

A Good Days Catch – Part II

Many different industries have contributed to the success and growth of Erie County, but none have used our region's most important natural resource – Lake Erie – like the commercial fishing industry. The commercial fishing industry began shortly after the War of 1812. Fish have always been a dietary staple for the inhabitants of Lake Erie's shore, and, as the Erie community grew following the war, a need for the professional fisherman developed. Fishermen such as Benjamin "Bass" Fleming (a War of 1812 veteran) used dugout canoes and simple hooks and lines to catch fish, and sold fish door to door for 25¢ each. Their catch often included a variety of lake fish, like the popular whitefish, bass, walleye and catfish.

The evolution of commercial fishing techniques occurred gradually. Hook and line fishing was common practice until the 1830s when Thomas Horton and David Fowler introduced seine nets to the fishermen of Erie. Seine nets were used in shallow water along the shore. They were vertical nets with floats attached to the top and sinkers attached to the bottom. While one end of the net remained stationary, the other end was brought around in a semi-circle, catching fish in the center of the net. Seine nets were replaced in popularity by the gill net in 1852. Gill nets were used in deeper water, and usually stretched ¼ mile in length. Suspended underwater with floats and weights, fish swimming into the net would become caught by their gills. Considered cruel and inhumane, gill nets were outlawed in 1996. Pound nets - nets set into the lake floor, which direct fish into a trap or "pound" - and trawling - dragging a heavy metal sled attached to a net along the lake floor - were other commercial fishing techniques.

Like fishing techniques, commercial fishing vessels also improved during the 19th century. As the fish supply along the shore got smaller, fishermen needed to fish in deeper waters farther from the shore. Twenty-five to thirty-foot long specially made rowboats (the length of two Volkswagon Beetles end to end) replaced the old dugout canoes shore fishermen used. By the late 19th century small sailboats, which employed a crew of three, replaced the large rowboats because they let fishermen carry more fish and visit deeper waters. Nearly fifty fishing sailboats docked along the lake by 1884.

It was the development of the steam engine, however, that forever changed the commercial fishing industry. No longer dependent on the weather, fishermen could fish when there was no wind and navigate lake waters easily. The earliest steam-powered tugs were 30 – 40 feet long (the length of three Volkswagon Beetles end to end) and made out of wood. Steel tugs replaced the wooden tugs by the 1930s. A tug's typical crew consisted of a captain, a chief engineer and two to three men to work the nets.

During the industry's best years at least fourteen different fish companies were located along Erie County's shore. They included the Keystone Fish Company, Union Fish Company, Shaw Fish Company, Kolbe Fish Company and the Erie Fish Company. Collectively, these companies employed more than 3,500 people, owned at least 140 fish tugs and brought more than ten million pounds of fish through the port of Erie yearly. Due to the industry's size and importance, Erie was declared the "freshwater fishing capital of the world" by the 1920s.

Draw It!

Four of Erie's fish companies owned their own fleet of fishing tugs: Kolbe, Keystone, Booth and Case. Each company used a different system to name, and a different color to mark their boats. Keystone's boats were painted green and named after planets (*Saturn, Mars, Jupiter, etc.*). Booth's boats were yellow and named after cities (*Baltimore, Cincinnati, New York, etc.*). Kolbe's boats were white and Case's boats were white with orange trim.

Imagine you own a fleet of commercial fishing tugs. What color will you paint them? How will you name them? Once you have decided a color and a naming system, draw one of your fishing tugs. Write a short story describing what happens to one of your fish tugs when a storm unexpectedly occurs while the fleet is out on the lake.

Where have all the fish gone?

Whitefish, Herring, Blue Pike and sturgeon were the most prized catches for commercial fishermen. Whitefish, Herring and Blue Pike were known for their superior flavor, while the sturgeon was favored for its eggs, which were used to make caviar. Because of the commercial fishing industry’s success (and an increase in pollution), populations of these fish became very small. The saddest story is that of the Blue Pike. The Blue Pike, endemic to the Great Lakes, was declared extinct in September 1983.

You Be the Graph Guru!

Let’s talk numbers! Numbers and graphs are as important to historians as they are to mathematicians and scientists. Historians studying Erie’s commercial fishing industry can use graphs to chart information related to annual catches, the number of people employed by the commercial fishing industry each year, the number of commercial fishing companies located in Erie each year, and even the number of fish tugs docked in the port of Erie each year.

As a “Graph Guru,” it is your job to create a bar graph from the numbers provided. Be sure to create a title and scale for your graph.

Number of Commercial Fish Companies in Erie:

<u>Year</u>	<u>Number of Fish Houses</u>
1900	6
1910	10
1920	14
1940	7
1950	5
1960	4
1970	1

What Am I?

Write down all of these letters on a separate sheet of paper - O N U G S E T R. Unscramble the letters to answer the riddle below.

I use barbels similar to a catfish’s “whiskers” to find food on the Lake floor.

I suck in leeches, clams, small fish, snails and algae.

On average, I grow up three to five feet in length and weigh ten to eighty pounds – occasionally I reach seven feet in length and weigh 300 pounds.

I am sometimes called a “living fossil” because my species has changed very little over time.

I can live to be fifty to eighty years old – occasionally I reach one hundred or more.

Answer: Sturgeon

Big Business Boom!

Several other businesses opened up in Erie in response to the growth of the commercial fishing industry. **STOP!** Before you read any further, on a separate piece of paper make a list of the kinds of businesses you think the commercial fishing industry helped to create. Be sure to think about the fishermen, the fish and the fishing boats.

Answer:

Ice Houses – During the winter men would take teams of horses and saws out onto the frozen bay and cut large blocks of ice. The blocks of ice were then hauled to the ice house where it would be packed in saw dust. Properly packed, this ice would last through the spring, summer and fall, and would be used to store fish. Later, refrigeration and freezing systems were created.

Net Repair – Local women often were hired to repair damaged nets.

Sail Making – Before the advent of the steam tug, fishermen needed sails for their vessels.

Steam Engine and Boiler Manufacturers – Steam tugs required steam engines and boilers, and trained people to repair them.

Boat Builders – Shipbuilders found a great market in Erie.

Chandlers – Chandlers served as hardware stores for mariners. They supplied general hardware, net materials and other goods for the lake fishermen.

Restaurants – The local eateries became famous for their fresh fish dinners.

What's in a Weight?

In 1892, Erie's commercial fishermen caught 12,786,578 pounds of fish. What an amazing amount of fish! To put this amount in perspective, answer the following questions using your math skills. How many African Elephants does it take to equal 12,786,578 lbs.? How many Boeing 747s? How many Volkswagon Beetles? How many Blue Whales?

African Elephant = 12,000 lbs.

Boeing 747 (Airplane) = 836,000 lbs.

Volkswagon Beetle = 2,743 lbs.

Blue Whale = 200,000 lbs.

Answer: 1,065 ½ African Elephants; 15 Boeing 747s; 4,661 ½ Volkswagon Beetles; 64 Blue Whales

Buoys: Traffic Signs of the Great Lakes

Buoys are the traffic signs of the water. Their color, shape, number, light, or sound offer direction and information for recreational boaters, commercial fishermen, cargo ships and even swimmers. Most buoys are either cans (cylinders) or nuns (cone-shaped).

Go and See! Walk along the shore of Lake Erie, and record the shape and color of the buoys you find. Use the following website to learn how the buoys you found instruct mariners.

<http://www.auxetrain.org/atn2.html>.

Word Wizard

The following words are used throughout this page. Use a dictionary to learn the meaning of each word.

endemic

extinct

caviar

commercial

sinker

vessel

fleet

bar graph

barbells

natural resource