wise use of our natural resources.

Joe's real strength is his ability to build relationships. Joe works closely with internal and external partners in all aspects of his program. He understands that protection of our natural resources is more than catching violators. It involves working together with our customers to help them learn about our natural resources and develop an appreciation for them.

Joe is professional, highly motivated, and he takes great pride in his work. He makes customer service a high priority and is very responsive to his customers' concerns. His day to day service to customers is timely, responsive, and informative. Joe follows through with projects and citizen requests using a common sense approach while listening to and taking into account the ideas, opinions, and concerns of others. Joe strives to make himself available to his customers. He monitors his phone even on most days off and sometimes while on vacation.

Joe makes a great effort to pass on his appreciation for our natural resources to other people. Joe not only looks for opportunities to help people discover our natural resources, he finds ways to lead the effort. Joe's work in this area has helped veterans, kids, and their families discover...or rediscover....the wonders of our natural resources in Wisconsin and beyond.

2. Please list and/or describe specific projects, work or accomplishments relevant to the award. Please limit your information to one page.

Joe is involved in a lot of activities promoting the outdoors that most of our wardens are involved in such as youth hunts, safety classes, youth fishing events, and presentations to sportsman's clubs and schools. He even arranged to have an illegally harvested 500lb black bear mounted and donated to the Brillion Nature Center. (The violator paid the taxidermy fee.) However, Joe's career accomplishment is probably his work as a founding member of Oconto River Kids.

Oconto River Kids started in 2012 when Joe received a call from Oconto County landowner Eric Bonatz. While visiting his godson who was receiving treatment for Leukemia, Bonatz saw other kids struggling with serious illnesses as well. Bonatz wanted to see if Joe was willing to help provide outdoor opportunities for these kids. Joe was on board from the start. They started out by providing bear hunts in northern Oconto County. Interest in the group quickly spread. Soon there were donations and offers of help pouring in from all directions. They developed early partnerships with other organizations such as United Special Sportsman Alliance, "Take 'em Outdoors", and Mountain Springs Motel. With the help of several volunteers, soon they were building wheelchair accessible hunting blinds, receiving donated bear tags, and taking kids outdoors across the state of WI.

In 2013 Oconto River Kids became a 501 (3) (c) Wisconsin non-profit organization. Their mission is to provide cost free hunting and fishing adventures to kids with life threatening / critical illnesses. Joe transferred to Price County in the fall of 2013, and quickly started recruiting volunteers in his new station. The group has continued to grow over the years and has expanded to providing almost any outdoor adventure you can think of including fishing bluegills off a pontoon boat, trapping, trips to local parks, salmon fishing on Lake Michigan, and far off adventures like elk hunting in Wyoming and moose hunting in Alaska. Joe's leadership in the ORK program has been extraordinary. The program has given hundreds of kids and their families opportunities to enjoy outdoor activities that would normally be out of reach due to physical impairments. These families are able to enjoy precious time together in the outdoors while battling life threatening and even terminal illnesses.

Joe and ORK have also worked with a variety of partners to purchase adaptive fishing equipment for kids and veterans with disabilities, a tracked chair that allows kids to navigate through tough terrain, and a shooting system that allows disabled hunters to fire a rifle.

I appreciate the opportunity to nominate Conservation Warden Joe Paul for the Spirit of the Shack Award. As you can see throughout the application Warden Paul exemplifies the ideal of being a great conservationist and educator. Much like Aldo Leopold, Warden Paul epitomizes stewardship and dedication to fish and wildlife conservation.





MIDWEST
Association of
Fish & Wildlife
Agencies



**Midwest Association of Fish and Wildlife Agencies
Awards Nomination Form (2020)**

I want to nominate: Give Adventure Grant Team, Indiana

Award (check only one per form)

☐

Spirit of the Shack

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Fisheries Biologist of the Year

☐

Wildlife Biologist of the Year

☐

Law Enforcement Officer of the Year

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Excellence in Conservation

☐

Special Recognition

Nomination of

Nominator information

Name: Angie Haywood

Organization: IN DNR

Title:

E-mail:

Phone number:

Excellence in Conservation Award Nomination

Submitted by: Angie Haywood

Team nominated: Give Adventure grant team

Team lead: Jenn Domenech

Team members: Megan Dillon, Jenn Domenech (lead), Colleen Hartel, Elizabeth Middleton, Morgan Sussman, Rachel Woodworth.

Partners on the team: Julia Kemnitz, USFWS, Phyllis Boyd, Groundwork Indy

Indiana Division of Fish & Wildlife received the first \$10,000 Give Adventure grant from the Indiana Natural Resources Foundation (INRF). The goal of the Give Adventure project is to foster a conservation ethic in an underserved Indianapolis community by installing native plant and wildflower habitat at Wendell Phillips School 63 (WPS 63), a traditionally underserved school in Indianapolis. The project included 4 major components: (1) habitat installation, (2) workforce development, (3) conservation education, and (4) community engagement.

The Give Adventure team, led by Jenn Domenech successfully wrote and was awarded a \$14,000 Reconnecting to Our Waterways (ROW) grant to further project funding. The team had an aggressive deadline to complete the project within 7 months. The team worked closely with project partners, including Wendell Phillips School 63, Groundwork Indy, Indy Parks, Reconnecting to Our Waterways, and U.S. Fish and Wildlife Service to complete all 4 components of the project.

The team led efforts to engage the school and Groundwork Indy in planting approximately 750 plugs in the front pollinator garden, sensory garden, and monarch waystation at the school in May 2019. In addition, the team worked to develop the text and design three bilingual interpretive signs that were installed to highlight the pollinator garden, wetland pond and monarch waystation.

In July 2019, The team led the effort to work across the Division and across the Department to host a workforce development day for Groundwork Indy, a non-profit organization working with underemployed youth ages 15 – 25. Twenty-six Groundwork Indy youth participated in the event. The morning involved outdoor activities for youth including fishing and bird watching, a lunch presentation by DNR Human Resources highlighting DNR staff and their career paths, and networking opportunities. One youth shared, “My favorite part of the day was lunchtime, because I had a chance to get to know two of the women that work for the DNR. They gave me a lot of career ideas, and showed me many colleges I may be interested in.” After lunch, Groundwork Indy youth participated in a property tour during which DNR staff discussed habitat management and their individual DNR career paths. On average, students reported an increased knowledge of the purpose and goals of the DNR and of what types of jobs are available with the DNR after the event compared to prior. The core team worked

with Division and Department staff to coordinate event logistics, program content, as well as an evaluation plan. A shooting that led to the death of a Groundwork Indy member's brother required last minute adjustments to the program. The team worked together to quickly change shooting range activities to fishing and birdwatching instead.

In August 2019, a Project WILD workshop was conducted with 55 teachers at WPS 63 to introduce teachers to the school's habitat installations and provide training on how to incorporate the habitats into curriculum plans. The team worked to develop pre and post workshop surveys to evaluate the workshop.

In September, the team worked together with partners and other DFW staff to conduct a culminating community festival at Reverend Mozel Sanders Park adjacent to the school. The team developed all promotional materials in both English and Spanish to encourage diverse audiences. During the festival, DNR and project partners led activities focused on wildlife, pollinators, native plants, outdoor experiences, and watersheds. Approximately 50 community members attended and many returned to favorite activities. In post-event surveys, attendees indicated that the event helped them learn about outdoor recreation opportunities in Indiana, the importance of native plants for their community, and that it was very informative. The team worked diligently for months to plan this event, including procurement of all materials, developing outreach and promotional materials, coordinating with partners and staff on program content, as well as developing a bilingual event evaluation.

It is hard to put into a few words all that this team accomplished and all of the hard work that went into making this program a success. But this team was a new team that had never worked together before and the majority were brand new staff to the Division. This team showed innovation and commitment to the Division's values as they worked tirelessly with a school and community that was a new audience for us. They worked hard to ensure our materials were relevant and inclusive which represented the Division's commitment to being relevant to broader audiences. They served as bold, creative ambassadors for conservation as they worked with a new school and new partners on this project. Through all their hard work over a 7 month period, they demonstrated that they value the role of citizens in conservation as they worked to engage people in conservation in all 4 aspects of this project.

Although the grant-specific project commitments have ended, this team still plans to stay engaged in ongoing habitat maintenance and partnerships with WPS63 and Groundwork Indy.



**Midwest Association of Fish and Wildlife Agencies
Awards Nomination Form (2020)**

I want to nominate: **Kyle Kaskie**
GIS Program Specialist
South Dakota Department of Game, Fish and Parks
523 East Capitol Avenue, Pierre SD 57501

Award (check only one per form)

☐
Spirit of the Shack

☐
Fisheries Biologist of the Year

☐
Wildlife Biologist of the Year

☐
Law Enforcement Officer of the Year

☐
Excellence in Conservation

☒
Special Recognition

Nominator information

Name: Ross Scott

Organization: South Dakota Department of Game, Fish and Parks

Title: Division Staff Specialist – GIS Coordinator

E-mail: ross.scott@state.sd.us

Phone number: 605-773-2868

1. Provide a brief (one page or less) overview explaining why the individual/agency meets the criteria for the award:

I would like to nominate Kyle Kaskie for Special Recognition through MAFWA. He serves as a GIS Program Specialist for the South Dakota Department of Game, Fish and Parks (GFP) based in Pierre, SD. I have had the privilege of working with Kyle since April 2019 and from my perspective, he has made outstanding contributions to sponsored projects and initiatives supported by MAFWA.

Kyle is a dedicated and valued staff member who can visualize, interpret, and analyze the need for R3 strategies in the outdoors and their value to the citizens of South Dakota. He has demonstrated this through his nearly self-taught technical expertise of dashboard creations to track public class attendance of GFP programs and license sales. His use of these data analysis products create powerful and encompassing overviews of trends, progress, and goals that have become the standard for staff use statewide. He is consulted by professional and, often more tenured, GFP field staff for his opinion and input on project ideas. He has become a subject expert in ways to showcase data in a visually appealing way that anyone can understand.

Kyle has additional duties that play a crucial role the creation of wildlife management and public facing maps today's stakeholders crave. He has quickly risen to the position of technical expert for most internal wildlife surveys, including the high priority Pheasant Brood Route Survey. This survey is done annually to document successful pheasant broods detected on predetermined routes in order to give soon-to-be hunters an idea of where the best place to hunt each fall is. He maintains this survey so that accurate observations are taken by field staff and has created an easy-to-use interface that all skill levels can use. He also created and maintains the State Record Fish dashboard. This public-facing product not only shows the location of state record catches, but provides a name, date and photo of the trophy fish reported to the GFP. Other applications within the GFP realm that Kyle provides technical expertise include waterfowl, hunting unit, and research maps.

Kyle demonstrates integrity to remain firmly committed to the GFP mission. He is proud of the product he provides the public and internal staff. He continues to build a high level of ethical trust when coordinating with me and other new staff on unfamiliar projects. During other meetings, he can describe and defend a technical idea into simple, easy-to-follow descriptions that be understood by users who might not be familiar with the work it takes behind the scenes – often this work is overlooked and certainly isn't glamorous. As noted throughout this nomination, he can set and achieve goals at a professional level and reinforces the fact that he is a regular user of the outdoors and recreational opportunities that South Dakota and our agency have to offer.

2. Please list and/or describe specific projects, work or accomplishments relevant to the award. Please limit your information to one page.

Kyle's creation of the Class Attendance dashboard through ESRI applications is a fantastic way for staff to track class participation, timing, and locations throughout South Dakota. Previous attendance records were often handwritten and unorganized, but with the creation of this dashboard and his training for staff on how to use the product, are now streamlined and readily available for review and citation by senior level staff and planners.

Most recently, Kyle created the Recreational Licensing dashboard. This new creation finally allows staff to track recreational license sales in nearly real-time and offers a filterable experience so any user can find exactly what they need. These license sales include waterfowl, small game, and fishing license types, just to name a few. This data come directly from GFP servers and Kyle has mastered the art of organizing and importing this data into a usable format for this platform. Additionally, Kyle was able to import the county location, age, and gender of each license holder. This allows senior staff to be able to create targeted marketing efforts for current or lapsed license holders throughout the country to aid in R3 efforts throughout the United States. Kyle's work was also recently featured by ESRI in their recent case study "South Dakota Game, Fish, and Parks Boosts Participation in Outdoor Recreation" which can be viewed at this link: <https://www.esri.com/en-us/landing-page/industry/government/2020/south-dakota-game-fish-and-park-case-study>.

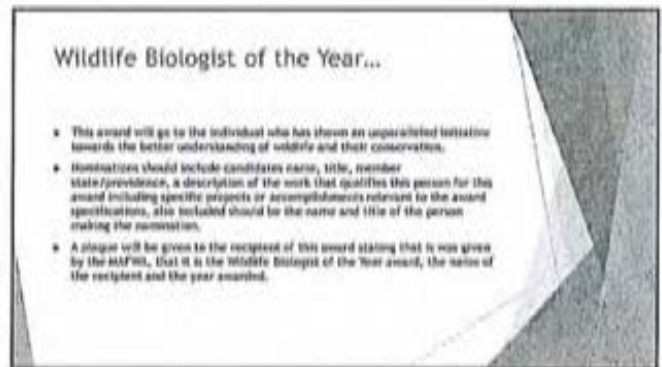
This work is truly pioneering for any agency within South Dakota and Kyle's work should be considered a shining example of how his motivation and a need for data display and visualizations play a part in all facets of MAFWA projects and initiatives. It is for these reasons found throughout this nomination that I fully expect Kyle Kaskie to receive Special Recognition from the MAFWA Award Committee.

Respectfully submitted,

Ross Scott
Division Staff Specialist – GIS Coordinator
South Dakota Department of Game, Fish and Parks
523 East Capitol Avenue, Pierre SD 57501
Ross.scott@state.sd.us



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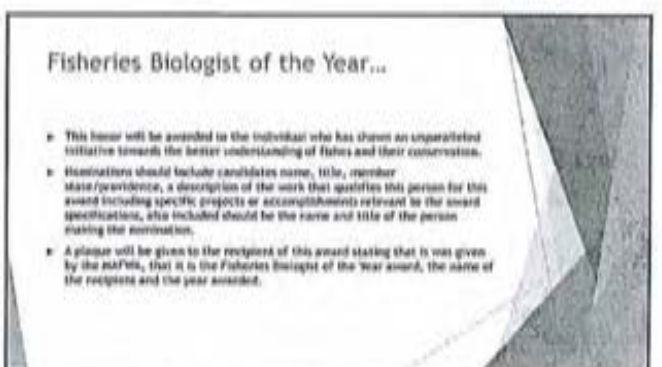
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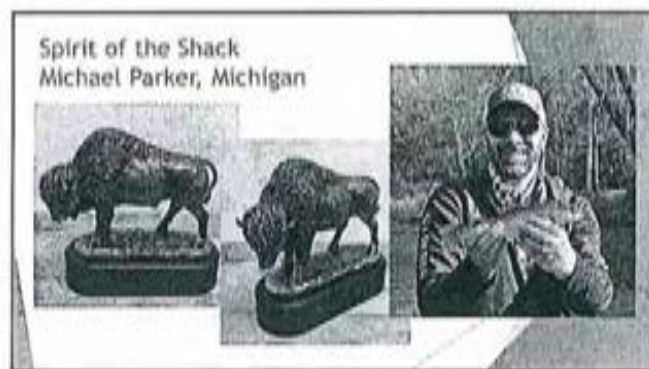
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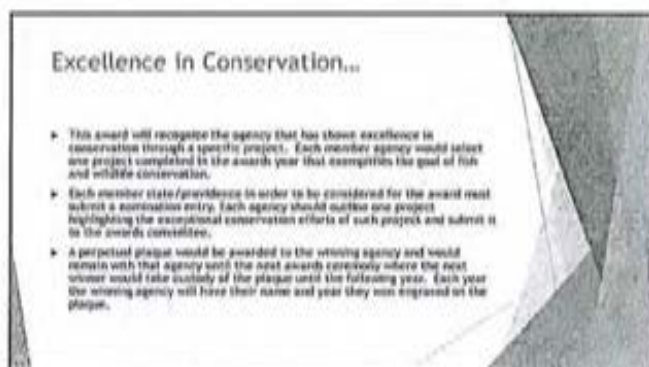
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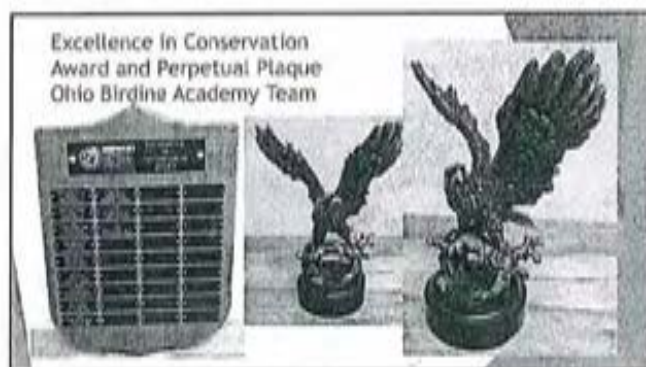
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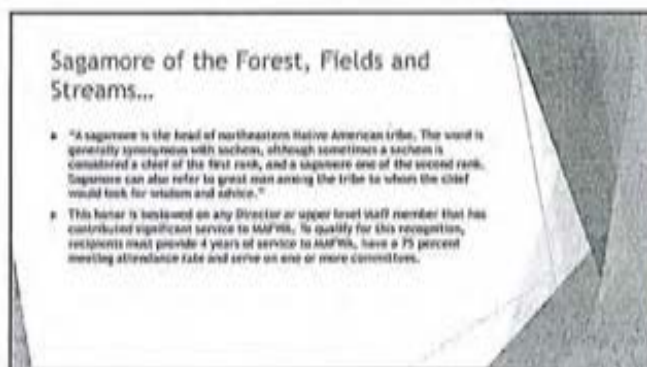
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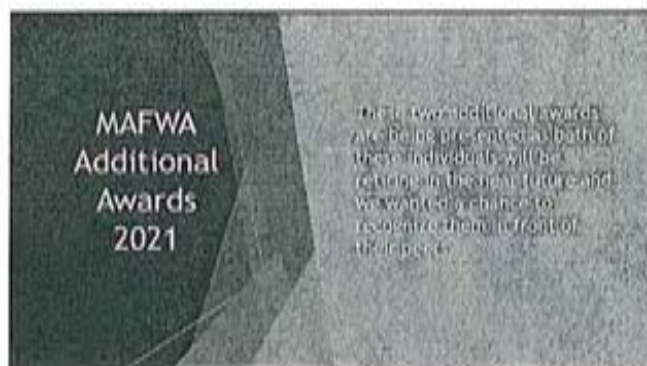
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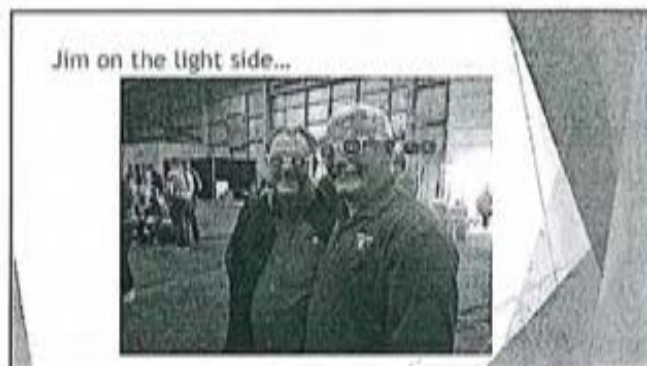
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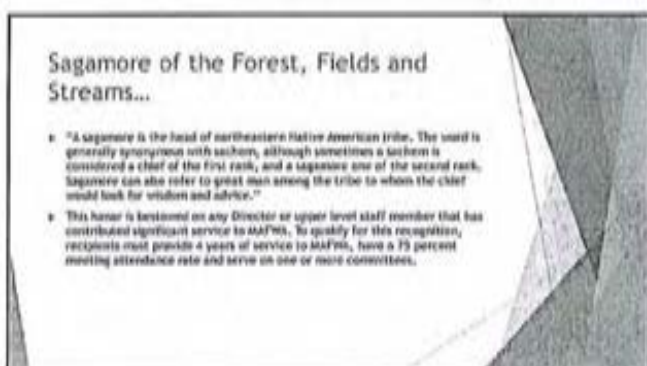
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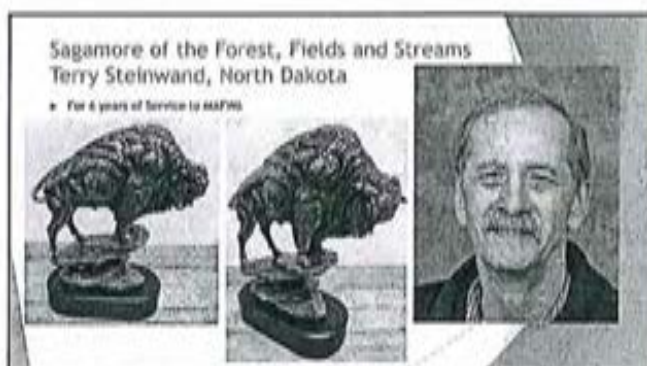
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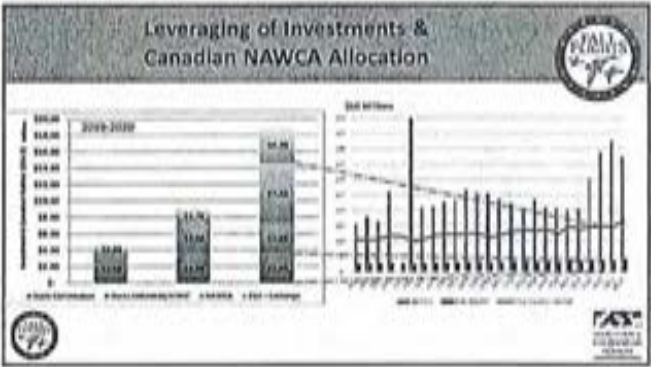
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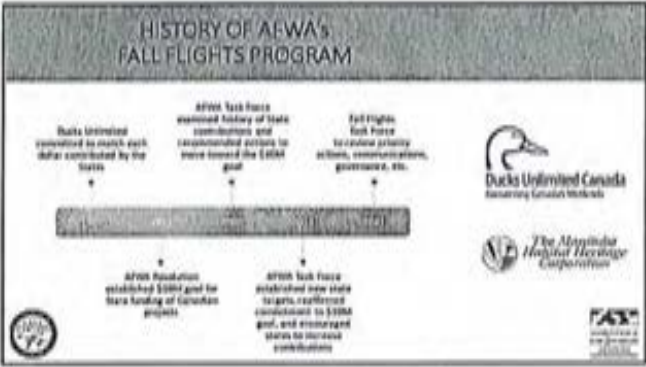
MAFWA
Directors Meeting
June 29, 2021

Giving Wings to Cross-Border
Waterfowl Conservation

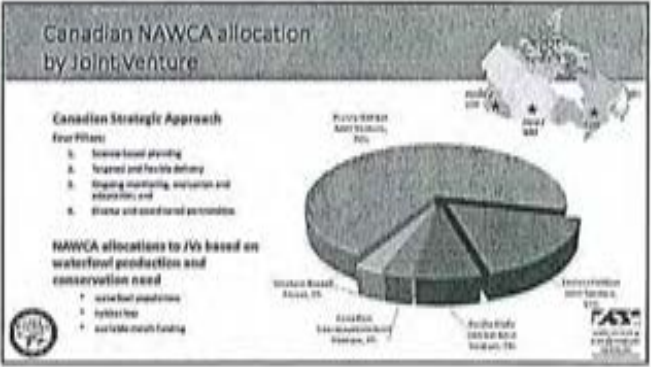
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2022-2 NAWCA Estimate is \$US 37,500,000

Category	2022-2 NAWCA Estimate (\$M)
NAWCA	37.50
State Contributions	10.00
Private Industry	10.00
Other	10.00
Total	67.50

6




President's Task Force

- Review "2016 Action Plan",
- Joint Venture input on habitat conservation needs,
- Update allocation of \$US 10M annual goal,
- Identify actions to build the "Fall Flights" brand,
- Enhance on-going management of Fall Flights, and
- Prepare a report and recommendations for AFWA Annual Meeting.

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Predominant Cluster Characteristics



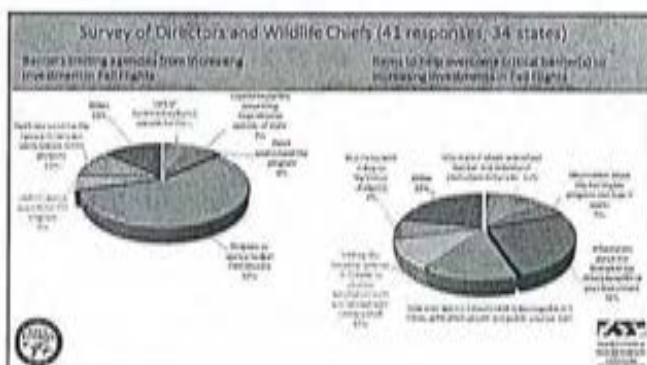
Cluster 1 Moderate drought prone Moderate government expenditures on wildlife (no conservation land preservation) Moderate	Cluster 4 High level of fall migration (mostly waterfowl) High level of government expenditure on wildlife (conservation land preservation) Moderate
Cluster 2 High breeding/wintering habitat High state level conservation programs	Cluster 3 High number of state agencies in wildlife habitat conservation (mostly state level fall migration)
Cluster 5 High number of government (state) programs High number of habitat and wildlife High government expenditure on wildlife	Cluster 6 High number of government (state) programs High number of habitat and wildlife High government expenditure on wildlife

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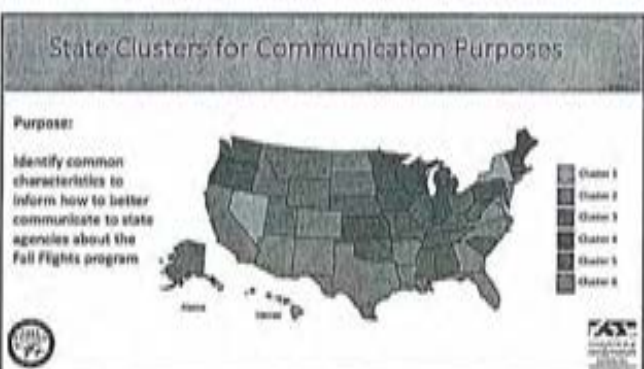
New Simplified Priority Actions

Meetings of State Directors & Program Contacts to Identify and Engage State Champions	States Actively Engage in Ongoing Canadian Site Visits	Create a National Program to Monitor, Assess, Report, and Recommend
Develop a National Program to Monitor, Assess, Report, and Recommend	Develop a National Program to Monitor, Assess, Report, and Recommend	Develop a National Program to Monitor, Assess, Report, and Recommend

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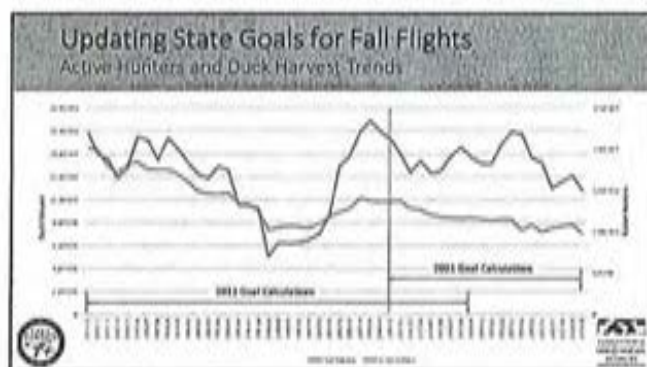


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Proposed New Governance Structure

- **Purpose:** oversee the implementation of the Fall Flights Program, including:
 - Develop the program brand
 - Reach mid/long-term funding objectives
 - Report on program progress
- **Governance Approach**
 - Consultative governance structure
 - Provide advice and assessment of program impact, and
 - Make Fall Flights program adjustments

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Southern Wings

A Partnership of State Fish and Wildlife Agencies



www.fishwildlife.org

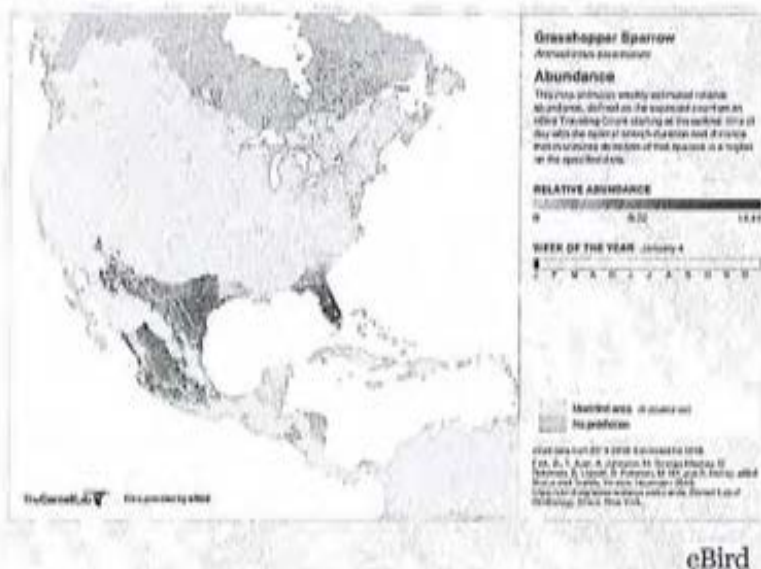


Exhibit 8

An international collaboration to conserve shared SGCN migratory birds through annual life-cycle conservation



www.fishwildlife.org



Why U.S. State Wildlife Agencies Participate

1. Compliments in-state investment for priority shared species
2. Leverages limited state funds (at least 1:1)
3. Implements annual cycle conservation
4. Helps keep birds from becoming listed as endangered in the U.S.
5. Connects states to projects that help conserve shared priority species

www.fishwildlife.org



305



39 State agencies have contributed over \$3,200,000 to the conservation of 81 shared SGCN species in 11 countries through 24 projects.





Southern Wing's Connection with MAFWA States via SGCN

- Cerulean warbler (SGCN in 10 states, endangered in Canada)
- Piping plover (SGCN in 9 states, endangered in Canada)
- Grasshopper sparrow (SGCN in 9 states, special concern in Canada)
- Wood thrush (SGCN in 6 states, threatened in Canada)
- Golden-winged warbler (SGCN in 7 states, threatened in Canada)
- Sprague's pipit (SGCN in 6 states, threatened in Canada)
- Around 60-70 SGCNs total

www.fishwildlife.org



Cerulean Warbler Conservation

Prooves, ABC, NEAFWA, Indiana, Missouri

- Acquired 299 acres to expand the Pauxl Pauxl Reserve
- Planted 500,000 saplings on 2,828 acres
- Trained and educated over 4,000 to engage in conservation and raise awareness



www.fishwildlife.org



Grasslands Conservation in Saltillo (el Tokio)

Pronatura Noreste, ABC, Iowa, Nebraska, Oklahoma, Kansas, South Dakota

- Protect and restore native desert grasslands
- Sprague's pipit, loggerhead shrike, grasshopper sparrow, etc.
- Over 150,000 acres of grassland habitat has been secured for conservation



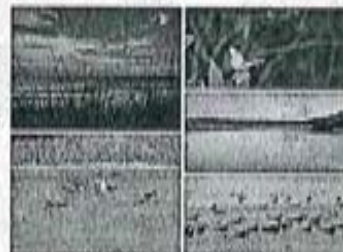
www.fishwildlife.org



Protecting stopover and wintering habitat for key priority species of shorebirds and waterbirds at Laguna Madre, Mexico

Pronatura Noreste, ABC, Pacific Flyways Council, Texas

- Conserve habitat through protection and restoration of wetlands and mangroves
- Important area long-billed curlew; piping, plover; red knots, redheads, and more.
- Southern Wings support reforested 75.6 acres of mangroves by planting of nearly 21,000 mangrove saplings



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A Region Wide Strategy in Caribbean Guatemala

- Forests within Guatemala's Caribbean Rainforest Corridor are a vitally important to shared species survival for some SGCN.
- Stop over and wintering habitat for at least 140 species of neotropical migrants.

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Almost 11,000 acres of habitat have been acquired for migratory bird conservation in Guatemala!



www.fishwildlife.org



Southern Wings

- is a critical compliment to in-state investment in SGCN species;
- offers an easy, transparent, and flexible process;
- strong partners that are monitored and provide reporting;
- leverages limited state funds and can provide non-federal match for SWG and PR funds;
- identifies strategic, biologically relevant actions in critical habitats; and
- helps keep species off the Endangered Species Act by addressing full life-cycle conservation needs.



61 Species Substantially Shared by Canada, Mexico & USA



Survey Results

- 38 states and the District of Colombia responded
- How can Southern Wings help implement SWAPs?
 - Help integrate annual life-cycle into next SWAP (for most that responded it is not in their current SWAP)
 - Provide non-federal match
 - Show how projects benefit a specific state's SGCNs
 - Provide outreach materials on annual life-cycle conservation
 - Help address limiting factors for species when they are outside of the state



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Survey results

- Why are you not able to participate in Southern Wings?
 - Top reason was financial.
 - Lack of awareness and understanding of direct connections for state species to Southern Wings
 - Perception of sending funds outside of a state

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The Coming Year

- Enhance use of migratory connectivity information to continue making strategic priority decisions on where to fund conservation actions.
- Develop a template annual life-cycle section for SWAPs
- Create a one stop shop for state migratory bird connectivity information



www.fishwildlife.org



Contact Information

Contact Information:

Deb Hahn

dhahn@fishwildlife.org

Skype: deb_hahn

www.fishwildlife.org

(AFWA Inspires, Southern Wings)



www.fishwildlife.org

Midwest Climate Adaptation Science Center

MAFWA Director's Meeting
Olivia LeDee
6/26/2021

USGS

1

Creation of the MW CASC

The Northeast Climate Adaptation Science Center currently encompasses 21 states with divergent climates and adaptation needs. The recommendation includes \$4,000,000 to establish a Midwest Climate Adaptation Science Center to focus on and address the threats to natural and human communities in Midwest states and develop a more tailored strategic science agenda (HR 116-100)

4

Bottom Line, Up Front

1. FY21 CASC budget increase invested in new science, future increases can advance technical support for partners
2. MW CASC has launched and will be fully operational in Fall 2021
3. Interim science plan informed by fish, wildlife, and land managers
4. More than \$5 million already invested in applied climate research
5. Meaningful engagement with states will continue...will request participation on Science Advisory Committee

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2



Where We Work

MISSION:
Delivering science to help fish, wildlife, water, land, and people adapt to a changing climate.



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Future Options

Larger, long-term research initiatives

Direct technical assistance federal/state agency partners

Training for federal/state agency partners

Technical support for Tribal partners

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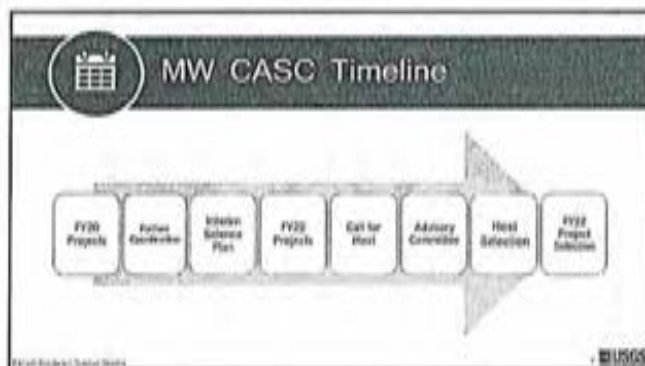
University Partnership

Each regional CASC has a host university, selected through a competitive award process every 5-7 years.

- USGS-UNIVERSITY PARTNERSHIP**
Each CASC is a collaborative agreement between USGS, federal CASC, and a regional host university.
- Initial Host Selection**
Host universities are initially selected through a competitive funding opportunity.
 - Host Re-competition**
Hosts are re-competitive every 5-7 years through an open proposal process.

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7

Quantifying the Impacts of Climate Change on Fish Growth and Production to Enable Sustainable Management of Diverse Inland Fisheries

GOALS: Carry out population and climate monitoring to:

1. Quantify relationships between environmental conditions & growth rates
2. Use future scenarios to predict responses
3. Maintain sustainable, resilient fisheries

BACKGROUND: Managers balance multiple objectives to maintain priority fisheries and determine fishery availability for harvest in lakes.

Ag: Gretchen Hansen (USGS) serves as the Project PI

Timeline: A timeline of 2 years for the project

Challenges: are that complex interactions of temperature and fish production complicate the management of harvest opportunities

Partners: USGS, Michigan State University, University of Wisconsin-Madison, Minnesota DNR, Wisconsin DNR, Michigan DNR

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Science Priorities

1. Heavy precipitation events and drought. Heavy precipitation events, flooding, and drought alter the condition, structure, services, and management of natural resources
2. Loss of winter. Warming winters, altered snow patterns, and increased variability affect fish and wildlife populations, habitat management, and nature-based recreation
3. Altered hydrological regimes. Changes in temperature, flow, and connectivity alter high-value fish populations, aquatic ecosystems, and culturally important resources
4. Novel terrestrial landscapes. Shifts in vegetation and human responses to climate change alter the suitability of the landscape for priority and at-risk wildlife populations
5. Barriers to and opportunities for adaptation. Climate change alters the feasibility of management goals and suitability of management tools

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8

Can Climate Change Adaptation through Silviculture Save Sensitive Boreal Species? A Case Study of Moose in Minnesota

GOALS: Develop adaptive silviculture to minimize impacts by:

1. Defining strategies for operational units through workshops
2. Modeling landscape scenarios using the LANDIS-II model to illustrate habitat suitability and optimize habitat restoration efforts

BACKGROUND: Being both culturally and economically important, moose have experienced a 60% population decline since 2006 in Northeast Minnesota.

Ag: Debra Donner (USFS) serves as the Project PI

Timeline: A timeline of 2 years for the project

Challenges: are that climate change and the loss of boreal forests are felt in increased heat stress, ticks, deer parasites; there are few strategies to improve habitat and prepare for changes

Partners: National Park Service, US Forest Service, Wisconsin DNR, Minnesota DNR, Grand Portage Chippewas, and Nish-Gah-Chi-Wa-Nong Reservation

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Current MW CASC Projects

- 6 Fisheries: recruitment in Lake Michigan, growth and production of sport fish in lakes, thermal ecology and range decline, stocking supply/demand dynamics, stock sourcing
- 5 Wildlife: waterfowl habitats and distributions, butterfly declines, moose, winter-adapted species
- 2 Forestry: climate informed restoration, woody invasives
- 4 Cultural/societal impacts: HABs, wild rice management, aquatic invasive species, public acceptance of adaptation

<https://cascprojects.org/#/cascmidwest>

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Engagement

Science Advisory Committee:

- Development of science plan
- Development of planning and implementation strategies
- Facilitate engagement
- Provide feedback on program

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Thank You!

Olivia E. LeDoe, Ph.D.
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