Fall is Lake Erie’s Trophy Season

Early autumn, from mid-September through mid-November, is a period that’s usually neglected by Lake Erie anglers. After a long summer of fishing, many folks retire their rods and reels in favor of football games or to pursue the noble sport of hunting.

Unfortunately, these people are missing out on some of the highest quality fishing Lake Erie has to offer. In fact, the fall season presents the best opportunities to catch the largest fish you may see during the entire year.

As chilly fall nights lower the water temperature, many large fish move into nearshore areas or onto shallow reefs to feed. Food organisms are more abundant in these shallow areas and game fish feed heavily upon them to build up their stores of fats and protein—much of which will be converted to eggs and milt by spring. This results in many trophy-sized fish concentrated into accessible areas.

Finding Trophy Walleye. Many trophy walleye can be found on the same reefs that offered good fishing during the summer. During early autumn the heaviest feeding will occur during morning and evening hours. Mid-day fishing improves as the water temperature begins to drop rapidly later in the fall. Walleye will feed actively in the shallow region on top of each reef and these areas are frequently called “rockpiles.” The biggest mistake most anglers make is in going over the tops of these reefs with their motors running, scaring off the fish. Try cutting off your engine upwind of the reef and drift in quietly.

Trophy walleyes are a variety of lures and baits but deep-diving crank baits are favored by many experienced fishermen. These can be trolled but casting is often the preferred method of presentation. Fall walleyes can also be taken on weight-favored spinners tipped with worms and jigs tipped with minnows.

A few favorite locations are Round, Tousaint, Crib, Niagara and West Reefs and Kelley’s Island and Gull Island Shoals. Other shallow reefs are scattered around the lake and are worthy of your efforts.

Lunker Smallmouth. Fall smallmouth fishing generates photographs that are hard to believe—stringers full of arm-breakers. Some of the top fishing is found in the Canadian waters of Lake Erie, but the Ohio side still offers plenty of opportunities.

Many trophy fall smallmouth are taken on diving crank baits which are casted or trolled and some are taken on jigs tipped with minnows. One of the most successful methods is to fish a live spot-tailed shiner on a single hook with a split shot along the ledges and drop-offs.

Some successful trophy smallmouth locations in Ohio waters include West Reef, Kelley’s Island and Gull Island Shoals, and the submerged ledges surrounding much of the Bass Islands and Kelley’s Island.

Salmon and Trout. Many opportunities for landing big, prime lake-run salmon go untapped by Lake Erie’s anglers. As nearshore water temperatures fall below about 68°F, salmon move close to shore in preparation for their annual spawning migrations up tributary streams. These nearshore movements begin in late September and usually last through mid-November. During this period most salmon will be in the area of a river mouth. The salmon usually enter the streams when autumn rains cause stream levels to rise.

Most salmon are caught on deep-diving crank baits which are trolled or casted from breakwalls. Bright, fluorescent colors seem to work best. Salmon can also be taken on spoons and live bait.

Most of the fall salmon casting and trolling is currently done off the mouth of the Chagrin River and to a lesser degree off the Rocky and Grand Rivers. The Huron River appears to be a “sleeper”; it is stocked with more salmon than the Chagrin but receives virtually no trolling pressure off its mouth during the fall.

These salmon can also be taken by trolling and casting in the rivers themselves during October and part of November although the condition of the fish deteriorates due to the cessation of feeding. Steelhead and occasional brown trout are also taken sometimes as they follow the salmon up tributaries.

Jumbo Perch. Perch may not fit your idea of trophy fishing but a little planning can significantly increase the average size in your catch of these popular fish. The growth rate of perch in the Central Basin has been shown to be significantly greater than in the Western Basin. For four-year-old perch, this length difference between basins can amount to a full inch. The difference in growth rates is probably due to lower harvest rates in that area. Therefore, a few perch trips to the Central Basin can give you a change at some very nice “jumbos.”

Perch are distributed widely along the shoreline during the fall and favorite spots are often a matter of finding access points to the lake. Watch for concentrations of boats within a mile of shore and you’ll likely find perch. Anglers fishing off Lorain Harbor during the fall of 1982 were frequently excited about catching dozens of perch over 6 inches in length.

If you’re game for trophy fishing, give Lake Erie a try in the fall. If you don’t have a boat that will get you out there or if you aren’t sure of the right spots, get a group together on a charter boat. Our Ohio charter fleet has many fine captains with the expertise to find the fish. Bookings are often light during the autumn so you will probably have little trouble getting a date that fits your schedule.

—Fred Snyder
Lake Erie is Good for Ohio's Economy

A recently completed Ohio Sea Grant research project shows that Lake Erie contributes nearly $700 million annually to the economy of northern Ohio. Dr. Leroy Hushak, professor of resource economics at OSU and his student, Kofi Apraku, have completed a three-year study of the impact of 43 industries on the economy of 17 northern Ohio counties including Ashland, Cuyahoga, Erie, Geauga, Huron, Lake, Lorain, Lucas, Mahoning, Medina, Ottawa, Sandusky, Seneca, Summit, Trumbull, Portage and Wood. Their investigations revealed that marine industries, which are directly related to Lake Erie, generated the economic impacts listed in the table.

The economic output of the 17-county area in northern Ohio amounted to $150 billion in 1978 (the latest year for which detailed economic data are available). While the total economic impact of Lake Erie industries is less than one percent of the total output, Dr. Hushak said that “Lake Erie is important to this region because it contains a vital link to international water transportation, and it forms the basis for a large recreation industry which has grown rapidly in the years since 1978 with the return of the walleye.”

To analyze the economic impact of Lake Erie to Ohio’s economy, Drs. Hushak and Apraku developed a numerical input-output model which predicts the total value of goods and services generated by a particular industry if the input to that industry is known. Input data for several of the industries, including charter fishing, marinas and boat dealers, were obtained by primary surveys conducted by the researchers. Other data were obtained from trade associations and government published sources. For the purposes of this study, sport fishing was not considered an industry. Dr. Hushak said, “Sport fishing generates its economic impact through the purchase of goods and services from Lake Erie industries and other sectors in the regional economy.”

Another important part of the study was an examination of the relative economic impacts of commercial and sport fishing on Lake Erie. The results show that each fish caught by a sport angler generates a greater economic impact than a comparable fish caught by the commercial industry. Dr. Hushak stated, “This result supports reallocations of fish from commercial to sport fishing in the past eight to ten years by the Division of Wildlife. However, it is not clear that further reallocations of high dollar value fish is a wise economic decision because 70% of sport angling expenditures are for walleye and walleye have already been taken from the commercial fishery and allocated to the sport fishery. The remaining high dollar value species which could be reallocated are yellow perch, white bass and channel catfish and it is not clear that increased sport expenditures would offset losses from a reduced commercial fishery. Previous research has shown that the greatest economic benefit will come from a blend of sport and commercial fishing.” (A paper on this study has been released and is available by contacting the Ohio Sea Grant office, 484 West 12th Avenue, Columbus, Ohio 43210.)

—Betty Janeves

Editor’s Note: Most people agree that there will always be room for a commercial fishery which harvests non-sport species.

<table>
<thead>
<tr>
<th>Value of Goods and Services</th>
<th>Income Generated</th>
<th>Employment in Man-Years</th>
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<tr>
<td>Commercial Fishing</td>
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<td>Charter Fishing</td>
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<td>Marinas and Boat Dealers</td>
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<td>Other Lake Erie Recreation</td>
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<tr>
<td>TOTAL</td>
<td>$676,000,000</td>
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New Product May End Rotten Wood Woes

A new synthetic wood product, now being marketed in northwest Ohio, may solve many wood-related problems experienced by marina operators, boat owners and others.

Centritte, the material's trade name, is a plastic composite which is molded into planks or sheets. The manufacturer claims that it is unaffected by moisture and will not rot, swell or warp. Centritte is as workable as wood can be glazed, nailed, sawed, drilled, mitered and routed. Although the material can be burned under intense flame, it will not support flame by itself. It is also impervious to most solvents. Priced only slightly higher than many wood products, Centritte may herald an end to the frequent replacement of wood in docks, floors, boats, truck beds and many other areas. Watch for this product at your local hardware or marine supplies store.

—Fred Snyder

Ohio Sea Grant Assists U.S. Coast Guard and NOAA

Shipment of petroleum products on the Great Lakes, oil refineries in Ohio and Ontario, and many industrial uses of oil in the coastal zone all pose threats of oil spills in Lake Erie. The Hazardous Material Response Branch of the National Ocean and Atmospheric Administration (NOAA) is charged with the responsibility of providing technical assistance to the U.S. Coast Guard in dealing with spills of hazardous materials in navigable waters. Ohio Sea Grant is assisting these agencies in Lake Erie and its connecting waterways including Lake St. Clair, St. Clair River, Detroit River and Niagara River.

Sea Grant researchers, Dr. Charles E. Herdendorf and Laura A. Fay, have developed a 10-category, Environment Sensitivity Index (ESI) which permits the classification of coastal areas on the basis of susceptibility to oil damage or difficulty to be cleaned. During August 1983, they conducted over 2,500 miles of overflights from Lake Huron to Lake Ontario to map Lake Erie's coastal areas, tributaries and connecting waterways. According to their classification system, exposed bedrock cliffs (Type 1) are the least sensitive. Assisting with the overflights were Lt. John Lazzeri, USCG-Buffalo; Lt. David Sump, USCG-Cleveland; Lt. Kevin Fitzpatrick, USCG-Toledo; and Lt. Jay Rodstein, NOAA-Ann Arbor.

Color Coded maps are being prepared by Ohio Sea Grant and NOAA for the Lake Erie coast on a scale of 1:24,000 (1 inch equals 2,000 ft.). In addition to the shoreline classifications, these maps will contain sensitivity codes for fish spawning areas, bird nesting sites, marinas, parks, water intakes, and discharges, and other areas of environmental concern. Locations for the deployment of protective booms, oil skimmers, and other cleanup devices will also be illustrated. These maps are scheduled for completion by spring, 1984, and will become an important part of the U.S. Coast Guard's spill response plan.
Black Duck Population Low: Hunter Cooperation Urged

According to the U.S. Fish and Wildlife Service, the population of black ducks, *Anas rubripes*, in the Mississippi and Atlantic Flyways is at an all-time low. Praised by waterfowlers for years as the most cautious and difficult to decoy of the waterfowl, black duck numbers have been declining steadily for the past 30 years. Wildlife biologists have not yet determined the exact cause for this long-term decline but feel that loss of habitat, competition, inter-breeding with the mallard, *Anas platyrhynchos*, and over-harvest are all contributing factors. Presently, the only immediate action that can be taken to halt this rapid decline is a reduction in hunter harvest.

Black duck limits in all states within the Atlantic and Mississippi will be reduced for the 1983 season to one black duck per hunter per day. This will not affect Ohio waterfowlers since previous regulations provided for only one black duck per day to be harvested. However, Ohio waterfowlers, as well as waterfowlers in other states may be able to help the black duck’s rehabilitation even more by totally avoiding the harvest of the species. Although it is not mandatory, federal regulatory agencies have suggested that if hunters cooperate by not harvesting black ducks, it will help speed up the recovery. Most waterfowl hunters are serious enough about their sport to cooperate fully so as to insure the existence of the species for future generations.

**Black Ducks—How to Tell the Difference.**

One common problem, shared by many waterfowl hunters, is identification of the species in flight. Identification is easy once the bird is in hand, but is of little value when the duck is not in view. A number of places over the years have been reported as mistaken for a black mallard. Here are a few identification features that will help you separate black ducks from other species.

Black ducks are puddle or dabbling ducks, as are mallards, gadwalls, shovellers, teal, pintails, wigeons and wood ducks. Diver ducks include such species as mergansers, scap, canvasback, goldeneye and bufflehead. In flight, puddle ducks have a slower and more deliberate wingbeat while the wingbeat of a diver duck is rapid and allows for rapid change in direction. On the water, puddle ducks will rest with tail feathers distinctly up and off the water and upon take off, will rise straight up. Diver ducks will rest with tail feathers flat against the water and will take off by "running" across the water. Puddle ducks are generally found in shallower bodies of water and feed by dunking the head underwater (called "tipping"). Divers are generally found in deeper waters and feed by diving under the water. Any duck feeding in crop fields is likely to be a puddle duck as leg position on the body allows for sure-footedness on the ground. Diver duck legs are positioned farther back on the body and makes walking on land virtually impossible. Now that we have separated puddle ducks from diver ducks, let’s distinguish the black duck from other puddle ducks.

The black duck will be most easily confused with the hen mallard (other species have traits which easily separate them from black ducks). The black duck closely resembles the mallard in size, body conformation and flight characteristics. However, the plumage is much darker than the hen mallard. If visibility is good, the contrast between the lighter brown head and the brown-black body of the black duck is noticeable. In the paler-hued hen mallard, there is little contrast between head and body. The wing speculum (color patch on the wing) of both species is blue-purple in color. However, the speculum of the mallard is lined top and bottom in white while no white lining exists on the black duck. These differences may be difficult to identify yet there is one striking feature of the black duck. In flight, the white underwing of the black duck contrasts sharply to the dark brown-black body and creates a flashing effect of the wings. The belly or breast of the hen mallard is light in color and does not create the sharp flashing or contrasting of the white underwing against the body. Also noticeable are the tail feathers when the ducks are flying away from you: the hen mallard’s are light, and the black duck’s tail feathers are dark.

Confusion with other species is less likely to occur: pintails have long tail feathers resulting in a long body shape; gadwalls have a white wing speculum and very light breasts; wigeons have white bellies and white over green speculums; shovellers have large, flat shovel-shaped bills; teal are the smallest of puddle ducks and cannot be confused with the large black duck; and the wood duck has white-light bellies and fly with a noticeable "croak" in their necks.

Hybrid crosses between the black and mallard will be difficult to distinguish in flight. Some black ducks may exhibit traces of green on the head and white bordering of the speculum with the body color remaining that of the pure black duck. Some mallard drakes may possess green heads, but will have dark bodies minus the white neck ring characteristic of the drake mallard. U.S. Fish and Wildlife Service research has indicated that one out of every 33 "black ducks" in the Atlantic Flyway show characteristics of both the mallard and the black duck while one out of every 22 in the Mississippi Flyway exhibit hybrid traits.

For more information, Waterfowl hunters throughout Ohio, and especially those hunting Lake Erie marshes, bays, tributaries and harbor areas, should be aware of the potential future loss of the black duck and should make every conservation effort possible to assist with population recovery of the species. This can be accomplished by good identification skills and refraining from harvest of the species. Support of the state and federal waterfowl programs, as well as nationally acclaimed waterfowl conservation organizations such as Ducks Unlimited and Duck Hunters Association of America, is also beneficial and encouraged. Talk with state, federal or waterfowl conservation organizations and find out how you can help.

Some excellent publications exist which will aid you with waterfowl identification techniques:

**Ducks, Geese, and Swans of North America**, by Frank C. Bellrose, from the original classic version by F.H. Kortright (Stackpole Books), is a 500+ page book that belongs on every waterfowl enthusiast’s shelf. This text is used in many college classrooms and provides detailed life history as well as identification characteristics for North American waterfowl. Can be found at most bookstores with the price at approximately $20-$25.

**Ducks at a Distance**, by Bob Hines of the U.S. Department of Interior, is an excellent 15-page bulletin developed...
specifically for waterfowl identification. It is available for $1.00 from Outdoor Empire Publishing, Inc., P.O. Box C-19000, Seattle, Washington 98109, (206) 624-3845, with quantity prices available. A pocket size version of this book is available from the U.S. Fish and Wildlife Service, Washington, D.C. 20240 for a nominal fee and fits nicely into the pocket of your hunting coat.

Another source for waterfowl identification information can be found in the Ohio Department of Natural Resources, Division of Wildlife's Ohio Hunter Safety Education Student Handbook, and is available to those individuals taking hunter safety courses at no charge. This is an excellent course on hunting safety, and is required of all first-time hunters before they purchase a license. Everybody can learn something from this course, even the "old-timers", and I strongly recommend and urge all hunters to participate.

—Dave Kelch

**Walleye: 1983, 1984 and 1985**

I would like to thank everyone who filled out and returned the questionnaire from the last issue of Twine Line and address a commonly asked question from those responding—"why did we catch so many 'spikes' (very small walleye) this past summer?" The answer to this question is quite simple, but a little back-ground in fisheries biology and walleye biology will provide a more complete understanding and allow us to predict the most abundant size classes in the harvests of 1984 and 1985.

Walleye spawning has been shown to occur when the temperature is between 40°F and 52°F. In Lake Erie, this normally occurs during April and early May. Each female walleye will lay between 48,000 and 614,000 eggs with an average probably around a quarter million. In the Western Basin of Lake Erie, most of the spawning occurs on the reeds, but sizable populations do enter the Maumee and Sandusky Rivers to spawn.

After hatching, walleye go through several larval stages prior to becoming juveniles or fingerlings. Passage through the larval stages takes approximately 14-21 days.

From the time the eggs hatch until the baby fish are one year old, they are considered young-of-the-year (YOY) and called the "0+-" age class. A fish spawned in April 1983 will be the "1983 year class" in its all life, but it will be in the 1+ age class from April 1984 to April 1985, the 2+ age class from April 1985 to April 1986, and so on. Obviously, the number of fish in each year class goes down as the fish gets older due to natural mortality and fishing mortality.

**Estimating Year Class Strength.** Each year the Sandusky Fisheries Research Unit of the Ohio Division of Wildlife conducts a trawling survey in the early fall or late summer to es-timate the number of YOY of each species. By trawling year after year—many times at the same locations, with the same gear (nets), and at the same time of year—they are able to determine trends in walleye YOY abundance. This is normally done by averaging all the trawl data and developing a number, the average number of YOY walleye caught per hour of trawling. This value can then be compared to similar values from previous years to determine relative year class strength.

The figure below shows the YOY walleye values from 1972 to 1982. The value from 1982 (over 260 per trawling hour) was surpassed only by the 1977 year class (approximately 270 per trawling hour) which was the highest ever recorded.

**Why So Many Small Walleye?** The above figure answers this question. The 1982 year class by all accounts was huge. By the summer of 1983, these fish were over a year old and in the 1+-age class. These fish were 8-10 inches long, the most numerous age class in the lake, and consequently the group which fishermen caught most frequently.

**Predictions for 1984 and 1985.** The sum-mer of 1984 should produce catches of much larger fish. There are 3 reasons for this: the large 1982 year class will average 14-16 inches in length; there will still be an abundance of older fish; and I predict the 1983 year class will be very small. Consequently, this will produce fewer 8-12 inch fish to be caught. I could be wrong, but I predict the 1983 year class will be in the range of the 1978 year class.

Basically 2 factors affect year class strength: the number of fish spawning and weather conditions during the spawning period. Weather during spawning is by far the most important parameter. In 1983, we had a large spawning population but terrible weather for walleye spawning success.

Past experience has shown us that years with rapid warming during the spring, few tem-perature reversals and few storms (storms blow eggs off the reeds) produce the best walleye year classes. The spring of 1983 was cold with many storms and many temperature reversals. Consequently, although ODNR has not completed their trawling indices, it is probable that the 1983 year class will be low.

Predictions for the summer of 1985 are more difficult because I don't know what the 1984 year class will be. However, with the infor-mation that has been presented in this article, you should be able to predict large catches of 8-12 inch fish in 1985 if the 1984 year class is large. If it is small, the 1985 catch will probably be dominated by the 1982 year class which by then will be the 3+-age class and 17-20 inches long.

Again, I wish to thank everyone who responded to the questionnaire and tell the rest of you that it's not too late to send in your questionnaires. Also, don't hesitate to send us your questions about Lake Erie. When we get enough similar questions, as in the case of the small walleye, we will discuss it in Twine Line.

—Jeffrey M. Reutter

**Water Quality: Everyone’s Concern**

How important is Lake Erie’s water quality? 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. The western end of Lake Erie produces more walleye per acre than any other lake in the world and has been given the title, "Walleye Capital of the World." Each year sportmen spend over 13 million man-hours fishing Lake Erie and catch over 25 million fish. There are over 200 marinas along Ohio’s 282 miles of shoreline, and over 75,000 of Ohio’s 315,000 registered boats use Lake Erie as their primary boating area. Each year millions of people use the swimming beaches along Lake Erie, and the shoreline from Toledo to Conneaut is rapidly becoming a popular tourist area. What would happen if Lake Erie’s water quality were to decrease dramatically?

The federal Clean Water Act of 1972 set 1983 as the target date for achieving "fishable-swimmable" water quality throughout the United States. Unfortunately, there are 37 states that have not yet achieved that goal. Problems include 14,000 communities whose sewage treatment systems do not meet Environmental Protection Agency (EPA) standards—east coast cities continue to dump sewage sludge into the ocean, serious pollution problems remain in upper Chesapeake Bay, and 51 areas in the Great Lakes basin do not meet water quality standards. Ohioans were affected when a public health notice was issued for the Ash-tabula River advising fishermen not to eat fish caught in the river. A study conducted on the Black River in Lorain County found a high percentage of catfish with cancer and cancerous tumors that were believed to be a result of the high pollution rates in the river.

The Ohio State University’s Center for Lake Erie Area Research (CLEAR), of which the Ohio Sea Grant Program is a part, has done water quality research on Lake Erie for ten years. The research vessel, HYDRA, a 68 ft. long floating laboratory, was assigned to CLEAR by the EPA along with grants in order to monitor Lake Erie’s water quality and develop strategies for Lake Erie’s cleanup. Due to extensive budget cuts, the EPA has been forced to cut back on many programs. Unfortunately, water quality was one of the areas which received reduced funding. As a result, the HYDRA has been put on the salvage block by the EPA, and Lake Erie water quality research has gone "down the drain."

How important is Lake Erie’s water quality?

—Dave Kelch

**Attention:** It’s not too late to send in the evaluation form that appeared in the August issue of Twine Line. We need to hear from you, so please fill out your questionnaire today.
Ohio Sea Grant’s three advisory committees sponsored and organized the second "Congressional Day on Lake Erie" on June 17 and 18, 1983. Jack Waldock, President of Waldock Investment Company in Sandusky and chairman of the event, said, "Congressional Day is designed to allow our federal senators and representatives and their aides to experience first-hand the beauty and majesty of Ohio's most valuable natural resource: Lake Erie. This year we were very fortunate to have four members of the Ohio State Legislature participate as observers to help us plan a similar event for our state delegation."

Eight of our congressional offices were represented. Congressman Tony P. Hall (D-3) was represented by Rick Carnes; Congressman Michael G. Oxley (R-40) was represented by Dick Ditto; Congressman Delbert L. Latta (R-5) was represented by Laura Taylor; Congressman Michael Dewine (R-7) was represented by Jim Johnson; Congressman Thomas N. Kindness (R-8) was represented by Russ Wozniak; Congressman Louis Stokes (D-21) was represented by Jay Marshall; and Senator Howard Metzenbaum (D) was represented by Ladd Anthony. Attending from the State Legislature was John V. Bara (D), Elyria; A. Ross Boggs (D), Andover; Frederick H. Deering (D), Monee; and Marie Tansey (R), Vermilion.

The program began at noon with introductions, a briefing, and lunch at the Port Clinton Yacht Club for 70 people. The group then departed from Clinton Reef Marina for an afternoon of walleye fishing aboard ten donated charter and private fishing boats. The weather was perfect and the group was able to land 148 pounds of walleye in less than four hours. With one congressional member on each boat, the largest fish award went to Jim Johnson while Chip Jones was the runner-up.

After fishing, the entire group attended a reception, dinner and series of lectures on the values of Lake Erie at The Ohio State University's Franz Theodore Stone Laboratory on Gibraltar Island at Put-in-Bay. The talks were highlighted by a discussion on the improvement of Lake Erie's water quality by the Director of the laboratory, Dr. Charles E. Herdendorf. When asked about current research and water quality, the group was shocked to hear that the U.S. Environmental Protection Agency had stopped funding the University's research program and was attempting to surplus the Research Vessel HYDRA and remove it from Lake Erie. This vessel has been operated by the Center for Lake Erie Area Research since 1973 and has been working with phosphorus and other nutrients and the dissolved oxygen problem in the central basin. The loss of this valuable research boat would be a terrible blow to Lake Erie and several groups are starting campaigns to save the boat that saved Lake Erie.

Following a peaceful night in the laboratory's quaint cottages, the group toured the R/V HYDRA and the Put-in-Bay State Fish Hatchery and learned of the salmon stocking programs in north central and northeastern Ohio. However, the highlight of the morning's program was undoubtedly the helicopter flight over the western basin. The flight was designed to emphasize the economic impact of Lake Erie on the region and the state. It certainly did that as we were able to observe the western basin's extensive marina development, the thousands of cars and people at Cedar Point and so many boaters on the lake that it was questionable whether we would have hit water had we crashed. The program ended with a lunch at the laboratory and a discussion of current issues on Lake Erie.

Below is a list of those people or groups who made this program possible. Their contributions are greatly appreciated for they are to the benefit of all Lake Erie users.

**Fishing Boat Donors**
- Jack Waldock—2 boats
- Bruce Smith
- John Coffey, Jr.
- Lee Stinson
- William Baumler
- Pat Dolan
- Jim Bergman
- Phil Whitt
- Lenny Parlin

**Boat for Logistical Support**
- John Matta

**Linens and Breakfast**
- Anchors Away Marina
- Port Clinton Yacht Club
- Clinton Reef Marina

**Meeting Space**
- Port Clinton Yacht Club
- Port Clinton Fish Co.
- Lake Erie Charter Boat Association

**Bait**
- Dan Kaio, Night Crawler Boat and Tackle
- Jack Waldock

**Helicopters**
- Ohio National Guard
- Ohio Wine Producers and Milk Marketing, Inc.

**Planning Lunch and Meeting Place at Bond Court Hotel**
- American and Canadian Sport, Outdoor, and Travel Show Exhibitors, Inc.

**Fish Lures**
- Erie Dearie Lure Co. and Lindy-Little Joe, Inc.

—Jeff Reutter
Meteorological Station for South Bass Island

Dr. Charles E. Herdendorf, Director of the Ohio Sea Grant Program at the Ohio State University, announced today that the National Oceanic and Atmospheric Administration (NOAA) has completed the installation of a sophisticated, new Meteorological station at the Franz Theodore Stone Laboratory, OSU's biological field station at Put-in-Bay on Lake Erie. The project is a cooperative effort of Ohio Sea Grant and the NOAA Data Buoy Center at Bay St. Louis, Mississippi. Located at the University-owned Lighthouse on South Bass Island, this station will transmit weather information via satellite to the National Weather Service, improving the information available to Lake Erie recreational boaters and fishermen on NOAA Weather Radio.

The $50,000 meteorological station is NOAA's most advanced design and the South Bass Island installation will be the first one operating in the country. Known as DACT (Data Acquisition Control and Telemetry), it was developed by Magnavox Electronic Systems Company for NOAA. This is a fourth generation system for collecting and transmitting weather data. The data relay for DACT is the GOES satellite, which is positioned over the east coast of the United States. Information transmitted by DACT to the satellite is relayed to the NOAA data acquisition station at Wallops Island, Virginia and is then disseminated to National Weather Service centers.

The South Bass Island installation classed as a headland station or "fixed configuration," is being mounted on the U.S. Coast Guard tower at the Lighthouse, rather than being fitted to a buoy. The headland location will permit year-round service and will not have to be removed in the winter as is the case with buoy stations. The components of the station include: a directional antenna for transmission to the satellite; an anemometer for wind speed and direction; a barometer for atmospheric pressure; an air temperature sensor; and an electronic unit for collecting, processing, storing and transmitting the weather data.

Dr. Herdendorf stated that "this marvelous new station will become an important part of the Lake Erie environmental monitoring program of The Ohio State University. For the past 88 years, the University has maintained a laboratory on Lake Erie for the purpose of collecting all types of biological, geological, water quality and atmospheric data. We are pleased to cooperate with the National Oceanic and Atmospheric Administration in the operation of this "state-of-the-art" meteorological station. Currently, solar radiation, atmospheric isotope radiation and acid deposition (acid rain) are being monitored at F. T. Stone Laboratory and the new weather installation will be a major step toward completing our plan for a comprehensive meteorological monitoring station for South Bass Island."