

# Inland Waterway Walleye Diet Study

Inland Waterway includes Black, Burt, Crooked, Mullett, Pickerel Lakes and the connecting rivers.

**Note:** the Black Lake samples need to be kept separate since they are being analyzed under a different study.

## Introduction

The most comprehensive study ever undertaken in the Inland Waterway will begin this spring and will continue over the next several years. The main goal of the project is to study walleye movements and determine the number of adult walleyes in Waterway which will enable biologists to confidently establish safe harvest levels and better manage the fisheries. An important aspect of the study is to learn what the walleye are eating. Besides helping to understand the walleye's eating habits, the diet study will contribute to a better understanding of the forage fish (smelt, goby, alewife and minnows) and macroinvertebrate (insects and crayfish) communities. The Waterway has changed significantly over the last 20 years with the introduction of invaders like the zebra mussel and round goby and work is needed to better understand their impacts on the fisheries.

A large predator diet study began in Lake Huron during 2009 and is continuing through 2011. Dr. Jeff Schaeffer and Dr. Ed Rosemen from the US Geological Survey Great Lakes Science Center developed the study and are compiling the data, which will be published. During the first two years, anglers provided nearly 5,000 stomach samples and the results have been phenomenal. The reliable work of the anglers in the Lake Huron study shows that the Waterway Study can also be a great success. The key factor is strong angler participation in providing stomach samples.

## Collecting the Stomach Samples

It is **very important** that stomachs be taken from all legally harvested walleye during each trip. Even if the stomachs are empty they provide much information on feeding habits. In addition, with the use of a microscope and advance identification techniques the researchers can often identify the remains of severely digested food items.

## Storing the catch while fishing

It is **very important** to keep the fish cold after they are caught to slow the digestion rate of the stomach contents. The fish should immediately be placed in a cooler with plenty of ice until they can be cleaned. It is best not to store the fish in a livewell since the stomach contents will continue to digest.

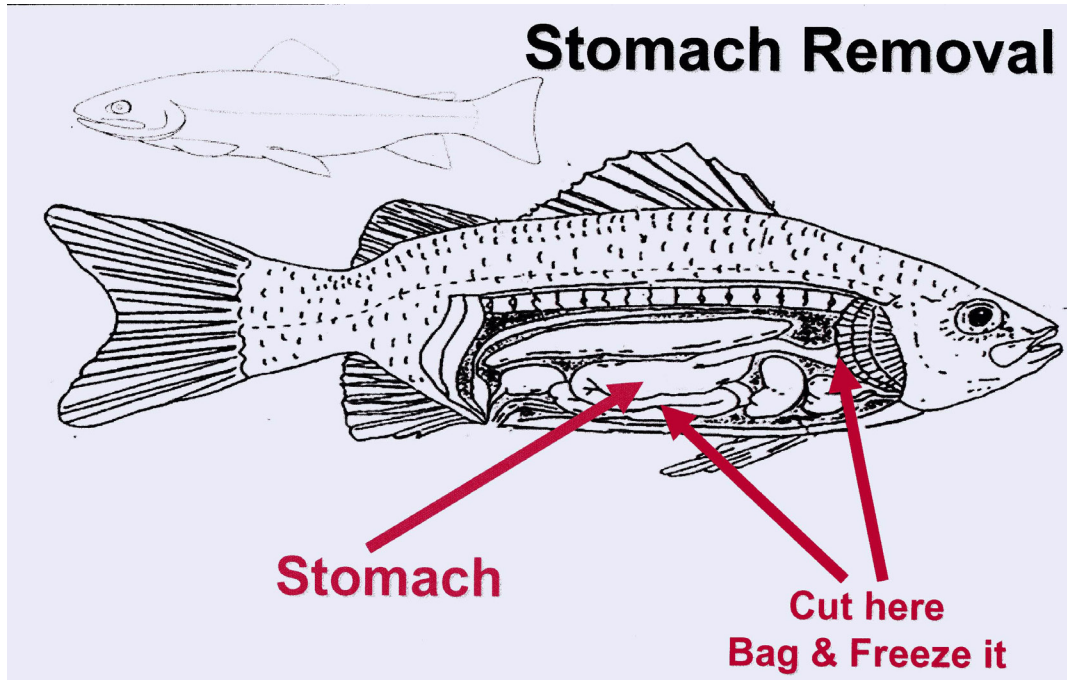
**Please think Cold!**

### Filling out the label \* (Please use pencil so the writing will not bleed)

Species	<u>Walleye</u>	← <i>Walleye will be the only species examined</i>
Length (inches)	_____	← <i>Enter length in inches</i>
Date Caught	_____	← <i>Record the date the fish was caught</i>
Location	_____ _____ _____	← <i>Record the lake or river and the specific location. For example, Mullett Lake 1/2 mile west of Aloha or Indian River 1/4 mile east of the I 75 Bridge or Burt Lake 1 mile east of Colonial Point</i>
Depth	_____	← <i>For example 20 feet down in 25 feet of water</i>
Angler	_____	← <i>Enter the Angler's name</i>

\* A Complete page of labels can be found on page 3

## Removing and Storing the Stomachs after Cleaning the Fish



The entire stomach needs to be removed and be sure to check the mouth and throat because food often can be found in that area. Place each stomach in a plastic freezer bag with a completed label and freeze it immediately. Two Drop off stations are listed below. If there is an accident and the stomachs thaw temporarily please turn them in since they still may be useful.

### **Drop Off Stations for the frozen stomach samples:**

MDNR Cheboygan Field Office during working hours

MDNR Indian River Field Office during working hours

### **If there are any questions or comments please contact:**

Frank Krist **Email** [krists@speednetllc.com](mailto:krists@speednetllc.com) **Phone** 989 734-3100 or 989 351-2053  
Chair of the Northern Inland Lakes Citizens Fishery Advisory Committee

Tim Cwalinski **Email** [cwalinskit@michigan.gov](mailto:cwalinskit@michigan.gov) **Phone** 989 732- 3541 ext 5072  
Michigan Department of Natural Resources Fishery Biologist

\* See the next page for a complete page of labels

Species <u>Walleye</u>	Species <u>Walleye</u>
Length (inches) _____	Length (inches) _____
Date Caught _____	Date Caught _____
Location _____ _____	Location _____ _____
Depth _____	Depth _____
Angler _____	Angler _____
Species <u>Walleye</u>	Species <u>Walleye</u>
Length (inches) _____	Length (inches) _____
Date Caught _____	Date Caught _____
Location _____ _____	Location _____ _____
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