Status of the Sea Lamprey in Lake Erie

Sea Lamprey Life History. Although sea lampreys spend their adult lives in the deep waters of the Great Lakes or Atlantic Ocean, spawning and early development of the young takes place in tributary streams. Suitable spawning streams must have moderate to high water flow which washes away fine sediments and leaves clean rocks and gravel. Generally, a stream which supports trout reproduction will also be suitable for lampreys.

In late winter and early spring, the adult lampreys move to shallow water in bays and estuaries. During this period, their digestive tract shrinks and they become incapable of feeding. As stream temperatures approach 44°F, the spawners ascend streams and the males begin building nests by picking up stones in their mouths and depositing them in crescent patterns. As water temperatures rise to over 50°F, the female attaches her mouth to a stone at the head of the nest and the male wraps around her, squeezing out eggs which lodge among the stones. Up to 200,000 eggs can be laid by a single female. Lampreys die after spawning and are quickly decomposed.

Fish predation on lamprey eggs is high, and about one percent of the eggs hatch after approximately 12 days. Larval lampreys, called ammocoetes, have flap-like mouths and are blind. These drift downstream into quiet pools where they burrow into the bottom muds for the next three to 14 years, feeding on plankton that drifts by their burrows.

The ammocoetes then transform into free-swimming adults which migrate back to the lake or ocean to parasitize fish. Adult sea lampreys have rasping tongues and tooth-filled mouths shaped into suctional discs. A gland in the mouth also secretes an anticoagulant called lamprein. This keeps the wound open, allowing the lamprey to feed at leisure on blood and body fluids. A lamprey may remain attached to a fish for hours or sometimes for weeks, feeding until it is sated or its victim dies. After 12-18 months of living in open water and growing to as much as 24 inches in length, the adults prepare to spawn.

Spawning Sites for Lake Erie Lampreys. Lake Erie’s flat, low-lying drainage basin does not provide many suitable streams for lamprey spawning. Especially in the Western Basin, most streams have slow flow rates and muddy bottoms. This feature has been important in holding down lamprey abundance.

Ohio tributaries to Lake Erie, which are known to have spawning populations of sea lampreys, are Conneaut Creek, the Grand River, the Chagrin River and possibly the Sandusky River. In Pennsylvania, Raccoon, Crooked and Walnut Creeks currently experience lamprey runs. New York spawning streams include Cattaraugus, Delaware, and Canadaway Creeks. Most of these are Eastern Basin tributaries, and the six known spawning streams on the Canadian side of Lake Erie also empty into the Eastern Basin.

The number of spawning lampreys in most of these streams have increased in recent years as water quality has improved. The U.S. Fish and Wildlife Service (USFWS) is monitoring these and other streams with suitable habitat to detect any further increases.

Lamprey Predation on Lake Erie Fish. Large fish with nearly smooth skins are preferred by lampreys, and lake trout, salmon, whitefish and catfish have usually felt the most pressure. Lake Erie’s expanding walleye population presents a large food source for lampreys and many anglers have reported walleye with lamprey wounds. Almost any other fish of suitable size is a possible target; I once collected a lamprey from a large gizzard shad in Sandusky Bay.

Many of the fish parasitized by sea lampreys die from loss of blood or from secondary infections. Some survive the attacks, as attested by the numerous fish bearing wounds or scars. The low frequency of scars on Western Basin walleyes is a function of limited lamprey spawning habitat, large numbers of fish and perhaps the lamprey’s slight preference for other species. Yet over half of the lake trout in the Eastern Basin bear scars by the time they are about 29 inches in length.

Lamprey Control Methods. Dams, weirs and traps were first tried throughout the Great Lakes to prevent adult lampreys from reaching spawning grounds. These barriers were expensive to build and easily damaged; hence, they met with limited success. Electric barriers were then developed which provided nearly impenetrable electric fields created by a 115-volt alternating current between rows of electrodes set in the streams. These also were
Concerned About Safe Drinking Water?

Hundreds of thousands of people utilize Lake Erie for recreational fishing and swimming and millions depend on the Lake as a source of drinking water. As a result, a commonly asked question is, 'Can I safely drink the water, eat the fish and swim in the Lake?' Some current proposed federal legislation may help insure that the answer remains yes.

House Bill HR-3200, commonly known as the Safe Drinking Water Act Amendment of 1983, seeks to protect drinking water supplies from pollution. Co-sponsored by Congressman Dennis Eckart (D-11, Mentor, Ohio), the amendments to the act are divided into three parts or titles.

Title I empowers the federal Environmental Protection Agency to establish limits for health threatening contaminants in tap water and improves enforcement of those limits. This title also gives water systems new legal powers against polluters and tamperers whose acts threaten public health.

Title II mandates the EPA to improve regulation of brine pits and other facilities that can contaminate underground sources of drinking water. It also encourages states to identify and protect those sources.

Title III renews authorization of appropriations to carry out the Safe Drinking Water Act and the amendments.

For more information on this federal legislation to protect our water resources, contact the office of Congressman Eckart at 1-800-457-7375.

—Frank Lichtkoppler

Bill would reduce alcohol abuse by boaters. U.S. Representative Gerry E. Studds (D-MA) on November 17 announced the introduction of legislation to make operating a boat while intoxicated a federal crime. In a statement released by his Washington office, Studds said that "alcohol abuse by boaters is one of the leading causes of transportation-related deaths in the United States today." In his statement, Studds noted that "the vast majority of boaters—like the vast majority of automobile drivers—do not drink to excess. It is the innocent majority that all too often provides the victims for the irresponsible few."

The legislation, which was co-sponsored by Representative Walter Jones (D-NC), Edwin Forrythe (R-NJ), and Don Young (R-AI), would establish a federal, civil or criminal penalty of up to $5,000 a year for operating a vessel while intoxicated. In addition, the bill would require that all boating accident reports include a statement as to whether alcohol was a cause of the accident. It will also mandate the inclusion of information in all federally-supported state boater education programs concerning the hazards of operating a vessel while under the influence of alcohol.
Ohio's Congressional Delegation Comes to Aid of Hydra

The Research Vessel Hydra, on loan from the U.S. Environmental Protection Agency to The Ohio State University's Center for Lake Erie Area Research (CLEAR), has been CLEAR's research vessel on Lake Erie since 1983. In addition to providing field and laboratory experiences for numerous graduate and undergraduate students, the research conducted aboard this boat (most of which has been funded by USEPA) has allowed us to address many of Lake Erie's pollution problems.

In recent issues of Twine Line, we had reported that due to funding cuts, EPA was not able to support research on Lake Erie in 1983 and intended to surplus the Hydra. Because of the boat's unique capabilities (it is actually a 68-foot-long floating laboratory), its loss would severely hamper further research, monitoring and clean-up efforts on Lake Erie.

Although all of the tremendous improvements we see at Lake Erie cannot be attributed to CLEAR and EPA's work aboard the Hydra, few deny that things have improved greatly in the last 10 years and that without proper management, the lake could easily revert back to the condition of the late 1960s. Consequently, it was not surprising that the Lake Erie community started campaigns to "save the boat that saved Lake Erie."

When news of this potential loss was brought to the attention of Ohio's congressional delegation, their action was swift. A delegation letter, dated 16 November, was sent from Congressman Delbert Latta's (R-5) office to the director of the Environmental Protection Agency, William D. Ruckelshaus, requesting that the Hydra be placed "on permanent loan to The Ohio State University so that their valuable research and ecological maintenance programs can be furthered and continued."

It is obvious from the following paragraph from their letter that Ohio's congressional delegation is well aware of the value of Lake Erie.

"Research conducted aboard this vessel has been instrumental in the recovery and revitalization of Lake Erie. The importance of this is pointed out when you consider that each day over 11 million people get their drinking water from Lake Erie, more fish are produced each year for human consumption from Lake Erie than from the other four Great Lakes combined, each year Ohio sport fishermen catch over 25 million fish on Lake Erie, Ohio sport fishermen spend over 13 million man-hours per year fishing on Lake Erie, the western end of Lake Erie has become the "Walleye Capital of the World" with an economic value of over $325 million per year, there are over 20 power plants around the shore of Lake Erie, and almost as much coal is shipped from Ohio ports as is mined within the state."

The delegation letter was boldly signed by the representatives listed below:

Douglas Applegate, D-18
Michael Dewine, R-7
Dennis Eckart, D-11
Edward F. Feighan, D-19
Willis D. Gradson, R-2
Tony P. Hall, D-3
Marcy Kaptur, D-9
John R. Kasich, R-12
Thomas N. Kindness, R-8
Delbert L. Latta, R-5
Thomas A. Luken, D-1
Bob McEwen, R-6
Clarence E. Miller, R-10
Mary Rose Oakar, D-20
Michael G. Oxley, R-4
Donald J. Pease, D-13
Ralph Regula, R-16
John F. Seiberling, D-14
Louis Stokes, D-21
Lyle Williams, R-17
Chaimers P. Wylie, R-15

Late in December, Dr. Charles E. Herenden, Director of CLEAR, was notified by USEPA that regional officials had reconsidered their earlier decision and "determined that there will be a need for the R/V Hydra to remain in the Lake Erie area, and that EPA will renew the license agreement with The Ohio State University probably this spring.

"We at Ohio Sea Grant and CLEAR want to acknowledge the efforts of the Ohio delegation on behalf of the University and thank them for ourselves, the people of Ohio and entire Great Lakes region.

—Dr. Jeffrey M. Reutter

Waterfowl Congregation on Lake Erie

An unusually large number of waterfowl are now migrating through Ohio, according to the Division of Wildlife of the Ohio Department of Natural Resources. Wildlife biologists recently counted an estimated 175,000 ducks, geese, and swans during an airplane survey flown over Lake Erie and selected inland water areas. The birds are making their annual migration to wintering grounds in the southern U.S. and Mexico and are expected to stay in Ohio three to four weeks.

"This is the largest concentration of waterfowl I have ever seen in Ohio during my more than 30 years as a biologist," said Karl Bednark, head waterfowl biologist with the Division of Wildlife. Bednark attributes the large migration to severe cold weather and snow in Canada and Michigan that has forced the birds to move south sooner than expected.

Counted during the aerial survey were 46,000 mallards, 36,000 black ducks, 70,000 scaup, plus many other species. This periodic survey is flown twice each month, during the fall, to help biologists monitor the waterfowl migration and determine total numbers of birds using the flyway.

The Ohio Sea Grant Program and the Wildlife Research Unit, in the Department of Zoology at OSU, have undertaken a joint investigation of one of the major aggregations of migratory waterfowl in North America. Each fall, 100,000 or more Red-breasted Mergansers (Merger serrator) are found on the south shore of Lake Erie between Sandusky and Cleveland. The species breeds in the boreal forests of Canada and winters on the Atlantic, Pacific, and Gulf Coasts, but little is known about where the Lake Erie birds come from or go. There are also major uncertainties about how many Mergansers there are in North America. U.S. Fish and Wildlife surveys have produced estimates of 360,000 breeding Redbreasted Mergansers, but only about 60,000 are seen on winter surveys. The whereabouts of the missing birds is unknown. Although observers have noted for decades that Mergansers pass through Lake Erie in November, only recently was it realized how many are involved. In 1978, Bruce Peterjohn, an Ohio ornithologist, estimated that as many as 200,000 birds were present on Lake Erie during a single day. Since then, he has monitored the flight each year and has found that while the flights tend to be smaller than the first one he saw, they are still substantial, probably exceeding 100,000 annually.

The purpose of the joint project is to determine more accurately how many birds pass through the lake, where they come from and go, and why the south shore promotes such large concentrations. Other issues which may be addressed are whether the concentration poses a health risk to birds elsewhere on the wintering grounds and whether ideas from theoretical ecology such as the 'information center' hypotheses are applicable to this congregation. This year, observations have been made from a University airplane and from the shore, and a telephone survey is underway to obtain better information from other parts of the migration pathway and wintering areas. From this information, a decision will be made about whether to undertake a more intensive investigation next year.

For further information, contact Dr. Jonathan R. Bart, Ohio Cooperative Wildlife Research Unit, 605 Botany & Zoology, 1735 Neil Avenue, Columbus, Ohio 43210, (614) 422-6112, or the Communications Office, Ohio Sea Grant, 484 W. 12th Avenue, Columbus, Ohio 43210, (614) 422-8949.
Artificial Reef Program
Gains Growing Assistance

John and Debbie Belleveau, members of the North Central Ohio Sea Grant Advisory Committee and charter captains specializing in central basin salmon and trout, sponsored the film, "Salmon Spectacular" in October 1983. The film, shown in the Mentor/Cleveland area, was an amazing production by Charlie White, a world renowned salmon angler. The film revealed actual underwater footage of salmon taking lures and rejecting them, reactions of salmon to different lures and human scents, and much more! A portion of the ticket sales was donated to the Artificial Reef Program.

John and Debbie are not alone in contributing time and effort to the Artificial Reef Program. Bud Riser of the American Walleye Association and Dave Fassnacht, President of Expositions Unlimited, Inc., Cleveland (the people who organize the annual Cleveland Sports, Vacation and Travel Show) are planning to sell programs at the Cleveland Sports Show during 1984. In the past, the programs have been free. During 1984, however, the programs will sell for 25¢ with the majority of the proceeds going to the Artificial Reef Program. Attendance at the annual event, which usually takes place during March, attracts over 200,000 people. This could bring in thousands of dollars for artificial reefs.

These are just a few of the people who have been strong supporters of the Program. The list of those who have contributed their time is endless, but there is still much left to do. As of December 1983, all permits have been received from the U.S. Army Corps of Engineers for the artificial reef sites. North Central Sea Grant Advisory Committee members and Sea Grant Extension Agent Dave Kelch have been busy locating materials (rock and concrete scrap and rubble) and securing donations as well as finding storage sites for these materials. Placement of materials is planned for early spring if materials and project donations do not fall behind. Donations of materials, funding and labor are tax deductible. It is also possible for donors to have reefs named after themselves or their company. If you are interested in becoming a donor for the Lorain or Cuyahoga County project, please contact Sea Grant Extension Agent Dave Kelch at the Lorain County Cooperative Extension office, 1575 Lowell Street, Elyria, Ohio 44035 or at (216) 322-0127, 329-5350 or 329-5351.

—Dave Kelch

Sea Grant Agent Receives Award

Frank Lichtkoppler, District Specialist, Sea Grant, was the recipient of the Ohio Cooperative Extension's District Achievement Award in Agriculture for the Canfield—Wooster Extension areas for 1983. The Canfield—Wooster Extension area includes 18 counties in northeast Ohio. The Area Achievement Awards were initiated to recognize outstanding work by extension agents with less than 10 years tenure. Lichtkoppler has worked as an Extension Agent for five years. For the past three years, he has been working as the District Specialist, Sea Grant in Northeast Ohio. He had previously served as a County Agent, 4-H in Southern Ohio for two years.

—Betty Lee Janeves

Toll-free number tells boaters where to gain boat handling skills. As part of a nationwide plan to improve boat handling and boating safety education course access, a nationwide toll-free hotline —1-800-336-BOAT—will provide the nation's boat owners with instant access to information on where boating courses are being offered in their area. The new service, operated by the Boat Owners Association of the U.S.'s Foundation for Boating Safety, was inaugurated January 2, 1984.


Dioxin Contamination Low in Lake Erie Fish

Levels of 2, 3, 7, 8—TCDD, the most toxic form of dioxin, has been monitored in fish taken from around the Great Lakes region and Lake Erie. Thus far, the fish appear to have very low levels of the toxic substance. A health advisory from the U.S. Food and Drug Administration states that dioxin levels under 25 parts per trillion (ppt) in fish should cause little concern about eating them. Twenty-one samples of fish from Lake Erie showed dioxin levels ranging from none to 3 ppt. Current dioxin problem areas in the Great Lakes region are the Tittabawassee and Saginaw Rivers in Michigan (up to 695 ppt) and Lake Ontario (up to 162 ppt). This and other practical information about dioxin is available in a new pamphlet, DIOXIN—A Cause for Concern?, from:

Communications Office
Sea Grant Institute
University of Wisconsin
1800 University Avenue
Madison, WI 53705

—Fred Snyder

1984 Fishing Symposium

The 1984 Fairport Rod and Reel Association's 4th Annual Fishing Symposium has been scheduled for March 3-4 this year. "The Symposium is fast becoming a major educational event for sport fishermen in Northeast Ohio," said Tom Davis, symposium organizer. Beginning with two dozen exhibits and less than 900 visitors in 1981, the show has expanded to over 60 exhibits and over 15,000 visitors in 1983. So it is not surprising that the 1984 Symposium Planning Committee began its work in October, 1983.

Organizing the Symposium is Tom Davis, Vice President of the Fairport Rod & Reel Association. He is aided by a ten-member planning committee including Rich Dingle, Jeff Frischkorn, Hap Berichon, Bob Bates, Jim Davis, Henry McElravy, Scotty Mackey, Mike Ondercin, Harold Gruptin and Jim Mahoney. At their November meeting, specific job responsibilities were divided up and the work load was distributed. A huge amount of work and up to $2,000 is supplied by the FH&R Association members in order to conduct the Symposium.

As it has in the past, the Ohio Sea Grant Extension Program is working to aid in the organizing, planning and execution of the Symposium. This year, Sea Grant will work to organize the Seminars that will be conducted at the 1984 show. Sea Grant Extension will also provide expertise in the development of a journal evaluation of the Symposium by exhibitors and participants. A random survey of Symposium participants will measure the impact of the show on the participants. This combined with the viewpoints of the exhibitors, will be valuable tools for planning future symposiums.

A major goal of the FH&R Association is to maintain the educational focus of the Symposium. It is one event that promotes sport fishing in Northeast Ohio and is free and open to the public. Experienced and beginning fishermen alike can learn where, when and how to fish in Northeast Ohio and in Lake Erie's central basin.

This year's Symposium will display over 60 exhibits including Ohio Sea Grant, Ohio Department of Natural Resources, U.S. Coast Guard, Northeast Ohio Walleye Association, Western Reserve Federation of Conservationists, professional charter captains, marine related small businesses, and fishing tackle makers. Seminars planned for 1984 will include artificial reefs in Lake Erie, steelhead fishing, downrigger fishing, an outboard motor clinic and others. There will also be free educational movies to help fishermen learn more about their sport.

The Symposium will be held at John B. Williams Junior High School next to Riverside High School on Route 84 just east of Painesville, Ohio. The Symposium times will be Saturday, March 3, from noon until 3:00 p.m. and Sunday, March 4 from noon until 6:00 p.m. There is no charge for the Symposium and refreshments will be available.

—Frank Lichtkoppler
Lake Erie Ice Fishing Tips

When temperatures drop below freezing and Lake Erie becomes covered with ice, most individuals forget about the lake until spring — except for the ice fishermen. Lake Erie can provide many hours of recreation as well as tasty fresh fish meals in the winter for the prepared angler. For the unprepared, such an adventure can be a cold, boring experience. The following tips will help to make your ice fishing trip more rewarding and pleasant.

Clothing and Keeping Warm. You can't fish when you're cold and miserable. This fact makes clothing and keeping warm the most important part of ice fishing. Ice fishermen should dress in layers of clothing beginning with a first layer of long underwear. The second layer should be wool pants and shirt since wool will keep the human body warm even when wet (wool garments soak water up and will wick perspiration away from the skin). The third layer should be composed of a down-filled parka or one-piece snowsuit. The last layer can be rain gear (slicker) or windbreaker for protection against wind, rain and wet snow.

A wool hat with ear, face and neck protection and heavyweight gloves should follow. Fifty percent of your body heat is lost from your head and neck unless it is covered. Also, take an extra pair of gloves in case one becomes wet.

Cold feet can end your ice fishing experience before it begins. Be sure to wear insulated boots and wool socks. Do not wear so many pairs of socks that your feet fit tightly into your boots or that your shoes are necessary for warming. And take a piece of board to stand on. Ice will transmit cold up through the soles of your boots.

Ever gaze out across snow-covered fields on a bright day only to have your eyes burn and hurt after a short time? Then remember to take a good pair of sunglasses. If you have room, pack an extra pair for your forgetful buddy.

Don't forget that your body needs energy to stay warm. A thermos of hot tea, coffee or chocolate, along with sandwiches and a chocolate bar will do wonders to warm you from the inside out. AVOID ALCOHOLIC BEVERAGES; they will actually help to increase the loss of body heat.

Use a hand-pulled sled or snowmobile to transport your gear. Carrying loads of poles, bait and extra clothing will cause you to rapidly build up a sweat which is just what you don't want. Remember to use the layering effect theory. If you hand-pull a sled, carry some of your outer layer clothing on the sled and put it on once you reach your fishing spot. A sled or snowmobile will allow you to easily transport some form of windbreak to your favorite area. Windbreaks can be ice shanties, tents, heavy plastic, or simply two large boards hinged together. Windbreaks will increase your endurance time in the cold, harsh environment quite dramatically. To make your trip an even pleasanter one, take along a catalytic heater or similar warming device.

Ice Safety. Be sure to check the thickness of the ice by using a spud bar (a long, iron bar with a sharp bladed end) by or cutting periodic holes on your way out. One to two inches of ice is just not safe. Three inches will support one person. Four inches is good for two people. Five inches will support a small group of individuals. Six or seven inches will support a snowmobile. Eight inches or more will support stripped ice vehicles and ten inches or more will support automobiles. Remember that these rules of thumb are for well-formed, blue-colored ice. Ice formed during snow, rain or sleet will have air bubbles trapped within and will weaken as a result. Ice that thaws and refreezes a few times will also support less. Carry a 50-foot length of strong rope with you, as well as hand spikes (large nails or screwdrivers tied to each end of a string and hung around your neck and can be used to grip the ice so that you can pull yourself up should you fall in). These items may help save your life or the life of a fellow angler. If you plan to drive your vehicle on the ice, leave windows down, doorsajarand seat belts off and be prepared for a rapid exit. Follow other vehicle trails, and above all, don't take chances.

Ask questions of local anglers, bait shops, and ice guides to insure your safety.

For anglers venturing far offshore, a compass is a necessary item. Sudden snowstorms or high winds can restrict vision to almost nothing. Know your compass reading back to the shoreline in case you need it to return.

If you are new to an area, or are unsure ofice conditions, wear a life jacket while going to and from shore. Cold water can quickly render an individual unconscious (hypothermia), and a life jacket may help in keeping you afloat until help arrives.

Gear. Besides warm clothing, catalytic heaters, ice shanties and a sled, ice fishing requires other special equipment. A spud bar or ice auger will be needed to make a hole, and a ladder to keep the hole free of ice. A plastic bucket (5 gal.) with a lid can serve as both a tackle box and a seat.

Ice rods are the angler's choice, and are usually short and flexible. Reels are an added luxury, and are handy for large fish. Handlines are popular for perch anglers. Many anglers will use fly fishing lines with a 5-6 foot leader of monofilament attached since fly line is easier to handle in cold weather. Monofilament is essential, however, for the terminal end. The lighter the weight of the line, the better due to water velocity under the ice. For six to pound test is preferred, with eight being the maximum needed.

Tip-ups are a type of non-attended gear. Basic tip-ups consist of a crossbar (similar to a tire wrench) that fits across the hole with the upright bar having a spring-loaded flag and a reel to hold the line. A tug on the reel trips the release mechanism, and the flag springs up. Ice fishermen in shanties watch for flags to pop, and will run to the hole when a bite is signalled.

Bait on Lake Erie usually consists of live shiners when used for catching perch; larger shiners or chubs are used for northern pike; panfish are pursued with insect larvae (grubs, moussties) or small artificial ice flies and wall-eyed are taken with artificial jigging lures.

Ice fishing gear is generally specific and depends upon angler preferences. Consult your bait and tackle shop for the gear which will fit your specific needs.

Regulations. A standard Ohio fishing license is required for ice fishing. The Ohio Department of Natural Resources fishing regulations state that holes cannot be larger than twelve inches in diameter. The owner's name and address must be placed on shelters and tip-ups. The most common ice fishing violation is the failure to place the owners name on the shanty. Limits for walleye are 6 per day and 50 per day for yellow perch. Consult your local game warden for further information on Ohio fishing laws.

Walleye. By far, walleye is the choice catch for the Lake Erie ice fisherman. However, walleye are not caught nearly as easily as perch or panfish. Gear for walleye differs slightly from that used for other species. Many good walleye ice anglers will use short rods with open-faced spinning or bait casting reels. Many rods are graphite in order to detect the delicate bite of the sluggish winter walleye. Line is generally 4 to 8 pound test at most since water under the ice becomes very clear and heavy line will spook the fish; the lighter the line, the better. Although occasional walleye are caught by using minnows, artificial lures are the most popular and are jigged up and down. These lures include both spoons and minnow imitations and are jigged in a manner to attract but not scare the fish. Short handled gaff hooks are generally used to pull walleye through the hole (walleye in the 8-10 pound class are not uncommon and light line anglers may lose them at the hole without the aid of a gaff). Check with local bait stores or ice guides to determine the best jigging lures.

When jigging for walleye, only minimal action need be used to make the lure attractive. The rod tip need only to move 1-2 inches at the most to provide adequate lure action. Remember that during the winter, fish move more slowly so fast jigged lures do not appear natural and tend to spook fish. Practice jigging by filling your bathtub, sink, or other large vessel with water and remember that different lures have different actions which warrant different jigging techniques.

Walleye ice fishing generally isn't good until February with late February and early March being prime. The best areas include the Bass Islands and near-shore reef areas between Toledo and Port Clinton. In the islands, the Green and Rattlesnake Islands and the state park bay are generally good. Many ice anglers have good luck near-shore late in the season. Again, check with the local people, bait shops and ice guides for the best action and safest areas.
Techniques for Perch and Smelt. Yellow perch are the mainstay of the Lake Erie ice fishery. After moving inshore on their fall feeding sprees, perch remain in nearshore waters throughout the winter providing ample opportunities for most fishermen.

Although perch forage on a wide range of foods, minnows are the undisputed choice of bait. Most ice anglers use spreaders with shelled hooks which put two minnows in the fishing zone at the same time, and bobbers to maintain proper depth. The use of two ice rods allows another doubling of fishing effort and only becomes cumbersome when the action becomes frantic. Minnows can be hooked through the tail, back or lips, but don’t puncture the organs or spine; dead minnows provide less attraction.

Since perch are bottom-oriented, the standard technique to establish fishing depth is to lower the rig until it touches bottom and then raise it about a foot. Perch run in schools, so a long spell without a strike can suddenly turn into furious action and vice versa. A little jigging action can also improve your success. A good trick to improve your score is to increase the number of “double-headers” you pull up. When a school is under your hole, set the hook gently when you get a strike; but allow the hooked fish to swim around on a snug line for a few seconds. This often induces another perch to strike the second minnow on your spreader.

Yellow perch can be found almost anywhere along the Ohio shoreline. Favorite areas often reflect good access points and include Maumee Bay, the island area, the Catawba-Marblehead area, and most harbors in the Central Basin.

Smelt are a frequent bonus to Lake Erie ice anglers and are usually an incidental catch for perch fishermen. Smelt seem to be attracted to bays and harbors and are often found in these areas as well as the Catawba-Marblehead area. Smelt are also frequently taken through the ice on the east side of Lorain Harbor in the Central Basin. The same tackle, bait and techniques you use for yellow perch will take smelt. There is no bag limit on this species.

B bagging Crappie and Sunfish. Lake Erie can be an ice fishing hotspot for crappie and sunfish if you try the right places. Besides inhabiting shallow water, these species are structure-oriented, showing a strong preference for vertical structures. The best known spots are among the pilings supporting docks in marinas. Submerged brush in Sandusky Bay and other areas can also pay off. Minnows are the universally popular live bait for crappie and can be fished on a short ice rod, as is done for perch. Many anglers prefer delicate terminal tackle for crappie and use a small hook and split shot rather than a spreader. Crappie may suspend at almost any depth; if you are not getting strikes near the bottom, try fishing at progressively shallower depths. Although a small bobber can be used to signal the typically light strikes, many fishermen forgo bobbers and feel for strikes on a tight line.

Lots of crappie are also taken through the ice each year on artificial lures, primarily on tiny jigs. You can add extra enticement to jigs or flies by adding a wax worm, mouse or mealworm to the hook. A successful fishing technique with artificial is to begin jigging very gently near the bottom and to gradually raise the lure to progressively shallower depths.

Most of the sunfish you will encounter in Lake Erie will be pumpkinseed, which inhabit open water and rocky areas, and bluegill, which prefer weedy areas. The usual choice of baits for sunfish are the same small flies and jigs that are used for crappie, tipped with wax worms, mouses or mealworms. Since much of your panfishing may be done around marinas, the simply courtesy of asking permission from the owner will usually assure you lots of future fishing fun.

Northern Pike. A handful of Lake Erie ice anglers pursue an exciting form of big game fishing — northern pike on tip-ups. Pike have become relatively scarce in Lake Erie but can still be found in Sandusky Bay, East Harbor, and other weedy areas. The choice baits for pike are minnows, chubs and suckers that are four inches or more in length. Since regulations allow the use of six tip-ups, you can fish several spots simultaneously. Strikes may not come often, but the fish you hook can be downright thrilling. A small gaff is used by many anglers to pull the toothy pike onto the ice.

We hope the above discussion will make your ice fishing efforts safer, more fun and more profitable. Good luck and good fishing.

- Dave Kelch / Frank Lichtkoppler / Fred Snyder

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