

The Muskellunge is one of the most mysterious fish to ever swim in our lakes. There are many misconceptions about them, and about what food sources make up the majority of their diet.

After reading the information contained in this brochure, you'll have a better appreciation of the Muskie, understand its diet, and see the ways in which their presence can actually benefit your lake. Studies show they help control the numbers of stunted fish species in the lake, and also undesired fish species.

Some have been hesitant to have Muskies stocked into "their" lakes, as they feared they would consume a substantial amount of other game fish, such as Walleye, Northern Pike, and Bass. In certain fishing circles you'll even hear it said that "Muskies Eat All The Walleye", even though studies have proven conclusively that this is not the case.

It's been demonstrated that NO negative impact on game fish populations has occurred due to the introduction of Muskies into a lake. More often, the effects are positive, as there becomes balance in the food pyramid, which accounts for larger fish of all species.

In the study lakes mentioned in this brochure, there were NO instances in which Walleye were shown to make up the primary or even secondary food source choice of Muskies.

Muskie Behavior and Food Preferences

Feeding studies have shown that other fish make up 95-98% of the Muskies diet, although at times they will also eat insects, crayfish, small mammals, and waterfowl. They are a natural predator, and like all predators, are opportunists. Studies have shown that even when they're abundant, other game fish made up a very small percentage of the Muskies diet.

Fishermen have reported Muskies attacking bass and walleye as they were being reeled in. This may have given the impression that Muskies are significant predators of other game fish, when in fact, the Muskie was simply reacting naturally to the struggling fish due to their predatory instincts.

Muskies generally take advantage of the most abundant prey species available that are of sufficient size for them to eat. Given the opportunity to choose, Muskies prefer soft-finned, high protein based fish such as suckers, tullibee, ciscoes, bullheads, carp, and minnows. In fact, the food sources Muskies prefer most are usually fish species that most people would rather not have in their lake.

The truth is that even though it's been proven that Muskies do have a preferred food source they are opportunistic predators, and occasionally consume other game fish. The amount of other game fish eaten by Muskies is minimal compared to the amount of game fish such as Walleye that are harvested by anglers.

Facts, Studies, and Statistics

A major study was undertaken from July of 1991 through October of 1994, and other documented studies were conducted as long ago as 1952. These studies, as well as others, came to the same conclusion. Game fish such as walleye make up a very small part of a Muskie's diet. In one particular study, the stomach contents from 1092 Muskies were evaluated. The results proved that a Muskie's diet is quite diverse, and that in 74% of the sample fish, only one food item was present. Muskies are not voracious feeders consuming fish after fish, as some people would have you believe.

Walleye ranked extremely low in the Muskies' diet. In the 1092 study fish, only five contained traces of walleye. This study collected Muskies from 34 separate bodies of water, including lakes with large populations of walleye. Despite their abundance in those lakes, walleye proved to NOT be an important food source for Muskies. During the study, Muskies and walleyes were observed in very close proximity to one another, as the walleye is also a predator. Walleye made up 3.4% of the total stomach content volume found in the Muskies in that study. Bass species found accounted for 3.1%, even lower than that of walleye. 63.5% of the total stomach content volume was made up of yellow perch and various minnow species.

Summary

Muskies and Walleyes have co-existed in the same bodies of water for centuries, and all evidence indicates that they will continue to do so. Most premiere Walleye lakes also happen to be excellent Muskie fisheries as well. This would not be possible if Muskies were decimating the Walleye populations, as some suggest.

For example, in the State of Minnesota there are numerous lakes fished for both species. Lake of the Woods, Lake Winibigoshish, Leech Lake, Mille Lacs Lake, and Cass Lake are all top-of-the-line Walleye fisheries that also contain large numbers of Muskies.

Do Muskies eat Walleyes? They do occasionally, but in far less numbers than the number of fish taken by Walleye anglers. Scientific studies based on statistical analysis all conclude that “Muskies eat all the Walleyes” is completely false.

There is room in the lake for both species to exist and thrive, and there is room on the lake for anglers of both species.

Whether you're a Walleye angler, or a Muskie angler, hopefully you've gained a bit more knowledge about how these fish can, and do peacefully inhabit the same waters.

Further Information

You can find more information about one of the main studies referenced in this brochure by typing “Diets of Muskellunge” into your favorite internet search engine.

You may also be able to get more information by calling your local Department of Natural Resources office.

Information Sources

Diets of Muskellunge in Northern Wisconsin Lakes- Michael A. Bozek, Thomas M. Burri, and Richard V. Frie, Wisconsin Cooperative Fishery Research Unit, College of Natural Resources, University of Wisconsin- Stevens Point.

July 1991- October 1994. North American Journal of Fisheries Management 1999; 19:258-270

Butler, M.T. 2004 Muskellunge Biology: the basics. International Muskie Home Page. Trent University. Peterborough, Canada.
<http://www.trentu.ca/muskie/biology/biol01.html>

What do Muskies eat anyway? - Duane Williams, Large Lake Specialist for Lake Vermillion Department of Natural Resources, Section of Fisheries.
<http://lakevermillion.com/muskies/htmls/diets.html>

What Do Muskies Really Eat?



A short summary of the interaction between the Muskellunge and Walleye, Bass and other game fish.