



Status of Lake Trout Populations at Offshore Reefs in Lake Superior

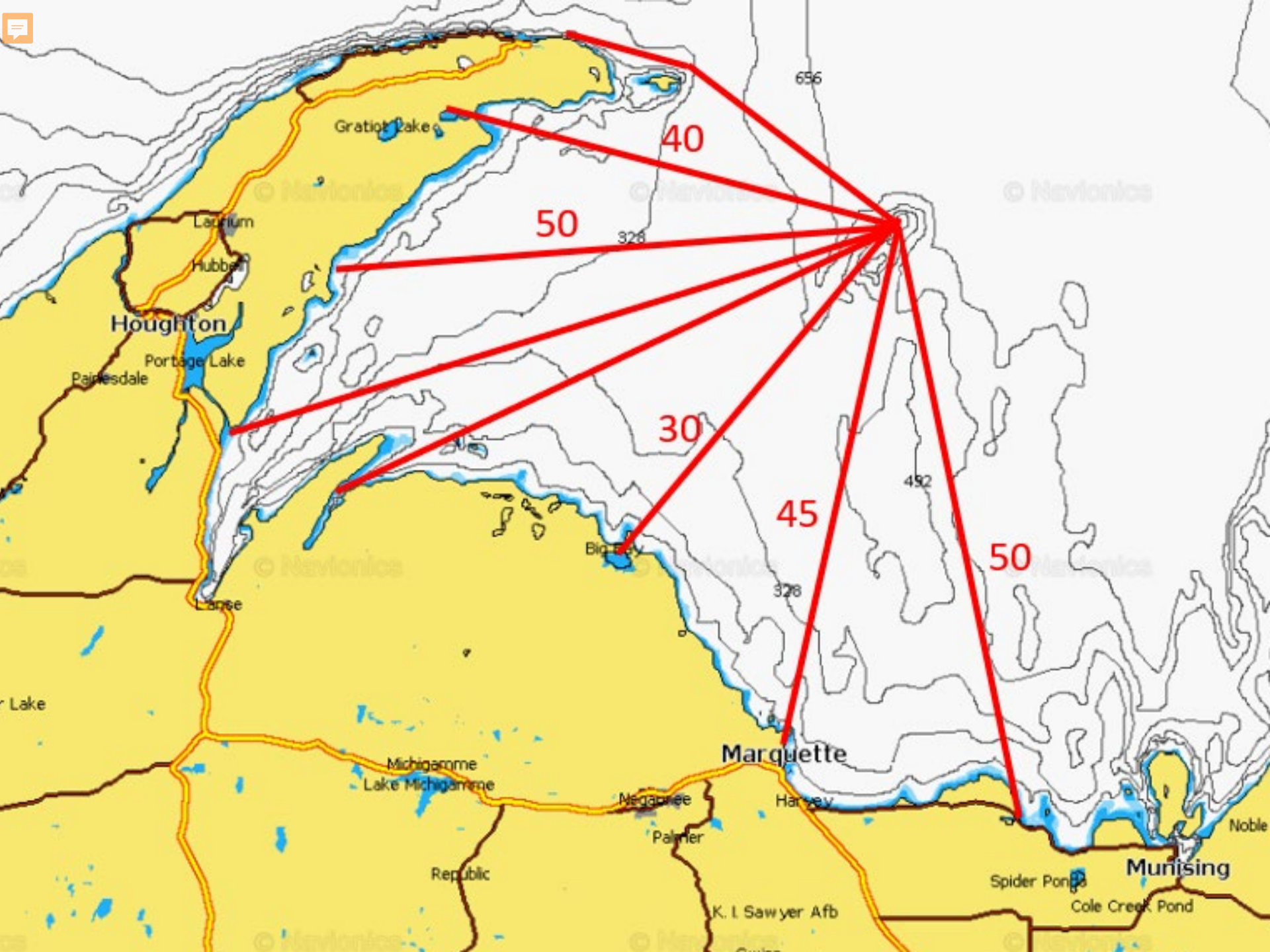
October 12, 2023 NRC Fisheries Committee





- 45 miles north of Marquette
- Around 9 square miles
- Most remote lighthouse in U.S.







Angler Concerns



- **Anecdotal concerns about higher effort and harvest**
- **Social media “spreads the word” about the fishery**



Survey Methods



Lake Trout Ecotypes



Lean



Redfin



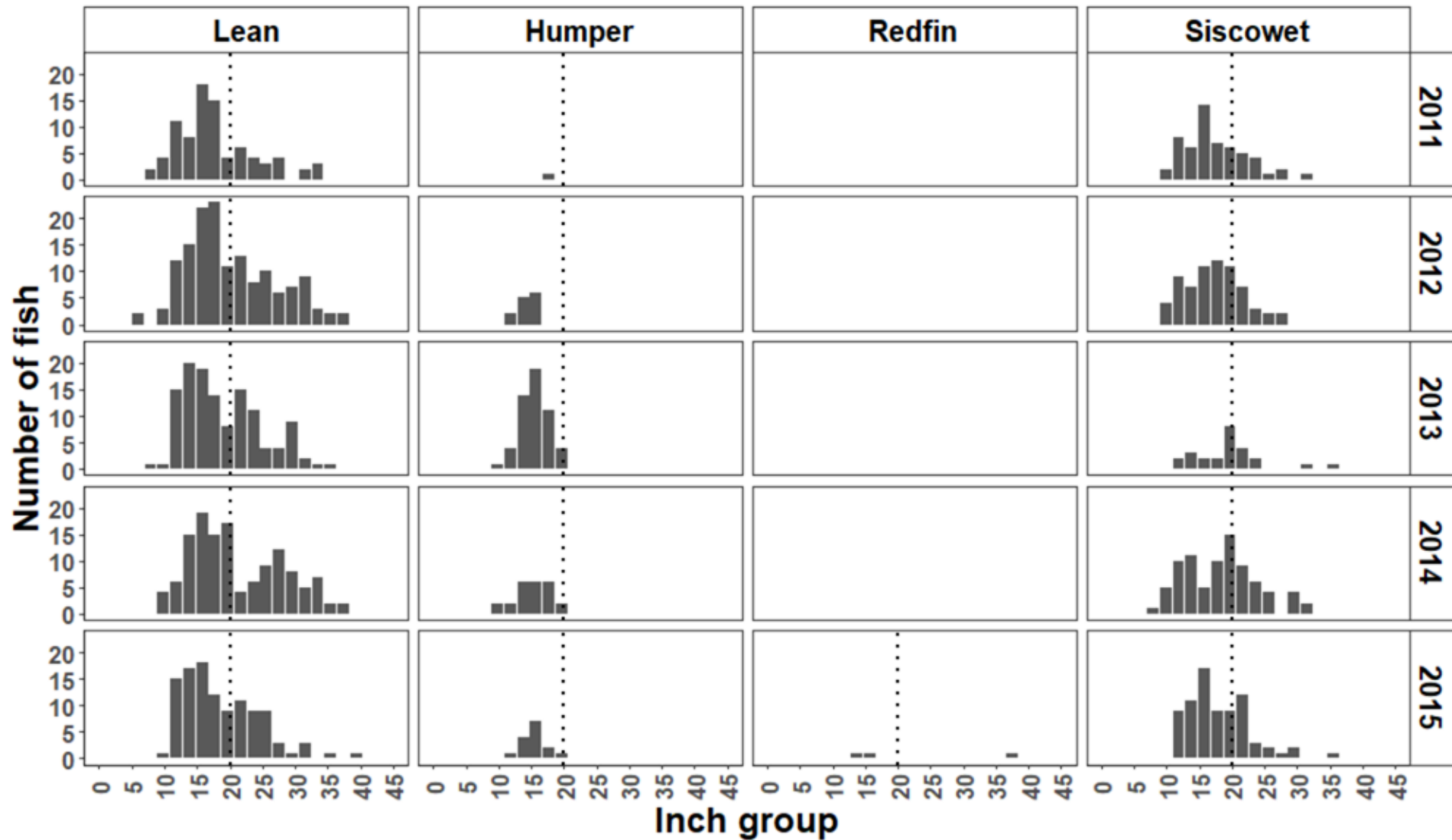
Humper



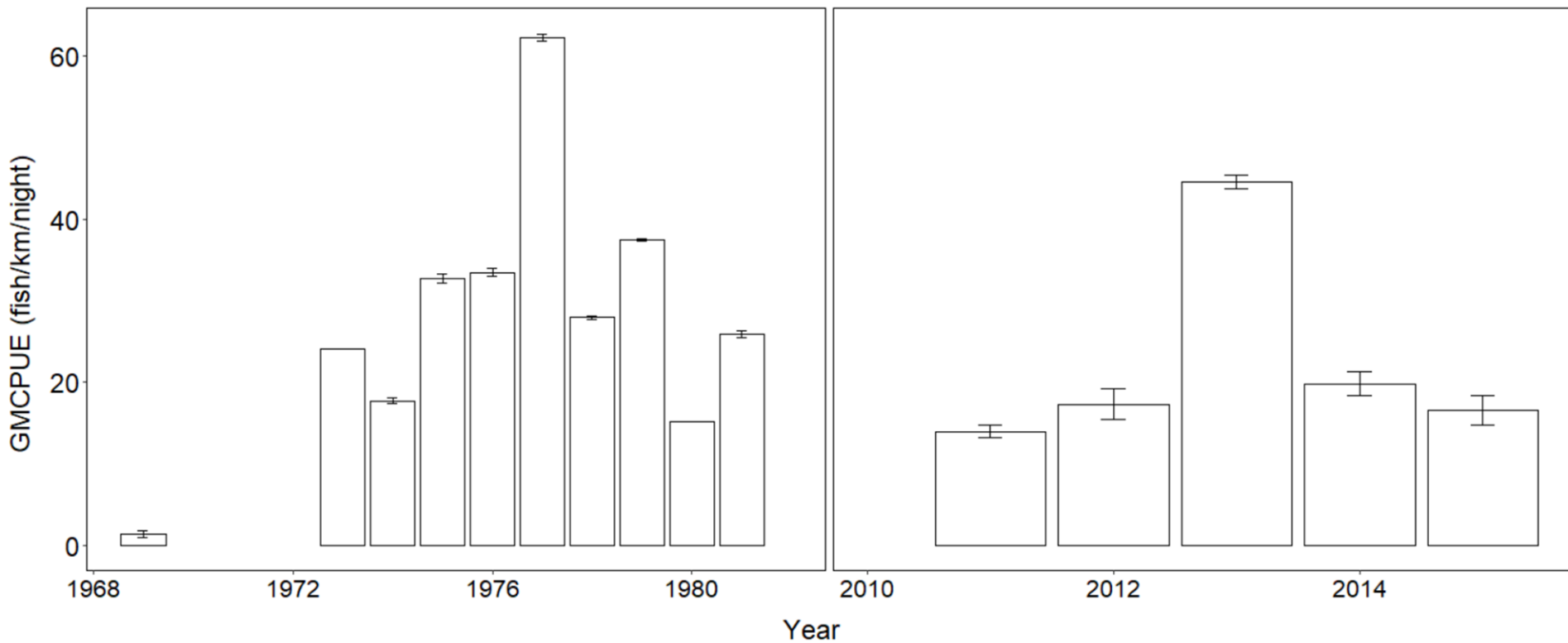
**Siscowet
(Fat)**



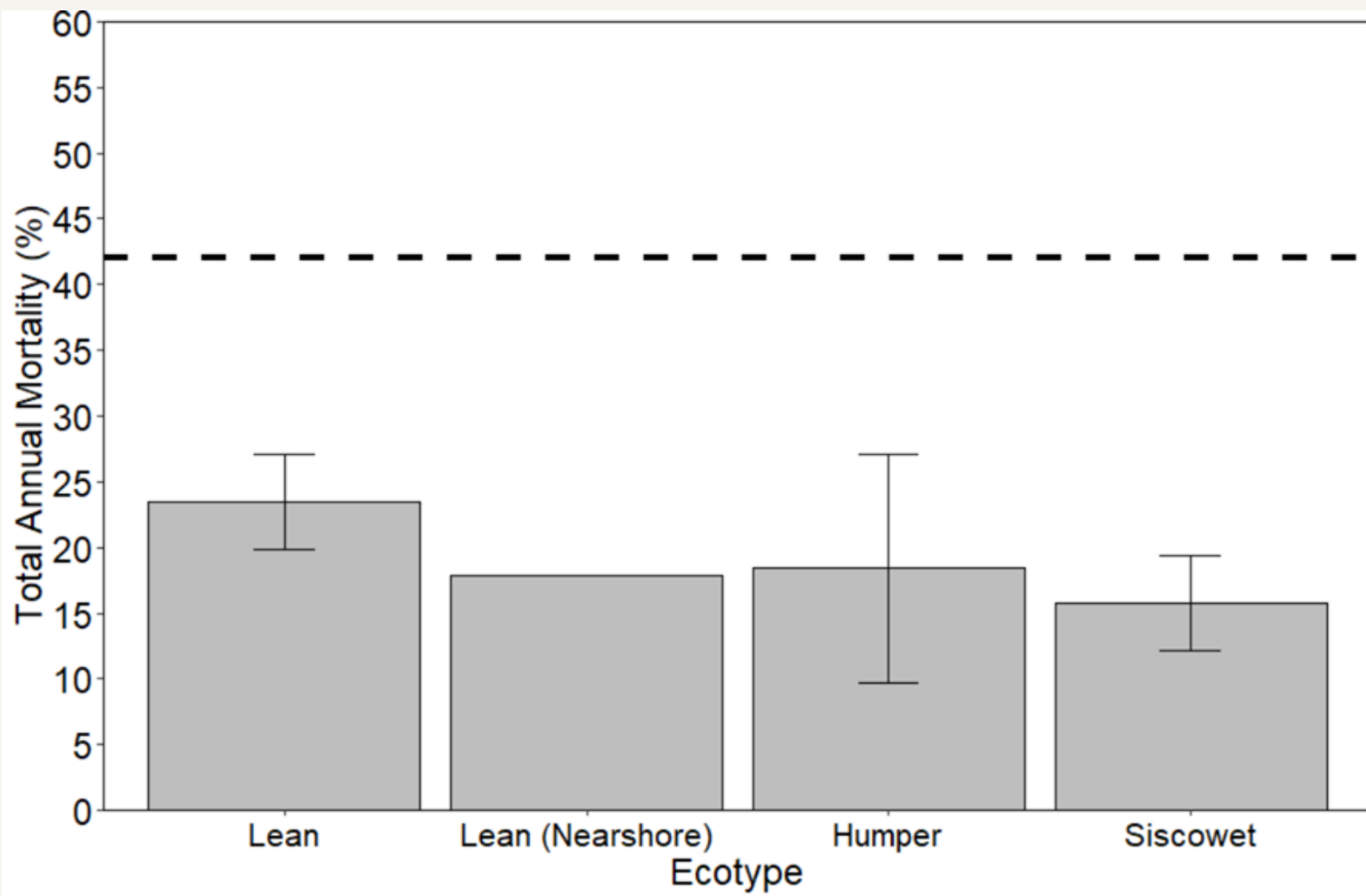
Length Distribution



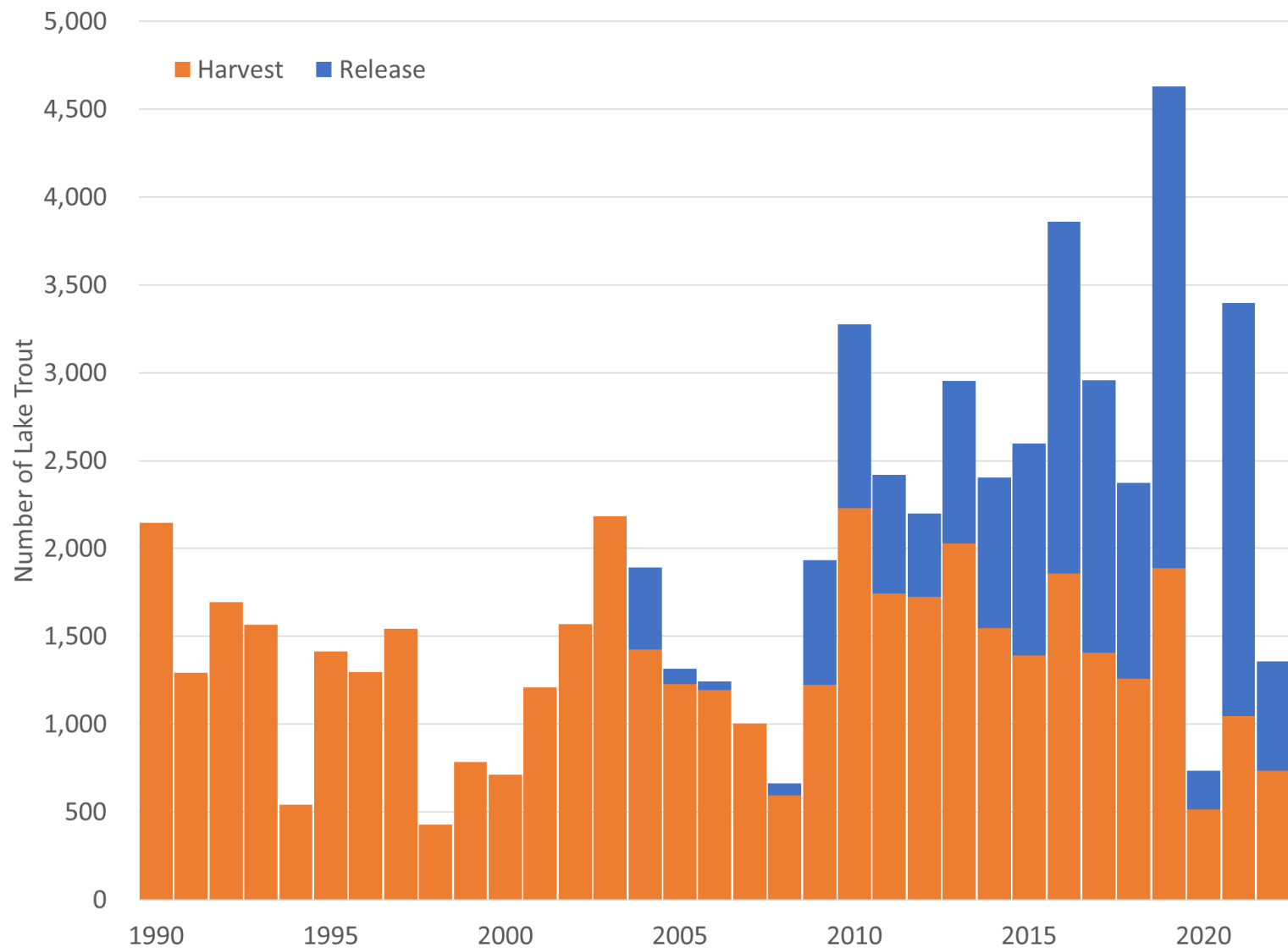
Relative Abundance



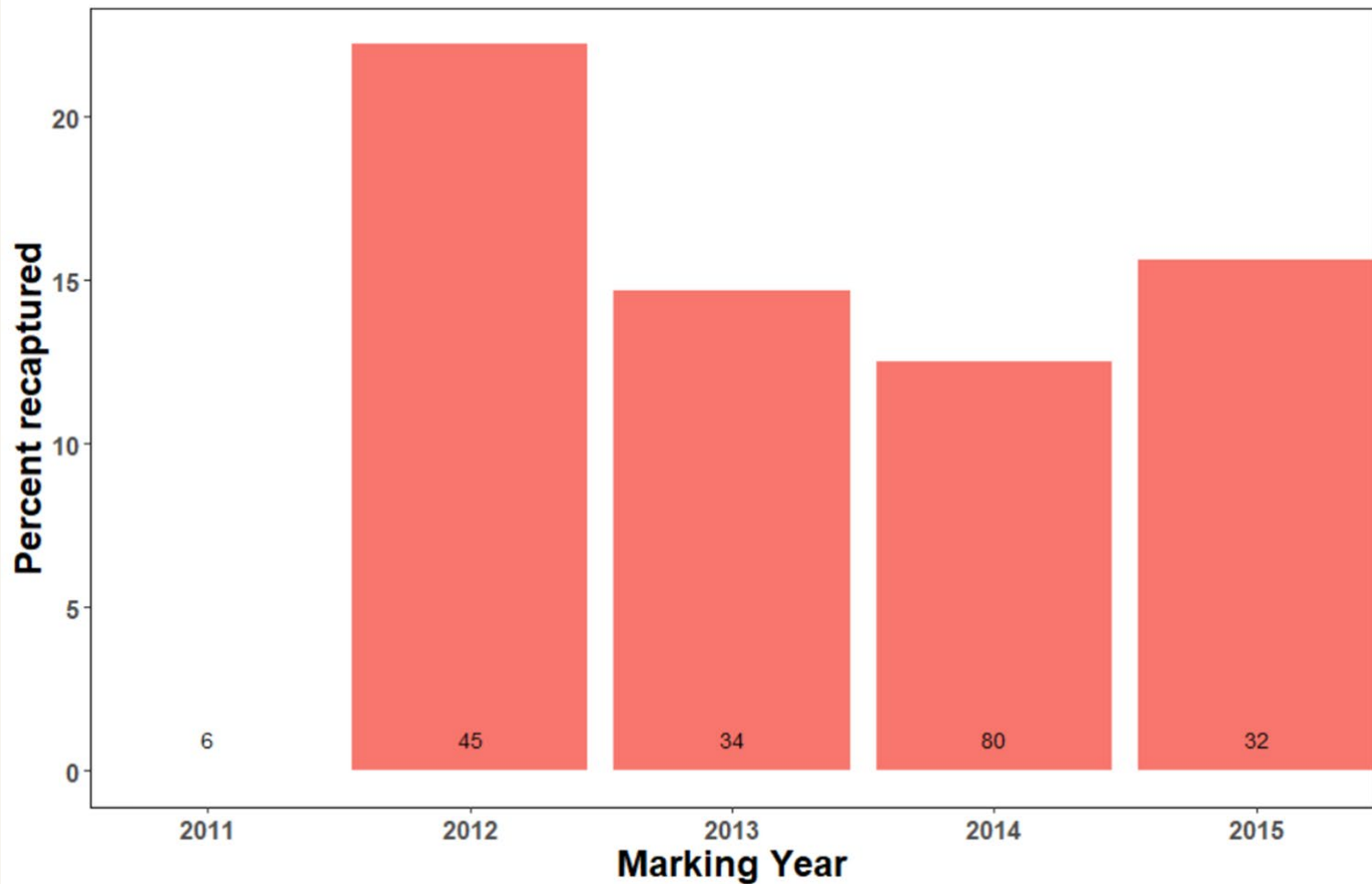
Mortality



Harvest and Release



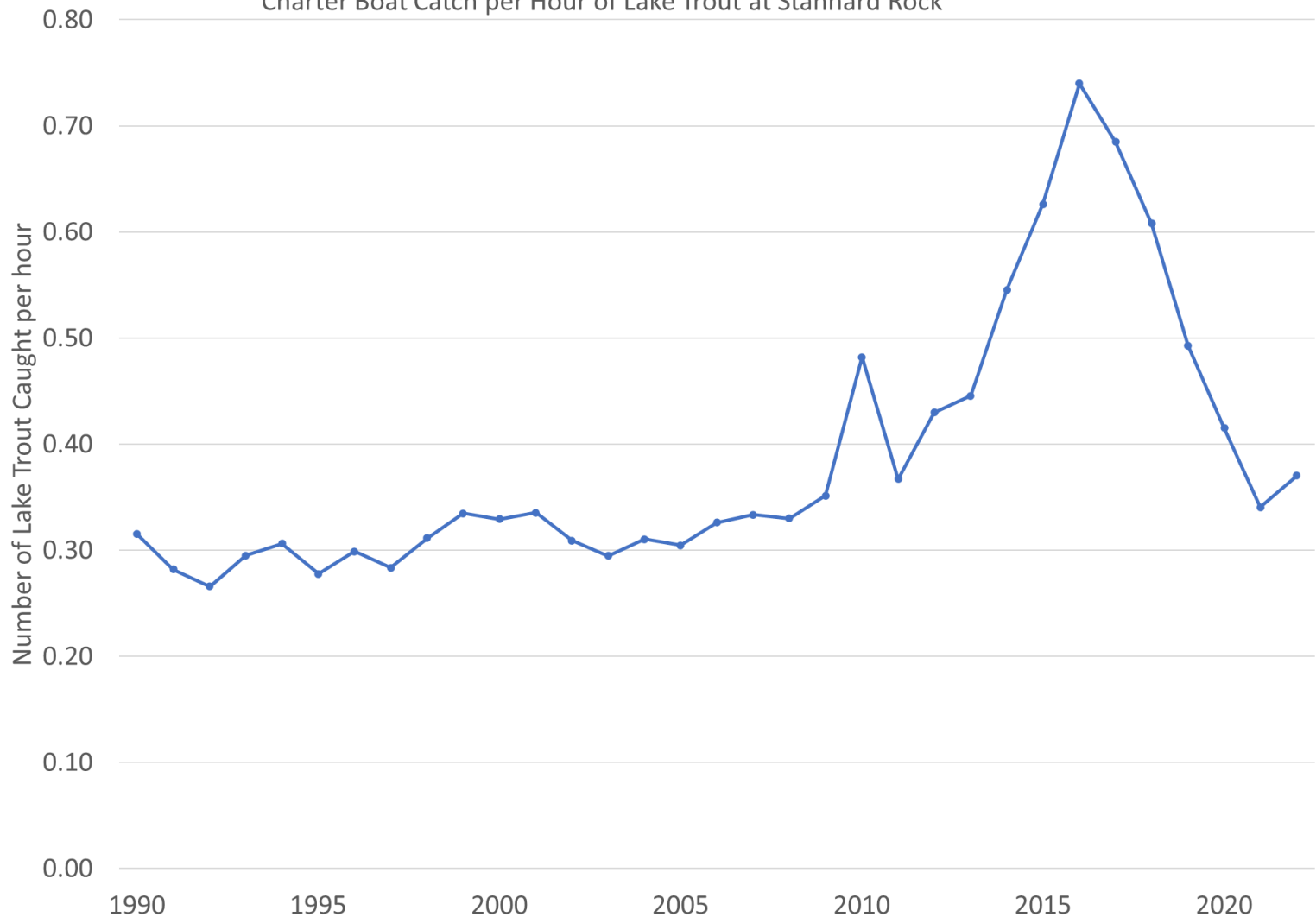
Lake Trout Exploitation



Lake Trout Catch Rates



Charter Boat Catch per Hour of Lake Trout at Stannard Rock



Angler Opinions



“Would you support more restrictive lake trout harvest regulations (for example, reduced daily possession limits) on offshore reefs such as Stannard Rock and Big Reef to better protect those populations?”

Charter Operators: 85% in favor, 15% opposed

General Respondents: 79% in favor, 21% opposed

Regulations



- Some protection with “1 over 34” regulation
- High C&R mortality present challenges
- Differing DPLs present challenges





Ruffed Grouse Program Update

Adam Bump
DNR Wildlife Division



Overview

- Hunting Season
- Monitoring
- Research
- Habitat Management
 - State Game Areas, State Forests, National Forests
- GEMS



Hunting Season

- Sept 15 - Nov 14 and Dec 1 to Jan 1
- Daily limit 5, possession limit 10 in Zones 1 and 2
- Daily limit 3, possession limit 6 in Zone 3
- Last regulations change was 20 years ago

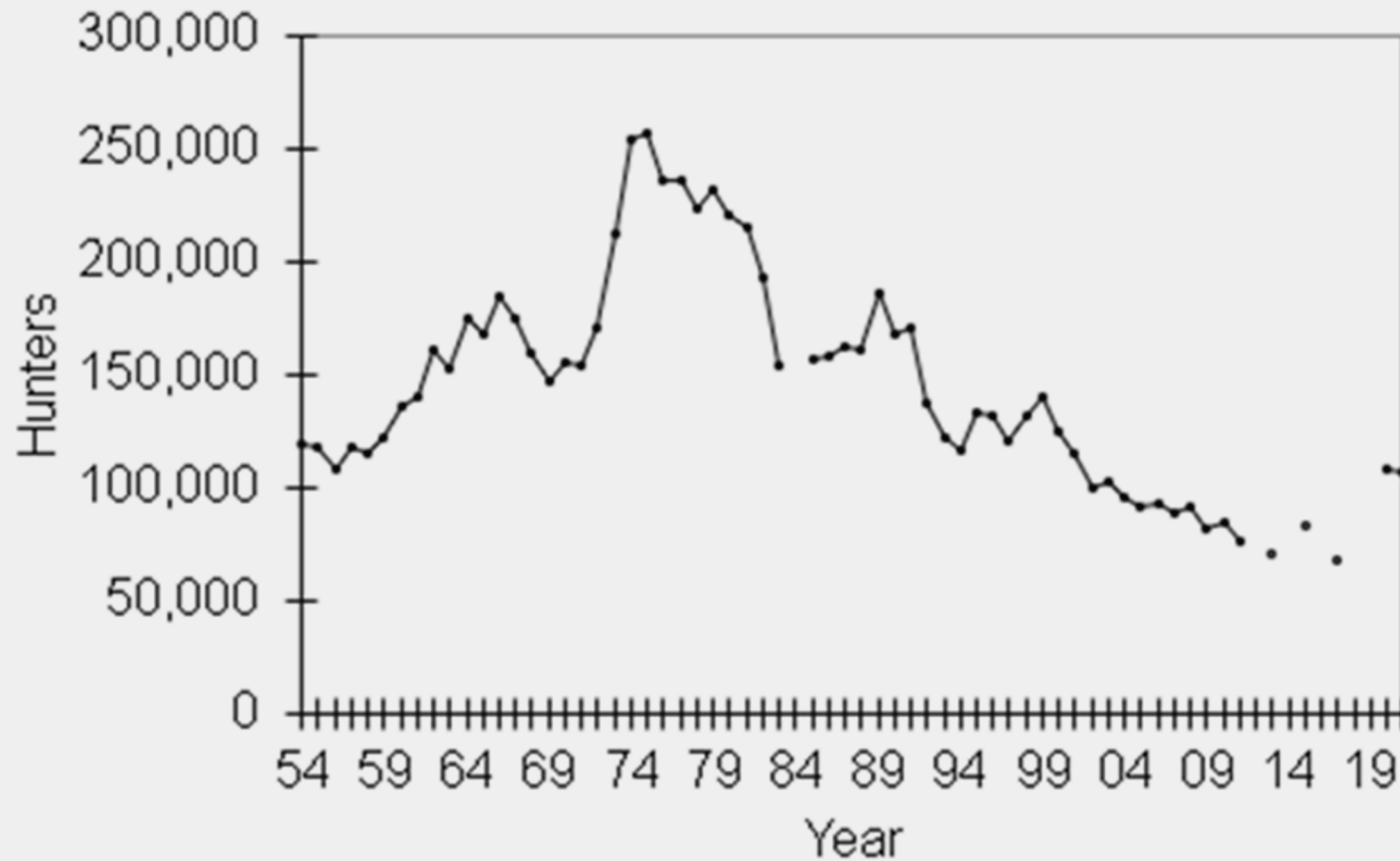


Monitoring

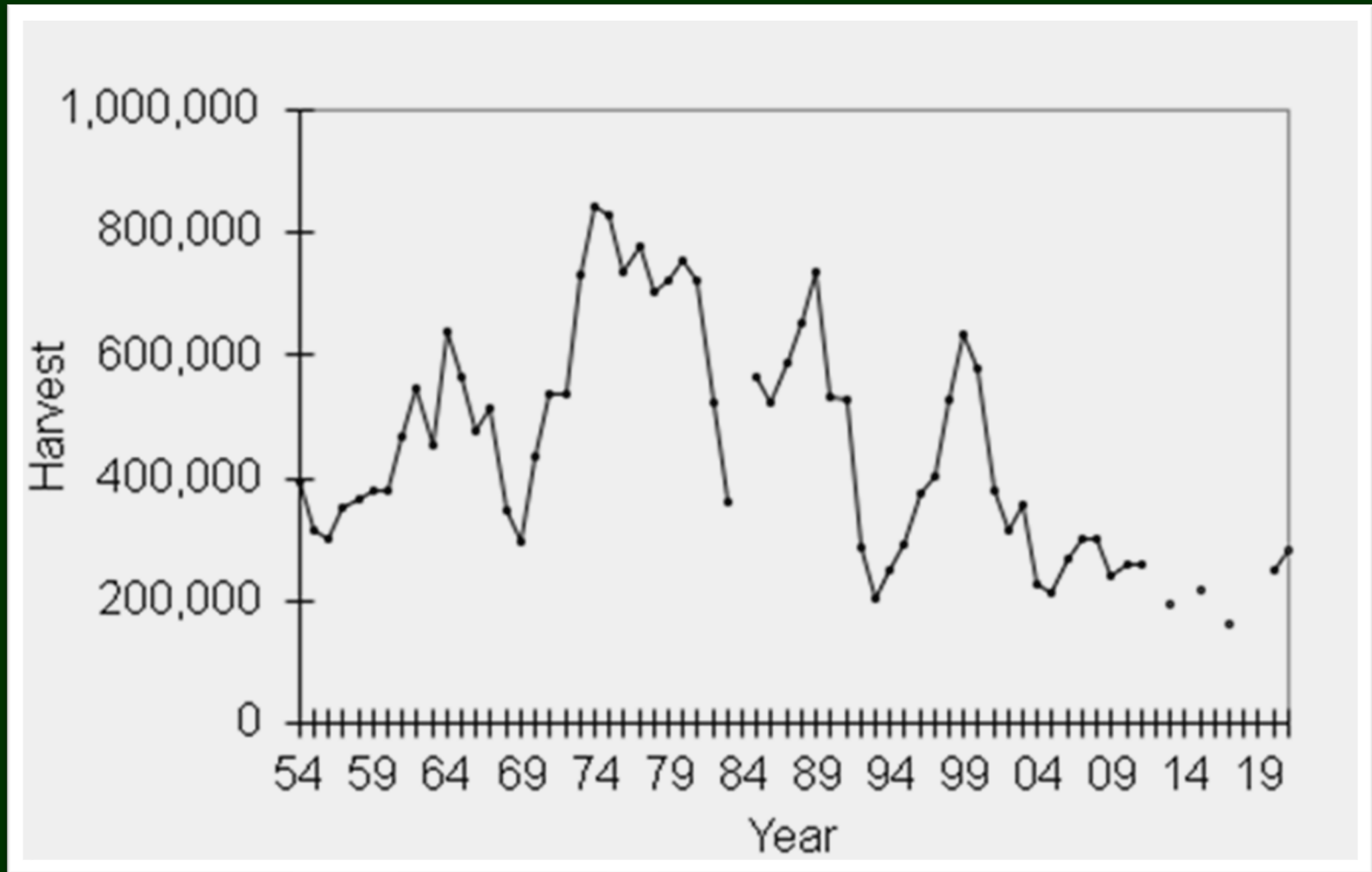
- Harvest mail survey
 - Sampling more challenging since 2014
 - 37% adjusted response rate (low)
- Drumming survey
 - Restarted in 2022
 - Considering enhancements
- Historically – cooperator surveys
 - Looking to revise and bring back
 - Value is information for hunters



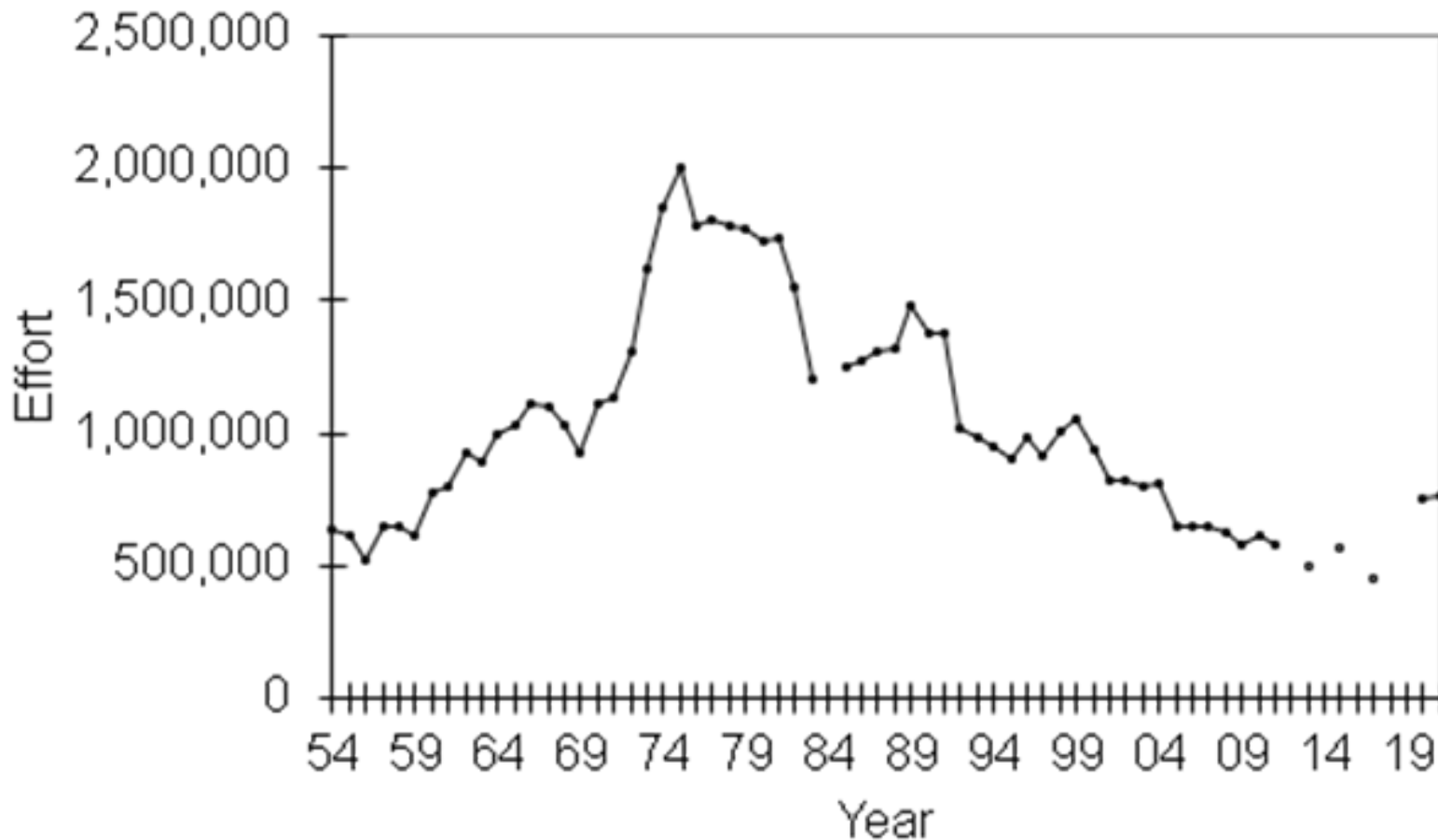
Ruffed Grouse Hunters 1954-2021



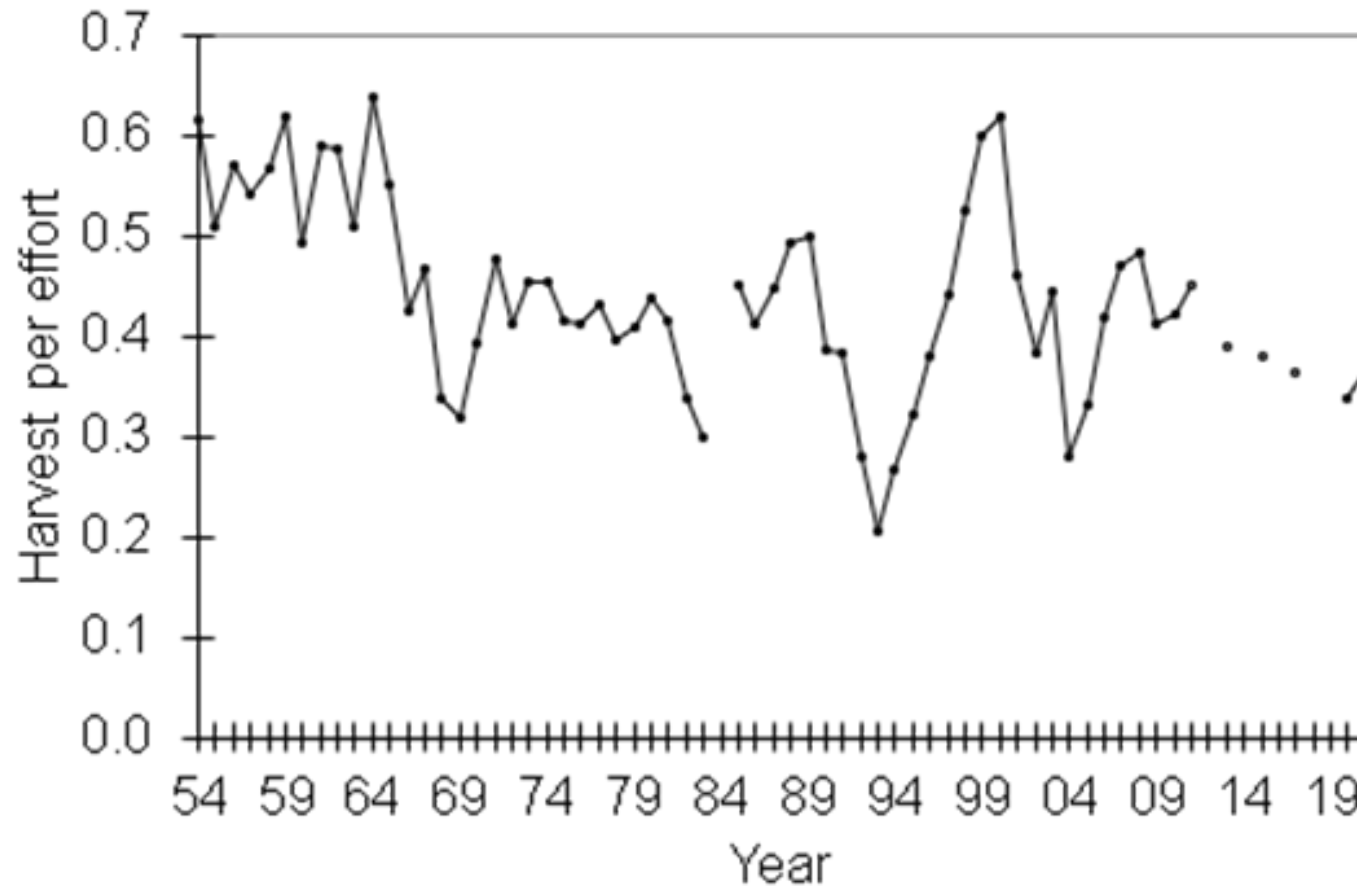
Ruffed Grouse Harvest 1954-2021



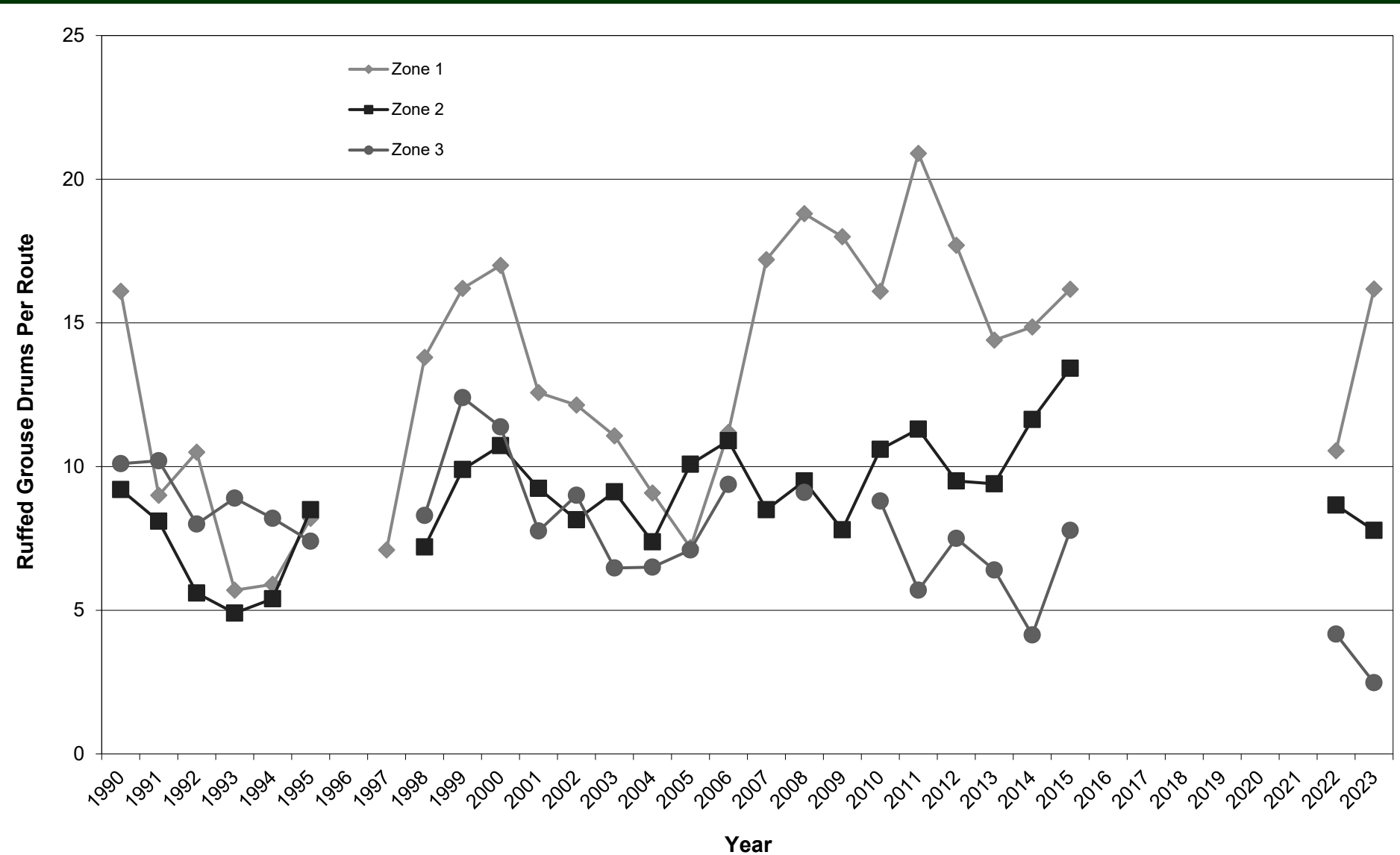
Total Days of Effort 1954-2021



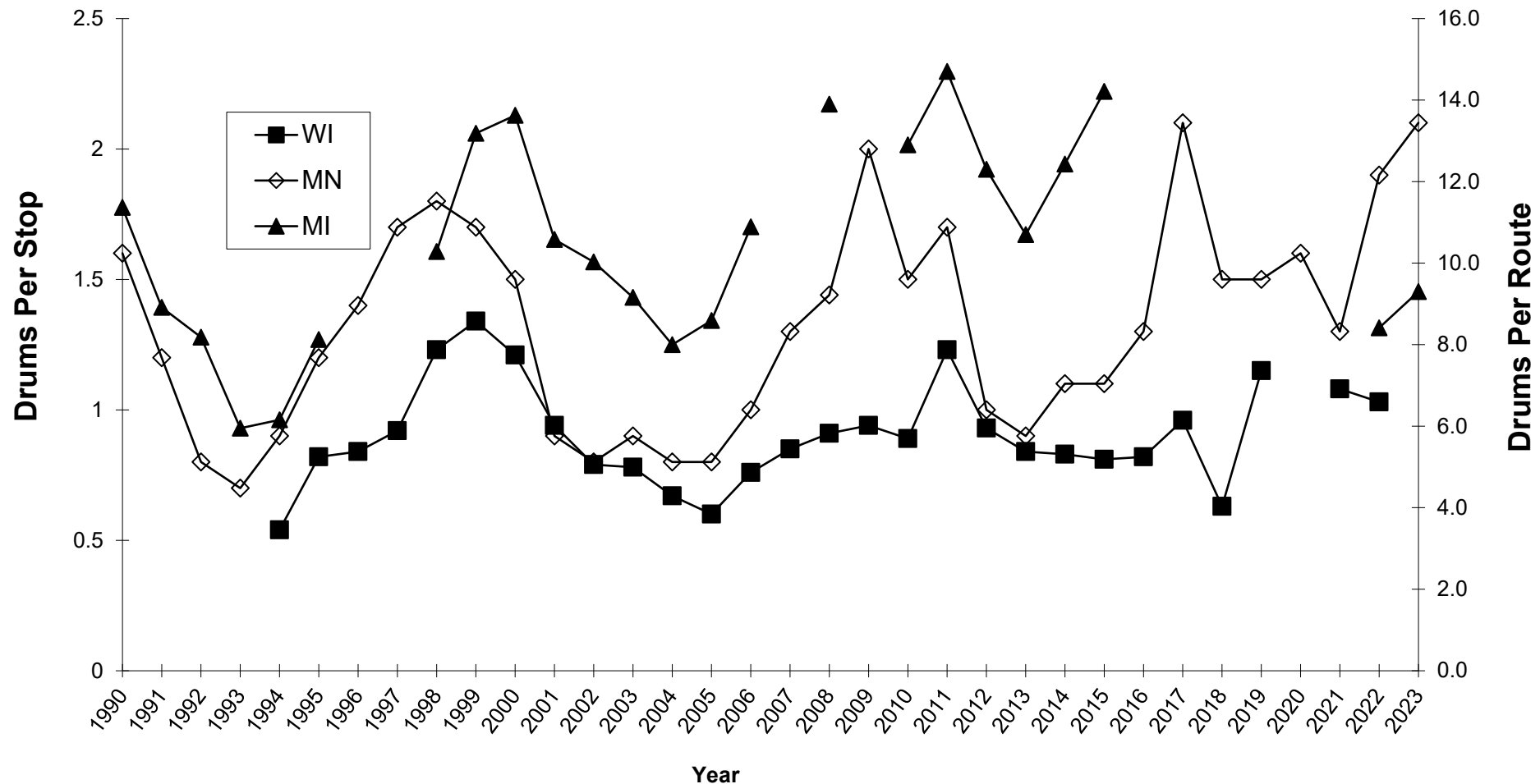
Grouse Harvest / Day 1954-2021



Grouse Drums / Route 1990-2023



State Comparison 1990-2023



Research

- No active research projects currently
- Most recent project was a multi-state WNV detection study
 - PA/MN had indications of potential WNV impacts to grouse which led to project
 - WI/MN/MI
 - Detected presence of WNV antibodies in grouse
 - Ongoing opportunistic monitoring
 - EEE as well



Habitat Management

- State Forest Plan
 - In revision now
 - Ruffed grouse are a featured species
- Compartment Reviews
 - Field based decisions on habitat management with FRD, FISH, etc



Habitat Management

- SLP Foresters
 - 2 onboard one in each region
 - Facilitate timber management on SGAs
- GNA
 - Increases active management on National Forests
 - Over 3,600 acres of aspen harvested on USFS lands through GNA



GEMS

- Grouse Enhanced Management Sites
- Areas designated to be managed/promoted as grouse hunting areas
- Currently 19
 - State, Federal, Commercial forest lands
 - UP, NLP



Program Focus

- Management focuses on maintaining grouse habitat, sometimes increased aspen harvest
- Hunter walking trails
- Maps, signs
- Easy access and hunting
 - New hunters
 - Easier to access and walk



Other Benefits

- Connections to local businesses
 - Demonstrate hunter contributions to businesses
 - Public support of hunting and management
- Partnerships and cooperative projects
 - Volunteer days
- Use by others
 - Deer hunters
 - Non-hunting uses



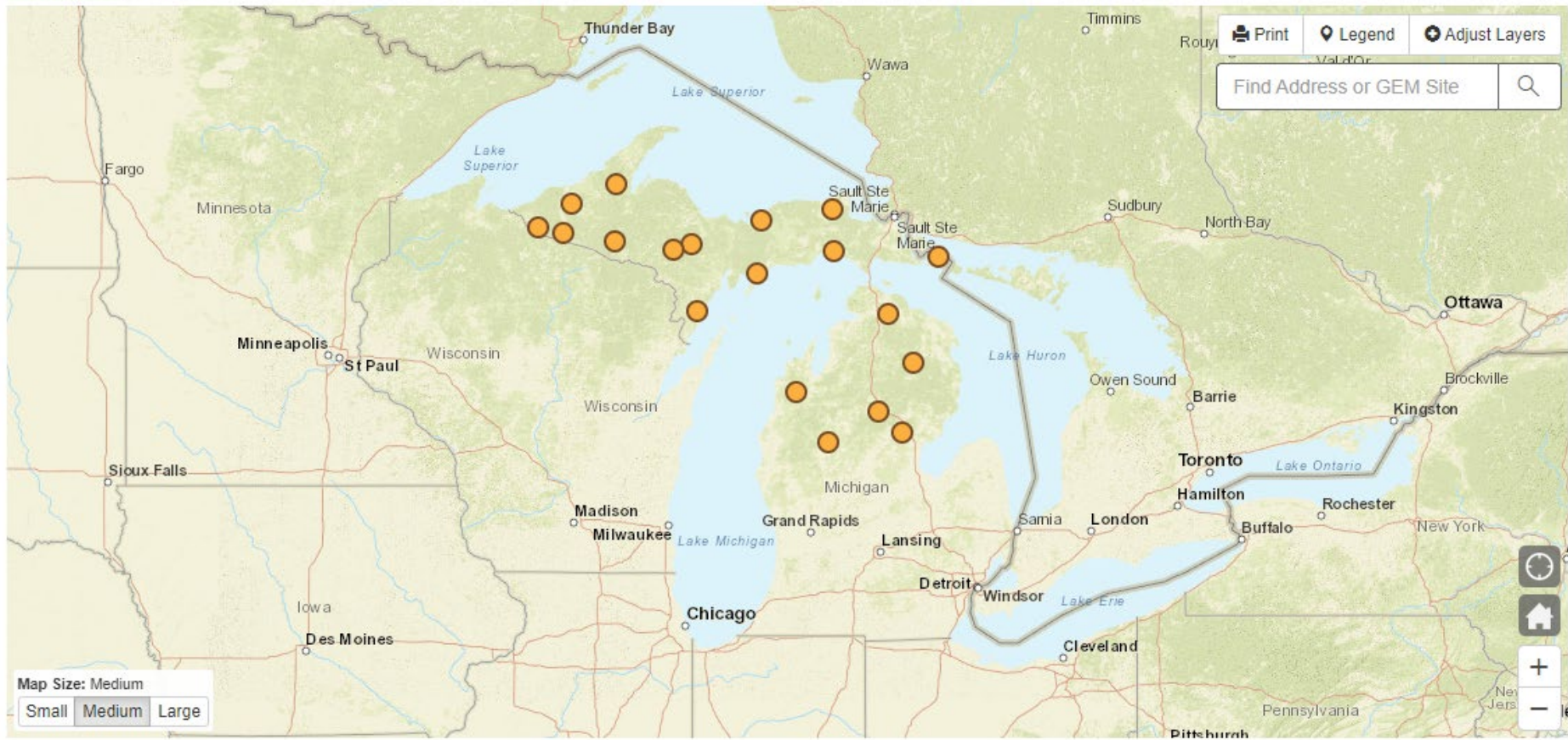


Grouse Enhanced Management Sites

Michigan Department of Natural Resources

[View Map](#)

[View List](#)



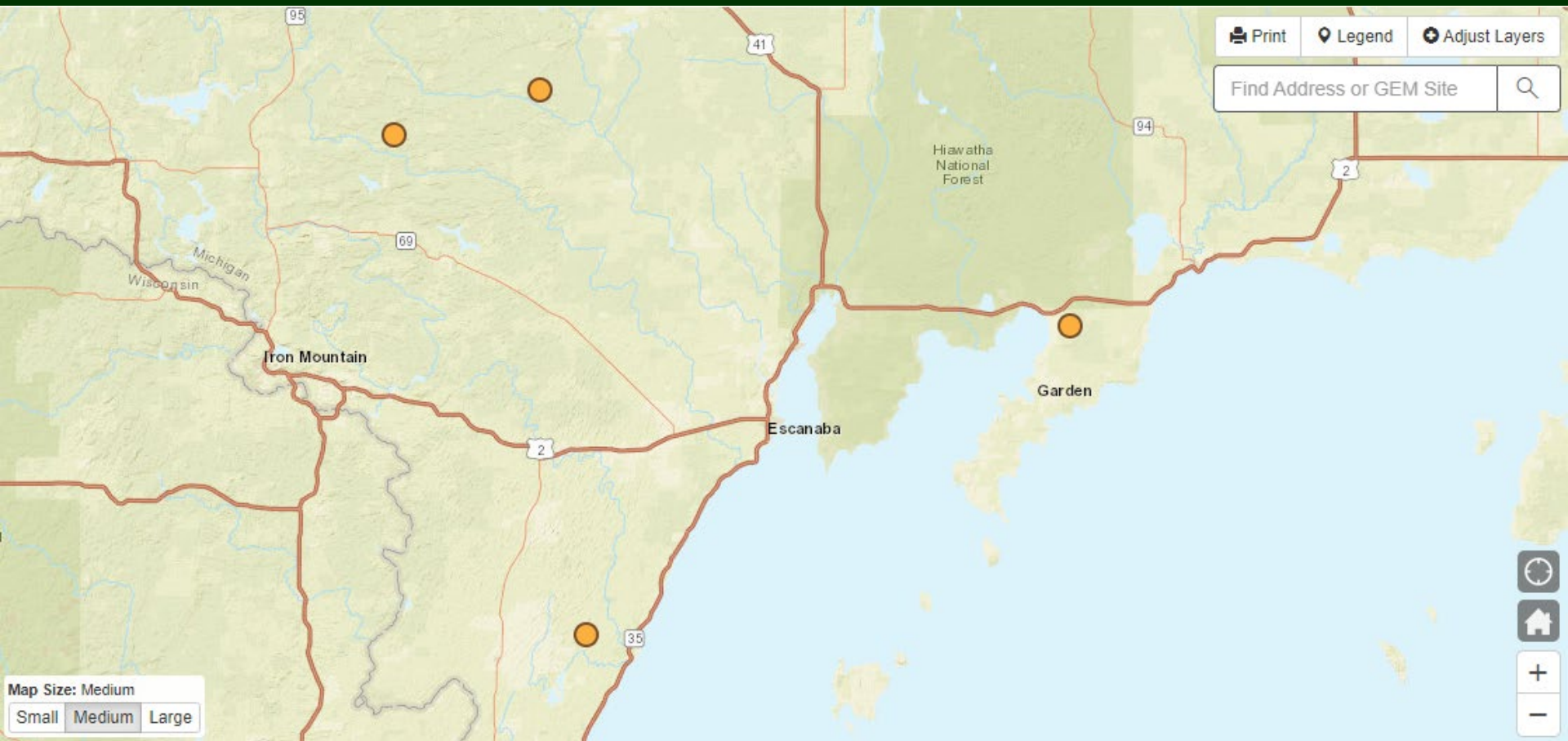
[MI.gov](#)

[Contact](#)

[Policies](#)

[Back to Top](#)

Copyright 2023 State of Michigan



Garden Grade: Approximately 5 miles northeast of Garden



The Garden Grade GEMS was established in 2015 at the top of the Garden Peninsula. With a heavy aspen presence this approximate 7,000 acre are of state forest land will give you plenty of space to venture out. Over 12 miles of hunter walking trail for those who prefer but don't forget you can get off and break the brush off trail to flush those birds. The main parking area on Garden Grade Road just south of Highway 2 will have GEMS information available. Don't forget to visit nearby businesses offering great discounts to GEMS hunters.

7,000 Acres of huntable land. 12 Miles of hunter walking trails.

Kiosk Coordinates:

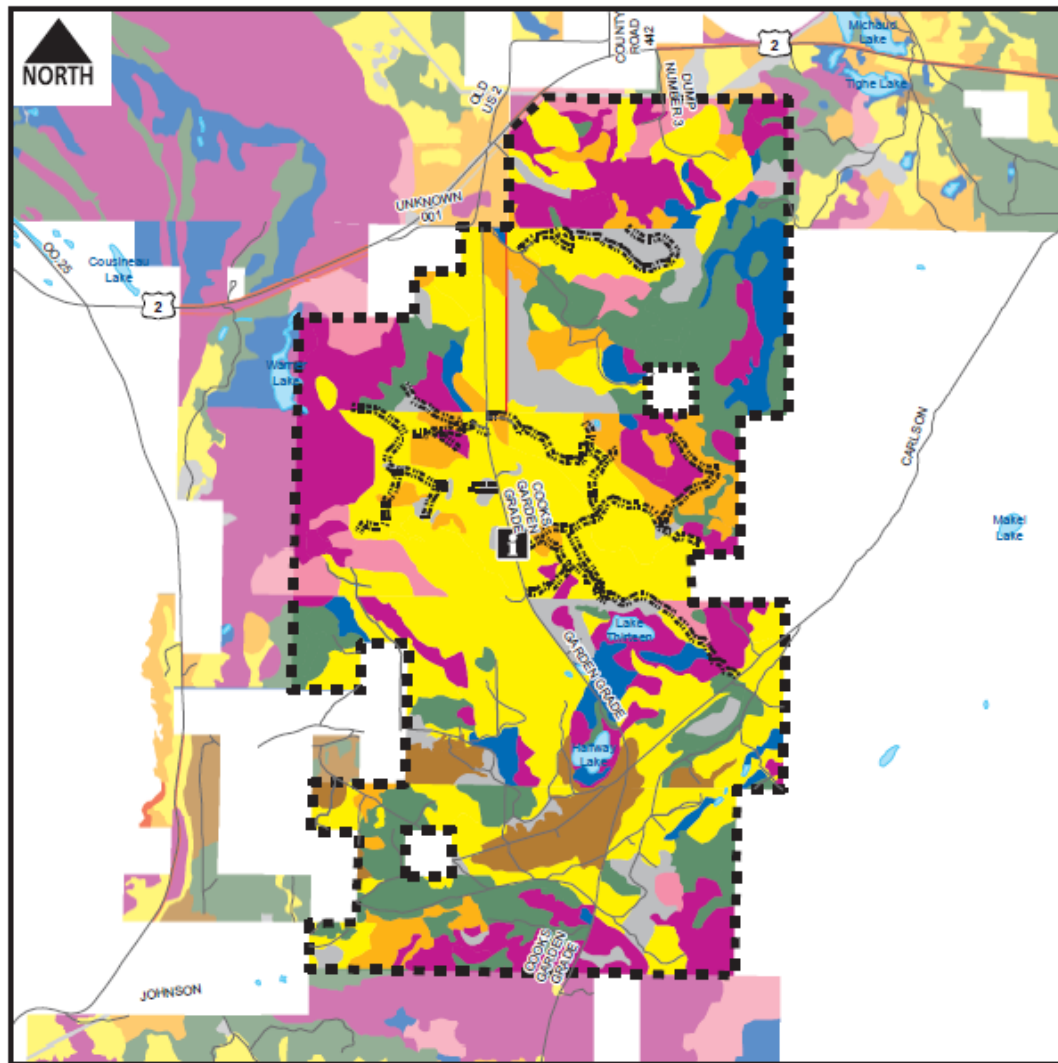
- [45.8715, -86.4891](#)

Save PDF Map

MI-HUNT
Expand your hunt beyond the GEMS

Close





August 26th, 2021

Legend

- Information and Parking
- Roads
- Hunter Walking Trails
- GEMS Boundary
- Lakes and Ponds

- Aspen
- Oak
- Other Upland Deciduous
- Upland Conifer
- Grass/Shrubs/Crops
- Wetlands/Bogs/Private/Water
- Lowland Conifers
- Lowland Deciduous
- Rock/Sand/Soil



Garden Grade GEMS





Thank You

Bats & White-Nose Syndrome Status in Michigan



John DePue, Wildlife Biologist
NRC meeting October 12, 2023



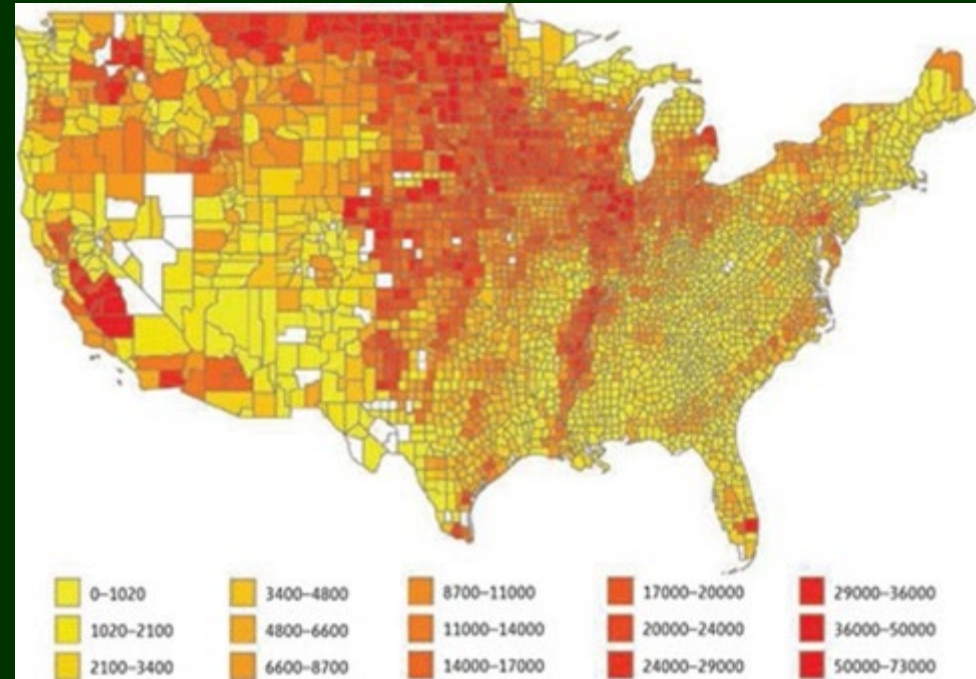
Bats of Michigan

- Nine species, all insectivores
 - Primary nocturnal insect predator
- Two federally endangered bat species:
 - Indiana Bat
 - Northern long-eared bat
- All have legal protection in MI
- Long lived, BBB 30+ years in wild



Why Should We Care About Bats?

- Economic Importance
 - Pest control benefits \$3.7 – \$53 billion / year nationally
 - **Michigan agriculture \$528 million to \$1.2 billion annually (2011)**
 - ~\$74 per farmed acre
 - Gypsy moth, tent caterpillars, cutworms (codling moths), pecan nut casebearer, fruit worms, forest cone worms, hickory shuckworm, corn ear worm moth

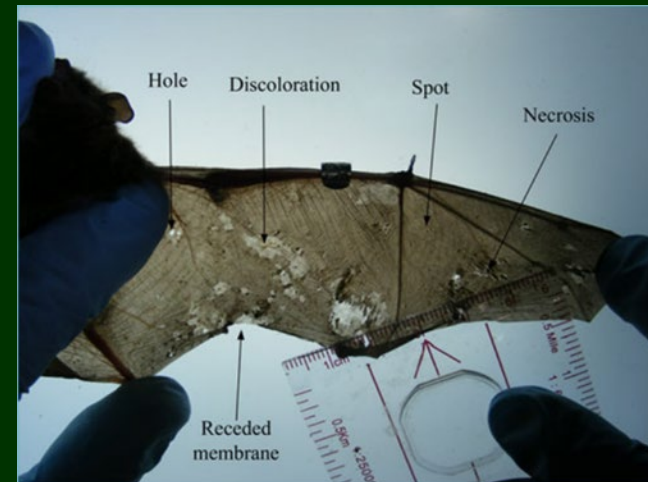


J G Boyles et al. Science 2011;332:41-42



What is WNS

- Disease caused by a fungus
- *Pseudogymnoascus destructans* (Pd)
- Causes energy depletion
- Impacts whole suite of cave bat species; little brown, northern long-eared, tri-colored, and big brown bats



Impacts of WNS

- 80-100% mortality rate in hibernacula
- Cause of northern long-eared bat (NLEB), little brown bat and tri-colored bat declines



WNS in Michigan

- Michigan in 10th year of infection
- All hibernacula have presence of WNS



WNS Impacts in Michigan

- Survey data indicate 89% decline of the sites surveyed post-WNS infection
- Colder hibernacula continue to have higher survival



MI DNR Bat Conservation Actions

- Statewide bat monitoring
 - Disease
 - Population
- Protect critical hibernacula
- WNS treatment trials
- Outreach/ education
- Bat Habitat Conservation Plan (HCP)



Hibernaculum Climate Manipulation

- Reduce internal temperatures to 36-38 degrees F



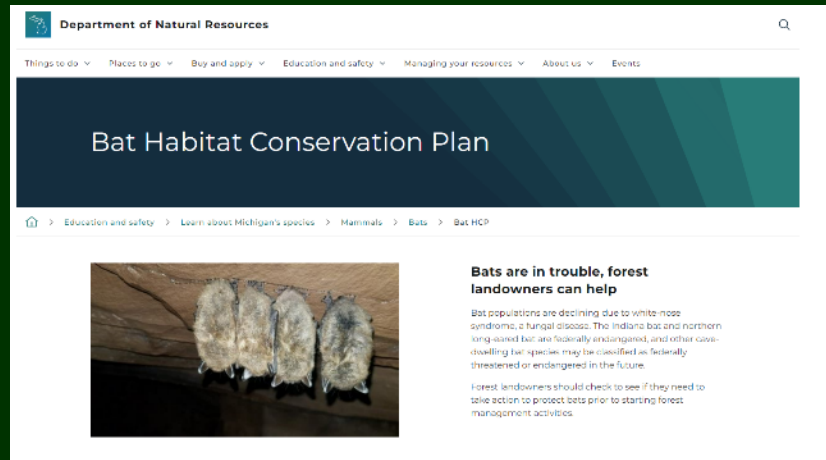
Lake States HCP

- MI, WI, MN
- Necessary to obtain incidental take permit
- Protection from litigation for forestry management practices while providing habitat conservation for federally listed species



Lake States HCP Status

- HCP approved in March 2023
- Implementing conservation measures in accordance with HCP
- Accepting applications from private landowners into the Landowner Enrollment Program



Thank You!



Wolf Status in Michigan

Brian Roell

Wildlife Biologist

Natural Resources Commission Meeting

October 12, 2023



Legal Status

- ❖ The legal status of wolves in Michigan at the federal and state level has changed multiple times, which impacts the ability of all agencies in the Great Lakes to manage wolves.
- ❖ The latest attempt to federally delist wolves became effective in January 2021, but this attempt was also vacated by a U.S. District judge returning wolves to the Endangered Species List in February 2022.
- ❖ By February 2, 2024, the Service intends to submit to the Office of the Federal Register a proposed rule concerning the listing status of gray wolves in the lower-48 United States under the Act.
- ❖ Currently, wolves in Michigan are delisted at the state level and listed federally as an endangered species. Accordingly, management authority is at the federal level.



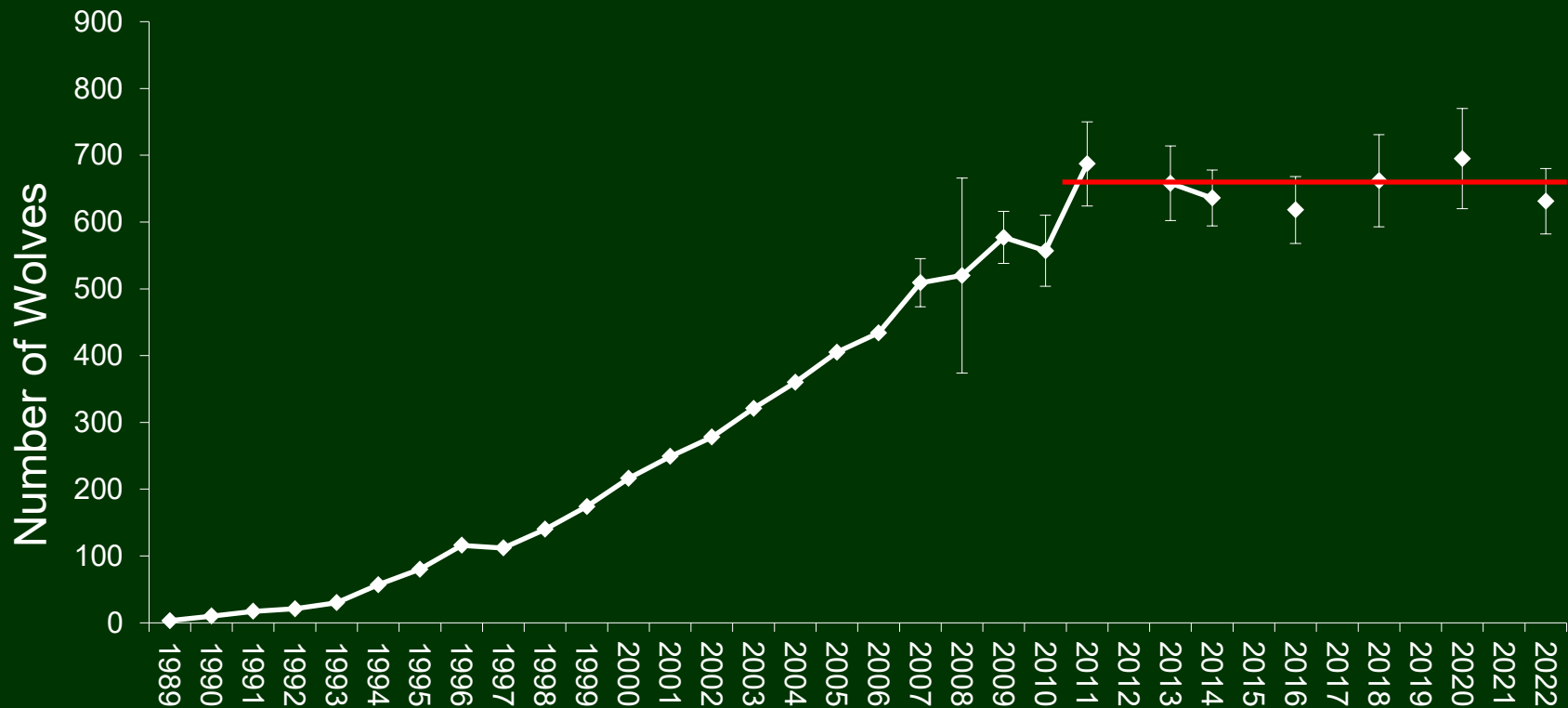
Michigan Wolf Population Estimate

- ❖ Prior to the winter of 2007, we attempted to count wolves throughout the entire UP. However, as the wolf population increased it became more difficult and time consuming to separate adjacent packs.
- ❖ In 2007 we developed and evaluated a sampling scheme to reduce the search area. This new approach proved to be more efficient, which saved time and associated costs.
- ❖ Currently, we are evaluating two other techniques for estimating wolf abundance in the UP.



Michigan Wolf Population

Minimum Winter Wolf Population Estimate



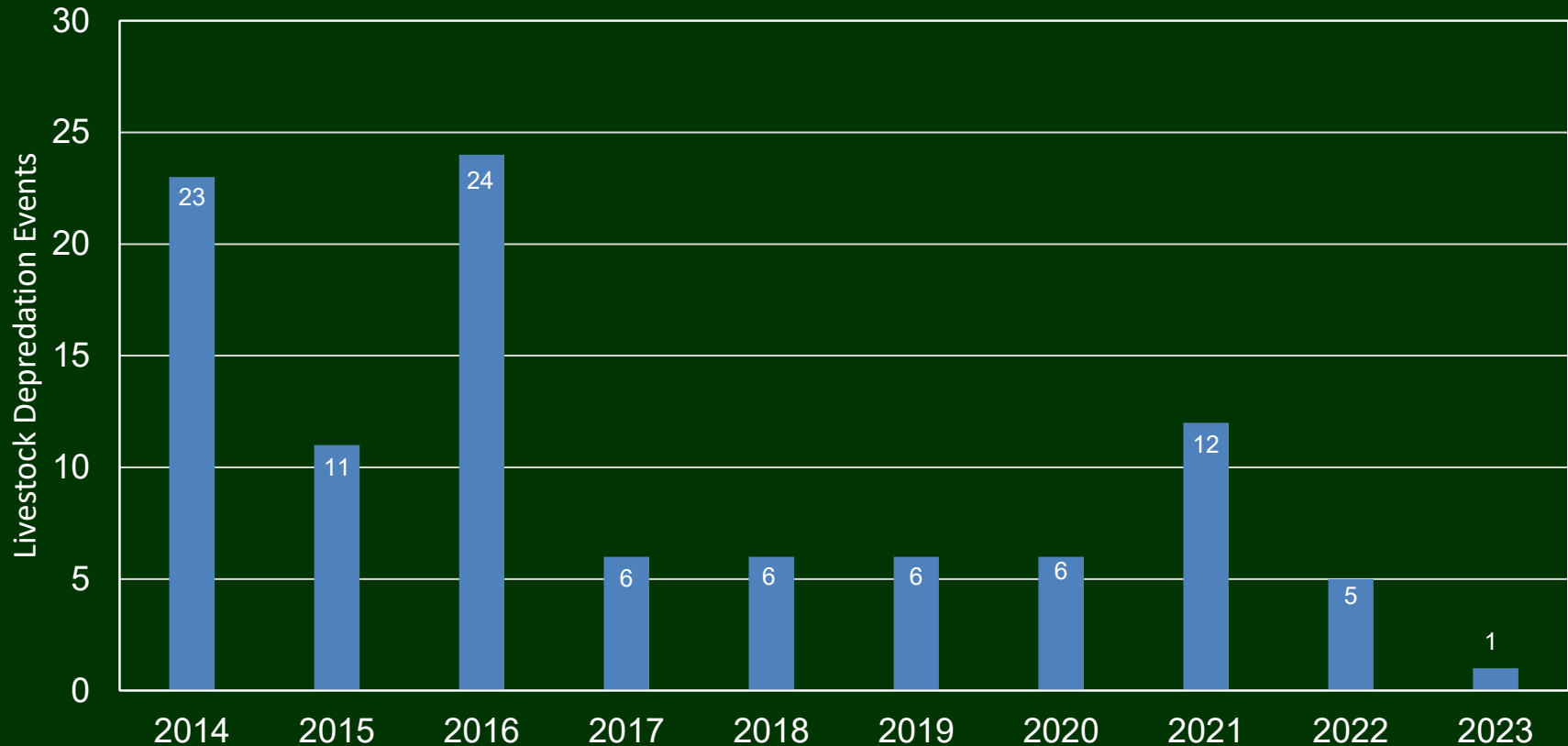
Wolf Conflicts

- ❖ The number of wolf-depredation events varies annually and is often influenced by the activity of a single wolf pack.
- ❖ Under Public Act 487 of 2012, livestock producers are reimbursed for losses attributable to wolf, coyote, or cougar depredation. Indemnification rates cover 100% of the fair market value, on the date of the appraisal, for the market in which the animal was intended; not to exceed \$4,000.00 for each animal.
- ❖ Under Public Act 487 of 2012, missing animals are reimbursed for on farms if wolf depredation cannot be disproved.



Wolf Livestock Conflicts

Livestock Depredation Events in Michigan 2014-2023*

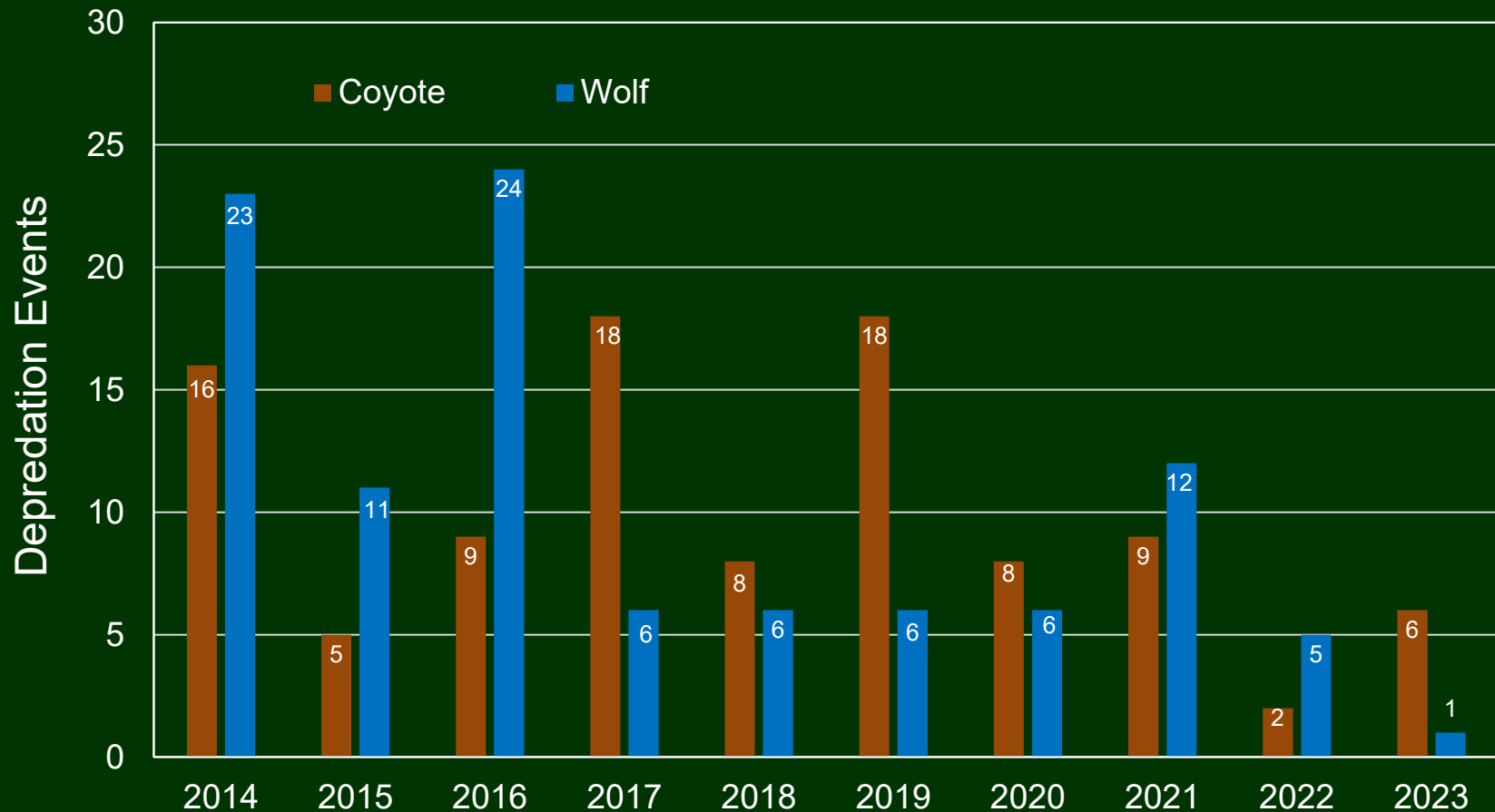


* As of 10/4/23



Livestock Conflicts

Verified Wolf and Coyote Livestock Depredation
Events in Upper Peninsula of Michigan 2014-2023*



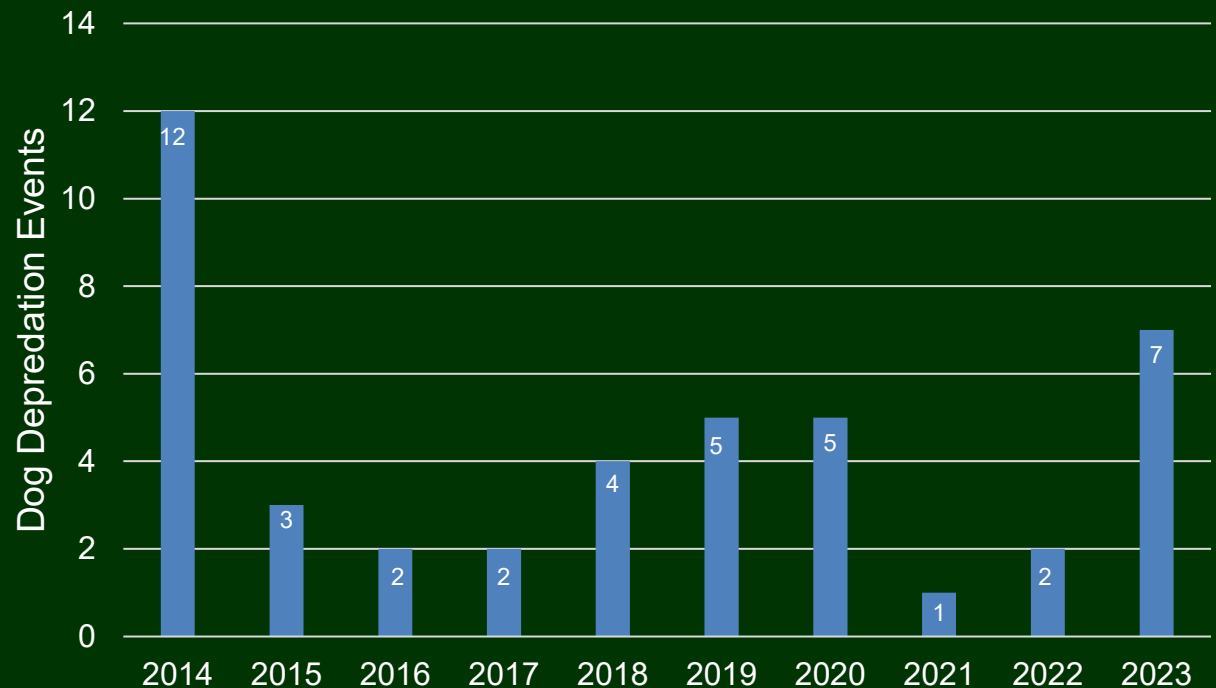
* As of 10/4/23



Wolf Dog Conflicts

- ❖ Annual losses vary
- ❖ 109 dogs killed; 48 injured (157 Total)
- ❖ 77% of the dogs killed (84) involved hounds (bear / rabbit)
- ❖ No compensation
- ❖ Management options focus on prevention
- ❖ Michigan wolf and dog conflict interactive dashboard

Dog Depredation Events in Michigan 2014-2023*



* As of 10/4/23



Management Response to Depredation

- ❖ We use an integrated approach that incorporates non-lethal and lethal control measures. Lethal control is dependent on federal protection.
- ❖ The Michigan DNR takes an incremental approach to addressing wolf–livestock conflicts scaled by the severity and frequency of conflicts.
- ❖ Over the years we have found that a combination of both lethal and non-lethal methods to be the most effective means of deterring livestock depredation.
- ❖ Currently, there is one USDA Wildlife Services employee dedicated to the application of nonlethal deterrents in the UP. This program has been very successful and in fiscal year 2022 no large predator depredations occurred at any of the ten locations enrolled in the program.
- ❖ Members of the public could be authorized to take wolves in the absence of a designated harvest season when wolves are federally delisted with a permit and under regulations in Public Acts 290 and 318 of 2008.



Public Harvest of Wolves

- ❖ Although two approaches to public wolf harvest are outlined in the MI Wolf Plan the public remains highly polarized on the harvest of wolves.
- ❖ Any public harvest of wolves is biologically complex because the effects of harvest on a wolf population are determined by a suite of factors, including population size, age and sex structure, immigration and emigration rates, birth rates, and natural and human-induced mortality rates.
- ❖ The Wolf Plan separates public wolf harvest into two categories.
 - Category I – harvest that addresses a need to reduce wolf-related conflicts
 - Category II – harvest for reasons other than managing wolf-related conflicts (recreational harvest).
(e.g., nature appreciation, harvesting a unique animal, supporting DNR objectives, spending time with friends and family, improving or testing skills and abilities, meeting utilitarian needs [e.g., fur, meat] etc.)



Establishing a Public Harvest of Wolves

- ❖ The DNR does not have the authority to establish a harvest season on wolves.
- ❖ There are many steps and hurdles to developing a wolf harvest in Michigan.
 - a. Wolves must be removed from the federal Endangered Species List.
 - b. Delisting should be secure before any harvest is attempted in Michigan.
 - c. Lawsuits, court rulings and legislation will play a pivotal role in the timeline behind any planned harvest.
 - d. We don't know when or if wolves will be delisted. (5 months or 5 years?)
 - e. Prolonged delisting may require the DNR to do a complete review of biological and social data.
 - f. Even the time of year delisting becomes official will play a role depending on where we are in the population estimate cycle.



Establishing a Public Harvest of Wolves

In general, we believe it would take 9 to 12 months lead time to conduct a wolf harvest season. However, because there are many unknowns the lead time required (if requested by the NRC or through legislation) to develop a season could be lengthier.



Steps to Establishing a Public Harvest of Wolves

1. Wolves federally delisted from the Endangered Species List – (USFWS)
 - a. Delisting should be more permanently settled
2. Request for a public wolf harvest season – (NRC)
3. Engage all federally recognized tribal governments in Michigan, as well as provide Consultation with those tribes in the 1836 Treaty Ceded Territory that are party to the 2007 Inland Consent Decree, prior to any potential wolf harvest – (DNR, Tribal Governments)
4. Re-convene the Wolf Management Advisory Council – (MCL 324.43540e) – (DNR)
5. Develop a system to allow public input – (DNR)
 - a. In person meetings / online comment period etc. ?
6. Review of current scientific literature – (DNR)



Steps to Establishing a Public Harvest of Wolves

7. Review known Michigan biological wolf information – (DNR)
 - a. Current population estimates
 - b. Known causes of wolf mortality
 - c. Wolf conflict information

8. Use guidance in the Wolf Plan to evaluate a potential harvest – (DNR)
 - a. Evaluate conflict situations to determine whether localized reduction of wolf numbers is necessary to manage wolf-related conflicts.
 - b. Evaluate the potential impacts of using licensed hunters and trappers to manage local levels of wolf-related conflicts on the local and regional wolf population.
 - c. Evaluate the potential biological effects of a public wolf harvest specifically for recreational or conflict purposes.
 - d. Evaluate the demand for, and public attitudes toward, a public wolf harvest specifically for recreational purposes.



Steps to Establishing a Public Harvest of Wolves

9. If biologically sustainable, legally feasible, and socially responsible, develop harvest recommendations for the NRC - (DNR)
10. Present harvest recommendations to the Natural Resources Commission and Director of the Department of Natural Resources for their consideration – (DNR)
11. Establish season regulations – (NRC)
 - a. Using an adaptive management approach which integrates harvest and biological data to develop regulations to meet goals and objective – (DNR)
 - b. Establish quotas (Director)



Steps to Establishing a Public Harvest of Wolves

12. Based on NRC regulations and DNR management objectives, develop a system to implement a public wolf harvest season – (DNR)
 - a. License Cost – Resident \$100, Nonresident \$500 (set by MCL 324.43528b)
 - b. Develop hunting zones?
 - c. Lottery system or over-the-counter sales?
 - d. Update license sales software
 - e. Develop a preference point system?
 - f. Call in harvest registration?
 - g. Online harvest registration?
 - h. Phone and/or online open season check system?
 - i. Develop wolf registration accomplishment directive.
 - j. Train staff on registration process and biological sample collection.
 - k. Distribution of registration supplies
 - l. Hunting and/or trapping guidelines?
 - m. Start the conversation on CITES tag requirements?
 - n. Other?



Steps to Establishing a Public Harvest of Wolves

13. Develop, and distribute a wolf harvest regulations summary – (DNR)
14. Recommend the development of an educational information package on the biologically and socially responsible harvest of wolves for our website – (DNR)



Thank You

