



GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF NATURAL RESOURCES  
LANSING



DANIEL EICHINGER  
DIRECTOR

SUBMITTED: December 14, 2020  
RESUBMITTED: January 19, 2021

TO: Daniel Eichinger, Director  
Information: NATURAL RESOURCES COMMISSION  
Subject: Fisheries Order 245.21  
Fish Disease Control

Authority:

The Natural Resources and Environmental Protection Act, 1994 PA 451, under MCL 324.48730(1) authorizes the Director to designate the lakes and streams and parts of lakes and streams from which minnows, wigglers, and crayfish may be taken for commercial purposes and make rules, regulations, and restrictions for taking, possessing, and transporting minnows, wigglers, and crayfish. Commercial purposes for the purpose of this authority is defined in MCL 324.48728.

Discussion and Background:

Fisheries Order 245 establishes fish disease regulations for the protection of aquatic resources in Michigan. This Order was established in 2008 in response to the discovery of Viral Hemorrhagic Septicemia (VHSv) in Michigan waters of the Great Lakes. The Order describes special regulations on the minnow trade, angler behaviors, and where baitfish may be used. The regulations enacted were aimed at curtailing the spread of VHSv and other fish pathogens by recreational anglers, wholesale fish dealers, state-licensed commercial fishermen, private aquaculturists, and retail bait outlets.

The regulations have been an effective management tool reducing the spread of fish diseases like VHSv. The commercial bait industry and the public have been accepting of fish health regulations and understand the importance of protecting Michigan's valuable fisheries. This Order has been modified several times over the years as new information has become available regarding VHSv pathways and transmission vectors and other fish pathogens. The current Order is set to expire after March 31, 2021 and after a thorough review the Department proposes the following amendments to add additional biosecurity measures:

- Require each harvester/wholesaler to complete disease testing for each lot of minnows collected between October and May, inclusive;
- Require disease testing for at least one lot of minnows collected from each of the following waters (baitfish testing zones) if baitfish will be harvested from these areas during the months June, July, August, and September: Saginaw Bay and connecting tributaries to the first fish passage barrier, Black River downstream of the first fish passage barrier (St. Clair Co.), Lake St. Clair and St. Clair River, Detroit River, Lake Erie, Budd Lake (Clare Co.), and Baseline Lake (Livingston and Washtenaw counties), and all other Great Lakes waters.
- Increase testing and labeling requirements for frozen bait.
  - Require species identification and location of harvest for all frozen bait being imported into Michigan.
  - Add labeling requirements to specify that frozen bait was tested for VHSv, if the species is susceptible to the VHSv.

- If testing is required, a VHSV testing certification number on the frozen bait package labeling will be needed.
- Revise the bait collection disease sampling and labeling requirements for fish susceptible to VHSV. Will need to specify that the bait was tested for VHSV including the requirement to add the VHSV testing certification number to the following:
  - All bait collected from the Great Lakes and tributary streams up to the first fish passage barrier;
  - All bait collected outside of Michigan, including frozen bait, must be labeled as indicated:
    - Species must be documented on the package;
    - Origin of collection must be listed on the package;
  - All bait collected from the following inland waters: Budd Lake (Clare County) and Baseline Lake (Livingston and Washtenaw Counties);
- Add anchovies, Atlantic herring, Atlantic menhaden, Eulachon, gizzard shad, and Pacific herring to the list of Viral hemorrhagic septicemia (VHSV) susceptible species in the Fish Health Inspection Guidance document;
- Link FO-245 to the Fish Health Inspection Guidance document; and
- Remove all Koi Herpes Virus (KHV) regulations.

The Department recommends a more proactive fish disease sampling process for bait collectors involving baitfish that are susceptible to VHSV. This includes requiring that each fish lot collected from October 1 – May 31 be tested according to the [Fish Health Inspection Guidance](#) document from the Great Lakes including tributaries to the first fish passage barrier, Budd Lake (Clare County) and Baseline Lake (Livingston and Washtenaw Counties). The Department also recommends adding a requirement for disease testing for at least one lot of minnows collected from each of the following waters (baitfish testing zones) if these waters are going to be harvested for baitfish during the months June, July, August, and September: Saginaw Bay and connecting tributaries to the first fish passage barrier, Black River downstream of the first fish passage barrier (St. Clair Co.), Lake St. Clair and St. Clair River, Detroit River, Lake Erie, Budd Lake (Clare Co.), and Baseline Lake (Livingston and Washtenaw counties), and all other Great Lakes waters (see Figure 1). These changes will add greater biosecurity to the bait supply used throughout Michigan. Advances in fish disease testing methodologies result in shorter turnaround times using qPCR analysis which has lowered the costs associated with it compared to full cell culture testing and greatly decreased the laboratory results turnaround time. Recent investigations by the Department have determined that the current baitfish disease testing regulations allowed VHSV positive fish to get into the bait supply. Therefore, given that disease testing now has shorter turnaround times and the process is no longer as costly, each lot of baitfish needs to be tested as indicated.

All baitfish (live or frozen) that are susceptible to VHSV shall be certified as disease free and be labelled with the testing certification number as described with the Fish Health Guidance Document. Other changes require that imported baitfish (live or frozen) be certified as disease free since frozen fish infected with VHSV have been found to transmit the disease. Imported baitfish (live or frozen) is recommended to be identified to their scientific name and common name according to the official American Fisheries Society publication and must be labeled with the location of capture. This information will be used to determine if the species is susceptible, if the capture location is known to be positive for VHSV, and whether VHSV testing will be required prior to importation into Michigan's bait markets. The recommended additions for the Order will result in the sale and distribution of fish certified as disease free for anglers as most baitfish are currently collected from waters where VHSV has been found.

A document called the Fish Health Guidance Document (dated March 2021) has been developed to inform people about the testing requirements enacted by this Order. The Fish Health Guidance Document will be tied to this Order and any updates will require an update to FO-245 in the future. This document will be where the VHSV susceptible species table will be referenced moving forward. The Department recommends adding anchovies (*Engraulidae* family), Atlantic herring (*Clupea harengus*), Atlantic menhaden (*Brevoortia tyrannu*), Eulachon (*Thaleichthys pacificus*), gizzard shad (*Dorosoma cepedianum*), and Pacific herring (*Clupea pallasii*) to the list of VHSV susceptible species in the Fish Health Guidance Document. The document is kept online at the following link [Fish Health Inspection Guidance](#).

Finally, the Department recommends removing Koi Herpes Virus (KHV) from the Order because the KHV virus has not been documented to infect native fish species that are found in Michigan. This virus is a herpesvirus which is only known at this time to infect Koi and Common Carp.

The Department has had open communications with the bait industry about these proposed changes to allow them to provide their comments and feedback. Following the request for feedback, the Department received comments from the commercial bait industry and their primary concern was the increased testing requirements in the spring and summer months. The Department's response to that concern has been reflected in the changes above concerning the spring and summer testing strategy intended to reduce the prevalence of VHSV and other pathogens in the bait supply. The existing Order only required testing in the fall, but under that regulation the Department did detect VHSV in the bait supply as part of a collaborative research project with Michigan State University. The changes recommended for this Order will result in a more robust testing protocol to reduce the chances of spreading fish diseases like VHSV in Michigan's waters.

#### *Issue Pros and Cons*

The changes recommended will result in greater biosecurity to Michigan's baitfish industry which will benefit every angler fishing in Michigan. The changes will result in disease testing for each fish lot collected from October 1 – May 31, all imported bait (live or frozen), plus require labelling which indicates testing status, testing certification numbers, genus, species, and common names, and location of capture. This information will allow for more targeted VHSV testing for susceptible species, and VHSV positive areas before being imported into Michigan's bait markets. The new labeling requirements will result in better tracking of testing and movement of bait should an issue arise. A con to this would be the increased cost associated with testing more fish lots.

#### *Biological*

These changes are based upon the best scientific disease testing information available and will result in greater biosecurity for live and frozen baitfish collected and imported into Michigan and used by anglers throughout the state.

#### *Social*

These regulations have been supported by anglers and the baitfish industry for over a decade. Adding the recommended changes will result in a more robust disease testing process which increases the protection of Michigan's natural resources.

#### *Economic*

The Department does not expect the proposed changes to have any significant budgetary or personnel implications.

Recommendation:

Relevant Divisions have contributed to the preparation of this Order. This Order was submitted for information on January 14, 2021, at the Natural Resources Commission meeting. This item appeared on the Department's January 5, 2021 calendar and may be eligible for approval on February 11, 2021.

Signature of Jim Dexter



James Dexter, Chief  
Fisheries Division

Signature of Jared Duquette



Jared Duquette, Chief  
Wildlife Division

Signature of Ron Olson



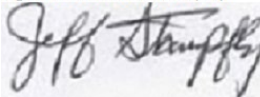
Ronald A. Olson, Chief  
Parks and Recreation Division

Signature of Gary Hagler



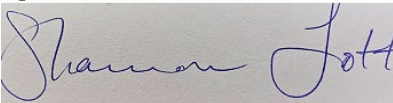
Gary Hagler, Chief  
Law Enforcement Division

Signature of Jeff Stampfly



Jeff Stampfly, Chief  
Forest Resources Division

Signature of Shannon Lott



Shannon Lott  
Natural Resources Deputy

I have analyzed and discussed these recommendations with staff and concur as to matters over which the Director has authority.

\_\_\_\_\_  
Daniel Eichinger, Director

\_\_\_\_\_  
Date

# FISHERIES ORDER

## Fish Disease Control Order 245.21

Under the authority of Sections 48730(1) and 48728 of 1994 PA 451, as amended, MCL 324.48730(1) and MCL 324.48728, the Director of the Department of Natural Resources on February 11, 2021, ordered that the following fish disease control regulations shall take effect April 1, 2021:

The goals of the Department's actions under this Fish Disease Control Order are to protect the aquatic resources of the State, minimize the spread of pathogens and aquatic invasive species of concern to uninfected waters, and protect the Department's fish hatchery system. The Department will address the control of diseases of fish and aquatic invasive species through the development of regulations that are designed to contain or slow the spread of these threats. This Order acts in conjunction with PA 451, Part 413, Section 41325 to protect our waters from pathogens and aquatic invasive species.

### 1) Definitions

As used in this order:

- a) Baitfish: live or dead species of any fish, or parts of fish excluding fish eggs, used to harvest or attract fish.
- b) Certification process: a process used by the Department to grant or deny applications from individuals who want to conduct certain activities that are regulated by this order.
- c) Fish: includes live and dead fish of any species or parts other than baitfish and fish eggs as defined by this order.
- d) Fish eggs: eggs of a fish, also known as roe.
- e) Fish Health Guidance Document: Michigan Department of Natural Resources (DNR) Fish Health Testing Guidelines for Moving Game and Bait Fish into the State of Michigan, Stocking of Fish into Public Waters of Michigan, and Baitfish Certification for the State of Michigan, March 2021. See [https://www.michigan.gov/documents/dnr/DNR-fish-hlth-test-requirements\\_678479\\_7.pdf](https://www.michigan.gov/documents/dnr/DNR-fish-hlth-test-requirements_678479_7.pdf) for the referenced document.
- f) Fish Stocking Permit: an official document issued by the Department giving an individual authorization to conduct fish stocking activities.
- g) Approved Fish Species List: fish species that are approved for stocking, importation, or use as baitfish in Michigan Public Waters (as listed in the Fish Health Guidance Document).
- h) Pathogen: viruses, bacteria, fungi, and parasites that cause disease in living organisms.
- i) Purchase: to acquire for a consideration.
- j) Michigan public waters: waters within the jurisdiction of the state having public access, waters with permanent inflow or outflow, or waters that have been stocked using public resources.
- k) Sale or sell: an exchange or attempt or offer to exchange money, barter, or anything of value.
- l) State-licensed baitfish retail, State-licensed baitfish wholesale operations, and State-licensed catchers: those that are required to be licensed by the state of Michigan for these activities.

### 2) Bait Fish Exclusion Zones

The Department has identified locations vital to the protection of hatchery operations in an effort to control or contain pathogen movement and reduce disease risks to these facilities. In these critical areas restrictions on the possession and subsequent use of baitfish must be implemented. Therefore, baitfish shall not be possessed or used on the following waters of the State:

- a) **Benzie County**  
Brundage Creek and tributaries Kinney Creek and Stanley Creek, from its confluence with the Platte River (T26N, R13W, S7), to their headwaters, including Brundage Spring Pond.
- b) **Chippewa County**  
Pendills Lake (T47N, R4W, S25, 26) including tributary Pendills Creek downstream to its confluence with Lake Superior (T47N, R4W, S28).
- Sullivan Creek from its headwaters (T46N, R4W, S32) downstream to its confluence with the North Branch of the Pine River (T45N, R4W, S23).
- Viddian Creek from its headwaters (T47N, R4W, S32) downstream to its confluence with Pendills Creek (T47N, R4W, S28).
- c) **Marquette County**  
Cherry Creek from the location of the Cherry Creek Road (T47N, R24W, S18) to the headwaters at County Road 480 (T47N, R25W, S22).
- d) **Wexford County**  
Slagle Creek from M-37 upstream.
- 3) General statewide provisions:
- a) It shall be unlawful to place any live fish, live baitfish, or fish eggs into Michigan public waters without first obtaining a Fish Stocking Permit from the Department ([https://www.michigan.gov/documents/dnr/Private\\_Fish\\_Stocking\\_Permit\\_Process\\_458281\\_7.pdf](https://www.michigan.gov/documents/dnr/Private_Fish_Stocking_Permit_Process_458281_7.pdf)), except for fish reared within a facility registered under the Aquaculture Development Act (Public Act 199 of 1996) or otherwise allowed under this Fisheries Order. All fish stocked under a Fish Stocking Permit shall be certified disease-free as described within the Fish Health Guidance Document. Fish transported for stocking outside a facility registered under the Aquaculture Development Act require a Fish Stocking Permit from the Department. If an approved Fish Stocking Permit is issued by the Department, an applicant shall carry a copy of that Fish Stocking Permit when transporting or stocking those fish or eggs. This section does not include the practice of chumming with fish eggs by an angler in the act of recreational fishing.
- b) Baitfish shall only be used on a hook and may not be disposed of or otherwise released into Michigan public waters.
- c) It shall be unlawful to import into this State for use as baitfish any uncertified fish species as described within the Fish Health Guidance Document. This includes live, dead, preserved, frozen, and cut baitfish.
- d) It shall be unlawful to import into this State for use as baitfish any frozen baitfish that are not identified to their scientific (i.e., genus and species) and common name using the official American Fisheries Society publication (citation provided below). Additionally, all imported baitfish will need to be labeled with their location of capture. The scientific and common names along with the point of capture must be clearly shown on all packaging along with testing status of the fish including the testing certification number. The testing status must be documented as one of the following: 1) VHSV-free as determined by testing; or 2) VHSV testing not required in accordance with DNR Fish Health Guidance Document and status approved by DNR.
- e) All species of live fish maintained at a location by an owner of a State-licensed commercial fishing operation shall be considered uncertified if live fish have not been tested following the Fish Health Guidance Document.
- f) It shall be unlawful to purchase and use baitfish, crayfish, or other live organism from any location not licensed under Part 487 of 1994 PA 451 including, but not limited to, pet shops and live fish markets.
- 4) Commercial Bait
- a) Importation from out of state
- i) Status of Fish Health - all persons importing baitfish shall have those baitfish tested as described in the Fish Health Guidance Document and shall submit all tests results to the Department. The Department will review the results for each application and respond with a certification letter that contains a transaction number and indicates whether the application is approved or denied along with the supporting rationale for the decision.

## b) Harvest of baitfish from Michigan waters:

- i) Status of Fish Health - From October 1 – May 31 of each year, all persons holding a minnow catcher's license, including an owner of an aquaculture facility regulated and permitted by the Michigan Department of Agriculture and Rural Development, who harvest and wish to offer for sale or sell baitfish listed in the Fish Health Guidance Document shall have the fish tested in accordance with the Fish Health Guidance Document and submit the results to the Department. Baitfish shall be tested from the following waters: 1) all Great Lakes waters to include all tributary streams to the first fish passage barrier; 2) Budd Lake (Clare County); and 3) Baseline Lake (Livingston and Washtenaw Counties). The Department will review the results for each application and respond with a certification letter containing a transaction number and indicates whether the application is approved or denied along with the supporting rationale for the decision.

State-licensed baitfish catchers shall coordinate and collect a single 150 fish sample during June, July, August, and September from each of the 8 testing zones, if fish are to be harvested from these zones, including 1) Saginaw Bay and connecting tributaries to the first fish passage barrier, 2) Black River downstream of the first fish passage barrier (St. Clair County), 3) Lake St. Clair and St. Clair River, 4) Detroit River, 5) Lake Erie, 6) Budd Lake (Clare County), 7) Baseline Lake (Livingston and Washtenaw Counties), and 8) all other Great Lakes waters (Figure 1). Samples from each of the 8 testing zones shall be tested for each pathogen of concern by a certified laboratory approved by the State of Michigan. Sampling plans for each respective zone shall be communicated to Department before samples are collected.

If any baitfish test positive for any pathogen of concern during the June - September testing period from the 8 testing zones, then the Department shall take immediate emergency action to temporarily amend this Order and require additional testing certification of baitfish harvested June – September 30. The Department will notify all licensed bait harvesters of the testing results and any subsequent emergency regulatory actions. If emergency action is taken, additional testing requirements shall take immediate effect and shall remain in place until the Department determines that the pathogen threat has sufficiently diminished to lift the emergency order and reinstate the seasonal monthly testing requirement outlined in this Order.

## c) General Regulations for Commercial Bait

- i) All Michigan baitfish wholesalers are required to be licensed by the state of Michigan and must complete the following certification process for their facility or business:
- (1) Status of a Facility - If keeping and holding baitfish at a facility for prolonged distribution and sale, baitfish wholesalers shall have that facility reviewed by the Department to ensure that there is minimal risk to Michigan public waters and that appropriate biological security measures are effective for the facility. The Department will review the results for each application and respond with a certification letter for facility status that either grants or denies the application and includes the Department's rationale for the decision, as well as the actions necessary for achieving certification. Once certified and licensed, facility operators who wish to continue being licensed must inform the Department in writing by September 30<sup>th</sup> each year whether changes were made to the facility during the current license year. If the facility is unchanged, a new certification will be issued with the new license year. If changes were made to the facility, a new certification process must be initiated at that time. This part does not apply to an owner of an aquaculture facility regulated and permitted by the Michigan Department of Agriculture and Rural Development or an owner of a State-licensed baitfish retail operation.
  - (2) Statement of Direct Sale – If a wholesaler ships baitfish directly from the point of harvest or immediately after purchase from another licensed wholesale to licensed bait retailers in Michigan, that wholesaler shall notify the Department at the time of license application of their intent of direct sale only. The Department will respond with a letter of authorization for direct wholesale shipments to licensed retailers.
- ii) A person shall not offer for sale or sell any baitfish that are listed in the Fish Health Guidance Document that were imported from out-of-state or were harvested in Michigan without receiving a certification letter for fish health status from the Department permitting such activity.
- iii) If an approved certification for fish health status is issued by the Department, a copy shall be carried by the baitfish wholesaler or retailer when transporting, offering for sale, or selling baitfish that are listed in

the Fish Health Guidance Document and harvested in Michigan waters. That certification letter shall be shown upon request to any law enforcement officer or Fisheries Division representative.

- iv) An owner of a State-licensed baitfish wholesale operation shall provide to each wholesale and retail purchaser at the point of sale a copy of a receipt for their purchase that will include the date of purchase, the quantity of each species sold, the official common name of the species sold (as listed in the Fish Health Guidance Document) or the official American Fisheries Society publication (citation provided below), and the applicable certification number for fish health status for species harvested in Michigan's public waters that are listed in the Fish Health Guidance Document. All wholesale frozen bait transactions must provide to each wholesale and retail purchaser at the point of sale a copy of a receipt for their purchase including the location of capture, the scientific and common names using the official American Fisheries Society publication (citation provided below), and the testing status of the fish including the DNR testing certification number and certification letter.
- v) A State-licensed baitfish wholesaler must have a copy of the Fish Health Certification Status letter at their facility, as well as a receipt of purchase to accompany any baitfish they possess that was either imported into Michigan or harvested in Michigan. The letter and receipt shall be made available upon request of any law enforcement officer or a Fisheries Division representative.
- vi) A wholesale baitfish dealer shall retain copies of receipts for purchases and all accompanying testing paperwork for at least one year after the date of purchase.

#### 5) Literature Cited:

- a) Page, L. M., H. Espinosa-Pérez, L. T. Findley, C. R. Gilbert, R. N. Lea, N. E. Mandrak, R. L. Mayden, and J. S. Nelson. 2013. Common and scientific names of fishes from the United States, Canada, and Mexico, 7<sup>th</sup> edition. American Fisheries Society, Special Publication 34, Bethesda, Maryland.



This Order shall be assigned number FO-245.21, and is entitled "Fish Disease Control." If a discrepancy occurs between this Fish Disease Control Order, FO-245.21, and other orders and laws currently in existence, the more restrictive regulation shall take precedence.

This Order supersedes the Order entitled "Fish Disease Control," which became effective April 14, 2016, and was assigned number FO-245.16.

Fisheries Order 245.21 shall take effect on April 1, 2021. This Order shall remain in effect through March 31, 2026, or until this Order is amended or rescinded, whichever comes first. Although this Order may be reviewed and amended on an annual basis, a review of this Order shall occur no later than August 1, 2025.

Issued on this 11th day of February, 2021.

Approved as to matters over which the Director has authority.

Daniel Eichinger  
Director

