

THE NEW BEDFORD FISHING INDUSTRY INFORMATION FOR TEACHERS

The Port of New Bedford

The port of New Bedford is one of the nation's major fishing ports today. For the last several years, it has been the number one port in terms of the value of the catch. New Bedford Harbor, ringed by New Bedford on the west and Fairhaven and Acushnet to the east and north, is the home of the fishing fleet. The harbor is at the mouth of the Acushnet River, the estuary where the river and ocean waters meet, mixing the fresh water of the river flow with the salt water of the ocean tides. The harbor's hurricane barrier, built by the Army Corps of Engineers in the 1960s, has a 150 foot gate that lets boats pass through. The gate can be closed to protect the fishing fleet, docks, and town from storm surges that wreaked havoc in the past.

Fishing in New Bedford: A Brief History

New Bedford is an ideal place for commercial fishing, and this has always been a part of New Bedford's history in some way. New Bedford has a long seafaring history. It has also had agricultural and industrial eras. At various times in this history, the fishing industry has supported shoreside businesses, and commercial fishing supports many shoreside industries today.

Subsistence farming and fishing

The earliest peoples probably combined estuary fishing with a subsistence lifestyle. Native peoples were the area's first inhabitants, probably hunting and planting, as well as harvesting the estuary's abundant fish, shellfish, birds, and marine mammals. By the 1600s, the coast was also a site for trade between Native peoples and European seafarers. The earliest European settlers arrived in the mid-1600s. They cleared the land they needed for their crops and livestock, and probably also fished the estuary.

Whaling

Gradually, seafaring grew in importance in New Bedford. Whaling was the first major maritime industry, lasting from about 1750 to 1900. Along with it came the related

activities of shipbuilding and trading. Shoreside businesses also grew. Oil processing businesses refined whale oil for use in lamps and other products. Metal-working businesses made sheathing, bells, and other metal products needed on the whaling ships.

Whaling reached its peak in 1857, with 329 ships registered in New Bedford. Several factors led to its decline, including the 1859 discovery in Pennsylvania of petroleum, which would replace whale oil. Also, the early 1900s use of spring steel and other products replaced baleen, the boney plate in the mouths of some whales used for products such as skirt hoops, hat frames, umbrella ribs, and fishing rods. In 1927, the schooner *John R. Manta* brought in the last whaling cargo.

Textile industry

Textile manufacturing replaced whaling as New Bedford's major industry from about 1880 to 1940. This industry's decline resulted from factors such as southern competition for mills, a mill workers' strike in 1928, and the Great Depression of the early 1930s.

The commercial fishing fleet

During the mid-1900s, several changes helped expand New Bedford's commercial fishing fleet. Fishing boats switched from sails to motors. Improved diesel engines allowed for a safe journey to the abundant Georges Bank fishing grounds about 175 miles northeast of Cape Cod. Harriet Didriksen of New Bedford Ship Supply recalled that her great uncle and father, both from Norway, preferred New York but moved to New Bedford because it was closer to Georges Bank. (Working Waterfront Exhibit, New Bedford Whaling National Historical Park)

Trucking and refrigeration

Another important change occurred around 1940, when New Bedford's fishing vessels no longer had to go to New York to sell their catch, but could return to port to sell it, where trucks now transported the catch. Fisherman Daniel F. Mullins recalls:

We would go to Georges Bank...and steam back to New York;...because you couldn't sell the fish here, see. Well Bill Eldridge...started using a truck.... We had talked before about how some day the boats would be able to



land fish in New Bedford, but we never thought trucks were the answer.

Working Waterfront Exhibit, New Bedford Whaling National Historical Park, Courtesy Spinner Publications, Inc.

Also at this time, refrigeration and the building of a freezer plant increased the ability to process fish at the port.

Seafood auction

These changes in technology allowed a competitive local market to develop, and led to a development that would become a major part in the process of getting fish from the boat to the plate. At first, boat captains went to the different fish houses looking for the best price. Then about 1941, the first fish auction was started. This centralized the process of selling the catch, using set rules and time limits. In September 1947, the city added on to the Wharfinger Building, to house the daily auction. On busy days, as many as three auctioneers stood at the auction's chalkboard, marking the bidders' prices and using special auction lingo (such as "YT" for yellowtail flounder and single initials for different bidders). The catch stayed on the boats until it was sold. Some boat captains, known as "highliners", had a reputation for bringing back a quality catch, and so their loads would bring the highest bids.

The bidding lasted just so long. Before it closed, captains had a chance to refuse bids they felt were too low, holding on to their catch in the hopes of a better price the next day. The auction was fast-paced and packed with people (though only certain people were allowed in the hall during bidding), and at times there was a police officer on duty to keep everything under control. John F. Linehan, General Manager of New Bedford Seafood Producers Association from 1951-1959, recalls:

People who come in here from the outside think, "This is chaos." Well it wasn't. It was organized chaos, but everyone knew what he was doing.

Working Waterfront Exhibit, New Bedford Whaling National Historical Park, Courtesy Spinner Publications, Inc.



Once the auction closed for the day, the catch that was sold was offloaded at the individual fish houses that bought it. Offloading was done by workers called lumpers, another important part of the fishing industry.

In 1985, the auction ended in the course of a bitter strike between fishermen and boat owners. Private sales took over, despite different efforts to revive the auction by the city, boat owners, and lumpers.

Then in 1994, brothers Raymond and Richard Canastra of Fairhaven established the Whaling City Seafood Display Auction. In a display auction, vessels offload the catch into coolers, allowing buyers to see the catch. The auction went electronic in 1997, replacing chalkboards with faxes and computer, and is an important part of the fishing industry in the port of New Bedford and Southern New England.

Changes in technology

The auction was one in a series of changes to the fishing industry in the last part of the twentieth century. There have been many changes in technology. Boats today take bigger catches with fewer crew. With electronic fish finders, boats can now see the bottom, making it easier to find the fish. There have also been innovations in net design. Computers and radios, rather than barometers, are now the instruments of choice for tracking the weather. New electronics have allowed fishermen to have better communication with their family while away at sea. Kirsten Bendiksen recalls the birth of her son while her husband was at sea:

When Tor was born, I couldn't call him on the telephone. I had to put a message over AM radio, and it was heard by everyone, not just boats: 'And we have news for Captain Reidar. He has a son.' I wondered if he was even listening. I didn't know.

Reidar and Kirsten Bendiksen Oral History, Working Waterfront Festival, September 26, 2004

The same instruments that give fishermen better communication at sea—vessel monitoring systems that work by GPS (Global Positioning System)—also allow for the government to monitor their activities at sea. These are now required by federal law.

Everyone in the harbor now has this tracking device. Government is always watching, every half hour to forty-five minutes, putting a fix on you, just what you're doing where you are.

> Fisherman Oral History, Working Waterfront Festival, September 25, 2004

Regulations

Increased government regulations have been a big part of the fishing industry story in the latter twentieth century. Talk to anyone involved in commercial fishing today, and you will likely hear of the Magnuson Act and the Sustainable Fisheries Act.

The original Magnuson Act of the 1970s, whose actual name was the Fishery Management and Conservation Act, was enacted to extend the prohibition on foreign fishing vessels from three nautical miles off U.S. shores to 200 miles. Foreign "factory ships" had practically crippled the ability of smaller U.S. fishing vessels to compete. The situation with Georges Bank haddock is one example: of the haddock catch in 1960, U.S. fishermen took 90 percent; in 1972, they took 10 percent.

What started as an attempt to develop U.S. fishing soon became heavily focused on managing fishing grounds. Susan Playfair, author of *Vanishing Species: Saving the Fish, Sacrificing the Fisherman*, describes this shift:

In 1996 the Magnuson-Stevens Fishery Conservation and Management Act, known as the Sustainable Fisheries Act, replaced what was commonly called the Magnuson Act. The SFA, as it became known, requires that stocks of each species be built, within a preordained time period, to a level determined by the National Marine Fisheries Service. Today, many people both outside and within the fishing communities believe that requirement to be unreasonably harsh on the fishing communities.

Playfair, p. 35

Today's limits and restrictions on the areas where fishing is allowed, on the number of vessels that can be licensed, on the number of crew, and on the number of days at sea,

have put increasing pressure on the livelihood. Boats have gone out of business as a result, and this in turn has hurt businesses such as the gear manufacturers that supply the boats. Fishing vessels face large fines if they don't comply with these regulations, and keeping up with changes in the laws can be a challenge.

Today, these regulations have been part of ongoing discussions and collaborations by people inside and outside the industry. Everyone, including the fishing industry, recognizes the need to sustain the environment and fish habitats. Hand in hand with this is the need to allow fishermen to make a living and provide food for people.

Change and continuity

In the face of many changes, some aspects of fishing have remained much the same. Fishermen and their families still lament that they must miss special family times to be at sea. Vessels may be less likely to be caught off-guard by storms than before, but being out in a bad storm is still an experience to avoid, and one that's hard to forget if it happens. Today's vessels no longer rely on wind to move the boat, but captains must still keep an eye on the wind for safety. Families on land still lose loved ones to the sea, and they know this is a possibility with every trip. Fishermen arrive home exhausted, having given up a more regular work and sleep schedule that most people on land enjoy. And fishermen all know that no matter how good the catch is on any one trip, there is never a guarantee—a tide of good fortune can turn at any time.

Despite the ongoing hardships, for many fishermen there is also the strong connection to the sea and the way of life that keeps them in fishing as a living. When Shore Support director Deb Shrader interviewed fishermen for a community study, and asked why they stayed in, the answer was always "Because it's my life." Fisherman and industry representative Rodney Avila talks of "a sense of freedom when you're out there." And fishermen and lumper Jimmy Dwyer observed, "It's a way of life. When I started it got into my veins, the saltwater."

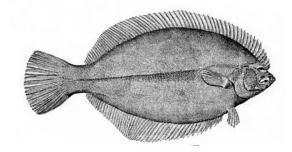


Seafood: Which Fish Is This?

Fishing vessels in the port of New Bedford fish for two main types of seafood:

- bottom-feeding fish, also known as ground fish (such as flounder, cod, and haddock)
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- shellfish (mostly sea scallops).

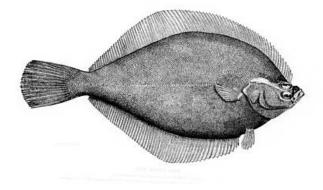
The *blackback flounder*, also known as winter flounder or lemon sole, is one of the most common flounder species caught along America's North Atlantic coast:



Northeast Fisheries Science Center, NOAA Image

It is a "right-eyed" fish—both eyes are on the right side of the head.

The *yellowtail flounder* is also caught today:

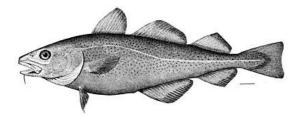


Northeast Fisheries Science Center, NOAA Image

At one time, yellowtail were not considered worth selling and were thrown overboard.



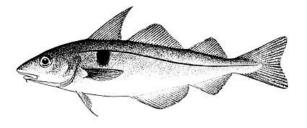
Cod, or Atlantic cod, is easily recognized by the "barbell" beneath its chin:



Northeast Fisheries Science Center, NOAA Image

Cod is one of the most widely known food fish and is sold under common names such as *rock cod, codling,* and *scrod cod.*

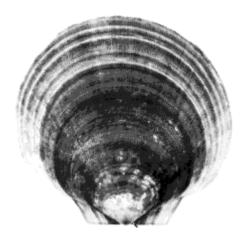
Haddock is very similar to cod, but smaller and with a more delicate flavor:



Northeast Fisheries Science Center, NOAA Image

Haddock is often sold with the skin still on, to tell it apart from cod by its distinguishing black mark called "the devil's thumbprint."

Sea scallops have a smooth shell and are usually about 4 to 6 inches across:



Northeast Fisheries Science Center, NOAA Image

As on a tree, each ring on a scallop shell marks a year of age. Most sea scallops are caught in about 150 to 250 feet of water. A major part of the work on a scallop boat is shucking the scallops, all done by hand on New Bedford's boats, to remove the part that people eat:





Working Waterfront Festival 2004 John K. Robson Photos

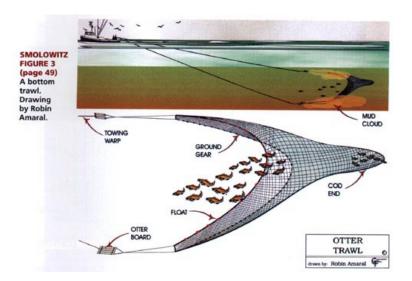
The shells and all other parts of the scallop are thrown back into the water.



Fishing Vessels and Gear: Which Boat Does What?

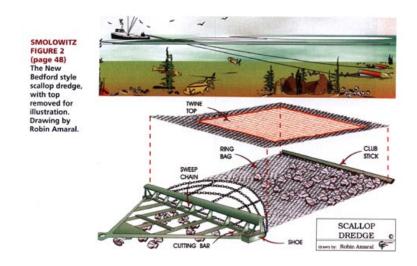
Today's fishing vessels are huge investments. New vessels today cost over a million dollars, and they must be berthed, licensed, and insured.

Trawlers, more commonly referred to as draggers, are vessels that fish for ground fish species. The term *dragger* describes the type of trawl gear used. Trawlers tow large nets equipped with otter boards, also called *doors*, which spread the net and keep it open as the net is towed. The catch is collected in the *cod end*—the undersized fish escape through regulation-sized *mesh* (net opening).





Scallopers are vessels that harvest sea scallops. Most scallop vessels pull two *scallop dredges*, one on each side, along the ocean floor. The *sweep chain* sweeps the scallops into the *ring bag*, the undersized scallops then fall back out through the regulation-sized rings.



Shoreside Marine Businesses: The Commercial Fishing Industry on Land

The fishing vessel may be at the core of the industry and its most visible part, but the commercial fishing industry also supports and depends on many shoreside businesses. Along with the dollar value of the catch, these businesses also play an important part in supporting the local economy.

Scan a local marine newspaper for the advertisements, or walk around the waterfront area, and you can get a sense of what some of these businesses are:

- vessel construction, maintenance and repair
- vessel provisions such as food, ice, and fuel
- nets and other gear for fishing vessels
- clothing for fishermen
- electronic communication systems for fishing vessels
- the seafood display auction (daily results are published in the *Standard-Times*)
- trucking
- fish processing (including cutting and packing)
- fish markets and seafood restaurants.



Students can learn a great deal about shoreside businesses by taking a virtual tour of some their Web sites—these, for example:

- Whaling City Seafood Display Auction www.whalingcityauction.com
- Reidar's Manufacturing Inc.
 Net mending, trawl construction and other gear www.reidarsmfg.com
- D.N. Kelley & Son Shipyard www.dnkelley.com
- Grunden's Quality Foulweather Gear www.grundens.com
- BOATRACS® Maritime Satellite Communication www.boatracs.com

As fishermen and industry writer Dan Orchard puts it: "The fishing community doesn't end at the boat. There's a whole world out there." (Fishing industry presentation, May 14, 2005)

Issues for Today

The fishing community today is keenly aware of the issues it faces in order to keep the industry alive and thriving.

Sustainability and collaboration

The industry today is actively addressing issues related to sustainability:

- sustaining a healthy ocean environment, along with the fish stocks that depend on it
- sustaining the fishing industry that provides a living for fishermen and their families, as well as food for people on land.

The industry is collaborating with various groups. Fishermen and other industry representatives take part in councils and meetings to discuss the issues from the perspectives of all those who know the ocean and its fish stocks. And fishing vessels host researchers at sea. The groups the industry works with include local research groups as well as government agencies that are part of the National Oceanic & Atmospheric Administration (NOAA):

- SMAST—The School for Marine Science and Technology at the University of Massachusetts at Dartmouth, currently involved in a research partnership with the scallop industry to conduct a sea scallop video survey www.smast.umassd.edu
- NOAA's Office of Sustainable Fisheries www.nmfs.noaa.gov/sfa/sfweb
- Sustainable Fisheries Division of NOAA's Northeast Regional Office www.nero.noaa.gov/sfd

Issues of sustainability and collaboration take other forms as well. The Fishing Partnership is a non-profit organization with offices in Gloucester and New Bedford which works to support the health and well-being of fishing families here in New England. Since the organization was founded back in 1997, that support has taken different forms. Today, the Fishing Partnership works to connect members with a broad range of professional counseling services, provides assistance with health insurance applications, and offers safety and survival trainings and other special health-oriented events for fishing families.

Another important and longer-term aspect of sustainability is the issue of youth involvement in the fishing industry. Traditionally, fishing has been a livelihood passed down from generation to generation. But today, increasing regulatory pressures and expenses add to the hardships and uncertainties that have always come with making a living on moody waters that can produce wildly varying yields. Today's fishermen cannot be as sure that taking up their parent's occupation is the best choice for their children to make.

At a fishing industry presentation in May 2005, Richie Canastra of the Whaling City Seafood Display Auction expressed just how critical it is to face these issues, to keep the commercial fishing industry from becoming only a memory: "You're sitting in the



Whaling Museum," he told his listeners. "I don't want to see you sitting in the Fishing Museum." (Fishing industry presentation, May 14, 2005)

Safety at sea

Safety at sea is always a major concern. Today, fishermen have access to many more ways of ensuring it than they did in the past. Radio communications and other electronic technologies can mean faster help for fishing vessels in trouble. And in the frightening event of having to abandon ship, survival suits, full-body insulated and sealed suits, can be put on quickly to reduce the effects of icy waters. Today, part of a fishermen's job involves knowing how to use equipment through training and regularly practicing skills. And boat owners and captains must have a wide range of knowledge for maintaining today's fishing vessels.

A key player in ensuring safety is the United States Coast Guard (USCG). In 1988, Congress created the Fishing Vessel Dockside Safety Exam Program. It involves voluntary, thorough inspections at the dock before a vessel leaves for a fishing trip. This is a chance for fishermen and the Coast Guard to improve safety and survivability of vessels and crew. During the exam, the vessel also gets a drill package, to help crewmembers stay familiar with emergency procedures. Kevin Coyle, USCG Commercial Fishing Vessel Safety Coordinator for the New Bedford field office, emphasizes that safety is a collaborative effort: "Fishermen can rely on the Coast Guard to do everything within its control to come to the rescue when in harm's way, but fishermen must ensure they are doing everything within their control to keep themselves out of harm's way" (Coyle). Coyle is proud that the local industry's participation in the program is among the highest in the country, and eager to see this record continue.

Ethnic Heritage

People all over the globe feel a connection with, and make a living from, the sea. It is hardly surprising, then, that a successful port such as New Bedford would become a destination for those looking for a better life. New Bedford's fishing industry today is made up of people from many different ethnic groups—some with a long legacy, others relative newcomers. In their 1980 recipe book, *Fish is our Dish*, The United Fishermen's Wives of New Bedford celebrate this diversity:

Our fishing families come from many backgrounds: New England Yankee, Canadian, Irish, Portuguese and Scandinavian.

More recently, other ethnic groups have also joined the industry. Along with the skills they employ in their daily work, these groups bring stories and traditions that have enriched the area's diversity, and continue to enrich it today.

New England Yankee

The area's Yankee population goes back to the days of the earliest English settlers. Some of New Bedford's fishermen today connect to New Bedford's whaling days through their ancestry:

I wasn't born here, but my ancestry goes back to whaling days in New Bedford on my father's side, and we traveled all the time down here as kids. We used to see all the fishing boats... I went to school for commercial fisheries, marine technology. My first experience on a boat was in spring 1970. I went back and completed school in 1971, then found a full-time site on a dragger in New Bedford. I've been here ever since.

Fisherman Oral History, Working Waterfront Festival, September 25, 2004

Irish

The history of the city's ethnic groups can be seen in buildings, such as its churches. In the early 1800s, the Irish became a growing presence, as an 1887 *Evening Standard* article told:

A half-century often makes great changes. If some New Bedford Rip Van Winkle had been sleeping for fifty years, and returning to consciousness, should walk our streets, his surprise and wonder may readily be imagined. When he went to sleep for instance, there were mere handfuls of Irish in New Bedford and they worshipped in a little wooden church on Allen Street... In 1887 as he walked through our streets, he would see a fine stone church and chapel, three substantial wooden churches, three parsonages, three parochial school buildings and a hospital.

The Irish in New Bedford: History of Irish Catholic Churches, The Weekly Compass, March 10, 2005

Canadian

People of the British Isles also came to New Bedford through Canada, often from Newfoundland. Myra Lopes speaks of her pride in her family's Newfoundland fishing heritage:

The people who lived in Newfoundland, the whole community was an Irish group. They carried their tradition when they came here. I think they kept their own ethnic group—dances, church, corned beef dinner....The Newfoundlanders are extremely proud of their heritage. We were brought up to have great pride in the fact that my father was a fisherman.

Myra Lopes Oral History, Working Waterfront Festival, September 25, 2004

Norwegian

The twentieth century saw many from Norway's shores and islands emigrate to the United States. As author Astrid Tollefsen describes it in her book *Following the Waters*, an oral history of New Bedford's Norwegian fishermen and families:

The North Sea fish supply can be unreliable, and those who made their livelihood from the sea most often emigrated at times when fishing was poor in Norwegian waters.

Tollefsen, p. 10



Today there are many people of Norwegian background involved in New Bedford's scalloping industry.

For emigrants to a new world, ties with the mother country can remain strong. Tollefsen talks about the Norwegian practice of "pendling." Named for the back-and-forth (or as Norwegians would say, "forth and back") swing of a clock's pendulum, it described the repeated going forth from the native land and then going back to it: "Almost all emigrants return to Norway whether to live or visit" (Tollefsen, p. 10). And this tie can be felt even by subsequent generations who have made their home in the new land:

Today two houses stand defiantly against wind and weather in two different countries—near two different seas—with two different histories. Yet, they are eternally intertwined, because they have both provided the setting for the lives of our ancestors.

Tollefsen, p. 1

Cape Verdean

People from the country of Cape Verde are also a strong presence in New Bedford. Many work as longshoremen, unloading freight from cargo ships. Cape Verde is a country made up of islands that lie west of Senegal, West Africa. For centuries Cape Verde was a colony of Portugal. Repeated droughts in the second half of the twentieth century caused many Cape Verdeans to leave. *Cape Verdean Voyages* author Patricia J. Rodrigues describes people's "longing for the memories of the past while hoping for a brighter future." In her community, she sees a continued bond with homeland as Tollefsen also saw:

My parents, grandparents, and extended family have always shared their stories about immigration and of their lives in Cape Verde with me. ... Despite the assimilating aspects of immigration, Cape Verdeans often maintain their identities abroad.

Rodrigues, Author's Note

The Schooner Ernestina, housed in New Bedford Harbor today,



is also a symbol of the region's ties with Cape Verde. In the 1950s and 1960s, Ernestina was a Cape Verdean packet ship. The ship carried people and cargo back and forth between Cape Verde and the U.S. Packet ships such as this made it possible for Cape Verdeans to live and work for years in the U.S. while keeping strong ties to their home island.

Portuguese

Many people from Portugal also crossed the Atlantic to make New Bedford their home. Many came during the whaling era from the Azores, the country's group of nine islands, as these were common stopping points during whaling voyages. More recently, many Portuguese people came from the mainland's coastal villages, where fishing was the main occupation. They applied their maritime skills to fishing in America. Today, Portuguese people are primarily involved in ground fishing.

New Bedford's many Portuguese restaurants today are one sign of this community's presence. Another sign, as with many other ethnic groups, is the traditional music that can be heard today. 2004 Working Waterfront Festival performers Ana and Jose Vinagre carry on the tradition of Portuguese Fado music. This music was developed in the port of Lisbon, Portugal, and was performed at waterfront clubs and bars where sailors and seamen went. Ana is one of the area's best known and most respected Fadistas. She was born in Portugal and immigrated to New Bedford as a young woman with her husband Jose. Both were members of folkloric music and dance ensembles. They take great pride in their culture, performing and teaching American audiences about Fado music.

St. Michael, in the Azores, is one island that some of the area's residents come from. During the 2004 Working Waterfront Festival, New Bedford fisherman Victor Pereira talked of his different experiences fishing in New Bedford and in his home island of St. Michael. Making his livelihood on New Bedford's high-tech fishing vessels, Victor recalled also the beauty and character of the colorful, handcrafted boats that the island's fishermen used (oral history interview, 9/26/04).

Guatemalan Mayan

Mayan people from Guatemala are some of the area's newest residents and fishing industry workers. Many work in the fish processing plants. As with other groups, Mayans have brought with them a rich musical tradition. The story of Grupo Caliente band members Miguel Lucas and Andres Sam probably resonates with the experiences

of many immigrants at different places and times. Miguel is from the town of San Andres Sajcabaja in the department of Quiche, Guatemala. There, he and Andres started performing music together as children. They lost touch as they grew up, but both ended up in New Bedford years later and began playing music together again. They formed a group around 1998. The group plays Guatemalan Mayan Conjunto music. Miguel describes their repertoire as a combination of Cumbia, Marimba Chichi, TexMex and popular Mexican.

An evolving community

As New Bedford's maritime resources continue to offer the chance for a good livelihood to those willing to put in the hard work that this type of work demands, the makeup of the fishing community continues to evolve. Today, Vietnamese, Polish, and West Indian people are among some of the industry's newer members.

From the Ocean to the Plate: Foodways

After the boat brings the fish into port, and the lumpers have offloaded it and it has left the auction house, the fish continues its journey to the plate. The people who process and sell the fish, and those who cook it—women and men, in homes, restaurants, and ship's galleys—can share a great store of knowledge about this final piece of the fish's journey.

Simply knowing the many terms for **marketed fish** helps you learn a lot about what might become of it back on shore:

- Whole—as it comes from the water; must be scaled and cleaned before cooking
- Dressed—scales and entrails (internal parts) removed, and usually head and tail
- Fillets—sides of fish cut lengthwise from backbone; no bone; ready to cook



Working Waterfront Festival 2004 John K. Robson Photo



- Steaks—cross section of fish with backbone; ready to cook
- Chunks—cross sections of large dressed fish with backbone;
 no other bone; ready to cook
- Raw breaded fish portions—cut from frozen fish blocks;
 coated with batter, breaded and packaged; ready to cook
- Fried fish portions—cut from frozen fish blocks; coated with batter, breaded and cooked before being packaged and frozen; ready to heat and serve (Fish is Our Dish, p. 6)

Knowing the many methods for **cooking fish** also gives you an idea of how it might end up:

- Frying, deep fat frying, pan frying, and oven frying
- Planking (baked on an oiled, preheated plank or a greased baking dish)
- Poaching (simmered in a shallow pan of poaching liquid)
- Steaming

(Fish is our Dish, p. 6)





Working Waterfront Festival 2004 John K. Robson Photos

Storing fish also has its special techniques. The two main ways to store fish today help us see the importance that technological developments have had in daily life:

- Refrigeration—in original wrapper, for up to a day or two
- Freezing—for up to six months raw, three months cooked.

(Fish is our Dish, p. 7)

Before this technology, drying and salting were two common methods for preserving fish. Helen Hillier's "Fisherman's Fish and Brewis," a very popular Newfoundland recipe, calls for "1 box salt fish (dried)" (Fish is our Dish, p. 49).

Recipes for dishes such as Florence Mullins' "Pickled Fish" may give us an idea of how people might have used canning to preserve fish. The recipe involved putting strips of



fish in a jar, alternating with pickling spices and sliced onions, then pouring a mixture of vinegar, water, and spices over the fish (Fish is our Dish, p. 12).

As "Fisherman's Fish and Brewis" would indicate, recipes can also help us learn about culture and ethnicity. Even the names of the dishes themselves give an idea of the diversity surrounding this food source:

- New England Fish Chowder
- Scallops Gone Yankee
- Newfoundland Fish Pudding
- Norwegian Baked Pollock
- Norwegian Fish Cakes
- Bacalhau (Portuguese salt cod)
- Portuguese Potluck Stew

Recipes can also be ideal material for **math activities**, at home and school. For example, if a student were to imagine working as chef in a restaurant, he or she might need to make four times this recipe for New England Fish Chowder—the ingredients here are for six servings:

2 lbs. haddock or almost any good fish 1/8 tsp. thyme 1/4 lb. salt pork 4 potatoes (peeled and diced) ½ c. diced onion

1 ½ qt. half milk and half light cream

Fish is our Dish, p. 25

Whether through their recipes, stories of fishing trips, demonstrations of their skills, or their impassioned efforts to help us understand their community, the people of New Bedford's fishing industry have much to teach us—about their world and ours.

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