

Chapter 1 : calendrierdelascience.com: Customer reviews: The Oyster Industry

*The Oyster Industry [Ernest Ingersoll] on calendrierdelascience.com *FREE* shipping on qualifying offers. This historic book may have numerous typos and missing text. Purchasers can usually download a free scanned copy of the original book (without typos) from the publisher.*

After leaving his job as an installation artist to become a full-time oyster farmer in Wakulla County, Florida in , Gregg began raising small oysters in baskets or bags suspended in the shallow, productive coastal waters of Apalachicola Bay. Preliminary reports indicate significant damage and heavy crop losses. Raising oysters by any method is not an easy job, but if off-bottom farming can become established along the Gulf Coast, it could give the industry a much-needed boost, give consumers more choices, and provide a new stream of environmental benefits. Louisiana is the national leader in oyster production, with a handful of other states vying for second place, including Washington, South Carolina and Texas. However, when states are ranked by value per unit — that is, total value over total landings — states like Massachusetts, Maryland and Virginia dominate. This is partly due to regional differences in how oysters are grown and marketed. Traditional harvesting of oyster reefs on the sea bottom still dominates in the Gulf region. Off-bottom oyster farming has been a major driver in the growth of marine aquaculture production nationally. Today more than 50 farms are operating in Florida, Alabama and Louisiana, with permits pending for others in Mississippi. In recent years Alabama has ranked among the top five states in per-unit value. Oysters improve water clarity by filtering out phytoplankton, thereby removing nitrogen from the water column. They also provide forage grounds and habitat for fish and act as breakwaters, protecting nearby shorelines. Off-bottom farms deliver the same types of benefits as traditional on-bottom reefs, although in slightly different ways and at different times, depending on local conditions and farming methods. In our view, raising oysters in multiple ways is beneficial because it avoids putting all of our eggs in one basket, so to speak, and makes the industry more resilient. We come at this topic from different perspectives. Daniel Petrolia focuses on the economics of coastal resources and natural hazards. We have worked together since to better understand oyster habitats , evaluate market opportunities and identify and tackle challenges for the new industry. Disaster preparation and recovery clearly are top priorities. They can harm reefs by burying them in sediments or drastically altering water salinity. Storm impacts tend to be highly localized. Prior to Hurricane Katrina in , Mississippi was the fourth-largest oyster-producing state in the nation. Production recovered somewhat over the next several years, but Mississippi harvests have remained around one-tenth of pre-Katrina levels. Louisiana, whose oyster reefs lie just west of where Katrina made landfall, saw just a 6 percent drop in production following Katrina. Oysters were also killed by releases of fresh water from the Mississippi River, which were conducted in an effort to keep oil out of coastal estuaries. Storms are not the only threat. Florida and Georgia have been fighting for decades over allocating water from the Apalachicola River ; when Georgia draws a high level of water, it reduces freshwater flow to Apalachicola Bay, which can lead to increases in oyster mortality from predation and disease. Beyond direct impacts on oyster farms, Hurricane Michael damaged state laboratories that conduct water quality testing required to re-open waters to harvesting. Testing delays could lead to prolonged closures and even affect areas not hit by the storm. Michael also disrupted red tide sampling in several Panhandle counties. In Gulf and Escambia counties, red tide concentrations actually increased in late October. Farmers will be looking for more oyster seed — the small oysters that they need to restock their bags and baskets. Unlike crop farmers on land, oyster farmers cannot buy subsidized insurance to help them with losses of oysters and gear, so those who suffered heavy damage will be challenged to rebuild their operations. Some estimate that they may have lost 60 to 90 percent of their crops. Oystermen have strategies for dealing with hurricanes, such as sinking baskets loaded with oysters to the bottom before the storm arrives. But they can only reduce risk, not eliminate it. The threat of rising sea levels and more intense storms will force them to continue adapting and improving their strategies. Two days after Hurricane Michael passed through, he was back on the water checking lines and making repairs. He could have been speaking for all Gulf oystermen. Read the original article.

Chapter 2 : Is It All Over For The Oyster Industry? | The Fish Site

The history and present condition of the fishing industries At head of title: Department of the Interior. Tenth census of the United States. Francis A. Walker, superintendent.

The same operations that allow people to make a decent living can also contribute to environmental issues that can alter delicate ecosystems over time. Much like the impact climate change is projected to have on the environment, ocean acidity is an ever-growing concern for many researchers and scientists. This change in chemistry could result in untold disaster for aquatic life all over the world. While such a development would be tragic enough on its own, the ramifications of such a change are bound to have far-reaching effects for all life. What Is Ocean Acidification? Increased acidity within sea water is directly related to the carbon levels emitted by humans. A percentage of this carbon is absorbed back into the oceans, which has changed the chemical makeup over time. As a result, many sea creatures are quickly becoming imperiled. Oysters are often singled out as casualties from this increased carbon because their development depends on the tenuous balance of the water itself. This increase creates problems for oysters because it inhibits growth and sustainability. As stated above, the primary cause of increased ocean acidity stems from carbon dioxide being absorbed into sea water. This carbon dioxide is usually the result of the burning of fossil fuels, such as oil, gas, and coal. In some cases, these fuels may be used in the name of commerce i. Vehicles are also responsible for vast amounts of carbon dioxide being emitted into the atmosphere, hence the efforts of many environmental activists to put caps on carbon output and focus on green technology. The energy required for an oyster to create its all-important shell is far greater when ocean acidity comes into play. If this development is slowed by increased carbon dioxide levels, oysters may not have time to develop the essential feeding mechanisms that would allow them to thrive. As a result, many oysters die off before they get a chance to fully form. A decline in the oyster population is detrimental for many reasons. The most pressing concern has to do with the important role oysters play in regulating underwater ecosystems. Oysters are known as filter-feeders. In many cases, oysters will diminish levels of harmful pollutants as a result of their feeding habits. This can keep ocean water safe for a variety of animals, as well as serving to strengthen shorelines due to increased reef presence. Oysters failing to thrive can also greatly harm commerce. As a result of increased acidity, many oyster farmers are finding it difficult to fulfill the often sizable demand that oysters garner. Oyster larvae can be greatly affected by increased acidity, which can halt a once-successful business in its tracks. Unfortunately, this scenario is becoming a common occurrence for many oyster farmers all over the world. While carbon dioxide emissions will most likely continue to be an issue, there are a few things that can be done to combat ocean acidity. Many of these solutions must be enacted on a global scale in order to make a real impact. This includes both the vehicles being driven by consumers, as well as the plants tasked with producing such vehicles. By coming up with alternate fuel methods, the level of carbon in the atmosphere will diminish drastically. Initiate a Carbon Tax “ While this tends to be a rather controversial solution, a carbon tax could greatly reduce the amount of carbon emissions. In conjunction with such taxes, rebates could be afforded to those who opt for more sustainable technologies, such as wind power or solar energy. This makes natural gas a good option until cleaner sources of energy become more accessible. Of course, impacts can be made on an individual level as well. This can be accomplished by limiting hot water usage, as well as changing to more energy-efficient technology when applicable. Even eating habits can contribute to environmental instability. Seafood lovers are asked to limit their consumption to those creatures that are raised sustainably, which can remove the burden from declining populations. This is especially true when there are very real solutions to the problems contributing to ocean acidity. Oyster production is simply one aspect of a much larger issue stemming from continued use of fossil fuels to power the things that matter most to humanity. While commerce is important for humanity to thrive, keeping the planet intact is far more vital to the survival of the species. Without a place to call home or resources to satisfy basic needs, human beings will soon find themselves out of options.

Chapter 3 : discuss the oyster industry | WordReference Forums

Beyond direct impacts on oyster farms, Hurricane Michael damaged state laboratories that conduct water quality testing required to re-open waters to harvesting.

It is a nightmare! Mr Clifford has worked in Orongo Bay since the s, when he started commercially picking kerosene tins of wild rock oysters *Saccostrea commercialis*. He still remembers getting paid 70 cents a tin by the processors. The spread of residential housing brought new problems, including environmental pollution from overloaded sewage treatment plants and septic tanks. However, the arrival of OsHV-1 might be the largest hurdle of all. In the virus wiped out most of the juvenile oysters in Europe and parts of Australia. We have no idea where and how the virus arrived in New Zealand, but since last summer it has nearly wiped out many oyster farms, highlighting again our vulnerability to the invasion of new marine species. MAF Biosecurity has long recognised problems with introduced pests affecting land farming operations, but it has yet to get a good handle on how to protect our valuable marine areas. OsHV-1 is not a food safety problem. Only healthy oysters are processed and sold, so oyster lovers should have no hesitation in savouring tasty mouthfuls. Make the most of them though, as they are likely to become a rare delicacy. By December last year, Mr Clifford had lost 80 per cent of his original crop and since then he has tried several times to restock the farm with new seed. He is not alone, and farmers around the North Island have suffered the same fate. Mr Clifford says he is grateful to Aoteoroa Fisheries, which helped him access new seed supplies. But after restocking his farm, all this seed died, causing even more work to remove 80, dozen dead oysters. It was hard, physical work shifting trailer loads of dead oysters, but even harder for Mr Clifford is the mental torture of not knowing what the future holds for Kororareka Oysters. The market is crying out for quality oysters, but frustratingly empty oyster trays lie idle on the shore, with no viable stock. MAF and the oyster industry are still trying to understand the scientific answers, but at this stage it seems the only solution is to breed superior resistant oysters. Breeding better oysters takes time, and in the meantime farmers and processors are laying off staff as they face economic doom, as it is impossible to pay staff when there are no oysters to process. Unemployment sadly means higher health risks for the entire household. Numerous recent adverse events in New Zealand, including a mining disaster, a cyclone, earthquakes and increasing fuel and food prices, would make it seem easy for the looming problems facing the oyster industry to go unnoticed. However, it is important this does not happen, and the government and public recognise the tough times ahead for oyster farmers and their communities. Even those who do survive may need to farm differently and will need a helping hand to do so. Unless we learn the lessons from this disaster quickly, the same problems will simply be repeated.

Chapter 4 : SmartOysters – A Collaborative Farming Platform for the Oyster Industry

"The oyster deaths are the largest challenge I have ever had to face in my 43 years in the industry. It is a nightmare!" These were the words of Alex Clifford of Kororareka Oysters Ltd after OsHV-1 (Ostreid herpesvirus-1) stripped his oyster farm in the Bay of Islands.

Out on the water, Padilla sticks with a smaller group of about ten boats that all belong to his buddies and family—his father, uncle, brother-in-law, and cousins all make a living oystering, too. Two of his friends, a pair of brothers—one in rubber overalls, the other in jeans—are working as his deckhands, pulling in the dredge and culling through hundreds of oysters as they crash onto the stainless-steel table before them. Hammers in hand, the brothers clean and sort oysters more quickly than a droid could, loading their haul into giant pails on one end of the table, while pushing the undersized and dead ones back out into the water off the other. Almost everybody on the water has. Tejano music blasts from the deck on the ride back in to Prestige Oysters, where Padilla works. The fishermen are worried about the future. They know they have a rough season ahead. They know the state, charged with protecting the threatened, finite resource that is our public reefs, has opened only 14 of the 34 shellfish classification areas along the Texas coast in the aftermath of Hurricane Harvey, which has reduced the oyster population significantly. East Galveston Bay, a huge area where boats typically could work for six months easy, has lost practically every single oyster. But boats on a two-by-two-mile stretch of water, not all of which is covered in oyster reef, is a lot of boats. Even with fewer areas open, Padilla and his team consistently pull in their daily limit of bags, and with demand peaking over the holidays, money keeps rolling in. January brings ice storms and freezing weather. The reefs in TX 7 start to show major signs of strain from all the holiday demand. Nevertheless, Padilla, clad in sweats under his fishing overalls, has no choice but to go out. Ice freezes to the boat, to his face, in his boots. Well before the season ends, they know, the oysters will run out entirely, the result of various factors, including a litany of natural disasters, only the latest of which was Harvey. The oystermen believe part of the problem is mismanagement on the part of the state: Texas, they say, is opening and closing the wrong areas, although officials dispute that. Through mid-February, TX 7 remains open, while other areas around Galveston Bay are closed, a decision Padilla disagrees with. The pressures are getting to a lot of the guys, Padilla explains. Fishermen are a tightknit, self-policing community, but only to an extent. Sometimes, the need to make a living supersedes the need to follow the rules. Padilla tells his buddies to stay out of the closed sections until the game wardens choose to open them. At age 14 Padilla asked his uncle if he could come along on the weekends to help out and make some money—a typical high schooler with an atypical job. By age 18 he was driving a boat for the Halilis and starting a family with his high school sweetheart. But the resource has declined over time, part of a downward spiral worldwide. In , a high-water mark for the industry, fishermen harvested 6. In fishermen harvested just , pounds out of the bay. While overall Texas still had a strong harvest in , providing 3. New York closed to oyster fishing in , its oyster beds nonexistent. Chesapeake Bay went from producing 20 million bushels of oysters in the late s to having three quarters of its natural oyster reefs disappear by the s. The *Crassostrea virginica*, the bivalve found in our waters as well as in the Atlantic , has been a bountiful delicacy in the bay since before settlers arrived. The Karankawas supplemented their diet with the plump, briny wonders. By the s, Texas was the only state that shipped oysters by train to other regions, which was when the first oyster houses—or firms, as they were called—were established here. Our oysters thrive in saltwater estuaries that have a freshwater inflow, and serve the dual purpose of filtering the bay. In fact, oysters are pretty magical. Not only can they change their sex, they can sequester carbon from the atmosphere to help curb air pollution, and even mitigate nitrogen produced by wastewater treatment plants. Natural oyster reefs are like big old family trees, composed of granddaddy and grandma oysters at the base and younger generations attaching themselves on top. Reefs near shore are safe harbors for juvenile shrimp and crabs, and conservationists consider them to be more valuable than sea grass. Size limits allow both to grow. In Hurricane Ike dumped so much silt, sediment, and debris into Galveston Bay that the oysters on more than 8, acres of reef, roughly half the reefs in the bay, suffocated to death. Seemingly overnight, the bay went

from supplying 80 percent of Texas oysters each year to just under a third. Then, just two years after Ike, the Deepwater Horizon blowout sent crude oil gushing into the Gulf off the coast of Louisiana. We also had a drought in that time frame. Starting in , Texas Department of State Health Services officials not only delayed the start of the season but closed off sections hit by these algae spores, in an effort to keep people from getting sick. Then came and , and the massive floods that brought in too much fresh water, again destabilizing the oysters. This time there appeared to be a bright side. Yes, flooding kills oysters, but it also ultimately can help reefs in the long run, cleansing them of predators and disease brought on by high salinity while leaving shells intact. These shells, in turn, attract babies, or spat, providing plenty of hiding spots for them to grow big and market-sized with a lesser chance of predation. In those first weeks after the hurricane, oystermen, scientists, and wardens hit the water, checking on mortality on public and private reefs. He and his deckhands sorted through dozens of bivalves, firing the half-open shells of dead ones back into the water. They found only four live ones. But that was only one part of the bay. By November it became clear that some oysters on public reefs had survived and grown to market size. The good ones were soon scraped off the beds, though. Houston-area restaurants have increased prices accordingly: After Ike, many got into the habit of loading up their bagsâ€”which typically hold pounds, roughly to oystersâ€”with as much as half their contents composed of dead shell or undersized bivalves. This practice does damage. Robinson has been with TPWD for 27 years, working out of Galveston Bay for 20 of those as a field biologist and regional director. There is a lot more dialogue. They understand there are issues out there. Sixty commercial fishermen at a time might be wading around on those reefs to harvest oysters. The state immediately closed the areas. Texas has now restricted fishing on any oyster reef within feet of the shore. Padilla then had to find another deckhand on the fly, one, he hoped, who already knew the basics, the legal size of oysters, how much goes in a sack, and what quality to look for. Back in , state officials announced they were going to put a moratorium on any new oyster licenses in Texas. The idea was to reduce the number of boats drawing on the public reefs each year. But the move backfired. The ban sent people into a last-chance-scenario buying mode during the yearlong window before it went into effect, putting licenses on just about anything that floatsâ€”someone even tried to put one on a jet ski. Today there are still commercial oyster-boat licenses and oyster-boat captain licenses in Texas, numbers that are still too high. Last year the state implemented a license buyback program to alleviate stress on the water, in addition to other measures, including reducing limits from 40 to 30 sacks, closing reefs to commercial harvest on Saturdays, and requiring dealers to return 30 percent by volume of shucked shell from each sack to help rebuild public reefs. Controversially, Texas has also introduced a new measure requiring boats to be outfitted with vessel monitoring systems VMS , which use GPS technology to track boats and bust any that fish on closed waters or poach from private leases. But while these systems could be key to curbing overharvesting in the future, the state currently has no funding to utilize the new tool. Everyone wants more oysters. The oystermen themselves are divided on VMS. But what would keep fishermen from overfishing those as well? The tell-tale signs of dredging and culling. Texas uses a science-based threshold to determine if an area has enough sustainable market-sized oysters to open. If it falls below a certain mark, the state closes the area until the oysters can grow to adequate size, which could be years. Boats started avoiding Copano Bay this season, Padilla tells us, even though it was open, because nobody wanted to fish there for fear of getting a ticket. Leaseholders put millions of dollars back into the bay, building up their private reefs, which they typically harvest after the public season is over. For loyal fishermen like Padilla, who leases the Miss Kosovare directly from the Halilis and sells only to them, this means a way to make money year-round. Woody founded the initiative after discovering a bill of sale dating back to revealing, he maintains, that the state had sold 23, acres of submerged land to the Chambersâ€”Liberty Counties Navigation District, including about 2, acres of public beds and acres of private beds already leased by his competitors, the Halilis and Ivic among them. He then sent out notifications to the other leaseholders warning them not to trespass on his property. The camaraderie among local oystermen, long a tradition, took a hit. All of the involved parties still show up at important meetings with Robinson, but afterward, you might find Ivic and the Halilis chitchatting or grabbing lunch, while Woody heads back to his car alone. Black sheep, Ivic calls him. Woody continues to insist private enterprise is the solution. In he released a video, shot by drone, of opening day at Dollar Reef, a

restored acre site just south of San Leon. More than boats of all sizes dredged in circles, practically twirling over each other like ice skaters warming up at the Olympics. It was fished out in just two days. Halili says the video is misleading. The tide is low, the shallows near Prestige Oysters glassy and inviting. But the Galveston Bay oystermen are fed up. At the dock, Padilla unloads just 15 sacks, and the boat behind him brings in only He loves the hard work and the bay. His family orders his birthday cakes with Happy Birthday, Captain Joaquin scrawled across the top. He loves the Miss Kosovare so much, he made a minute-long YouTube video of boat photos set to Massage Envyâ€™s style guitar jazz. His three sons love it, too.

Chapter 5 : The Oyster Industry () - IMDb

User Review - Flag as inappropriate This fact filled book is a valuable aid to historians interested in the role of the oyster in the late 's and before. The author does a nice job of digging up references from as early as the 's that put the extent and importance of oysters into historical context.

Anatomy[edit] Oysters are filter feeders , drawing water in over their gills through the beating of cilia. Suspended plankton and particles are trapped in the mucus of a gill, and from there are transported to the mouth, where they are eaten, digested, and expelled as feces or pseudofeces. Today, that would take nearly a year. Oyster filtration can mitigate these pollutants. In addition to their gills, oysters can also exchange gases across their mantles, which are lined with many small, thin-walled blood vessels. A small, three-chambered heart , lying under the adductor muscle , pumps colorless blood to all parts of the body. At the same time, two kidneys , located on the underside of the muscle, remove waste products from the blood. Their nervous system includes two pairs of nerve cords and three pairs of ganglia. While some oysters have two sexes European oyster and Olympia oyster , their reproductive organs contain both eggs and sperm. Because of this, it is technically possible for an oyster to fertilize its own eggs. The gonads surround the digestive organs, and are made up of sex cells, branching tubules, and connective tissue. Once the female is fertilized, she discharges millions of eggs into the water. The larvae develop in about six hours and exist suspended in the water column as veliger larvae for two to three weeks before settling on a bed and maturing to sexual adulthood within a year.

Habitat and behaviour[edit] Oyster reef at about mid-tide off fishing pier at Hunting Island State Park , South Carolina A group of oysters is commonly called a bed or oyster reef. Rocks in intertidal zone covered by oysters, at Bangchuidao Scenic Area, Dalian , Liaoning Province , China As a keystone species , oysters provide habitat for many marine species. Crassostrea and Saccostrea live mainly in the intertidal zone , while Ostrea is subtidal. The hard surfaces of oyster shells and the nooks between the shells provide places where a host of small animals can live. Hundreds of animals, such as sea anemones , barnacles , and hooked mussels , inhabit oyster reefs. Many of these animals are prey to larger animals, including fish, such as striped bass , black drum and croakers. An oyster reef can increase the surface area of a flat bottom fold. One valve is cupped and the other is flat. Oysters usually reach maturity in one year. They are protandric ; during their first year, they spawn as males by releasing sperm into the water. As they grow over the next two or three years and develop greater energy reserves, they spawn as females by releasing eggs. Bay oysters usually spawn from the end of June until mid-August. An increase in water temperature prompts a few oysters to spawn. This triggers spawning in the rest, clouding the water with millions of eggs and sperm. A single female oyster can produce up to million eggs annually. Attached oyster larvae are called spat. Many species of bivalves, oysters included, seem to be stimulated to settle near adult conspecifics. Pacific oyster Crassostrea gigas equipped with activity electrodes to follow their daily behaviour Oysters are considered to filter large amounts of water to feed and breathe exchange O₂ and CO₂ with water but they are not permanently open. They regularly shut their valves to enter a resting state, even when they are permanently submersed. In fact their behaviour follows very strict circatidal and circadian rhythms according to the relative moon and sun positions. During neap tides, they exhibit much longer closing periods than during the spring tide. Low tide can expose them, making them easy to collect. In Trinidad in the West Indies , tourists are often astounded when they are told, in the Caribbean, "oysters grow on the trees here". The largest oyster-producing body of water in the United States is Chesapeake Bay , although these beds have decreased in number due to overfishing and pollution. Willapa Bay in Washington produces more oysters than any other estuary in the US. Large beds of edible oysters are also found in Japan and Australia. Nutrient cycling[edit] Bivalves , including oysters, are effective filter feeders and can have large effects on the water columns in which they occur. Ecosystem services[edit] As an ecosystem engineer oysters provide "supporting" ecosystem services , along with "provisioning", "regulating" and "cultural" services. Oysters influence nutrient cycling , water filtration , habitat structure, biodiversity , and food web dynamics. The borough of Colchester holds an annual Oyster Feast each October, at which "Colchester Natives" the native oyster, Ostrea edulis are consumed. The United Kingdom hosts several other

annual oyster festivals; for example, Woburn Oyster Festival is held in September. Many breweries produce oyster stout , a beer intended to be drunk with oysters that sometimes includes oysters in the brewing process. The French seaside resort of Cancale in Brittany is noted for its oysters, which also date from Roman times. Sergius Orata of the Roman Republic is considered the first major merchant and cultivator of oysters. Using his considerable knowledge of hydraulics , he built a sophisticated cultivation system, including channels and locks, to control the tides. He was so famous for this, the Romans used to say he could breed oysters on the roof of his house. Throughout the 19th century, oyster beds in New York Harbor became the largest source of oysters worldwide. Eventually, rising demand exhausted many of the beds. To increase production, they introduced foreign species, which brought disease; effluent and increasing sedimentation from erosion destroyed most of the beds by the early 20th century. In the United Kingdom, the native variety *Ostrea edulis* requires five years to mature and is protected by an Act of Parliament during the May-to-August spawning season. The current market is dominated by the larger Pacific oyster and rock oyster varieties which are farmed year-round. Fishing from the wild[edit] Oysters are harvested by simply gathering them from their beds. In very shallow waters, they can be gathered by hand or with small rakes. In somewhat deeper water, long-handled rakes or oyster tongs are used to reach the beds. Patent tongs can be lowered on a line to reach beds that are too deep to reach directly. In all cases, the task is the same: In some areas, a scallop dredge is used. This is a toothed bar attached to a chain bag. The dredge is towed through an oyster bed by a boat, picking up the oysters in its path. While dredges collect oysters more quickly, they heavily damage the beds, and their use is highly restricted. Until , Maryland limited dredging to sailboats , and even since then motor boats can be used only on certain days of the week. These regulations prompted the development of specialized sailboats the bugeye and later the skipjack for dredging. Similar laws were enacted in Connecticut before World War I and lasted until The laws restricted the harvesting of oysters in state-owned beds to vessels under sail. These laws prompted the construction of the oyster sloop-style vessel to last well into the 20th century. Hope is believed to be the last-built Connecticut oyster sloop, completed in Oysters can also be collected by divers. In any case, when the oysters are collected, they are sorted to eliminate dead animals, bycatch unwanted catch , and debris. Then they are taken to market, where they are either canned or sold live.

Chapter 6 : The Oyster Industry | The Countryside Transformed:

Louisiana's oyster resources are among the largest and most valuable in the United States. LDWF manages approximately million acres of public oyster bottoms throughout coastal Louisiana and leases nearly , acres of water bottom to private individuals for traditional on-bottom cultivation.

The president and members of Congress rested from their manifold duties for a while and the capital city was astir because this father has heard 34 children say papa! No sooner had the A. What is 34 compared to 9,, That is the number of eggs an average female oyster lays in a season. It is fortunate that the enemies of baby oysters are legion, for at the rate of 9,, a year the Ocean would be filled with oysters in places where the bivalve thrives. Since the oyster industry is one of the most important industries, probably the most important on the Eastern Shore with the exception of potato raising, we will give the readers of the "Enterprise" a bit of information about the little delicacy. Permit us to say that we have traveled far and near, but we have yet to find oysters anywhere that have a better flavor than the kind produced on the Eastern Shore of Virginia. We do not wonder that this produce is in demand far beyond the borders of the Old Dominion. The Chambers of Commerce may tell the world that here is an article worthy of the table of a king. We will begin at the beginning and give the life story of our personal friend, for many oysters have entered the ministry. When the newly hatched oysters are in the swimming stage between May and September they are gulped down by hungry fish at the rate of several hundred at one swallow. If they are fortunate enough to escape with their lives and go down to the bottom and start life as tiny oysters, they are devoured by starfish, ray and other hungry denizens of the deep. Then, if they manage to escape all their enemies and are living snugly in their one story bungalow, a sea snail drills a hole through the shells and sucks out the poor bungalow dwellers until Neptune pronounces the benediction. On the dead shell of brother oyster new oysters attach themselves and if they live they end in a tin can or on the table of a hungry man who "just loves them on the half-shell with some horse radish, catsup and crackers. If the adult oyster lives his full span of years, three or four years, being the age of maturity, it deserves a great deal of credit. But no, about the only reward it gets, is the honor of being eaten by a hungry brute. It has been stated by an author in "the Pioneer" that an oyster, if undisturbed, might live a hundred years. The favorite habitat of oysters is a gravel or rocky bottom with mud deposits, where the current is not strong enough to dislodge them from their anchorage. There they await their doom, to be picked up sooner or later by dredge, rake, tong, or hand. Oysters are left handed, that is the left side is usually larger than the right and thicker. As a rule they fasten themselves on the left side of anything hard that is to their liking, rock, sunken wood, bits of china or other bric-a-brac dropped overboard by passing crafts. Oystermen have found oysters attacked to all sorts of things from cups and saucers to platters and bowls, from pieces of iron to false teeth. Oysters feed principally on minute plants, called diatoms, which live on the bottom or float. These diatoms in turn feed on mineral matter to be found in "oyster water. The muscle that fastens the body to the shell, opens the valves about half an inch and closes it at intervals. When the shells are open the water flows in and the oyster has its meals. A word of oyster pearls you have never found. The only oyster that makes pearls is found in the tropics. Once in a hundred moons an American oyster has a fit when a tiny grain of sand gets on the inside. It irritates its delicate body and secretes layer after layer of mother-of-pearl over the object and presto, a pearl is born in a day. If you, reader of this paper, find one then share your profit with this writer, for he has always had to dig for his living. Oysters are nourishing, oysters are fine for the system and we have the advantage on the "Shore" over millions of people who live inland. Eastern Shore oyster dealers, you have the goods. Some men will find it, others will continue to complain about hard times. The fellow who wants his ship to come in, sails on and on until, like Columbus, he discovers his promised land. This is true on the Eastern Shore as it is true everywhere. We have the goods How to deliver the goods is in the hands of the readers of this paper. Industry and cooperation are the master keys. We landlubbers are under lasting obligation to the hardy men "who work in the water" these cold days. Every oyster we eat represent hardships we seldom dream about. May these "watermen" come into their own!

Chapter 7 : News - Hurricanes are disrupting the oyster industry - The Weather Network

Here comes the lowly oyster to spoil the whole business. What is 34 compared to 9,, That is the number of eggs an average female oyster lays in a season. It is fortunate that the enemies of baby oysters are legion, for at the rate of 9,, a year the Ocean would be filled with oysters in places where the bivalve thrives.

Historically speaking, Alabama happens to be the largest processor of oysters in the United States. Nowadays, Alabama is at the forefront of the homegrown oyster market thanks to a group of dedicated farmers. Now, thanks to an increasing demand for a premium product, there are 13 Alabama oyster farms currently in operation with new farms in the works. Seafood restaurants and oyster bars throughout the state and beyond are featuring these boutique oysters on their menus, and food enthusiasts at every level are enjoy the surplus of local product. While starting your own oyster farm does involve a significant investment in terms of time and money, there are plenty of success stories to model your business after. Oysters help to improve the water quality in our bays by feeding on excess phytoplankton. Additionally, the presence of additional on-bottom oyster farms creates new artificial reefs, which are beneficial to a number of aquatic species. Bill Walton of Auburn University, putting oysters in our bays is similar to putting sheep in an overgrown pasture. As you might infer from the name, the Eastern Oyster is very popular, especially along the Atlantic Coast and Gulf Coast. What has become more of a myth is rooted in reality, thoughâ€”but the origin dates back to pre-refrigeration days when transporting product like oysters was much more difficult. Now that modern technology allows to ship Alabama oysters all over, we can enjoy them all year round. The other reason this saying persists is the threat of the vibrio bacteria, which is something to be aware of but not overly concerned about. For more information on vibrio, check out our Safety section. How to Prepare Oysters Gulf oysters come in all shapes, sizes, and flavorsâ€”likewise, there are many ways you can prepare oysters to your liking. Raw, right out of the half shell. But many folks like to add a saltine, some horseradish, and a dash of hot sauce. Fried oysters are quite popular in the Gulf as well. Oyster Ecosystems Thanks to a mixture of salt water from the Gulf Coast and freshwater from our bays and rivers, Alabama oysters are in an environment where they can thrive. But even though our coastline is a small one, the flavor profiles of Alabama oysters can vary a great deal. In fact, oysters from the same bay can vary in size, appearance, salinity, and taste. Plus, depending on seasons, weather, and other factors like rainfall, characteristics of these oysters can vary even more. The Reef Builders of Estuaries List of Operating Farms With 13 commercial oyster farms now in operation here in Alabamaâ€”that generate half a million dollars in wholesale valueâ€”there are plenty of great examples to model your business after. Learn more from the map and list of locations below.

Chapter 8 : The Oyster Industry – Chinook Story

Hurricane Michael delivered a devastating blow to Apalachicola's once-booming oyster industry, which was already a shell of its former self long before the storm came ashore.

Oyster harvesting using rakes top and sail driven dredges bottom. In Monsieur de Bon started to re-seed the oyster beds by collecting the oyster spawn using makeshift catchers. After obtaining the rights to a part of the coast he built a wall to make a reservoir and to break the strength of the current. Some time later the wall was covered with spat coming spontaneously from the sea which gave baby oysters per square metre. When farmed, the temperature and salinity of the water are controlled or at least monitored, so as to induce spawning and fertilization, as well as to speed the rate of maturation – which can take several years. The first step to cultivating oysters is conditioning broodstock. Broodstock are the "parent" oysters that will provide gametes for larvae. Oysters in the wild are only "ripe" with gametes for a short window. All of the oysters in an area will spawn at the same time to increase the chances that their gametes meet and fertile larvae are produced. To ensure ripe oysters for spawning throughout the season, some growers choose to keep mature oysters in a separate system where the farmer can manipulate the temperature and food within the system. While a recirculating system can be used, a flow-through system is generally better because the natural diversity of phytoplankton is a better diet for conditioning oysters [5]. By setting up this separate system, the farmer can mimic the transition from winter to summer quicker than real-time, and essentially convince the oyster that it is time to spawn whenever the farmer needs more larvae. When the farmer actually wants to spawn the oysters, he or she will put a batch of oysters in a tray and rapidly heat and cool the water to induce spawning. It is important to have a large number of oysters, because it is impossible to tell if an oyster is male or female from its outer appearance. Once the oysters start to spawn they can be picked up and placed into their own separate containers until they have released all of their gametes. Eggs and sperm can then be mixed together to fertilize [6]. Larvae tanks should be cleaned and disinfected before putting water in the tanks. Water quality should be tailored for the particular species, but most larvae will generally grow faster in warmer water. After the fertilized eggs and beginning-stage larvae have been added to the tank, they should be fed filtered or cultured algae daily, and have their water changed every-other day. This ensures no pathogens or foreign organisms enter the system and compete with or eat the larvae, and their water quality stays pristine to encourage growth. After about two weeks an oyster will be ready to set. They will develop a small, round discoloration called an eyespot despite not being used for seeing. Their muscular foot will be visible under a microscope. At this point, the larvae can be put in a system with a variety of cultch options. The best cultch is usually full or ground up oyster shell because oysters are naturally attracted to other oyster shell to ensure their future reproductive success [7]. After the larvae settle, they are considered "spat. In each case oysters are cultivated to the size of "spat," the point at which they attach themselves to a substrate. The substrate is known as a "cultch" also spelled "cutch" or "culch". In either case spat or seed stage, they are then set out to mature. The maturation technique is where the cultivation method choice is made. In one method the spat or seed oysters are distributed over existing oyster beds and left to mature naturally. Such oysters will then be collected using the methods for fishing wild oysters, such as dredging. In the second method the spat or seed may be put in racks, bags, or cages or they may be glued in threes to vertical ropes which are held above the bottom. Oysters cultivated in this manner may be harvested by lifting the bags or racks to the surface and removing mature oysters, or simply retrieving the larger oysters when the enclosure is exposed at low tide. The latter method may avoid losses to some predators, but is more expensive. The maturation tank may be fed with water that has been especially prepared for the purpose of accelerating the growth rate of the oysters. In particular the temperature and salinity of the water may be altered somewhat from nearby ocean water. The carbonate minerals calcite and aragonite in the water may help oysters develop their shells faster and may also be included in the water processing prior to introduction to the tanks. This latter cultivation technique may be the least susceptible to predators and poaching, but is the most expensive to build and to operate. Oyster culture using tiles as cultch.

Chapter 9 : Oyster farming - Wikipedia

And the Texas oyster industry itself has a \$50 million impact on the state economy annually. But the resource has declined over time, part of a downward spiral worldwide.

He opened, the best he said he ever did, he opened a full bushel basket full of oysters in under seven minutes with no cuts. He was a fast opener. A lot of people are fast openers but they cut the oysters, because they get in there with that knife and flay them open. He learned to open during the war when the government was buying oysters and they did not want cuts. Abundant yet localized, oysters were also a valuable trade good. Many early pioneers were sailors from San Francisco, instead of overland trail emigrants. European American emigrants who settled in the Southwest Washington coast saw the commercial opportunity for an oyster export industry. While the Chinook population had been decimated by disease and was only a fraction of what it had been in the 18th century, they still formed a majority in early 19th century Willapa Bay. Consequently, Chinook provided much of the manual labor in the early oyster industry. Paid in goods rather than cash, the industry began as an exchange of the goods that Chinook had traditionally traded with whites. Pioneer towns regularly sprung up and withered away over the decades. Though the local industry attempted a transition to more sustainable aquaculture at the turn of the century, both with native and transplanted east coast oysters, it collapsed in the early 20th century. Originally a Chinook village at Goose Point, in the town of Bay Center became a locus for the new oyster farmers. Many of individuals interviewed here have personal or family connections to both the historical and the contemporary oyster industry. Personal Stories Ken Reed on his grandfather in late 19th century: Anyway, they settled there and Grandfather Clark got into the oyster business. I guess it was there for the taking at that time. And started a family. Ken Reed on his father in early 20th century: Well, when they first went back, when my grandmother was dying, he worked in the oyster industry because the family, you know, had oyster beds. And my father, you know, sold and they had a little white truck he used to run around in. But basically he was connected to the family oyster business. Anna May Strong talks about the Rhoades family and the oyster business: Great-grandfather Elliot Rhoades was prejudiced, although he hired Indian women, not men, the women worked out on the oyster beds. He had a company store and he gave them groceries, usually it was flour. But there were other things that he gave. And then he had a large family and he had two sons and Charles and " [to Margaret] tell me " Dee. It was my white great-grandfather, Lewis Henry Rhoades and he homesteaded and it was right by the beach and they had a ranch and they raised cows and their own vegetables and all that but he actually was at Bay Center to be into the oyster business. That was his primary interest and goal. Joe Brignone talks about women working in the oyster industry: The Second of Two Parts.