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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL MARINE FISHERIES SERVICE

Anglers' Guide TO THE *United States Atlantic Coast*

SECTION II

Nantucket Shoals to Long Island Sound

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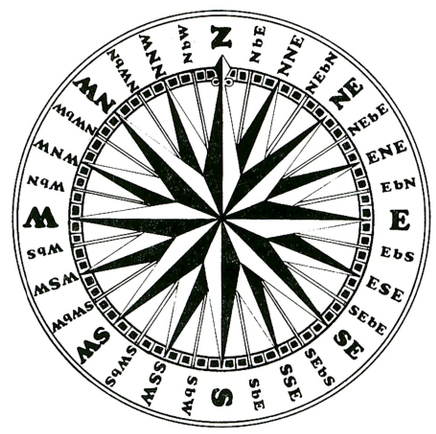
Anglers' Guide

TO THE

United States Atlantic Coast

FISH, FISHING GROUNDS & FISHING FACILITIES



BRUCE L. FREEMAN AND *LIONEL A. WALFORD*

SECTION II

Nantucket Shoals to Long Island Sound

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The inshore water between Cape Cod and New York consists, for the most part, of a series of sounds whose names are derived from the principal islands which mark their seaward boundaries, i.e., Nantucket Island, Martha's Vineyard, Block Island, and Long Island.

Sea-bottom configurations off this area are remarkably different from those to the north. Absent are the deep basins, sheer rock ledges, and broad banks which are common in the Gulf of Maine. Instead, a relatively smooth plain gently slopes from the offshore rim of the sounds out to about the 600-foot contour, a distance from land of 80 miles or more. Even Nantucket Shoals, the series of shifting shoals lying off Nantucket Island, were probably once part of a smooth sandy plain.

About 50,000 years ago a great sheet of glacial ice, originating in the region of Hudson Bay and Labrador, spread southward and covered much of New England. The great accumulation of snow, miles thick over eastern Canada, compressed the bottom layers into ice which, under the influence of gravity, flowed outward from the center of the glacier. This slowly moving amorphous mass of ice had force enough to round off mountains and scour out valleys. The glaciers' southernmost extension roughly conformed to a line drawn from Nantucket Island to Martha's Vineyard, to Block Island, thence to Montauk on Long Island, through Ronkonkoma to about Roslyn. After thousands of years, the climate began to warm, causing the ice sheet to waste away gradually, leaving its deposits of sand, gravel, silt, clay, rocks, and boulders to form these areas. After an interval of several thousand years, a cooling period set in causing the leading edge of the ice sheet to extend southward once more. During the second advance, the edge of the ice extended from Cape Cod along the Elizabeth Islands and southern coast of Rhode Island to Fishers Island, thence westward along the north shore of Long Island to a point where New York City is now. After holding this position for thousands of years, the ice sheet retreated for a second and final time as the climate again became warmer. Soil, rocks, and boulders carried by the ice were deposited along this second edge to form these peninsulas and islands.

Since deposition of this glacial material, the action of wind, water action and waves has worked to shape the land as we know it now. Rocky shores, like those in Narragansett Bay and along Connecticut, erode slowly compared to the sandy beaches of Nantucket Island, Martha's Vineyard, and Block Island. Erosion of the sandy bluffs and cliffs on the eastern side of Nantucket Island, the western end of Martha's Vineyard, and the southern end of Block Island takes place at about 3 feet a year. Montauk Point and the land on Long Island between Port Jefferson and Orient Point are also eroding away by storm-caused waves, but at a slower rate. The eroded sediments when washed into the sea are transported by currents and deposited in other areas. Sandy Point on Block Island, South Beach on Martha's Vineyard, and Smith Point and Great Point on Nantucket are examples of such deposits.

Along the open sea coasts of this section, tides range about 3 feet between high and low water. Nevertheless, owing to the complexities of tides along the protected inshore coast and landward side of the islands, the range varies from only 1½ feet in some areas to over 8 feet in others. For example, the tidal range at Woods Hole is 2 feet while at Cuttyhunk, only 15 miles to the southwest, it is about 4 feet. Near the mouth of Narragansett Bay at Newport it is about 3½ feet, but near the head of the bay at Providence it is 6 feet. At the Race in the eastern end of Long Island Sound, the tide is 2½ feet, but at Eatons Neck in the western end it is 8 feet. As is true along our entire coast, the effect of strong winds in combination with regular tidal action may at times cause the water to rise above or fall below its usual level. The high winds of the September 1938 hurricane coinciding with the peak of a high spring tide caused the water to rise 10 to 20 feet above the ordinary high-tide line.

The climate of the region between southern Cape Cod and New York is moist and cool. From October to March the prevailing winds, usually blowing from 10 to 20 knots over the water, are between west and north. Sometimes northwesterly gales occur, blowing more than 40 knots. From March until June, when the summer wind regime is established, the direction is variable. From June through September prevailing winds are between south and west. As often occurs in summer, hot afternoon air temperatures become reduced by a sea breeze blowing onshore across the cool water. Rarely, however, does this breeze penetrate more than 10 miles inland. Although gales are rare during summer, hurricanes, originating in the tropics, occur occasionally from August through October. Fogs are frequent in late spring and early summer when warm easterly to southwesterly light breezes blow over the still cool water. Though usually lasting only a few hours, they sometimes persist for a week broken by only short periods of clear weather. Winds blowing between west and north dispel fog and bring clear weather.

Fishing has always been important to the inhabitants living along the shore of this section. The Indians used weirs made of branches and small trees and nets made of hemp to trap small fishes such as herring, shad, and striped bass. They used harpoons as well as arrows to capture large fish such as sturgeon and mammals such as porpoise and whales. Among the Indians' favorite seafoods were shellfish. Dug throughout the year from along the shores, clams and oysters supplied them meat, and the juices from these shellfish seasoned their soups and breads. During the middle and late 1600's when most of this area became colonized by Europeans, the Indians shared their knowledge of fishing with the settlers who quickly learned the necessary skills and improved upon them.

The demand for whale products, primarily whalebone and oil, during the 1600's, 1700's, and early 1800's motivated New Englanders to capture these mammoth animals. From salvaging whales stranded on beaches, the industry expanded to the use of small

whale boats, rowed or sailed close to shore, and then to large oceangoing vessels for deep-sea whaling. Whaling ports such as Nantucket, New Bedford, Stonington, New London, and Sag Harbor became known the world over.

During the early days whaling became a status occupation, not just because it was adventurous but because it offered an excellent chance to make a great deal of money. At the same time, however, the inshore fisheries grew and prospered very well. As early as 1750 the fishing grounds of Nantucket Sound, Narragansett Bay, and Gardiners Bay were well known. By the late 1800's over 5,000 men were engaged in fishing in this area. From Montauk Point alone over 35 fishing vessels set sail to catch fishes such as bluefish, striped bass, cod, and gray sea trout, called weakfish in this area.

The occurrence and movement of fishes within this area are greatly affected by changes in water temperatures. While winter and windowpane flounders, tautog, cunner, tomcod, and smelt are year-round inshore residents, most kinds of fishes migrate to and from this area according to seasonal changes of temperature in spring and fall. Even though the year-round water temperature in depths of 150 feet or more is suitable for cold-water species such as cod, pollock, and several kinds of hake, many of them inhabit nearshore water during winter when temperatures are minimal. Early in March, the surface water begins to warm progressively from offshore and south to inshore and north. As the temperature continues to warm during April, the cold-water visitors begin to move back offshore along the bottom into deeper and cooler water. By May or early June temperate-water species, notably fluke, scup, bluefish, striped bass, and weakfish, which have spent the winter offshore or to the south, begin to migrate here to spend the summer. During August, when the surface water reaches its maximum of about 68° to 73°F, subtropical fishes are occasional visitors. The temperate-water species remain until October or November when the water cools; then they move offshore and to the south. About the same time cold-water fishes move back into the area to spend the winter.

Estuaries are important as breeding areas for some fishes and nursery areas for many others. Winter flounder, windowpane flounder, tomcod, and smelt as well as bait fishes, such as killifish and silversides, are permanent residents of the estuarine zone. Other bait fish, such as menhaden and mullet, live there only during part of their lives. Even though important anadromous fishes, notably shad, alewife, and blueback herring, spawn in rivers, the sexually mature fish must pass through the estuarine zone on their way upstream to spawn and later the spawned-out fish and the juveniles must return by the same route on their way to the sea. Juveniles of our only catadromous fish, the eel, either pass through the estuarine zone on their way to fresh water or remain there to develop into adults. At maturity, adult eels move downstream, desert this zone, and swim offshore and south to spawn. Although not spawned in this area, many striped bass migrate here and spend the warm months feeding in the rivers and estuaries, some even staying through the winter. Estuaries are also the homes of shellfish such as oysters, both soft- and hard-shell clams, bay scallops, lobsters, crabs, and shrimps.

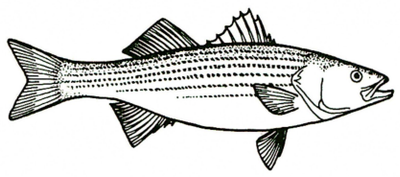
Unfortunately, these extraordinarily fertile areas where saltwater and freshwater mix are being continually destroyed through unwise use. Encroachment on estuaries for housing and industrial development conflict with increasing needs for food and open space. During the last 15 years, nearly 18,000 acres of tidal marshland have been destroyed in Massachusetts, Rhode Island, Connecticut, and New York. In addition, dredging and filling have destroyed about 7 percent of Massachusetts' 31,000 acres of important shoal water habitat, 6 percent of Rhode Island's 15,000 acres, 10 percent of Connecticut's 20,000 acres, and 15 percent of New York's 133,000 acres.

Estuaries are treated as convenient dumps for solid and liquid wastes as well as many other pollutants. Not only is the aquatic life in the immediate sites of dumping destroyed, but large portions of surrounding areas are rendered unusable, especially for harvesting shellfish. Thus, the total production from clam flats, scallop beds, and oyster bars has become greatly reduced. The fate of the oyster, which is a permanent estuarine resident, illustrates what has happened to just one resource. During the late 1800's about 3½ million bushels of oysters were harvested yearly from this area. Then, natural bars of oysters occurred at the mouth of the Taunton River in Massachusetts, the Providence River in Rhode Island, and the Poquonock and Thames Rivers in Connecticut. Other grounds were very productive in Connecticut at New Haven Harbor and areas around Saybrook, Clinton, Guilford, Branford, and Norwalk. Indeed, along Connecticut's shoreline the thing most noteworthy was not where oysters grew naturally, but where they did not! Nonetheless, the harvest by 1940 had decreased to about 1½ million bushels even while oystermen used fairly sophisticated techniques of oyster farming. In time, however, even cultivated oysters could not prosper in the polluted water with the consequence that by 1965 the harvest had dropped to a mere 70,000 bushels, only about one-fiftieth that of the late 1800's. Any hope of restoring such impoverished areas to their former productiveness depends on the effectiveness of pollution control measures.

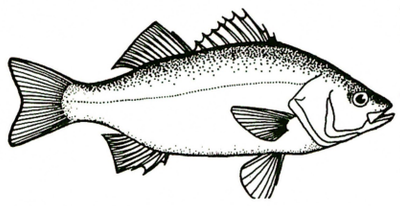
An angler in Massachusetts, Rhode Island, Connecticut, and New York does not need a license to fish in salt water. These states, however, have some saltwater regulations. All of them set minimum size limits for striped bass and some states set minimum size limits and seasons for a few other fishes. Either the states or the coastal communities in each state have regulations governing the capture of anadromous fishes. Some communities also have regulations for shellfishing and worm digging, and some require permits for these activities. To obtain copies of fishing and shellfishing regulations, contact the following: *Massachusetts*—Division of Marine Fisheries, State Office Building, 100 Cambridge Street, Boston, 02202; *Rhode Island*—Department of Natural Resources, Veterans Memorial Building, 83 Park Street, Providence, 02903; *Connecticut*—Board of Fisheries and Game, State Office Building, Hartford, 06115; and *New York*—Department of Environmental Conservation, Fish and Wildlife Division, 50 Wolf Road, Albany, 12201.

Most Commonly Caught Fish

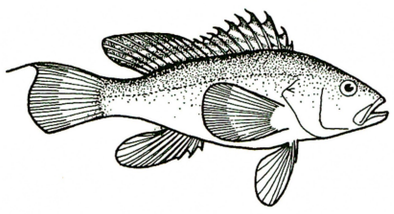
BASSES, SEA



STRIPED BASS, *Morone saxatilis*. Bass, striper. See white perch. SIZE: Largest recorded 125 lbs; tackle record 73 lbs; avg. 4-12 lbs; over 55 lbs unusual. HABITS: Schooling, migratory, anadromous. Occur in rivers, estuaries and the ocean. Coastal fish found in depths to 120 ft but mostly in 30 ft or less. Some fish over-winter in rivers but they are active only in water above 40°F. SEASON: Most taken late May—November, but a few all year. Best fishing mid May—June and mid September—mid November. FISHING METHODS: Casting, live lining or chumming from shore; these plus trolling from boats. Check state regulations on size and season. BAITS: Worms, clams, eels and live or cut fish; also plugs, spoons, spinners, jigs, feathers and imitation eels or worms.

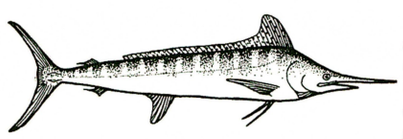


WHITE PERCH, *Morone americanus*. Perch. Distinguished from striped bass by having the spiny and soft dorsal fins connected and the 2nd and 3rd anal fin spines of equal length. In the striped bass the dorsal fins are separated and the 2nd spine of the anal fin is shorter than the 3rd. SIZE: To 4¾ lbs; avg. ⅓ - ⅔ lb; over 2 lbs unusual. HABITS: Schooling and anadromous. Occur in fresh, brackish and salt water from the surface to 35 ft. Most plentiful in estuaries and rivers. During winter found in channels or deep holes. SEASON: Taken all year; best fishing March—May. FISHING METHODS: Live lining, jigging and casting from shore or boats. BAITS: Worms, clams, shrimp and small silversides or killifish; also small spoons, spinners, jigs and wet or streamer flies.



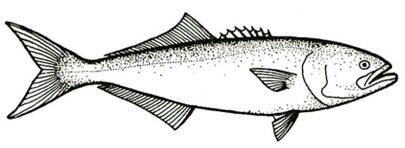
BLACK SEA BASS, *Centropritis striata*. Sea bass, black bass. SIZE: Largest recorded 8 lbs; tackle record 8 lbs; avg. ¼-¾ lb; over 3 lbs unusual. HABITS: Migratory and gregarious. Lives on or near hard bottom of rocks or shells and around wrecks, pilings, rock jetties or breakwaters. During warm months occur in depths of 120 ft or less; during cold months retreat to 400 ft or more. SEASON: Taken June—October; best fishing August—September. FISHING METHODS: Live lining or bottom fishing from shore and anchored or drifting boats. BAITS: Squid, clams, crabs, worms, shrimp and cut fish. A few caught on jigs and weighted bucktails.

BILLFISHES



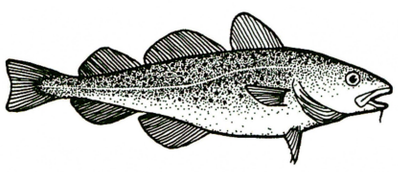
WHITE MARLIN, *Tetrapturus albidus*. Marlin. SIZE: To 161 lbs; tackle record 161 lbs; average 50-70 lbs; over 100 lbs unusual. HABITS: Pelagic and migratory. Occur in oceanic and continental-shelf water but some come close to shore in water 40 ft deep. Travel in small groups or alone. SEASON: Mid July—September; best fishing in August. Most marlin are caught near the surface in water warmer than 70°F from 10 to 50 miles offshore. FISHING METHODS: Trolling from boats. Some taken while chumming for other kinds of fish. BAITS: Feathers, stripbait and whole squid, eel, mullet or ballyhoo.

BLUEFISH

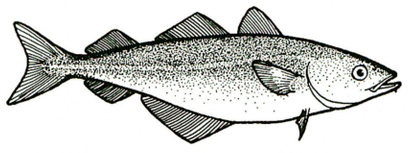


BLUEFISH, *Pomatomus saltatrix*. Small fish called snappers. SIZE: Largest recorded 35 lbs; tackle record 31 lbs 12 oz; snappers average less than 1/3 lb, larger fish 3-9 lbs; over 19 lbs unusual. HABITS: Pelagic, schooling, migratory. Bluefish occur in water of 50° to 80°F and as deep as 300 ft or more. Many frequent the surf, especially tide rips and turbulent water. SEASON: Late May—mid November; best fishing inshore August—September and offshore mid September—early November. FISHING METHODS: Live lining and casting from shore; these same methods plus jigging and trolling from boats. Most fish are caught in water of 64° to 75°F and from 90 feet of the surface. BAITS: Spoons, jigs, plugs, feathers and weighted bucktails; also live and cut fish.

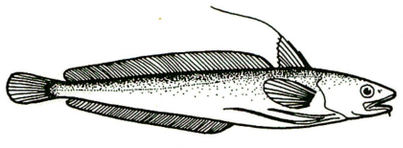
CODS, HAKES AND POLLOCK



ATLANTIC COD, *Gadus morhua*. Cod. See Atlantic tomcod. SIZE: Largest recorded 211½ lbs; tackle record 98¾ lbs; avg. 2-4 lbs inshore and 5-11 lbs offshore; over 50 lbs unusual. HABITS: Occur near bottom especially over ledges and slopes of shoals. Frequent rock, gravel, shell or sand bottom. During March—April on soft mud-sand. Adult cod generally occur in water colder than 50° to 55°F from near shore to 1,200 ft. SEASON: Taken all year in depths over 150 ft; November—April in shallower water. Best fishing March—April and November—December in depths of 30 to 210 ft. FISHING METHODS: Bottom fishing or jigging from boats. A few taken while casting from shore. BAITS: Sand lance, squid, crabs, clams, worms and cut fish; also jigs.

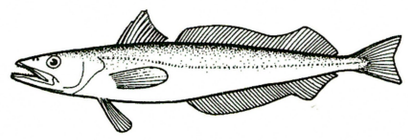


POLLOCK, *Pollachius virens*. Boston bluefish, rip pollock; fish to 5 lbs called harbor pollock; those over 5 lbs called sea pollock. Distinguished from cods by a forked tail and projecting lower jaw. SIZE: Largest recorded 70 lbs; tackle record 43 lbs; avg. 2-5 lbs; over 15 lbs unusual. HABITS: Pelagic and schooling. Occur from the surface to 600 ft in water of 31° to 60°F. SEASON: Taken in depths over 150 ft all year and in shallower water late September—early June. Best fishing mid April—early June and October—December in depths to 210 ft and water of 35° to 52°F. FISHING METHODS: Live lining, bottom fishing or casting from shore; these plus jigging and trolling from boats. BAITS: Sand lance, worms, squid, clams and cut fish. Artificial lures are best and include jigs, plastic tube lures, spoons, plugs, spinners and flies.

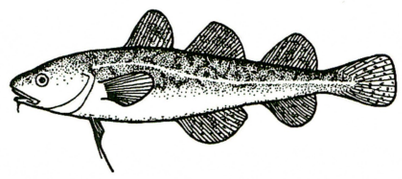


SQUIRREL HAKE, *Urophycis chuss*. Hake, mud hake, brown hake, ling. See white hake for distinguishing features. SIZE: To 7 lbs; average ¾-2 lbs; over 4 lbs unusual. HABITS: Occur on soft clay or mud and sand bottom. During warm months small squirrel hake are found inshore and offshore but large fish usually in depths over 90 ft. Feed primarily at night. SEASON: Taken all year in depths of 120 ft or more; best fishing March—April and October—December in depths of 10 to 180 ft. FISHING METHODS: Bottom fishing from shore; this plus jigging from boats. BAITS: Clams, worms, squid, sand lance and cut fish; also small jigs.

WHITE HAKE, *Urophycis tenuis*. Hake, miscalled silver hake. Distinguished from squirrel hake by having about 12 rows of scales between the lateral line and the base of the dorsal fin. Squirrel hake have about 9 such rows of scales. SIZE: To 48 lbs; avg. 4-9 lbs; over 20 lbs unusual. HABITS: Occur on mud or other soft bottom from the tide-line to depths over 3,000 ft. Small white hake found inshore and offshore; large fish usually in depths over 120 ft. Feed primarily at night. SEASON: Taken all year in depths over 120 ft. FISHING METHODS: Bottom fishing and jigging from shore or boats. BAITS: Clams, mussels, worms, shrimp, sand lance and cut fish. Jigs especially good for large fish.

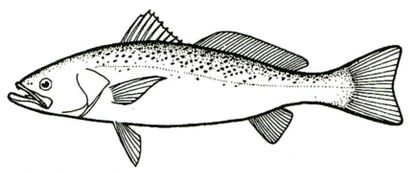


SILVER HAKE, *Merluccius bilinearis*. Whiting, frostfish. SIZE: To 5½ lbs; avg. ⅓ - ¾ lb; over 2½ lbs unusual. HABITS: Migratory and schooling. Occur from the surface at the tide-line to depths of 2,400 ft or more in water of 38° to 64°F. Usually remain close to bottom during daylight and move towards the surface or into shallow water at night. Sometimes they drive bait fish ashore and strand themselves in pursuit. SEASON: Taken in depths over 120 ft all year; in shallower water October—March. Best fishing late October—December. FISHING METHODS: Live lining, bottom fishing or casting from shore; these plus trolling, chumming or jigging from boats. Also speared at night with the aid of a light. BAITS: Clams, worms or cut fish; also jigs, spoons, spinners or plugs.

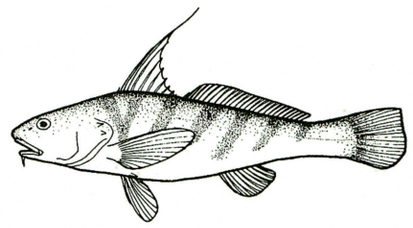


ATLANTIC TOMCOD, *Microgadus tomcod*. Tomcod, frostfish, tommy cod. Distinguished from cod by a rounded tail and the 2nd pelvic ray being about 1½ times the length of the next longest ray. Cod have a slightly concave tail and 2nd pelvic ray is 1¼ times the length of the next longest ray. SIZE: To 1½ lbs; avg. ¼ - ⅔ lb; over 1 lb unusual. HABITS: Usually occur in estuaries, rivers and along the coast in depths less than 36 ft. Frequent sand, mud, gravel, stone or rock bottom. Tomcod move into or towards rivers in the fall where they spawn from November through Febuary. SEASON: Taken all year; best fishing late October—December. FISHING METHODS: Bottom fishing or jigging from shore or boats. Also speared during the winter. BAITS: Worms, clams, mussels, cut fish and small jigs.

DRUMS

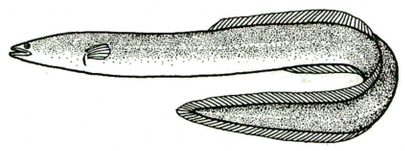


GRAY SEA TROUT, *Cynoscion regalis*. Weakfish, squeteague; large ones called tide runners. SIZE: Largest recorded 30 lbs; tackle record 19½ lbs; average ½-1½ lbs; over 5 lbs unusual. HABITS: Schooling and migratory. Most abundant in the brackish water of estuaries and in shallow water along the shore but they occur in the open ocean to depths of 300 ft or more. Favors sand bottom, especially around eel grass beds. SEASON: Late May or June—mid October; best fishing in September. In the past, during time of abundance, best fishing was in June. Most taken from the surface to 40 ft. FISHING METHODS: Live lining, casting, jigging and chumming from shore; these plus trolling from boats. BAITS: Shrimp, squid, worms, clams, mussels, crabs, cut fish and live killifish. Also spinners, spoons, jigs and weighted bucktails.



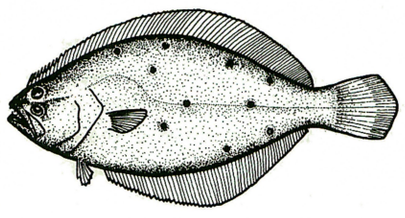
NORTHERN KINGFISH, *Menticirrhus saxatilis*. Kingfish. SIZE: To 3¼ lbs; avg. ⅓ - ⅔ lb; over 1½ lbs unusual. HABITS: An inshore fish found from the tide-line to 30 ft in salt and brackish water warmer than 46°F. Occur in aggregations on sandy or hard bottom. SEASON: Taken from late May or June—October. Best fishing varies; can be in June or September—early October. FISHING METHODS: Bottom fishing from shore and anchored or drifting boats. BAITS: Worms, clams, mussels, squid, shrimp, cut fish and small crabs.

EEL, FRESH WATER

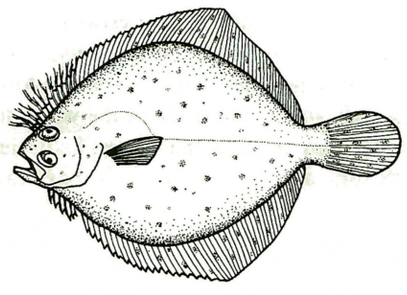


EEL, *Anguilla rostrata*. SIZE: Largest recorded 16 lbs; avg. 1¾-2½ lbs; over 5 lbs unusual. HABITS: Catadromous. Young (elvers) enter estuaries in the spring. Some remain in the estauries while others migrate varying distances, sometimes hundreds of miles, up rivers and streams. After living in fresh or brackish water, sometimes as long as 20 years, they return to the deep ocean to spawn and die. Occur on any type of bottom in ponds, rivers, estuaries and near the ocean shore. Active during warm months and embedded in mud during cold months. SEASON and FISHING METHODS: By hook and line April—November while bottom fishing from shore or boats. Speared from boats or through the ice December—March. BAITS: Shrimp, worms, clams, cut fish and whole killifish, silversides or other bait fish. Also taken on small jigs and weighted bucktails.

FLOUNDERS, LEFT-EYED



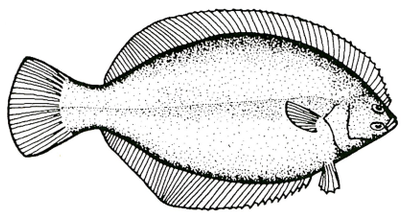
NORTHERN FLUKE, *Paralichthys dentatus*. Fluke, summer flounder; Large fish called doormats. See windowpane flounder. SIZE: Largest recorded 30 lbs; tackle record 20½ lbs; avg. 1-3½ lbs; over 8 lbs unusual. HABITS: Most occur in salt and brackish water; a few small ones in fresh water. Frequent gravel, sand, clay or mud bottom and around wrecks to depths of 500 ft or more. An active feeder often pursuing bait-fish to the surface. SEASON: June—mid October; best fishing July—mid September. Most caught in water 10 to 60 ft deep and warmer than 61°F. FISHING METHODS: Bottom fishing from boats and casting or bottom fishing from shore. BAITS: Smelt, squid, shrimp, clams, worms, cut fish, silversides and live killifish; also spinners and weighted bucktails.



WINDOWPANE, *Scophthalmus aquosus*. Flounder, sand flounder, sand dab, sundial, see-through flounder. Distinguished from the summer flounder by the first 10-12 dorsal fin rays forming a fringed crest. Summer flounder have no fringed crest. SIZE: To 2 lbs; avg. ⅓ - ⅔ lb; over 1¼ lbs unusual. HABITS: A year-round resident in salt or brackish water. Windowpanes frequent sand, sand-mud, sand-shell, gravel and soft mud or clay bottom. Most occur in depths less than 100 ft but a few are found to 200 ft. SEASON: Taken all year; best fishing May—November. FISHING METHODS: Bottom fishing from shore and anchored or drifting boats. BAITS: Shrimp, worms, squid, clams, mussels, silversides and killifish; also weighted bucktails and jigs.

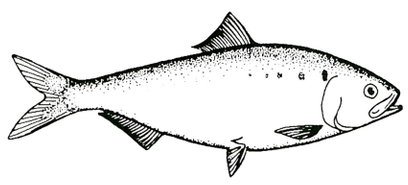
Nantucket Shoals to Long Island Sound

FLOUNDERS, RIGHT-EYED



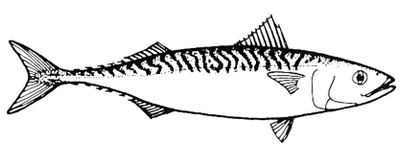
WINTER FLOUNDER, *Pseudopleuronectes americanus*. Flounder, blackback flounder, flatfish; large ones called snowshoe flounder around Block Island. SIZE: To 8 lbs; average ½-1¼ lbs inshore and 2-3 lbs offshore; over 2½ lbs inshore and 5 lbs offshore unusual. HABITS: Occur in salt and brackish water from the shore to 180 ft; rarely to 270 ft or more in temperatures of 31° to 77°F. Usually smaller fish live the shoalest and larger ones deeper. Frequent gravel, sand-shell, sand, clay and mud buttom, but especially mud-sand around eel grass. SEASON: Taken all year; best fishing March—May and October—November from the shore to 60 ft. FISHING METHODS: Bottom fishing from shore and boats. BAITS: Shrimp, worms, clams, mussels and squid.

HERRINGS AND SHADS

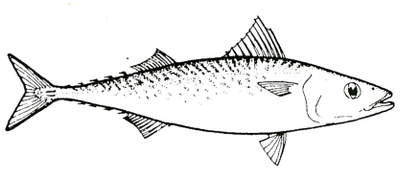


SHAD, *Alosa sapidissima*. Males called bucks and females roes or roe shad. SIZE: Largest recorded 14 lbs; males avg. 2-3 lbs and females 3-4½ lbs; over 6½ lbs unusual. HABITS: Pelagic, schooling, migratory, anadromous. Occur in the ocean from the surface to depths of 400 ft or more. Adults ascend to fresh water in the spring to spawn when river temperatures are 50° to 55°F. During the spawning run shad take little or no food but will strike some artificial lures. Spawning over, spent fish return to the ocean. SEASON: April—July; best fishing May—mid June. FISHING METHODS: Angling is usually confined to the fresh water portion of tidal rivers. Casting from shore and casting or trolling from boats. BAITS: Spoons, spinners, wet or streamer flies and weighted bucktails or shad darts. At times caught with an unbaited gold or silver hook.

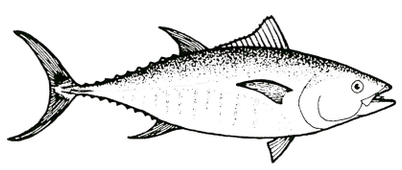
MACKERELS, TUNAS AND BONITOS



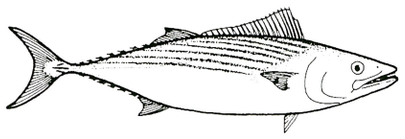
ATLANTIC MACKEREL, *Scomber scombrus*. Mackerel. Fish to 8 inches called spikes; 8-13 inch (1 lb) fish called tinkers; 1-2 lbs fish called mackerel; those above 2 lbs miscalled king mackerel. See Chub mackerel. SIZE: To 7½ lbs; avg. ½-1¼ lbs; over 2½ lbs unusual. HABITS: Pelagic, schooling, migratory. Found both offshore and inshore often entering estuaries. Occur in water of 45° to 68°F from the surface to depths of 600 ft. SEASON: Late May—mid December; best fishing September—mid November. Anglers catch most within 60 ft of the surface. FISHING METHODS: Casting or live lining from shore; these plus trolling, jigging or chumming from boats. BAITS: Sand lance, worms, clams, shrimp, squid and cut fish; also spoons, spinners, weighted bucktails, flies, jigs, and plastic tube lures.



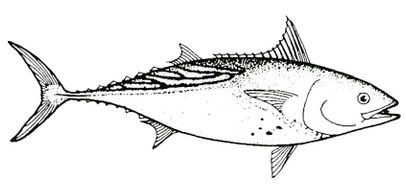
CHUB MACKEREL, *Scomber colias*. Mackerel, thimble-eyed mackerel. Distinguished from Atlantic mackerel by having 9-10 dorsal spines, head length going into standard body length 3-3½ times and by the silvery sides below mid-line being mottled with dusky bloches. In contrast the Atlantic mackerel has 11-14, rarely 10, dorsal spines; head length goes into standard body length 3½-4½ times and the sides below mid-line are without dusky blotches. SIZE: To 1½ lbs; avg. ⅓ - ⅔ lb; over 1 lb unusual. Although smaller in size and preferring warmer water, chub mackerel are quite similar in most respects to Atlantic mackerel. Most fishermen make no distinction between these two fish. HABITS, SEASON, FISHING METHODS and BAITS are the same as for Atlantic mackerel.



BLUEFIN TUNA, *Thunnus thynnus*. Tuna; fish to 100 lbs called school tuna, those over 100 lbs called giant tuna. SIZE: Largest recorded 1,500 lbs; tackle record 977 lbs; school tuna avg. 15-35 lbs and giant tuna 250-450 lbs; over 700 lbs unusual. HABITS: Pelagic, schooling, migratory. Range from far out at sea to close inshore, but almost always in depths of 20 ft or more. When offshore, tuna are usually found from the surface to 300 ft. Large fish occur in water warmer than 44°F, most in 54° to 67°F; small fish occur in water warmer than 60°F. SEASON: Although tuna occur from late June—early December, they are caught by anglers only from late August or September—late October. Best fishing in September. FISHING METHODS and BAITS: Fast trolling whole bait or artificial lures such as feathers and spoons for school tuna; chumming at anchor for giant tuna.

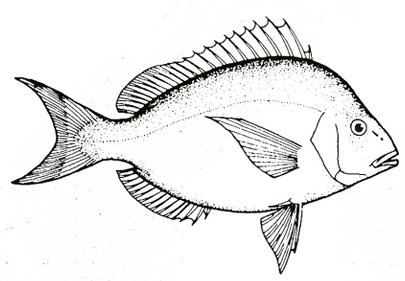


ATLANTIC BONITO, *Sarda sarda*. Bonito, common bonito. SIZE: To 15 lbs; avg. 2-5 lbs; over 10 lbs unusual. HABITS: Pelagic, schooling and migratory. A rapid swimmer which feeds mainly at or near the surface; often jumping clear of the water when in pursuit of prey. Occur in water warmer than 65°F. SEASON: Late June or July—mid October; best fishing in August. FISHING METHODS: Most are caught at or near the surface by boat anglers 5 to 20 miles from shore while trolling, chumming, jigging or casting; some by anglers casting from shore during late summer. BAITS: Feathers, spoons, plugs, jigs, stripbait, feather stripbait combination and cut fish.



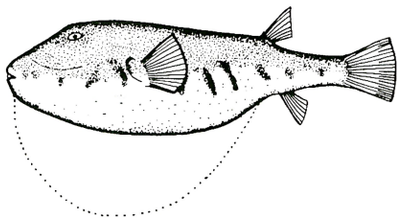
LITTLE TUNA, *Euthynnus alletteratus*. False albacore, miscalled albacore. SIZE: To 26 lbs; avg. 4-7 lbs; over 15 lbs unusual. HABITS: Pelagic, schooling and migratory. A rapid swimmer usually occurring in water warmer than 65°F. Travel in various sized aggregations from three or four individuals to schools of many thousands. Often found over uneven or broken bottom. SEASON: July—September; best fishing August—early September. FISHING METHODS: Most taken near the surface from 5 to 30 miles offshore by boat anglers while trolling, chumming or casting. BAITS: Stripbait, feathers, feather-stripbait combination, spoons, jigs and plugs; also squid and whole or cut fish.

PORGIES



SCUP, *Stenotomus chrysops*. Porgy; large fish called sea porgy; small fish called bay porgy, sand porgy or pins. SIZE: Largest recorded 5 lbs, avg. 1/3-1 lb, over 2½ lbs unusual. HABITS: Migratory and gregarious. Occur on sand, gravel or rock bottom and near shellfish beds, wrecks or pilings. During warm months scup move inshore to shallow water; during cold months they retreat to deeper water, some to 500 ft, to remain in water warmer than 45°F. Near bottom during daylight but move towards middepths at night. SEASON: Late May or June—October; best fishing July—August inshore and September—mid October offshore. FISHING METHODS: Most caught in depths from 10 to 90 ft during the angling season by fishermen while live lining or bottom fishing from shore or boats. BAITS: Clams, mussels, shrimp, worms, squid, cut fish and silversides or killifish; also some small artificial lures.

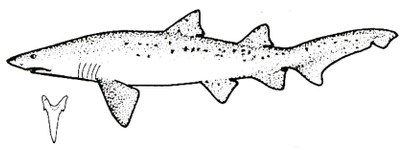
PUFFERS



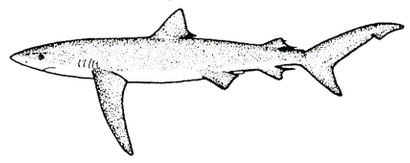
NORTHERN PUFFER, *Sphaeroides maculatus*. Puffer, blowfish or swellfish. SIZE: 2½ lbs; avg. ⅓ - ⅔ lb; over 1½ lbs unusual. HABITS: An inshore fish found from the tide-line to 30 ft in salt and brackish water. Occur in aggregations on or a few feet above sandy bottom. As the name implies puffers have the ability to inflate themselves with water or air for self-defense. SEASON: Late May—October; best fishing July—mid September. FISHING METHODS: Bottom fishing from shore and anchored or drifting boats. BAITS: Worms, clams, mussels, shrimp, squid, cut fish and small crabs.

SHARKS

SMOOTH DOGFISH, *Mustelus canis*. Shark, dogfish, gray dog, smooth dog, miscalled sand shark. Distinguished from other sharks by the two spineless triangular dorsal fins of nearly the same size; rounded flat snout; 5th gill opening behind origin of pectoral fin and small, flat teeth. SIZE: To 20 lbs; avg. 1-4 lbs; over 10 lbs unusual. HABITS: Migratory. Occur from the tide-line to depths of 600 ft or more in water of 43° to 72°F. Often found on or a few feet above any type of bottom along the open ocean shore or in estuaries; occasionally in fresh water. More active during night than day. SEASON: Early or mid May—early December. Most abundant during June in depths less than 60 ft. FISHING METHODS: Bottom fishing from shore or boats. BAITS: Squid, crabs, worms and cut fish.

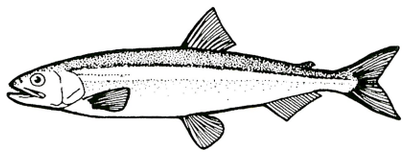


SAND SHARK, *Carcharias taurus*. Shark, ground shark. Distinguished from other sharks by the triangular dorsal fins of equal size, pointed snout, 5th gill opening in front of origin of pectoral fin and sharply pointed teeth. SIZE: To 400 lbs; avg. 15-40 lbs; over 275 lbs unusual. HABITS: Migratory. A sluggish shark occuring mostly on or a few feet above the bottom; many venture to the tide-line and some enter river mouths. More active during night than day. SEASON: Late May—November; best fishing late June—early October. Most taken in depths less than 30 ft. FISHING METHODS: Bottom fishing, live lining and chumming from shore or boats. A few caught while casting from shore at night. BAITS: Squid, crabs, clams, worms and any cut fish.



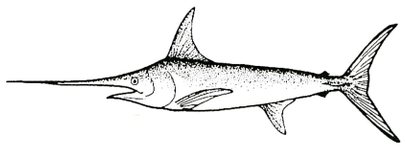
BLUE SHARK, *Prionace glauca*. Shark. Distinguished from other sharks by the long pointed snout, the long sickle-shaped pectoral fin and the 1st dorsal fin originating well behind the pectoral fin. SIZE: To 500 lbs; tackle record 410 lbs; avg. 125-225 lbs; over 300 lbs unusual. HABITS: Migratory. A pelagic shark ranging far out at sea, although they occasionally venture close inshore. Frequently seen at the surface swimming lazily or basking in the sun. SEASON: Early June—mid December; best fishing September—October. Most taken from the upper 60 ft in depths of 120-200 ft. FISHING METHODS: Trolling and chumming from boats. BAITS: Whole or cut fish. Occasionally taken on artificial lures.

SMELTS



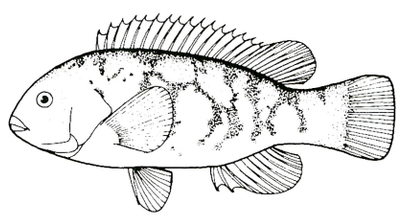
AMERICAN SMELT, *Osmerus mordax*. Smelt. SIZE: To 13 oz, avg. 1-4 oz, over 10 oz unusual. HABITS: Pelagic, schooling, anadromous. Feeding ceases during the spawning run in late winter and early spring. Inshore fish that spends nearly all of its life in or near the estuary of its natal stream or river. Spawning occurs in fresh or slightly brackish water streams usually a short distance above tidewater; sometimes in tidewater if obstructions bar upstream movement. Occur from the surface to 30 ft. SEASON: Taken all year, best fishing March—April and October—December. FISHING METHODS: Taken with hand dip-nets from shore throughout the spawning run; while live lining or jigging from shore or boats the rest of the year. Check state and local laws governing seasons and net fishing in your area. BAITS: Worms, shrimp, clams, silversides and killifish also small spoons, spinners and wet or streamer flies.

SWORDFISH

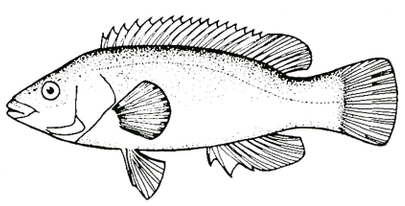


SWORDFISH, *Xiphias gladius*. Broadbill, broadbill swordfish. SIZE: Largest recorded in the Atlantic Ocean 1,100 lbs; largest taken on tackle in Western North Atlantic 602 lbs; (World tackle record 1,182 lbs caught in Pacific Ocean off Chile); average 200-300 lbs; over 450 lbs unusual. HABITS: Pelagic and migratory. Occur in oceanic and continental-shelf water from the surface to depths of 2,100 ft or more. SEASON: Taken mid June—September; best fishing July—August. Most now caught 20 to 50 miles offshore when the surface temperature of the water is warmer than 58° to 60°F. In the past swordfish were common a few miles from the coast. FISHING METHODS: Boat anglers usually sight fish at the surface before presenting the bait; some fish taken while blind trolling or chumming. BAITS: Whole squid, mackerel, eel, silver hake and mullet.

WRASSES



TAUTOG, *Tautoga onitis*. Blackfish; large fish called white chins. See cunner. SIZE: To 22½ lbs; tackle record 21½ lbs; avg. 1-4 lbs; over 12 lbs unusual. HABITS: A gregarious year-round resident living in salt water but occasionally entering brackish water. Occur on rock, gravel or sand bottom and around shellfish beds, wrecks, jetties, breakwaters and pilings. Active during warm months from the tide-line to 60 ft; less active during cold months in depths of 90 ft or more. SEASON: All year offshore; late April—November inshore. Best fishing May—June and September—October. FISHING METHODS: Bottom fishing from shore or anchored boats. Most abundant fish in catch of underwater spear fishermen. BAITS: Clams, worms, mussels, snails, shrimp and crabs.



CUNNER, *Tautogolabrus adspersus*. Choggie, bait stealer. Distinguished from tautog by a pointed snout and a scaled gill cover. Tautog have a blunt snout and a scaleless gill cover. SIZE: To 3½ lbs; avg. ¼-½ lb; over 1½ lbs unusual. HABITS: Gregarious, year-round resident. Occur on rocky or other hard bottom and around shellfish beds from the tide-line to 350 ft, rarely to 400 ft. At times on soft bottom. Cunner frequent wrecks, jetties, breakwaters, pilings and wharves. Feed during daylight. SEASON: Taken all year in depths over 120 ft; April—November in shallower water. Best fishing June—October in depths from 5 to 60 ft. FISHING METHODS: Live lining or bottom fishing from shore or boats. BAITS: Clams, worms, mussels, shrimp and cut fish; also small spoons, spinners and weighted bucktails.

Nantucket Shoals

About 17 miles south of Cape Cod lies the crescent-shaped island of Nantucket. This sandy, low relief island is about 13 miles long by 3 miles wide. Now a fishing port and summer resort, Nantucket was the seat of the important whaling industry from about 30 years after its settlement in 1659 until the early 1870's.

HISTORY

Long before the European settlers came, the Indians of Nantucket used the bodies of dead whales that washed onto the shore. The settlers quickly realized there would be more profit in hunting and catching live whales near the island than in waiting for the occasional dead ones to wash ashore. Lacking the necessary skills, however, they hired an experienced whaler from Cape Cod "... to instruct them in the manner of killing whales and extracting their oil." Shortly thereafter, shore whaling became the principal employment of the islanders. The Indians of the island readily joined in this new pursuit; in fact, most of the whaleboats were manned in part or entirely by them. For years whales were so abundant close to shore that most of them were harpooned by Nantucket whalers sailing in small boats within sight of their island. Shore whaling as a regular business continued until the middle of the 1700's, when the scarcity of whales made it no longer profitable. Meanwhile, offshore whaling or "whaling out in deep," as it was called, had gained in importance. The capture of the highly valued sperm whale offshore of Nantucket, the first one being taken in 1712, quickly accelerated this change to whaling offshore in large vessels.

Just before the Revolutionary War, the whaling industry in Nantucket reached its peak, and this island became the greatest whaling port in the world. A fleet of nearly 100 vessels roamed the seas to bring home the prizes of this fishery—whalebone, oil, and ambergris. Whalebone, the misleading name given to the horny plates suspended from the roof of the mouth of baleen whales, when split into suitable size, was used in the manufacture of whips, canes, umbrellas, and stays for corsets and dresses. Whale oil when refined was used as a fuel for lamps and as a lubricant. In fact, sperm oil is still unsurpassed as a special purpose lubricant. Ambergris, worth $12 to $50 an ounce when pure, was used in the preparation of fine perfumes. Because no one has been able to match the chemical properties of ambergris, it is still a precious material used in perfume making.

The Revolutionary War was a devastating experience for the whaling industry—for the people as well as the whaling fleet of Nantucket. No less than 1,200 seamen, from a total population of about 6,500, were either captured by the English or perished through the rigors of war. Of the 100 whaling and 50 merchant vessels owned by the islanders before the war, 134 fell into the enemy hands and 15 more were lost by shipwreck by its end. The direct money loss far exceeded $1 million at a time when a man's daily wage was about 70 cents.

Although the whalers of Nantucket made an extraordinary recovery after the Revolutionary War, they soon were suffering from the War of 1812. They recovered after that war and for about 35 years whaling prospered and Nantucket again thrived. From the mid-1800's on, however, competition from the deep-water harbor of New Bedford and other whaling ports, increased cost in fitting and refitting vessels, and introduction of petroleum products contributed to the decline and eventual end of whaling from Nantucket. The sale of the whaler *R. L. Barstow* in 1873 saw the end of an industry which had served as Nantucket's main sustenance for over 200 years.

LAND CONFIGURATION AND WATER DEPTH

Nantucket, as well as Cape Cod, Martha's Vineyard, Block Island, and Long Island, was formed during the last Ice Age, some 50,000 years ago. At that time, a great sheet of glacial ice, originating in the region of Hudson Bay and Labrador, spread southward along the eastern seaboard to what is now New York City. After thousands of years the cooling trend reversed itself, and the ice sheet began to waste away, leaving its deposits of sand, gravel, silt, clay, and boulders to form these areas. The action of wind and water have worked unceasingly since then to shape the land as we know it now.

Most of Nantucket is a series of low irregular hills which are partly wooded, the rest covered by grasses and shrubs. The highest elevation, slightly over 100 feet, is in the eastern part. Also at this end of the island, steep sand bluffs, many over 50 feet high, abut the mighty Atlantic Ocean.

The low, sandy islands of Tuckernuck and Muskeget lie to the west of Nantucket. Tuckernuck, the larger of the two, is about 2 miles long by 1½ miles wide. Its highest point is about 50 feet. Muskeget, 1½ miles long by ½ mile wide, is separated from Tuckernuck by a shallow sand flat, some of which is exposed at low tide. The highest point on Muskeget Island is about 10 feet.

Muskeget Channel is a 6-mile wide body of water separating Muskeget Island from Chappaquiddick Island. In the past Chappaquiddick has been joined with Martha's Vineyard. Today these two islands are separated by a narrow slue connecting Edgartown Harbor and Katama Bay. Martha's Vineyard, which lies across the slue from Chappaquiddick, is a large, heavily vegetated island, about 15 miles long by 8 miles wide.

Nantucket Shoals is the name given to a series of submerged, shifting sandy shoals which lie off Nantucket Island. These shoals, most of which are only 25 feet under water, extend about 30 miles south of Nantucket and the same distance east of it. Various shoals still bear the names given to them by fishermen and navigators in the 16th and 17th centuries: Rose and Crown, Old South Shoal, Davis Bank, Davis South Shoal, and Great Rip. Between many of these shallow areas are slues and channels from 60 to 120 feet deep. The extent of their shoalness, their shifting nature, and the strong and erratic currents throughout this area make Nantucket Shoals one of the most dangerous parts along the coast for navigation. An untold number of vessels and human lives have been lost on these shoals, many long before official records were kept.

South and west of Nantucket and Martha's Vineyard, the characteristics of the continental shelf become strikingly different from those of the Gulf of Maine. Offshore banks and enclosed submarine basins give way to a gradual, even slope of the ocean bottom. Fifteen miles south of Chappaquiddick Island the depth is 120 feet; 30 miles out it is 180 feet; about 75 miles out it is 600 feet, a depth marking the limit of the continental shelf.

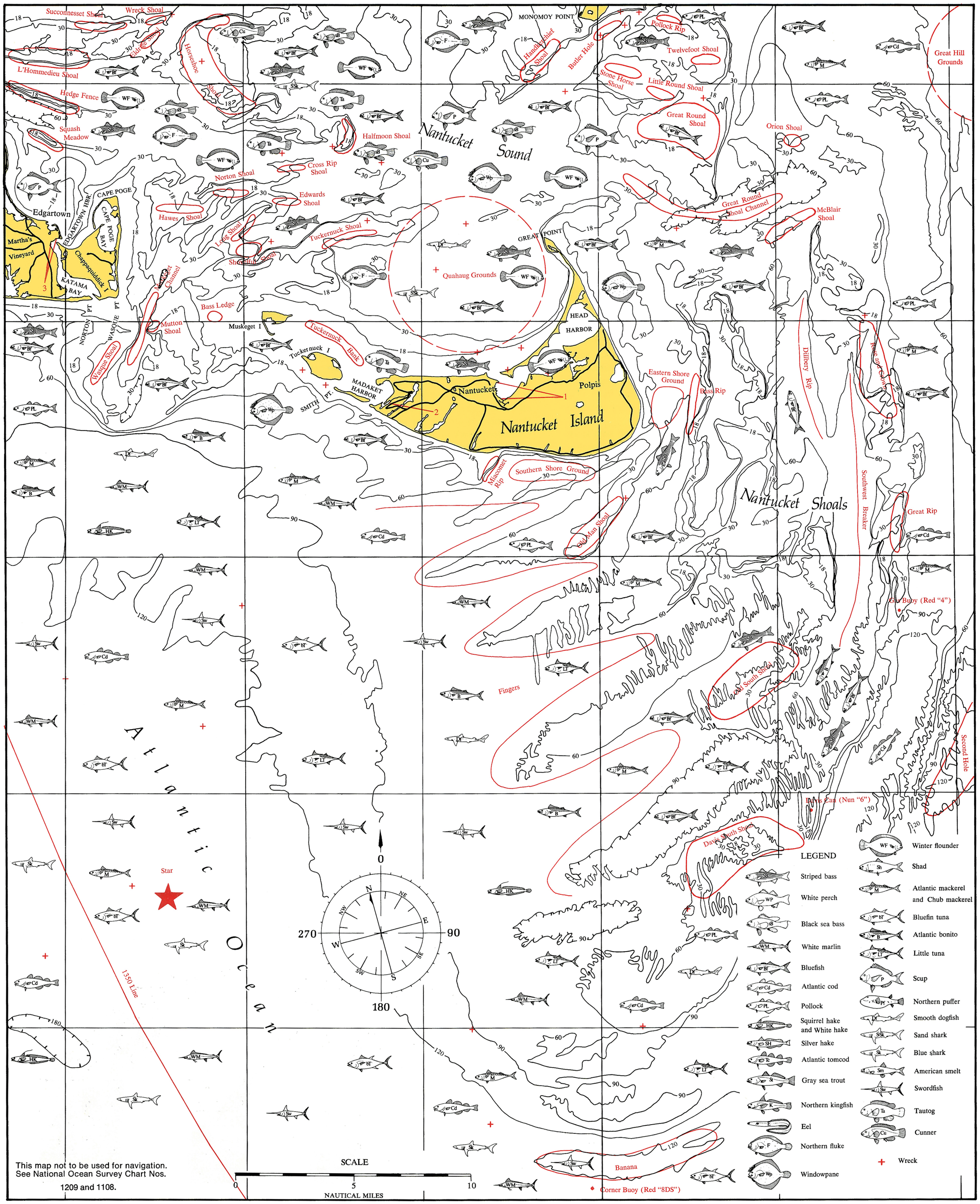
Nantucket Sound is the body of water lying between the south shore of Cape Cod and Nantucket Island, Chappaquiddick Island, and part of Martha's Vineyard. It is about 25 miles long by 15 miles wide, and it averages about 35 feet deep. While shoals are numerous and shifting at its eastern end, they become fewer and more stable to the south and west.

FISH AND FISHING

From about mid-June to late September a sharp gradient in water temperature east of Cape Cod forms a demarcation line between many cold-water fishes to the north and warm-water ones to the south. This temperature difference of about 8° to 10°F, however, does not sharply and exactly divide these two groups of fishes, for it is variable in position and oscillates north and south along a 20- to 40-mile section of Cape Cod's outer coast. Also, during most summers the water along the shore of the Outer Cape is warm enough at times to provide passage of warm-water species into Cape Cod and Massachusetts Bays. Another effective passage for fishes, open only during the last 60 years, is the Cape Cod Canal. The warm-water species which migrate north of the Cape stay until September or October, then they are driven to return south or else die as the water cools. By December the water along the continental shelf has become cold enough to accommodate cold-water species as far south as Albemarle Sound, North Carolina. Those that migrate south for the winter return north in late May or June as the water warms.

Nantucket Sound is the most northerly water for concentrations of important summer visitors such as scup, northern fluke, and black sea bass. Although their abundance has been declining since the early 1960's, anglers still, at times, make good catches throughout Nantucket Sound and around the islands. In the past, black sea bass to 8 pounds, a world's record, and fluke to 20 pounds were caught in Nantucket Sound. Tautog and blackback or winter flounder are caught throughout the Sound, tautog around rocks or other obstructions and blackbacks on sand or sand-mud bottom. Bluefish as large as 22 pounds are caught both by surf casting from shore and by trolling from boats. Some of the most popular surf-casting areas are Monomoy Island, Popponesset Beach, and the beaches which surround Chappaquiddick and Nantucket Islands. Popular though surf casting for bluefish may be, casting for striped bass is even more so, for on the islands the striper is king. Each year stripers to 50 pounds are landed from the surf. Trolling the various rips for stripers is very popular with boat anglers. Although most stripers are caught within 5 miles of the islands, some are caught 10 to 15 miles at sea on Nantucket Shoals. During late fall, surf casters fishing for stripers, which have not yet migrated south, often catch cod, especially off Nantucket beaches. Offshore of the islands, mostly beyond the 120-foot contour, anglers catch large summer visitors, notably swordfish, bluefin tuna, white marlin, and blue shark.

			BOAT RENTAL				LAUNCH'G		DEPTH			SUPPLIES			SERVICES						
No.	Location	Boating Facilities Per Location	Rowboat - Outboard	Charter Boat	Party Boat	Runabout - Skiff	Ramp: Surfaced - Natural	Hoist: Fixed - Portable	Marine Railway	Tidal Range - (Ft.)	Approach - (Ft.)	Alongside - (Ft.)	Bait - Tackle	Fuel: Gasoline - Diesel	Water - Ice - Grocery	Moorings - Berths - Elec.	Repair: Motor - Hull	Food - Lodging	Toilet - Shower		
1	Nantucket	6	O	C	P				FP		3.0			BT	GD	WI	MBE	MH		
2	Madaket	1		C						R								MH		
3	Edgartown	3	RO	C		R					1.9						MBE	MH		T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Wreck Shoal
Eldridge Shoal
L'Hommedieu Shoal
Horseshoe Shoal
Hedge Fence
Squash Meadow
Halfmoon Shoal
Nantucket Sound
Cross Rip Shoal
Norton Shoal
Edwards Shoal
Hawes Shoal
Long Shoal
Tuckernuck Shoal
Shoalfint Shoal
Quahaug Grounds
Bass Ledge
Mutton Shoal
Muskeget Channel
Tuckernuck Bank
Wasque Shoal
Edgartown
Martha's Vineyard
EDGARTOWN HBR.
CAPE POGE
CAPE POGE BAY
Chappaquiddick I
KATAMA BAY
NORTON PT
WASQUE PT
Muskeget I
Tuckernuck I
SMITH PT.
MADAKET HARBOR
Nantucket
Polpis
Nantucket Island
MONOMOY POINT
Handkerchief Shoal
Butler Hole
Pollock Rip
Twelvefoot Shoal
Stone Horse Shoal
Little Round Shoal
Great Round Shoal
Great Round Shoal Channel
Orion Shoal
McBlair Shoal
Great Hill Grounds
GREAT POINT
HEAD HARBOR
Eastern Shore Ground
Bass Rip
Dillbery Rip
Rose and Crown
Southwest Breaker
Great Rip
Miacomet Rip
Southern Shore Ground
Old Man Shoal
Nantucket Shoals
Atlantic Ocean
Fingers
Davis South Shoal
Second Hole
Star
1350 Line
Banana
Corner Buoy (Red "8DS")
Gas Buoy (Red "4")
Davis Can (Nun "6")
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90
180
270
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NE
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SW
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SCALE
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10
NAUTICAL MILES
This map not to be used for navigation.
See National Ocean Survey Chart Nos.
1209 and 1108.
LEGEND
Striped bass
White perch
Black sea bass
White marlin
Bluefish
Atlantic cod
Pollock
Squirrel hake and White hake
Silver hake
Atlantic tomcod
Gray sea trout
Northern kingfish
Eel
Northern fluke
Windowpane
Winter flounder
Shad
Atlantic mackerel and Chub mackerel
Bluefin tuna
Atlantic bonito
Little tuna
Scup
Northern puffer
Smooth dogfish
Sand shark
Blue shark
American smelt
Swordfish
Tautog
Cunner
Wreck

Martha's Vineyard to Beavertail Point

LAND CONFIGURATION AND WATER DEPTH

In 1602 Bartholomew Gosnold, sailing in his small ship the *Concord,* came upon a southern New England island which he called Martha's Vineyard. It is believed he named it in honor of his infant daughter and because of the abundance of wild grapes. Martha's Vineyard, locally called the Vineyard, is a large island which lies about 4 miles south of Cape Cod. It is roughly triangular being about 8 miles in a north-south direction and 15 miles east-west. The shore is generally hilly and rugged from Vineyard Haven westward, thence southward to Chilmark. Sea cliffs along this section often rise 50 to 100 feet from the sea; one at Gay Head rises nearly 150 feet. The shore eastward of Chilmark thence northward back to Vineyard Haven is, for the most part, composed of low sand dunes. Behind the dunes lies a series of ponds, most of them landlocked but some open to the sea. The highest point on the Vineyard, Prospect Hill with an elevation of 308 feet, is located just northeast of Menemsha.

One of the interesting geological features of Martha's Vineyard is the 10 miles of smooth straight beach from Chilmark to Chappaquiddick Island. Many thousands of years ago the coastline along this section was very irregular. At that time the level of the sea was lower than it is now. As the level slowly rose, waves began to erode the cliffs of Nashaquitsa, Waquobsque, and Squibnocket. The eroded sand and other unconsolidated materials were carried eastward along the coast by ocean currents. South Beach, as it is now called, probably originated as an offshore barrier beach which was forced back by wave action until it reached land. In the course of this process, arms of the sea were closed off and became the freshwater ponds that we know today. The erosion and transportation of sand go on all the time, so that any opening artificially cut through the beach is usually closed in a few weeks.

Historically, the Vineyard proved to be suitable for farming thanks to its large tracts of fertile soil, which Nantucket lacks. And, although it developed only a small whaling industry of its own, it nevertheless made considerable profit from Nantucket because it provided a base where vessels were fitted and refitted for whaling and commerce. Also, many of the men living on the Vineyard joined the crews of whalers. The Indians, especially those from Chilmark and Gay Head, played an important part in whaling for they were exceptionally skilled as harpooners.

Five miles to the south of Gay Head lies the small, hilly, uninhabited island of Nomans Land. Years ago commercial fishermen lived there but today it is used as a Navy firing range from November to May. Nomans shore, for the most part, is a series of clay and gravel cliffs 20 to 70 feet high with boulders at the water's edge. The highest point, 110 feet, is near the center of the island.

Vineyard Sound, north of Martha's Vineyard, is a narrow body of water about 4 miles wide by 25 miles long. The bottom is hard, composed mostly of sand and gravel. It is kept clear of silt and mud by the action of 1- to 3-knot currents. Most of the shoals of Vineyard Sound, notably Squash Meadow, Hedge Fence, L'Hommedieu Shoal, and Middle Ground, carry shallow depths of about 5 feet and are composed of hard sand and gravel. Lucas Shoal, however, carries about 10 feet in its shallowest portion and is rocky. During the mid-1800's, these shoals and the surrounding bottom constituted one of the most extensive black sea bass grounds along the New England coast. Now only an occasional sea bass is caught here.

The Elizabeth Islands are made up of a group of 16 small islands, most of which are hilly, partly wooded, the rest covered by grasses and shrubs. Although the highest point is about 175 feet, only a few islands rise over 150 feet from the sea. Cuttyhunk, the southernmost island, is the site of the first attempted English settlement in New England, that of Bartholomew Gosnold in 1602.

The narrow passages between these islands through which boats sail are called Holes. Woods Hole is the major passage from Vineyard Sound to Buzzards Bay. It is also the name of the nearby village, where in some vacant buildings owned by the Lighthouse Board, a predecessor of today's Coast Guard, the first marine fisheries laboratory was established in 1871. The laboratory was equipped with a small yacht on loan from the custom-house at New Bedford and a steam-launch belonging to the navy yard at Boston, collection apparatus borrowed from the Smithsonian Institution, and condemned navy powder-tanks to hold preserved specimens. These buildings and the wharf connected with the buoy station served as temporary quarters until the Fisheries Biological Laboratory and Hatchery were completed in 1883 at the present site of the United States Fishery Laboratory. A block away is the Marine Biological Laboratory, a nonprofit educational institution, which was established in 1888. Diagonally across the street from the Marine Biological Laboratory is the Woods Hole Oceanographic Institution. This is a privately endowed corporation set up in 1930 to study ocean phenomena.

To the west of Woods Hole is a 200-square-mile body of water known as Buzzards Bay. The shore is irregular, rocky, and indented by bays and rivers. Large rocks and boulders are common and in places extend a considerable distance from shore. The average depth in the lower half of this bay is about 50 feet; the deepest depth of 126 feet is located 2 miles northwest of Cuttyhunk. The bottom of this bay is mostly mud, broken in many places with rocky reefs and boulders.

The shore of southern Massachusetts and Rhode Island is composed of rocky headlands alternating with sandy beaches. Gooseberry Neck, a prominent headland, extends a mile from the mainland, and the rocky shoals of Hen and Chickens and Old Cock extend a mile and a half beyond this. To the west of this headland lie the sandy areas of Horseneck and Goose Wing Beaches. Sakonnet Point, and its islets and shoal water which terminate in Schuyler Ledge, is the first major headland in Rhode Island when approaching from the east.

Rhode Island Sound is a basin of water about 30 miles long by 20 miles wide. Its eastern edge is formed by Vineyard Sound, its northern edge by Buzzards Bay and Narragansett Bay, its western edge by Block Island Sound, and its southern edge by a submarine plateau called Cox Ledge (also spelled Cox's). The deepest part of the basin is 200 feet and is located in the "Mud Hole." The Mud Hole is actually a submarine channel which passes between the East Ground and Cox Ledge. Offshore of Cox Ledge the depth drops from 120 feet to 150 feet in a distance of about a mile. Farther offshore the bottom slopes even more gradually—from 100 feet to 180 feet in 10 miles.

FISH AND FISHING

The area from Nantucket Island to Rhode Island, including Buzzards Bay, is one of the best fishing areas for striped bass along the east coast. Stripers from 9 inches to over 70 pounds are caught here. It is said that a commercial fisherman caught one in recent years weighing 84 pounds. This is possible because it is under the maximum recorded weight of 125 pounds. Anglers fishing the salt ponds, bays, and river mouths along the south shore of Cape Cod and Buzzards Bay catch mostly school bass, those weighing less than 10 pounds. Surf casters along the beaches of Martha's Vineyard and boatmen trolling the nearby rips often catch stripers to 30 pounds, sometimes to 40 and 50 pounds.

Boat anglers fishing around Cuttyhunk, Penikese, Nashawena, and Pasque Islands consistently catch exceptionally large stripers. Those weighing 30 pounds or more are commonly called bulls. Unfortunately, this term is misleading since it implies that these fish are males. Actually, it is unusual to catch a male weighing even 10 pounds in these waters, much less one weighing 20 or even 30 pounds. It would be more appropriate to call these large bass "cows," for they are without exception females. The area from Round Hill Point on the mainland of Massachusetts to Beavertail Point in Rhode Island is very good striper water. Anglers catch mostly school bass in the Slocums River and both the east and west branch of the Westport River. Somewhat larger fish are caught off the rocky headlands, especially around Gooseberry Neck and off Hen and Chickens. Occasionally a striper weighing 50 or even 60 pounds is caught along the shore from Gooseberry Neck to Sakonnet Point.

Another very popular species abundant in these waters is bluefish, ranging in size from a few ounces to 22½ pounds. When inshore, the bluefish inhabit the same areas as striped bass. The area around Nomans is especially good for blues, which have averaged about 10 pounds during the last few years. Bluefishing is also good around the Elizabeth Islands as well as along the mainland shore.

Anglers catch tautog anywhere in the inshore waters of this area where they find rocks, wrecks, mussel beds, and pilings. Exceptionally good tautog grounds are located around Nomans Land, the Elizabeth Islands, and Gooseberry Neck in Massachusetts and Sakonnet Point, Brenton Reef, and Beavertail Point in Rhode Island.

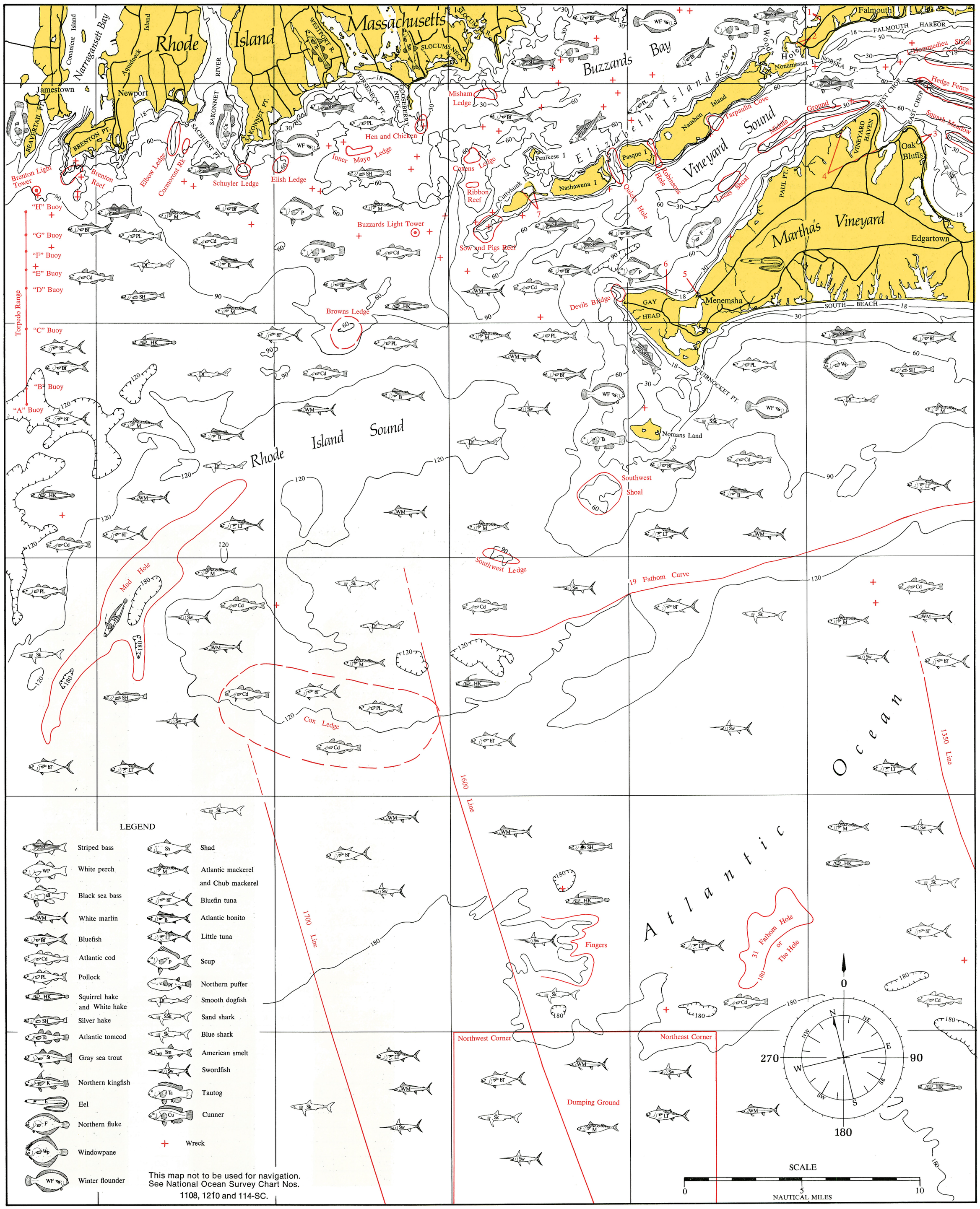
A catch which is more often a nuisance than a prize is the cunner. Also called choggie and bait stealer, this fish is often annoying to the angler. Cunner all too often find their way to the baited hook, but few are kept because they are so small. During the summer, live-bait fishing for striped bass is restricted to night when cunner do not feed.

Winter flounder, locally called blackback, are of great importance to the angler. Blackbacks are caught in a variety of locations—in the lower end of rivers, in salt ponds, bays, and the ocean. About 10 years ago fluke, a summer visitor, were caught throughout this area. Today fluke fishing is usually restricted to Menemsha Bight, Lucas Shoal, and the lower end of the Sakonnet River. Fishing for scup, another summer visitor, is best at the Vineyard around Lake Tashmoo, Menemsha Bight, and Devils Bridge. In Rhode Island scup fishing is good from Sakonnet Point to Brenton Point. Eel, tomcod, and a few smelt are caught in the ponds on the Vineyard and in Slocums and Westport Rivers on the mainland. During some years shad are caught by anglers fishing the mouth of Westport River at Horseneck Point.

Bottom-dwelling fishes called groundfish, notably cod, squirrel hake, and white hake, are present offshore the year round. Cox Ledge is a particularly good ground where anglers catch these species all year. During cold months, however, many of these fishes move in close to shore. In fact, a few cod are caught in late fall by striper anglers fishing from the surf, especially off the Vineyard. Others such as pollock and silver hake, which live near the bottom but at times occur at the surface, also move inshore during cold months and offshore during warm ones.

During the last few years good catches of mackerel have been made, both from shore and boats, within the entire area of this map. Offshore, anglers catch swordfish, white marlin (called skilligolee by old timers), blue sharks, Atlantic bonito, and school tuna. They catch giant tuna close to shore, especially in the area of the "Torpedo Range." At times white marlin and even a few swordfish swim close to shore and are caught in the water from Sow and Pigs Reef to Devils Bridge and around Southwest Shoal which lies off Nomans. Most of the time, however, they are caught offshore in depths over 120 feet.

		BOAT RENTAL					LAUNCH'G			DEPTH			SUPPLIES			SERVICES			
No.	Location	Boating Facilities Per Location	Rowboat - Outboard	Charter Boat	Party Boat	Runabout - Skiff	Ramp: Surfaced - Natural	Hoist: Fixed - Portable	Marine Railway	Tidal Range - (Ft.)	Approach - (Ft.)	Alongside - (Ft.)	Bait - Tackle	Fuel: Gasoline - Diesel	Water - Ice - Grocery	Moorings - Berths - Elec.	Repair: Motor - Hull	Food - Lodging	Toilet - Shower
1	Quissett	2							R	4.0	14	22		G	WI	M	MH		
2	Woods Hole	4	RO	C			S		R	1.8	8	10	B	GD	WIG	BE	MH	FL	T
3	Oak Bluffs	3		C			S			1.7	8	8	BT	GD	WIG	MBE	M	FL	TS
4	Vineyard Haven	8	RO	C			SN	F	R	1.7	20	10	BT	GD	WIG	MBE	MH	FL	TS
5	Menemsha Harbor	1		C						2.7				GD	I	MBE		F	
6	Gay Head	1	RO																
7	Cuttyhunk Island	4		C						3.4	12	3	BT	GD	WIG	MBE		FL	T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Massachusetts
Rhode Island
Narragansett Bay
Conanicut Island
Aquidneck Island
Jamestown
Newport
BEAVERTAIL PT.
BRENTON PT.
SAKONNET RIVER
SAKONNET PT.
SACHUEST PT.
WESTPORT R.
SLOCUMS R.
SLOCUMS NECK
HORSENECK PT.
COOSEBERRY NECK
Buzzards Bay
Falmouth
FALMOUTH HARBOR
Woods Hole
Nonamesset I.
NOBSKA PT.
Hommedieu Shoal
Hedge Fence
WEST CHOP
EAST CHOP
Squash Meadow
Oak Bluffs
VINEYARD HAVEN
Middle Ground
Tarpaulin Cove
Naushon Island
Elizabeth Islands
Vineyard Sound
Pasque I.
Penikese I.
Nashawena I.
Cuttyhunk I.
Robinsons Hole
Quicks Hole
Lucas Shoal
PAUL PT.
Martha's Vineyard
Edgartown
Menemsha
GAY HEAD
SOUTH BEACH
SQUIBNOCKET PT.
Devils Bridge
Nomans Land
Southwest Shoal
Southwest Ledge
Rhode Island Sound
Misham Ledge
Hen and Chicken
Inner Mayo Ledge
Coxens Ledge
Ribbon Reef
Sow and Pigs Reef
Buzzards Light Tower
Brenton Light Tower
Brenton Reef
Elbow Ledge
Cormoront Rk.
Schuyler Ledge
Elish Ledge
Browns Ledge
Torpedo Range
"H" Buoy
"G" Buoy
"F" Buoy
"E" Buoy
"D" Buoy
"C" Buoy
"B" Buoy
"A" Buoy
Mud Hole
Cox Ledge
19 Fathom Curve
1350 Line
1600 Line
1700 Line
Atlantic Ocean
31 Fathom Hole or The Hole
Fingers
Northwest Corner
Northeast Corner
Dumping Ground
LEGEND
Striped bass
White perch
Black sea bass
White marlin
Bluefish
Atlantic cod
Pollock
Squirrel hake and White hake
Silver hake
Atlantic tomcod
Gray sea trout
Northern kingfish
Eel
Northern fluke
Windowpane
Winter flounder
Shad
Atlantic mackerel and Chub mackerel
Bluefin tuna
Atlantic bonito
Little tuna
Scup
Northern puffer
Smooth dogfish
Sand shark
Blue shark
American smelt
Swordfish
Tautog
Cunner
Wreck
This map not to be used for navigation.
See National Ocean Survey Chart Nos.
1108, 1210 and 114-SC.
SCALE
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5
10
NAUTICAL MILES
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NE
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SE
S
SW
W
NW
0
90
180
270

Gooseberry Neck to Watch Hill Point

LAND CONFIGURATION AND WATER DEPTH

Narragansett Bay is an ancient river valley into which the sea now flows. Extending inland for 20 miles, it contains about one-quarter of the total area of Rhode Island. While exploring the Atlantic coast of the New World in 1524, Giovanni da Verrazzano came upon this bay and remained here for a few weeks. He was delighted by what he described as a "very beautiful port" surrounded by "charming hills with many brooks, which from the height to the sea discharged clear water."

Scattered throughout Narragansett Bay are nearly 20 islands which range in size from a few acres to many thousands of acres. Aquidneck Island, now called Rhode Island, is not only the largest and most important but is also the one from which the name of the state is derived. The surrounding land is characterized by rounded hills, most of them less than 200 feet high. The irregularly shaped shoreline is mostly rocky with boulders and rock ledges extending out from shore in many places.

From Point Judith to Watch Hill the shore is low and sandy. Behind the sandy beaches is a series of brackish and saltwater ponds, most of which connect with the sea through narrow inlets called breachways. A short distance offshore of the beaches are scattered boulders, most being submerged. Those of Nebraska Shoal, Old Reef, and Watch Hill Reef are excellent fishing spots.

Block Island, an old fishing village that has evolved into a summer resort, lies 8 miles to the south of mainland Rhode Island. To the Indians it was *Manisses,* which was their tribal name. Verrazzano, as he sailed by it, named it *Luisa* in honor of his king's mother (later this name was mistakenly changed to *Claudia*). The first European known to land there was Adrian Block for whom it was referred to on Dutch sailing maps of the 1600's as *Adrian's Eyeland.* Eventually it became Block Island.

FISH AND FISHING

Tautog, called blackfish by most Rhode Islanders, is one of the most popular fishes in Narragansett Bay, to anglers and spearfishermen alike. Most blackfish overwinter outside of the Bay in depths of 90 feet or more. During the spring adults migrate to the upper part of Narragansett Bay to spawn, many returning to the same area year after year. When spawning ends in early summer they disperse and spread throughout the bay. By fall most blackfish inhabit the rocky region near the Bay's mouth and fishing is very good around the Point Judith jetties and the rocky shoals and mussel beds off Beavertail, Brenton, and Sakonnet Points. Fishing is also good on the shoals and ledges off Watch Hill and Block Island and between Block Island and Montauk Point, New York.

Cunners, called choggies or bait stealers, are related to blackfish and have similar habits. Because cunners are such effective bait stealers, live-bait fishing for striped bass during the summer is often restricted to the night when cunner do not feed. Although most cunners are small, some weighing well over 2 pounds occur around the boulders and rock ledges of Block Island.

Winter flounder is an important bottom-dwelling fish which often occurs on the same grounds as blackfish. The name winter flounder is derived from the fact that in southern New England and the middle Atlantic states, most of them occur inshore during cold months and offshore during warm ones. Many adults move inshore in the fall and winter as the water cools. They feed rapaciously as winter approaches, but fast during their spawning season in midwinter. As soon as spawning is over, usually by late March, adults begin to feed again. Then as the shallow water warms in spring they move to deeper and cooler depths. Most of the young winter flounder occur inshore the year round.

Black sea bass is another summer visitor to this area. Until the mid-1950's the grounds off Montauk Point and Little Narragansett Bay produced large quantities of black sea bass, but since then the abundance of this species has declined severely. Northern fluke, called flounder in the upper part of Narragansett Bay, is also a summer visitor which has diminished greatly in numbers during the last decade.

Striped bass is a coastal fish that occurs all along the shore of this area as well as in the estuaries and rivers. Stripers are generally summer visitors in Rhode Island, but a few overwinter in some brackish water ponds, and in Mount Hope and the Taunton River near the hot-water discharges of electric power plants. During the angling season fish weighing less than 10 pounds—"school bass"—are the commonest sizes, but a few 50- to 60-pounders occur each year.

The schooling bluefish are found inshore as well as offshore. The grounds and tide rips off Block Island are excellent spots to catch large bluefish—those exceeding 6 pounds. Within the last few years a bluefish weighing almost 25 pounds was caught within sight of Montauk Point. The North Ground, North Bar, East Ground, Southwest Ledge, West Ground, and Great Eastern are excellent fishing areas. Mostly medium-sized blues—2 to 6 pounds—occur around the mouth of Narragansett Bay. Small ones, less than 1 year old, called snappers or skipjacks, occur in the salt ponds, small bays, and coves. Other species such as white perch, eels, smelt, and tomcod occur in these same inshore areas.

The Atlantic mackerel is a pelagic species whose abundance fluctuates greatly from year to year, often with periods of great abundance alternating with those of scarcity. Large ones which usually remain offshore are the first to arrive in the spring and the last to leave in the fall. These large ones are called sea or king mackerel. The name "tinker" is applied to the small ones, caught both inshore and offshore during summer and early fall.

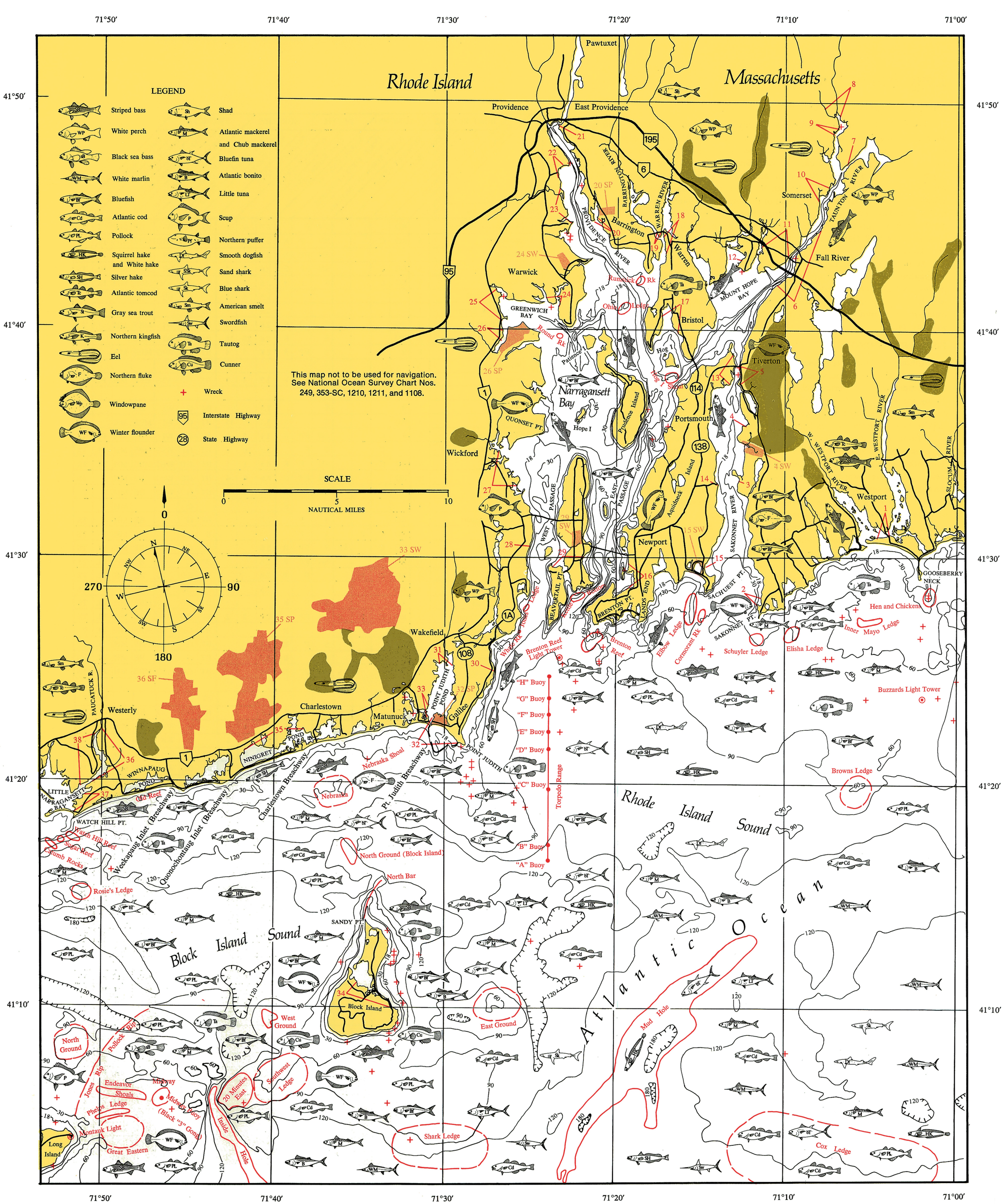
Bluefin tuna arrive off Rhode Island about late June. The school tuna, those weighing less than 100 pounds, occur offshore and can be caught by trolling artificial lures. Giant tuna, those over 100 pounds, are seen swimming off Rhode Island about this same time, but, for some reason yet to be discovered, will not take a bait. In fact, it is usually not until late August or the first of September that any are caught. At the height of the season in the fall, most of these giants are caught by anglers chumming from boats close to shore. Favorite fishing areas are around Whale Rock, along the Torpedo Range, and from Nebraska Shoal to Rosie's Ledge.

Even though pelagic sharks such as the mako, tiger, white, and porbeagle occur off Rhode Island and Block Island, blue sharks are the most abundant by far. Each year more and more anglers chum for sharks in areas such as the Mud Hole and the Inside Hole.

While trolling offshore during the summer months, anglers are likely to catch pelagic fishes such as white marlin (called skilligolee by old timers), Atlantic bonito, and even dolphin. But the anglers' greatest prize in this area remains the swordfish. Thirty years ago it was not unusual to sight 20 or more swordfish a day from 2 to 5 miles off Rhode Island's headlands. Then, swordfishermen rarely needed to go more than 8 miles offshore. As the commercial fishery grew and more and more fish were landed each year, fishermen saw fewer swordfish and had to travel greater distances to see any. A decade ago anglers traveled about 10 miles to the fishing grounds; today they often travel 50 or even 100 miles.

			BOAT RENTAL				LAUNCH'G			DEPTH			SUPPLIES			SERVICES			
No.	Location	Boating Facilities Per Location	Row-Boat - Outboard	Charter Boat	Party Boat	Runabout - Skiff	Ramp: Surfaced - Natural	Hoist: Fixed - Portable	Marine Railway	Tidal Range - (Ft.)	Approach - (Ft.)	Alongside - (Ft.)	Bait - Tackle	Fuel: Gasoline - Diesel	Water - Ice - Grocery	Moorings - Berths - Elec.	Repair: Motor - Hull	Food - Lodging	Toilet - Shower
1	Westport Point	4	RO				S	F	R	3.0			B	GD	IG	MBE	MH	F	T
2	Sakonnet	2		C	P		S	F		3.1	10	5		GD	WIG	MBE	H	F	T
3	High Hill Point	1					S												
4	Sapowet Point	2	RO				N			3.7			T					F	T
5	Tiverton	5	R				S	P	R	3.8	15	10	BT	GD	WIG	MBE	MH	FL	T
6	Fall River	5					SN	FP	R	4.4	20	7		G	WIG	MBE	MH	F	TS
7	Assonet	1						F						G		B			
8	Taunton	5					SN		R	2.8				G		M	MH		T
9	Dighton	2					N		R	3.5	9	6		G	WI	MBE	MH	F	T
10	Somerset	2					S			4.3	4	4			W	BE			
11	Sewammock Neck	2	R				S		R	4.5	12	6	BT	G	W	MB	MH	FL	T
12	South Swansea	1					N	F	R	4.4	10	5		G	WI	MBE	MH		T
13	Portsmouth	3					S		R	3.8	20	10	BT	GD	WI	MBE	MH		T
14	Portsmouth	1					S												
15	Middletown	1					S												
16	Newport	12	RO	C			SN	FP	R	3.5	12	12	BT	GD	WIG	MBE	MH	FL	TS
17	Bristol	7		C			S	P	R	4.1	10	4		GD	WIG	MBE	MH	FL	T
18	Warren	9	R	C	P	S	N	P	R	4.6		4	BT	GD	WI	MBE	MH	F	T
19	Barrington	3	RO				SN		R	4.6		4	BT	G	WI	MBE	MH	L	T
20	West Barrington	6					SN	FP	R	4.6	7	4	BT	GD	WIG	MBE	MH	F	TS
21	East Providence	1							R	4.6	18	12		G	WIG		H		T
22	Edgewood	3		C		S	S	P		4.6	15	4	T	G	WIG	MBE	MH	FL	TS
23	Cranston	8		C			SN	FP	R	4.6	6	3	BT	GD	WI	MBE	MH	FL	T
24	Warwick	12	RO	C			SN	P		4.0	5	3	BT	GD	WI	MBE	MH	FL	TS
25	Apponaug	4	RO	C			SN	FP		4.0	6	4	BT	GD	WIG	MBE	MH	FL	TS
26	East Greenwich	4					N	P	R	4.0	10	6	BT	G	WIG	MBE	MH	FL	T
27	Wickford	6	RO	C		S	SN	FP	R	3.8	6	3	BT	GD	WIG	MBE	MH	FL	TS
28	Saunderstown	1																	
29	Jamestown	6	RO	C			S		R	3.6	10	6	BT	GD	WIG	MBE	MH	F	T
30	Narragansett	1					S							GD	I	BE			T
31	Wakefield	8	RO	C		S	SN		R				BT	GD	WI	MBE	MH	FL	TS
32	Galilee-Pt. Judith	6	R	C	P	S	SN	F					BT	GD	WI	BE	MH	F	T
33	Snug Hbr.-Jerusalem	6	RO	C					R				BT	GD	IG	BE	MH	FL	TS
34	Block Island	4		C						2.9			BT	GD	WIG	MBE	MH	FL	TS
35	Charlestown	4	RO				SN	F					BT	G	WIG	MBE	M	FL	T
36	Westerly	6	RO		P		SN		R	2.7			BT	GD	WIG	MBE	MH	FL	T
37	Watch Hill	3	RO	C		S	S		R	2.6			BT	GD	WI	MBE	MH	F	
38	Pawcatuck	6	RO				SN	P	R	4.6			BT	GD	I	MBE	MH		T

		RECREATIONAL AREAS					ACTIVITIES			
No.	Location	Town-City-County: Park	State: Park — Wildl. Area—Forest	National: Park—Wildl. Area—Forest	National Seashore	Use: Day—Wknd—Vacation	Fishing	Boating	Picnicking	Camping
4SW	Sapowet Marsh		SW							
15SW	Norman Sanctuary		SW							
20SP	Haines Memorial		SP			DW	F	B	P	
24SW	Buckeye Brook Sanctuary		SW							
26SP	Goddard Memorial		SP			DW	F	B	P	
29SW	Marsh Meadows		SW							
32SP	Fort Green		SP			DW			P	
33SW	Great Swamp		SW							
35SP	Burlingame		SP			DWV		B	P	C
36SF	Woody Hill		SF							


LEGEND
Striped bass
White perch
Black sea bass
White marlin
Bluefish
Atlantic cod
Pollock
Squirrel hake and White hake
Silver hake
Atlantic tomcod
Gray sea trout
Northern kingfish
Eel
Northern fluke
Windowpane
Winter flounder
Shad
Atlantic mackerel and Chub mackerel
Bluefin tuna
Atlantic bonito
Little tuna
Scup
Northern puffer
Smooth dogfish
Sand shark
Blue shark
American smelt
Swordfish
Tautog
Cunner
Wreck
Interstate Highway
State Highway
This map not to be used for navigation.
See National Ocean Survey Chart Nos.
249, 353-SC, 1210, 1211, and 1108.
SCALE
NAUTICAL MILES
Rhode Island
Massachusetts
Providence
East Providence
Pawtuxet
Barrington
Warren
Warwick
Bristol
Somerset
Fall River
Tiverton
Portsmouth
Newport
Westport
Wickford
Wakefield
Westerly
Charlestown
Matunuck
Narragansett Bay
Block Island Sound
Rhode Island Sound
Atlantic Ocean
Block Island
Long Island
Brenton Reef Light Tower
Buzzards Light Tower
Torpedo Range
"H" Buoy
"G" Buoy
"F" Buoy
"E" Buoy
"D" Buoy
"C" Buoy
"B" Buoy
"A" Buoy
Hen and Chickens
Inner Mayo Ledge
Elisha Ledge
Schuyler Ledge
Cormorant Rk
Elbow Ledge
Brenton Reef
Browns Ledge
Nebraska Shoal
Nebraska
North Ground (Block Island)
North Bar
Rosie's Ledge
Watch Hill Reef
Sugar Reef
Grumb Rocks
Old Reef
West Ground
East Ground
Mud Hole
Shark Ledge
Cox Ledge
North Ground
Pollock Rip
Jones Rip
Endeavor Shoals
Phelps Ledge
Great Eastern
Montauk Light
Midway
Midway Buoy (Black "3" Gong)
20 Minutes East
Southwest Ledge
Inside Hole
Weekapaug Inlet (Breachway)
Quonochontaug Inlet (Breachway)
Charlestown Breachway
Pt. Judith Breachway
Runnick Rk
Round Rk
Ohio Ledge
Hog Ledge
Shoal
Patience
Hog I
Hope I
Prudence Island
Aquidneck Island
Gooseberry Neck
Sachuest Pt.
Sakonnet Pt.
Brenton Pt.
Lands End
Beavertail Pt.
Point Judith
Point Judith Pond
Galilee
Sandy Pt.
Watch Hill Pt.
Little Narragansett Bay
Pawcatuck R.
Winnapaug Pond
Ninigret Pond
Quonset Pt.
Barrington River
Warren River
Providence River
Taunton River
Sakonnet River
W. Westport River
E. Westport River
Slocum River
Mount Hope Bay
Greenwich Bay
Sakonnet Pt.
Sakonnet River
East Passage
West Passage
Prudence Island
Aquidneck Island
Block Island
Long Island
71°50′
71°40′
71°30′
71°20′
71°10′
71°00′
41°50′
41°40′
41°30′
41°20′
41°10′

Long Island Sound

LAND CONFIGURATION AND WATER DEPTH

Long Island Sound is a semienclosed body of water 90 miles long by 10 miles wide separating Connecticut from Long Island, New York. Its average depth is about 60 feet, its greatest depth 330 feet. Of the two narrow passages into the Sound, the eastern one is the widest and deepest. Excluding the shoal area of Valiant Rock, the depth in the 4 miles between Race Point and Little Gull Island varies between 50 and 250 feet. Tidal currents flowing through the Race are extremely fast, often reaching velocities of 4 knots. At the opposite end of the sound the western passage is only about half a mile wide and varies in depth from 50 to 100 feet. Here the water from New York Bay flows into the Sound through the East River, which is not a river at all but a channel. At Hell Gate, a constricted area in the East River, the water often flows at 5 knots.

At its eastern end, Long Island divides into two peninsulas, the northern one terminating at Orient Point and the southern one at Montauk Point. Between these peninsulas lies a series of bays and small sounds, separated from each other by either islands or land points. The bottom composition along the shores varies considerably from sand and mud to gravel and boulders, depending on the degree of shelter from wave action.

FISH AND FISHING

Although resident species such as tautog, winter flounder, and cunner are common throughout the year, seasonal migrants tend to dominate the fish population—temperate-water species such as bluefish, striped bass, scup, fluke, and weakfish during the warm months and cold-water species such as cod and pollock during the cold months. The young of many warm-water or subtropical species are occasional summer visitors, their occurrence depending on their transport by the Gulf Stream.

Tautog, more often called blackfish, do not migrate extensively. They spend the winter in depths of 90 feet or more, usually in an inactive state. During very cold periods they gather in rocky crevices and holes and become dormant. As the water warms during spring, they move towards shore into relatively shallow water where they feed actively throughout the summer. As the water cools during fall, they move into deep water and become less active as the winter advances. Cunner, also called bergall, are closely related to tautog and follow the same general activity pattern. Even though very plentiful, cunner are relatively small fish, rarely reaching over 14 inches in length; hence they are not popular with anglers. Unfortunately, the effectiveness of cunner as bait stealers precludes live-bait fishing for striped bass until night when cunner do not feed.

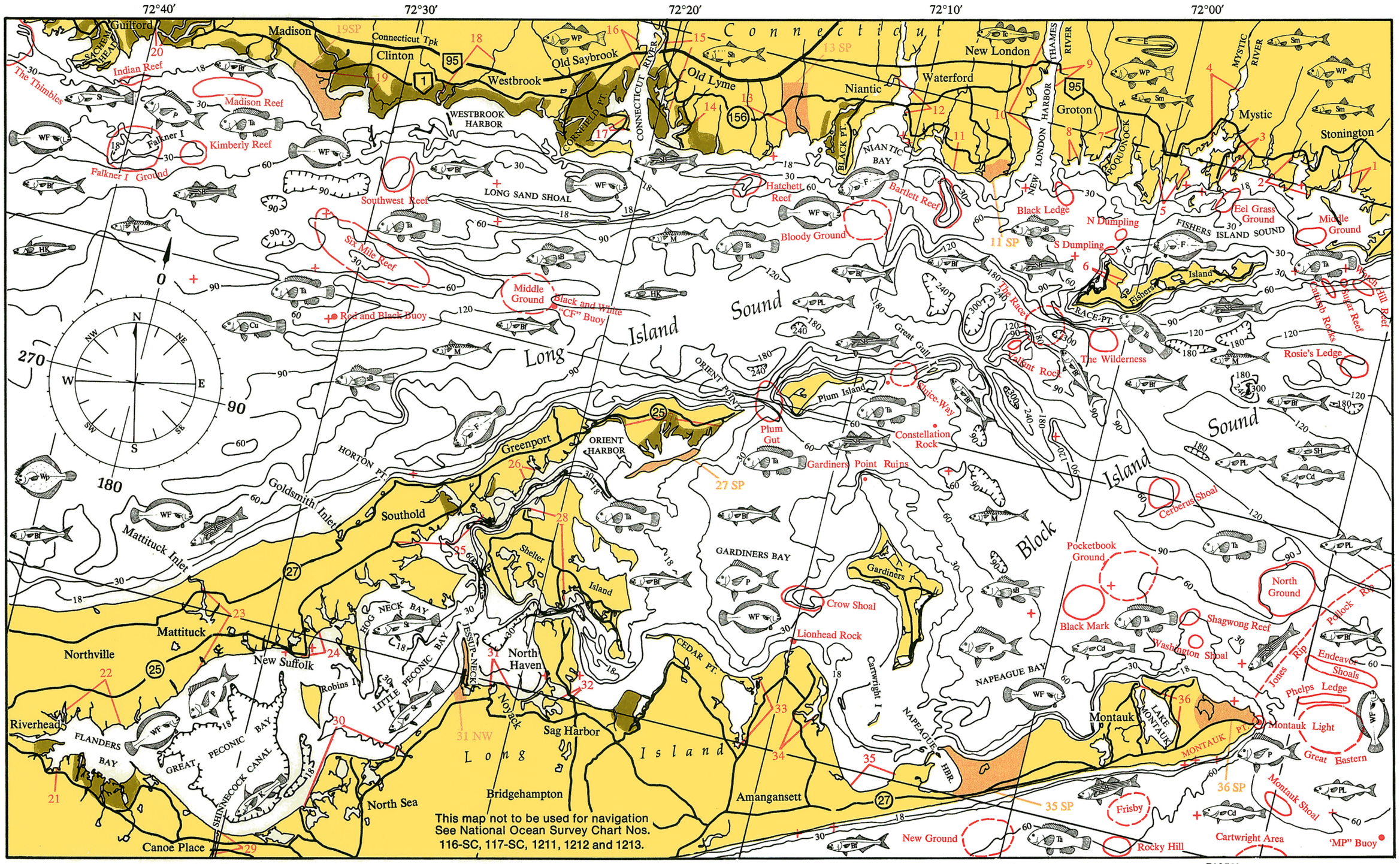
Winter flounder, called blackback in the eastern end of the Sound and flounder in the western end, are one of the most abundant resident species. Their activity pattern differs from that of tautog. During the fall when tautog move into deep water, flounder move into shallow bays and estuaries to overwinter and spawn. The peak of spawning takes place from January to March during which time they cease feeding. As the water warms later in spring, adults move back into deeper water to feed.

As warm-water migrants arrive during spring, the species composition of the Sound changes dramatically. Bluefish ranging in size from young stages to adults over 36 inches migrate from as far as Florida. Long Island Sound, especially the eastern end, seems to be one of the few areas along the east coast where exceptionally large bluefish occur within casting distance of shore. Striped bass come here from areas as near as the Hudson River and as far away as North Carolina. Scup, fluke, and black sea bass migrate here from their wintering grounds located along the outer edge of the continental shelf between New Jersey and North Carolina. Weakfish, more properly called gray sea trout, and kingfish migrate here from their wintering grounds off Virginia and the Carolinas. During the summers of the 1920's, 30's, and most of the 40's, the abundance of weakfish was high throughout this area. Beginning in the late 1940's, it decreased greatly, reaching a low in the mid-1960's. In the late 60's, and early 70's, however, there was enough evidence of an improvement to offer hope that the northern population of this excellent game fish is recovering.

Cod and pollock, both cold-water migrants, arrive during fall and remain throughout the winter. Most of them stay in the eastern end of the Sound near the ocean water inflow. Cod are the first to leave as the water warms, usually in March and April. Pollock remain until about June; then they move offshore into deeper and cooler water. Unlike cod, pollock do not carry on extensive migrations. Instead they seem to remain within the same general area throughout their life.

		RECREATIONAL AREAS					ACTIVITIES				
No.	Location	Town-City-County-Park	State-Park—Wildl. Area—Forest	National-Park—Wildl. Area—Forest	National Seashore	Use: Day—Wknd—Vacation	Fishing	Boating	Picnicking	Camping
11SP	Harkness Memorial		SP			DW	F	B	P	
13SP	Rocky Neck		SP			DWV	F	B	P	C
19SP	Hammonasset		SP			DWV	F	B	P	C
27SP	Orient Beach		SP			DW	F		P	
31NW	Morton			NW		DW	F		P	
35SP	Hither Hills		SP			DWV	F		P	C
36SP	Montauk		SP			DW	F	B	P	
52SP	Sherwood Island		SP			DW	F	B	P	
61SP	Caumsett (undeveloped)		SP			DW	F			
64SP	Sunken Meadow		SP			D	F			
68SP	Wildwood		SP			DWV	F	B	P	C

		Boating Facilities Per Location	BOAT RENTAL				LAUNCH'G			DEPTH			SUPPLIES			SERVICES			
No.	Location		Rowboat - Outboard	Charter Boat	Party Boat	Runabout - Skiff	Ramp: Surfaced - Natural	Hoist: Fixed - Portable	Marine Railway	Tidal Range - (Ft.)	Approach - (Ft.)	Alongside - (Ft.)	Bait - Tackle	Fuel: Gasoline - Diesel	Water - Ice - Grocery	Moorings - Berths - Elec.	Repair: Motor - Hull	Food - Lodging	Toilet - Shower
1	Wequetequock Cove	3	RO				SN	F		2.7	4	1	BT	G	W	BE	MH	L	TS
2	Stonington	6	RO	C			SN	P	R	2.7	2	2	BT	GD	WIG	MBE	MH	FL	TS
3	Mystic	9					SN	FP	R	2.6	1	1	BT	GD	WI	MBE	MH	FL	TS
4	Mason Island	5	RO	C			SN	FP	R	2.6	3	2	BT	GD	WI	MBE	MH	FL	TS
5	Noank	8	RO	C			S	P	R	2.6	3	4	BT	GD	WIG	MBE	MH	FL	TS
6	Fishers Island	2								2.5	8	5		GD	WI	BE			TS
7	Poquonock River	1								2.6			BT	G		B			
8	Avery Point	4	RO				S	P	R	2.6	6	4	BT	G	WI	MBE	MH		T
9	Groton	3	RO				S		R	2.6	20	18	BT	G	WI	MBE			T
10	New London	8	R	C			S	FP	R	2.6	5	4	BT	GD	WIG	MBE	MH	L	TS
11	Waterford	1					S												
12	Niantic	12	RO	C	P		SN	FP	R	2.7	3	3	BT	GD	WIG	MBE	MH	FL	TS
13	South Lyme	1					S												
14	Black Hall	1	R				S			3.5			BT	G	WI	BE			T
15	Old Lyme	3	RO				S		R	3.1	15	15	BT	GD	WI	MBE	MH		TS
16	Old Saybrook	8	R	C			SN	FP	R	3.1	6	6	BT	GD	WI	MBE	MH	F	TS
17	Saybrook Point	3		C			S	F		3.5	10	6	BT	GD	WIG	MBE	MH	FL	TS
18	Westbrook	9	RO	C			SN	P	R	4.5	1	1	BT	GD	WIG	MBE	MH	FL	TS
19	Clinton	10	RO				SN	FP	R	4.6	4	4	BT	GD	WIG	BE	MH	F	TS
20	Guilford	4					S		R	5.4	1	4	BT	G	WIG	BE	MH	F	T
21	Flanders	1							R					G			MH		
22	South Jamesport	3	RO				S	P		2.7			BT	G	I	BE	MH	F	TS
23	Mattituck	9	RO	C	P		S	P					B	GD	I	BE	MH	F	TS
24	New Suffolk	6	RO	C		RS	S	FP	R	2.6			BT	GD	IG	MBE	MH	FL	TS
25	Southold	6	RO				SN	FP	R	2.3			BT	G	I	BE	MH	FL	TS
26	Greenport	11	RO	C	P			F	R	2.4			BT	GD	IG	BE	MH	FL	TS
27	Orient	4	RO							2.5			BT	GD	I	BE		F	TS
28	Shelter Island	7	RO				SN	F	R				BT	GD	IG	MBE	MH	FL	TS
29	Shinnecock Canal	11	RO	C	P	S	SN	FP		2.0	2	2	BT	GD	WIG	BE	MH	FL	TS
30	Southampton	4	RO				N		R				BT	GD	IG	MBE	MH	FL	T
31	Noyack	3	RO				S	F	R	2.3			BT	G	IG	MBE	MH	L	T
32	Sag Harbor	7	RO	C			SN		R	2.5			BT	G	IG	BE	MH	FL	TS
33	East Hampton	11	RO			S	SN	FP	R	2.4			BT	GD	WIG	MBE	MH	FL	TS
34	Acabonack Harbor	2					S												
35	Gardiners Bay	2								2.3			BT	G				FL	T
36	Montauk	21	RO	C	P	RS	SN	P	R	1.9			BT	GD	IG	BE	MH	FL	TS
37	West River	3							R	5.4	1	4		G	W	BE	MH		T
38	Hoadley Neck	1	R				S			5.6	2	2		G	WIG	E			TS
39	Stony Ck. - Pine Orch.	5	RO				S	FP	R	5.7	0	0	BT	G	WIG	MBE	MH	F	TS
40	Branford	11	RO	C			SN	FP	R	5.9	4	2	BT	GD	WIG	MBE	MH	F	TS
41	East Haven R.	5	R				SN	F	R	6.1	1	1	BT	G	W	MBE	MH	FL	TS
42	East Haven	5	RO				S	P	R	6.2	2	2	BT	GD	W	MBE	MH	F	TS
43	New Haven	6	RO				SN	FP	R	6.3	4	4	BT	G	WI	BE	MH	F	T
44	West Haven	8	R				SN	FP	R	6.3	4	2	BT	GD	WIG	MBE	MH	FL	TS
45	Milford	6					S	P	R	6.6	8	6	BT	G	WI	MBE	MH	F	TS
46	Devon	1						FP	R	5.4	4	4		G	WI	MBE	MH		T
47	Stratford	7	RO				S	FP	R	5.5	8	6	BT	GD	WIG	MBE	MH	FL	TS
48	East Bridgeport	7	RO	C	P	R	SN	F	R	6.8	6	6	BT	GD	WIG	MBE	MH	F	T
49	Bridgeport	10	RO	C			SN	FP	R	6.9	5	2	BT	G	WI	MBE	MH	F	TS
50	Ash Creek	2					S			6.9	2	7	B	G	W	B			T
51	Southport	2							R	6.9	6	6		G	WIG		M		TS
52	Westport	2					S			7.0	3	3		G	WI	BE		FL	TS
53	Saugatuck River	4	RO	C			S	FP	R	7.0	4	4	BT	G	WI	MBE	MH		T
54	Saugatuck	2												G					
55	East Norwalk	10	RO	C				FP	R	7.1	6	6	BT	GD	WIG	MBE	MH	F	TS
56	South Norwalk	10	RO	C			S	FP	R	7.1	5	3	BT	GD	WIG	MBE	MH	F	TS
57	Wilson Cove	4	RO				N	F		7.2	3	2	BT	G	WI	MBE	MH		T
58	Rowayton	7	RO					FP	R	7.2	5	5	BT	G	WIG	MBE	MH	F	T
59	Noroton	2																	
60	Cove Mills	1					S												
61	Huntington	15	RO	C			SN	FP	R	7.3	10	2	BT	GD	WIG	MBE	MH	F	TS
62	Centerport	2					N		R	7.3			BT		W G	M	MH	F	
63	Northport	7	RO	C				FP	R	7.3	5	3	BT	GD	WIG	MBE	MH	FL	TS
64	Kings Park	3	RO	C		R		P		7.0	2		BT	G	WI	M E	MH	F	T
65	Stony Brook	5	RO				SN	F	R	6.1	3	4	BT	G	WIG	BE	MH		T
66	Setauket	2	RO						R	6.7	4		BT	G	WIG	M E	MH		T
67	Port Jefferson	9	RO				S	F		6.5	10	6	BT	GD	WIG	MBE	MH	FL	TS
68	Mount Sinai	3	RO					FP	R	6.4	0	5	BT	G	WIG	M E	MH		T


Connecticut
Guilford
Madison
Clinton
Westbrook
Old Saybrook
Old Lyme
Niantic
Waterford
New London
Groton
Mystic
Stonington
Indian Reef
The Thimbles
Madison Reef
Kimberly Reef
Falkner I
Falkner I Ground
WESTBROOK HARBOR
LONG SAND SHOAL
Southwest Reef
Six Mile Reef
Middle Ground
Black and White "CF" Buoy
Red and Black Buoy
Hatchett Reef
Bloody Ground
Bartlett Reef
NIANTIC BAY
Black Ledge
N Dumpling
S Dumpling
Eel Grass Ground
Middle Ground
FISHERS ISLAND SOUND
Fishers Island
RACE PT.
The Race
Falkner Rock
The Wilderness
Rosie's Ledge
Long Island Sound
ORIENT POINT
Plum Island
Great Gull
Plum Gut
Gardiners Point Ruins
Constellation Rock
Cerberus Shoal
Block Island
Pocketbook Ground
North Ground
Greenport
ORIENT HARBOR
HORTON PT.
Goldsmith Inlet
Southold
Mattituck Inlet
Shelter Island
GARDINERS BAY
Gardiners I
Crow Shoal
Lionhead Rock
Black Mark
Shagwong Reef
Washington Shoal
Endeavor Shoals
Phelps Ledge
Montauk Light
Great Eastern
Montauk Shoal
Frisby
Rocky Hill
Cartwright Area
New Ground
'MP" Buoy
Mattituck
Northville
New Suffolk
Robins I
HOG NECK BAY
LITTLE PECONIC BAY
JESSUP NECK
North Haven
Noyack
Sag Harbor
CEDAR PT.
Cartwright I
NAPEAGUE BAY
NAPEAGUE HBR.
Montauk
LAKE MONTAUK
MONTAUK PT.
Riverhead
FLANDERS BAY
GREAT PECONIC BAY
SHINNECOCK CANAL
Canoe Place
North Sea
Bridgehampton
Amagansett
Long Island
This map not to be used for navigation
See National Ocean Survey Chart Nos.
116-SC, 117-SC, 1211, 1212 and 1213.
LEGEND
Striped bass
White perch
Black sea bass
Bluefish
Atlantic cod
Pollock
Squirrel hake and White hake
Silver hake
Atlantic tomcod
Gray sea trout
Northern kingfish
Eel
Northern fluke
Windowpane
Winter flounder
Shad
Atlantic mackerel and Chub mackerel
Scup
Northern puffer
Smooth dogfish
American smelt
Tautog
Cunner
New Haven
Fair Haven
Milford
Branford
Guilford
Stratford
Bridgeport
Southport
South Norwalk
Noroton
SAUGATUCK R
HOUSATONIC R
MILL R
Connecticut Turnpike
NEW HAVEN HARBOR
East Haven
OYSTER R PT.
Charles Island
Morningside Sea Wall
New Haven Breakwater
Cow and Calf
The Thimbles
The Basin
Townshend Ledge
Branford Reef
GUILFORD HBR.
Indian Reef
Falkner I Ground
Falkner Island
STRATFORD PT.
Cockenoe I
Peck Ledge
Norwalk Islands
Greens Ledge
Budd Reef
Cable and Anchor Reef
Penfield Reef
Red Buoy "20"
Stratford Shoal or Middle Ground
HUNTINGTON BAY
LLOYD NECK
EATONS NECK
NORTHPORT BAY
Northport
SMITHTOWN BAY
OLD FIELD PT.
PORT JEFFERSON HARBOR
Black Can "11"
Mt. Misery Shoal
Port Jefferson
STONY BROOK HARBOR
Stony Brook
Huntington
Kings Park
NISSEQUOGUE RIVER
St. James
Herod Point Shoal
Roanoke Point Shoal
HEROD POINT
ROANOKE POINT
Wading River
Long Island
Wreck
Interstate Highway
State Highway
SCALE
0 5 10
NAUTICAL MILES

This publication is a geographical study of marine recreational fishing. It is one of eight sections which together cover the east coast of the United States from Maine to Florida and from the innermost reaches of the estuarine zone seaward to the edge of the continental shelf. Begun several years ago, this study was planned towards two types of publications. The first type, of which this is an example, is an atlas dealing with the location of the fishing grounds, the various fishing and boating facilities, local conditions and characteristics of fishing, as well as the diagnostic features, life habits, and environmental requirements of fishes that are of particular interest to anglers. The second type of publication in the original plan, for which much of the data have been gathered, is to be an assessment of our knowledge about marine fishes which anglers catch, including their life conditions, and the status of those fishes in the 1970's. The aim of the whole study is to compare conditions now with those a century ago when a similar effort was carried through as the first major work of the United States Commission of Fish and Fisheries, the forerunner of the National Marine Fisheries Service.

In gathering information along the coast we have questioned hundreds of fishermen—operators of charter boats, party boats, draggers, gillnet boats, longline boats, pound nets and weirs, lobster and sea bass pots, beach seines, and bait seines; also, anglers, outdoor writers, and operators of boat liveries, bait and tackle stores, and marinas. We have questioned scores of biologists of the various state and federal laboratories, especially the staff at Sandy Hook. State agencies for parks, forests and recreational lands, as well as the National Park Service and the United States Bureau of Sport Fisheries and Wildlife generously supplied us with information. Throughout our task we had the prompt cooperation of university, state, and federal librarians. Several graphic artists and printers gave us technical advice about the production of this publication. Joseph Giacalone and Barry Martin designed the publication and did the cartography. Susan Smith at the Sandy Hook Laboratory made the fish drawings. People who have given information or have been otherwise helpful in preparing this particular section are listed alphabetically below. Without their help this work would not have been possible.

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David A. Daisy
Robert W. Darrow
Bernard "Bunny" DePetrio
David Deuel
Joseph S. DiCarlo
Martin Doll
Louis Dussault
Philip Edmunds
Samuel Finkelstein
Ed Fish
William Fitzpatrick
Stephen P. Fougere
Frank Grice
Richard Hathoway
Harvey Hauptner
Bud Henderson
Arnold Howe
William Howitt
Randy Irvin
Carl Jennings
Cynthia Joyner
Nicholas Karas
Lawrence Keller
Arthur Kendall
Paul Lambert
John Lindenberg
Frederick Lux
Susan Mager
George Maltezos
Katherine Manger
Marty Manley
Frank Mather III
James Miller
Lynn C. Murphy
De Witt Myatt
Anthony Pacheco
Ralph Pearson
Dominick Pirone
Robert Pond
John C. Poole
John Quigley
Joseph Roderick
David Ryder
Thomas Saunders
Edward Shack
Wallace Smith
Peter Sprague
Allen Star
J. Sylvester
Patricia Tappmeyer
George Trot
Joan Urbine
Richard Vigilant
John Waldow
John Walton
Clinton Watson
John Wescott
Hobey Weston
Joseph Whaley
Cole Wilde
Stuart Wilk
Thomas J. Wright
Chester Zawacki

Glossary

ANADROMOUS. Spoken of fish which spend most of their lives in salt or brackish water but ascend rivers to spawn in slightly brackish or fresh water.

BACK COUNTRY. As used in Florida, Florida Bay and adjacent smaller bays and sounds lying between the Keys and the mainland.

BERTH. A place at a dock or wharf where a boat is tied.

BOBBING. A method of fishing for eels. A number of earthworms are threaded on cotton twine and then made into a ball. The ball is usually attached to a short length of line on the end of a cane pole. When an eel takes this bait it tangles its teeth on the twine and is caught.

BOTTOM CONTOUR. An imaginary line on the floor of a body of water connecting points of equal depth.

BOTTOM FISHING. Placing a bait on or near the bottom so as to catch fish. The bait, usually weighted with a sinker, may be cast and allowed to sink or it may be lowered vertically into the water. Sometimes the bait is buoyed by a float so that it remains suspended just off the bottom. The bait is left in place until a fish bites or until the angler slowly retrieves it.

BRACKISH WATER. Applied in this book to water having from 0.2 to 17 parts per thousand, by weight, of dissolved salts.

BREACHWAY. A term used in Rhode Island for an inlet.

BROKEN BOTTOM. A rough, stony or rocky area of the sea floor.

BUOY. A float moored to the bottom to mark a channel or to warn of an obstruction or other danger. Special-purpose buoys are often used to mark the location of artificial fishing reefs.

CASTING. Throwing forth a bait. The bait, either a natural one or artificial lure made to imitate a natural one, is attached to one end of a line, the other end is attached to the angler's reel. When the bait or lure strikes the water, the angler can rapidly retrieve it, let it drift with the current, or let it sink to the bottom. *See* Squidding, Live Lining and Bottom Fishing.

CATADROMOUS. Spoken of fish which spend most of their lives in fresh or brackish water but spawn in salt water.

CHARTER BOAT. A fishing boat with crew hired for the exclusive use of one to six anglers. With the advice of the captain, the anglers determine what type of fishing they will do. Charter boats range in size from a small outboard with guide ($20 or more per day) to a twin-engine, ocean-going vessel in excess of 50 feet with a captain and two mates ($150 or more per day). Tackle and bait are usually furnished with the boat. *See* Party Boats.

CHUMMING. Attracting fish to an area with fish or shellfish, either ground, chopped, or whole, or sometimes with scrap meat and dried blood. Once fish are in the area, hooks baited with cut and whole fish or artificial lures are used to catch them. *See* Live Lining and Bottom Fishing. Oily fish such as menhaden, herring, shad and mackerel are usually used for chum. Chumming for bottom fish is done by lowering a porous container filled with chum. This may be a punctured can of pet food, a wire basket or pot (chum pot), or a cloth bag (chum bag).

COASTAL. Spoken of marine fishes which spend most of their lives within a few miles of shore.

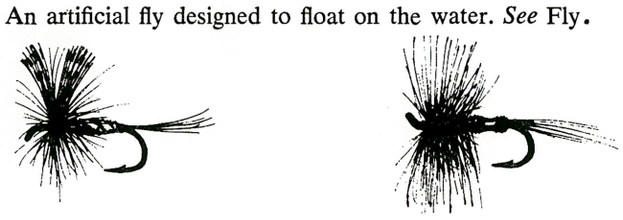
CONTINENTAL SHELF. A submarine plain extending out from shore to a depth of about 600 feet, beyond which the ocean bottom begins a relatively steep descent to the deep ocean floor.

CUT. A term used in southern Florida for an inlet.

DIAMOND JIG. An elongated, narrow, diamond-shaped jig. Weights usually range from ½ ounce to 2½ pounds.

DIP NET. Also called hand dip net. A conical, small-mesh net attached to a rigid frame on a long handle. It is used to catch fish or crabs. Along the southeast coast the term dip net usually applies to a rectangular, small-mesh net supported by a metal frame and attached to a rope or pole. Here it is used to catch baitfish and shrimp.

DRY FLY. An artificial fly designed to float on the water. *See* Fly.



ESTUARY. A partially enclosed body of water having a free connection with the open ocean, within which salt and fresh water mix.

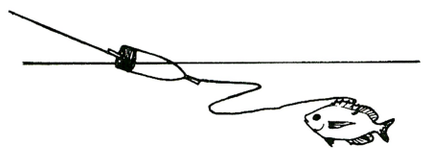
FEATHER. Also called a trolling feather. An artificial bait or lure made to simulate a baitfish and used for trolling. The feather is made of a round or bullet-shaped metal head to which is attached a feather, hair, nylon or other synthetic material body.

FIRE LIGHTING. Also called night lighting, gigging and floundering. Locating or attracting fish in shallow water at night with lights either held above or below the surface. Once a fish is located, it is usually speared.

FLAT. A low-relief plane at the border between a body of water and land. The flat is alternately exposed and submerged, according to the tide. It is designated according to its surface characteristics, as mud flat, sand flat, grass flat, etc.

FLATLINE. A trolling line fished directly astern of a boat.

FLOAT-RIG. Also called popping-jig in southern Florida. A floating plug to which is attached a hook baited with a live fish or shrimp. The plug splashes and makes a popping noise as the rig is drawn through the water, and this disturbance attracts fish to the bait. Float-rigs are often used to catch spotted sea trout.



FLOUNDERING. Fire lighting specifically for flatfishes. *See* Fire Lighting.

FLY. A lightweight artificial bait or lure made to simulate a live insect or other small natural bait. The fly consists of a hook dressed with feathers, hair, yarn and tinsel and tied with thread. *See* Dry Fly, Wet Fly and Streamer Fly.

FRESH WATER. Applied in this book to water having less than 0.2 parts per thousand, by weight, of dissolved salts.

GIGGING. Fishing with a spear, especially while fire lighting.

GULF STREAM. Also called the Stream. A general term used to describe the narrow, relatively fast-flowing ocean current along the Atlantic coast of North America. Properly called the Gulf Stream System, it is made up principally of the Florida Current and the Antilles Current. The name Gulf Stream is based on the misconception that the current's source is the Gulf of Mexico.

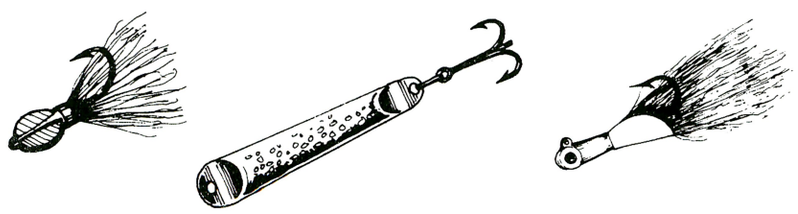
HEADLAND. A high point of land or rock projecting into the sea.

INLET. A narrow passage of water connecting the open sea with protected coastal and inland water. Along various sections of our coast, inlets are called breachways, cuts and passes.

INSHORE. Referring to the part of the sea adjacent to the shore. In this book it is bound by the 60-foot bottom contour.

INTRACOASTAL WATERWAY. Also called Inland Waterway or Waterway. A comparatively shallow passage extending continuously on the Atlantic Seaboard from Manasquan, New Jersey, to Key West, Florida. Sheltered from the open sea, it consists of a series of artificial channels connecting bays, sounds, lagoons and other protected waters. It is used primarily by small craft.

JIG. An artificial lure made to simulate a live bait. Although many variations exist, all jigs are made wholly or partly of metal, hence, are heavy for their size. In weight they range from less than 1 ounce to over 2 pounds.



JIGGING. Manipulating an artificial lure to imitate a live bait and thus attract fish to the hook. The lure is lowered vertically or cast some distance away, allowed to sink to a desired depth, and then jerked quickly upward a short distance. Immediately after this upward jerk the lure is allowed to sink back. This jerking or jigging procedure is repeated again and again.

KEY. A low island or reef off the southern coast of Florida. This word is derived from the Spanish "cayo" meaning little island. In the West Indies, it is spelled Cay (pronounced ké or kã).

KITE FISHING. A method of fishing done by suspending a baitfish from a kite. When flown from a boat, the kite carries the bait well away from the boat's wake. Live fish are slowly trolled just under the surface. Dead fish may be fished this way, or skipped along the surface at a faster trolling speed. When flown from a beach, the kite carries the bait out a distance from shore. During periods of light breeze, helium-filled balloons are sometimes used in place of kites.

Glossary

LIVE BAITING. Live lining with live bait.

LIVE BOTTOM. An area of the sea floor abounding in living attached organisms such as mussels, sponges, sea fans, live corals, sea weeds, etc.

LIVE LINING. Allowing a natural bait, either alive or dead, to drift in a current or be suspended by a float some distance above the bottom. As the bait drifts away from the angler, line must be played out from the unlocked spool or open bail of the reel. Live lining is often done while chumming. *See* Live Baiting.

MOORING. A float, usually a small buoy, anchored away from land to which a boat is tied.

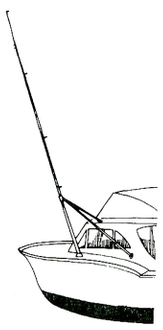
MOP. An artificial bait or lure made to simulate a natural bait and trolled in the water. It consists of a small-linked brass chain 6 to 14 inches long with tufts of thread tied or glued into each link. Attached to the front of the chain is either a swivel or a weight, and to the rear end a hook. This lure is usually trolled.

NIGHT LIGHTING. *See* Fire Lighting.

OFFSHORE. Applied in this book to the part of the sea away from shore beyond about the 60 foot bottom contour.

OUTBOARD. A rowboat propelled by an outboard motor.

OUTRIGGERS. Movable rods or poles which project outward from each side of a boat and used during trolling to keep the baits spread apart.



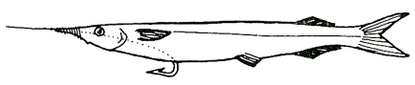
PARTY BOAT. Also called head boat, open boat, ground-fishing boat, deep sea-fishing boat, drift-fishing boat, and packet or party packet. A fishing boat, usually carrying 10 to 60 anglers. Space is sold to the general public until either the boat is filled to capacity or the scheduled sailing time is reached. The captain usually determines the type of fishing and the areas to be fished. The fee ranges from $3 to $20, depending on duration of the trip or distance from port, and usually includes bait but not tackle. Trip lengths are usually eight hours for a full day, four hours for a half day. *See* Charter Boat.

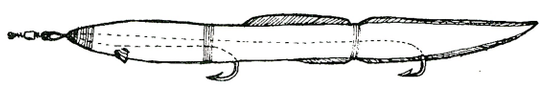
PASS. A term used in the Florida Keys and along the coast of the Gulf of Mexico for an inlet. As used in the Florida Keys, it is the passageway from the sea to Florida Bay and ranges in width from a fraction of a mile to 7 miles.

PELAGIC. Spoken of fishes and other sea animals that are more or less independent of the bottom. They are characteristically active swimmers spending much of their time in mid-water or near the surface.

RELIEF. Used in this book to describe a sharp rise above or depression below the plane of the sea floor caused by an outcropping of rock or coral, submerged ridge, sunken ship, etc.

RIGGED BAIT. A natural bait consisting of all or part of a dead fish or squid which is tied, sewn or wired onto a hook and used for trolling.





ROWBOAT. An open boat, usually 12 to 16 feet long, propelled by oars. The bottom may be flat, round, or V-shaped.

RUNABOUT. An open boat, usually 14 to 17 feet long, having a planing hull and powered by an outboard motor of 10 or more horsepower.

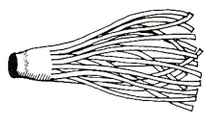
SALT WATER. Applied in this book to water having more than 17 parts per thousand, by weight, of dissolved salts. Average sea water for all oceans has about 35 parts per thousand of dissolved salts.

SCHOOL. A large number of fish, usually of the same kind and size, swimming and feeding together. The members are closely oriented to each other in such a way that the school behaves as a well integrated unit.

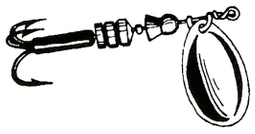
SHAD DART. A small jig, usually a weighted bucktail, weighing about ¼ ounce or less. Darts are used primarily to catch shad and similar fishes.

SKIFF. A boat, usually 18 to 26 feet long, propelled by an inboard or inboard-outboard motor.

SKIRT. An artificial bait or lure consisting of a brightly colored shredded plastic tube 4 to 8 inches long and fitted over a feather, stripbait, rigged bait or other trolling lure.



SPINNER. An artificial bait or lure composed of one or more spoon-like blades that spin on a shaft or swivel when drawn through the water. Presumably the glitter caused by the spinning blades' reflecting light simulates the metallic sheen of a baitfish; this acts together with vibrations emitted by the spinner in stimulating fish to bite.



SPOON. An artificial lure made to simulate a live bait. It usually consists of a thin, slightly curved piece of metal or combination of metal and plastic. When drawn through the water it has a wobbling and wiggling motion.

SQUIDDING. A term sometimes used to describe the casting into the surf of metal lures called squids.

STREAMER FLY. A wet fly, made on a long shank hook, designed to simulate a small baitfish. *See* Fly.

STRIPBAIT. A long narrow strip of skin and flesh cut from the sides or belly of a fish or squid in a shape simulating the outline of a whole fish. This strip is attached to a hook and used for trolling.

THERMOCLINE. A narrow zone in the water column where a sharp change in temperature occurs between relatively warm water above and cool water below.

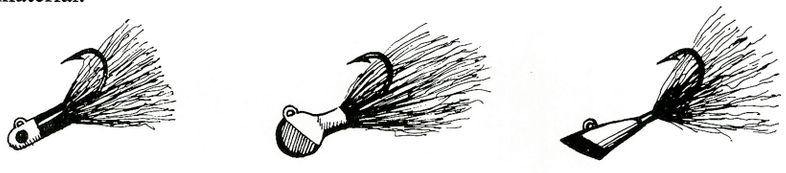
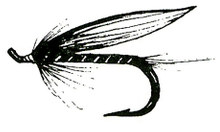
TIDE-LINE. The water level at the shore, which changes with the tide.

TROLLING. Trailing a natural bait, artificial lure, or a combination of the two behind a moving boat. The bait can be made to skip along the water surface or troll at any depth below the surface to just above the bottom. A bait or lure trailed by an angler running along a fishing pier, bridge or breakwater is also trolling. Trolling speeds vary according to the fish species sought.

TUBE LURE. Also called surgical-tube lure, teaser, and Norwegian teaser. An artificial lure made to simulate a live bait. The lure consists of a hook covered by a piece of surgical or plastic tubing 3 to 12 inches long. Large tube lures are usually trolled; small ones are attached to a fishing line ahead of a diamond jig.

WATER COLUMN. Spoken of the water from surface to bottom about a given point.

WEIGHTED BUCKTAIL. A type of jig consisting of a lead or metal head cast on a single hook. The tail can be made of hair, nylon, feathers or other fibrous material.



WET FLY. An artificial fly designed to sink in the water. *See* Fly.