

# 07hr\_SC-ENR\_CRule\_07-074\_pt02



(FORM UPDATED: 08/11/2010)

## WISCONSIN STATE LEGISLATURE ... PUBLIC HEARING - COMMITTEE RECORDS

### 2007-08

(session year)

### Senate

(Assembly, Senate or Joint)

### Committee on ... Environment and Natural Resources (SC-ENR)

#### COMMITTEE NOTICES ...

- Committee Reports ... **CR**
- Executive Sessions ... **ES**
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#### INFORMATION COLLECTED BY COMMITTEE FOR AND AGAINST PROPOSAL

- Appointments ... **Appt** (w/Record of Comm. Proceedings)
- Clearinghouse Rules ... **CRule** (w/Record of Comm. Proceedings)
- Hearing Records ... **HR** ... **bills and resolutions** (w/Record of Comm. Proceedings)
  - (**ab** = Assembly Bill)                      (**ar** = Assembly Resolution)                      (**ajr** = Assembly Joint Resolution)
  - (**sb** = Senate Bill)                              (**sr** = Senate Resolution)                              (**sjr** = Senate Joint Resolution)
- Miscellaneous ... **Misc**

## REPORT TO LEGISLATURE

NR 19 and 20, Wis. Adm. Code  
Control of fish diseases and invasive species

Board Order No. FH-30-07  
Clearinghouse Rule No. 07-074

### Basis and Purpose of the Proposed Rule

The discovery of the fish disease Viral Hemorrhagic Septicemia (VHS) in Wisconsin's waters represents a significant fish health issue. This disease has demonstrated the potential to cause large fish kills and long-term reductions in wild fish populations and severe economic losses for aquaculture operations. Regardless of the impacts on Wisconsin's fisheries, VHS is an internationally reportable disease subject to state and federal regulations to prevent its movement.

The VHS virus meets the statutory definition in s. 23.22(1), Stats., of an invasive species. On January 25, 2007, the Michigan Department of Natural Resources announced the discovery of VHS in samples of Chinook salmon, whitefish and walleyes in northern Lake Huron, including some samples that had originally been collected in 2005. Prior to that announcement, VHS had not been detected any further upstream in the Great Lakes than Lake St. Clair. With that announcement, however, the department concluded that there was a very strong probability that VHS was already in Lake Michigan and asked the Natural Resources Board to consider emergency rules to help control the spread of the disease.

On April 4, 2007, the Natural Resources Board adopted an emergency order to control the spread of VHS in Wisconsin by limiting the movement of live fish, bait and water among already infected and uninfected waters of the state. Provisions of that rule were clarified and expanded by a second emergency order adopted on April 25, 2007. At the time those emergency rules were adopted, the VHS virus had caused fish kills in the lower Great Lakes, but had not been documented west of Lake Huron. Department biologists believed it was probably already in Lake Michigan, and possibly in Lake Superior and the Mississippi River which are directly connected to Lake Michigan.

On May 11, the Department was informed that samples of freshwater drum taken from Little Lake Butte des Morts had tested positive for the VHS virus. For purposes of controlling the spread of the disease, it was then reasonable to regard Lake Winnebago and the majority of the Fox/Wolf River system as infected, and prudent to assume that the virus might appear in any inland water. Accordingly, another emergency order was adopted on May 17, 2007, expanding the geographic applicability of the previous emergency rules to include the Lake Winnebago and the Fox/Wolf River system. Subsequently, VHS was confirmed in freshwater drum in Lake Winnebago itself, and in brown trout, smallmouth bass and whitefish in Lake Michigan.

The proposed rule limits the transport of live fish and fish eggs away from any inland and outlying water, and requires the immediate drainage of water from boats, boating equipment, fishing equipment and other containers upon removal from these waters or upon entering the state for use in waters of the state.

The Department may authorize the commercial harvest of wild minnows as bait, with exceptions. It also prohibits any person from using dead fish, fish eggs or any parts thereof as bait, with exceptions, and it limits the use of fish and fish parts as bait in crayfish traps and turtle traps, with exceptions.

Finally, the proposed rule adds a new criteria for the issuance of permits for licensed bait dealers to use non-standard minnow gear, allowing the permits to be denied if use of the gear could spread invasive species or diseases.

### Summary of Public Comments

Several comments pertained to DNR and DATCP legal authority for the proposed rule. No changes were made to the proposed rule in response to these comments.

Several comments pertained to when and under what circumstances the geographic applicability of the rule would be expanded. As presented at hearings, the rule restricts the movement of live fish, fish eggs, and water from designated affected or directly-vulnerable waters and provides that those restrictions would apply to all waters of the state in the event that VHS virus is detected elsewhere. The comments pertained to the question of when and to what extent the geographic applicability of the rule should be expanded. In light of these comments (and comments from citizens appearing before the Natural Resources Board) the rule proposal has been revised to have the restrictions apply to all waters of the state without further action being required by the department.

Wild-bait harvesting issues. Bait dealers who harvest wild minnows will be directly affected by this rule. While we must take the appropriate steps to protect the wild fish populations of the state, we want to minimize disruption to these businesses. We will pursue statutory authority to require reporting of wild-bait harvests. Until that authority is provided, the wild harvest permit and record-keeping requirements in the proposed rules should provide reasonably current information about wild-bait harvesting, allowing it to continue while limiting it to waters not yet affected by VHS. Permits for wild harvest also will require decontamination of gear and compliance with DATCP fish health rules.

A Comment and Response Summary is attached.

### Modifications Made

The Department is proposing to continue and expand the restrictions implemented in the emergency rules implemented earlier this year and expand the geographic applicability of those restrictions to include all waters of the state, not just the Great Lakes, Mississippi River and Lake Winnebago drainage areas. Although the rule allows the continued harvest of wild bait, it requires wild harvest permit holders to disinfect boats and equipment after removal from any water and bans the transfer of bait between individuals unless fish health requirements established by the Department of Agriculture, Trade and Consumer Protection (DATCP) are met.

### Appearances at the Public Hearing

August 14, 2007 – Fitchburg

In support:

George Meyer, Wisconsin Wildlife Federation, 201 Randolph Drive, Madison, WI 53717

In opposition – none

As interest may appear:

Tim Gollon, Gollon Bait and Fish Farm, 4905 Brennan Road, Dodgeville, WI 53533

David C. Gollon, Gollon Bait and Fish Farm, 5117 Highway 191, Dodgeville, WI 53533

August 15, 2007 – La Crosse

In support:

Bob Miller, Wisconsin Wildlife Federation, 646 E. Division Street, Sparta, WI 54656

In opposition – none

As interest may appear – none

August 16, 2007 – Milwaukee

In support:

Scott Slick, 2586 S. Wentworth, Milwaukee, WI 53207

In opposition – none

As interest may appear:

Lawrence Freitag, Wisconsin Wildlife Federation, 1610 South 11<sup>th</sup>, Sheboygan, WI 53081

August 20, 2007 – Green Bay

In support:

Ron VanderLoop, Brown County Conservation Alliance, 2121 Orrie Lane, Green Bay, WI 54304

In opposition:

Bill West, Wisconsin Aquaculture Association, W5811 12 Corners Road, Black Creek, WI 54106  
Michael Heilman, Brookcrest Fisheries, W3698 County Road G, Cedar Grove, WI 53013

As interest may appear:

Michael M. Zettel, 140 Berger Street, Green Bay, WI 54302  
Pete Petrouske, DePere Sportsmans Club, 1498 Ponderosa Avenue, Green Bay, WI 54313  
Bernie Skaletski, 1121 Grignon Street, Green Bay, WI 54301

August 23, 2007 – Wausau

In support:

Marcel F. Wieloch, 1705 Town Hall Road, Mosinee, WI 54455

In opposition:

Benjamin Gollon, Gollon Brothers Wholesale Live Bait, 2450 Torun Road, Stevens Point, WI 54481  
Joseph H. Gollon, Gollon Brothers Wholesale Live Bait, 2450 Torun Road, Stevens Point, WI 54481  
Fred Gollon, 1102 Old Wausau Road, Stevens Point, WI 54481  
Dan Hilger, R. J. Hilger & Sons, W8895 Highway 47, Antigo, WI

As interest may appear:

Grant R. Young, 5920 Highway U, Wausau, WI 54401  
Kevin Orlovski, Plover Bait Company, 4620 Coolidge Avenue, Plover, WI 54467  
William L. Parker, Hoovers Live Bait, Inc., P.O. Box 98, Amherst, WI 54406  
Keith Cyron, Central WI Live Bait, 2829 N. Sunset Drive, Stevens Point, WI 54481  
Tim Winkel, Silver Mountain Springs, W4852 Highway 64, Elton, WI 54430

August 23, 2007 – Superior

In support:

Connie L. Pribnow, Wisconsin Wildlife Federation, 81630 Arney Road, Port Wing, WI 54865  
Steve G. Schwartzbauer, 646 N. Park Street, Grantsburg, WI 54840

In opposition – none

As interest may appear:

Jon Simonson, Baitmans Livebait, 1226 E. County Road B, Foxboro, WI 54836  
Gerald A. Nesgoda, 23778 Larson Road, Grantsburg, WI  
Marvin Suliin, 6 Bianco Drive, Duluth, MN 55808

#### Changes to Rule Analysis and Fiscal Estimate

The rule analysis has been modified to reflect that the rule pertains to all waters of the state, not just those identified as already having the VHS virus. The immediate drainage of water from boats, boating equipment, fishing equipment and other containers is also required when entering waters of the state, not just when removal from waters of the state.

The fiscal estimate remains unchanged in that it is not possible to identify a dollar amount for the fiscal impact.

#### Response to Legislative Council Rules Clearinghouse Report

A number of the Clearinghouse comments are mooted by the revisions made to the rule following hearing. All other comments have been accepted and incorporated into the rule, with the following exceptions:

Comment 2.a. requires further analysis and will be dealt with in a subsequent housekeeping rule revision.

Comment 4. is unclear and the department does not understand what the Clearinghouse is recommending.

Comment 5.a. is accepted in part, but the wording suggested by the Clearinghouse is too broad.

Comment 5.d., while the change could be helpful, the Department did not accept it because the change is not necessary for the rule to be understood or effective. The Department intends to use educational materials and pamphlets to explain the rules to affected parties.

#### Final Regulatory Flexibility Analysis

This rule will affect bait dealers, wholesale fish dealers, commercial fishers, anglers, boaters and individuals involved in the harvest, rearing or use of fish bait. This rule will have varying degrees of financial impact on bait dealers, wholesale fish dealers, commercial fishers and other businesses involved in the harvest, rearing or use of fish bait. The impact will depend upon the degree to which the geographic scope of the virus expands, as well as the ability of a business to comply with both the DNR rule changes and the fish testing rule changes that are anticipated to be implemented by DATCP as a result of VHS. Wild bait harvesters will be negatively affected by limitations on where bait may be withdrawn from, while all other sport fishing-related businesses would be hurt by the effects of VHS if it is allowed to spread freely across the state.

Businesses handling bait in VHS-affected areas will be adversely affected, while those involved in culturing bait in fish farms may benefit. The rule will also make it harder for some crayfish trappers to obtain fish for use as bait in their traps, but allows other type of bait to be used in lieu of fish. Similarly, the rule will make it harder for some turtle trappers to obtain fish for use as bait, but current rules already allow the use of other types of bait.

## Comment and Response Summary

### Department Authority.

- 1) Comment: The provision (SECTION 10) that it would be illegal to "use or possess live fish, fish eggs, crayfish, or frogs as bait if obtained outside of, or brought into, the state of Wisconsin, except . . ." duplicates DATCP rules that already prohibit the importation into Wisconsin of live fish or fish eggs for use as bait and prohibit the importation into Wisconsin of crayfish or frogs without a written import permit from DATCP.  
Response: In this provision, the Department does not duplicate DATCP rules or assert authority held by DATCP. The provision in question does not regulate the importation of live fish or fish eggs. Rather, under authority of s 29.039(1), Stats., it regulates the use as bait or possession of nongame species that have been imported. Fish imported legally under DATCP rules are explicitly excepted.
- 2) Comment: DNR has authority over bait harvested within Wisconsin, not imported or farm-raised bait.  
Response: Section 29.039(1), Stats., states that the Department "may require harvest information and may establish limitations relating to taking, possession, transportation, processing and sale or offer for sale, of nongame species." This includes fish species defined by statute as either rough fish or minnows, whether harvested in Wisconsin, imported, or farm-raised. In addition, s. 29.735, Stats., requires that any person have a DNR permit to import non-native fish species into Wisconsin for the purpose of introduction into waters of the state, use as bait, or rearing in a fish farm.
- 3) Comment: DATCP has statutory authority over all imported animals, and is the issuer of import permits related to fish health requirements.  
Response: This is incorrect. DATCP does regulate the importation of fish and establishes regulations pertaining to fish health within the state, but as explained above the Department retains broad authority over the use of fish that have been imported, particularly non-native fish.
- 4) Comment: DNR is not the overseer of DATCP regarding import permits and related health requirements and has no authority over Wisconsin fish farms.  
Response: The proposed rule does not assert Department authority regarding importation of fish and related health requirements.
- 5) Comment: Any fish, fish eggs, crayfish, or frogs that are brought into Wisconsin in compliance with DATCP rules are legal regardless of whether they are intended for bait or not.  
Response: The proposed rule specifically exempts bait imported in compliance with DATCP rules. Importation of non-native fish for stocking, use as bait or in fish farms also requires a DNR permit.
- 6) Comment: Farm-raised fish are exempt from NR 19 and 20, regardless of what they are used for. Registered fish farms are under the jurisdiction of DATCP. The rule creates confusion and intrudes on DATCP authority.  
Response: Farm-raised nongame fish are not exempt from Department authority provided under Section 20.039(1).
- 7) Comment: The Legislature mandated that DATCP have complete control over all fish health in the state, including fish managed by DNR.  
Response: This is not correct. The Department's authority and responsibility to protect and sustain wild fish populations allows the consideration of fish health issues.
- 8) Comment: DATCP, DNR, and the aquaculture industry are cooperatively working on issues of concern regarding VHS. Regulations are being worked out on several issues, including health assessments, health certificates, and VHS testing for fish and bait sold within the state.  
Response: This is correct.
- 9) Comment: DNR should not be involved with private fish farms; it has enough to do dealing with fish in public waters.  
Response: The proposed rule only directly affects fish farms that are located in or use public waters.

### Geographic applicability of the rule.

- 10) Comment: Provisions should be extended to all state waters, because a) the disease is likely to spread and b) it would encourage practices that will help slow or stop the spread of other invasive species.

- Response: At this time we are proposing only to expand the geographic applicability of the restrictions to waters where we have reason to believe the virus may exist. We agree that the restrictions contained in the rule are relevant to controlling the spread of other invasives.
- 11) Comment: DNR should approve some waters for bait harvest, if they are VHS virus-free.  
Response: Because we are still trying to understand the rate and direction of spread of the virus, we cannot be confident about designating waters as VHS virus-free. However, the proposed rule will allow the continued issuance of short-term wild harvest permits from specified waters until the Department determines that there is reason to believe the virus might be present there.
- 12) Comment: We need an immediate closure of all inland lake landings.  
Response: This is not realistic and would not be particularly effective. It would destroy recreational fishing and boating in Wisconsin and would apply unfairly only to those who use public landings.
- 13) Comment: If the rule goes statewide small wild-bait harvesters could not survive. Small operators do not have the space, time, or funds to meet the testing requirements.  
Response: We understand the difficulties the proposed rule, along with DATCP's announced requirements, pose for small operations. The rule proposal allows for the issuance of wild harvest permits, with restrictions, from waters outside the Great Lakes, Mississippi River, and Lake Winnebago drainages, until the Department determines that there is reason to believe the virus is present.
- 14) Comment: The rule states that if VHS virus is discovered "in any water body" other than currently affected or directly vulnerable waters, the provisions will apply statewide. What does "any water body" mean. Does it include private or state hatcheries?  
Response: The proposed revisions have removed this trigger for expanding the geographic applicability of the rule to the entire state. Under the proposed rule the geographic applicability of the rule will be expanded on a case-by-case basis, following public notice, to waters where the Department has reason to believe the virus is present.
- 15) Comment: The geographic applicability of the rule should be on a water-by-water or drainage-by-drainage basis.  
Response: The proposed revisions attempt to do this.

#### **Wild-bait harvesting issues.**

- 16) Comment: It would be good to require wild-bait harvesters to disinfect gear between use in two water bodies.  
Response: The Department agrees with this. Under the proposed rule this requirement will be specified in wild harvest permits.
- 17) Comment: If the harvest of minnows from inland waters is stopped, it will encourage importation of minnows, which may carry the virus. Few imported minnows are actually tested for VHS virus.  
Response: Under the proposed rule, the Department will allow the harvest of minnows to continue under the terms of wild harvest permits except in waters where the Department has reason to believe the virus is present. VHS virus is present in Wisconsin, so we know there is some risk associated with minnows harvested from Wisconsin waters. On the other hand, imports from states not affected by VHS virus may pose no risk and imports from affected states must be tested for VHS virus under DATCP rules.
- 18) Comment: It would be desirable to lengthen the duration of wild harvest permits from 14 days to a longer period, perhaps one year. Note, wild harvest permits are required for isolated ponds as well as lakes and streams.  
Response: The rule has been changed to allow permits with durations of up to 30 days. Because the sites of wild-bait harvesting can vary frequently and because we cannot at this time impose reporting requirements on wild-bait harvesters, it is necessary to use short-term permits to monitor wild-bait harvesting. If and when a reporting requirement is implemented, frequent reporting can replace frequent permitting and the duration of permits can be extended.
- 19) Comment: It would be desirable to allow wild harvest permits to apply to entire creeks or rivers.  
Response: One of the purposes of the permitting system is to allow the Department to know with some precision where bait harvesting is taking place. If permits were written to apply to entire creeks or rivers, this precision would be lost.

- 20) Comment: If wild-bait harvesting is stopped, the less than desirable bait species will be left unchecked to compete with game species.  
Response: This assertion is not supported by scientific evidence. Native species harvested for use as bait are not ecologically undesirable and do no harm to game fish.

#### Other issues.

- 21) Comment: The provision allowing dead fish preserved by methods other than freezing is problematic because preservation methods known to kill the virus are not specified or even known.  
Response: We know of no preservation method that is known to kill the virus, so we are not able to specify an acceptable preservation method. However, we do know that refrigeration or freezing do not kill the virus. The rule language has been modified slightly to clarify the intent of limiting the use of dead bait that has simply been refrigerated or frozen.
- 22) Comment: Because this is a complex situation and we cannot predict how VHS will affect Wisconsin waters, it would be best to include a one-year sunset clause.  
Response: VHS is not a transient problem. Once a water body is infected, there is no known way to eradicate the virus. Adoption of this rule does not preclude later revision.
- 23) Comment: There should be a provision to allow local anglers to retain minnows used in an affected water if they will use them later on the same water. This would do no harm, and local anglers are doing it anyway. Similarly, anglers should be allowed to keep minnows that are held in the water they were brought in, if there has been no contact with water of an affected lake or stream.  
Response: Limitations on the movement of fish and water into and out of affected waters must be clear and enforceable. Because it is impossible for wardens to distinguish minnows intended for later use in the same water body from those to be transported elsewhere, the exceptions suggested would not be enforceable.
- 24) Comment: Anglers should be allowed to keep the water that certain artificial baits are packaged in, if there has been no contact with water of an affected lake or stream.  
Response: If the baits are packaged in water containing preservatives, the rule does not require that the water be drained. If the baits are packaged in pure water, drainage should not be a problem.
- 25) Comment: The note under NR 20.08(6) could be misread. The clause, "without a written import permit", was likely meant to modify both the first part of the sentence referencing ATCP 10.62(1) and the second part of the sentence referencing ATCP 10.07(2). However, it could be read to indicate that ATCP 10.62(1) prohibits the importation of bait. The clause could be added after each of two parts, creating two distinct sentences, to make the import permit requirement (and thus the exception to the importation prohibition) clearer.  
Response: The note has been changed. Because the rule has been simplified to apply only to fish and fish eggs, the reference to crayfish and frogs is no longer needed.
- 26) Comment: Bait shops serving the Mississippi River fishery should be allowed to handle willowcats that were harvested from that river, because that would not increase the risk of spreading VHS.  
Response: Because the willowcats purchased from those shops could legally be used anywhere in the state, this would provide a pathway for movement of infected willowcats from the Mississippi River into inland waters.
- 27) Comment: DNR should make boat cleaning easier by providing bleach and washing equipment at landings for use by boaters.  
Response: This would be a non-regulatory action, and thus is not germane to this rule-making. The Department would like to do what it can to encourage boat cleaning, and is willing to advise non-DNR landing owners, but we see two problems with this suggestion: 1) Because the number of landings is very large, there would be a large cost. 2) The need to dispose of the bleach-containing rinse-water would raise questions related to the discharge of pollutants into public waters.
- 28) Comment: DNR should provide minnow composting areas near landings.  
Response: This would be a non-regulatory action, and thus is not germane to this rule-making. The Department is willing to advise non-DNR landing owners, but will not attempt to do this at DNR landings because the number of landings is very large and the needed staff time and money are not available.
- 29) Comment: Opening locks on the Fox River will allow movement of VHS in boats along the river.  
Response: This is correct, but outside the scope of this rule-making.



- 30) Comment: The rules do nothing to stop the main source of the problem, ships' ballast.  
Response: We do not know that ships' ballast is the main source of the VHS problem. In any case, this vector is outside the scope of this rule-making.
- 31) Comment: DNR should put in place mandatory quarantines of entire watersheds where confirmed outbreaks of the disease are found.  
Response: The rule goes as far in this direction as can be justified.
- 32) Comment: It makes no sense to ban the interstate movement of all bait fish. Only species that are proven carriers of the virus should be restricted.  
Response: This rule does not ban the interstate movement of all bait fish, but it does prohibit the use or possession of imported bait that does not meet DATCP health standards. Because VHS is known to affect a very wide variety of fish species, it is realistic to assume for regulatory purposes that all fish species are vulnerable.
- 33) Comment: The prohibition of the use of fish as crayfish bait makes crayfish trapping much more difficult, and can hurt crayfish trappers. Other baits are ineffective or much less effective than fish. Remember the rusty crayfish is in itself a controllable pest that is removed by trappers. Solutions to this problem might include a) an approved way of treating fish to kill VHS virus or b) an approved VHS virus-free source of fish for crayfish bait.  
Response: We understand this concern. Regarding the first proposed solution, at this time we simply have no method of preserving fish that is known to kill the virus. Regarding the second, the draft rule has been amended to allow fish purchased from licensed Wisconsin bait dealers or that have been tested for VHS according to DATCP testing methods and found to be negative to be used as crayfish bait.
- 34) Comment: The prohibition on the use of dead crayfish is not needed, because crayfish do not carry the VHS virus.  
Response: The draft rule has been amended to remove restrictions on the use of crayfish and frogs as bait.
- 35) Comment: The prohibition of the movement of live fish from where they are captured is a violation of the constitutional provision, "All residents have the right to hunt, fish, trap and take game only subject to reasonable restriction by law."  
Response: This rule is consistent with that constitutional provision. The provisions are reasonable and will have the force of law.
- 36) Comment: The importation of bait should be completely banned.  
Response: We are not prepared to go this far. Currently, DATCP requires VHS-testing of all bait imported from states where VHS has been found. DNR has authority to deny the importation of non-native species for use as bait, but no authority to ban the importation of native fish species.
- 37) Comment: DNR should assess the economic impact of the rule on small businesses.  
Response: The small business most affected by the rule are wild-bait harvesters and all other businesses that provide supplies and services to sport fishers. The harvesters will be negatively affected by limitations on where bait may be withdrawn from, while all other sport fishing related businesses would be hurt by the affects of VHS if it is allowed to spread freely across the state. We have learned through the implementation of permitting requirements under the existing emergency rules that there are approximately 88 individuals who harvest wild bait for commercial purposes. Most of those are very small operations. Sport fishing in Wisconsin is a 2.3 billion dollar industry that supports more than 26,000 jobs and generates \$100 million in state tax revenue.
- 38) Comment: VHS virus should be considered a disease, not an invasive species.  
Response: Section 23.22(1), Stats, states, "Invasive species means nonindigenous species whose introduction causes or is likely to cause economic or environmental harm or harm to human health." The VHS virus meets that definition.
- 39) Comment: All fishing tournaments that draw boats from other states and or Canada should have mandatory disinfection and special training for participants.  
Response: Tournament boats are one vector for VHS virus. In the present rule proposal we are attempting to codify general standards for all boaters. Separate rules dealing with fishing tournaments may impose additional requirements or allow tournament permits to require special actions such as disinfection of boats and training of participants.
- 40) Comment: The rule prohibits the possession of farm-raised fish while engaged in the harvest of wild bait or while transporting wild bait. How will wardens distinguish wild bait from farm-raised bait?

Response: The difficulty of distinguishing farm-raised bait and game fish from wild bait and game fish is the reason for this provision. The purpose of this provision was not so much directed at farm-raised bait fish, but at farm-raised game fish. Because it is difficult if not impossible to determine where a fish originated from after it goes into the tanks of a truck used to transport bait or other fish, this provision prevents a person engaged in harvesting and transporting bait fish from the wild from also possessing bass, bluegills, walleyes or other game fish and simply claiming that those fish were from the person's fish farm.

41) Comment: All VHS testing requirements hurt businesses because of the expense and delays involved.

Response: These rules do not impose testing requirements.

42) Comment: A clearer distinction between fish farmers and bait dealers is needed. A business should be one or the other, not both. Fish farmers are playing both sides of the fence, and not fairly.

Response: This is not germane to the proposed rule.

43) Comment: Wild harvest permits merely monitor the harvest.

Response: This is true at present, but they can provide the information needed to allow the selective regulation of wild-bait harvesting.

44) Comment: Blanket health inspections of commercial bait are not adequate.

Response: This comment is not germane to the proposed rule, and should be directed to DATCP because that agency is responsible for developing and enforcing regulations pertaining to fish health inspections for imported fish, stocked fish, and cultured fish.

45) Comment: Wild harvest permit system requires harvesters to reveal best waters to competitors.

Response: This may be a risk in some cases.

46) Comment: The term "impassable to fish" requires a definition.

Response: Two points of ambiguity have to do with seasonal flooding and downstream passage. Context and plain usage make it clear that a) a structure or physical feature that is seasonably passable by fish swimming upstream is not impassable and that b) the rule refers to upstream passage, not downstream passage.

47) Comment: The distinction between "hatchery" and "wild" fish should be clarified.

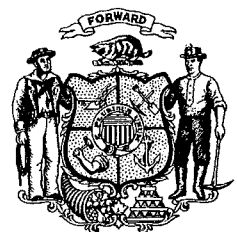
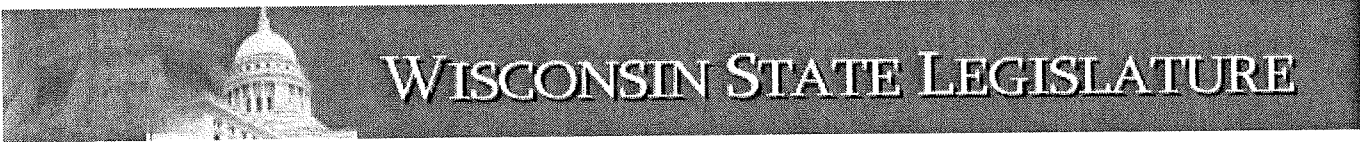
Response: The proposed rule does not use the term "hatchery fish", but does say that a bait dealer harvesting wild bait may not possess "farm-raised fish". That term is defined by statute to mean a fish that is kept on a fish farm for propagation purposes or reared on a fish farm and that has not been introduced, stocked or planted into waters outside a fish farm or that has not escaped from a fish farm.

48) Comment: Is non-commercial bait harvest adequately addressed?

Response: Yes, individuals who harvest bait for personal use are covered by the rule.

49) Comment: Could the rule encourage the use of well water to transport bait.

Response: It is unclear how this would help. It is possible under this rule to require that wild-bait be transported in well water, as a condition of wild harvest permits, but if infected fish are transported in that water, they may shed the virus and cause the well water to become infected too.



## Clearinghouse Rule 07-074

### ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD AMENDING AND CREATING RULES

The Wisconsin Natural Resources Board proposes an order to amend NR 19.05 (title), 19.27 (4) (a) 2. a., 20.14 (intro.), (1), (2), (6), (7) (a) and (8) Note and 20.39 and create NR 19.001 (8g) and (8r), 19.05 (3), 19.055, 19.056, 19.057, 19.275 (3) (i), 20.03 (19g) and (19r) and 20.08 (6) and (7) relating to control of fish diseases and invasive species.

FH-30-07

#### Analysis Prepared by the Department of Natural Resources

- 1. Statutes interpreted:** Sections 23.09 (2) (intro), 23.22 (2) (a), 29.014 (1), 29.039 (1), 29.041 and 227.11 (2) (a), Stats.
- 2. Statutory Authority:** Sections 23.09 (2) (intro), 23.091, 23.11 (1), 23.22 (2) (a) and (b) 6., 27.01 (2) (j), 29.014 (1), 29.041, 29.039 (1), 29.509 (4) and (5) and 227.11 (2) (a), Stats.
- 3. Explanation of agency authority to promulgate the rules under the statutory authority:** Section 23.09 (2) (intro), Stats., grants the department general authority to adopt rules for the protection, development and use of forests, fish and game, lakes, streams, plant life, flowers and other outdoor resources in this state. Section 23.091, Stats., authorizes the department to acquire, develop, operate and maintain state recreation areas, to establish use zones within state recreation areas providing for the full range of recreational uses, including hunting and fishing, and to promulgate rules to control uses within zones and limit the number of persons using any zone.

Section 23.11 (1), Stats., gives the department the authority to have and take the general care, protection and supervision of all state parks, of all state fish hatcheries and lands used therewith, of all state forests, and of all lands owned by the state or in which it has any interests, along with such further powers as may be necessary or convenient to enable it to exercise the functions and perform the duties required of it by ch. 23, Stats., and by other provisions of law. Section 23.22 (2) (a) and (b) 6., Stats., confer on the department the authority to establish a statewide program to control invasive species in this state, including rules to classify invasive species for purposes of the program. Section 27.01 (2) (j), Stats., grants the department authority to promulgate rules necessary to govern the conduct of state park visitors, and for the protection of state park property, or the use of facilities, including the use of boats and other watercraft on lakes or rivers within the limits of a state park, and the use of roads, trails or bridle paths.

Sections 29.014 (1) and 29.041, Stats., grant rule making authority to the department to establish and maintain open and closed seasons for fish and any bag limits, size limits, rest days and conditions governing the taking of fish that will conserve the fish and game supply and ensure the citizens of this state continued opportunities for good fishing, and provide that the department may regulate fishing on and in all interstate boundary waters and outlying waters. Section 29.039 (1), Stats., authorizes the department to develop conservation programs to ensure the perpetuation of nongame species, require harvest information and establish limitations relating to taking, possession, transportation, processing and sale or offer for sale, of nongame species.

Section 29.509 (4) and (5), Stats., require bait dealers to keep records as required by the department and authorize the department to issue permits for the taking of bait from specified waters and to restrict the

number of permits that may be issued for any designated body of water. Section 27.01 (2) (j), Stats., grants the department authority to promulgate rules necessary to govern the conduct of state park visitors, and for the protection of state park property, or the use of facilities, including the use of boats and other watercraft on lakes or rivers within the limits of a state park, and the use of roads, trails or bridle paths.

Finally, s. 227.11 (2) (a), Stats., expressly confers rulemaking authority on the department to promulgate rules interpreting any statute enforced or administered by it, if the agency considers it necessary to effectuate the purpose of the statute.

**4. Related statute or rule:** None.

**5. Plain language analysis of the proposed rule:** The Order makes permanent and clarifies the emergency measures put into effect April 8, 2007 by Order No. FH-22-07(E), May 2, 2007 by Order No. FH-25-07(E) and May 27, 2007 by Order No. FH-28-07(E) for the control and prevention of Viral Hemorrhagic Septicemia (VHS) in fish in waters of the state.

SECTION 1 of this Order creates definitions of “live fish” and “live fish eggs” for purposes of the rule created by SECTION 3 that prohibits the transport of live fish and live fish eggs taken from or possessed on any outlying water and certain inland waters or their bank or shore.

SECTION 2 revises the title of s. NR 19.05.

SECTION 3 adds a new subsection (3) to s. NR 19.05, prohibiting live fish or fish eggs that were taken from or possessed on the Great Lakes, the Mississippi River, Lake Winnebago, the lower Fox River from Lake Winnebago to Green Bay, or any connected waters upstream to the first fish barrier, or from the bank or shore of any of those waters, from being transported away from that water, bank or shore, with 3 exceptions: live fish or fish eggs transported out of state in compliance with the United States Department of Agriculture Animal and Plant Health Inspection Service’s regulations and orders; live fish or fish eggs that tested free of Viral Hemorrhagic Septicemia (VHS) virus using DATCP-approved methods; and live fish or fish eggs transported with the prior written approval of the department, where the department has determined that VHS virus will not be transported to other waters. In addition, if the department formally determines that any other water body is infected with Viral Hemorrhagic Septicemia virus, SECTION 3 makes this conditional prohibition on the transport of live fish apply to all waters of Wisconsin. The live fish transportation ban only applies to transport away from the water or its bank or shore, not on the water.

SECTION 4 of the Order creates a new rule in ch. NR 19 that requires any person who removes a boat, boat trailer, boating equipment or fishing equipment from the Great Lakes, the Mississippi River, Lake Winnebago, the lower Fox River from Lake Winnebago to Green Bay, or any connected waters upstream to the first fish barrier, or from the bank or shore of any of those waters, to immediately drain all water from the boat, boat trailer, boating equipment or fishing equipment, including water in any bilge, ballast tank, bait bucket, live well or other container, unless it has been exempted in writing by the department after determining that it will not allow VHS virus to be transported to other waters. In addition, if the department formally determines that any other water body is infected with Viral Hemorrhagic Septicemia virus, SECTION 4 makes the immediate drainage requirement apply to all waters of Wisconsin. The drainage requirement also applies to containers and fishing equipment used by bank or shore anglers. Finally, it exempts tanks or containers of potable drinking water and other beverages intended for human consumption.

SECTION 5 of the Order establishes a procedure for the department to formally notify the public if it determines that any water body other than the Great Lakes, the Mississippi River, Lake Winnebago, the lower Fox River from Lake Winnebago to Green Bay, or any connected water upstream to the first fish barrier, is infected with Viral Hemorrhagic Septicemia virus, based on test results or other empirical evidence that the virus is present. Public notice must be given by issuing a press release, by publication of a notice in the official state newspaper, and by any other means that is reasonably likely to inform the public. Following such a determination and public notice, the provisions of s. NR 19.03 (3) restricting the transport of live fish and eggs from these waters, and of s. NR 19.056 requiring immediate drainage of boats, boat trailers, boating equipment and fishing equipment upon removal from the water, bank or shore of these waters, thereafter apply state-wide to all waters.

SECTION 6 of the Order requires that bait dealers apply for and possess a department permit in order to harvest wild bait from any water, that they keep records of their harvest and of its disposition, except for retail sales to consumers, and that they not possess farm-raised fish while transporting wild harvested minnows, crayfish or frogs back to their business or to the point of sale.

SECTION 7 of the Order eliminates the current requirement that only fish or fish parts and meal may be used as bait for trapping crayfish. It then adds a requirement that if fish (or fish parts) are used as crayfish bait, they must come from the same water where they will be used as bait, except with written approval of the department.

SECTION 8 of the Order bans the use of fish (and fish parts) as bait to trap turtles unless the fish came from the same body of water where they will be used as bait, or with written approval of the department.

SECTION 9 of this Order creates definitions of "live fish" and "live fish eggs" for purposes of the rules created by SECTION 10 that restrict the use of improperly imported live bait and the use of dead bait that has not been preserved by a means that will kill the VHS virus.

SECTION 10 of the Order bans the use or possession of imported live bait (minnows, crayfish and frogs) except bait imported in compliance with DATCP's import and health requirements in ch. ATCP 10, Wis. Adm. Code, and live bait from Iowa or Minnesota used or possessed on boundary waters with those states (the Mississippi River "between the tracks", Lake St. Croix, and the St. Croix river and the St. Louis river as defined in s. NR 21.02 (16)). It also prohibits any person from possessing or using dead fish, dead fish eggs, dead crayfish, dead frogs, or any parts thereof as bait, with 3 exceptions: dead fish, dead fish eggs, dead crayfish, dead frogs, or any parts thereof may be used as bait on Lake Michigan, Green Bay and their tributaries upstream to the first dam or other obstruction impassible to fish; they may be used on the same water body from which they were obtained; and they may be used on any waters of the state if they have been preserved by means other than refrigeration or freezing. The rules also allow dead minnows to still be used as bait, as if they were alive, if certain conditions are met, even though the dead minnows are not preserved by any particular method.

SECTION 11 adds a provision to the current rule governing minnow collection, reiterating the requirement that a bait dealer must obtain the wild bait harvest permit created by SECTION 6 of this Order; describes the permit issued under s. NR 20.39 as a "non-standard gear permit" to distinguish it from the wild harvest permit; and corrects the wording of the Note to NR 20.14 regarding transport of live minnows as affected by this Order. The current note incorrectly states that transportation of minnows is permitted throughout the state.

SECTION 12 of the Order adds a new criterion for the issuance of permits that allow licensed bait dealers to use non-standard minnow gear. The new rule stipulates that such permits may be denied if the

department determines that use of the non-standard gear (minnow seines, minnow dip nets or minnow traps) is likely to result in the spread of invasive species or diseases. SECTION 12 also adds a Note to NR 20.39 regarding the need for a wild harvest permit issued under rules created by SECTION 6 of this Order.

**6. Summary of and preliminary comparison with any existing or proposed federal regulation:** In late 2006 the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (USDA APHIS) issued an emergency order limiting the movement of live fish from Ontario or Quebec into the United States and limiting the interstate movement of live fish. That order does not apply to fish moved within the boundaries of individual states, and there are no known or proposed federal regulations that would do so.

**7. Comparison of similar rules in adjacent states (Minnesota, Iowa, Illinois and Michigan):** Among adjacent states, only Michigan has adopted regulations addressing the VHS problem. The Michigan Department of Natural Resources has enacted regulations that will go into effect on June 28, 2007 that are intended to minimize the spread of VHS in that state. Their waters are classified based on the actual or likely presence of VHS and then regulate live fish movement and bait harvest and use depending on the classification. Steps have also been taken elsewhere, particularly in the lower Great Lakes where the Great Lakes form of the VHS virus was first discovered.

In November of 2006 the New York State Department of Environmental Conservation announced emergency regulations prohibiting the commercial collection of bait fish from waters of the state where VHS has been detected, limiting the use of bait fish to the specific water from which they were collected, and prohibiting the placement of live fish into the waters of the State (including possessing, importing, and transporting live fish for purposes of placing them into the waters of the State) unless accompanied by a fish health inspection report issued within the previous 12 months.

In January the Pennsylvania Fish and Boat Commission placed a temporary ban on the transportation of live fish from Lake Erie and its tributaries to inland waters, and permanent rule changes are expected. Other jurisdictions are also developing regulations.

**8. Summary of the factual data and analytical methodologies that the agency used in support of the proposed rule and how any related findings support the regulatory approach chosen for the rule:** The World Health Organization for Animal Health (OIE) lists Viral Hemorrhagic Septicemia (VHS) as a "notifiable" disease, meaning that outbreaks must be reported immediately. On April 4, 2007 the Natural Resources Board adopted Order FH-22-07(E) to control the spread of Viral Hemorrhagic Septicemia (VHS) virus in Wisconsin. Provisions of that rule were clarified and expanded in NRB Order FH-25-07(E), adopted on April 25, 2007. At the time those rules were adopted, VHS virus had caused fish kills in the lower Great Lakes, but had not been documented west of Lake Huron. Department biologists believed it was probably already in Lake Michigan, and possibly in Lake Superior and the Mississippi River. We now believe that the virus is more wide spread than had previously been believed.

On May 11, the University of Wisconsin Veterinary Diagnostic Lab informed the department that samples of freshwater drum taken from Little Lake Butte des Morts had tested positive for the VHS virus. For purposes of controlling the spread of the disease, it is now reasonable to regard Lake Winnebago and the majority of the Fox/Wolf River system as infected, and prudent to assume that the virus may appear in any inland water.

The Aquatic Animal Health Code of the OIE provides specific guidance regarding the management of VHS. The rules proposed in this Order are consistent with that code. USDA APHIS has adopted

emergency regulations to limit the transfer of VHS virus among states or into the United States from Ontario or Quebec. The rules proposed in this Order expand those protections by reducing the risk of spread of the virus from infected to uninfected waters.

**9. Any analysis and supporting documentation that the agency used to determine in the rule's effect on small businesses under s. 227.114, Stats., or that was used when the agency prepared an economic impact report:** We know that small businesses related to boating and recreational fishing, commercial fishing, wholesale fish dealing, crayfish trapping, turtle trapping and bait harvesting, importation, culture, or sale may be affected by the rule. However, we currently have no basis for quantifying the economic impacts of the rule.

**10. Effect on small business, including how the rule will be enforced:** The most significant economic impact of the rule will be on businesses involved in bait harvest, importation, culture, or sale. Businesses handling bait harvested in VHS-affected areas will be adversely affected, while those involved in culturing bait may benefit. The rule will also make it harder for some crayfish trappers to obtain fish for use as bait in their traps, but allows other types of bait to be used in lieu of fish. Similarly, the rule will make it harder for some turtle trappers to obtain fish for use as bait, but current rules already allow the use of other types of bait. The rule will be enforced by department conservation wardens, county district attorneys, and county circuit courts through the use of citations and civil or criminal complaints under the provisions of ch. 29, Stats.

**11. Agency contact person:**

William Horns – FH/4  
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**12. Place where comments are to be submitted and deadline for submission:** The deadline for written comments in August 23, 2007. Comments may be submitted to Mr. Horns or they may also be electronically submitted at the following internet site: <http://adminrules.wisconsin.gov>

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SECTION 1. NR 19.001 (8g) and (8r) are created to read:

**NR 19.001 (8g)** "Live fish" means, for purposes of this chapter, any fish possessed by a person that is handled or treated in a manner that will keep it alive, such as keeping it in water, or that is revived by placement back into water. "Live fish" includes any minnow possessed by a person for use as bait and that dies while the person is fishing, but only until it is transported away from the body of water on or along which it died.

(8r) "Live fish eggs" means, for purposes of this chapter, fertilized or unfertilized fish eggs that are handled or treated in a manner likely to keep them alive or viable for the purpose of propagation.

SECTION 2. NR 19.05 (Title) is amended to read:



**NR 19.05 Release, ~~and~~ importation and transportation of fish.**

SECTION 3. NR 19.05 (3) is created to read:

**NR 19.05 (3)** No person may transport live fish or live fish eggs away from any of the following waters or their banks or shores if the fish or fish eggs were taken from the following waters or possessed on any of these waters or their bank or shore: Lake Michigan, Green Bay, Lake Superior, the Mississippi River, Lake Winnebago, the Fox River from Lake Winnebago to Green Bay, any bay, slough or backwater of these waters, or any water connected to these waters, upstream to the first dam or other obstruction impassible to fish; or, if the department determines under s. NR 19.056 that any other water is infected with Viral Hemorrhagic Septicemia virus, any inland or outlying water, except:

- (a) Live fish or live fish eggs being transported out of state in compliance with the United States Department of Agriculture Animal and Plant Health Inspection Service's regulations and orders.
- (b) Live fish or live fish eggs that have been tested for Viral Hemorrhagic Septicemia using methods approved by the department of agriculture, trade and consumer protection and that were found to be free of the Viral Hemorrhagic Septicemia virus.
- (c) Live fish or live fish eggs being transported with the prior written approval of the department, where the department has determined that the proposed activity will not allow Viral Hemorrhagic Septicemia virus to be transported to other waters.

SECTION 4. NR 19.055 is created to read:

**NR 19.055 Drainage of water from boats and equipment required.** (1) Except as provided in subs. (2) and (3), any person who removes a boat, boat trailer, boating equipment or fishing equipment from the water, bank or shore of Lake Michigan, Green Bay, Lake Superior, the Mississippi River, Lake Winnebago, the Fox River from Lake Winnebago to Green Bay, or any bay, slough or backwater of these waters, or any water connected to these waters, upstream to the first dam or other obstruction impassible to fish; or, if the department determines under s. NR 19.056 that any other water is infected with Viral Hemorrhagic Septicemia virus, from the water, bank or shore of any inland or outlying water, shall drain all water from the boat, boat trailer, boating equipment or fishing equipment, including water in any bilge, ballast tank, bait bucket, live well or other container immediately after removing the boat, boat trailer, boating equipment or fishing equipment from the water, bank or shore.

(2) The department may exempt any boat, boat trailer, boating equipment or fishing equipment in writing from the requirements of sub. (1) if it determines that it will not allow Viral Hemorrhagic Septicemia virus to be transported to other waters.

(3) Subsection (1) does not apply to tanks or containers of potable drinking water or other beverages meant for human consumption.

SECTION 5. NR 19.056 is created to read:

**NR 19.056 Determination of waters infected with Viral Hemorrhagic Septicemia virus.** If, based on test results or other empirical evidence, the department determines that the Viral Hemorrhagic Septicemia virus is present in any water body other than Lake Michigan, Green Bay, Lake Superior, the Mississippi River, Lake Winnebago, the Fox River from Lake Winnebago to Green Bay, or any bay, slough or backwater of these waters, or any water connected to these waters, upstream to the first dam or other obstruction impassible to fish, the department shall notify the public that s. NR 19.05 (3) relating to the transport of live fish and live fish eggs and s. NR 19.055 relating to drainage of all water from boats, boat trailers, boating equipment or fishing equipment apply thereafter to all inland and outlying waters. The notice shall be given by issuing a press release, by publication in the official state newspaper, and by such other means as the department determines are reasonably likely to inform the public.

SECTION 6. NR 19.057 is created to read:

**NR 19.057 Bait dealer's wild harvest permit required; records required.** (1) No bait dealer may take minnows, crayfish or frogs for use as bait from any inland or outlying water without a wild harvest permit issued by the department under this section. A bait dealer shall apply for a permit on forms available from the department. The department shall issue a permit within 10 business days after receipt of a complete application. Permits shall be valid for the dates specified on the permit, not to exceed 14 days and shall require compliance with all minnow collecting restrictions. A complete application shall include the applicant's name, street address, bait dealer's license number if any, the specific water body where bait will be harvested, the town, range and section where bait will be harvested, the species of bait that will be harvested, the maximum quantity of bait expected to be harvested, proof that the applicant is allowed under s. NR 19.05 (3) (a), (b) or (c) to lawfully transport live fish or live fish eggs, and any other information required on the application form.

**Note:** See s. NR 20.14 for minnow collecting restrictions.

(2) Each permit holder shall maintain a clear, legible daily record in the English language on forms available from the department of all minnows, crayfish or frogs harvested from any inland or outlying water. The record shall include the water body of origin, the town, range and section where harvested, the species harvested, the date of harvest, the quantity or volume harvested, the disposition, except that retail sales to consumers need not be recorded, and any other information required on the record form.

(3) No bait dealer may possess farm-raised fish while engaged in the harvest of wild bait, or while transporting wild harvested bait from the water where it was harvested to the bait dealer's business location or from the water where it was harvested to the point of sale.

SECTION 7. NR 19.27 (4) (a) 2. a. is amended to read:

**NR 19.27 (4) (a) 2. a.** Crayfish may not be taken with use of bait consisting ~~only~~ of fish, including parts of fish lawfully taken, or fish by-products including fish meal or prepared parts of such fish except in the same body of water from which the fish was obtained, or with written approval of the department.

SECTION 8. NR 19.275 (3) (i) is created to read:

**NR 19.275 (3) (i)** Use fish, including parts of fish as bait, except that fish and fish parts may be used as bait in the same body of water from which the fish was obtained, or with written approval of the department.

SECTION 9. NR 20.03 (19g) and (19r) are created to read:

**NR 20.03 (19g)** "Live fish" means, for purposes of s. NR 20.08, any fish possessed by a person that is handled or treated in a manner that will keep it alive, such as keeping it in water, or that is revived later by placement back into water. "Live fish" includes any minnow possessed by a person for use as bait and that dies while the person is fishing, but only until it is transported away from the body of water on or along which it died.

(19r) "Live fish eggs" means, for purposes of s. NR 20.08, fertilized or unfertilized fish eggs that are handled or treated in a manner likely to keep them alive or viable for the purpose of propagation.

SECTION 10. NR 20.08 (6) and (7) are created to read:

**NR 20.08 (6)** Use or possess live fish, live fish eggs, live crayfish or live frogs as bait if obtained outside of, or brought into, the state of Wisconsin, except for the following:

(a) Live fish, live fish eggs, live crayfish or live frogs imported in compliance with the department of agriculture, trade and consumer protection's import and health requirements in ch. ATCP 10.

(b) Live fish, live fish eggs, live crayfish or live frogs obtained in Minnesota or Iowa and used in or on waters of the Mississippi River lying between the Chicago, Milwaukee, St. Paul and Pacific railroad tracks on the Iowa or Minnesota side of the river, and the Burlington Northern and Santa Fe railroad tracks lying on the Wisconsin side of the river, including all sloughs and backwaters, bays and newly

extended water areas connected with the main channel of the Mississippi River by a channel which is navigable when the waters are approximately equal to the normal pool elevation as created by the U.S. army corps of engineers and in the waters of Lake St. Croix, and the St. Croix River and the St. Louis River as defined in s. NR 21.02 (16).

**Note:** Section ATCP 10.62 (1) prohibits the importation into Wisconsin of live fish or live fish eggs for use as bait and s. ATCP 10.07 (2) prohibits the importation into Wisconsin of live crayfish or live frogs without a written import permit from the department of agriculture, trade and consumer protection.

(7) Possess for use as bait, or use as bait any dead fish, dead fish egg, dead crayfish, or dead frog or any part of any dead fish, dead fish egg, dead crayfish, or dead frog unless at least one of the following applies:

(a) It is being possessed or used on Lake Michigan, Green Bay or any waters connected to these waters upstream to the first dam or other obstruction impassible to fish.

(b) It is being possessed or used on the same water body from which it was obtained, or on any water connected to that water body that is not separated by a dam or other barrier impassible to fish.

(c) It has been preserved by means other than refrigeration or freezing.

(d) It is a minnow that is a "live fish" as defined in s. NR 20.03 (19g) and was obtained and possessed lawfully from waters of the state or it was imported in compliance with sub. (6) (a) or (b).

**Note:** Methods of preservation other than refrigeration or freezing include but are not limited to salting, brining or treatment with other preservatives to prevent or inhibit decay or spoiling.

SECTION 11. NR 20.14 (intro.), (1), (2), (6), (7) (a) and (8) Note are amended to read:

**NR 20.14 Minnow collecting restrictions.** No bait dealer may take minnows, crayfish or frogs for use as bait from any inland or outlying water without a wild harvest permit from the department under s. NR 19.057. ~~No~~ In addition, no person may do any of the following:

(1) Set, use or operate any net, trap or similar device for the taking of minnows other than minnow seines, minnow dip nets and minnow traps as authorized in s. NR 20.20 unless issued a non-standard gear permit by the department under s. NR 20.39 pursuant to s. 29.516 (1), Stats.

(2) Set, use or operate any minnow seine, minnow dip net, minnow trap or similar device for the taking of minnows in any water unless specifically authorized in s. NR 20.20 or 20.39. Minnow seines or minnow dip nets of any type or description may not be set, used or operated in any trout stream unless a non-standard gear permit is issued by the department under s. NR 20.39.

(6) Set, use or operate minnow traps in trout streams during the closed season for trout unless issued a non-standard gear permit by the department under s. NR 20.39. The permit authorizing

placement of minnow traps in trout streams during the closed season for trout shall specify conditions on raising the traps and removing minnows.

(7) Set, use or operate more than 3 minnow traps in trout streams during the open season for trout except licensed bait dealers.

(a) No more than a total of 20 minnow traps may be set, used or operated by licensed bait dealers during the open season for trout when removing minnows from one or more trout streams unless issued a non-standard gear permit by the department under s. NR 20.39.

(8) ~~Note: The possession and transportation of legally taken minnows is permitted throughout the state.~~ With certain exceptions, s. NR 19.03 (3) prohibits the transportation of live fish and live fish eggs, including minnows, from Lake Michigan, Green Bay, Lake Superior, the Mississippi River, Lake Winnebago, the Fox River from Lake Winnebago to Green Bay, any bay, slough or backwater of these waters, and any water connected to these waters upstream to the first dam or other obstruction impassible to fish. However, if the department determines under s. NR 19.056 that any other water is infected with Viral Hemorrhagic Septicemia virus, s. NR 19.03 (3) thereafter prohibits the transportation of live fish and live fish eggs, including minnows, from all inland and outlying waters, with certain exceptions.

SECTION 12. NR 20.39 is amended to read:

**NR 20.39 Permits for use of nonstandard minnow gear on inland waters.** (1) The department may issue a permit to a licensed bait dealer for the taking of minnows with minnow seines, minnow dip nets or minnow traps which are otherwise prohibited by s. NR 20.14. Applications shall be submitted on forms available from the department to the regional office having jurisdiction over the affected waters.

(a) The department shall issue the permit if it determines that all of the conditions of this paragraph are met.

1. For waters with adequate public access according to s. NR 1.90 (2) (a), the department shall determine if:

- a. The department does not need the minnows for its fish management activities;
- b. Removal of the minnows will not cause or substantially contribute to a long-term depletion of the forage base;
- c. Threatened or endangered species listed in ch. NR 27 are not known to be present in or near the affected water;
- d. Unique or sensitive biological values such as nesting loons or heron rookeries are not present in, on or near the affected water;

e. The use of the minnow seines, minnow dip nets or minnow traps is not likely to hinder or interfere with the exercise of a permit issued earlier in the year to another person for the water;

f. The use of the minnow seines, minnow dip nets or minnow traps is not likely to hinder or interfere with any other public uses of the water.

g. The use of the minnow seines, minnow dip nets or minnow traps is not likely to result in the spread of invasive species or diseases.

2. For waters lacking adequate public access and for waters surrounded by private lands, the department shall determine if:

a. The requirements of subd. 1. a. to e. and g. are met; and

b. The applicant provided the department with the name, mailing address and telephone number of the person granting the applicant legal access to the water.

Note: Under s. NR 19.057, a bait dealer must have a wild harvest permit from the department to take wild minnows, crayfish or frogs for use as bait.

SECTION 13. **EFFECTIVE DATE.** This rule shall take effect on the first day of the month following publication in the Wisconsin administrative register, as provided in s. 227.22 (2) (intro.), Stats.

SECTION 14. **BOARD ADOPTION.** The foregoing rule was approved and adopted by the State of Wisconsin Natural Resources Board on \_\_\_\_\_.

Dated at Madison, Wisconsin \_\_\_\_\_.

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES

By \_\_\_\_\_  
Scott Hassett, Secretary

(SEAL)

Report to  
Legislative Council Rules Clearinghouse  
NR 19 and 20, Wis. Adm. Code  
Natural Resources Board Order No. FH-30-07

Wisconsin Statutory Authority

ss. 23.09(2)(intro.), 23.091, 23.11, 23.22(2)(a) and (b)6., 27.01(2)(j), 29.014(1), 29.041, 29.039(1), 29.509(4) and (5) and 227.11(2)(a), Stats., interpreting ss. 23.09(2)(intro.), 23.22(2)(a), 29.014(1), 29.039(1), 29.041 and 227.11(2)(a), Stats.

Federal Authority

N/A

Court Decisions Directly Relevant

None

Analysis of the Rule - Rule Effect - Reason for the Rule

The proposed rule makes permanent and clarifies recent emergency measures for the control and prevention of viral hemorrhagic septicemia (VHS) in fish in waters of the state.

The proposed rule limits the transport of live fish away from specified waters and requires the immediate drainage of water from boats, boating equipment, fishing equipment and other containers upon removal from those specified waters. Waters specified in the rule include Lake Michigan, Lake Superior, Mississippi River, Lake Winnebago and the Fox River downstream to Green Bay, and all connecting waters upstream to the first barrier impassable to fish. If VHS is found outside of the waters specified in the rule, than all waters of the state would be included.

The proposed rule also requires that bait dealers apply for and possess a department permit to harvest wild bait from any water and keep daily harvest and disposition records.

The proposed rule bans the use or possession of imported live bait (minnows, crayfish and frogs), with exceptions. It also prohibits any person from using dead fish, fish eggs, crayfish, frogs or any parts thereof as bait, with exceptions, and it limits the use of fish and fish parts as bait in crayfish traps and turtle traps, with exceptions.

Finally, the proposed rule adds a new criterion for the issuance of permits for licensed bait dealers to use nonstandard minor gear, allowing the permits to be denied if use of the gear could spread invasive species or diseases.

Agency Procedures for Promulgation

Public hearings, Natural Resources Board final adoption, followed by legislative review.

Description of any Forms (attach copies if available)

None

Name and Telephone Number of Agency Contacts

Bill Horns, Bureau of Fisheries Management and Habitat Protection – 266-8782  
Pete Flaherty, Bureau of Legal Services – 266-8254  
Carol Turner, Bureau of Legal Services - 266-1959

Submitted on July 13, 2007

BEFORE THE  
DEPARTMENT OF NATURAL RESOURCES

NOTICE OF PUBLIC HEARINGS  
FH-30-07

NOTICE IS HEREBY GIVEN that pursuant to ss. 23.09(2)(intro.), 23.091, 23.11, 23.22(2)(a) and (b)6., 27.01(2)(j), 29.014(1), 29.041, 29.039(1), 29.509(4) and (5) and 227.11(2)(a), Stats., interpreting ss. 23.09(2)(intro.), 23.22(2)(a), 29.014(1), 29.039(1), 29.041 and 227.11(2)(a), Stats., the Department of Natural Resources will hold public hearings on revisions to chs. NR 19 and 20, Wis. Adm. Code, relating to control of fish diseases and invasive species. The proposed rule makes permanent and clarifies recent emergency measures for the control and prevention of viral hemorrhagic septicemia (VHS) in fish in waters of the state.

The proposed rule limits the transport of live fish away from specified waters and requires the immediate drainage of water from boats, boating equipment, fishing equipment and other containers upon removal from those specified waters. Waters specified in the rule include Lake Michigan, Lake Superior, Mississippi River, Lake Winnebago and the Fox River downstream to Green Bay, and all connecting waters upstream to the first barrier impassable to fish. If VHS is found outside of the waters specified in the rule, than all waters of the state would be included.

The proposed rule also requires that bait dealers apply for and possess a department permit to harvest wild bait from any water and keep daily harvest and disposition records.

The proposed rule bans the use or possession of imported live bait (minnows, crayfish and frogs), with exceptions. It also prohibits any person from using dead fish, fish eggs, crayfish, frogs or any parts thereof as bait, with exceptions, and it limits the use of fish and fish parts as bait in crayfish traps and turtle traps, with exceptions.

Finally, the proposed rule adds a new criterion for the issuance of permits for licensed bait dealers to use nonstandard minor gear, allowing the permits to be denied if use of the gear could spread invasive species or diseases.

NOTICE IS HEREBY FURTHER GIVEN that pursuant to s. 227.114, Stats., the proposed rule may have an impact on small businesses. The initial regulatory flexibility analysis is as follows:

- a. Types of small businesses affected: Bait dealers, wholesale fish dealers, commercial fishers, anglers, boaters and individuals involved in the harvest, rearing or use of fish bait.
- b. Description of reporting and bookkeeping procedures required: No new procedures
- c. Description of professional skills required: No new skills

The Department's Small Business Regulatory Coordinator may be contacted at [SmallBusiness@dnr.state.wi.us](mailto:SmallBusiness@dnr.state.wi.us) or by calling (608) 266-1959.

NOTICE IS HEREBY FURTHER GIVEN that the Department has made a preliminary determination that this action does not involve significant adverse environmental effects and does not need an environmental analysis under ch. NR 150, Wis. Adm. Code. However, based on the comments received, the Department may prepare an environmental analysis before proceeding with the proposal. This environmental review document would summarize the Department's consideration of the impacts of the proposal and reasonable alternatives.

NOTICE IS HEREBY FURTHER GIVEN that the hearings will be held on:

August 14, 2007  
Tuesday

South Central Region Hdqrs., 3911 Fish Hatchery Road, Fitchburg  
at 5:30 p.m.



<u>August 15, 2007</u> Wednesday	Room B19, La Crosse State Office Bldg., 3550 Mormon Coulee Road, La Crosse at 5:30 p.m.
<u>August 16, 2007</u> Thursday	Room 140, DNR Southeast Region Hdqrs., 2300 N. Dr. Martin Luther King Jr. Dr. Milwaukee at 5:30 p.m.
<u>August 20, 2007</u> Monday	Wetland Room, Green Bay Wildlife Sanctuary, 1660 East Shore Drive, Green Bay at 5:30 p.m.
<u>August 23, 2007</u> Thursday	Upstairs Meeting Room, State Highway Patrol Hdqrs., 2805 Martin Ave., Wausau at 5:30 p.m.
<u>August 23, 2007</u> Thursday	Classroom, Superior Public Library, 1530 Tower Avenue, Superior at 5:30 p.m.

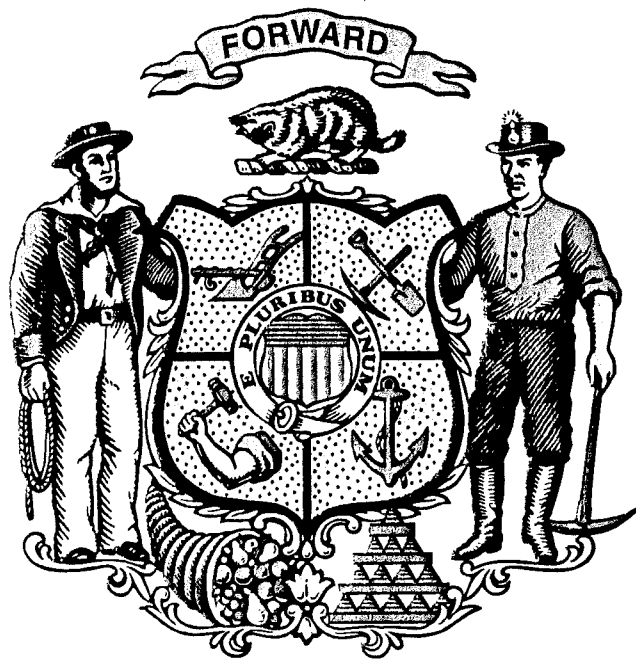
NOTICE IS HEREBY FURTHER GIVEN that pursuant to the Americans with Disabilities Act, reasonable accommodations, including the provision of informational material in an alternative format, will be provided for qualified individuals with disabilities upon request. Please call Bill Horns at (608) 266-8782 with specific information on your request at least 10 days before the date of the scheduled hearing.

The proposed rule and fiscal estimate may be reviewed and comments electronically submitted at the following Internet site: <http://adminrules.wisconsin.gov>. Written comments on the proposed rule may be submitted via U.S. mail to Mr. Bill Horns, Bureau of Fisheries Management and Habitat Protection, P.O. Box 7921, Madison, WI 53707. Comments may be submitted until August 23, 2007. Written comments whether submitted electronically or by U.S. mail will have the same weight and effect as oral statements presented at the public hearings. A personal copy of the proposed rule and fiscal estimate may be obtained from Mr. Horns.

Dated at Madison, Wisconsin \_\_\_\_\_

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES

By \_\_\_\_\_



## ***Viral Hemorrhagic Septicemia Virus In Wisconsin Fishes***



### ***An Integrated Control Program***

Contact: *Michael Staggs, Wisconsin DNR Bureau of Fisheries Management*

### ***VHS Timeline***

*Pre-2005 – VHS only reported in Europe, N Pacific and N Atlantic*

*2005 – Fish kills reported in Lake Ontario*

*2006 – Fish kills in St. Lawrence River, Lake Ontario, Lake Erie,  
and Lake St Clair*

*2006 – DNR expands VHS testing in WI (no VHS found) and  
biosecurity in hatcheries and field operations*

*January 25, 2007 – MI DNR announces VHS found in northern L  
Huron*

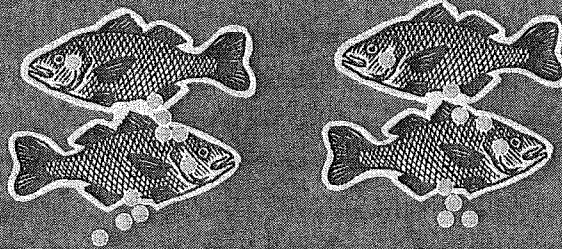
*April 4, 2007 – DNR emergency rules for Great Lakes and  
connecting waters*

*May 11, 2007 – VHS found in Lake Winnebago*

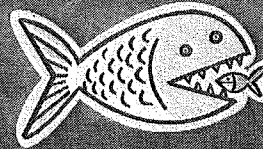
*May 17, 2007 – DNR emergency rules expanded*

### ***How does VHS spread?***

- Sick fish shed the virus into the water
- Healthy fish pick up the virus in their gills



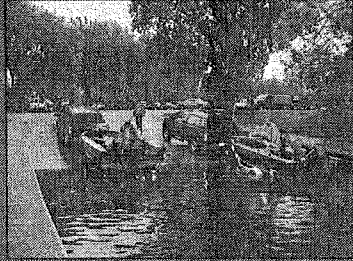
- Healthy fish eats a sick fish



### ***Objective: Contain the VHS Virus***

- *Stop the transport of fish, fish eggs, fish parts, and water from affected waters to unaffected waters by boaters and anglers*
- *Improve quality control in wild bait harvest*

## *Millions of People Affected!*



*1.4 million licensed anglers*

*625,000 registered boats*

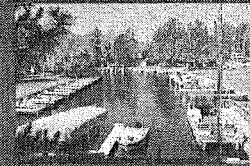
*2,200 fish farms*

*800 bait dealers*

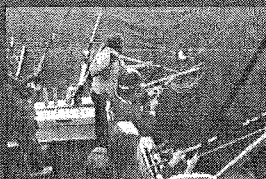
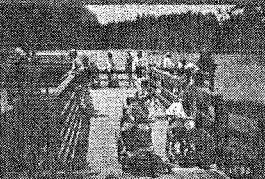
*90 wild bait harvesters*



## *Much to lose!*



- *1.4 million licensed anglers*
- *21 million days of fishing each year*
- *\$2.9 billion dollar industry*
- *31,350 jobs*
- *\$203 million in state taxes*



Source: USFWS 2006 Survey of Hunting, Fishing and Wildlife-related Recreation

## ***An Integrated Control Program is Necessary!***

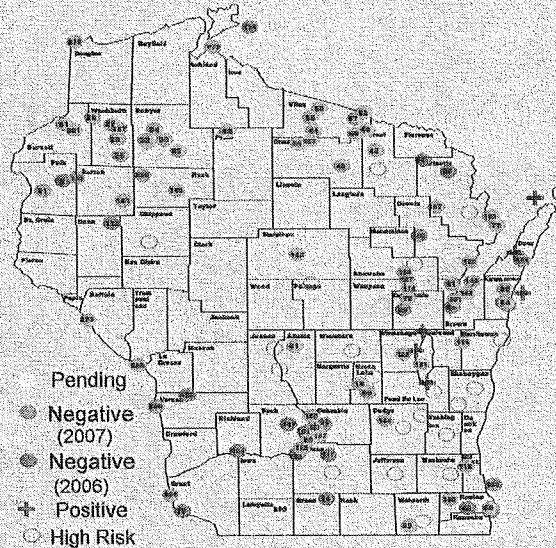
- ***Regulations***
- ***Surveillance and monitoring***
- ***Biosecurity in fish farms and hatcheries***
- ***Quality control in bait fish industry***
- ***Research***
- ***Public education and outreach***

## ***Emergency Rules Summary***

***(effective 11/3/2007, some exceptions apply)***

- ✓ ***No person may leave the water with ANY live fish (including left over minnows)***
- ✓ ***Anglers and boaters must drain ALL water from boats and equipment when leaving the water or entering the state***
- ✓ ***Anglers, crayfish/turtle trappers may not use fresh or frozen dead fish as bait (freezing does not kill the virus)***
- ✓ ***May not use or possess as bait illegally imported live fish or fish eggs***
- ✓ ***Commercial wild bait harvest by permit only – no permits in waters known to have VHS, DATCP fish health certificate required before distribution, gear disinfection required***

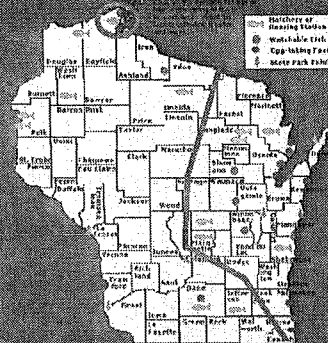
## VHS Surveillance 2006-08



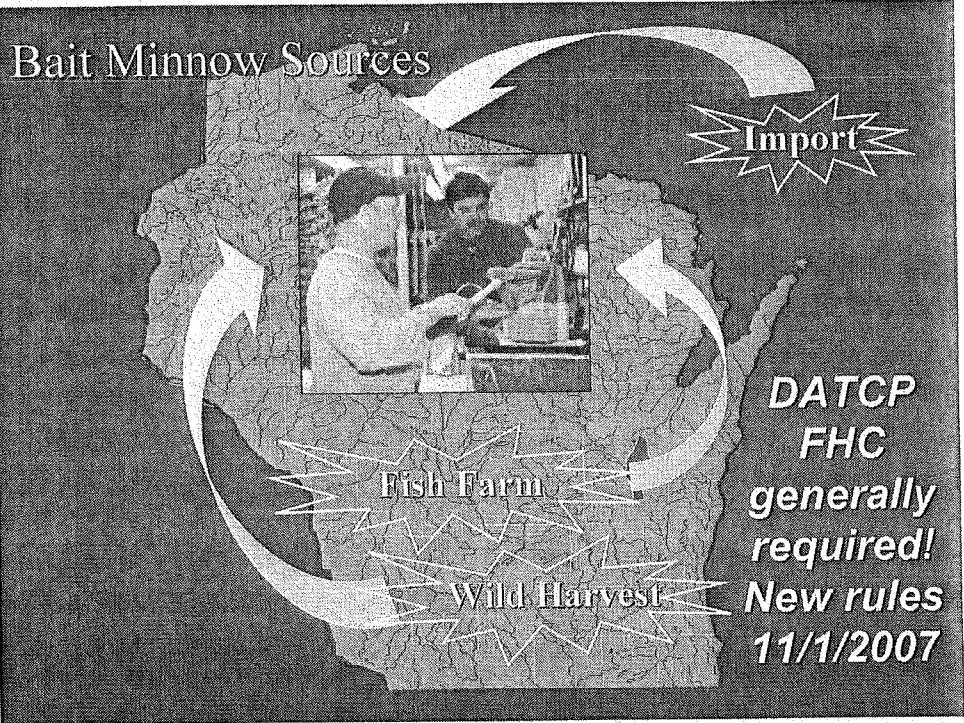
as of 10/16/2007

## DNR Operational Changes

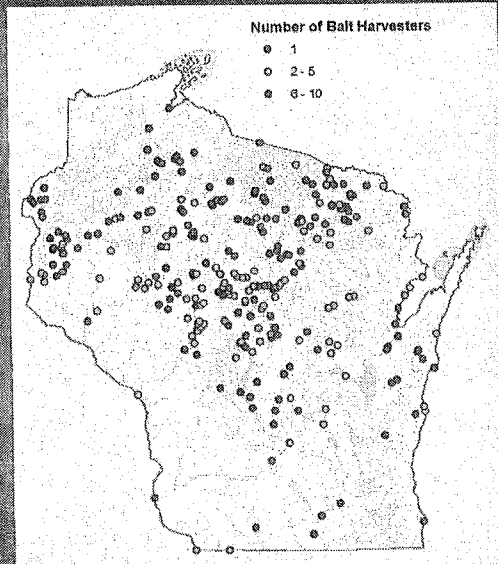
- *Increased VHS testing*
- *Disinfect all eggs*
- *Separate production from VHS+ waters*
- *No fry stocking*
- *No coolwater fish production from VHS+ waters*



# Bait Minnow Sources



## Locations of Wild Bait Harvest as of October 16, 2007 ~90 individual permitted harvesters

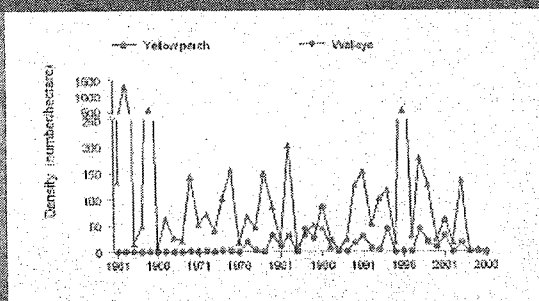


Stream locations are shown at the mouth, harvest may have occurred upstream



## Research: many unanswered questions!

- Susceptible species
- Infectious virus concentrations
- Coolwater egg disinfection methods
- Survival rates of adults and young fish
- **LONG TERM POPULATION IMPACTS**



Lake Erie YOY Recruitment

## Outreach Materials

### VHS ALERT BOATERS & ANGLERS

Do not move water and live fish (including bait fish) from this water.

Visit [www.dnr.wisconsin.gov](http://www.dnr.wisconsin.gov) for more information on VHS. The Wisconsin Department of Natural Resources (DNR) is alerting fish species in Wisconsin. The virus is not a threat to people who want to eat their catch. YOU can help control the spread of this virus and other infectious agents.

1. Drain all water from your boat and trailer, containers, and fishing equipment including bait buckets and coolers.
2. Do not move live fish, including unsized minnows, from these waters. All fish must be dead before leaving the landing or shoreline. Ice your catch and discard your minnow.
3. Do not use minnows unless they were purchased from a licensed Wisconsin bait dealer or you caught them from the water you are fishing.
4. Remove all visible plants, animals, and mud from your boat and trailer.

If you witness a large number of dead or dying fish, please contact your local DNR office or the DNR hotline at 1-800-735-3870. For more information on the VHS virus, visit <http://www.dnr.wisconsin.gov>.

### VHS ALERT BOATERS & ANGLERS

Preventing the spread...it's up to all water users

### Wisconsin Boaters: Keep Wisconsin's Waters Healthy

Visit [www.dnr.wisconsin.gov](http://www.dnr.wisconsin.gov) for more information on VHS. The Wisconsin Department of Natural Resources (DNR) is alerting fish species in Wisconsin. The virus is not a threat to people who want to eat their catch. YOU can help control the spread of this virus and other infectious agents.

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2. Do not move live fish, including unsized minnows, from these waters. All fish must be dead before leaving the landing or shoreline. Ice your catch and discard your minnow.
3. Do not use minnows unless they were purchased from a licensed Wisconsin bait dealer or you caught them from the water you are fishing.
4. Remove all visible plants, animals, and mud from your boat and trailer.

### KIDS Let's Keep Wisconsin Fish Healthy

Ask your parents to:

- Drain all water from their boat and equipment
- Don't move live fish between waters
- Report sick fish to the DNR

### MINNOWS AS BAIT

What Wisconsin anglers need to know to prevent spreading the VHS fish virus

**NEW EMERGENCY RULES**

# Public Service Announcements

## Football star joins Wisconsin in tackling VHS

### Top NFL draft pick Thomas an avid angler

MADISON -- Joe Thomas, the most decorated offensive lineman in University of Wisconsin football history and a Cleveland Brown rookie, has signed on to help Wisconsin fight a viral fish disease threatening our native fish.

An avid angler, Thomas is featured in TV and radio announcements for the Department of Natural Resources describing how boaters, anglers and other water users can help hold the line against the spread of viral hemorrhagic septicemia, or VHS.

"While I'm out protecting my quarterback, I want you out protecting our fish," he says, urging, "Let's tackle VHS together."

The TV spots began airing statewide July 16 through Sept. 15, 2006, and are being produced by the Wisconsin Broadcasters Association. Thomas' radio spots will start airing on radio in August.

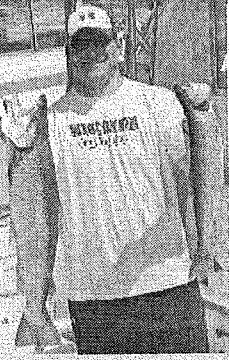
"We're really excited to have Joe Thomas," said DNR Secretary Scott Hassett. "His love of fishing is well known here in Wisconsin to keep VHS from spreading."

Thomas, who starred at left tackle for the 1999 Outland Trophy, given to the nation's best offensive tackle, and one quarterback pressure in 13 games.

Heading into the NFL draft in late April, Thomas was injured and sidelined for the NFL season.

"Coho salmon, Chinook salmon, rainbow trout are the best," Thomas said. "I'm a big fan of fishing. It's a nice Saturday morning doing that than sitting at home. Plus, to me, draft day's not the important thing."

Thomas was selected third overall, going to the Cleveland Browns.



DNR Secretary Scott Hassett said, "His love of fishing is well known here in Wisconsin to keep VHS from spreading."

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**FISHERIES MANAGEMENT** ..... we make fishing better



**Viral Hemorrhagic Septicemia (VHS) - Fishing Wisconsin**

File Edit View Favorites Tools Help

Address <http://dnr.wi.gov/fish/pages/vhs.html>

Search Site Search

Home | About | A-Z Topics | Contact

**VHS Information**

- What is VHS?
- VHS Prevention
- Important Q & A on VHS
- Susceptible Fish Species in Wisconsin
- Contacts

**VHS News and Outreach**

- News Releases
- Public Service Announcements
- Public Alerts
- Emergency Rules

**Working in the Waters?**

- Harvesting Wild and Domestic Trout

**Waters Covered by Rules**

**VHS and You: Keeping Wisconsin's Waters Healthy**

**The Viral Hemorrhagic Septicemia virus (VHSV) in Wisconsin**

A new fish virus that caused fish kills in several eastern Great Lakes in 2005 and 2006 has been detected in fish in Wisconsin's Lake Winnebago System (DNR News Release - 5/18/2007) and Lake Michigan (DNR News Release - 5/24/2007).

Viral Hemorrhagic Septicemia, or VHS virus, is not a threat to people who handle infected fish or want to eat their catch, but it can kill a broad range of native fish.

To prevent VHS from spreading to inland waters, the Natural Resources Board in April and May passed emergency rules prohibiting movement of live fish and bait.

**VHS News Corner**

VHS Update: Weekly VHS news distributed on Thursdays (5/17/07)

A VHS message from the Secretary of the Department of Tourism (5/17/07)

Report fish kills to the DNR  
TIP line - 1-800-TIP-WDNR - (800) 847-9367

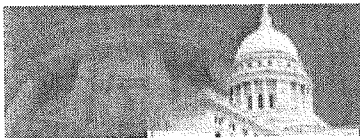
**Boaters, Anglers and Other Water Users Must Be Part of the Solution**

We want people to continue to enjoy Wisconsin's great fishing and boating, but want everyone to do their part.

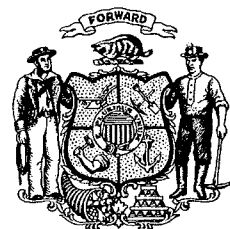
- Drain all water from your boat and trailer, containers, and fishing equipment including bait buckets and coolers.
- Do not move live fish, including unused minnows, from these waters. All fish must be dead before leaving the landfall or shoreline. Ice your catch and discard your minnows.

dnr.wi.gov/fish/pages/vhs.html

Start | \*\*VH... | Ppoint7 | Micros... | VBed... | VHS | M, DN... | Viral ... | Local intranet | 5:58 PM



# WISCONSIN STATE LEGISLATURE



## A Sign of the Times

Boat landings and other access points will be posted to remind boaters and anglers of the precautionary measures that must be taken to help minimize the spread of the VHS virus.

### **VHS ALERT!** **BOATERS & ANGLERS** Do not move water and live fish (including baitfish) from this water.



The Viral Hemorrhagic Septicemia (VHS) virus is affecting fish species in Wisconsin. The virus is not a threat to people who want to sell their catch. You can help control the spread of the virus and other invasive species.

- ▲ Drain all water from your boat and trailer, containers, and fishing equipment including bait buckets and coolers.
- ▲ Do not move live fish, including unwanted baitfish, from these waters. Do your catch and discard your minnows in a waste receptacle.
- ▲ Do not use baitfish unless they were purchased from a licensed Wisconsin bait dealer or you caught them from the water you are fishing.
- ▲ Remove all visible plants, animals, and trash from your boat and trailer.

If you witness a large number of dead or dying fish, please contact your local DNR office or call 1-800-368-6868 for more information on the VHS virus in Wisconsin. For more information on the VHS virus, visit [www.dnr.wisconsin.gov/fish/pubs/vhs.html](http://www.dnr.wisconsin.gov/fish/pubs/vhs.html).

For more information on the VHS virus, visit [www.dnr.wisconsin.gov/fish/pubs/vhs.html](http://www.dnr.wisconsin.gov/fish/pubs/vhs.html).

**If you see a large number of dead or dying fish, please call the DNR Tipline at 1-800-TIP-WDNR**

For specific regulations and additional information on the VHS virus visit:

[fishingwisconsin.org](http://fishingwisconsin.org)



Bureau of Fisheries Management  
December 2007

## Help Keep Wisconsin Fish Healthy

A new fish virus that caused large fish kills in several eastern Great Lakes states in 2005 and 2006 was discovered in Lake Michigan and Lake Winnebago in May 2007. The virus may also be present in Lake Superior and the Mississippi River.



Signs of VHS virus in fish include bloody spots on the skin and in the muscle and tissues, pale or swollen internal organs, and swollen eyes.

The Viral Hemorrhagic Septicemia virus, or VHSv is not a threat to people who handle fish or want to eat their catch. However, it can spread easily to healthy fish that eat infected fish or absorb water carrying the virus.

Walleye, musky, bluegill, and drum are among the most susceptible to VHS. To keep them healthy and prevent this deadly fish disease from spreading, rules prohibit boaters and anglers from moving water and live fish, including bait fish, away from a waterbody. The rules seek to reduce the risk that water carrying VHS, or an infected bait fish or other fish, is accidentally released into a new lake or river.

Infected fishes – whether they were infected with VHS before leaving the bait shop or picked it up while sitting in a bait bucket refreshed with water from that lake – are the most likely pathway for VHS to get introduced to new waters. Contamination of ice augers, small amounts of water left in a boat after it's drained, animals moving from water to water – all of these present a much lower risk of spreading the disease.

**Please do your part to protect Wisconsin's great fishing by following these new rules.**

## Rules ban moving live fish, water

New statewide emergency regulations for boaters and anglers went into effect in November 2007 to prevent them from accidentally spreading VHS to new lakes or rivers.

Under the statewide rules you:

- ▲ May not leave the bank or shore of any water with any live fish or live fish eggs, including leftover bait fish. There are limited exceptions to the rule for commercial wild bait harvest.
- ▲ Must drain all water from bilges, ballast, live wells, bait buckets and other containers before you leave the bank or shore of any water.
- ▲ May not use or possess live fish or live fish eggs as bait if bought outside Wisconsin. Exceptions: if bait will be used on the Mississippi River "between the tracks" and if the bait was imported in compliance with state import rules.
- ▲ May not use dead fish, fish eggs, or fish parts for bait. Exceptions: if you are fishing in the same water where the bait was collected; if it was preserved by a method that does not require refrigeration or freezing, or if you are fishing in Lake Michigan or Green Bay or there connected waters upstream to the first dam or other obstruction impassible to fish.
- ▲ May not transport by land into Wisconsin any water in boats, boat trailers, boating equipment or fishing equipment, including water in any bilge, ballast tank, bait container or live well.

## WISCONSIN ANGLERS

Some of you won't be affected by the rules concerning live or dead fish used as bait. You fish with artificial lures, nightcrawlers or other baits not covered by these new rules. You may buy only enough bait fish to use every day, so you don't have any leftovers, or you may live along a waterbody, or be staying at a resort along one, and can legally keep your bait fish in a bait container attached to a dock or shore as long as it is tagged with your name and address when you are not using it.

This brochure is for those anglers who usually fish with large quantities of bait fish, dead fish or fish eggs as bait. Here are answers to some of the most common questions about the new rules.

**Why can't I reuse leftover bait fish?** Reusing bait fish is a concern because most anglers change or add water to their bait from the lake they are fishing. Your bait fish could pick up VHS while in that water. We can't apply the rule only to waterbodies where VHS has been found through testing because we have had the time, money, and opportunity to test only a fraction of Wisconsin's 15,000 inland lakes.

**OK, so why can't I reuse leftover bait fish on the same lake?** We agree that most people want to do the right thing and would willingly use leftover bait fish on the same lake. The



problem with allowing reuse, however, is that it will be impossible for wardens to distinguish leftover bait fish brought back to the same lake from any others. There must be a simple and legally enforceable way for wardens to stop those few anglers who are not going to do the right thing and could potentially spread VHS. We've tried to come up with other options, but not allowing live bait fish to leave the water remains the best option so far.

The rules say it's illegal to transport live fish away from a waterbody? When is a person considered to be transporting a fish? While fishing the same waterbody, you can move your boat to a new location, or walk along the shore to a new location, with live fish or live fish eggs in your bait bucket or live well. Once you leave that waterbody, however, you must drain all water including containers carrying fish or bait before you leave the bank or shore and make no attempt to revive the fish later.

**What if some of my bait fish die in my bait bucket or livewell. Can I still use them?** Yes. If the fish were alive when you started fishing but died in your bait container, you can continue using them on that same water until the end of the day. The dead bait fish cannot be used on any other waters unless you preserve them first using a method that does not require refrigeration or freezing.

**If I must drain all the water from my boat live wells and bait containers, what am I supposed to do with my leftover bait fish?** Bait fish can spread the VHS virus so you may not keep them alive after you leave the water. Drain all water and dispose of your bait fish at a cleaning station or trash receptacle, if available. Otherwise, take them home and dispose of them as you would the remains of any fish you keep and clean. You may also preserve them for future use as dead bait.

**Do I have to drain the water from my bait bucket if it is not an attached part of the boat?** Yes. The law requires that you drain the water from all equipment in the boat. This requirement aims to ensure that no water from potentially VHS-infected lakes or rivers has gotten into your boat, trailer, or other equipment and gets transported elsewhere.

**Can I collect my own bait fish without a permit?** Yes, you can collect fish for bait for personal use as long as you use them only on the water you collected them from. You'll need to drain the water

from the container and properly dispose of the bait fish after you're done fishing.



Chemically preserved minnows are an option for anglers who fish dead bait.

**Can I use dead fish for bait (frozen smelt)?** Dead fish cannot be used for bait unless they were collected from the water you are fishing or have been preserved in a manner that does not require refrigeration or freezing.

**Are the bait fish that are brought onto the ice still considered on the lake and do they have to be killed before I leave the shore?** Yes, when you bring bait fish to the shore, whether the water is open or frozen, those fish may not be taken away live.

**Can I leave the bulk of my bait fish in my vehicle at the landing and take a few fish out on the lake at a time so I will not have to kill all of them at the end of the day?** Yes. Any bait fish that you do not bring to the water, its shores or banks, can be taken home at the end of the day and used elsewhere. For instance, you can leave a cooler of bait fish in your vehicle and return to the vehicle to stock up on them as you run out. A key point to remember is that you must remove the container holding the bait fish from the vehicle before using that vehicle to launch or load your boat so the fish will never be possessed on the bank or shore of the water.

**Can I leave bait fish in a bait bucket or live box in the lake for use at a later date?** Yes, as long as the container is clearly and legibly marked with your name and address. Containers may not be left on or attached to public property and you must have permission before attaching to any private property.

**Can I leave unused bait fish in a container under the ice of my ice shanty for use next time on the same lake?** Yes, you may submerge a container holding live minnows under your ice shanty as long as you have a rope attached to the container and ice shanty or have some other way to retrieve the container. Keep in mind, fishing holes cut in the ice can't be larger than 12 inches in diameter.

**Is it ok to transport dead fish that have eggs inside of them?** Yes, as long as the eggs are not removed later and fertilized for the purpose of producing fish.

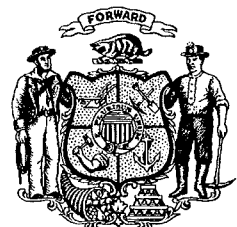
**Are there any restriction on the use of other types of live bait, such as worms, leeches, insects or their larva?** Other types of live baits such as worms, leeches, insects, and larvae, are generally still legal to use. However, under the current rules, all water is required to be drained from all equipment and containers used for fishing. This includes water in containers that may contain leeches or aquatic insects. Once away from the waterbody, an angler could place the leeches or aquatic insects back into fresh water, such as tap water, to try to revive or keep the leeches or insects alive for future use.

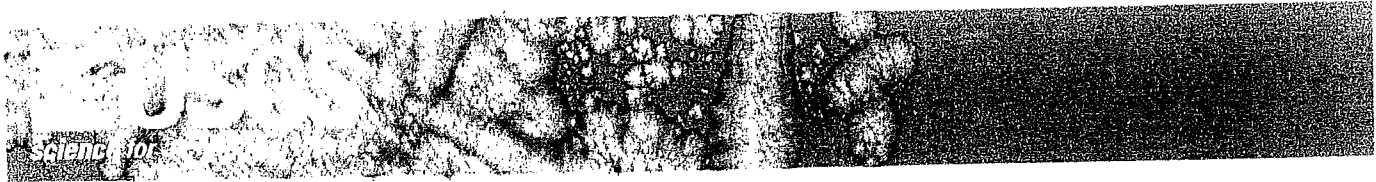
**Do I have to drain the water from my drinking water containers and coolers, including melted ice in coolers used to keep fish or food and beverages cold?** This rule does not apply to beverage containers, including bottled drinking water. Melted ice in coolers used to keep dead fish fresh also needs to be drained, but ice that has not yet melted may be kept to keep your fish, food, or beverages cool.

**Besides draining the water from my boat, trailer, motor, bilge, live wells, bait containers, etc., what else can I do to make sure I do not transport this disease to other waters?** The VHS virus can survive in water for up to 2 weeks. You can sanitize your boat, trailer or equipment by washing it with a mixture of 1/2 cup of household bleach per 5 gallons of water. Completely drying your boat and trailer will also reduce the risk of infecting other waters.



# WISCONSIN STATE LEGISLATURE





# Molecular Epidemiology of Viral Hemorrhagic Septicemia Virus in the Great Lakes Region

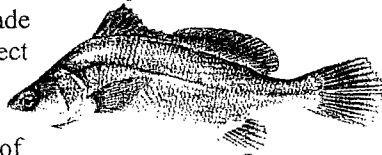


emerald shiner

Viral hemorrhagic septicemia virus (VHSV) is considered by many nations and international organizations to be one of the most important viral pathogens of finfish (Office International des Epizooties 2007). For several decades following its initial characterization in the 1950s, VHSV was thought to be limited to Europe where it was regarded as an endemic pathogen of freshwater fish that was especially problematic for farmed rainbow trout, an introduced species (Wolf 1988; Smail 1999). Subsequently, it was shown that VHSV was present among many species of marine and anadromous fishes in both the Pacific and Atlantic Oceans where it has been associated with substantial mortality among both wild and cultured fish (Meyers and Winton 1995; Skall et al. 2005).

Beginning in 2005, reports from the Great Lakes region indicated that VHSV had been isolated from fish that had experienced very large die-offs in the wild (Elsayed et al. 2006; Lumsden et al. 2007; Groocock et al. 2007). By the end of 2007, VHSV had been isolated from more than 25 species of fish in Lake Michigan, Lake Huron, Lake St. Clair, Lake Erie, Lake Ontario, Saint Lawrence River and from inland lakes in New York, Michigan and Wisconsin (Figure 1). The Great Lakes strain of VHSV appears to have an exceptionally broad host range and significant mortality has occurred in muskellunge, freshwater drum, yellow perch, round goby, emerald shiners and gizzard shad.

Fisheries managers in the US and Canada are concerned about the spread of this highly virulent strain of VHSV from the Great Lakes region into new populations of native freshwater fish or into new geographic areas. Furthermore, the introduction of VHSV into the aquaculture industry could cause additional trade restrictions as well as direct losses from disease.



In recent years, the tools of molecular biology have provided freshwater drum new insights into the ecology and epidemiology of many viruses of humans and animals. The purpose of this fact sheet is to review the results from molecular analyses that have added to our understanding about the distribution and spread of VHSV.

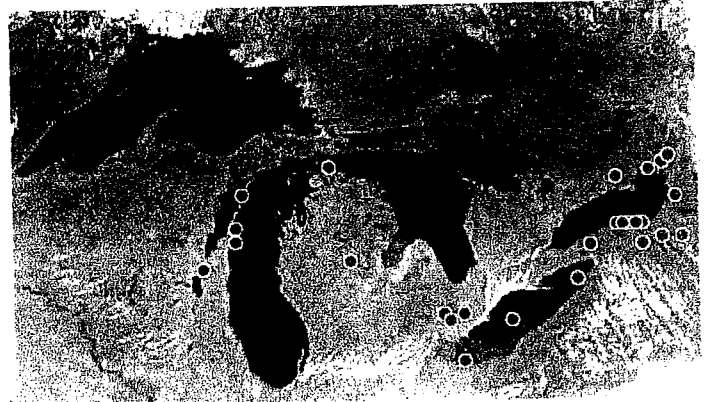


Figure 1. Locations in the Great Lakes region where VHSV has been isolated from infected fish. To date, more than 25 species have been found to be infected, but not all isolations of the virus have been associated with mortality. Photo by Rod Getchell, Cornell University

## Genetics of Viral Hemorrhagic Septicemia Virus

Viral hemorrhagic septicemia virus is a member of the family of viruses known as rhabdoviruses. This family includes important pathogens such as the rabies virus. The VHSV particle is bullet-shaped with a single-stranded, negative-sense RNA genome approximately 11,000 nucleotides in length. The genome is organized into six genes that code for five structural proteins needed to construct the infectious virus particle and one non-virion protein of unknown function (Figure 2).

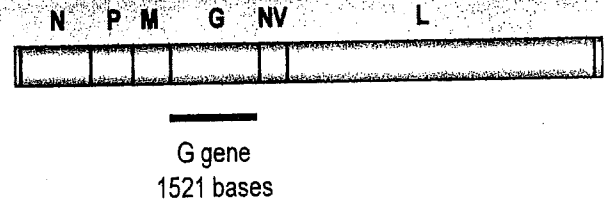


Figure 2. Diagram of VHSV RNA genome showing the six viral genes. Sequence analyses of the G and N genes has been used for genetic typing.



muskellunge

Sequence analysis of the glycoprotein (G) and nucleoprotein (N) genes of VHSV has shown that VHSV isolates can be divided into four genotypes that generally correlate with geographic location (Benmansour et al. 1997; Einer-Jensen et al. 2004; Snow et al. 2004). Isolates belonging to VHSV Genotypes I, II and III are present in continental Europe, the North Atlantic Ocean, the North Sea, the Baltic Sea and connecting waters (Table 1).

Table 1. Genotypes of VHSV and the types of fish and geographic region where they are most commonly isolated.

Genotype	Where most commonly found
I	Trout farms, Continental Europe
II	Wild marine fish, Baltic Sea
III	Wild marine fish, North Sea near UK
IVa	Wild marine fish, west coast North America
IVb	Wild freshwater fish, Great Lakes region

Genotype I has several sub-groups and includes isolates from European rainbow trout farms. This genotype also includes isolates from marine fish in the Baltic Sea, supporting the hypothesis that the highly virulent strains affecting rainbow trout aquaculture in Europe had their origin in the marine environment and farmed trout may have acquired the virus through the former practice of using raw marine fish as feed (Dixon 1999; Skall et al. 2005).

Genotype II is a separate lineage of VHSV found among marine fish in the Baltic Sea. Genotype III contains marine VHSV isolates from the North Sea near the British Isles, and also includes isolates from British turbot mariculture, again revealing a likely epidemiological link between endemic marine isolates of VHSV and outbreaks affecting cultured fish.

Following the discovery of VHSV in anadromous and marine fish from the West Coast of North America beginning in 1988, sequence analysis showed the North American isolates were distinct from the European genotypes, causing them to be assigned to Genotype IV (Hedrick et al. 2003; Einer-Jensen et al. 2004; Snow et al. 2004; Figure 3).

### Molecular Epidemiology of VHSV

While epidemiology refers to the traditional study of sources of outbreaks and patterns of spread for an infectious disease, molecular epidemiology refers to the application of new-generation tools such as gene sequencing or DNA/RNA fingerprinting to provide this information. Phylogenetic analysis uses sequence information and computer algorithms to construct a family tree that shows relationships and the evolutionary history of a pathogen.

round goby

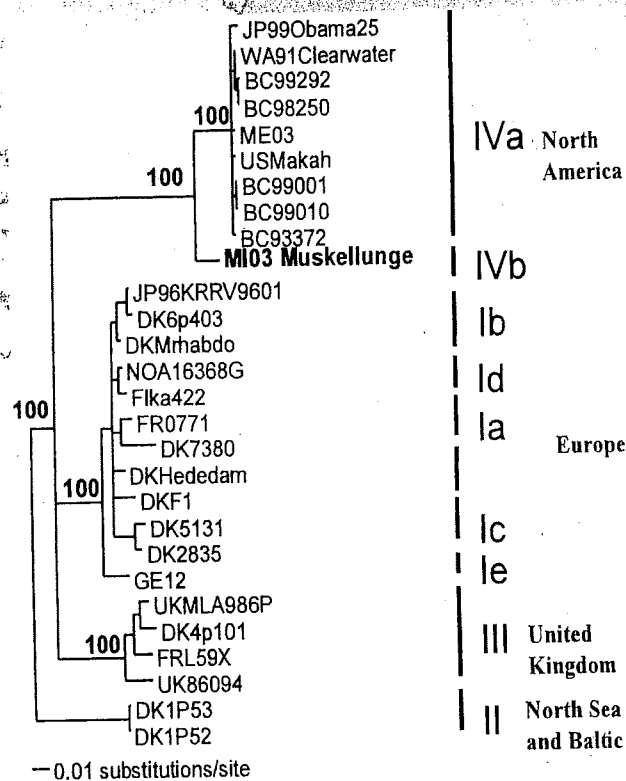


Figure 3. Phylogenetic tree (from Elsayed et al., 2006) showing the relationship of the first Great Lakes VHSV isolate, MI03 from muskellunge in Michigan, to VHSV genotypes, I-IV. MI03 was distinct, but closest to genotype IVa from the west coast of North America, so it was designated genotype IVb.

### Genetic Analysis of VHSV Isolates from the Great Lakes Region

The new isolates of VHSV from fish in the Great Lakes were initially identified as being similar to members of VHSV Genotype IV (Canadian Cooperative Wildlife Health Centre 2005). Upon further analysis, the new isolates were sufficiently different from those on the West Coast to be assigned to a separate sub-lineage, now termed Genotype IVb, with the isolates of VHSV from the West Coast of North America forming Genotype IVa (Elsayed et al 2006).

Thus, genetic typing revealed that there were two distinct lineages of VHSV in North America and the introduction of VHSV into the Great Lakes was not from Europe where Genotypes I, II and III are present, but more likely from a source closer to North America. The Genotype IVb strain found in the Great Lakes region is the only strain outside of Europe that has been associated with significant mortality in freshwater species.

### What is the Origin of the VHSV Isolates from the Great Lakes Region

At present, more than 30 isolates of VHSV from different host species or locations in the Great Lakes Basin have been analyzed. Genetic typing of many of the VHSV isolates from



Such models can be used to study the progress of infection in an appropriate host species and serve as a reference standard for virulence comparisons in other fish species. The model will also help investigate epidemiological features of the disease process including: virus shedding rate, formation of carriers, development of immunity and effects of environmental factors such as temperature on the disease process.

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***Infectious disease is increasingly recognized as an important feature of aquatic ecosystems; however, the impact of disease on populations of wild fish has been difficult to study. While many of the viral, bacterial, protozoan and fungal pathogens of fish that were initially discovered in captive animals are actually endemic among wild populations, the introduction of exotic pathogens into aquatic systems can lead to explosive mortality and may be especially threatening to native stocks. At the WFRC, field and laboratory investigations, aided by the tools of molecular biology, have begun to provide information on the ecology of infectious diseases affecting natural populations of fish in freshwater and marine ecosystems.***

Further Reading:  gizzard shad

A complete list of WFRC publications may be found at: <http://wfrc.usgs.gov/pubs/pubs.htm>

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US waters has been done at the USGS Western Fisheries Research Center (WFRC), while isolates from Canadian waters have been typed at the Pacific Biological Station (Department of Fisheries and Oceans Canada) in Nanaimo, British Columbia.

WFRC researchers work closely with Canadian and European colleagues to assure that information is shared to obtain a complete picture of the molecular epidemiology of VHSV in the Great Lakes. To date, all VHSV isolates from the Great Lakes region that were analyzed at the sequence level are members of Genotype IVb. In fact, the portion of the virus genome analyzed was identical, or nearly identical (less than 0.5% sequence difference), for many of the isolates from fish kills occurring among different species or in different lakes during 2006 and again in 2007.

yellow perch

### Conclusion



These findings suggest that VHSV was relatively recently introduced into the Great Lakes, probably as a single event within the past 5-10 years, and there has not yet been sufficient time to observe the evolution of different strains in different hosts or geographic locations.

The lack of diversity also indicates that the fish kills occurring among different species and in different lakes can be considered as one large ongoing epidemic. These insights from the molecular analysis are also supported by the historic absence of VHSV in the region based upon the lack of large fish kills associated with the virus or isolation of the virus during routine fish health examinations prior to 2003.

While the molecular analysis has not revealed the exact origin of the virus or the mechanism of introduction, the Genotype IVb isolates obtained from fish in the Great Lakes are genetically most like isolates of VHSV recovered during 2000-2004 from mummichog and other diseased fish in rivers and near-shore areas of New Brunswick and Nova Scotia, Canada (Figure 4; Olivier 2002; Gagne et al. 2007). Thus, it appears likely that the VHSV strain in the Great Lakes may have had its origin among marine or estuarine fishes of the Atlantic seaboard of North America.

### Predictions for the future

Due to increased fish health surveillance activities in the Great Lakes planned by both US and Canadian agencies, we anticipate that many more isolates of VHSV will be obtained from the region during the next several years. Molecular analysis of these isolates will increase our understanding of the epidemiology of VHSV infections among native populations of wild fish. In addition, there is recent evidence of some increase in genetic diversity among VHSV isolates from the Great Lakes, as would be expected for an introduced pathogen adapting to new host species or differing environments.

Because significant additional research is needed to assist managers in understanding the disease ecology of VHSV and its effects on the health of native fish populations in the region

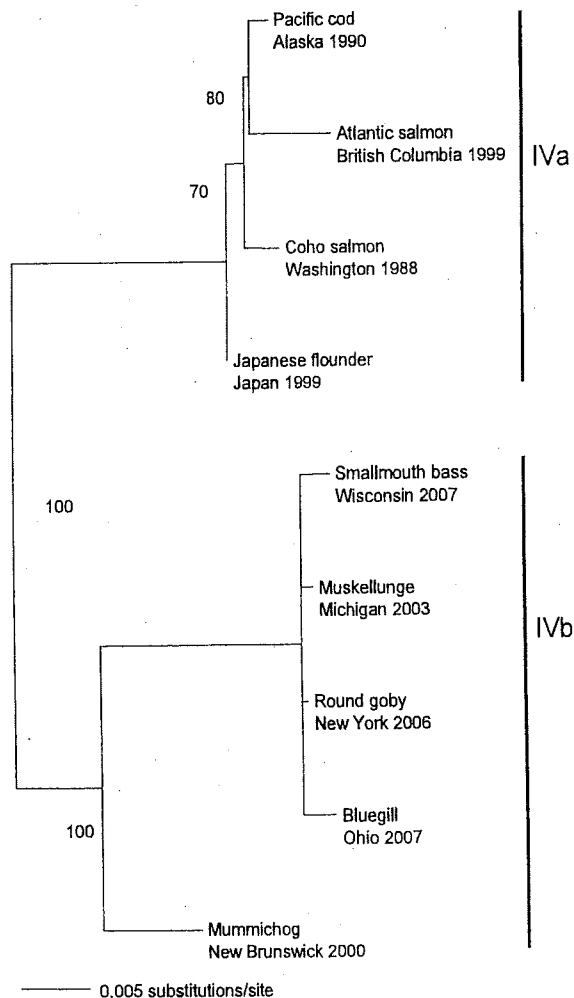


Figure 4. Phylogenetic analysis of Great Lakes isolates of VHSV compared with isolates representing Genotype IVa. The tree suggests the mummichog isolate from New Brunswick, Canada is related, and perhaps ancestral, to the more recent Genotype IVb isolates from the Great Lakes.

a second major area of VHSV research at the WFRC involves development of laboratory models in susceptible species from the Great Lakes (Figure 5).



Figure 5. Yellow perch experimentally infected at the WFRC with a Great Lakes strain of VHSV. These fish show high mortality with typical signs of disease. Such models will be useful to study features of the disease caused by VHSV and will aid in development of vaccines or other control methods.