

PCB levels in Great Lakes fish, anglers decline

Mercury contamination of fish has grabbed the headlines in recent years, overshadowing the good news that PCB levels are declining in Great Lakes fish and people who follow the state's consumption advice, state health and fish contaminant officials say.

Choose Lake Michigan fish with lower PCB levels.

- yellow perch
- smelt
- rainbow trout
- coho salmon

"The good news is the fish got cleaner since the ban and people changed their eating habits to be more in line with what our fish consumption advisories recommend," says Dr. Henry Anderson, chief medical officer for the state Division of Public Health's Bureau of Environmental and Occupational Health. "Together, both of those may be responsible for seeing lower levels of PCBs in the population that eats a lot of fish from the Great Lakes."

A 2005 DHFS study of levels of PCBs detected in the blood of Great Lakes charter boat captains and anglers, both groups who frequently ate Great Lakes fish, fell from an average of 5.3 micrograms per liter in 1993 to 3.7 micrograms in 2005.

The participants ate the same total number of fish meals as those in the earlier survey, but only half as many were meals from Great Lakes fish, and the source(s) of the rest was unknown.

These results also underscore the importance of following state consumption advice to eat species lower in contaminants, says Candy Schrank, a toxicologist who coordinates the fish contaminant program for the Department of Natural Resources.

On Lake Michigan, for example, coho and rainbow trout have lower PCB levels.

"If they follow the advisory and eat the same amount of fish but fish that are less contaminated, their PCB levels over time will respond," Schrank says. "This is good news because it implies that human health impacts due to PCB from eating fish by Wisconsin Great Lakes sport anglers should also decline."

PCBs, or polychlorinated biphenyls, are man-made substances used in manufacturing transformers, carbonless papers, cutting oils and hydraulic fluids. Their manufacture was banned in the United States in 1977, but the contaminants are slow to break down in the environment and they have accumulated in sediments at the bottoms of the Great Lakes and rivers with heavy industrial use.

Fish absorb PCBs from contaminated sediments in the water and from their food. PCBs accumulate in humans and have a "half-life" or

persist in the body for seven to 10 years, compared to 70 days for mercury.

Studies indicate that infants and children of women who have eaten a lot of fish contaminated with PCBs may have lower birthweights and be delayed in physical development and learning. PCBs may affect reproduction and the immune system and are also associated with cancer risk.

Wisconsin has general fish consumption advice that applies to all inland waters and recommends that children and women of child-bearing years limit their consumption of larger game fish to one per month and panfish to one meal per week. Men and other women are advised to limit consumption of most types of fish to one meal per week.

In addition, there are 143 lakes or river segments that have specific consumption advice beyond the general consumption advice including 49 sites where PCBs are found. Sites with specific PCB advice include Lakes Michigan and Superior, Green Bay, and the Fox, Sheboygan, Milwaukee and other larger river systems.

Ask FISH-A-BIT

Dear FISH-A-BIT: I was wondering if you are able to use three rods on all lakes, streams and rivers in the state of Wisconsin?

Dear Angler: In Wisconsin, we do not necessarily talk about the number of rods. It is legal to fish with three hooks, baits or lures. If you look on page 6 of the Hook and Line Fishing Regulations for 2007-2008 under Angling Methods and Lures it reads: "It is illegal — to fish with more than three hooks, baits, or lures." This means you can have: three hooks/baits/lures on one pole OR two hooks/baits/lures on one pole and one hook/bait/lure on another pole, OR one hook/bait/lure on each of three different poles (hence people discussing three rods or poles). For each example above, you have three hooks/baits/lures in total.

Dear FISH-A-BIT: I fish in the Waushara County area and this weekend I caught some bluegill and brought them home for dinner. While cleaning these fish I noticed many black spots within the filets. Is this some kind of parasite, and are they safe to eat?

Dear Angler: This is a fish parasite called **black spot**. Cooking the fish kills the parasites so they can be eaten and they cannot infect people in any case. Black spot has a life cycle utilizing birds, snails and fish as host animals. The adult parasite lives in the bird and sheds eggs into the water where they hatch and infect snails. Larvae develop in the snail and swim out into the water, burrowing into fish skin or muscle. When a bird eats an infected fish, the larvae develops into an adult parasite in the bird, a kingfisher or gull, and the cycle begins again.

Dear FISH-A-BIT: I was searching your website for accessible fishing.

Dear Angler: A new DNR website lists boat landings and will have an interactive portion allowing you to click on a county and see where boat landings are located. Also, it will have an

interactive map where you can choose a county and actually see where the landings are for that county. If you add roads to this map, you can see how to get to each landing site. In addition, at the following website, we have several links to accessible fishing around Wisconsin. www.dnr.wi.gov/fish/faq/wheretofish.html

Dear FISH-A-BIT: Is it required that each person's catch be separate from the others? If keeping all caught fish in one live well/tank/cooler/stringer, etc. is not legal, must they be identified as to who caught them?

Dear Angler: **Group bagging** is illegal in Wisconsin (where Angler A catches the limit of 25 panfish and Angler B has caught twelve panfish and Angler C has caught ten panfish, or Angler A may not keep fishing for panfish to help fill Angler B's or C's bag limit). The rule is on page 7 of the Hook and Line Regulations for 2007-2008 under the heading "Seasons, Bag Limits, and Length Limits."

What is legal is when each angler stays within their individual bag limits for each species but share the same cooler or live well. You will each need to mark your fish differently. For instance, assign one angler to "clip the right fin" and if there are two other anglers, another would have to "clip the tail" while the third would not clip anything. This is the way to keep track of whose fish is whose. If you are using stringers to hold your fish, you must each use your own stringer. Do not share or mix fish on a stringer.

For panfish, it may become difficult to keep track of how many fish you each have unless you mark on a piece of paper the type of fish you caught and a little tick mark for each fish of that type you caught and kept. Keep your own individual counts, and if you are stopped by a warden (who may or may not have been watching you), you will be able to verify the number of fish and whose fish are whose in the cooler or livewell.

Dear FISH-A-BIT: I caught a tagged fish. What should I do?

Dear Angler: You can e-mail or send through U.S. mail information off the **tag on your fish** and receive in return from DNR bio information on that fish. The kind of tag and where you send the information varies according to waterbody. Our website pages contain a lot of information on tagged fish. Here is the link: dnr.wi.gov/fish/faq/taggedfish.html

Dear FISH-A-BIT: I was just wondering why motor trolling is only allowed in certain places.

Dear Angler: Good question! In Wisconsin, **trolling** is prohibited on all waters unless specifically authorized (see page 6 of the regulations booklet — near the middle of the page). Motor trolling has been a topic of discussion in Wisconsin for many years, with differences of opinion regarding the sporting aspects of this angling method and its effect upon fish populations. Many people believe trolling depletes fish populations. In some lakes, motor trolling has increased user conflicts because of the increased acreage used by trollers.

We have evaluated muskellunge, northern pike, and walleye angling success for anglers casting or still-fishing versus anglers trolling. Based on available creel survey data, we have been unable to identify significant differences in angling success between the techniques.

At this point, we can continue to evaluate trolling and educate anglers on the results of these studies but trolling has been and will continue to be a controversial, divisive issue in Wisconsin, with no easy solution in sight. Our attempts to simplify the regulations have been largely unsuccessful, but we are always open to suggestions!

Send your question to FishHabitatProtection@wisconsin.gov.

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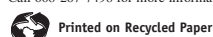
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New viral fish disease stirs concerns

MADISON — The onslaught of invasive species by air, water and land continues, with Wisconsin fisheries officials concerned about a new viral disease in several of the Great Lakes that has killed a variety of game fish and is likely to arrive soon in Lake Michigan — if it isn't already here.

Viral hemorrhagic septicemia virus, or VHSV, is not a human health concern but has been confirmed as the cause of fish kills in lakes St. Claire, Erie, Ontario and the St. Lawrence River, and was confirmed in early February in Lake Huron.

The Great Lakes strain of the virus has infected a wide range of species, including whitefish, walleye, chinook, freshwater drum, spotted musky, yellow perch, bluegill and northern pike, according to Sue Marcquenski, DNR's fish health specialist.

The virus, which until recently was known to be present only on the East and West coasts of the United States, in Europe and in Japan, may have arrived in the Great Lakes in ballast water

from a commercial ship or through the movement of wild fish. It infects cells lining blood vessels, causing severe hemorrhaging and death. So far, most fish kills due to the virus in the Great Lakes occurred right after ice out, continuing until water temperatures reached 59°F.

Because VHSV has infected so many different species and fish of all ages, scientists believe it was just recently introduced into the Great Lakes, Marcquenski says. Fish that survive the infection will develop antibodies which will protect them during future disease outbreaks; federal officials believe the virus will impact populations of some species, and that young, native fish will be most susceptible.

The federal government in November 2006 issued an order prohibiting the export from eight Great Lake states any fish known to be susceptible to VHSV. Marcquenski and other state and federal representatives have been working on developing permanent rules to prevent the virus from spreading to wild fish and to the aquaculture industry.

Marcquenski and other DNR fisheries officials are working now with federal and other state partners to test more wild fish, to develop effective disinfection techniques for eggs collected from wild fish for hatcheries, and to inform the public about the virus and steps they can take to help prevent its spread to inland waters.

She advises boaters who move between the Great Lakes and inland waters to take these precautions:

- Disinfect boats, trailers and gear using 1/3 cup bleach in five gallons of clean water for five minutes. Disinfection should be done away from natural waterbodies because the compounds are toxic to aquatic life.
- Report the occurrence of fish kills to your local fish biologist.
- Throw unused bait in the trash.

