FISH TALES

Spring, 1991

HOMARUS AMERICANUS

THE AMERICAN LOBSTER

Native to New Jersey waters, the American Lobster (*Homarus americanus*) is prized worldwide and considered the most valuable lobster sold commercially in the United States. Although the lobster is a highly prized food today, that wasn't always the case. The US lobster fishery began in the colonial days when lobster were so plentiful they were considered a nuisance. New England colonists collected lobster by the wagon loads at the shore, dumped them in fields and crushed them for fertitizer or used them as feed for livestock. In the 1880's, lobster cost a penny apiece and were being used as bait for cod and striped bass. Today, however, the days of unwanted gluts of lobster are long gone and it has become a luxury for most of us.

Contrary to popular belief, New Jersey lobsters are exactly the same as their counterparts from Maine. The American lobster is often identified with Maine because it was there that the commercial fishery began in 1840. As a matter of fact, many aficionados consider New Jersey's product sweeter and better tasting. Lobsters weigh anywhere from one to five pounds, but can grow up to forty-five pounds. Lobsters like cold deep waters and rocky areas and are usually trapped at depths of 10 to 200 feet. However, New Jersey draggers have been known to get the monsters in off-shore canyons exceeding 600 feet in depth. Available year round, lobsters are more likely to be caught in New Jersey inshore waters out to the edge of the continental shelf in April through November. According to preliminary commercial landing data from the National Marine Fisheries Service (NMFS), New Jersey harvested approximately 2.2 million pounds of lobster in 1990.

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Truly a shore tradition, it is said that the best way to enjoy a lobster is whole, either boiled or steamed. But it is also excellent in thermadores, newburgs, appetizers or baked and stuffed. Most of the lobster is edible, so there is very little waste. Cooked lobster meat has a sweet, succulent, distinctive flavor and it is the large muscle of the tail that is prized for its flavor.

THE NEW JERSEY AQUACULTURE ASSOCIATION

Aquaculture can be defined as the cultivation, harvesting, holding and selling of animals and plants grown or produced in a water environment. While the culture of fish, shellfish and aquatic plants has been practiced using primitive techniques for thousands of years in some parts of the world, recent developments in technology have brought aquaculture to its threshold as a viable industry.

Aquaculture is still a small, but growing industry in New Jersey. The culture of shellfish in the southern and coastal regions of the state, and finfish culture in the northwest counties, have become well established. The business and employment potential of this field has generated increased interest in aquaculture.

The New Jersey Aquaculture Association was organized by individuals from industry, academia and State government to promote awareness of aquaculture and to assist and educate practicing and potential culturists. The Association seeks to assist the institutions of higher learning and State agencies in their efforts to help the aquaculture industry grow.

On June 27the New Jersey Aquaculture Association will be holding its annual meeting at the Ocean County Agricultural Building on Whitesville Road in Toms River at 7 p.m.. We urge new members to attend. For more information about the association and membership contact Tracy Bacek at (609)292-2472.

1. According to the ancient Greeks, which fish fed on acorns?

NATIONAL ACADEMY OF SCIENCES RELEASES REPORT ON SEAFOOD SAFETY

According to the Institute of Medicine Committee of the National Academy of Sciences, "Fish and shellfish are nutritious foods that constitute desirable components of a healthy diet. Most seafoods available to the U.S. public are wholesome and unlikely to cause illness to the consumer." The report goes on to say greater consumer safety can be achieved by regional monitoring of harvest waters and more effective restrictions on the marketing of potentially dangerous shellfish and finfish.

The greatest public health risk identified by the study was the consumption of raw oysters, clams and mussels since these animals are filter feeders and can concentrate harmful bacteria. The New Jersey Department of Environmental Protection has established water quality standards for the safe harvesting of shellfish and regularly monitors these areas to ensure that water quality is within safe limits. As part of the program, the DEP routinely tests thousands of water samples and in fact, New Jersey has more sampling stations per acre of growing water than any other state.

The New Jersey Department of Health administers a certification program which requires all wholesale shellfish dealers to handle, process and ship shellfish under sanitary conditions and maintain records verifying that shellfish were harvested from approved waters. Shellfish samples are regularly collected from approved areas, certified dealers and retailers for bacteriological examination. The goal of these shellfish safety programs is to help assure the consumer that the clams, oysters and mussels are harvested from areas of the state that are safe.

Despite the safeguards that are in place, some illnesses from the consumption of raw shellfish are reported to the Health Department each year. One bacteria of concern is *Vibrio vulnificus* which occurs naturally and is usually found in waters in the southern United States during the summer. These organisms can cause gastrointestinal symptoms. In a few high risk individuals, particulary the immune compromised (AIDS patients and cancer patients undergoing radiation therapy or taking immunosuppressive drugs, those with liver disease, or those recovering from intestinal or stomach surgery, the symptoms may be more severe, even life threatening. Therefore, the New Jersey Department of Health recommends that those with chronic illness such as liver disease or those with compromised immune systems should avoid the consumption of raw fishery products.

In tropical areas such as Hawaii and the Caribbean, some types of fish such as barracuda, snapper and grouper can cause ciguatera, a type of food poisoning when they have been feeding on certain organisms that live on coral reefs.

Improper handling of fish and seafood can also put the consumer at

Continued on page 4

risk. Certain types of fish and seafood such as mahi mahi, bluefish and tuna can cause scombroid poisoning when they have not been properly refrigerated. It is especially important for recreational fishermen to handle these catch correctly.

The major recommendation of the report was the necessity to strengthen programs to reduce environmental pollution and to increase environmental monitoring programs in the nation. The safety of seafood products can best be assured with uniform standards for all states.

DID YOU KNOW?

Twenty-five per cent of a Homarus species of lobster is meat. Of the meat, forty to forty-five percent is in the tail, thirty-five per cent is in the claws and the rest is in the walking legs, knuckles and body.

It takes an average of six years for a lobster to grow to one pound and over twenty years to grow to four pounds.

Lobster is "Homard" in France, "Hummer" in Germany, Norway, Sweden, & Denmark, "Astice" in Italy and "Iseebi" in Japan.

Lobsters are one of the least parasitized crustaceans known and their immunity has been a subject of research for some years.

In the 1880's lobster cost a penny a pound and was used as bait for cod and striped bass.

Lobsters feed on sedentary or slow moving organisms, such as mussels or clams, sea urchins, starfish, worms, crabs and occasionally small fish.

Lobsters missing a claw are called "culls".

Lobsters were so plentiful in the colonial days that early New England colonists collected them by the wagonful at the shore, dumped them in fields and crushed them for fertilizer.

Lobsters of all sizes are cannabalistic and when crowded together in capitivity would quickly destroy each other if their claws were not banded.

Lobsters are graded either as "chickens" (1 lb.), "quarters" (1 to 1 1/2 lbs.), "selects" (1 1/2 to 2 lbs.) and "jumbos" (over 2 lbs.).

The two claws on a lobster are different. Each has a heavy crusher claw and a lighter biting claw, commonly called the quick claw because it is used to capture food quickly.

A pistol is a lobster that has lost both claws.

FISHERIES AND AQUACULTURE TECHNOLOGY EXTENSION CENTER

QUARTERLY ACTIVITIES FATEC Grant Program

John Kraeuter

The FATEC grant program designed to foster closer ties with industry and yield seed money to researchers willing to develop programs in conjunction with industry partners is underway. FATEC has announced awards to the following groups:

Commercial Fishermens Association: Assessment of undeveloped fishery resources; Sea robins

Various individuals plus National Coastal Resources Institute: Cultchless oyster grow-out using MSX resistant strains

Bauer Fish Farm: Effects of cage size and density on hybrid striped bass

Maurice River Oyster Culture Foundation: Cultch packing density effects on oyster larval setting

Maurice River Oyster Culture Foundation: Dermo in resistant oysters

PSE&G: Feasibility of blue crab shedding in Salem County

Church and Dwight: Use of bicarbonates to increase water retention in shrimp

Holland Farm: Stability of liming freshwater ponds for hybrid striped bass production

Bayfarm, Mathis: Methods to prevent "tape mud" destruction of hard clams

Absecon Island Aquafarms: Effects of water depth and removal of fast growing clams on production in raceways

Borden, Gorton: Sea clam wastes as animal feeds

HARD CLAM

Preparations are underway to coordinate the first sampling on the large beds of ocean quahog shell set out last spring to examine the effects of shelling on recruitment of hard clams.

SURF CLAM and OCEAN QUAHOG

Studies on the use of ocean quahog shell as a source for industrial adhesives are continuing. Margaronics has reported an increase in research activity associated with its project.

Borden Corporation has contacted FATEC personnel concerning the data we supplied on the seasonal fluctuations of meat yields in ocean quahogs. The company will be analyzing this data in conjunction with their review of the processing lines in the plant.

OYSTER

Several follow-up talks were given at the Maurice River Oyster Culture Foundation and the Delaware Bay Shellfish Council concerning the status of the oyster disease Dermo. The industry was brought up to date on the status of general knowledge of Dermo and given the Laboratories best estimate of the implications of disease for this years harvest.

The National Cancer Research Institute funded studies on growing cultchless oysters in the bay are moving forward as expected. Winter survival of oysters has been as expected. Preparations are underway to use these oysters to examine the feasibility of rack-and-tray culture of MSX resistant stocks at two sites this summer, and several commercial growers will participate by planting additional oysters on their leases.

RETAILERS ATTEND HANDLING WORKSHOP

Americans have increased their fish and seafood consumption in recent years as they seek to develop healthier lifestyles, and over 200 area retailers responded by attending a day long workshop focused on providing the consumer with the best possible seafood products. The workshops, sponsored by the New England Fisheries Development Association, the New Jersey Department of Agriculture and New York Sea Grant, provided information on improved seafood handling including sanitation practices, temperature regulation, getting the most for your seafood dollar, latest packaging technologies and consumer education.

Local retailers recognize that increased profitability is dependent upon increased consumer satisfaction. While the consumer invariably thinks that fresh is always best, Dr. Joe Regenstein of Cornell University explained that "frozen seafoods can often be of better quality than fresh. The quality of any seafood is dependent upon the quality of the product at the time of harvest and how it was handled. Several New Jersey boats actually process the catch at sea as soon as it is harvested."

With growing concerns about price, George Nardi of the New England Fisheries Development Association introduced a cast of lesser known seafood characters such as ocean pout, cusk, red and silver hake, and cape shark all of which come with more reasonable price tags than many of our better known traditional species and are equally delicious.

Since many consumers are reluctant to purchase seafood because they are confused by the large number of different types and the many methods of preparation, the workshop attendees also focused on consumer education.

After the seafood leaves the retail store, there are many things that the consumer can do to help retain the quality and safety of the product:

1) Keep seafoods cold. Treat your seafood purchase like ice cream. Purchase it last on the shopping trip and get it home as soon as possible. If it is a hot day, ask the retailer for some ice. You might want to place your fish and seafood purchases in the freezer for about ten minutes to bring the temperature down quickly. Then place it in the meat drawer or at the back of a shelf under the freezer unit in your refrigerator where temperature is the lowest.

2) Live shellfish such as clams, mussels and oysters should be stored in well-ventilated refrigeration not air tight plastic bags or containers. Cover with a damp paper towel to retain moisture.

3) Handle raw and cooked seafood products separately. Thoroughly clean cutting boards, knives and utensils after handling raw seafoods.

4) Thaw frozen seafood in the refrigerator overnight to retain the best possible quality.

The easiest way to cook fish is to use the ten minute rule. Measure your fish at the thickest point. For every inch of thickness, cook ten minutes. If less than 1 inch thick, shorten the cooking time proportionately. This timing works whether you're broiling, poaching or baking. If the fish is cooked in a sauce or foil, add five minutes per inch. And if you plan to cook it while still frozen, double the cooking time.

NEW JERSEY FRESH SEAFOOD FESTIVAL SPONSORS POSTER CONTEST

Seafood--Smart Food for Smart People," is the theme of the first annual poster contest sponsored by the New Jersey Fresh Seafood Festival in Atlantic City on June 8, 1991. The contest is open to all students in grades three through five, and the first prize winner in each grade will receive a rod and reel.

The deadline for entries is May 10, 1991. The winners and honorable mention posters will be exhibited at the New Jersey Fresh Seafood Festival at the Farley Marina in Atlantic City on June 8, 1991.

Posters should be 12" X 18", and any of the following media can be used crayons, markers, paints and colored inks.

Posters must be original art--no magazine art or illustrations tracing will be accepted. Posters will be judged on creativity, originality, neatness and portrayal of the contest theme. All posters should include the phrase, "Seafood--Smart Food for Smart People."

Additional information can be obtained by calling the Fish and Seafood Development Program, New Jersey Department of Agriculture, CN 330, Trenton, New Jersey 08625, (609) 984-6757.

2. Whose locker room was known as the whale's belly?

SEA GRANT SETS ITS SITE ON 1991-1993

by KIM KOSKO

Marine research, management and extension specialists recently participated in an on-site review at William Patterson College, to present potential projects for inclusion in the 1991-93 New Jersey Sea Grant College Program. A total of 18 projects, representing 9 categories, were reviewed by a seven member panel, representing the National Sea Grant Office and specialists from other Sea Grant Programs.

The site review process actually began more than a year ago, when 36 researchers responded to a call for proposals sent out by the New Jersey Sea Grant College Program. These proposal concepts, which responded to priority areas and issues recommended by the National Sea Grant Office, were reviewed by members of the New Jersey Sea Grant Advisory Board, to determine how well they met these priorities, and for their potential for applying their results. From these, the field was narrowed down to 22 projects. Detailed proposals for these projects were then submitted by the researchers, and sent out for review and evaluation. Finally, 12 of these projects, plus 6 continuing projects, which included on-going communications, advisory and management activities, were selected for final presentation to the site team at William Patterson College.

The projects included in New Jersey Sea Grant's 1991-1993 program year cover a wide range of research areas and activities, from studying the socioeconomic and cultural impacts of new management strategies on the sea clam fishery, to investigating the use of marine organisms as an algae killer, the ultimate birth control method or even a cure for cancer!

By mid-May, New Jersey Sea Grant will have received word, as to which of the presented projects will be approved for National Sea Grant funding, which is administered by the National Oceanic and Atmospheric Administration (NOAA), through the U.S. Department of Commerce. These funds, will in turn, be managed and disbursed by the New Jersey Marine Sciences Consortium, which is the managing agent for the New Jersey Sea Grant College Program.

Before the program receives final approval, some of the projects will be revised and fine-tuned, according to recommendations from the National Sea Grant Office. The end result will be a cohesive program of research, education, advisory and communications efforts, which once completed, will play a major role in enhancing the use and conservation of New Jersey's coastal resources.

3. In what state were the first US trout hatcheries built?

DESIGNING SHEDDING FACILITIES

Sea Grant programs in the south have been successful in providing technical assistance and training to the soft shell crab industry. As a result of their efforts, "soft" crab production has increased along the South Atlantic coast.

New Jersey's commercial crabbers can benefit from this increase by supplying peelers to the south or by shedding and selling their soft crabs locally.

New recirculating shedding facilities developed by Sea Grant now mean that a crabber doesn't need waterfront property to produce his own "soft" shells. These systems utilize wooden tanks, a circulating pump and a filtration system. The filtration system is critical in determining the number of crabs that each facility can hold.

Louisiana Sea Grant has developed a computer program to assist in the designing of these systems. Based on their studies of shedder waste production and biological filter efficiency, they have designed this program to provide flow rates, filter size and system configuration.

This program is available to New Jersey crabbers through the Rutgers Cooperative Extension Office in Cape May Court House. Stewart Tweed, marine Extension Agent for South Jersey, said "the program can be used to design appropriate systems for the recreational crabber that wants to produce a few soft crabs or for the commercial crabber that wants to sell to retailers or restaurants." All you need to know is how many crabs you are planning to hold. Then, contact his office (609) 465-5115 for assistance in getting a copy of a facility diagram and operating conditions to suit your needs.

FISHING FOR INDUSTRY COMMENTS

This column of Fish Tales will provide space for those who like to express their viewpoints on industry and marine related issues. We welcome any statements, comments, suggestions or criticisms you may have concerning the fish and seafood industry. This is your chance to speak out and be heard! We look forward to hearing from you

ATLANTIC MACKEREL

Nils Stolpe, N.J. Commercial Fishermen's Association

The Atlantic mackerel (*Scomber scombrus*) is one of the most common fish in the North Atlantic, found in vast, rapidly moving schools off the coast of the Mid-Atlantic states during the winter and early spring. According to the National Marine Fisheries Service in the 1989 report, Status of the Fishery Resources Off the Northeastern United States, the total stock of Atlantic mackerel at the beginning of 1988 was 2 million metric tons and increasing. Based on this, the government has determined that the harvest of Atlantic mackerel in 1991 could safely reach 330 thousand metric tons.

Last year the total harvest of mackerel from the Northeastern stocks was well under 50 thousand tons. If the processing and marketing capacity existed, another 250 thousand tons could have been taken with no harm to the resource. There are a lot of Atlantic

mackerel to catch and we aren't catching that many (in fact scientists have observed decreasing growth rates of individual mackerel, possibly indicating that the hundreds of millions of mackerel are now competing with each other and with other, more desirable species for limited food and space).

When the Magnuson Fisheries Conservation and Management Act became federal law in 1976, the citizens of the United States came into control of all of the living marine resources of our Exclusive Economic Zone (those waters from 3 miles off our coast to 200 miles out). Under the Act these resources are to be managed on a sustainable, renewable basis. The excess between what our own recreational and commercial fishermen can catch and the harvesting level that the various stocks can support can be made available - on a restricted and highly controlled basis - to foreign harvesters through joint ventures, fishing ventures designed to guarantee an economic return to the U.S. economy from the harvest of these excess fish. These joint ventures have proven an effective tool in the successful efforts to Americanize our fisheries and, and in large part because of them there are virtually no foreign boats fishing in U.S. waters today.

The Atlantic mackerel fishery, however, is one of the few remaining where the ocean's capacity to produce far outstrips our capacity to harvest. While our understanding of marine ecology isn't great enough to accurately assess the impacts that the millions of tons of uncaught mackerel have on other species in the waters off New England and the Mid-Atlantic - species like bluefish, fluke and striped bass - they must be significant.

When two docks in Cape May requested Governor Florio's permission to bring a Russian factory ship into New Jersey waters to buy ckerel from our own fishing boats, it was a proposal that no one could validly object to. The total amount of mackerel to be processed - 5,000 tons in 1,000 ton steps - wouldn't deplete the available mackerel stocks but the venture would generate millions of dollars of new economic activity in Cape May and other coastal communities during the season when it is really needed, it would help to solidify trade relations between New Jersey and Russian when corporate America is scrambling after such opportunities, it would direct the fishing boats away from other species which are already under too much pressure from recreational as well as commercial fishermen, and it would make more high-quality protein available in a world in which hunger is a constant problem.

Governor Florio, the Commissioners of the New Jersey Departments of Environmental Protection and Commerce and Economic Development and the State and Federal Legislators from Cape May County and other coastal districts should all be applauded for recognizing that the best use of our extensive living marine resources is the one that benefits most of New Jersey's citizens. New Jersey's commercial fishermen have supported the coastal economy and provided fresh, nutritious seafood to millions of consumers for generations. With continued support like this they will keep on fishing and New Jersey's economy and seafood consumers worldwide will continue to benefit.

UPCOMING EVENTS

May 25-27 — **Oceanfest '91**
Cold Springs Harbor, N.J.
Contact: Don Pettifer at (609) 898-2300

June 8 — **Jersey Fresh Seafood Festival**
Gardner's Basin, Atlantic City, N.J.
Featuring maritime arts and crafts, marine educational exhibits, entertainment, kids games & a variety of seafood items.
Contact: Tracy Bacek at (609) 292-2472

June 15 — **The New Jersey Seafood Festival**
Belmar, N.J.
Contact: Nona Henderson, Rutgers University at (201) 932-9157

June 15 — **1991 Long Beach Island Maritime Festival**
Shows featuring maritime art, artifacts and crafts. Plus, ongoing demonstrations of the waterfowl carving craft, boat building, animated talks by local historians bring to life the maritime history of the Barnegat bay and the lore of the old-time Baymen.
There will also be a **"Taste of the Shore Food Festival"**.
Harvey Cedars Bible Conference, Harvey Cedars
Admission: $2 Adults, Free children 12 and younger.
For more information call: (800) 292-6372 or (609) 494-7211

August 25 — **The 9th Annual Barnegat Bay Crab Race**
Seaside Hts., N.J.
Contact: Toms River Chamber of Commerce at (201) 349-0220

September 21 — **Chowder Cook-Off**
Beach Haven, N.J.
Contact: The Southern Ocean County Chamber of Commerce
(at (609) 494-7221

September 21 — **The Point Pleasant Seafood Festival**
Point Pleasant, N.J.
Contact: The Greater Point Pleasant Area Chamber of Commerce
at (201) 899-2424

PEELER PRICE BEGINS WITH HANDLING

Two weeks before blue crabs shed their old shells to become "soft" shells and grow larger, they enter the peeler crab stage. This is a period when their body begins making a new shell.

While often sold as bait in New Jersey, commercial crabbers can also make a profit by selling them to crab shedding facilities in the south.

New Jersey peelers have been in demand because our spring peelers are reported to be "stronger" and often larger than the southern ones. As summer progresses and large numbers of New Jersey peelers begin to die in shedding tanks, southern crabbers avoid the New Jersey market.

To improve the success of New Jersey peeler crabs, Lou Whittaker, a Virginia crab shedder was invited to speak at an October meeting sponsored by Sea Grant and the Delaware Bay Watermen's Association. He said "poor handling causes most of your peeler problems." Damaged or weak peelers will not shed well and Virginia will pay less for these crabs.

Whittaker recommends the following to improve New Jersey "peeler" crab quality:

1. Clean and fish your pots regularly - peelers will be damaged if they remain too long in pots with debris and other crabs.

2. Fish your pots early and keep crabs cool and moist - high afternoon temperatures or drying wind will weaken peelers. Keep them in shade and hose them down regularly.

3. Handle peelers once-sort and pack on the boat to reduce handling.

These handling tips should help commercial and recreational crabbers better utilize our New Jersey resources.

If peeler mortalities could be reduced 10 to 20% the demand and market value of New Jersey peelers would greatly increase. Contact Stewart Tweed, Sea Grant's South Jersey Marine Extension Agent, phone number 609-465-5115 to learn more about handling peelers and about designing and operating your own crab shedding facility.

4. What marine animal is sometimes referred to as the "ghost of the sea"?

ANGLING FOR THE ODDITIES

As the weather gets warmer, many avid fishermen armed with rod and reel head down to the shore with hopes of catching the one that got away last year. But often dreams of catching a large blue or sea trout are dashed, and the catch of the day turns out to be dogfish, a skate or a sea robin. Don't despair. If these fish are handled correctly, they can make some fine eating. As a matter of fact, many French chefs actually prize them for their excellent flavor and texture.

The spiny dogfish is a small common shark that is found in great numbers along the Atlantic Coast. Like all sharks, it has a high concentration of urea (a nitrogen compound) in its blood. This helps the shark survive in salt water but can also ruin the flavor of the meat if the fish is not handled correctly. The blood should be drained immediately. This prevents the urea from deteriorating into ammonia and giving the fish and "off" flavor.

HANDLING DOGFISH

First the shark should be stunned and then bled by cutting off the tail. This severs one of the major arteries. Tie the shark overboard and allow the blood to drain. Now gut the shark and wash out as much blood as possible. Then pack it in ice. The main secret to preserving the quality of your catch is to keep it as cold as possible.

When you get back to the dock, cut through the skin in the back of the shark's head and continue the cut all the way around the head. Then make a cut from the head to the tail on both the top and bottom side. Using a pair of pliers, it is now a simple matter to skin the shark. If you really get into sand shark fishing, you may want to construct a skinning board. Simply hammer a long sharp nail through one end of a board. The nail will hold the fish steady while you dress it. Now cut off the head and fillet or steak the fish. With larger sand sharks, you might want to cut the fish into steaks and then skin the steaks.

HANDLING SEA ROBIN

The sea robin is so abundant that it is often classified as a trash fish but many a French chef wouldn't think of making a bouillabaisse without it. This bizarre-looking fish is a bottom dweller that uses its large pectoral fins to walk and stir up sand to locate food. In Great Britain, this delicacy is marketed under the name gurnard.

To skin a sea robin, cut through the skin along the top of the fish and around each of the dorsal and anal fins. Peel the skin away from the flesh

with pliers or your fingers. If you opt to use your fingers, you can add some extra grip by dipping them in table salt. Now fillet your catch.

HANDLING SKATE

Skate are great fighters and will bite at almost any bait. If you're lucky enough to catch one, take it home and enjoy the fine scallop-like flavor. An old wives tale that keeps turning up in cookbooks is that skate wings are cut into neat circles and then sold as scallops. Actually the amount of labor involved would make this highly unlikely, and the deception would never fool the educated consumer.

Place the skate, belly side down, on a flat cutting surface. Cut off the tail, and then cut close to the body on each side to free the wings. Halfway through the wings you will have to cut through a thick layer of cartilage. To fillet the wings, insert your knife along the cartilage at the thickest edge. Using the cartilage as a guide, continue cutting until the fillet is free. Turn the wing over and repeat the process to free the bottom fillet.

It's generally easier to remove the skin after you poach the fillets. Add five tablespoons of wine vinegar to one quart of water and poach the skate for 25 minutes. Now you can scrape the skin off.

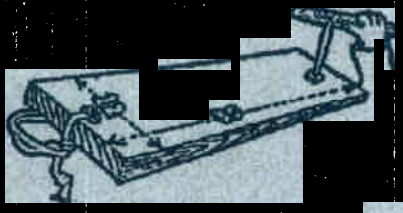
Skate actually improves with age and should be kept in the fridge for a day or two before serving. This improves both the texture and the flavor of the meat.

THE SECOND ANNUAL NEW JERSEY FRESH SEAFOOD FESTIVAL

Mark your calenders now for the Second Annual New Jersey Fresh Seafood Festival. The festival will take place at Historic Gardner's Basin on June 8th from 10 a.m. to 8 p.m. and promises to be bigger and better than last year's event.

The festival will include marine educational exhibits, maritime arts & crafts, games, rides, children's activities, marine related demonstrations, continous entertainment and great seafood & libations. All net proceeds will benefit the Kidney Dialysis Unit of the Atlantic City Medical Center, scholarship programs of the Chefs' Association and the Atlantic County Charter Boat Association's artificial reef fund. There is no admission fee to the festival grounds. Tickets for seafood entrees are $6 for adults and $3 for children. All seafood is contributed by the commercial and recreational fishing sectors and prepared by New Jersey chefs. For additional information contact Tracy Bacek at (609) 292-2472.

HANDLING DOGFISH



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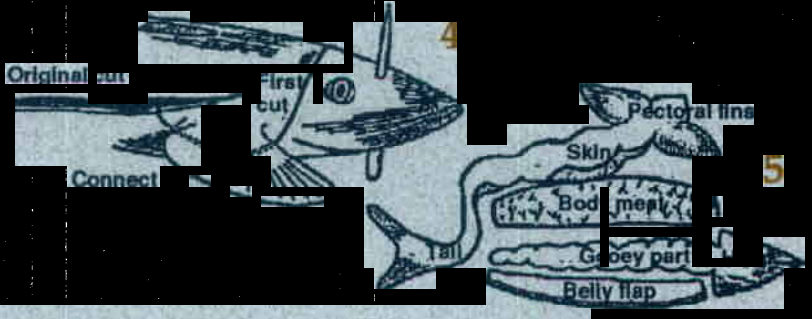

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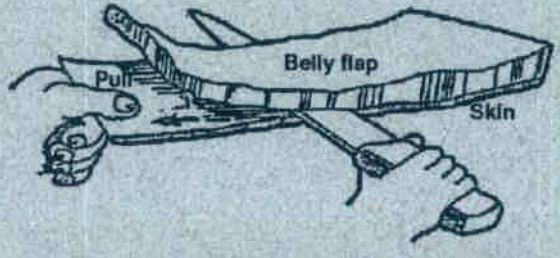

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RECIPES FOR THE ODDITIES

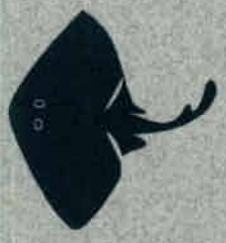
DOGFISH KEBOBS

2 pounds dogfish
paprika
1/4 cup vegetable oil
n peppers cut into squares
1/2 cup dry white wine
3 Tablespoons lemon juice
2 thin yellow summer
1/2 teaspoon dried dill or 1 squash, sliced into 1 1/2 inch rounds
teaspoon chopped fresh dill
1/2 teaspoon chervil

Cut fish into one inch cubes and rinse well with water. Prepare marinade by mixing vegetable oil, white wine, lemon juice, dill and chervil in a dish large enough to hold the fish. Place the fish cubes in the marinade and soak for an hour or more. Refrigerate the fish while it is marinating. Thread fish cubes on skewers alternating with summer squash and green peppers. Broil or grill for 10 minutes. Baste frequently with marinade. Serve with lemon wedges or tartar sauce.

5. What fish is sometimes referred to as rock salmon in England?

RAY IN BLACK BUTTER



Skate wings (about 2 pounds)
5 Tablespoons wine vinegar
4 Tablespoons butter
1 handful of parsley, finely chopped
juice of one lemon
salt and pepper to taste

Parboil unskinned skate wings for 25 minutes in 1 quart of water to which you have added 5 tablespoons of wine vinegar. Remove from water and peel off skin. Brown butter without burning in a large frying pan. When butter is coffee colored, add parsley. Let brown for one minute. Add lemon juice. Pour over fish.

OVEN FRIED SEA ROBIN

2 pounds sea robin fillets
1 cup fine dry bread crumbs
1/2 cup milk
salt
3 Tablespoons butter

Heat oven to 450 degrees. Generously butter an oblong baking pan large enough to hold you fish in a single uncrowded layer. On a large sheet of wax paper, spread a mound of bread crumbs. Pour the milk into a shallow dish large enough to dip the sea robin. Season the milk with salt. Dip each fillet into the milk, then in crumbs to coat evenly. Place the fillets in the buttered dish. Pour the melted butter over the fillets. Bake until fish flakes when tested with a fork.

ANSWERS TO TRIVIA

1. The swordfish 2. The whales belly is Davey Jones' locker, probably in deference to Jonah 3. They were built in New York State by Seth Greend. The squid 5. Dogfish, the Scotch use the name "folkstone beef".

Fish and Seafood Legislative Summary

Below [illegible] of Legislative [illegible] propriations pertaining to the fish and seafood industry for the 1991-92 session [illegible] you would like to comment [illegible] any of these proposed bills you may either submit [illegible] testimony to the Office of Legislative Services or contact their office for a schedule upcoming public hearings. For more information please contact: Office of Legislative Services, Legislative Budget and Finance Office, Room [illegible] Suite House Annex [illegible] N-068, Trenton, New Jersey 08625 (609) 292-1170.

1991 SESSION ASSEMBLY BILLS

No: A-1514 (A-4236
Purpose: Appropriates $[illegible] Maurice River Oyster [illegible]
[illegible] Stuhltrager

A-3430 (S[illegible]
Purpose: Regulates [illegible]
[illegible] Jacobson, [illegible]

[illegible] 3093 ([illegible]
Purpose: Appropr[illegible] propagatio[illegible] relat[illegible]
[illegible] LoBiond[illegible]

N[illegible] A 3094[illegible]
Purpose: Appro[illegible] propagati[illegible]
[illegible] LoBion[illegible]

[illegible] $10,0[illegible]

Purpose: Transfers shellfish [illegible] Fish, [illegible] Wildlife to DOA
[illegible] Villapiano

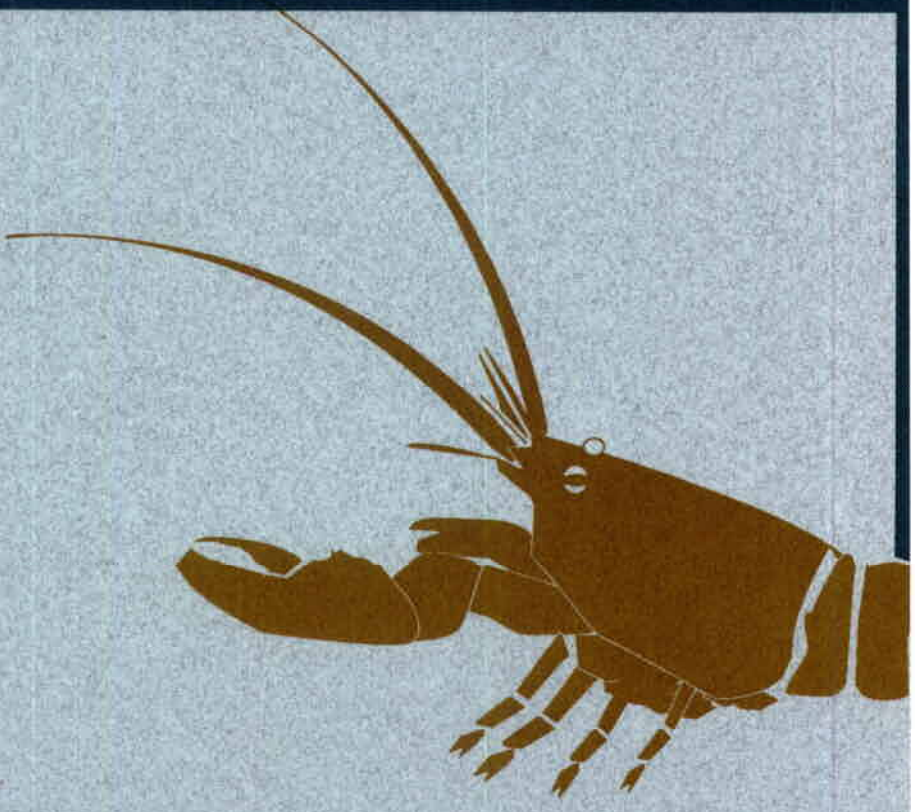
[illegible]

Rocco
No[illegible] AJR 20 (AJR 123)
Purpose: Requests [illegible] propo[illegible] limi[illegible]

1991 SESSION SENATE BILLS

Expresses the

SJR 48 (SJR 49-2ANe, AJR95-Salafon)



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