

Michigan's Lake Sturgeon Rehabilitation Strategy

Andrew Briggs MDNR Fisheries Division

NRC Fisheries Subcommittee Meeting December 14, 2023



Lake Sturgeon Facts and Life History

- Large
- Long-lived
- Living fossils
- Late-maturing
- Lakes → Rivers to spawn (not always)
 - Not annually
 - Spring
 - High fecundity



Status/Range

- State/provincial listing throughout range
- Not federally listed
- Threatened in Michigan



Lake Sturgeon Decline



Lake Sturgeon Decline





Lake Sturgeon Decline



Rehabilitation Strategy



Rehabilitation Strategy



STATE OF MICHIGAN

FISHERIES DIVISION

July 2012

Purposeful Omissions

- Detailed commentary on each population
- Analysis of locations for reintroduction
- Description of priority or feasible habitat work

Guiding principles not detailed prescriptions

What it does

- Document and communicate goals, objectives, and priorities internally and externally
- Help in setting and implementing priorities
 - Resources are limited
 - Prioritizing means we have to say no
 - Try to create rational basis for decision making



Management Goals

- To restore self-sustaining populations across the State of Michigan to a level which would allow lake sturgeon to be removed from the list of state threatened species
- 2. To maintain some number of populations that are healthy enough to provide fisheries that support the recreational and cultural needs of state-licensed and tribal fishers



Management Sub-Goals

- 1. Conserve and maintain populations that are currently self-sustaining
- 2. Rehabilitate depressed populations so they become self-sustaining at a higher abundance
- 3. Reintroduce lake sturgeon to suitable, vacant habitat



Conceptual Basis for Population Objectives

- Populations are dynamic and have:
 - STATUS level of abundance
 - TRAJECTORY rate of change
- Basis for population categories, which should be used for guiding our management actions



Population Classification



Population Classification



	Estimated Adult	
Watershed / Population	Population Size	Category
Lake Superior		
Ontonagon River	< 25	Below MVP
Sturgeon River	1,808	Large stable
Lake Michigan		
Cedar River	< 25	Below MVP
Grand River	103	Small declining
Indian Lake	60	Below MVP
Kalamazoo River	88	Small declining
Manistee River	400	Medium stable
Manistique River	< 25	Below MVP
Big Manistique Lake	< 25	Below MVP
Menominee River	5,272	Large stable
Millecoquins Lake	< 25	Below MVP
Muskegon River	166	Small increasing
St. Joseph River	< 25	Below MVP

	Estimated Adult	
Watershed / Population	Population Size	Category
Lake Huron		
Au Sable River	< 25	Below MVP
Black Lake	1,125	Large stable
Burt Lake	100	Small stable
Carp River	< 25	Below MVP
Mullett Lake	< 25	Below MVP
Otsego Lake	500	Medium stable
Rifle River	< 25	Below MVP
St. Marys River	354	Medium stable
Saginaw River	< 25	Below MVP
Lake Erie		
St. Clair River/Lake St. Clair	15,882	Large stable
Detroit River	4,838	Large stable

Population Monitoring



Population Monitoring

Monitoring should occur at least every 15 years, with prioritization for populations:

- with a harvest fishery where abundance estimates are needed to set regulations or allocate harvest
- 2. perceived to be near MVP
- 3. classified as declining
- 4. classified as stable
- 5. classified as increasing

with priority to small populations for each



Management Approaches

- Addressing mortality limitations
- Addressing recruitment limitations



Addressing Mortality Limitations

- Natural
- Human-induced
- Sea Lamprey
 - Limited areas
 - TFM and the "sturgeon protocol"
- Fishery Regulations
 - Commercial prohibited
 - Harvest generally prohibited (exceptions)



Fishery Regulations



Assessing Recruitment Limitations

• Habitat

- Critical but difficult
- Ecological implications
- Opportunistic
- Partners
- Stocking



Stocking

- Primary tool available to managers
- Priorities
 - 1. Small-declining populations above MVP
 - 2. Small-stable and medium-declining populations
 - 3. Medium-stable populations
 - 4. Populations below MVP
 - 5. Extirpated or new populations



Education

- Important
- Opportunistic
- Collaborative





Limitations

- Funding and staff
- Knowledge
 - Fish passage
 - Hatchery needs
 - Genetic stock analysis



Waterbody-specific management plans

- Black Lake complete
- More currently in draft
 - SCDRS
 - Cedar and Whitefish Rivers



MANAGEMENT PLAN FOR LAKE STURGEON IN BLACK LAKE 2016

Monitoring

- Continued survey efforts (MANY systems)
- Effects of recreational fishery
 - SCDRS
 - Harvest reporting
- Sea Lamprey
 - Effects
 - Juvenile sturgeon "rescues" before treatment



Recreational Fisheries

- Expanded opportunities
- Simplified requirements



Table 2: Lake Sturgeon Hook & Line Fishing Only (except as indicated above)

	Waters	Seasons	Regulations and Size Restrictions
2010	Detroit River	Fishing Season: July 16 - March 15	All lake sturgeon must be released immediately.
2018	Lake St. Clair and St. Clair R.	Fishing Season: July 16 – March 15 Possession Season: July 16 – Sep. 30	Between 42" - 50". Lake sturgeon less than 42" and greater than 50" must be released immediately.
	Otsego Lake (Otsego Co.)	Fishing and Possession Season: July 16 – March 15	50" minimum size limit. Lake sturgeon less than 50" must be released immediately.
	All MI-WI Boundary Waters (see pp. 24-25 for more details)	Fishing and Possession Season: 1st Sat. in Sep. – Sep. 30	60" minimum size limit. Lake sturgeon less than 60" must be released immediately.
	Black Lake (Cheboygan & Presque Isle Cos.)	Fishing and Possession Season: 1st Sat. in Feb. through the following Wed. or until the quota is reached (whichever comes first)	No size limit. All harvested lake sturgeon must be reported immediately to DNR on site. Contact DNR Gaylord office (989) 732-3541 for details.
2020	St. Marys River (Chippewa Co.) From the Soo Locks/Compensating Works downstream to the DeTour Village and Drummond Island ferry terminals to the south, and from Hay Point to Cherry Island then north to the international boundary for the northeast.	Fishing Season: July 16 - March 15	All lake sturgeon must be released immediately.
	Portage and Torch Lakes (Houghton Co.) This includes Portage River, Portage Canal and north and south entry.	Fishing Season: July 16 - March 15	All lake sturgeon must be released immediately.
2023	Ontonagon River (Ontonagon Co.) From Lake Superior up to the Victoria Dam Road.	Fishing Season: July 16 - March 15	All lake sturgeon must be released immediately.
	All Other Waters	NO FISHING SEASON	It is unlawful to fish for lake sturgeon, except in the waters listed above.

Habitat

- SCDRS spawning reefs
- Sturgeon "elevator"
- Dam removals



Stocking

- Continued stocking in Cedar, Ontonagon, Kalamazoo, and Manistee rivers and Otsego Lake
- Reintroduction into Saginaw River system
- Future efforts in the Boardman River



Outreach

- Sturgeon Festival
- Release Ceremonies
- Sturgeon in the Classroom



Summary

Progress being made on goals and sub-goals!

- 1. Conserve and maintain populations that are currently selfsustaining
- 2. Rehabilitate depressed populations so they become self-sustaining at a higher abundance
- 3. Reintroduce lake sturgeon to suitable, vacant habitat

Summary

Specific highlights:

- Expanded fishing opportunities
- Improved and expanded habitat
- Research and monitoring continues
- Successful and popular outreach
- Collaboration is key

Questions

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Michigan's Deer Management Initiative



Chad Stewart Wildlife Division December 14, 2023



What is the DMI?

- Michigan is facing new challenges never before experienced
 - Fewer hunter numbers





OF NATURAL RESOURCES

What is the DMI?

- Michigan is facing new challenges never before experienced
 - Fewer hunter numbers
 - Increasing suburban/urban sprawl
 - Habitat changes
 - Weather patterns and predators
 - Disease
- Our traditional model of addressing these problems is becoming less effective



What is the DMI?

- We need to reevaluate our current management paradigm and develop a set of recommendations in both Peninsula's to shift how management occurs
 - Short term, actionable items
 - Long term approaches that take time
- Effort must be collaborative and use best available science



Stakeholder Selection

- Development of UP and LP specific workgroups representing a diverse set of opinions and values
 - Will include traditional groups we have historically worked with
 - Will include unaffiliated hunters and nonhunters who can provide a unique perspective
 - Goal is to position our deer management to meet future challenges



Responsibilities

- Help develop a broad survey about deer trends
 - Distributed to hunters and non-hunters
- Attend a several day, facilitated meeting to look at data, identify problems, and develop recommendations on DNR/NRC actions
 - UP and LP specific



Anticipated Timeline

- December/January
 - Begin to compile work groups, including developing an application for non-affiliated individuals to participate
- January/February
 - Develop and administer public survey on deer
- April/May
 - Meetings are held and issues are discussed
- June/July
 - Each peninsula report is completed



Questions?





Wildlife Genetics Program

MiniSeq

Caitlin Ott-Conn

Genetics Lab Coordinator Michigan Department of Natural Resources Species Management Unit - Wildlife Division OttConnC@michigan.gov

Wildlife Genetics Program

- Biological sample collection for internal and external population monitoring and research
- Integration of new techniques and technologies
- Facilitate reoccurring population assessments involving genetics



Species Leading the Need



<u>NEED</u>

Develop tools to facilitate collaborative genomic work for white-tailed deer.





<u>NEED</u>

Find a population index to replace the tetracycline survey for upper peninsula black bear



Illumina MiniSeq Sequencing System



SCI-MIC's generous contribution is helping to support the modernization of population monitoring







Caitlin Ott-Conn

Genetics Lab Coordinator Michigan Department of Natural Resources Species Management Unit - Wildlife Division OttConnC@michigan.gov

Port Huron SGA Target Shooting

Natural Resources Commission Meeting December 14, 2023 Terry McFadden, Field Operations Manager Wildlife Division-SE Region



Discussion of two sites where target shooting is currently concentrated: Hewitt Pit and Abbottsford; and two past shooting sites: Shoefelt and Flinchbaugh Roads



Hewitt Pit



Hewitt Pit -12 signs purchased and placed at site -11-stolen -1-(last one) illegible from bullets

TARGET SHOOTERS

Always be sure of your target and what is beyond it

Make sure you have a safe backstop for all rounds fired

Shooting must end at 7pm or sunset, whichever is earlier

Due to safety concerns, do not shoot towards the west

Failure to follow these rules may result

in closure of the shooting area



Hewitt Pit -lgnore signs -Shoot in all directions -Illegal use -Public and residential safety issues



Bullet holes through residential building

Homeowner also reported that the contractor replacing his roof found 12 bullet holes through the old shingles and roof.



Bullets collected from neighbor's driveway and casings left at Hewitt Pit





Resource Damage-Shooting trees-white pine and oak





Trash left behind from shooters "Hewitt Pit"



Abbottsford Road

- Trash
- Vandalism
- Illegal use-explosives



Shoefelt Road

- Recovering after years of target shooting
- Less dumping because the site looks maintained
- Neighbors report illegal activities



Flinchbaugh Road Safety Concerns

Lapeer Pit Shooting Range at Lapeer SGA, about 40-minute drive from Port Huron SGA



Lapeer Pit Prior to range construction: -Est >1,000,000 rounds/week -Shooting in sometimes unsafe directions -Shooting at all hours/7 days per week -Ignoring signs and instructions -Trash and complaints -Illegal activities -Difficult to monitor or police



Lapeer Shooting Range

After improvements: -Open May 1st thru Dec 15th Thur, Fri, Sat -Seasonal employee on site to monitor range

IVANOL NOLLS

- SIGN IN PRIOR TO SHOOTING.
- ONE SHOT RULE: UP TO SIX ROUNDS MAY BE LOADED IN THE MAGAZINE AND CHAMBER COMBINED. MINIMUM REQUIRED BETWEEN SHOTS.
- UNLOAD AND CASE FIREARMS TO ENTER RANGE. ONLY LOAD AND DISCHARGE FIREARMS AT ESTABLISHED SH STATIONS / STRUCTURES.
- CEASE FIRE CALLS MUST BE FOLLOWED IMMEDIATELY. UNLOAD, OPEN ACTION, STEP AWAY FROM LINE.
 DO NOT TAKE FIREARMS DOWN RANGE. DO NOT BEGIN SHOOTING UNTIL ENTIRE DOWN RANGE AREA IS O
 MUZZLES MUST ALWAYS BE POINTED IN A SAFE DIRECTION, GENERALLY DOWN RANGE.
- THE 25 AND 100-YARD RANGE ARE DESIGNED FOR HAND-HELD RIFLES. (.50 CALIBER BMG AND LARGER CEN PROHIBITED), MUZZLELOADERS (NOT EXCEEDING .80 CALIBER), PISTOLS, REVOLVERS, AND SHOTGUNS WIT THE 10-YARD HANDGUN RANGE IS DESIGNED FOR PISTOLS AND REVOLVERS ONLY.
- EYE AND EAR PROTECTION REQUIRED
 - NO INCENDIARY, EXPLOSIVE, ARMOR PIERCING OR TRACER AMMUNITION OR TARGETS
- NO SMOKING, OPEN FLAME OR LIGHTED SMOKING MATERIAL ON THE RANGE. NO ALCOHOLIC BEVERAGES SUBSTANCES, OR INDIVIDUALS UNDER THE INFLUENCE OF SAME.
- SHOOTERS UNDER THE AGE OF 16 MUST BE SUPERVISED BY AN ADULT.
- USE ONLY <u>STATIONARY</u> PAPER TARGETS WITH BULLSEYE PATTERN OR DEPICTION OF LEGAL GAME. AFFIX TARGETS ONLY TO TARGET BACKING PROVIDED. DO NOT AFFIX TARGETS TO UPRIGHT POSTS.
- DO NOT USE OR OCCUPY RANGE OUTSIDE OF POSTED HOURS OR WHEN GATES ARE CLOSED.
- INCOME OF ALL TRASH (TARGETS, BRASS AND SPENT CASINGS).

Lapeer shooting range (Lapeer Pit)

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Alternative Shooting Ranges: (Private)

-Four Square Sportsman's Association

-Perch Point Conservation Club

-Huron Pointe Sportsmen's Association



In Conclusion:

- Port Huron SGA is a narrow strip of State Land that follows the Black River and provides hunting opportunities along a unique wildlife habitat corridor in SE Michigan.
- Everywhere we have target shooting with firearms we also have trash, resource damage, illegal explosives, complaints from neighbors, and vandalism.
- Despite efforts to manage target shooting at Port Huron SGA, shooters often ignore area rules and cause damage to neighboring houses and generate other human safety issues.
- Due to increased negative issues, area WLD and LAW Division Staff are in support of closing the entire SGA to target shooting with firearms.

Thank You

•Questions?

Preliminary 2023 Firearm Deer Season Results



Chad Stewart Deer, Elk, and Moose Management Specialist December 14, 2023



License Buyers

- License sales (As of 11/30/2023)
 - Unique deer license buyers increased 1.2%

Individual Deer License Buyers





A Few Disclaimers

- Data presented as "Reported Harvest"
 - Not meant to reflect "Actual Harvest"
 - Reporting rates are unknown, but will be estimated
 - Reporting rates between years may be different
- Data pulled as of 11/30*
 - Subject to change as reports continue
 - *Some data are on different timelines
 - Shouldn't affect overall analysis, but will explain some discrepancies


Harvest Reporting Statistics

- 90.5% of hunters spent
 <5 minutes reporting their harvest; 2.9 min. avg.
- 90% of reports were submitted within 72 hours
- 72% of reports completed via the internet; mobile app reports are up to 26.6%





2023 Reported Harvest*

Reported Harvest:
 – 222,275



	2022 Reported Harvest Distribution	2023 Reported Harvest Distribution
UP	8.1%	6.7%
NLP	33.8%	32.0%
SLP	58.0%	61.2%



*Data accessed 12/1

Change in Harvest, 2023

Change in deer harvest between 2022 and 2023 thru Dec. 4



Comparisons to 2022*: UP- down 28.42% NLP- down 17.76% SLP- down 7.95% MI- down 12.96%

*Unknown relationship with compliance rates between years



Harvest Declines Across the Midwest

Change in deer harvest between 2022 and 2023 thru Nov. 27





Harvest Declines Across the Midwest

Reported harvest through 11/28

Year	IL*	IN	IA	МІ	MN	МО	ОН	WI
2022	52,354	109,915	29,113	243,779	156,578	266,447	124,368	301,540
2023	53,348	97,864	29,344	212,747	145,814	284,739	128,991	266,132
change	1.90%	-10.96%	0.79%	-12.73%	-6.87%	6.87%	3.72%	-11.74%
	*Opening weekend only							



Daily Antler/Antlerless Harvest





Antlered/Antlerless Harvest





Factors Potentially Influencing Harvest

- Delayed Corn Harvest
 - Only 52% of corn was harvested going into November 15, typically between 66-75%
- Wet Fall
 - October yielded 22 days of precipitation according to the NWS-Grand Rapids
- Variety of UP challenges
 - Low deer densities
 - Weather/predators



Harvest by Season







Opening Day Harvest

- 40,117 deer reported harvested on opening day
 21,420 entlered deer
 - 31,480 antlered deer
 - 8,637 antlerless deer





Antler Points



Reported Average Antler Points: 7.01



2 4 6 8 10

Harvest by License





Reported County Harvests

Тор 5	Antlered Harvest	Antlerless Harvest	Total Harvest
Sanilac	4,032	2,308	6,340
Montcalm	3,708	1,710	5,418
Jackson	3,540	1,849	5,389
Newaygo	3,211	2,171	5,382
Lapeer	3,237	1,594	4,941

Bottom 5	Antlered Harvest	Antlerless Harvest	Total Harvest
Keweenaw	79	3	82
Luce	200	8	208
Gogebic	251	35	286
Wayne	318	108	426
Baraga	394	33	427



CWD Update

- As of December 1, 2023
 - Completed tests on 2,959 deer statewide
 - 1,382 deer from priority surveillance area (14 counties in the NW LP)
 - CWD detected in Midland and Ogemaw counties prior to the deer season
 - No positives in new locations since deer season began
 - Nine total positive animals for the year
 - 5 in Gratiot, 1 in Jackson, 1 in Midland, 1 in Ogemaw
 - Total of 251 confirmed cases to date



TB Update

- As of December 1, 2023
 - Completed tests on 5,707 deer statewide
 - 3,366 deer from priority surveillance areas, including 4-county area and 7 surrounding counties
 - Five confirmed cases thus far in Alpena, but testing for TB takes longer; more suspects awaiting confirmation.
 - Overall, 1,000 deer overall have tested positive for TB



Final Season Estimates

- Mail survey sample of licensed hunters
- Submit after all 2023 hunting is complete





Thank You

www.michigan.gov/deer

