NEW YORK STATE SEA GRANT INSTITUTE STATE UNIVERSITY OF NEW YORK and CORNELL UNIVERSITY

Vol. 11 No. 4

July-August 1980

#### The Play Piers of **New York City in the** Early 1900s

by Donald F. Squires, Director in Albany

In the crowded urban setting there is little that has as much appeal to the populace as natural open space green vistas stretching horizontally, unbounded by concrete canyons. Providing such open space is difficult: large parks, such as Central Park in New York City, are costly. Usually, though, if a city is bounded by water, there can be glorious alternative opportunities.

In 1897, the first of what Jacob Riis called the "play piers" was opened in New York at the foot of East 3rd Street. Soon, others were opened on the East River at 24th and 112th Streets and on the Hudson River at Barrow Street (part of the Christopher Street ferry slip), 50th, and 129th Streets. Open from 8 am to 10 pm from June through November, they were an instant success, "crowded most of the day with children and later with parents and young couples, cool in the evening fresh air."

The play piers grew out of the needs of the enormously crowded and congested city then receiving thousands and thousands of Irish, Jewish, and Central European imigrants each year. The city bulged at the seams: tenements housed over 1,000 persons per acre. The commissioners of the city, who, in 1811 laid out the grid of streets that now exists north of Greenwich Village in the old colonial pattern of development, felt that parks weren't necessary. They reasoned that since the city was bounded by water and its relationship to the river edges was healthful, parks weren't required. Only Battery Park which had been laid out in colonial times existed below

8th Street. Sacrificing valuable land to parks was almost a heresy. It was then considered possible to utilize the waterfront, without injury to commerce, to "secure enjoyment from the pure, bracing air circulating up and down both rivers."

In 1892 the New York State Legislature endorsed the recreation piers.

The premise was that the up- Recreation Building per level of the piers, the area above commercial activity could be utilized as roof-gardens. The 3rd Street pier was 60 feet wide, over 350 feet long. It had settees accommodating over 500 people. The costs of these areas were low since they were partially subsidized by commercial activities on the lower deck; the piers cost a quarter or less of comparable-sized parks. Soon, the Board of Docks was furnishing music evenings (at a cost in 1897 of \$462 each) and the city was providing 16 attendants (cost-

ing \$935 per month) at each pier. Attendance ranged between 500 and 2,000 per afternoon, with evening performances drawing 4,000 and 7,000 at the 3rd Street pier alone.

Progress interceded, however, and soon the play piers were gone. Construction of the girdling East River Drive and West Side Highway cut

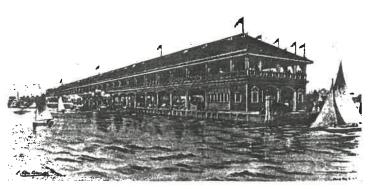
Letter to Subscribers about

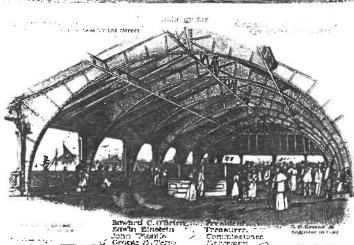
#### Coastlines Survey

Turn to page 6

~1897~

Department of Bor!





Reprinted from "Municipal Affairs," Vol. 1, 1897

the city dweller off from the river. Unbridled industrial development cast a pall on many of the areas surrounding the play piers. Water quality began to deteriorate, making the once pleasing vistas areas of disagreeable sights and smells.

For about 30 years New Yorkers enjoyed their play piers. Since they

continued on page 6

### New York's Dynamic Commercial Fishery

by Bruce T. Wilkins, Program Leader in Ithaca

In the past four years, landings of some fish in New York have increased 50-fold while others have declined to less than half their former level.

Tilefish landings have shown the greatest growth percentage-wise with 2.7 million pounds landed in 1979. Only 50,000 pounds of those fish were landed in 1976. It is believed this reflects not only an increase in tilefish due to changes in the ecosystem, but greater effort being exerted on that fishery. Despite the growth, tile fish contributed less than two of the \$38.7 million in fish landed by New York's commercial fleet in 1979. "Current Fisheries Statistics," available from National Marine Fisheries Service, Washington, D.C. 20235, provide information on landings in New York. Those for 1979 and 1978 are in #7972 of that series.

Hard clams continue to be the most valuable fish in New York. Landings were worth \$17.6 million in 1979, but represented only 5.7 million pounds of meat, continuing a steady and ominous decline for New York's most significant fishery.

More favorable is the indicated impressive effectiveness of New York's fishermen and processors in harvesting and using large amounts of previously little desired fish. Red hake landings doubled last year from 1978 to over one million pounds; whiting landings increased to 6.2 million pounds an increase of 2 million from their 1977 landings. Even squid shot up in importance with 1.8 million pounds, two times their 1978 weight, landed this past year.

In addition to hard clams, two other big losers from 1978 to 1979 were striped bass which fell to .5 million pounds from 1.1 in 1978 and surf clams which dropped to 1.5 million pounds from 2.4.

Scup, bluefish, weakfish, fluke and flounder continue to be landed in the millions of pounds.

When all is added up, the value of fish landed in New York increased by \$5 million in 1979 with an additional one million pounds of fish being available for consumers in New York and nearby states. "Dynamic" and "tasty" are two accurate descriptors of recent fish landings in New York.

## The Great South Bay Study

by William Wise, Assistant Director for Programs, in Albany

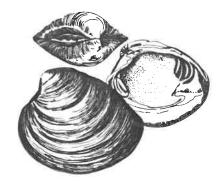
Great South Bay means hard clams to many people. Indeed, the bay supports the largest hard clam fishery in the world, annually producing over half of the total U.S. commercial hard clam catch. Many consider the hard clam resource New York's most important marine resource:

- in 1979 hard clam landings from the bay reached nearly 430,000 bushels;
- dockside value of this haul was almost \$17.6 million — a figure that swells to about \$100 million at the retail level; and
- the fishery provides full- or parttime employment to about 4,500 clammers.

But we know little about why this shallow, bar-built estuary on the south shore of Long Island is so successful at growing clams. Disturbingly, harvest levels have dropped steadily since 1976. Some see this as evidence of a decline in abundance of clams.

State and local officials responsible for managing the bay's clam resources need accurate environmental information on the bay and the hard clam resource it contains. During the winter of 1977-78, the New York Sea Grant Institute developed a transdisciplinary research program on the hard clam resource of Great South Bay. Sea Grant started by setting up a series of workshops attended by state, county and town officials, representatives from private consulting firms and members of the academic community to discuss the current state of knowledge of the hard clam in Great South Bay and what additional information was required for effective management. The program was designed to identify those research and monitoring studies that would have the greatest potential for improving the management of hard clams in the bay, and then performing those studies.

The information generated by the Great South Bay Study on the basic biology and population dynamics of the hard clam and the interaction of the resource with important biologic,



chemical, physical and geological processes of the bay will provide these managers with more information on the health of the clam stocks and the relative merits of various management tactics to maintain or restore the resource.

The study identifies 21 research and monitoring tasks that would provide the information we need to manage the resource. These tasks direct inquiries in the following directions:

- clam distribution, biology and population dynamics;
- circulation within Great South Bay and between the bay and adjacent ocean waters;
  - nutrient cycling in the bay;
- sediment distribution and characterization;
  - pollution impacts; and
  - long-range monitoring needs.

Some of the 21 tasks have been addressed wholly or in part by previous environmental studies of the bay and this information will be extracted from the pertinent reports.

Much of the basic biology of the hard clam has been studied by Robert Malouf of the State University of New York at Stony Brook during his tenure as a Sea Grant Professor in shellfish biology. Formal Sea Grant support for research under the study began in April 1979 and was continued in April of 1980. Most of the tasks should be completed by the end of 1982.

While some of the research concerns basic oceanographic processes of Great South Bay, the goal of the entire effort is to develop information of direct use to clam managers. For this reason, it is important that the management community on Long Island be kept abreast of research progress. To this end, a seminar was scheduled in May for researchers and managers to review the progress of the study and to discuss implications of some of the preliminary findings. This represents yet another step in ( Sea Grant's continuing efforts to develop an effective working relationship between those who generate information and those who use it.



## Summer Barbecues Come Alive . . . with Fiesty Fresh Fish!

Now that summer's here, how 'bout trying sizzling hot fish steaks or tasty fish kabobs for that barbecue?

If you're not quite sure how your friends might greet this change, offer them a choice: fish 'n beef steaks. Or perhaps you'd like to try barbecued kabobs offering a choice of scallops and beef.

Whether you mix or not, here are some Sea Grant-tested recipes for fish barbecues.

Barbecued Fish Steaks à la Oriental

2 lbs. halibut, shark or other fish steaks, fresh or frozen; 1/2 cup orange juice; 1/2 cup soy sauce; 2 tablespoons ketchup; 2 tablespoons melted fat or oil; 2 tablespoons chopped parsley; 1 tablespoon lemon juice; 1 clove garlic, finely chopped; 1/2 teaspoon oregano; 1/2 teaspoon pepper.

Thaw frozen steaks. Cut into serving-size portions and place in a single layer in a shallow baking dish. Combine remaining ingredients. Pour sauce over fish and let stand for 30 minutes, turning once. Remove fish, reserving sauce for basting. Place fish in well-greased, hinged-wire grills.\* Cook about 4 inches from moderately hot coals for 8 minutes. Baste with sauce. Turn and cook 7 to 10 minutes more or until fish flakes when tested with a fork. Serves 6.

#### Shark Teriyaki on Skewers

2 lbs. fresh shark meat, cut in

1-inch chunks; 1 can (16 oz.) pineapple chunks; ½ cup soy sauce; 1/4 cup sherry (optional); 2 tablespoons, brown sugar; 1 teaspoon dry mustard; 1 garlic, clove crushed; 1 green pepper, cut in 1-inch squares; cherry tomatoes, mushrooms, onions (optional); bamboo or metal skewers.

Drain pineapple chunks reserving 1/4 cup juice. Make marinade by c o m b i n i n g

pineapple juice, soy sauce, sherry, brown sugar, ginger, mustard and garlic. Pour marinade over fish chunks. Cover and refrigerate fish for at least 1 hour. Drain fish and reserve marinade. Thread fish chunks, pineapple chunks and green pepper squares alternately on skewers. Include cherry tomatoes, fresh mushrooms and onion wedges, if desired. Cook over hot coals or under broiler about 4 inches from heat source for 5 minutes. Baste with marinade. Turn and cook for 5 minutes more or until fish flakes easily when tested with a fork. Serve as a main dish on a bed of rice or alone as an hors d'oeuvre. Makes 6 entree servings or 18 to 20 hor d'oeuvres.

#### **Barbecued Fish Steaks**

2 lbs. halibut, shark or other fish steaks, fresh or frozen; 1/2 cup chopped onions; 2 tablespoons chopped green pepper; 1 garlic clove, finely chopped; 2 tablespoons melted fat or oil; 1 can (8 oz.) tomato sauce; 2 tablespoons lemon juice; 1 tablespoon Worcestershire sauce; 1 tablespoon sugar; 2 teaspoons salt; 1/4 teaspoon pepper.

Thaw frozen steaks. Cook onion, green pepper and garlic in fat until tender. Add remaining ingredients and simmer for five minutes, stirring occasionally. Cool. Cut steaks into serving-size portions and place in a single layer in a shallow baking dish. Pour sauce over fish and let stand for

30 minutes, turning once. Remove fish, reserving sauce for basting. Place fish in well-greased hingewire grills.\* Cook about 4 inches from moderately hot coals for 8 minutes. Baste with sauce. Turn and cook for 7 to 10 minutes longer or until fish flakes easily when tested with a fork. Serves 6.

**Barbecued Scallop Kabobs** 

1 lb. scallops, fresh or frozen; 1 can (13 1/2 oz.) pineapple chunks, drained; 1 can (4 oz.) button mushrooms, drained; 1 green pepper, cut into 1-inch squares; 1/2 cup melted fat or oil; 1/4 cup lemon juice; 1/4 cup chopped parsley; 1/4 cup soy sauce; 1/2 teaspoon salt; dash pepper; 12 slices bacon.

Thaw frozen scallops. Rinse with cold water to remove any shell particles. Place pineapple, mushrooms, green pepper, and scallops in a bowl. Combine fat, lemon juice, parsley, soy sauce, salt and pepper. Pour sauce over scallop mixture and let stand for 30 minutes, stirring occasionally. Fry bacon until cooked but not crisp. Cut each slice in half. Using long skewers, alternate scallops, pineapple, mushrooms, green pepper and bacon until skewers are filled. Cook about 4 inches from moderately hot coals for 5 minutes. Baste with sauce. Turn and cook for 5 to 7 minutes longer or until bacon is crisp. Serves 6.

Soy Barbecued Shrimp

1 lb. in-shell shrimp; 1 garlic clove, finely chopped; 1/4 teaspoon salt; 1/4 cup soy sauce; 1/4 cup cooking oil; 1/4 cup lemon juice; 1 1/2 teaspoons fresh parsley, finely chopped; 1 teaspoon dehydrated onion flakes; 1/4 teaspoon pepper.

Peel and clean shrimp, leaving on tail section. Combine remaining ingredients. Stir vigorously to mix oil. Pour marinade over shrimp. Allow to stand at least 30 minutes. Place shrimp directly on well-greased grill.\* Cook at moderately low heat over charcoal and pre-soaked hickory chips. Baste with sauce twice during cooking and turn shrimp over as necessary. Cook for 5 minutes, depending on heat of coals. Test for doneness by cutting shrimp in half. Shrimp are done when opaque throughout. Serve remaining sauce as dip. Makes 4 appetizing servings.

\*Greasing the grills is important to keep the cooking fish from sticking. Some cooks suggest using a lecithin spray-on product for best results.

## Great Lakes Fishing

#### Lake Ontario's Cool-water Fishery: Positive Rumblings from the Big Lake?

by Michael P. Voiland Sea Grant Specialist in Brockport

- In the summer of 1978, anglers reported excellent catches of young smallmouth bass along the central Lake Ontario shoreline between Fairhaven and Rochester. The bass, which are of legal harvest size (over 12 inches in length), began attracting even more anglers in 1979 and 1980.
- By 1979, yellow perch and young walleye, onetime favorites of lake anglers, showed up in relatively strong numbers along the lakeshore. Fishermen at locations such as Wilson, Rochester and Sodus Pt. wondered about this reappearance after two decades of experiencing only rare and scattered catches.

With each passing season, occurances such as these suggest that something positive may be happening with Lake Ontario's coolwater fishery resource. While most of the attention in recent years has been given to the restoration of cold-water salmon and trout species in the lake, it does appear that certain fish species which inhabit the less cold, near-shore zones have undergone an increase in number and are beginning to stimulate considerable interest on the part of the sportfisherman.

The reasons behind these encouraging turn-of-events in the coolwater fishery picture are, for the most part, unclear. Tom Eckert, a fisheries biologist at the state D.E.C.'s Cape Vincent Research Station, notes that the "exact causes are extremely hard to pin down because the lake's

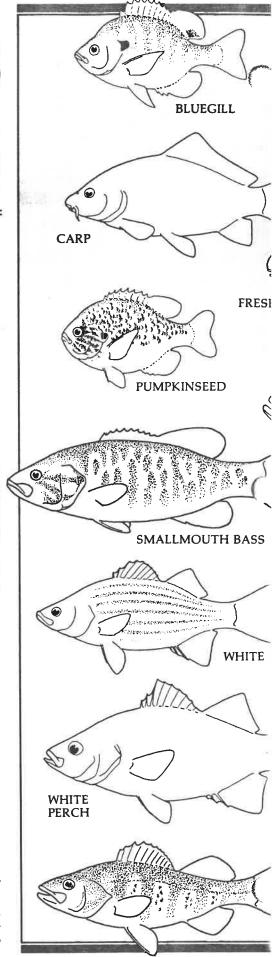
ecosystem is so poorly understood." Eckert notes that year-to-year recruitment (reproduction) fluctuations, biological cycles, species composition shifts or movements and complex predator-prey dynamics make it virtually impossible to single out specific reasons or to predict long-term trends. "But we suspect that the improvements made to lake, bay and stream water quality through the Pure Waters treatment program may be positively affecting the fish resource," hedges Eckert.



Happy angler with a stringer of bass.

For whatever reasons, fishing for bass, perch and walleye has improved markedly in recent years. During a Sea Grant-sponsored fishing demonstration held last summer near Port Bay, reporters from Syracuse and Rochester newspapers caught over 100 smallmouth bass in one morning. Their enthusiastic news stories brought many anglers to the lakeshore to try their skills. Also, at least two commercial charter fishing boat operators have decided to seek out bass during the summer months when trout and salmon are more difficult to locate. And recreational businesspeople in Wayne County have met to discuss ways of publicizing and promoting fishing for species other than trout and salmon.

If you would like more information on Lake Ontario's cool-water fishery, contact Bob Buerger at Oswego or Mike Voiland at Brockport.



# fish not to scale **BLACK CRAPPIE ROCK BASS** WALLEYE ASS WHITE CRAPPIE WHITE SUCKER

Line art by Tom Parker

# Year-round Angling for Underutilized Fish in New York's Great Lakes Waters

by Robert B. Buerger, Sea Grant Specialist in Oswego

New York's Great Lakes waters are known for excellent sportsfishing. Trophy salmon and trout attract thousands of anglers to the region each year. What many fishermen do not know is that New York's Great Lakes, connecting bays and tributaries offer an abundance of other less-pursued fish. These underutilized species provide for plenty of sport and good eating, and are fairly easily caught without any special fishing tackle.

Carp are common in most tributaries and bays of the Great Lakes. They are not flashy surface-fighters, but offer anglers an excellent battle especially when their weight of 10 to 15 pounds is considered. Best carp fishing is in late spring or early fall in warm, still or slow-moving muddy waters in weedy places. Almost any type of natural bait can be used for carp — the key is keeping the bait small, about pea size.

Black and white crappie inhabit the bays along New York's Great Lakes coast. The more common black crappie prefers clear, cool water and a hard bottom covered with vegetation, while the white are found in warm, sluggish waters with a mud bottom. These one- to three-pound fish can be caught year-round, but spring and fall are the most productive season. Natural bait along with small artificial spinners, jigs, and flies can be used for crappie fishing.

During years when white bass are abundant, fishermen can treat themselves to a sporty, easily caught fish. The spring spawning run in streams that connect to the Great Lakes is the most productive time to catch the feisty one-half to two-pound fish. The best baits are live minnows, small to medium plugs, spoons, spinners, and jigs.

Freshwater drum are found in most of New York's Great Lakes waters, although the heaviest concentration is in eastern Lake Erie. The drum or sheepshead, as it is called locally, usually weighs between one and five pounds. Its diet

is almost exclusively freshwater mollusks, crayfish and some smaller fish. Because of its food preference, the drum is usually found around silty, muddy, soft-bottomed reefs and shoals in medium-depth water of connecting bays and slow-moving streams from late spring through early fall. Occasionally, freshwater drum will strike an artificial bait, but are usually caught on natural bait.

Rock Bass are found in habitats ranging from gravel rock bottom in open bays to slow, muddy streams filled with vegetation. The key to successful rock bass fishing is knowing where bass stay, that is, near docks, gravel bars, jetties, and downed submerged trees. Rock bass can be caught year-round and are common in ice catches. Although rockies rarely grow over a pound, they do have large mouths that enable them to feed on many types of food. For the angler, this means just about any natural or artificial bait will work.

Angling for white perch common in both Lakes Ontario and Erie, is best during the spawning run in the spring and fall, although good catches have been recorded in the summer in deep water. Rarely found in weedy areas, white perch prefer sand and gravel bottoms. Schooling is the nature of the fish and when one is caught, an angler can be fairly sure that more perch are in the area. White perch can be caught on natural baits including minnows, worms, grasshoppers, and soft-shelled crabs along with most small artificial baits.

Sunfish, both the bluegill and pumpkinseed variety, are also abundant in New York's Great Lakes. Although small usually under a pound, this fish is very sporting when caught on light tackle. Pumpkinseed and its relatives are usually found around docks, submerged trees, jetties, or areas with aquatic growth in connecting bays or slow-moving streams. Sunfish are caught year-round and almost any natural or artificial bait works.

White suckers, the most common sucker variety in New York's Great Lakes, range from one to five pounds. The best time to catch suckers is during the spring spawning run when this fish is found in shallow areas of connecting Great Lakes streams. Worms fished on the bottom are the most common bait, although other natural bait are successful. Suckers are often caught in the same

continued on page 6

July 1980

Dear Subscriber to Coastlines,

In January and March, Coastlines' subscribers were asked to help us evaluate our newsletter and update information for our mailing list. The results of that survey are now in, and we'd like to share some of our findings with you. But first, a hearty thank-you to the 54 per cent of you who responded. You are a very attentive group of subscribers! To those who have not responded, there's still time to act.

And now, here's what we learned from you:

• 27 per cent of you found out about Coastlines from a Sea Grant Specialist, while the rest of you learned about our publication from a meeting, a Sea Grant publication, a friend, or through a teacher, Cooperative Extension, the media or your employment.

• 75 per cent of those who responded said that they share their copy of Coastlines with anywhere from two to four or more other

readers.

• 21 per cent indicated that they order materials listed in I Want

More "often" or "always."

In regard to your feelings about Coastlines, 92 per cent of you rated Coastlines as either extremely or moderately informative; 83 per cent found it extremely or moderately attractive; 82 per cent judged it to be extremely or moderately useful; 85 per cent indicated Coastlines is extremely or moderately timely; and 92 per cent of you

felt that it is extremely or moderately easy to read.

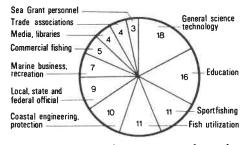
• When subscribers were asked what topics they would like to see discussed in future issues, 1,000 individuals responded with suggestions ranging from more on specific geographical areas such as Long Island to more on topics such as commercial and sport fishing; recreation and tourism; career and educational materials for teachers; the marine trades; Great Lakes access and navigation; legislative and regulatory developments; the Hudson River and inland waters; consumer use of fish and aquatic plants; shoreline redevelopment; energy and research.

 When subscribers were asked to check specific categories of interest, the majority checked more than one of the 11 categories. This tells us that as individuals, you are interested in many subject areas and not just one special interest. The following circle graph

gives you an idea of how you identified yourselves.

#### How 54 Percent of Coastlines' Subscribers Identified Their Interests

( 100 percent equals the total number of responses checked by subscribers in the sample.)



Based on the information we have received, we hope to tailor the contents of "Coastlines" to better meet your needs and interests. We will do this by providing more information on those topics you have suggested, and by striving toward a more informative, useful, timely and attractive newsletter. If any of you wish to correspond with us again, please don't wait until our next survey. Your comments and suggestions are always welcomed.

Sincerely,

Sally Willson, Editor

COASTLINES is published bimonthly by the New York Sea Grant Extension Program. This program is funded by the National Oceanic and Atmospheric Administration, the State of New York, and the New York Sea Grant Institute. Subscriptions to COASTLINES are free for New York residents. Two-year out-of-state subscriptions are \$2. Request COASTLINES from Editor Sally Willson, Sea Grant Extension Program, Fernow Hall, Cornell University, Ithaca, N.Y. 14853.

#### Play Piers, continued from page 1

faded from use almost half a century ago, access to the New York rivers has been largely by trespass, cutting through fences to abandoned piers and unused facilities. As the waterfront changed still further, patterns of commercial utilization of docks were altered by new technologies of shipping, piers were abandoned and docks left to decay.

Today, there is renewed interest in something akin to the play piers. In concert with the Department of Ports and Terminals, Don Cook, a geographer from City University of New York, working with Sea Grant funding, is examining how people in the city use waterfront access points. He is determining who uses the existing, often abandoned piers; what people do there; what sorts of barriers exist to their use; how the character of the land area around the piers affects the way in which people use it.

In the 1890s, Jacob Riis saw a problem and used his exceptional skills as a writer and a politician to solve it. The play piers were born. In today's complicated world, research such as Don Cook's may lead to a similar end. Maybe before the end of the century, we'll have a modern day equivalent of the play piers.

#### Angling, continued from page 5

pools in streams where trout are found. If trout fishing is slow, a switch to natural bait may produce a fine catch of suckers.

New York's Great Lakes offers an abundance of sportsfishing opportunities for all angling levels, but the only way to find out how good the fishing really is, is to get your pole and give it a try.

For more information see I Want

More.

#### New Publications: Freshwater Fish Guide and The New York Bight

How many kinds of salmon and trout can be found in New York? You yould know the answer if you had Guide to Freshwater Fishes of New York, an illustrated 140-page pocket guide published by Cornell University.

Appealing to beginning and experienced anglers, the new guide will be appreciated for both its simplicity and detail. It should also be valuable to libraries because of its descriptions and illustrations of more than 100 fish species found in New York State's fresh waterways, most of which are also found in other northeastern states.

Quick and accurate identification of a fish can help an angler avoid misinterpreting regulations, something which the authors say could cause violations of fish and wildlife laws.

The publication was written by members of the department of natural resources at Cornell's College of Agriculture and Life Sciences.

Non-technical keys in the guide rely primarily on colors, patterns and markings, location of fins, and other distinguishing features for easy identification. The guide describes fish habitats and indicates the value of a particular fish for sport or food. A bibliography and an index help anglers when it comes to both common and scientific names.

Designed to fit a tacklebox, a hiker's pack, or a pocket, the guide comes in a water-proof bag for rugged use around the water.

Guide to Freshwater Fishes of New York (S-108) is available for \$2.50 from the Cornell University Distribution Center, 7 Research Park, Ithaca, NY 14850 or from county Cooperative Extension offices in New York. Make checks payable to Cornell University.

Troubled Waters: The New York Bight, a new Sea Grant fact sheet is now available for the asking.

No better illustration of the impact of human activities on the marine environment exists than the New

York Bight. The Bight — the 15,000 square miles of water bound by Long Island on the north, New Jersey on the west, and the Continental Shelf about 80 to 120 miles offshore serves some 20 million people as a source of recreation, transportation, commercial fishing and a depository for raw sewage, dredge spoils, acid and toxic chemicals and construction debris. In this four-page fact sheet, the sources of contamination and their effect on the Bight's delicate marine environment are explained. Terms such as atmospheric fallout, barge dumps, runoff, microbes, nutrients, thermocline and others are explained in context of the New York Bight. Attention is called to the natural buildup of contaminants in marine plants, fish and eventually people through the food chain. The fish kill of 1976 which caused an estimated 7.9 million dollar loss to New York's fishing industry is related to the problems of weather, phytoplankton growth, and waste disposal. Alternatives to pollution are briefly outlined. See I Want More.

## I Want More!

Additional information is available from New York Sea Grant. Please check the publications which interest you and send to your nearest Sea Grant Extension Office. Single copies of the following publications are free:
Angling for Underutilized Fish in New York's Great Lakes, R. B. Buerger, 1980. 4 pp.  Getting the Most from Wood, Marine Trades Flyer #14. 1979, 4 pp.  Shoreline Erosion Protection for Marinas, Marine Trades Flyer #13, 4 pp.
For the following publications, make checks payable to Cornell University:
Troubled Waters: The New York Bight, D. Edgar, 1980. 4 pp., 15 cents.  Oil Spills: A Coastal Resident's Handbook, J. Omohundro, 1980. 16 pp. \$1.00.  Oil Spills: A Public Official's Handbook, J. Omohundro, 1980. 16 pp. \$1.00.
If you would like to be notified of additional publications by the New York Sea Grant, please check the appropriate category and send to the Albany Sea Grant office. Be sure to include your name and address.
General information on Sea Grant
Oceanography, Limnology, Geology
Aquaculture, Fisheries, Seafood
Using Our Coastal Zone

### **Update**

The Annual Conference of the National Marine Education Association will meet August 6-9 at Salem State College in Šalem, Massachusetts. The theme for this year's conference is "Our Coast: Heritage, Conflict, and Challenge." This year's conference will coincide with Coast Week of the National Year of the Coast. Participants will use the heritage of Salem as a backdrop for workshops, seminars, lectures, and discussions on curriculm development, education policy, advances in marine studies, and future planning. For information on registration and fees, contact Professor James Centorino, Marine Science Institute, Salem State College, Salem, Massachusetts 01970 (Phone 617-745-0016).

A conference on Seafood Waste Management in the 1980s will be held September 23-25 at the Orlando Marriott Inn, Orlando, Florida. A variety of waste treatment methods including screening, dissolved air flotation, electro-coagulation, and possible waste utilizations including chitin, feeds, fertilizer, etc. will be discussed with specific applications to seafoods. A special session will include reputable industry and government speakers. For information, write to: W. Steven Otwell, Department of Food Science and Human Nutrition, University of Florida, Gainesville, Florida 32611. This conference is sponsored by the Coastal Plains Marine Center and Florida Sea Grant.

New York Sea Grant Institute State University of New York 411 State Street Albany, New York 12246 Tel (518) 473-8002

Sea Grant Extension Program Fernow Hall Cornell University Ithaca, New York 14853 Tel (607) 256-2162 Sea Grant Extension Program Morgan III SUNY/Brockport Brockport, New York 14420 Tel (716) 395-2638

Sea Grant Extension Program Cooperative Extension 111 Broadway — 17th Floor New York, New York 10006 Tel. (212) 587-9722 Sea Grant Extension Program Cornell University Laboratory 39 Sound Avenue Riverhead, New York 11901 Tel (516) 727-3910

Sea Grant Extension Program Cooperative Extension Regional Office 412 E. Main Street Fredonia, New York 14063 Tel (716) 672-2191 Sea Grant Extension Program 66 Sheldon Hall SUNY/Oswego Oswego, New York 13126 Tel. (315) 341-3042

Sea Grant Extension Program 129 Merritt Hall SUNY/Potsdam Potsdam, New York 13676 Tel (315) 268-3303 Sea Grant Extension Program South Campus, Building H SUNY/Stony Brook Stony Brook, New York 11794 Tel. (516) 246-7777

Sea Grant Extension Program Farm & Home Center 21 South Grove Street East Aurora, New York 14052 Tel. (716) 652-5453

The New York Sea Grant Extension Program provides equal opportunities in employment and programs.



SEA GRANT

Fernow Hall Cornell University Ithaca, New York 14853 Tel: (607) 256-2162