Investments in Fish Habitat Improvement

Natural Resources Commission Fisheries Subcommittee October 13, 2022 Jessica Mistak, Habitat Management Unit Supervisor Joe Nohner, Inland Lake Biologist





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Habitat: Local Scale







Habitat: Lake or Stream Valley Scale



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Habitat: Watershed Scale







Habitat: Global Scale

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History of Aquatic Habitat Improvement- CCC





History of Aquatic Habitat Improvement- CCC

Work Accomplished

The following summary indicates the amount of work which was accomplished during the summer of 1933: Total number of crews-6. Total man hours—10,302. Total lakes improved-28. Total brush shelters (various types)-1,084. Total bass nests (boxes)-50. Total bass nests without boxes-198 (plus 11 cubic yards of gravel). Total minnow slab devices-233. Total vegetation planted-55 cans plus 5 truck loads. Total minnows and yearling bass planted-37 10-gallon cans. Plans are now in progress for a continuation and expansion of this lake improvement work in Michigan over the winter and next year.



History of Aquatic Habitat Improvement







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ALL MICHIGAN







DNR MCHIGAN

RC



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Current Efforts- Fisheries Habitat Grant

- 175 Projects funded since 2008
- 42 Projects funded 2019-2021
- Over \$31 M since
 2008, with conservation
 impact of over \$58 M



Current Efforts- Dams

- Dams in all 83 counties
- ~2,600 statewide

DNR - 209 dams

- Wildlife 113
- Fisheries 62
- Parks and Rec 29
- Forest Resources 5



Current Efforts- DNR Dams

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Next Steps

Unanswered Questions

- Getting the most from habitat projects
 - Need for strategic evaluation
 - Projects are expensive
- Do habitat projects lead to more fish?

Au Sable River Resilience Project E NAT

Questions

Jessica Mistak

Habitat Management Unit Supervisor

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Joe Nohner

Inland Lake Biologist

nohnerj@michigan.gov





Lake Superior Splake Management



October 13, 2022 NRC Fisheries Committee

Stocking



- Current stocking
- Site evaluation
- Marking







- Return to creel
- Destination fishery
- Splake advocates



Regulations



- Regulation challenges
- Potential changes





- Splake are fertile
- Limited evidence of introgression
- Study plan
- Mitigation efforts







Cisco Chain Muskellunge

Patrick Hanchin

Lake Superior Basin Coordinator

October 13, 2022

Muskellunge Biology

- Can be long-lived
- Annual mortality = 16-26%
- Most harvested muskies are female
- High recruitment and low mortality needed to produce trophy muskies
- Protection can equate to large increases in recruitment



Cisco Chain Muskellunge Biology

- Good natural recruitment
- High size structure
- Relatively slow growing
- Low harvest
- High angler effort



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Muskellunge Recruitment

- Declines in recruitment tied to shoreline development
- Cisco Chain continues to be developed





Public Input

- 2019 Coffee & Conversations
- 50" MSL implemented on border waters in 2020
- 2020-2021 did not seek changes
- 2022 Coffee & Conversations
- BWMC, MMA, musky anglers, LED support
- WUPCAC, UPSA, MDAA do not support

Illustration provided by Joseph R. Tomelleri ©

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Summary

- No biological need for 50" MSL to protect from overfishing
- Increase odds of producing trophy but decrease harvest opportunity
- Consistent management for a species that moves freely within a chain of lakes
- Improve clarity and simplify enforcement





Questions?

Patrick Hanchin Lake Superior Basin Coordinator hanchinp@michigan.gov

UP Habitat Workgroup Update



Founding members of the Upper Peninsula Habitat Workgroup

History & Background



Role of private landowners related to habitat:



Habitat Work Group Charge:

Deer winter habitat is a critical component of a healthy, sustainable deer herd in the Upper Peninsula. In most cases, deer yard complexes span across multiple ownerships. More than 80% of the existing complexes occur on private and federal land. For this reason, accurate mapping of complex boundaries, the development of cooperative management strategies that span ownerships and communications to the landowners involved are key.

The Upper Peninsula Habitat Work Group membership comprised of DNR wildlife and forestry employees, federal forest managers, members of the Natural Resources Commissions, and wildlife and forestry interests.

The group's overall charge is habitat enhancement and forest planning. This effort has focused on identifying important deer wintering complexes, their boundaries, and ownerships. It has also involved the cooperative conservation and harvest strategies that optimize benefits for both wildlife and timber production on private lands within complex boundaries.
Current Members:

Dave Nyberg NRC Commissioner Dave Anthony NRC Commissioner Bill Scullon DNR-Wildlife Division Tom Seablom DNR-Forest Resource Division Eric Stier American Forest Management Amber Oja- Lyme Timber Paul Thompson Hiawatha National Forest Pan Nankervis Ottawa National Forest Bernie Hubbard SAF/MFA Warren Suchovsky -Private landowners George Lindquist MUCC/UP Whitetails- Marquette County Dave Johnson UPSA Sara Kelso- Conservation districts Jim Hammill- SCI Foundation/SCI Stacy Welling Haughey- DNR Executive Division

Objectives:

The goal is habitat enhancement and forest planning (by identifying deer wintering complexes, their boundaries and ownerships) and the exploration of cooperative conservation and harvest strategies that optimize benefits for both wildlife and timber production on private lands within complex boundaries.

The main objectives are to focus on the following:

- 1. Prepare complete ownership and cover maps for all lands in each deer wintering complex across the UP. This effort should start in the west and move east. It will require obtaining access to existing data from landowners other than the DNR.
- 2. Share ownership and cover map information with all landowners and cooperate with them in a pilot project to draft Best Management Practices (BMPs) for Michigan deer wintering complexes.
- 3. Explore opportunities to incentivize adoption of BMPs by landowners as well as opportunities to manage cooperatively across ownerships.
- 4. Explore the development of an MOA or MOU with the U.S. Forest Service to extend implementation of BMPs to federal ownership.
- 5. Deliverable items put forth in agreements with partners that have been agreed upon.

Wildlife Habitat Grant 2018 (completed October 2021)

Completed Work -

- Hiawatha Sportsmens Club 10 acres hard and soft mast planting
- Private Landowner (Vissering) 22 acres of breakout areas.
- Keweenaw Land Trust 20 acres of conifer release
- Keweenaw Land Trust 18 acres of opening maintenance and breakout areas.
- Total Acreage Completed ~ 70 acres

Funding Amount -

- Approximate granted amount from the Michigan DNR ~ \$71,800
- Matching funds from SCIF ~ \$12,560
- Total project cost ~ \$84,360

Wildlife Habitat Grant 2019

- Work is ongoing, with the grant period extended to the fall of 2023.
- <u>Completed Work –</u> Multiple projects across 10 different landownerships are completed ~ 98 acres combined.
- <u>Ongoing Work 1 project is left to be completed in 2023.</u>
- Funding Amount -
- Approximate granted amount from the Michigan DNR ~ \$138,600
- Matching funds from SCIF ~ \$17,120
- Total project cost ~ \$155,720

Dashboard: Oct. 1, 2019-September 15, 2020

- Approximate Acreage Total: 4,578
- 239 individuals contacted
- 2019 Deer camp Survey Results/Work: 25 Inserts returned: 25 referred
- 15 of the 25 interested Parties were contacted to schedule site visits until Covid-19 delays.

Wildlife Habitat Grant 2021 Application Plan:

Grant funds awarded in September 2021. 8 of 9 projects are completed. All project work is expected to be completed by the spring of 2023, ahead of the grant cycle ending in the fall of 2023.

<u>Completed Work –</u> Work has been completed on 5 landownerships. Work **enhanced 825 acres** of ownership, with **34.2 acres** of project area. Completed work in 2022 includes 4 mast tree plantings, 3 tree release/pruning projects, and 1 forestry mulching and site prep project.

<u>Planned Work ~</u> 1 tree planting project remains that is scheduled for completion in the spring of 2023

• This work will occur on 5 different properties totaling 825 acres of ownership.

Funding Amount -

- Approximate granted amount from the Michigan DNR ~ **\$59,700**
- Matching funds from SCIF ~ \$6,800
- Total project cost ~ \$66,500

2022 Wildlife Habitat Grant Application Plan

• 8 ownerships across 4 counties in the U.P. including Iron, Houghton, Delta, and Marquette counties. This project will result in enhanced wildlife habitat on **241** acres, specifically:

- 100 acres of mixed conifer underplanting in a Northern Hardwood stand.
- 141 acres of mixed conifer planting in semi-open postharvest conditions.
- 560 large potted stock of primary shelter species will be planted with protective fencing installed.
- 140,660 of secondary shelter species will be planted.

<u>Completed Work –</u> Project partners have been contacted and expect work to begin in the spring of 2023. All projects are anticipated to be completed in the spring of 2023.

<u>Ongoing Work – The contractors for all work will be selected this fall to ensure tree stock availability.</u> Projects will be completed in 2023, as soon as the soil conditions allow.

Funding Amount -

- Approximate granted amount from the Michigan DNR ~ \$174,600
- Matching funds from SCIF ~ \$19,500
- Total project cost ~ \$194,100

SCIF UPWHI: Wildlife Habitat Grant - Project Locations 2019-2021



Map above shows UP Habitat Workgroup Grant Project Locations:

Primary Migration patterns of deer in winter:







Upper Peninsula Shooting Range Progress

Lori Burford, DNR Shooting Range Specialist

Stacy Welling Haughey, DNR UP Field Deputy







Marquette County Range:

- 29 years in the making!
- Existing, unsuitable target shooting area to be closed and restored.
- Extensive public engagement
- Public and partner input was vital.
 - Richmond Township
 - Cleveland Cliffs
 - UP Whitetails- Marquette County Chapter
 - Marquette County
 - Law Enforcement Community



Illegal range debris:



Illegal range debris:





Cascade

Range location near the crossroads of M-553 & County Road 480



Marquette County Range

- Construction begins winter 2022
- Completion in summer 2023.
- Pittman-Roberston and Michigan Natural Resource Trust Fund contributions
- Features will include target shooting for handguns, rifle (up to 400 yards), shotgun, and archery.



The new range will be named and dedicated in honor of Conservation Officers Erickson and Skoglund who were killed in line of duty September 29, 1926:

Arvid Erickson, 30, and Emil Skoglund, 36, attempted to arrest an unlicensed hunter on the Sands Plains in Marquette County. Erickson was shot twice in the back of the head by the hunter, Roy Nunn.

In coming to Erickson's aid, Skoglund was shot twice in the face.

Nunn weighted the officers' bodies down with bricks and dropped them into Lake Superior off a dock in the city of Marquette. He was sentenced to life in prison.





Porcupine Mountains Shooting Complex

- LSSC Operated range since 1970s.
- Existing facility in disrepair with numerous issues.
- New, indoor range and meeting space/clubhouse.
- Operated through partnership/lease with LSSC.











Parks and Recreation Division Land Use Order of the Director

LUOD No. 8 of 2022

Background

- The Michigan Iron Industry Museum (MIIM) is located on property owned by the state and managed by the Michigan History Center (MHC).
- An increase in visitor use and expectation over these lands has led to a desire to cooperatively manage and administer the MIIM between PRD and MHC staff.
- The proposed LUOD would designate the lands upon which the MIIM sits as state park land and would allows for the use of park improvement funds to support improvements and operations at MIIM.





Wolf Management Plan

Timeline for update



Jared Duquette October 13, 2022



Plan purpose

Provides strategic guidance for management of wolves in Michigan

- Maintain a viable population above a level that would warrant classification as threatened or endangered
- Facilitate wolf-related benefits
- Minimize wolf-related conflicts
- Conduct science-based wolf management with socially responsible methods



Key steps

- Public attitudes survey
- Scientific knowledge since 2015
- WMAC guidance
- Tribal consultation
- Public input
- MDNR expert input



Aug-21	Attitudes survey
Sep-21	Attitudes survey
Oct-21	Attitudes survey
Nov-21	Attitudes survey
Dec-21	Attitudes survey
Jan-22	
Feb-22	
Mar-22	
Apr-22	
May-22	
Jun-22	
Jul-22	
Aug-22	
Sep-22	
Oct-22	
Nov-22	
Dec-22	

PLEASE SHARE YOUR PERSPECTIVES ON WOLVES AND WOLF MANAGEMENT IN MICHIGAN

Greetings,

Wolf management in Michigan is at a critical juncture. This questionnaire provides an opportunity for your voice to be considered in development of an update management plan for gray wolves (*Canis lupus*) in Michigan. Wolves were recently removed from the federal list of threatened and endangered species. As such, conservation of wolves becomes the responsibility of the State of Michigan through the Michigan Department of Natural Resources.

The Michigan Department of Natural Resources asked Michigan State University's Department of Fisheries and Wildlife, as a third party, to conduct an independent survey that communicates the beliefs, attitudes, and ideas of Michigan residents about wolves and wolf management in Michigan. Whether or not wolves are of interest to you, your perspectives are crucial to obtaining representative public participation about how wolves will be managed in the foreseeable future.

I am sure you have received numerous solicitations during these past few months. I do hope, however, you will take a moment to share your perspectives about wolves and wolf management in Michigan. I assure you they will be included. The questionnaire should take no more than 20 minutes to complete. Even if you do not have direct contact with wolves, your perspectives still matter. I also assure you we will never reveal your identity or any information that could be used to identify you. All data will be pooled and analyzed at the regional scale (e.g., Upper, Northern Lower, or Southern Lower Peninsulas). Confidentiality will be protected to the maximum extent of the law and by the MSU Human Research Protection Program.

If you have any questions, please do not hesitate to contact me.

Sincerely yours,



Shawn J. Riley, Professor of Wildlife Management Department of Fisheries and Wildlife Michigan State University 480 Wilson Road East Lansing, Michigan 48824 Email (preferred): rileysh2@msu.edu Cell phone: 1-517-614-2706

Sent to 61,025 individuals



Aug-21	Attitudes survey	Science review
Sep-21	Attitudes survey	Science review
Oct-21	Attitudes survey	Science review
Nov-21	Attitudes survey	Science review
Dec-21	Attitudes survey	Science review
Jan-22		Science review
Feb-22		Science review
Mar-22		Science review
Apr-22		Science review
May-22		
Jun-22		
Jul-22		
Aug-22		
Sep-22		
Oct-22		
Nov-22		
Dec-22		

Review of Social and Biological Science Relevant to Wolf Management in Michigan



A Reference Document for the Michigan Department of Natural Resources



Michigan Department of Natural Resources Wildlife Division Report No. 3707 September 2022



Aug-21	Attitudes survey	Science review	WMAC
Sep-21	Attitudes survey	Science review	WMAC
Oct-21	Attitudes survey	Science review	WMAC
Nov-21	Attitudes survey	Science review	WMAC
Dec-21	Attitudes survey	Science review	WMAC
Jan-22		Science review	WMAC
Feb-22		Science review	WMAC
Mar-22		Science review	WMAC
Apr-22		Science review	WMAC
May-22			WMAC
Jun-22			WMAC
Jul-22			WMAC
Aug-22			
Sep-22			
Oct-22			
Nov-22			
Dec-22			

Wolf Management Advisory Council

About Us > Boards and Committees > Wolf Management Advisory Council

About the council

The council was established to provide nonbinding recommendations for the proper management of wolves in Michigan.

Contact: Victoria Lischalk dnr-wmac@michigan.gov Phone: 517-599-1067

Council Members >

Public Comment Guidelines >

Legislative Statute \rightarrow

2015 Wolf Management Plan



Aug-21 Attitudes survey Science review WMAC Sep-21 Attitudes survey Science review WMAC Tribal Oct-21 Attitudes survey Science review WMAC consultation 1 Tribal Nov-21 Attitudes survey Science review WMAC consultation 1 Dec-21 Attitudes survey Science review WMAC Jan-22 Science review WMAC Feb-22 Science review WMAC Mar-22 Science review WMAC Apr-22 Science review WMAC May-22 WMAC Jun-22 WMAC Jul-22 WMAC Aug-22 Sep-22 Oct-22 Nov-22 Dec-22

Consulted all 12 federally recognized Tribes



			WMAC	Science review	Attitudes survey	Aug-21
			WMAC	Science review	Attitudes survey	Sep-21
		Tribal consultation 1	WMAC	Science review	Attitudes survey	Oct-21
		Tribal consultation 1	WMAC	Science review	Attitudes survey	Nov-21
			WMAC	Science review	Attitudes survey	Dec-21
	Public input 1		WMAC	Science review		Jan-22
			WMAC	Science review		Feb-22
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			WMAC			Jul-22
						Aug-22
						Sep-22
						Oct-22
						Nov-22
						Dec-22



Aug-21	Attitudes survey	Science review	WMAC			
Sep-21	Attitudes survey	Science review	WMAC			
Oct-21	Attitudes survey	Science review	WMAC	Tribal consultation 1		
Nov-21	Attitudes survey	Science review	WMAC	I ribal consultation 1		
Dec-21	Attitudes survey	Science review	WMAC			
Jan-22		Science review	WMAC		Public input 1	
Feb-22		Science review	WMAC			
Mar-22		Science review	WMAC			
Apr-22		Science review	WMAC			
May-22			WMAC			Update draft
Jun-22			WMAC			Update draft
Jul-22			WMAC			
Aug-22						
Sep-22						
Oct-22						
Nov-22						
Dec-22						



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Aug-21	Aultudes survey	Science review	VIVIAC				
Sep-21	Attitudes survey	Science review	WMAC				
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Nov-21	Attitudes survey	Science review	WMAC	consultation 1			
Dec-21	Attitudes survey	Science review	WMAC				
Jan-22		Science review	WMAC		Public input 1		
Feb-22		Science review	WMAC				
Mar-22		Science review	WMAC				
Apr-22		Science review	WMAC				
May-22			WMAC			Update draft	
Jun-22			WMAC			Update draft	
Jul-22			WMAC				Tribal consultation 2
Aug-22							Tribal consultation 2
Sep-22							
Oct-22							
Nov-22							
Dec-22							



Aug-21	Attitudes survey	Science review	WMAC							
Sep-21	Attitudes survey	Science review	WMAC							
Oct-21	Attitudes survey	Science review	WMAC	Tribal consultation 1						
Nov-21	Attitudes survey	Science review	WMAC	consultation 1						
Dec-21	Attitudes survey	Science review	WMAC							
Jan-22		Science review	WMAC		Public input 1					
Feb-22		Science review	WMAC							
Mar-22		Science review	WMAC							
Apr-22		Science review	WMAC							
May-22			WMAC			Update draft				
Jun-22			WMAC			Update draft				
Jul-22			WMAC				Tribal consultation 2	Public input 2		
Aug-22							Tribal consultation 2	Public input 2		
Sep-22										
Oct-22										
Nov-22								2,883	respons	ses
Dec-22								9 ema	ils	


Timeline to completion

Aug-21	Attitudes survey	Science review	WMAC						
Sep-21	Attitudes survey	Science review	WMAC						
Oct-21	Attitudes survey	Science review	WMAC	Tribal consultation 1					
Nov-21	Attitudes survey	Science review	WMAC	Tribal consultation 1					
Dec-21	Attitudes survey	Science review	WMAC						
Jan-22		Science review	WMAC		Public input 1				
Feb-22		Science review	WMAC						
Mar-22		Science review	WMAC						
Apr-22		Science review	WMAC						
May-22			WMAC			Update draft			
Jun-22			WMAC			Update draft			
Jul-22			WMAC				Tribal consultation 2	Public input 2	
Aug-22							Tribal consultation 2	Public input 2	Final update
Sep-22									Final update
Oct-22									Final update
Nov-22									
Dec-22									



Timeline to completion

Aug-21	Attitudes survey	Science review	WMAC							
Sep-21	Attitudes survey	Science review	WMAC							
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Oct-21	Attitudes survey	Science review	WINAC	Consultation 1						
Nov-21	Attitudes survey	Science review	WMAC	consultation 1						
Dec-21	Attitudes survey	Science review	WMAC							
Jan-22		Science review	WMAC		Public input 1					
Feb-22		Science review	WMAC							
Mar-22		Science review	WMAC							
Apr-22		Science review	WMAC							
May-22			WMAC			Update draft				
Jun-22			WMAC			Update draft				
							Tribal			
Jui-22			WIMAC				Consultation 2	Public Input 2		
Aug-22							consultation 2	Public input 2	Final update	
Sep-22									Final update	
Oct-22									Final update	
Nov-22										Director review
Dec-22										



Timeline to completion

Aug-21	Attitudes survey	Science review	WMAC								
Sep-21	Attitudes survey	Science review	WMAC								
Oct-21	Attitudes survey	Science review	WMAC	Tribal consultation 1							
Nov-21	Attitudes survey	Science review	WMAC	Tribal consultation 1							
Dec-21	Attitudes survey	Science review	WMAC								
Jan-22		Science review	WMAC		Public input 1						
Feb-22		Science review	WMAC								
Mar-22		Science review	WMAC								
Apr-22		Science review	WMAC								
May-22			WMAC			Update draft					
Jun-22			WMAC			Update draft					
Jul-22			WMAC				Tribal consultation 2	Public input 2			
Aug-22							Tribal consultation 2	Public input 2	Final update		
Sep-22									Final update		
Oct-22									Final update		
Nov-22										Director review	
Dec-22											Director action







2023 Spring Turkey Regulations

Adam Bump DNR Wildlife Division



2023 Spring Turkey Regulations

Review/discuss 2-bird limit

 <u>– No recommendations for change</u>

- Review seasons and quotas statewide
 - One recommendation for change



Spring Turkey Season Two Bird Limit

- Presented perspective to NRC in August
 - No recommendation for change
 - Recommend more deliberation/action
 - Update model
 - Explore ways to enhance data
 - Engage with stakeholder groups
 - Explore alternatives



Spring Turkey Season License Quotas/Seasons

- Recommend Unit E structure be modified
 - Change from 2 one-week seasons to 1 twoweek season
 - Total license quota remains the same
 - Consistent with most units in NLP
 - More opportunity for same number of turkey hunters
 - No significant changes in harvest anticipated





2022 Spring Turkey Management Units

234 Hunt

Includes all lands except public lands in Unit ZZ.



Spring 2023 Turkey Management Units, Seasons and Quotas

TMU	Season Dates 2023	License Quota
А	April 22 - May 5	5,500
В	April 22 – May 5	1,000
E	<mark>April 22 – May 5 (proposed)</mark>	<mark>1700 (proposed)</mark>
F	April 22 – May 5	5,000
J	April 22 – May 5	4,000
К	April 22 – April 28	4,000
К	April 29 – May 5	4,500
Μ	April 22 – May 31	6,000
ZA	April 22 – April 28, June 1- June 7	1,200
ZA	April 22 – May 12	1,800
ZA	May 13 – May 31	1,800
ZB	April 22 – April 28, June 1- June 7	650
ZB	April 22 – May 12	975
ZB	May 13 – May 31	975



TMU	Season Dates 2023	License Quota
ZC	April 22 – April 28, June 1- June 7	600
ZC	April 22 – May 12	900
ZC	May 13 – May 31	900
ZD	April 22 – April 28, June 1- June 7	10
ZD	April 22 – May 12	15
ZD	May 13 – May 31	15
ZE	April 22 – April 28, June 1- June 7	500
ZE	April 22 – May 12	750
ZE	May 13 – May 31	750
ZF	April 22 – April 28, June 1- June 7	1,300
ZF	April 22 – May 12	1,300
ZF	May 13 – May 31	3,000
ZZ	April 22 – May 31	50,000
234	May 6 – May 31	No quota

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OURCES

Harvest and Hunter Success 1970-2021



Hunters and Hunting Effort 1970-2021



Hunter Satisfaction and Success, 1970-2021



Turkeys- Moving Forward

- Evaluation, update of model underway
- Beginning to look at updating ways to enhance, evaluate existing data
- Planning stakeholder engagement meetings
 - Model
 - Regulation discussions





Thank You

2022 Preliminary Fall Elk Season Results



Chad Stewart Deer, Elk, and Moose Management Specialist Wildlife Division Michigan Department of Natural Resources



2022 Elk Season Details

- Hunt Period 1:
 - Aug. 30-Sep. 2, Sep. 16-19, Sep. 30-Oct. 3
- Overall favorable
 weather
- License Quota: 100
 30 any elk
 - 70 antlerless only elk





Hunt Period 1 Harvest
 (98 hunters)

Elk Harvest – Early Season

- State hunter harvest: 78 legally harvested elk
 - 26 antlered elk (bulls)
 - 52 antlerless elk (6 calves)
 - 80% success
- 2 bulls by Pure Michigan Hunters
- Tribal harvest: 3 elk reported
- 1 spike bull on antlerless tag







Elk Harvest – Hunt Period 2



- Hunt Period 2
 - Includes H, I, and X
 - December 10-18
 - Quota is 160 elk
 - 50 any elk
 - 110 antierless only



Questions?



www.Michigan.gov/elk

