Raking It In

By Rindy Higgins

In 2011, The Hour newspaper in Norwalk, Connecticut, published 10 articles about local shellfishing.

This booklet contains all of the articles as originally published plus additional photographs and material that supplement the themes in the series.
Rindy Higgins, a Commissioner of the Westport Shellfish Commission, a member by appointment to the statewide Long Island Sound Assembly, Director of the Nature Center at Sherwood Island State Park, and a trustee of the Brooks Pond Conservation Association in Massachusetts, was a marine educator for more than 21 years at The Maritime Aquarium and a nationally recognized science teacher. She served as curator of “The Sound and The Saugatuck”, a 2012 exhibit at the Westport Historical Society. Her ”Raking It In” series discusses the benefits and challenges, techniques, ecology, and cultural heritage of shellfishing in Westport waters.

Note: All of the original articles that appeared in The Hour are reprinted in this pamphlet. For purposes of enhancement, additional material has been added by the author. The supplemental photos, captions, recipes, poems and diagrams are identifiable by the pale blue coloration surrounding these additions.
For more information or for personal presentations related to material presented in this pamphlet, please contact:

Rindy Higgins
Environmental Educator
rhiggins@optonline.net
203-858-7271
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SHELLFISHING: Go local, go green

Editor's note: Today The Hour starts a 10-part series on shellfishing, both recreational and professional. Shellfishing is a part of our local maritime history and remains a vital part of local industry and community. The series will be written in column form by local shellfishing expert Rindy Higgins and they mean to educate. This first column in the series will be a go-local introduction to shellfishing in our area. Upcoming columns will range from how to get started and where to get a permit to how to prepare and eat them. We will also look at the history and economic impact of the oyster beds in our region and finally explore how our shellfish are celebrated at local festivals - the ChowderFest and the Norwalk Seaport Association Oyster Festival.

By Rindy Higgins
Special to The Hour

With two full years of locally generated data now available to the Westport Shellfish Commission, some surprising and encouraging findings are emerging. Last year, more than 1,000 permits were issued to people wanting to shellfish recreationally in Westport's waters, a 14 percent increase over the year before.

The Shellfish Commission is appointed by the First Selectman, and is charged with recommending policy choices that sustain one of the town's most precious and enjoyable resources: its offshore shellfish beds.
Where Westport families can find local, fresh, sustainable food at a reasonable cost is of keen interest to more budget and environmentally conscious households than ever before. Increasingly, residents have been flocking to area farmers markets, selectively patronizing restaurants and shopping at grocery stores featuring locally grown foods, and producing their own food in community or at-home gardens.

The greening of Westport is not only about fruits and vegetables, however. The best satisfaction for discriminating palates also involves eating fresh, local and sustainable seafood. The offshore waters of Westport yield a rich harvest of shellfish that make every seafood connoisseur's mouth water. With state regulations and town commissions maintaining standards for safety and sustainability, a growing abundance of local shellfish are being brought by commercial fishermen to local restaurants, grocery stores and farmers markets.

The best news is that many individuals are discovering that they can also harvest shellfish for themselves, economically and easily. There's no need for a middleman and no need to spend time and effort growing it. The Town of Westport actually cultivates a "garden under the sea" where Connecticut residents can harvest shellfish.

Westport now controls the permitting process for its own publicly accessible shellfish beds. That's because in 2007 former Gov. M. Jodi Rell signed a bill transferring back to the Town of Westport the stewardship of its recreational shellfish beds. Management of 'this garden under the sea' was placed back under the jurisdiction of the Westport Shellfish Commission, which works with local marine enforcement services and area shellfishermen, as well as the Town Health Department and the Connecticut Department of

Connecticut's largest farmland is actually a 'garden under the sea' (north above the dashes on the chart). Of the 395,512 acres owned by Connecticut in Long Island Sound, 168,304 are less than 40 feet deep, appropriate for commercial harvesting. Acres that are presently harvested amount to a total of 79,378 acres of which there are 13,818 acres of natural beds harvested commercially and recreationally, 16,368 acres of town commercial beds and 49,192 acres of state-owned commercial beds.
Agriculture/Bureau of Aquaculture, to maximize safe and productive development and usage of the shellfish beds. The best local recreational area is one known as Cockenoe Flats, which lies between the southern boundary of Saugatuck Shores (low water mark) and the northern shore of Cockenoe Island.

When Westporters talk about local shellfish, they mean the two-shell kind. Right in our watery backyard are a variety of shellfish such as Quahog clams, steamers, razor clams, eastern oysters and blue mussels just waiting to be harvested, brought home and served up raw or prepared in some favorite way.

How people partake in this economical, fun and go-green recreational activity is actually fairly simple. They need an inexpensive town permit (for Connecticut residents, prices are $10 or $20, depending on the age of the applicant and duration of the permit), knowledge of the rules, some basic equipment, and a spirit of adventure.

"Raking It In" is all about an aqueous treasure hunt. Future articles in this series will discuss where to get a permit, what the rules are, the ecology of the sought-after shellfish, what equipment is needed for harvesting, why this area's cultural and historical heritage is rich with the lore and lure of the oyster, tips and ideas for preparing a locally grown seafood dinner and much more. Next time: a discussion of how to get started, how the permitting process works and what equipment one needs to harvest shellfish from local waters.
May 16, 2011

Shellfishing signs at Compo Beach in Westport Sunday morning.

Hour Photo / Danielle Robinson

Starting to clam up

By RINDY HIGGINS
Hour Correspondent

With the approach of warm weather and the chance to get outside, more and more people are calling the Westport Shellfish Commission to inquire about how to shellfish recreationally in town's waters, says Alicia Mozian, Conservation Director.

"Getting a permit is easy", said Mozian. "There are some regulations that must be strictly observed."

Anyone over the age of 17 may purchase a permit, which, like a fishing license, must be displayed when using it. The brief application form can be found by calling the Westport Shellfish Commission or online at the town website www.westportct.gov ("How do I" tab/scroll down to Get a shellfish permit) and filed in one of three ways: mailed back with a self-addressed envelope; filed in person at Room 205, Westport Town Hall, 110 Myrtle Ave. or at Westport Outfitters, 609 Riverside Ave. This is the second year that the Shellfish Commission is collaborating with Eric Johnson of Westport Outfitters, which has been supplying recreational anglers and boating enthusiasts with the equipment, supplies and
support for 20 years. Their expanded hours, which include weekends, make it convenient to obtain a permit when the town hall is closed (see www.westportoutfitters.com).

Several fee structures apply. Connecticut residents between the ages of 17-64 pay $20 and seniors pay half. Out of state residents between the ages of 17-64 pay $50 and seniors pay half. Permits are valid from Jan. 1 to Dec. 31. New this year are daily permits which cost $10 and can be postdated to the desired date; this allows those who may be in town for a limited time to test the waters at a lower cost. Since children under 17 years old do not need a permit, they can join in the treasure hunt for free, as long as they are accompanied by an adult with a permit. These fees allow for families to share the joys of an outside, inexpensive activity together, gathering the sea's produce for dinner.

Only certain areas may be harvested recreationally, so checking or downloading the map from the Town website is important. It shows the location of the recreational shellfish beds at Cockenoe Flats, which lies between the southern boundary of Saugatuck Shores and the northern shore of Cockenoe Island.

The signs at Compo Beach clearly indicate which areas are available for shellfishing.

There is also visible signage posted in three locations that indicate where the town has recreational shellfish beds. These diamond-shaped demarcation signs are half red which indicates a closed area and half white pointing to the conditionally open areas. One sign is located at Bluff Point near Cedar Point Yacht Club. The red part of this sign points to the
Saugatuck River because it is a closed area, and the white part points towards Cockenoe Flats which is conditionally open. The second sign is located at the small beach between Compo Cove and the northernmost stone jetty at Compo Beach. This sign's red part faces Sherwood Millpond and Sherwood Point areas since shellfishing is not permitted in Sherwood Millpond, Compo Cove and off Burying Hill beach. The white section points towards Compo Beach. At the cannons at Compo Beach, there is a third sign that points red towards the Saugatuck River because it is a closed area, and points white towards the area off Compo Beach. This area off Compo Beach is available to shellfishing in the off-season only (October 2 - April 30).

These recreational shellfish areas are located in 'conditionally approved' waters, because they may be closed under certain conditions. The waterways in which these beds lie are closely monitored by the Connecticut Department of Agriculture/ Bureau of Aquaculture in order to protect public health. They may be closed after a heavy rainfall or due to pollution. Another reason may be that the Shellfish Commission, in its mission to preserve the stock, has transplanted young shellfish from closed to conditionally open recreational areas. The beds will be closed while the transplanted shellfish 'purify' themselves and dig into the bottom to be found by people searching for them. The number to call before leaving home to confirm that the shellfish beds are open is 203-838-9807; the phone number is also written on the permit.

The town has also installed two status signs to signal if these recreational shellfish beds are open or closed. These 36" round discs at Compo Beach near the cannons and at Canal Beach must be viewed from the waterside. When the sign is red, the beds are closed, and when the sign is white, the beds are open. Watch these signs for status changes.

The best access to the recreational shellfish beds is via boat; there is a state boat launch on Elaine Rd. off Compo Road South. For those arriving by car, a small public parking area at the end of Canal Road in Saugatuck Shores provides space for about six to eight vehicles. The parking lot is surrounded by private property and there is no street parking.

Before heading out to harvest, several other factors need to be considered, such as the time of day, the tide, the daily limit and knowing if the shellfish beds are currently open. Shellfishing is permitted only between sunrise and sunset. It is best to go at low tide when much of the shellfish beds are exposed and more easily accessible. A tide table for the mouth of the Saugatuck River can be seen and/or downloaded from the Town's website; a tide chart is also given out along with the permit. In order to preserve the shellfish population, there is a limit of half a bushel a day, or a 5-gallon bucket.
Digging in

By RINDY HIGGINS
Special to The Hour

Finding food right here in local waters, surrounded by the sights, sounds and smells of the beach, makes shell-fishing an adventurous and wholesome experience. Using the right equipment and technique is directly related to the habitat and behaviors of hard clams, steamers, oysters, and blue mussels.

In our area, the most abundant are Quahogs (pronounced co-hogs) or hard clams, also known as Littlenecks, Topnecks, Cherrystones or Chowder clams, depending on their size. They bury themselves in sand, mud or gravel about three to six inches deep in water still covered at low tide, so looking for a sandy, mud or gravel bottom is important and wading is the way to find them. Most clammers carry a 5-gallon metal or plastic bucket that can be placed on the bottom, when in shallow water. Digging with one's feet, feeling for clams, and then grabbing with hopeful hands, is the old-fashioned way of harvesting. It usually is a slow, one-at-a-time procedure and, in our area, sometimes produces only an inedible rock. There is an art to feeling the difference between a clam and a rock; rocks move easily, but clams resist as they have a strong muscular foot with which to dig in.

Even more useful is a wire basket wedged into a flotation ring tied at one's waist and towed along on a six-foot lead line, allowing wading out into the water. A few dollars may be
saved by buying a plastic laundry basket or even a string beach bag attached to a floating ring or an inner tube.

Use a rake to dig deeper for harvesting multiple Quahogs. There are several kinds of rakes: the claw style rake available at hardware stores or a basket rake at specialty fishing store, as long as the tines meet the regulations of at least one inch apart.

"Since much of our shellfish beds lie in rocky bottom areas, a claw rake is easier to use," Susan Voris at the Conservation Department advises. "A basket rake is better in the softer areas."

To get started, wade out, aware of any holes or rocks underfoot, until the water is about 12 to 18 inches deep. Dig the tines into the bottom few inches and listen for a "clink" sound or the feel of prongs hitting something hard. Pull the rake towards you and then lift it upwards, scooping up the clams. Drop your catch in the floating basket. Experienced clammers often develop a pattern to their work, standing in one place, placing and pulling the rake inwards and then rotating to one side, repeating over and over again, thus working in a circle. Walk around and try different areas.

While most recreational clammers wade into the water, some may clam from an anchored boat using clam tongs that are useful in about three to 18 feet of water. The advantage is to reach the under-harvested clam beds and perhaps to extend the season when the water gets cold.

Soft-shell clams, sometimes called long-necks or steamer clams, live primarily just under shallow flats exposed at low tide.

Prime times to hunt for steamers are an hour or two around low tide, or around the monthly new and full moon 'spring' tides or the seasonal perigree tides. Whereas gathering hard clams is done by feel and not sight, the search for steamers begins with a visual clue: a small hole. These clams bury into the sand; their long siphons reach to the surface so they can pump water in and out, creating a hole. Other critters, such as worms, can also leave holes, so finding a clam hole is not always so easy. Sometimes there is brown, thread-like clam scat near the hole or a splatter of water where the clam pumped out a few seconds before. A jet of water may squirt up from a clam below, surprising the approaching clammer. These clams are sensitive to vibrations and are quick to dig deeply with their foot appendages. Ready for the challenging ambush, kneel near a hole, dig vigorously about six to twelve inches deep. Scoop sand up and away, and look for the clams in both the hole and the removed sand. Widen the hole to chase clams that may be digging deeper out of grasp. Since the shells are thin and sharp, wear gloves. Pitchforks can also be used, but can break the thin shells of these clams.

Oysters may be easier to see but hard to harvest. Once spotted, usually in tidal marsh areas adjacent to fresh water springs, it is evident they have cemented to each other, or to empty shells, rocks, or to dock pilings. Unlike their relatives, they do not dig out of site nor hold themselves tenaciously underground. A flat head screwdriver or something hard has to be used to pry or knock them off of the surfaces to which they have adhered to harvest only those of legal size.
Blue mussels, found more along open water areas, slightly above the low tide mark, are easier to find. They grow in tight clusters often clinging to jetties, rocks, even concrete with their byssal threads, or "beards" as they are commonly called.

Once located, the technique, which is a matter of plucking, requires no tools, and produces abundant harvest often without moving and looking further.

The harvested volume and size of particular shellfish are restricted by state statutes and town regulations. To check the size of particular shellfish, one measuring tool for hard clams is a clam ring or gauge; if they are too big to fit through the ring, they can be kept. Another device is simply a small plastic ruler which can be used to measure a variety of shellfish. Hard clams need to be more than 1 inch thick or more than 1.5 inches in diameter. Steamers need to be 1.5 inches long or more, and oysters 3 inches long or more. Harvested mussels must be 2 inches in length or more. These size and volume restrictions allow young shellfish to continue to grow and multiply; this is crucial to sustaining local shellfish. The Town of Westport Recreational Shellfishing Rules and Regulations can be read and/or downloaded from the Town's website. Marine police actively enforce these regulations.

Eric Johnson, owner of Westport Outfitters, is happy to give advice about equipment, technique or where to go. "We have everything here at the store in order to shellfish, but you don't need much, which makes this an economical activity," Johnson says. "We have rakes and flotation rings. We also sell clam rings and gauges. It is important only to take shellfish of a certain size. This allows the stock to sustain itself."

Shellfishing is a great summer activity and can be quite a workout, using arm and back muscles, so limber up in advance. For many, getting wet is half the fun. Appropriate clothing, as well as protection from mud and water in one's car, should be planned in advance. Bathing suits, shorts, quick dry clothing, old sneakers or water shoes to protect feet, sunscreen, towels and maybe something waterproof to cover the car seat, and a cooler or bucket in which to bring home the wonderful catch of the day should be considered before leaving home. This can be a great family activity; children under age 17 are free when with a permit holder and sharing in the permit holder's daily limit. It gets everyone outdoors, is fun, and the day's harvest can provide a family with an inexpensive and fresh seafood dinner.

Watch for the next article in the Raking It In series: a biological and ecological lesson of local shellfish, how they are the same and different, what conditions are necessary for optimal growth, what puts them at risk, and how the state and the Town of Westport work to preserve and enhance this resource.
June 18, 2011

What's Going On Down There?

By RINDY HIGGINS
Special to The Hour

An astonishing abundance of clams and oysters are growing in local shellfish beds, according to a recent survey by Norm Bloom, owner of Norm Bloom and Son, one of Connecticut's largest oyster companies.

"This is really good news for Westport recreational shellfishing," Bloom said as he reflected on the array of clams and oysters found in Westport's garden of the sea.

So what's going on down there? How do we tell one from the other? And why is biology so important here? Shellfish play particular roles in nature, and they are excellent water purifiers, as we shall see.

With a permit and some minimal equipment, the public can venture into Westport's recreational shellfish beds to harvest steamers, oysters, and blue mussels and Quahogs.
(pronounced co-hogs) or hard clams. Though these shellfish have shells, they are not fish. They are really members of a larger group called Mollusks. These critters have over 100,000 freshwater, marine and terrestrial relatives, including squid, octopus and snails.

“I suppose that when the sapid and slippery morsel—which is gone like flash of gustatory summer lightning—glides along the palate, few people imagine that they are swallowing a piece of machinery (and going machinery too) greatly more complicated than a watch.”
- T.H. Huxley

The most noticeable and common characteristic of this shellfish group, the bivalves, is that they each have two shells attached with a hinge. Inside these two hinged shells is soft tissue which is made up of sensory organs (but no brain) as well as organs for circulation, digestion, excretion, respiration, reproduction.

These shells are external skeletons, providing protection from predators and environmental challenges and a hard surface for the internal attachment of muscles. These muscles open and close the shells. Each shellfish has a thin inner tissue that produces crisscrossing layers of calcium carbonate, organic chemicals and proteins that harden into a shell that grows as the creature grows for the rest of its life.

Variations in shell shape, texture and color make one species recognizable from the other. Known for their somewhat chalky white color and their bumpy texture, oyster shells are oval, though with irregular edges and a hinge at one end. Blue mussels are named after their blue-black shells. Steamer clams have smooth oval shells that are hinged in the middle of one long side. Quahogs are distinguishable for their more round hard shells that vary in color from light gray to dark gray. Quahogs are divided into several types depending on their sizes: Littlenecks, Topnecks, Cherrystones or Chowder clams.

Shellfish vary in their growth rates. Growth layers, particularly noticeable on bumpy and irregularly-shaped oysters, or concentric growth rings visible on hard clams, indicate the age of the critter. Hard clams are slow growing and take five to six years, or even longer in cold climates, to reach harvestable size. With the potential for a long life span, it is even possible to find 30 year old clams. Oysters may take three to four years. To assure that they grow, mature and reproduce with sustainable numbers, the Connecticut Department of Agriculture/Bureau of Aquaculture and the towns regulate the size of harvestable shellfish. For regulations on harvestable sizes of various shellfish, see the particular town's website or check with the local Shellfish Commission.

Clams can be either male or female, but oysters perform a remarkable trick: they can change sexes throughout their lives. Prolific egg-spawners, the average female clam will release 7 million eggs, and the average oyster may release 60 million. In warm mid-
summer waters, they are fertilized by sperm broadcast by male clams. As they grow, they sink to the bottom, develop a shell and maintain their different lifestyles.

Some shellfish remain in one place for the rest of their lives. Oysters secrete a 'cement' that adheres permanently to a solid foundation, often to each other. Clams can change their location by digging. Hard clams have a strong muscular foot with which to dig into sand or mud where they usually stay put, only moving up and down to avoid predators.

Blue mussels can move using their muscular foot, but only after jettisoning the threads that they create (popularly known as 'beards').

Here's the good news: bivalves are really good for our waters and can contribute to improved water quality, removing nitrogen and enhancing water clarity. These shellfish are filter feeders, bringing in water, straining algae as their food. The amount of water that one bivalve can filter is quite amazing. Scientists estimate that a hard clam can filter 10 gallons of water per day, an oyster can filter 100 gallons per day, and a blue mussel an astonishing 288 gallons per day. Scientists consider bivalves to be an 'indicator species', indicating the quality of the immediate water. Principal sources of pollution are often from failing septic tanks, storm-water runoff, domestic animals, and inadequate treatment at waste water treatment plants especially during high flow periods. Water quality is monitored regularly by the Westport Health Department.

That's why awareness of the present status of shellfish beds is important before going out on a harvesting expedition. Even the runoff from one and a half inches of rainfall results in automatic closure of the recreational shellfish beds.

Recreational shellfishers should call the phone number on their permit and also check the several status signs located at Canal Beach and Compo Beach. Harvesting healthy and abundant shellfish means humans must keep cultivating a healthy environment and be thoughtful stewards of the 'gardens of the sea.'

Norm Bloom agrees: "We have to be good farmers and managers so that this sustainable resource can thrive."

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**“Current” Events**

Mussels create byssal threads, commonly known as “beards”, with which they tenaciously cling to rocks or other hard surfaces, avoiding being bashed around by pounding ocean waves. In 2009-10, scientists at Germany's Max Planck Institute spent considerable attention studying mussel byssus for its strength, flexibility and adhesive powers.

These studies showed promise for more research and practical applications. In January 2011, scientists at the University of Chicago announced that they could make synthetic byssal fibers. These fibers have the potential to be used as adhesives on underwater machinery or in surgeries requiring implant bonding.
JULY 18, 2011

Bill Armstrong shellfishing off Canal Beach in Westport. Hour Photo/Alex von Kleydorff

The sport of shellfishing

By RINDY HIGGINS
Special to The Hour

WESTPORT -- They trudge out of the water dressed in their jackets and waders, and cross the beach with a look of great satisfaction. A bucket in one hand contains the day's catch. In the other hand is a clamming rake.

George Zygmant, 59, of Southport, and Mike Puskas, 58, of Fairfield, have been meeting like this for as long as they can remember. On a recent Sunday morning, they carry their catch of quahog clams back to the small parking lot at Canal Beach in Westport. This will be just enough for dinner, they tell a visitor who peaks into the back of their truck. Then, like every hobbyist promoting a cause, they stop to talk.

George learned clamming from his uncles and Mike learned from his father long ago. They find this activity relaxing and rewarding.
"It's been pretty good since the town has taken over the management; they seed the beds, so there is quite a bit out there. Years ago, when the state had jurisdiction, everyone could shellfish these natural beds," they noted. "but the state didn’t seed the beds, so the harvest decreased."

"Now we shellfish all year round," Zygmant says. "In early spring, we wade out to rake for clams or we walk along the flats at low tide to dig for steamers. We look for their holes. We overturn the sand with a pitchfork, and find lots of steamers just below the surface."

"When the summer season gets going, we boat out to Sprite Island or Cockenoe," Puskas adds.

In the winter, they caution a newcomer, it's important to clam below the low water mark. "If you take clams above the low water mark, you can't tell if the clams are voluntarily closed up or frozen shut. You won't know until it's too late and you feel sick after you cook and eat them," said Zygmant, speaking from experience.

One trick they use at home when preparing winter steamers is to add a jalapeno to some salted water and soak them for a short while. "This makes them spit and clean themselves out. In the winter, in the wild, steamers do this more slowly than in the summer and are therefore filled with more grit than otherwise."

Though permit sales are strong in Westport and in Norwalk, Puskas said, "there don't seem to be as many people clamming as there used to be. Young people don't seem to be doing it anymore. They need someone to teach them."

Yet a few days later at the same site, Frank Fragoso, 58, a retiree from Yonkers, was doing just that: passing on his techniques to the next generation. With him was his nephew Damion Fragoso, 24. The older Fragoso has been shellfishing all his life, having learned from his dad.

"All I need is this clamming rake, a bucket and float to wrap around the bucket," he says. "And look what I found: a half bushel of clams to bring home. This will last me three dinners. I'll eat some raw, grill some, and the rest I will top over linguine with a sauce.

"The $50 for the permit is worth it. I look at this like a sport. Compare it to golf -- you buy equipment, drive to a course, pay a greens fee, and then come home with fewer golf balls than when you started. So shellfishing is a good deal."

As a retiree, Fragoso enjoys the exercise, being outside and passing the time with his nephew reminiscing about the old days. 

Damion, 24, an assistant teacher, said he has discovered that he likes "the quiet of being here after being with school kids all week. But I wouldn't have even known about
shellfishing if my uncle hadn't asked me to come along four years ago." Damion and a friend had gone off in search of steamers, but came back with a lot of oysters instead. Part of the hunt is the surprise.

While almost all shellfishers are male, a few females join the hunt. Not all fit the profile of a rugged outdoors person who enjoys digging, getting wet and muddy.

Take Robbie Sumberg, a Westport designer working with vintage textiles and a former vice president of Macy's. "I am not the typical person you find out there," she says. Sumberg grew up in New York City and moved to Westport years ago to raise her family.

"Although I have enjoyed Compo Beach with my family, I never considered getting a meal from the waters there until last year when my friend Debra Moss called. She had gone shellfishing and found a lot of oysters. Because her husband is allergic to shellfish, Debra wanted someone to help her eat her catch.

"I went over to her house and we feasted -- gorged ourselves, really -- on raw oysters dipped in homemade cocktail sauce and mignonette sauce. Then we grilled some. I was so impressed that I bought a Westport Shellfish permit this year."

Sumberg admits she had everything to learn: about tides, when it is best to go out, and what equipment to use and how to use it, never mind how to cook her catch.

"So, decked out in my wellies, Debra and I went out on a sunny day in April to forage for dinner. We spent two hours plucking mussels and oysters by hand off the rocks.

"People came up and asked what we were doing and whether it was really okay to eat shellfish from these waters. We explained that the shellfish beds are carefully monitored for pollution and that these bivalves are safe to eat.

"A few days later, I invited friends over for my own oyster fest! We shucked and ate the oysters raw. For the mussels, we pulled off the beard (blackish fuzzy threads) with a firm tug, shucked them and cooked them in a tomato sauce over linguine. We called it Mussels a la Compo!"

Shucking, by the way, isn't easy; it takes practice. The oyster has one shell that is bowl shaped, so keep that face down. Insert a shellfish knife between the shells at the far end, prying between the shells, cutting around the rim to sever the inside muscle.

Another way to open clams is to put them in the freezer for 20 minutes; they will open slightly and will yield to the knife quite easily.

What's the appeal to Sumberg? "It doesn't leave much of a carbon footprint and it's fun. The shellfish are fresher than buying them from a store. And after one meal, I have more than gotten my money's worth."

A few days later, copp McNulty of Norwalk, an 82-year-old volunteer at The Maritime Aquarium, wants to talk about when he got started more than 50 years ago.
"I learned shellfishing from my folks. When I was a kid, there were always different rakes and buckets around in our garage. My parents had a boat and my grandfather was in the commercial fishing industry, so this was in my blood."

In the 1960's, McNulty would line up before dawn in front of Westport's Town Hall to be sure of getting a coveted permit because he particularly liked Westport's waters. He would wade off Saugatuck Shores, Compo Beach, and Sherwood Island to gather steamers from the flats, as well as oysters and mussels attached to rocks. When he had a boat, he clammed off of Cockenoe Island and Goose Island, too.

One very hot summer day McNulty watched disappointed shellfishing folks returning to their cars, complaining that there were no steamers to be found due to the heat. With typical gusto, he persisted until he found "a ton of steamers about 10-inches deep, just hiding from the heat til I found 'em!"

A hardy soul, he has shellfished all year round, walking the flats in winter looking for steamers.

"The best part about harvesting shellfish is that I love to eat them!" he exclaims. Over the decades, McNulty has created his own version of a Manhattan style, tomato-based chowder. The recipe appears in the box nearby.

All of these shellfishermen agree that properly handling the catch from the moment it comes out of the water contributes to safely enjoying their meals. The state recommendations on safe handling include:

- Be sure the shellfish meet harvestable size requirements. Rinse them immediately to remove grit, mud, seaweed growth.

- At home, scrub the shells well, checking that the shells remain tightly closed. Open shells indicate the contents are dead. Store live shellfish in a bowl with a damp cloth on top (not in an airtight container or water, since they will suffocate and die).

- If refrigerated close to 38 degrees, mussels and clams in their shells can keep for two or three days whereas oysters in shells can be stored for seven to 10 days. Freshly shucked clams can be refrigerated for two days, shucked oysters for five to seven days.

No matter how you catch them, or get them open, there is a tasty treat inside and lots of ways to prepare them for eating.
Oyster Man Blues
by Mack Novak, of Eastpoint, Florida

[Spoken:] Now, this is going to be a quick story in oystering in which you have to go out and separate the little oysters from the big oysters so you won't get a ticket. And it goes something like this:

[Sung:] Their day it starts at 5 A.M.—they hit the bar.
They've got their Maxwell House Coffee in a Bama Mayonnaise jar.
Out goes the anchor, and then over go the tongs.
At 10 A.M. they're saying, "Oh, Lord, where did I go wrong?"

He's got those oysterman's blues.
He can't afford a pair of shoes.
His hickory sticks, well, they're slapping out a tune.
And it's called those oysterman's blues.

When he tongs up those oysters, then he throws them on the deck,
He reaches over to his wife and he gives her a little peck.
Then he hands her a glove and a cull iron,
And says, "Honey, separate these things 'cause I sure am tired.

I've got those oysterman's blues.
I can't afford a pair of shoes.
My hickory sticks, well, they're slapping out a tune
And it's called those oysterman's blues.

He comes in from the bar expecting to go home,
but there's a grouper trooper on the dock in his grey uniform.
He pulls out his oyster ruler and he goes to work.
When the count is 35 percent, he says, "Hey, you're out of luck."

You've got those oysterman's blues.
You can't afford a pair of shoes.
Your hickory sticks, I'll bet they're slapping out a tune.
And I'll bet it's called those oysterman's blues.

Yeah, it's called those oysterman's blues.
Norwalk Islands Clam Chowder

from Copp McNulty, a seasoned local resident:

1 dozen large Quahogs or 18 medium Topstones/Cherrystones
1” x 2” fat salt pork, cut into ¼” pieces
1 leek, washed well and finely chopped
1 large onion, chopped
6 cups clam juice and water (if using frozen clam juice saved from earlier, add more juice and less water)
1 bay leaf
1 stalk celery, chopped
1 TBS parsley, chopped
1 green pepper, chopped
1 can plum tomatoes, peeled, drained, stabbed open and drained of inner juice, then coarsely chopped
2 medium potatoes, cut into ¼” cubes
½ tsp thyme
Several pinches black pepper

Shuck clams raw into a strainer over a bowl, saving juice.
Brown salt pork slowly in bottom of large pot.
Add leek and onion and cook until tender.
Add clam juice and water.
Deglaze bottom of pan with flat end of spatula.
Add bay leaf, celery, parsley, green pepper, tomatoes, potatoes, thyme, and pepper.
Cover pot, bring to a boil and then lower to a simmer.
While pot is simmering, chop clams and add when vegetables are tender. Stir with a wooden spoon until clams are done.
For a special touch, add a dozen or so little neck clams in their shells when adding the chopped clams. When the little neck shells open, the chowder is ready. Serve the chowder with these added little necks in their shells.
Commercial shellfish businesses doing well on Long Island Sound

By RINDY HIGGINS
Special to The Hour

From the wheelhouse, the man known to his crew as Captain Rob, of Norm Bloom and Son, keeps one steady hand on the helm. With the other hand, he manipulates the controls for the dredge boom. He moves and lowers the boom overboard, and the dredge suspended by chain disappears into the water.

The dredge, a cage-like structure with teeth, scrapes along the bottom of Long Island Sound. After circling for about three minutes, Captain Rob winches up the dredge and dumps a generous catch onto a tray table on deck.

Two deck hands in aprons separate the harvestable shellfish from empty shells, rocks and bi-catch which are returned to the water. They sort bivalves by size on the deck or back at the shop on land. It’s a 12 hour workday, year round. It’s never been easy work. And profitability is never guaranteed.
The last few years have been good for the commercial oyster industry, although how good depends on who you ask. Along the Connecticut shoreline today, about 45 businesses farm shellfish on 22,000 acres of leased state land and another 67,000 acres on privately owned property. Annual shellfish harvest exceeds 450,000 bushels, contributing more than $15 million and over 300 jobs to the state’s economy. Oysters are the largest seafood product in Connecticut.

Locally, the shellfish industry appears to be holding its own. In Norwalk, many shellfish beds have changed ownership, but the total acreage owned by commercial harvesters has not changed significantly over the past 10 years. In Westport, there have been several new leases created in the last few years.

Though the current outlook sounds promising, the local commercial shellfishing industry over the years has had its ups and downs. The area’s shoreline waters have historically been a good environment for shellfish. The mix of the fresh waters of rivers and the saltier waters of Long Island Sound have provided a beneficial salinity, a cleansing flow, appropriate temperature ranges and plenty of plankton to support the growth and propagation of clams, mussels and oysters.

Long ago, Native American tribes such as the Pequots and the Algonquins enjoyed a seacoast rich in shellfish. They reaped oysters by using tongs from dugout canoes. The early European colonists in the Norwalk- Westport area found the same abundance, and purchased two large tracts in 1640-41 from King Charles I of England. These tracts were between Five Mile River and the Norwalk River, and “between the Norwalk and Saugatuck rivers and a day’s walk north from the sea.” By learning harvesting techniques from the Native Americans, the settlers supplied themselves with food crucial to their very survival. From the rich resources of Connecticut’s “gardens under the sea”, these early settlers laid the foundation for what would become the nation’s most famous oyster industry.
CLAM HARVESTING

Oyster boats are usually equipped to harvest clams as well. The basic difference: oysters lie on the top of the ocean floor and can be scraped up; clams dig down and need to be brought up to the surface before being harvested. These images depict commercial clam harvesting aboard the Catherine M. Wedmore.

A clam dredge is lowered to the ocean floor. The dredge is equipped with pipes that send out jets of water that thrust the clams that have buried in the sediment up and out into the dredge cage. When the dredge is full of clams, the captain raises it back up to the boat . . .

. . . where the dredge is opened, spilling the clams onto a deck table . . .

. . . as deck hands go to work sorting the clams by size. Those too small for harvesting are returned into the water. Harvestable clams are placed in bushel baskets.
But the path from survival of the individual to a thriving industry hasn’t been easy. The vagaries of weather along with population growth, pollution, predators including sea stars and man, as well as the waning interest in working 12 hour days, has strained the steady growth of the industry. And yet the business of supplying discriminating palates with shellfish has continued here for three centuries.

By the early 1800’s, oystering had become a viable business venture. Within two decades, consumer demand outpaced the supply of inshore oysters. That encouraged the development of new techniques of oyster planting and cultivation, which continue to this day. In 1840, Nathan Roberts of Norwalk and others took young oysters, called spat, from natural beds located in shallow waters and replanted them in other areas to grow. Local innovations in boat design prompted oystermen to use shallow-draft sailboats called sharpies to access very shallow water areas as well as to sail out to deeper waters.

Around 1848, Captain Henry Bell from Norwalk made one of the first attempts to cultivate oysters. He planted clean empty shells, called cultch, among the Norwalk islands upon which the oyster larvae would settle and grow.

In 1857, the Allen family of Westport brought Blue Point seed oysters from Peconic Bay, Long Island, and planted it in their Sherwood Mill Pond shellfish beds. As a closed system, Mill Pond offered excellent salinity as well as protection from predatory seastars and diseases. It was so productive and hearty that the Allens were able to sell spat back to oystermen in Peconic Bay in the early 1900’s when the oysters there were suffering from blight. Other oystermen also decided to purchase and sell seed oysters, making Connecticut a leading oyster seed producer.

New technologies made harvesting easier. in the 1880’s, the dependency on hand rakes and tongs gave way to the various styles of a dredge, a rake modified with a bag or cage and pulled by a chain along the water’s bottom. The dredge increased the daily catch, thereby encouraging, in turn, the use of a larger boat called an oyster sloop. About 1870, Captain Peter Decker of Norwalk added steam engines to his sloops, and within 10 years, Norwalk had the largest number of steam powered oyster boats in the world.

By 1875, Connecticut had 86,000 acres of beds under cultivation. Norwalk, known as “Oyster Town”, was considered the oyster capital of the nation. Tallmadge Brothers and several other oyster growers led the way. More than twice as many oysters were shipped in one day in 1878 than were for the entire year in 1823. A million dollar industry had been established and was so well regarded internationally that people came from all around, even from as far away as Japan, to learn about oyster farming. By 1889, Norwalk oysters accounted for one fifth of national oyster exports with most of the shucked and canned product headed for England. At the turn of the century, Connecticut oyster cultivation was in its heyday. The harvest in 1900 was four million bushels. Nearly everyone ate oysters several times a week.

Then there came a period of serious decline. Concern about contaminated oysters brought tighter regulations regarding storage and shipping of oysters, as well as the sanitary...
operations of oyster companies. The increase of pollutants from growing human populations and industries, the filling in of salt marshes, as well as natural disasters like the hurricane of 1938 devastated the oyster beds.

In 1948, the last sailing oyster sloop was launched. It was christened “Hope”, in the hope of a brighter future for the oyster industry. Built of oak that had fallen in a severe storm, it had an unusual design of rounded planked sides above the waterline and a v-shaped bottom. For twenty years, she was used to hand dredge, using a chain bag and rear net to harvest the natural beds. Her gaff rig made it easier for her to turn into the wind and stop. Today, “Hope” lives on as the last relic of the bygone era of sailing oyster boats, quietly berthed at The Maritime Aquarium in Norwalk.

Despite the hope for revival, by 1972, the total harvest for Connecticut was only 32,468 bushels. Many oyster establishments closed. The few that remained worked that much harder. By working extra long days, switching to clamming when oystering was limited, reinvesting into the business and buying up smaller companies, oystermen like Norwalk’s brothers Hillard Bloom and Norman Bloom created a dramatic comeback.

By 1994, the Connecticut harvest was back up to about 900,000 bushels. But this productivity came to a standstill when the beds were hit with two parasites in the late 1990’s which devastated the crop. Some oyster companies switched to clamming at that time, which uses a different dredge. A clamming dredge blows out powerful jets of water as it is dragged along the bottom, forcing the buried clams up out of the sediment and into the dredge.

Many shellfishing companies today rely on harvesting both clams and oysters. According to David Carey of the Connecticut Board of Aquaculture, the last few years have been excellent, with the hard clam harvest holding steady for five years, while oyster harvests have climbed significantly.

Most oyster gourmands have no idea how much work and attention to detail is required over a three-to-four year period before a treasured oyster ends up in a raw bar or in a favorite recipe.
Today, oyster companies employ a variety of techniques that entail an astonishing amount of labor and attention to detail. Oysters spawn in the warm waters of July and August. Fertilized eggs grow into free-swimming larvae that settle and attach to the bottom of Long Island Sound. Often, oystermen gather old, clean shells that they store on land or in underwater beds and lay these shells over certain grounds to create good setting beds. The oysters are transferred several times over the next few years, to position them in optimal growing beds. During seasons of ample harvest, some oysters may be moved to deeper, colder waters to slow their growth, extending the years of good harvest. When conditions were not favorable for the natural setting of young oysters, Jeff Northrop of Westport, a fifth generation oysterman of Allen and Nash lineage, met the challenge of ten years of poor natural setting by purchasing spat and growing the young oysters in his own cages off of docks until they were ready to transplant into shellfish beds.

Another way of achieving sustainability is by developing a hatchery, an amazingly laborious and time-consuming process of artificially propagating and growing of oysters. Marine biologists have helped Hillard Bloom Shellfish of Norwalk develop a promising hatchery program that works. Varieties of algae are grown in floor-to-ceiling cylinders and then piped through a highway of tubes to indoor breeding and growing tanks. Brood oysters are meticulously selected and placed in single layers in bins where the water temperature is gradually increased to a level that tricks them into spawning.

The sperm and eggs are skimmed off and placed in a pool with a particular ratio of sperm to egg. Extra sperm is frozen and saved for future use. The fertilized eggs develop into free-swimming larvae. Several weeks later, the larvae are put into setting tanks where they attach to cultch. When the temperature of the Norwalk River reaches 41 degrees, the spat (young oysters) are sorted and the more mature ones are moved to outside tanks, where they are bathed with algae-rich water pumped directly from the river. Eventually, they are placed in layered trays latched together, and roped off the docks until they are one and a half inches. At this point they can be moved to the wild oyster beds where again they may be transferred several more times before they can be harvested.

**Update:** Tim Visel of The Sound School Regional Vocational Aquaculture Center in New Haven has been studying the historical correlation of Long Island Sound water temperature, relative frequency of storms, and local fisheries. He has found that, in durations of higher temperatures and low energy (such as the present era), some fisheries have done poorly, but oysters have fared well.
Team Enforcement:
Key to healthy shellfish

BY RINDY HIGGINS
Hour Correspondent

WESTPORT -- Westport Marine Policeman Bob Myer navigates out through the channel from Compo Beach. After 19 years of patrolling the same waterways, Myer knows the location of every rock in the water, and the depth without referring to the fathometer on the 15-foot Boston whaler. Myer scans the horizon, sometimes using binoculars to observe remotely. He knows what he's looking for and, usually, who's out there.

Shellfishermen know that when the marine police come around, it's likely to be a friendly call, to affirm that they know that the shellfishing regulations are being enforced.

Myer develops a rapport with the recreational shellfishermen, and sees lots of familiar faces. He knows many of them by name. It's easy for him to play the role of good cop, because nearly all of them know when it's legal to go out, the requirement for a permit, the
rules about the permissible size of catch, and what the limits are. And most everyone obeys the rules.

"The commercial guys are pretty good about fishing their own acreages," Myer notes. Sometimes, he will spot recreational shellfishers out there when the highly visible red circular no-shellfishing signs are posted, and that's when Myer instructs them to dump their catch back in the water. The rules are there for a reason: no one wants to eat unclean shellfish.

In addition to making sure that no one takes more than a half-bushel per day, marine police can check the size of the catch. Among the few tools Myer carries is a square with a cut hole, the standard measuring tool for minimum sizes: oysters more than three inches, mussels two inches and hard clams and steamers more than an inch and a half. Each town determines the size of the size of a harvestable catch.

Those size regulations assure sustainability of the shellfish resource. His mission and that of his colleague Kevin Smith, or the newest member of the team, Ryan Paulsson, is a constant: safety, and enforcement of town rules and state regulations.

A few communities, such as Westport, handle their municipal shellfish supervision, but for many others, the state's Department of Energy and Environmental Protection (DEEP) performs significant patrol responsibility.

This kind of enforcement is a collaborative effort between the state and towns that have jurisdiction over their own shellfish beds. Some Connecticut coastal towns do not have this right. In 11 towns, recreational shellfishing is currently not allowed, due to poor water quality, historical pollution sources, or management issues. However, 15 towns or districts, such as Westport and Norwalk, do have authority over their shellfish beds.

These towns create and manage their own programs including transferring shellfish, seeding plans, harvestable shellfish size, permit costs, and other regulations as long as these regulations are in compliance with the Connecticut Department of Agriculture/Bureau of Aquaculture (DA/BA). In fact, the agency depends upon the cooperation and assistance of each town to manage recreational shellfishing in "Approved" or "Conditionally-Approved-Open" areas.

The idea that towns have the authority to control harvesting shellfish within their own waters dates back nearly three hundred years. As early as 1721, as oysters were being recognized as a valuable economic asset, Norwalk limited shellfish harvesting to residents only. Some residents skirted this law by selling their catch to outsiders who lurked just outside the town line. The town response of paying the expenses of residents willing to bring suit against anyone known to be circumventing the law was of little avail.

In the 1760's colonial law authorized towns to protect shellfish within their own waters. Norwalk passed a law that prohibited harvest between May 1st and August 31, the months when oysters spawn. This legislation included an interesting exemption for those categorized as "unless sick or emergency existed" and as well as for "longing" women, presumably pregnant women craving oysters. (Ironically, modern medical authorities such
as the Mayo Clinic suggest that women avoid oysters during pregnancy!) Oystermen were also required to place shells or stones in the same spot from which they took oysters so young oysters could set on them and grow.

In 1784 the state legislature mandated that all towns make rules limiting personal catch to two bushels per day and restricting harvesting to town residents.

As the oystering industry grew in the mid-1800's, the public felt increasingly deprived of access to the shellfish beds. In 1845, a Norwalk Town committee was appointed to oversee control of shoreline beds by balancing the interests of oyster companies with those of residents. In 1855 Connecticut law limited coastal towns to grant up to two acres to individuals for planting oysters. Serious oystermen circumvented the limitation by asking their friends and relatives to apply and then to sign over a quitclaim of their acreage, thereby acquiring more acreage.

Thus, it was the circumvention of laws created originally to protect individual interests that led to combinations of larger tracts of shellfish beds, sparking the rise of the commercial shellfishing industry.

By 1880, a million dollar oyster industry had been established in Connecticut and, a year later, the Connecticut Shell-Fish Commission was created to regulate the shellfisheries. As the industry moved its cultivation to deeper waters, regulations came under state control. The Connecticut Shell-Fish Commission wrestled with how to handle properties owned by individuals, those owned by companies, and the new harvesting areas. The previous "2-acre" law was repealed and a plan of perpetual franchises for sale for $1.10/acre was created. This, in turn, was replaced in 1915 by a ten-year renewable leasing program. These regulations were enacted to protect oyster stock and to try to balance the needs of individuals who harvested shellfish to provide food for their families with the interests of the growing commercial shellfishing industries.
However, the objective of state shellfish management changed during the first half of the 1900's due to rising concerns about the possibility of contaminated oysters, in particular a typhoid epidemic. The Connecticut Shell-Fish Commission tightened health regulations. It was the time of the Pure Food and Drug Act of 1906, a federal law regarding storage and shipping of fresh food, as well as the safe-handling operations of oyster companies.

Through the years, the original Connecticut Shell-Fish Commission became the Bureau of Aquaculture under the Department of Agriculture (DA/BA). David Carey, the current Director of the Bureau of Aquaculture says, "Today's rules are mainly concerned with public health and licensing of commercial activities."

DA/BA works very closely with the shellfish industry, leasing shellfish beds, licensing and inspecting oyster company operations and, with industry assistance, the planting of culch, the clean oyster shell, to improve the conditions on oyster beds.

Charged with ensuring that shellfish gathered are from certified-clean waters and are safe to eat, the DA/BA staff regularly monitors coliform bacteria, an indicator of possible contamination. Any areas deemed to have levels higher than FDA standards for direct consumption or areas that have received certain levels of rainfall are immediately closed for a minimum of seven days.

Clean water is crucial to the cultivation of shellfish that feed from the very waters upon which they depend. One of the most important and far-reaching environmental statutes ever passed by the U.S. Congress was the Clean Water Act of 1972 which was to be enforced by a newly created federal agency, the Environmental Protection Agency (EPA). This Act, and its subsequent and sometimes controversial amendments and additions, aimed to regulate the discharge of pollutants into United States waterways.

EPA was also charged with enforcing the Ocean Dumping Act of 1972 and the Safe Drinking Water Act of 1974. The enforcement history illustrates the complexity that society faces in protecting water quality. The goal of all these measures was to help improve water quality and give direction for a healthy and productive natural environment that in turn supports healthy shellfish.

In its 2011 session, the state legislature demonstrated its support for a cleaner Long Island Sound, and, therefore, a healthier environment for shellfish. For 2012 and 2013, the State has budgeted $659 million for the Clean Water Fund, which was established in 1986. This expenditure primarily will help municipalities maintain and upgrade their sewer systems with the goal of keeping waterways clean in addition to directly creating 8,468 jobs and generating thousands more through related economic activity. This is the highest level of funding the state has ever committed for these purposes. For fiscal years 2010-2011, the funding was held at the 2008-2009 level of $270 million.

Also, the "Preserve Long Island Sound" license plate program was reinstated as well as expanded to encourage donations. The extra fees collected benefit public education, public access, habitat restoration, and research that will provide direction for management decisions regarding the Sound's natural resources.
The recent concern regarding "non-point source pollution" which addresses known pollution from unknown locations, such as storm-water runoff, is gaining considerable attention in environmental and political circles. Many hope that, in 2012, Connecticut will consider legislation for municipal storm-water management which would prevent direct runoff into Long Island Sound following storms, thus improving water quality as well as the amount of time that shellfish beds can remain open for both recreational and commercial harvesting.

Clearly, the efforts to assure water quality and a healthy environment for Long Island Sound need to continue into the future. A study unveiled in early August by the Long Island Sound Citizens Advisory Committee calls for a 10-year, $6 billion public-private partnership that would, among many other initiatives, create additional oyster and other shellfish beds in Long Island Sound. The proposed work would improve wastewater plants and also reduce life-choking nitrogen in the vital waterway shared by New York and Connecticut.

Though municipal, state and federal regulations and legislation may seem to add a layer of complexity and challenging implementation, the net benefit to the recreational and commercial shellfishermen is a more healthy, sustainable, and economically feasible food supply.
'Destination Oysters' draw in diners

By RINDY HIGGINS
Special to The Hour

If it's true that "the world is your oyster," as the old saying goes, then it is equally true that the world's oysters are Norwalk's and Westport's.

Oysters harvested here are served in fine dining establishments all across America, from the elegant Pier 4 on the Boston waterfront, where "Norwalk oysters" practically leaps off the menu, to high-end New York restaurants such as the legendary Oyster Bar at Grand Central Station, where chef Sandy Ingber and his staff serve more than 1,000 Norwalk oysters every single day.

"The Norwalk Blue Point is a destination oyster. It's our best-selling item," Ingber says. "People know it and they ask for it. It's the most popular oyster on the menu." The unique relationship between the restaurant and the city is due in part to the fact that for 40 years the Grand Central Oyster Bar actually has leased acreage in Norwalk, which is tended by Norm Bloom.

In 1985, 75 percent of the oysters served at the Grand Central Oyster Bar were from Norwalk. Back then, there were only 10 types of oysters being farmed. Today, there are 30 different types of oysters from around the world, Ingber says. Still, the Norwalk Blue Point accounts for a brisk 25 percent of his oyster sales. Ingber serves the oysters on the half shell, or as cooked as Oysters Rockefeller or fried.

And it's not only Norwalk oysters on the famous menu: the Oyster Bar also goes through 1,000 Norwalk clams per day: little necks, cherrystones, topnecks and steamers, served raw, as clams casino, steamed or fried.
Closer to home, visits to gastronomically delightful places this summer reveal the inspiration and creativity behind fresh and local shellfish preparations. The chefs and owners know they are lucky to have access to these resources, and take pride in their presentations of local oysters and clams.

The local varieties lend themselves to a myriad of cooking methods and tasty recipes to satisfy both simple and gourmet palates. Some chefs offer the salty sweet delicate flavors served raw, whereas others offer them chowdered, steamed, fried, grilled, or in a combination of other ingredients.

Over at The Boathouse at the Saugatuck Rowing Club on Riverside Ave. in Westport, Alex Miller, a longtime associate of executive chef John Holzwarth, asserts that recipes at the newly open-to-the-public restaurant "are inspired by Mediterranean cuisine but through a New England looking glass." The décor -- teak and holly wood floors and soft yellow walls --- bespeaks the rustic elegance of an old fashioned wooden yacht.

At the table, the shellfish couldn't be fresher. The restaurant overlooks the Saugatuck River where their oysters get their start. The Saugatuck River is just the right brackish water in which to start these sought-after delicacies. As a reminder of its shellfish origins, The Boathouse has opened an outdoor oyster bar right on the patio at river's edge. Whether walking from the nearby Metro North commuter train or arriving by car, many are finding this a refreshing summer evening respite.

"Using local ingredients in our recipes is about building a sense of community and sustainability", says Miller. The local company Westport Aquaculture delivers shellfish two or three times a week, a total of at least 600 oysters.

Miller and Holzwarth prefer classic recipes with a twist: roasted oysters prepared with red wine verjus and bread crumbs, then quickly broiled, still lusciously fresh and juicy with a surprise crunch. They serve oysters on the half shell with pickled shallot mignonette. Another favorite: oysters flavored with pungent pickled ramps, a wild leek, which is only available during a brief three-week window in late spring. Clams are served either raw or in a sauce over pasta. One shellfish meal is mussels prepared with a lobster stock made by first brewing lobster shells until the shells break down to nearly a powder, and then strained, into which they add zucchini strips for color and texture. Whatever the presentation, they serve an average of 45 lunches per day, 30 dinners per weeknight and up to 120 per night on weekends.

Miller tells home cooks that "preparing a great home shellfish meal can be basic and easy. You don't need to do much to have a fantastic meal. The key is to buy fresh and local."
Diners entering La Villa on Bay Street in Westport face a large wall mural depicting the Portofino seaside panorama, immediately suggesting the idea of a fine seafood dinner. Owner/chef Michael Sornatale uses Westport oysters and clams in his cooked-to-order Italian-style meals.

"If you don't see something on the menu you would like, just ask," he says. But his menu already offers a wide variety of alluring meals. His seasonal preparations use fresh, local and organic ingredients. He serves clams raw or oreganato. Clams and mussels are cooked in tomato sauce or white wine or may be added along with shrimp and calamari in a choice of marinara or fra diavolo sauce over linguine.

His summer offering is raw clams spiced up with a side of aoli made of garlic, horseradish, lemon and homemade mayonnaise. Winter doesn't stop Chef Sornatale from satisfying the discriminating tastes of patrons wishing for local shellfish. During the cold months, he prepares heavier dishes such as creamy clam chowder or clams and mussels baked in garlic, cheese, oregano, bread crumbs in his own vegetable broth.

One of Westport's most beloved citizens became as well known for his culinary contributions as for his contributions on the silver screen. Paul Newman co-founded with Michel Nischan the upscale restaurant called The Dining Room to promote local and organically grown ingredients. Appropriately, it adjoins the Westport Country Playhouse, which Newman and his wife actress Joanne Woodward did much to revive.

Nischan carries on the tradition at The Dressing Room by using fresh and local clams and oysters that he buys from a Westport shellfish cultivator. Besides serving the traditional oysters on the half shell, dinner guests come specifically asking for his quickly roasted oysters with shaved shallots and fresh thyme butter. Chef Michel raises the bar with his steamed clams which are served with a tomato confit, pancetta lardons, and fiddleheads on flaxette toast points.

The effort spent finding the Sunset Grille at the far side of the Norwalk Cove Marina is well worth the reward: a stunning seasonal three-way view of the Norwalk River where Osmar Orozimbo, loyal chef of Sunset Grille, adds French and Asian influences to his native Brazilian background. "We have a beautiful location here right on the water," Orozimbo says, "but the real focus is on the customer. When a customer comes here the first time, the experience has to be good, so that the customer returns." To keep them coming back, he purchases shellfish right off Norwalk's oyster boats, up to 1,200 clams and 600 oysters per week.
He serves local little neck clams and oysters raw on the half shell. Also, his clams are featured in a clam chowder and in a bouillabaisse. His most sought after recipe is linguine with white clam sauce where he uses the clam's natural juices in the white wine sauce. He alters the offerings in the fall when he adds favorites like oysters casino.

Situated on the Norwalk River overlooking a marina, Harbor Lights Restaurant lends itself to a panoramic perspective of life on the river. The warm orange walls and yellow ceiling create just the right mood for sunsets. Demand for local shellfish is so great in the summer that eight bushels a week might not be enough to meet the demand.

Owner Chris Javrieldis just goes a few blocks over to Norm Bloom and Son and selects little neck clams, cherrystones and oysters, right off the boats. He stocks an extensive raw bar for both lunch and dinner, as well as classic appetizers such as steamed little necks and Oysters Rockefeller. For awhile, Javrieldis had taken the Oysters Rockefeller off the menu since it took longer to prepare than any of the other choices and held up the serving of starters to hungry patrons. But when people kept asking for this delicious combination, he put it back on the menu despite its timing challenge.

The restaurant also serves up a drink called 'oyster shooters' which includes vodka, Tabasco sauce and a few raw oysters. This drink harks back to the days before refrigeration when putting oysters in vodka was found to be a good way of preserving them.

Javrieldis and his family own several restaurants in the area (including Overton's, Rouge and East Side Café). "Many restaurants on the water are seasonal or serve fried seafoods," he says. "Here, at Harbor Lights, we focus on our food. Being on the water is an added plus. Because business is slower in the winter we can actually spend more time with fancier recipes and be more decorative with our presentations. Also, the winter scenery outside is so beautiful. People don't realize how beautiful the river in winter can really be."

At Splash Restaurant at Longshore Park in Westport, diners anticipating a special experience walk along curving wave-like mosaic walls to a table with an expansive view of the Saugatuck River. When patrons inquire about where the restaurant gets its various shellfish, David Repp, chief chef, points right out the window to the river. "That's where they start. How fresh is fresh!" says Repp. The restaurant serves raw clams and steamers, in addition to about 1,500 local oysters a week, some served icy cold with a mignonette sauce, some fried, or, steamed in a unique curried coconut broth. Aficionados gorge on the all-you-can-eat oysters at Sunday brunch.

Bryan Maclarney stays busy preparing local fare as owner of Rory's in Darien as well as Blue Lemon in Westport. Tucked into a discrete corner at 15 Myrtle Lane, Blue Lemon has been open eight years. The décor reflects the summer beach and sky with its blue and
yellow tones. A sense of intimacy pervades the cozy atmosphere and limited seating. This ambience extends even to its loyal staff who enjoy spending down time fishing together.

It is clear that Maclarney cares about Long Island Sound: "It's cleaner than it used to be. In addition to fish like striped bass and tautog (blackfish), the shellfish from these waters are delicious and abundant." He personally likes to eat oysters and clams from local waters. At Blue Lemon, he serves Norwalk oysters raw on half shell with a green apple mignonette. At the sister restaurant Rory's in Darien, he serves a rendition of clams casino, using local clams. His specialty there is Cajun fried oysters, served open face with on corn bread with an aioli sauce. He has cooked up this popular po' boy adaptation for wine tastings to the raving reviews of his customers.

The informal The Beach Burger in Norwalk serves up local fried oysters in a variety of ways. It offers an angus burger topped with three fried oysters, with arugula and citrus vinaigrette. Oyster rolls are served up with a choice of fried or raw. The really hungry crowd devours the house specialty: a bucket of fried oysters.

In addition to nearby restaurants, there are several seafood markets that honor "go local, go green" where one can purchase fresh-caught shellfish to make dinner at home. Westport's Whole Foods Markets sells clams and oysters from Westport's waters. Westport's Westfair Fish and Chips sells Norwalk oysters and clams. All the clams and Blue Point oysters sold at Pagano's in Norwalk are come from local waters. Order up a clambake from Norwalk's Capt'n John's and you'll get clams from Norwalk. At Sono Seafood in Norwalk, one can purchase clams and oysters fresh off the market's boats.

In summary, there are lots of ways to enjoy our local shellfish. At all of these places and many more like them, diners are experiencing the pleasure of bringing the seashore to their lips and then washing down their meal with a cool drink on a hot summer evening. What could be better?
Sucking and slurping: the sounds of the Oyster Festivals

By RINDY HIGGINS
Special to The Hour

Shucking and slurping are as much a part of the heritage of oyster festivals today as they have been for centuries.

But nowadays, prizes are awarded (sometimes big prizes) for the restaurant worker who shucks more oysters per minute, or the public official who slides slimy oysters down his gullet faster than any other.

As sporting events go, some find these activities a bit indelicate to watch, since they don't necessarily conform to all of Miss Manners' rules for dining.

And yet showing folks how fast you can shuck oysters -- or how fast you can "slurp" them -- is a historically important and time-honored tradition at oyster festivals.
Over at Veterans Park in Norwalk during the 2011 Norwalk Seaport Association's Oyster Festival, on Sept. 10, a crowd gathered at the Heineken Entertainment Stage. Spectators cheered on the top shucking contenders, drawn from the ranks of restaurant workers, shellfishermen or just really good amateur shuckers.

Each contender faced the challenge of shucking 24 oysters as quickly and neatly as they could. After a short countdown and a starting command, the skilled shuckers wearing gloves and wielding specialty knives dug into their prey. Showing more finesse than brawn, they worked quickly with a twist of the wrist and a dance of their hands. The knife blades slipped between the shells near the hinge and skimmed around the oyster inside. With a swift motion, the shells were pried apart, liberating the oyster from its shell.

Shucking oysters competitively requires precision movement, performed with one fluid motion that is both gentle and firm so as not to lose any of the precious liquid, or damage the oyster. Speed and skill are rewarded. Neatness counts.

Cleanly and completely dislodging the oyster from the shell is one of the rules. Points are taken away if the platter contains a broken shell, a cut oyster, or an oyster with grit on the flesh, if an oyster is not placed properly on the shell, or heaven forbid, if an oyster is missing from the shell. Compliance is carefully monitored by celebrity judges who in the past have included Grand Central Oyster Bar General Manager Jonathan Young. Finishing times are recorded but penalty seconds are added if the rules are not followed exactly.

“Last year, I was ahead and was bringing the last oyster up to my mouth when I dropped it. As I picked it up again, I noticed Joe Madaffari, who was standing next to me, raise his hands up to show that he was the winner. He won, fair and square. I lost by a second, if that. I am a competitor and I like to win.”

-- Mayor Richard Moccia

Many festival goers this year were watching to see if last year's winner Alfredo Gonzalez could defend his championship. Persistence (he had entered the contest for four years in a row) as well as experience (the many oysters that he has shucked over 15 years at SoNo Seaport Seafood) finally paid off for Gonzalez in 2010. He won $500. So even though the pressure was on Gonzalez, he measured up, defended his title, and took home another $500.

"I wasn't nervous about it. I just wanted to do the best I could this year," Gonzalez said. "And I am really happy about how I did."

Back in the late 1880's when the oyster industry was in its heyday and when shucked oysters were in huge demand, shucking emerged as a sport. As Mark Kurlansky writes in his book "The Big Oyster", shuckers working as boat deckhands or as hirelings in oyster packing companies got paid by the piece. The average shucker could open about 650 oysters per hour. Spending hours side by side, they developed a competition which livened up the repetitive work of opening oysters. Rivalaries led to regional contests that took place...
in a different town each year. In Manhattan, it was held at Grand Central Terminal.

The modern Norwalk and Milford oyster festivals and the one at Oyster Bay, N.Y., just across the Sound, are part of a much larger movement and "shell-a-bration". The ritual has been carried on more often than not at Norwalk Seaport Association's Oyster Festival since 1981. It is actually part of a much larger process that takes place across the country. In Wellfleet, Mass., or Milford, Conn., a winner can take home $1,000, and the right to compete for the national title.

Oyster festivals in 17 states lead to the National Oyster Shucking Contest in St. Mary's, Maryland, in October.

In addition to those in the U.S., there are oyster festivals in Australia, Canada, England, France, Ireland, Northern Ireland, South Africa, and other countries. Shucking oysters has become an international sport with strict rules and big prizes.

The winner of each national contest is flown to Galway, Ireland, for the International Oyster Opening Championship held in September. In 2008, the international contest had the first U.S. winner in 32 years: William "Chopper" Young, a self-employed fisherman from Wellfleet, Mass.

The world championship in Ireland began 57 years ago when a hotel manager in Galway created the festival to draw attention to his then under-occupied hotel. The timing coincided with the traditional opening of the oyster season and the idea was soon also embraced by Guinness Brewery. The festival starts when the mayor of Galway ceremoniously slurps down the first oyster.

And speaking of slurping . . .

Having Norwalk city fathers slurp live oysters at the Norwalk Oyster Festival is always part of the fun. On Sunday, Sept. 11, as notables such as Mayor Richard Moccia, Chief of Police Harry Rilling, State Senator Bob Duff, and others gulped down these live animals over and over again, against the clock, to the raucous encouragement of onlookers. As the slurping round finished, the judges realized that there had been an error in the number of oysters each competitor had received. A rematch was called, the number of oysters checked and rechecked, and another round of slurping began.

Last year's winner, Joe Madaffari, the athletic director at Brien McMahon High School, won the race again and took home a second trophy.
But this year, Mayor Moccia really wanted to win.

"I will make a concerted effort to win this contest," he told this correspondent before the event.

"Last year, I was ahead and was bringing the last oyster up to my mouth when I dropped it. As I picked it up again, I noticed Joe Madaffari, who was standing next to me, raise his hands up to show that he was the winner. He won, fair and square. I lost by a second, if that. I am a competitor and I like to win.

"The important thing is that everyone is there to have fun, with the public laughing and enjoying it all. I happen to like raw oysters, but I do bring my own hot sauce!"

That whole scene is reminiscent of the once-bustling life of oyster taverns in New York City. Could those on stage actually beat the record set at a New York City competition in 1887 by one James Anderson, who ate 165 oysters in 15 minutes, or even come close to that set by a certain Mr. Smyth, deemed the "Oyster Eating King" in 1924, who downed 132 in the same amount of time?

Civilization is tamer now and the slurping is timed, rather than quantified. The question today is how fast you can swallow a dozen Blue Points.

The original Oyster Fest in 1978 began before the Norwalk Seaport Association was founded. The objective was to draw attention to the then revitalization of Norwalk and to remind the public of the city's highly acclaimed shellfishing and maritime history. And it's all for a good cause: support for the Sheffield Island Lighthouse and the Association's educational programs.

The festival has come a long way since the days when one could park right on the field and just walk in with no admission charge, listen to a military band, purchase arts and crafts or some food, including shellfish, while the kids could try their hands at some games.

The 34th annual Norwalk Seaport Association's Oyster Festival attracted nearly 30,000 attendees who could enjoy the 80 exhibits, (about 35 more than last year), amusement rides, Pirate's Cove activities, and a variety of food stands. Thousands of young people came on Friday and Saturday nights to jive to the 90's rock bands.

But Norwalk's maritime history still takes center stage at the festival. The crowd-pleasing oyster shucking and slurping contests, displays of oystering artifacts, oyster boats along the dock including Hope (the 1948 relic of the bygone era of sailing oyster boats) as well as food booths serving raw and fried oysters are reminders of the city's famous oyster heritage.

In a Westport winter, the clam takes front and center. It is the focus of a contest pitting chefs of local restaurants against one another. The 4th Annual Chowdafest in Westport, an event created by Jim Keenan, benefits the Connecticut Food Bank. The 2,000 attendees find this a delicious way to warm up on the Saturday of Super Bowl Weekend as they taste and judge various soups and chowders from approximately 20 restaurants.
The public serve as judges in each of three categories: classic New England chowder, creative chowder, and soup/bisque. Mansion Clam House in Westport, Southport Brewing Co. in Southport and Nicholas Roberts Gourmet Bistro in Norwalk are returning to defend their respective championships.

Whether it's clams or oysters as the stars of local festivals, these events honor the tradition of harvesting shellfish from the world renowned "gardens under the sea" in Westport and Norwalk.
The lore and lure of shellfish

By RINDY HIGGINS
Hour Staff Writer

Hidden in their shells, concealing riches, meals, myths and mysteries, oysters and clams have inspired artists and writers, politicians and common folk, jewelers and scientists, as well as gluttons, throughout history.

The humble oyster is a favorite subject in Flemish and Dutch paintings of the 17th century. Golden Age painters such as Jan Davidsz de Heem in his Still Life with a Glass and Oysters, and Jan van de Velde in Still Life: A Goblet of Wine, Oysters and Lemons subtly connote the intimacy and pleasure associated with the delicacy of this mysterious edible creature. Jan Steen painted Girl Eating Oysters, showing a coquettish young woman sprinkling salt on an oyster. A picture within a picture, there is also a still life painting of oysters on the table in the foreground and more oysters being prepared in the kitchen.

In the late 1800's when shellfishing was at its peak, artists from Claude Manet to Paul Gaughan painted shellfish in a more practical fashion. American artists Winslow Homer in A Basket of Clams and John Singer Sargent in Oyster Gatherers of Cancale turned to everyday depictions.

Musicians, too, have conveyed the mystery and desirability of shellfish, whether used as a metaphor or as a way to earn a living. In Jimmy Buffet's song Oysters and Pearls and in Matt Duke's Oysters, the pearl represents the exceptional and beautiful woman. However, the popular Irish folksong tells of the commoner Molly Malone "selling cockles and mussels alive, alive, o!" along Dublin's streets.

In literature the oyster is mentioned by scribes ranging from William Shakespeare to Charles Dickens. Shakespeare offers one of the most famous references in Merry Wives of Windsor when Pistol tells Falstaff, "Why, then/the world's mine oyster/Which I with sword will open." Shakespeare also used an oyster-pearl analogy in As You Like It: "Rich honesty dwells like a miser, sir, in a poor house, as your Pearl in your fouled Oyster."

In The Pickwick Papers, Dickens reflects the 19th century view that lower classes ate...
oysters because they were so abundant and inexpensive. Sam says to Mr. Pickwick: "the poorer a place is, the greater the call there seems to be for oysters. Look here, sir; here's a oyster stall to every half-dozen houses. The streets are lined with 'em."

Yet, this gastronomic delight has appealed to both the common man and to royalty. The oyster's importance was glorified in ancient Rome. Pliny the Elder reported that as early as the first century B.C., Roman soldiers brought back oysters from England to cultivate an abundant supply for Caesarean banquets.

When William the Conqueror invaded England in 1066, the Normans seized the shellfish grounds in Kent and in Essex. King William's guests would gorge themselves with oysters to such an extent that they would go to a nearby room to empty their stomachs by artificial means, and then return to feast start all over again.

The oyster was also the central focus of the appetites of French kings. King Louis XIV was purported to eat at least 100 at each sitting and King Louis XVI stocked the oyster beds in Etretat to assure a plentiful supply for his regal fetes.

Eating 100 oysters in one sitting was not solely reserved for the kings of France. In the 18th and 19th centuries in America, abundance and low cost made the oyster available to the American working class. Gluttonous contests evolved and became a part of the Boston and New York City tavern scene. The tradition of oyster-eating contests has continued, in modified form, at Oyster Festivals, including the one in Norwalk.

Clams and oysters were sometimes served in quantities for U.S. politicians. More than 10,000 supporters attended a clambake as a political rally for General William Henry Harrison on July 4th, 1840, in Rhode Island. Abraham Lincoln served oysters at his campaign events and the menu for his Inauguration Ball on March 6, 1861, included oyster stew and pickled oysters.

In Norwalk, some of the early oystermen held political office and one, Captain Isaac Stevens, owner of the largest oyster company in Rowayton at the time with beds near Goose Island, was knick-named the "Goose Island Senator" during his run for the state senate.

The Eastern Oyster became so central to Connecticut's life style and economy that the legislature named it the state shellfish in 1989.

During the oyster industry's heyday, some local oystermen became prosperous and built lavish homes. A few months ago, a major section of the Rowayton neighborhood known as
Oysterman's Row was named to the National Register of Historic Places, underscoring its importance and significance to the region's heritage.

Somehow through the ages, the oyster acquired the reputation of being an aphrodisiac. The word 'aphrodisiac' comes from Aphrodite, the Greek goddess of love and beauty, born from the foam of the sea and mother of Eros. No one is sure how this association came about. Perhaps the connotation of the oyster as being an aphrodisiac arose from its history of being served at sensuous banquets. Perhaps it was derived from various ancient suppositions. The Romans believed that longevity and a better love life resulted from eating oysters. The Greek physician Galen suggested eating oysters as a remedy for a waning sexual appetite. Cleopatra served them in great numbers to Marc Anthony.

Many oyster stories surround the legendary seducer Jacques Casanova. He reportedly ate 50 oysters before embarking on an amorous escapade. Describing an erotic moment in his memoirs, he wrote, "I placed the shell on the edge of her lips and after a good deal of laughing, she sucked in the oyster, which she held between her lips. I instantly recovered it by placing my lips on hers."

In the 18th century, Don Juan ate oysters to strengthen his romantic endeavors.

Though many have doubted the power of the oyster as a love food, nutrition research has been investigating the possible effects of eating oysters on the male libido. Early researchers thought that oysters were rich in the cholesterol that aids in the manufacture of testosterone. However, subsequent studies have shown that oysters, an excellent source of protein and vitamins A, B1 and B2, B12, C, D and Omega-3 fatty acids, help keep cholesterol in check. Oysters are now included in low-cholesterol diets recommended by the National Heart and Lung Institute.

In fact, oysters have been found to be nutritious in many ways. Five or six oysters supply the daily recommendation for iron, copper, iodine, magnesium, calcium, manganese, selenium, phosphorous and zinc.

Recent attention has been focused on the amount of zinc found in oysters. The Office of Dietary Supplements, an agency of the National Institute of Health, asserts that oysters have a higher level of zinc per serving than any other food. Zinc has been deemed important for metabolizing testosterone and for a healthy prostate gland. However, a clear-cut causal connection between the zinc in oysters and the enhancement of one's amorous relationships has yet to be affirmed.

Eating oysters any time is good for you. A common misbelief is that oysters should not be eaten in months that have an "r" in them. This notion may have arisen from the long-ago regulation that prohibited oyster harvesting from May through August (the months without an "r"). This law was a conservation measure aimed at protecting oysters during the summer months when they are spawning. This myth may also have arisen before the days of refrigeration and speedy transport.
Despite the apparent benefits, some religious traditions forbid eating shellfish. Strict adherents to Jewish custom avoid shellfish, a stricture that dates back to the Old Testament.

But even before Biblical times, men have been eating oysters and discarding the shells into huge garbage piles. Archaeologists have unearthed heaps of shells, called kitchen middens, that attest to the oyster's popularity with ancient civilizations throughout the world.

Along the coast of North America, mounds of shell fragments testify that the area provided bountiful shellfish for early humans. Carbon dating shows that some of the shells date back to 4,000 B.C. and core samples indicate that oysters eight to ten inches long were the norm.

One such heap of discarded shells was found in Norwalk. Oyster Shell Park, a recently redeveloped strip of land along the Norwalk River, was named in honor of the midden found across the river which had been called Oyster Shell Point by early colonists. The Native Americans who inhabited the area discarded their shells there.

Not all shells were discarded. One man's garbage is another man's treasure.

Native Americans made beads from shells, strung in strands about a fathom, or six feet long. Called wampum, it was used to honor treaties, historical events, and marriages, and also became a form of currency. In fact, Norwalk was bought in part by clamshells. In 1640, an agreement between the Native Americans of 'Norwalke' and Roger Ludlowe to sell the area to the colonists included eight fathoms of wampum in addition to coats, hatchets and other tools, tobacco and 'jewse-harpes'. In 1661, the Dutch bought Long Island for 60 fathoms of wampum plus flour, tobacco, beer, guns and hatchets.

Shells have long been used for jewelry. Archaeologists have found skeletons of Paleolithic man with jewelry and headdresses made from shells.

In more modern times, shells have also been carved into decorative cameos. During the Renaissance, mussels were used for cameo art. In 1902, the Spanish master cameo carver Francesco Bruno carved a shell cameo containing lines from Victor Hugo's classic Les Miserables.

In addition to art and currency, shells have been made into other products. Oyster shells have been used as cultch by the oyster industry. Crushed shells have been used in place of...
gravel for driveways and walkways. Shells have been powdered and added to cement and mortar, or used in aquaria and gardens to increase alkalinity. Mussel shells used as mulch have been found to hasten the ripening of grapes and citrus fruits. Crushed shells are sometimes added to chicken feed to aid in digestion of grains and seeds. Oyster shells are burned at high temperatures and reduced to an ash which is used in manufacturing steel, plaster wallboard, and to increase the elasticity of rubber.

One form of waste that starts as an irritating foreign substance in shellfish might end up as a prized jewel, a pearl. The pearl is the only gem produced by a living organism. Though a pearl may be created by any bivalve, it is usually found in an oyster. The oyster secretes a slick substance called nacre to coat the invasive obstacle over and over again for six to eight years. The end result -- a strand of natural pearls -- may be worth as much as one million dollars, according to certified gemologist appraiser Alan Kasson of Kasson Jewelers in Southport. Due to the salinity and temperature of Long Island Sound waters, pearls in our local oysters are often unsymmetrical and commercially worthless. The most valuable natural pearls are from Pacific warm waters or from the Persian Gulf.

Man has attempted to help nature along in creating pearls. Long ago, in the 12th century, the Chinese would put tiny Buddha figures inside mussels, and within a few years the figures would be coated with an iridescent sheen. For the last hundred years, Kokichi Mikimoto in Japan has been credited with consistently and artificially stimulating the creation of marketable round pearls.

Today, cultured pearls have surpassed natural pearl production and have made a strand of pearls more affordable than a natural pearl necklace. A strand of fine cultured pearls might sell for $10,000-20,000, Kasson asserts. These pearls are cultivated by inserting 6-8 mm beads made of shells into oysters or fresh water mussels which are then grown in bins hung off of docks for several years. "Cultured pearls look nearly identical to natural pearls; they need to be x-rayed or the strand holes examined by an expert to determine the difference," says Kasson.

**FUN FACTS**

The largest pearl ever found weighed 14 pounds. It was found in a giant clam in the Philippines.

The largest bivalve ever found weighed 579 pounds -- a giant clam from the Great Barrier Reef -- and is displayed at the American Museum of Natural History in New York.

**ADAPTED MEANINGS OF THE WORD ‘CLAM’**

- As an Anglo-Saxon word, ‘clam’ means bond or fetter or closed tight.
- The German word ‘klamm’ means closed up or pressed together and the word ‘klammer’ refers to being in parentheses which physically resemble the two shells of the clam.
- A ‘clam’ has referred to someone who can keep a secret, as a character in an Ellery Queen mystery novel said “I’m the original clam”. The idiomatic expression “clam up” means a refusal to talk or answer.
- ‘Clam’ has also meant money, as in John O’Hara’s Pal Joey “I hit a crap game for about 80 clams”.
- Sometimes in music, a ‘clam’ is a missed note and a ‘clambake’ refers to a lot of missed notes! During his theatrical or musical performances, Bing Crosby is known to have said “leave the clams in, let ’em know I’m human.”
Pearls have long been revered and have been mentioned in literature as well as in the Bible, Talmud and Koran. They have been found in Egyptian, Greek, Roman archaeological sites. At one point in history, pearls were only meant for royalty; the Romans forbade commoners from wearing them. Some cultures found them worthless. Aboriginal Australians hated biting into them and so they gave them to their children to play as marbles.

All in all, the oyster, the mussel and the clam like those found in our waters are fascinating creatures.

In *The Hour's* ten-part series on Shellfishing, we have explored culture and history, licensing and legalities, biology and conservation, commercial and sport harvesting, festivals, and dining. What's become clear from all this is that we have a wonderful resource in our "garden under the sea" that must be nurtured and protected in order to be enjoyed. It is amazing to know that our local area has been … and remains … an integral part of such a grand story.
A SONG OF THE OYSTER

Let us royster with the oyster –
In the shorter days and moister
They are brought by brown September,
With its roguish final R.
For breakfast or for supper,
On the under shell or upper,
Of dishes he’s the daisy,
And of the shell-fish—he’s the star.

We try him as they fry him,
And even as they pie him;
We are partial to him luscious on a roast;
We boil him and we broil him;
We vinegar and oil him,
And oh! he is delicious panned with toast.

We eat him with tomatoes,
And the salad of potatoes;
Nor look him o’er with horror
When he follows cold slaw;
And neither does he fret us
If he marches after lettuce,
And abreast of Cayenne pepper,
When his majesty is raw.

So welcome with September
To the knife and glowing ember,
Juicy darling of the dainties,
Dispossessor of the clam.
To the oyster then a hoister,
With him in a royal royster
We will whoop it through
The land of Uncle Sam!

-- Author unknown, circa 1889
THE TALE OF THE OYSTER

Down by the sea lived a lonesome oyster,  
Ev'ry day getting sadder and moister.  
He found his home life awf'lly wet,  
And longed to travel with the upper set.  
Poor little oyster.

Fate was kind to that oyster we know,  
When one day the chef from the Park Casino  
Saw that oyster lying there,  
And said "I'll put you on my bill of fare."  
Lucky little oyster.

See him on his silver platter,  
Watching the queens of fashion chatter.  
Hearing the wives of millionaires  
Discuss their marriages and their love affairs.  
Thrilled little oyster.

See that bivalve social climber  
Feeding the rich Mrs. Hoggenheimer,  
Think of his joy as he gaily glides  
Down to the middle of her gilded insides.  
Proud little oyster.

After lunch Mrs. H. complains,  
And says to her hostess, "I've got such pains.  
I came to town on my yacht today,  
But I think I'd better hurray back to Oyster Bay."  
Scared little oyster.

Off they go thru the troubled tide,  
The yacht rolling madly from side to side.  
They're tossed about 'til that fine young oyster  
Finds that it's time he should quit his cloister,  
Up comes the oyster.

Back once more where he started from,  
He murmured, "I haven't a single qualm,  
For I've had a taste of society,  
And society has had a taste of me."  
Wise little oyster.

-- Fifty Million Frenchmen, 1929