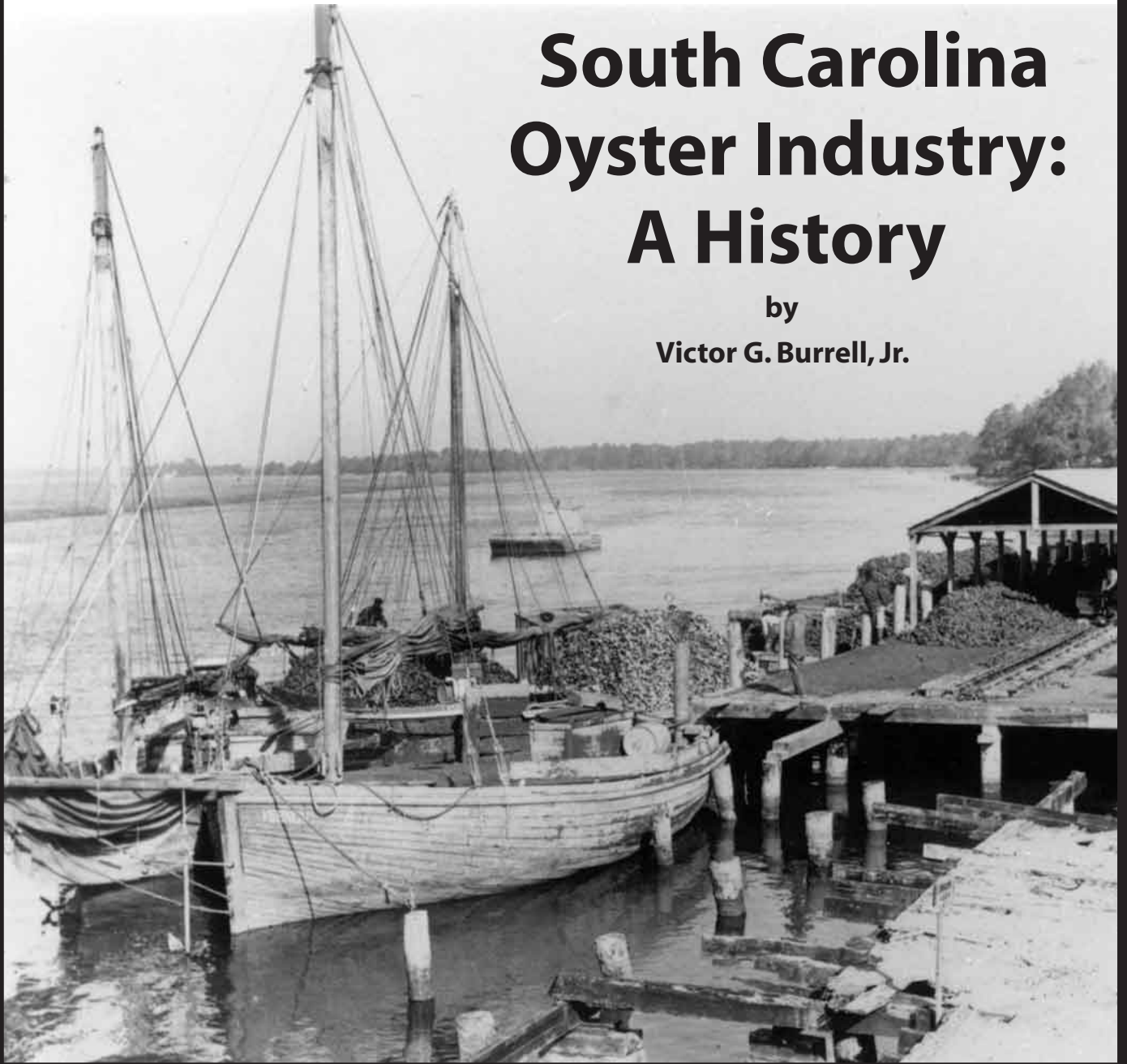


South Carolina Oyster Industry: A History

by
Victor G. Burrell, Jr.



The Oyster Industry of South Carolina

by

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GLOSSARY

- Adductor muscle** – The muscle that closes and keeps the oyster shell closed when the oyster is not feeding. This must be cut by shuckers to remove the oyster meat from the shell.
- Bag Oysters** – Onion or crocus sack holding “a bushel” or specific weight of oysters e.g. - 50 or 55 pounds. Sold to individuals or oyster roast caterers. Some sold as “selects” are substantially higher priced than those sold as “clusters” as they are usually culled to be singles or doubles.
- Bateau** – A 16 to 18 foot wooden skiff. It is wide beamed, cross planked and often “butt-ended” - e.g. not pointed on the bow - used before to the advent of fiberglass reinforced boats by oyster men to load and carry oysters from the beds to larger vessels for transport to dock or to carry shell to beds for planting.
- Blowers or Aerators** – a round vat with a conical bottom, usually constructed of aluminum or stainless steel, used to wash shell pieces and grit from shucked oysters. The vat was filled with fresh water and a quantity of shucked oysters (15 to 20 gals in a 100 gal aerator) and then pressurized air was injected through a pipe in the bottom to agitate the shellfish so that unwanted material settles out.
- Chipper or Cracker** – “an inverted T” shaped device that is placed on a shucking table to provide an edge that when the oyster shell is placed on it and struck by a hammer, the bill end is removed, leaving an opening for the insertion of the knife. The knife is inserted and the adductor muscle cut, opening the oyster.
- Cluster oysters** – also referred to as “coon”, “raccoon” or “bunch” oysters. This is the common form of intertidal oyster growth. As compared with subtidal oysters, they are small, thin shelled, irregularly shaped, difficult to shuck and of poor meat yield to shell volume.
- Cove oysters** – steamed canned oysters. They are consumed in salads, stews, soups, dressings and as lunch time snacks by laborers.
- Crocus sack** – a burlap or gunnysack commonly used for bag oysters until supplanted by plastic onion sacks. Often these bags were originally used for grain and feed and recycled by the oystermen. An oyster roaster, when using a simple sheet metal over a concrete block-roasting pit, would wet sacks and place over the cooking oysters to provide steam.
- Culch or cultch** – a hard material placed on oyster beds to provide an attachment surface for “spat”. It is usually molluscan shell.
- Culling** – the act of breaking up clusters of oysters to remove small oysters and dead shell to improve the quality of the product.
- Cull in place** – culling on the oyster bed in order to leave small oysters there to grow.
- Culling iron** – a tool used to cull oysters – sometimes just a light hammer, but may be a curved rod that is also used to break clusters loose from the bed.
- Dribble spawning** – a release of oyster sex products throughout the warm season characteristic of intertidal oysters. This is in contrast with one or two concentrated spawns of subtidal oysters. This results in a cluster oyster, as the spat set on older oysters and build up large clumps.
- Depuration** – the process of relaying oysters from a restricted area to clean waters or tanks to rid them of harmful bacteria so that they are safe to eat. This may be done in approved water or in tanks where ozone or ultra violet treated water is circulated through the oysters held in trays or baskets.
- Green shell** – shell from raw shucking operations that is replanted before small oysters not shucked die. It must be planted quickly usually within three days to be effective.
- Gutters or Marsh drains** - small riverlets that channel tide flow in and out. Many go dry at low tide and often contain good yielding oysters.
- Heat shock** – using a hot bath to relax the oyster adductor muscle to facilitate shucking. Sometimes referred to as the “Pringle” Heat Shock method after Mr. Somers B Pringle who was responsible for it being an accepted means of processing oysters for interstate shipment.
- Intertidal** – the areas lying between high and low tide where most all South Carolina oysters grow. Flat topography makes this a very large area in coastal South Carolina.
- Larva** – the early stage of young oysters that is found in the water column prior to settling.
- Leases** – the right to control wetland areas for cultivation of shellfish - administered by the state – supplanted by permits in 1985.
- Lighters** – barges used by the oyster industry to transport oysters or oyster shell. They came into general use in the late 1920s as motor powered towboats became available.
- Low Country** – this is a name used when referring to the coastal counties of the State.
- Mason or fruit jars** – a wide mouth glass jar used to can fruit and vegetables. Raw oysters were packed in these by early purveyors.
- Mosquito Fleet** – a name given to a fishery operated in Charleston that worked the near shore waters using all manner of non-descript vessels 20 to 35 ft in length to provide fish and shellfish for local hucksters. It operated throughout the 19th and first half of the 20th century and the men involved were mostly black.
- Oyster bed** – shoal – or reef - area where oysters grow in South Carolina intertidal areas or in rare instances, subtidally in densities that make them a noticeable part of the surroundings. These may be fringing reefs on the banks

of water bodies or flats, which are present out from the shores.

Oyster “bill” - the end of oysters opposite the hinge. Usually it is the thinnest part and growth is most evident here because of pale color and sharp edge.

Oyster cookers – apparatus used to roast oysters. Some generate steam and others heat water to raise the temperature of the oyster until it gapes and is easily opened by the eater.

Oyster dredge – a box-like metal frame with a chain bag attached. When the device is pulled behind a boat, oysters are lifted from the bottom by the front bar of the dredge and collected in the bag. Some dredges go to the bottom due only to their weight alone, others have deflector plates that force them down.

Oyster factory – name given to canneries, but it often also referred to large raw shucking operations.

Oyster grab – short handled iron tongs used to harvest intertidal oysters. Originally developed to handle nails.

Oyster plantation – a lease or granted area where oysters are cultivated commercially.

Oyster shed or house – a raw shucking establishment and may be referred to as a “factory”.

Oyster sloop – a gaff rigged sailing vessel used to move oystermen and bateaux to oyster beds and return harvested oysters to canneries - used in the South Carolina industry up until the 1940’s.

Oyster tongs – a scissor-like device having two wooden handles up to 12 or 14 feet long with a toothed metal basket attached to one end. The handles articulate on a fulcrum just above the basket. They are used to harvest subtidal oysters.

Permits – replaced the lease as a means of controlling shellfish grounds. They have a term of five years and may be renewed with the approval of the SCDNR.

Picker – an oyster gatherer.

Plankton – an organism that occurs in the water column and moves chiefly by wind and currents. Oyster larvae are planktonic from fertilization until they settle to attach on some hard surface. The oysters microscopic food is also planktonic.

Public Grounds – oyster producing areas maintained for the exclusive use of recreational or non commercial oyster pickers.

Raccoon oysters – see cluster.

Raw Shucking – oysters opened as they come off the beds or after being heat shocked. They are a perishable product requiring refrigeration.

Relaying – a method of depurating of shellfish by moving them from closed grounds to beds in approved areas.

Roller – a worker in a shucking house who loads oysters on shucking tables and removes shell after the oyster meat has been removed. They also serve to clean up at the end of the working day. Most all of their work is carried out using a wheelbarrow. Hence, the name.

Seed oysters - those smaller than commercial size that are moved to growing areas. Formerly, they were planted subtidally and grew to a quality product.

Select oysters – shucked oysters that number less than 300 per gallon and are fairly uniform in size. Or shell stock, which has been rigorously culled so that it consists mostly of single or double oysters. They are consumed fried or on the half shell mostly.

Shaker – a cylinder made up of metal rods arranged with a ¾ inch gap between them so that when oysters were placed in them after heating, the meats fell through the gaps into a brine bath as the device rotated. Empty shell retained in the cylinder were moved by gravity out the far end on to a conveyor and then to a shell pile.

Shell stock – oysters in the shell for processing or sale.

Shell midden – a pile of shellfish shells that were near or in South Carolina Indian encampments. Some were very large indicating long term use of the site.

Shell rings – circular deposits of shells around a central depression possibly of religious significance to Amerinds.

Shucker – a person who removes the meat from an oyster.

Skimmer – a non-corrosive metal or plastic table with small perforations in the bottom to allow drainage. Fresh-shucked oysters are placed on this and are sprayed with potable water to wash out grit and shell fragments.

Single oysters – those that grow unattached to other oysters or those that have been broken off from a cluster.

Soup companies – concerns that pack oyster soups or stews.

Spat – the young oyster at the time it ceases to be planktonic and settles on culch. Spatfall refers to the act and often success of recruitment.

Standard oysters – smaller raw shucked oysters that number over 300 per gallon. They are used primarily in dressings, pies, and stews.

State Grounds – oyster producing areas maintained by the State for commercial and recreational oyster pickers.

Steam chests – a horizontal iron chamber with steam tight gates on each end. The gates permitted cars of oysters to enter and leave, but when closed allowed steam to enter under pressure and heat oysters until they gape – used by early canneries prior to the Sterling Harris brine floatation system.

Sterling Harris system – a method of using an upright retort, a shaker and a brine flotation tank to eliminate hand shucking in canneries – developed by Mr. Harris.

Subtidal area – where the bottom is covered at all stages of the tide. Oysters growing here are high quality and usually single

or double and well shaped. Once common in South Carolina, subtidal oysters are now rare. "Tabby" or "Tapia" – a cement-like substance of lime, oyster shell, sand and water used in colonial days in construction of walls, houses, and forts. The lime was derived from burning oyster shell in kilns. Water cannon – a fire hose fitted with a metal nozzle at one end and connected to a high-pressure saltwater pump. Used in the oyster industry to wash shell off a lighter on to beds.

PERSONAL COMMUNICATION

The following people are cited in the text as personal communications. The dates of these contacts are only general in that the subject may have been discussed on several occasions, but the date puts it in a time frame of two or three years. Some conversations such as those with Gilbert Maggioni were two numerous to count and cover a span of over 35 years.

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Bennett, Sam. Retired. Oyster Picker. 160 Buck Island Rd. Bluffton, S.C. 29910

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Berry, C.B. Historian. P.O. Box 1479 North Myrtle Beach, S.C. 29598.

Boozer, Tom. Boat Carver and Historian. 6431 Meggett Creek Rd. Yorges Island, S.C. 29449.

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Clemons, David. Owner. Clemons Tackle Shop, 1471 Highway 17, Little River, S.C. 29566

- Colcock, W.O. Son of long time Bluffton resident. 17 Chrystal Beach Dr., Bluffton, S.C. 29910.
- Collins, Woodrow "Woody". Former Oysterman and Restaurant Owner. 25 Pelican St., Hilton Head, S.C. 29928.
- V.E. Cox. Deceased. Owner of Cox Oyster Company, Little River, S.C.
- V.S. Cox. Deceased boatman.
- Duke, Legare. Deceased. Retired. Former Participant. Bulls Bay Seafood, 2 Legare St., McClellanville, S.C. 29458
- Duke, Thomas. Deceased. Owner of Bull's Bay Seafood, McClellanville, S.C. 29458.
- Edge, Albertha. Retired. Oyster shucker. 4694 Little River Neck Road, S.C.
- Frasier, Anthony . Oyster Picker. Rt. 1 Box 131, Bluffton, S.C. 29910
- Felger, M.R. 12 Clifford Street. Charleston, S.C. 29401.
- Ferguson, J.W. "Buster". Deceased. Owner of Ferguson Seafood, Remlick, Virginia
- Flowers, Bernard. Flowers Oyster Company, 426 Highway 174, Edisto Island, S.C. 29438.
- Flowers, Jr. Steve. Owner. Flowers Seafood, Edisto Beach, S.C. 29438
- Flowers, Sr. Steve. Deceased. Owner. Flowers Seafood, Edisto Beach, S.C. 29438
- Gadsden, Clifford. Retired Oysterman. Heyward Street, Bluffton, S.C. 29910
- Gordan, Eddie. Former Owner. S.C. Crab Company, McClellanville, S.C. 29458
- Graves, Mary. Sister of the late J.S. Graves of Graves Oyster Company, 85 Calhoun Street, Box 97, Bluffton, S.C. 29910.
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- Howell, Kirk. Retired License Manager. SCDNR. St. George, S.C. 29477.
- Hudson, Mrs. Bennie. Owner. Hudson Marina, 175 Squire Pope Rd., Hilton Head, S.C. 29926
- Jackson, Joel P. Retired employee. Shellmore Oyster Cannery, P.O. Box 322, 205 N. Pinckney St., McClellanville, S.C. 29458.
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- Low, Robert. Fishery Statistics Section. SCDNR, P.O. Box 12559, Charleston, S.C. 29422.
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- Maggioni, Gilbert. Deceased. President. Ocean, Lake, River Seafood Company and operator of Maggioni's Ladies Oyster Cannery. Beaufort, S.C. 29901
- Maggioni, Ralph. Son of Paul Maggioni. L.P. Maggioni Company. 400 Airways Ave., Savannah, Ga. 31408.
- Magwood, Andrew. Oyster planter and Son of Capt. And Mrs. C.A. Magwood. 2624 Goldbug Avenue, Sullivans Island, S.C. 29487.
- Magwood, C.A. "Junior". Deceased. Owner. C.A. Magwood and Son Seafood. 110 Haddrell St., Mt. Pleasant, S.C. 29464.
- McCracken, Naomi. Daughter of Capt Jack McCreary. Operator of several oyster canneries. P.O. Box 287 Bluffton, S.C. 29910.
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Waskiewicz, Stanley. Retired President. Blue Channel Corp., Port Royal, S.C. 29935

Westendorff, Jamie. Chef, Inventor, Collector of South Carolina Memorabilia and Raconteur. Owner. Charleston Outdoor Catering, 1596 Carterett Avenue, Charleston, S.C. 29407

Young, Joseph. Oyster picker. Bluffton, S.C. 29910

INTRODUCTION

The eastern oyster, *Crassostrea virginica*, is present from Canada south into the Gulf of Mexico in commercial quantities. In much of its range, it grows subtidally and not in clusters. In South Carolina, it is most abundant in the intertidal zone. Very flat coastal topography and relatively large tidal range (five to seven feet) along with a prolonged and prodigious spawning season has resulted in vast beds of clustered oysters lining river and creek banks and creating large shoals in the estuaries of the state (Figure 1).

The extensive banks of oysters impressed early European explorers and settlers (Catesby 1731; Cunyngame 1851). Several permanent features were named for the presence of the South Carolina shellfish. Most notable of these was Oyster Point, which is the site of present day Charleston. Oyster Bay is another of the names that have persisted over the years. In the mid to late 1800s, oysters were a popular food for all classes of people. They were much cheaper than beef, chicken or fish (MacKenzie and Burrell 1997). Mackey (1859) observed that everyone ate oysters that could get them.

He said, “the rich consume oysters with champagne and the poorer classes consume oysters and beer.”

The oyster industry was the most valuable South Carolina fishery from the late 1880s to just after World War II. Oysters were responsible for 45 percent of the value of all South Carolina fisheries in 1902 (Report of the Commissioner 1903). The industry provided jobs for coastal blacks as harvesters and shuckers when no other employment existed for them from around 1900 through the “great depression” in the 1930s until World War II got underway (Maggioni and Burrell 1982). William Baldwin related how the 1893 hurricane destroyed everything in McClellanville and the oyster industry started because that was the only means of existence left (Baldwin, pers. comm. 2001).

LIFE HISTORY

The oyster has a life history similar to that of other bivalve mollusks. Males shed sperm into the water and then females shed eggs into the water where fertilization takes place. The larvae drift in the currents as they swim, feed and grow for about 2 weeks. They then settle and attach permanently to oyster shell or other hard ob-

jects. Only a tiny percentage of larvae survive this far. Predators eat many juvenile oysters, but oysters grow fast and some survive to reach market size.

The sex is separate in the Eastern oyster but may change during the course of its life. Yearling oysters are primarily males and in later years, females dominate the population but changes back and forth do occur (Galtsoff 1964; Thompson, et al. 1996).

Water temperature stimulates the spawning process. First, causing the maturation of eggs and sperm, and then to trigger their release. Fertilization takes place in the water column with first the discharging of sperm, which is the stimulus for egg release. The resulting larvae are planktonic for 14 to 21 days at which time they settle from the water column. If a suitable substrate is available, the young oyster, which at this time is called spat, loses its locomotive appendages and takes up a sedentary life style. Their most common settling site is shell of other oysters, but any hard surface will suffice. In South Carolina, spawning may begin in early May and extend into November in warmer years. The intertidal oyster, which dominates in South Carolina



Figure 1. Dense intertidal oyster beds typical of the South Carolina Coast (Keith photo).

populations, may spawn repeatedly during the summer months. This so called “dribble” spawning is contrary to that of subtidal populations which may have only one or two concentrated spawning periods a year (Burrell 1986; Galtsoff 1964; McNulty 1953).

Continual spawning and successive attachment of new spat to the same oysters result in clusters of oysters of many sizes. This phenomenon is responsible for the large intertidal reefs of clustered oysters characteristic of the South Carolina coastal water bodies. Intertidal beds often spring up on soft muddy terrain by an oyster spat attaching to some solid object more or less floating on the mud. Other spat attach to this early set and as the cluster develops the initial individuals sink into the mud and perish. This process continues until the lower part of the column of live and dead oysters reaches a solid substrate. From this initial set, subsequent sets may grow out laterally from the original column to form a shelf over the muddy area. This overlying area may be many oysters in thickness and support a fairly heavy load without breaking through; however, it is vulnerable to mechanical or other major perturbation and once this matrix is broken through tidal currents can destroy a large part of the bed. This has been a deterrent in developing intertidal mechanical harvesters.

Oyster growth occurs throughout the year in South Carolina, but slows considerably in colder months (Burrell, et al. 1981). Growth may almost reach two inches in a year and harvest size is reached in two to three years (Burrell, et al. 1981; Manzi, et al. 1977; News and Courier 1905b,c).

Oyster predators include drills (*Eupleura* and *Urosalpinx*) whelks, (*Busycon* spp.) crabs, (*Callinectes* spp. and *Xantheridae*) starfish, (*Asterias*) fish, (*Rhinoptera* and *Pogonias*) and flatworms (*Stylochus*). Subtidal oysters in addition are subject to considerable

damage by boring sponges (*Clione* spp.) and annelid worms (*Polydora* spp.) (Bahr and Lanier 1981; Burrell 1986; Carriker 1955; Lunz 1960).

The oyster diseases MSX (*Haplosporidium nelsoni*) and “Dermo” (*Perkinsus marinus*) which are responsible for mass mortalities in the Chesapeake, mid Atlantic and in the case of “Dermo,” Gulf of Mexico oyster populations, while present, do not seem to be a problem in South Carolina, except in hot dry summers (Bobo, et al. 1997). Heavy infections of “Dermo” were observed over several years in studies at the South Carolina Marine Resources Research Institute but larger die-offs were reported by industry members only during dry years appear to indicate that South Carolina oysters have developed resistance to this disease. However, when oyster food is scarce, the combined stress of inadequate nutrition along with seasonally high temperatures may lower disease resistance and result in mortalities (Bobo, et al. 1997; Burrell, 1997; Burrell, et al. 1984; Cheng, et al. 1994; F. Smith 1986; Soniat 1996).

The oysters’ food consists chiefly of algae, but detritus and bacteria associated with it may also be a source of nutrition (Langdon and Newell 1996). Water currents, silt loads, alga size and species and submergence time are factors in the feeding of oysters (Loosanoff and Engle 1947; Newell and Langdon 1996; Shumway 1996; Shumway, et al. 1985). In dry years, it is surmised that food becomes a limiting factor on condition of oysters, i.e. little or no wash down of nutrients from high ground may reduce abundance of algae and thus slow their growth and affect their physiology (Soniat 1996).

PREHISTORIC PERIOD

Native Indians used oysters for food, and the shells for tools and trade items. Shell middens and circular shell arrangements are found along the banks of many estuarine water bodies.

The oyster has been utilized by man for at least 4000 years in South Carolina. Middens containing mostly oyster shells dating back to 2000 BC present through-out coastal South Carolina indicate that oysters were used extensively by the native Indians as food and the shells as tools and trade items. (Catesby 1731; Keith and Gracy 1972; Marrinan and Wing 1980; News and Courier 1965). Some of the shell piles were very large, indicating long time occupation of the site. One near Awendaw was as large as “three football fields” (News and Courier 1965). Several of these shell accumulations were arranged in a well-defined circle around a central depression. The significance of these so called “shell rings” is not



Figure 2. Oyster shell ring at Fig Island (Keith photo).

known for sure but it is conjectured that they had a religious significance to the Amerinds (Keith and Gracy 1972; Spieler 1972) (Figure 2).

Shucking of raw oysters may also date back to Indian utilization of oysters. A stone tool shaped to fit the hand and allow opening of raw oysters by chipping off the blade has been found on shell middens by W. Collins (Figure 3). Oyster roasts originated with South Carolina Amerinds as early as 4000 years ago as evidenced by fire blackened shells in middens found throughout the state’s coastal region.



Figure 3. One of several stone tools found in shell middens. They were thought to be used by Indians to open raw oysters (W. Collins collection).

COLONIAL PERIOD TO 1865

The period from colonial settlement to 1865 marked the beginnings of the oyster industry. Individual settlers obtained grants from England and eventually from the state so they could control oyster beds for themselves. They used the oyster shells to make a primitive concrete, lime for their farms, for chicken feed and even for docks. In Charleston, a fleet of boats and crews harvested the oysters along creek banks. The oysters then were peddled from carts and eaten in homes by all classes from poor to rich, and in commercial eating places which served raw oysters on the half-shell.

Early settlers sought control of the salt marsh areas to secure ownership of the shellfish resources, which included oysters. Three types of grants were given, Proprietary (1670-1719), Kings (1719-1776), and State after 1776, when the colony became independent (Baldwin 1972). These grants continued to be made by the legislature and State Sinking Fund Commission up until the 1950s. Some of these grants were for large areas of marshlands and creeks. One to John Bowman in 1791 was for 16,992 acres and included much of the wetlands from the present Intracoastal Waterway to the sea in the McClellanville area. This area is

part of the present day Cape Romain Wildlife Refuge (Baldwin 1972).

Early colonists found that lime produced by burning of oyster shell, when mixed with sand, water and oyster shell, made an excellent concrete-like building material called tapia or “tabby” (Keith and Gracy 1972; Salley 1925). Many remains of “tabby” walls and foundations remain in the coastal area (Harden 2000) (Figure 4). Spieler (1972) lists several buildings and structures around Beaufort built of “tabby”. The importance of oyster shell lime was evidenced as early as 1801 when James Schoolbred took his Kiawah Island neighbor, General Augustus Vanderhorst, to court because he suspected that the general’s field hands were making off with his oyster shell (Trinkley 1998).

Lime produced from oyster shell was used for fertilizer also. George Washington used burned oyster shell on his lands in Virginia (Caldwell 1990). Oyster shell was crushed and used for chicken feed and for agriculture purposes prior to 1843 according to Edward Ruffin’s diary (Matthew 1992).

When use of these areas exclusive-ly as a source of oysters for commerce

first began is not known precisely, however a David Truesdale received a grant from the State for some 400 acres of marshland for an oyster plantation in 1845 (S.C. Dept. of Archives 1845) (See Appendix). Subsequently, a landing or dock consisting of a built up base of oyster shell was constructed on the marsh side of Sullivan’s Island by Truesdale. This was a substantial construction and undoubtedly is evidence of the processing of many oysters. The present owner of this dock surmises that this indeed could be the spot from where the submarine **Hunley** launched the attack on the federal warship, **USS Housatonic**, due to its proximity to Breech Inlet (Ragan 1999; E. Poulnot, pers. comm. 2001). This oyster operation is mentioned in 1850 by Irving; 1863 by Smythe and in 1905 by Fait (News and Courier 1905b). References to the Truedale operation being a viable enterprise were found up until at least the early 1900s (News and Courier 1905a,b). Truesdale’s heirs retained possession until 1980 (Felger, pers. comm. 2000; Swindell 1999a,b).

The mosquito fleet was the name given a hodgepodge of small boats that fished in the near-shore



Figure 4. The remains of Fort Frederick at Beaufort, S.C. This was one of the largest “Tabby” forts. Built 1735-58 (Burrell photo).



Figure 5. Fisher slave tag (property of Charleston Museum).

waters of Charleston (Bishop, et al. 1994; Fleetwood 1995; News and Courier 1888). The fishermen were mostly blacks and in winter some of them harvested oysters for sale to Charlestonians. This was not an easy life and in 1848, several drowned when their boats capsized in a winter storm while returning from an oyster harvesting expedition (Charleston Courier 1848).

Slave tags were required when one slave owner rented a slave to another slave owner. These were issued between 1800 and 1864. They had the trade of the slave stamped on them such as servant, porter, carpenter, etc. The “fisher” tag was considered one of the fewer number issued. Some of the early mosquito fleet members and others harvesting shellfish from the land probably were among those thus identified (Civil War Collectors Price Guide 2000; Greene, pers. comm. 2002; Mikell 1923; Westendorff, pers. comm. 2002) (Figure 5).

Street peddlers or hucksters sold the oysters, usually shucked, from carts or on the street side. A poem lamenting the passing of one such individual is quoted from the Charleston Courier (1846).

**“Old Kate, the Oyster – Wife –
A Dirge”**

by Ralph Rhyme

She’s dead ! old Kate the oyster wife,
You’ll hear her cry no more,
As, “oyesh-taa! Lady oyesh – taa!” She,
Was wont to cry of yore.
She’s dead, old Kate, the oyster wife,
Her oyster days are o’er
And many a sable fishwife weeps,
Who never wept before.
“Yaa, oyesh-taa! Lady oye-esh-taa!”
Who hath not heard her cry,
And stopt and listen’d to her notes,
Ere they pass her by?
And stopt again, and listen’d aft,
As echo backward rung,
“Yaa, oyesh-taa! Lady oye-esh-taa”
As plain as Kate’s own tongue?
But, now the steps where on she sat
The live long winter’s night.
And “oyesh taa! Lady oyesh taa!” cried
With all her main and might.
So silent and so sad they seem
So darksome and so drear,
The pany-cake, groundnut girls,
No more assemble there.
Her bucket and her calabash,
Have pass’d to other hands,
And e’er her rusty oyster pot
On stranger bricks now stands.
While laughing damsels as they list,
And learn the old wife’s fate,
Walk slower past the market steps,
And, sigh, “alas, poor Kate”!

One may surmise from this verse how oysters were processed by vendors of the day. The pot was supported over a small fire to heat water. The oysters in the shell were placed in the heated water long enough to relax the adductor muscle which facilitated opening them. The oysters were shucked into the bucket and sold by the gourd-full dipped from the bucket. Likely these

tools were valued items as it was implied that they were handed down to those who survived “Old Kate”.

Oysters were prominent in the fare of Charleston society prior to “The War Between The States” as evidenced by the menu of a ball given by Mrs. Charles Aston in 1851. It included four hams, four wild turkeys, 60 partridges, other wild fowl and ten quarts of oysters in the meat courses (Deas 1974).

Probably little effort to cultivate oysters occurred before 1830 except for possibly some raking down of intertidal oysters to the upper subtidal area to improve size and shape. Between 1830 and 1869, the millpond oyster was cultivated, not by a conscious effort to improve the bivalve, but by lumbering practices that resulted in a fine “table oyster”. Those superior shellfish grew in millponds created to provide tidal waterpower to operate the lumber mills. Oyster spat attached to sunken logs in these impoundments and grew at a rate to keep above the silt while the logs decomposed, the result was large single oysters with excellent flavor.

With the advent of steam and the abandonment of ponds for power, the millpond oyster disappeared. Effort to bring back this prized product failed because no one understood what elements had to be present for the oyster to prosper (Colson 1888).

Raw bars were in operation prior to the “War Between the States” in Charleston. One “Tivoli” restaurant advertised in the News and Courier newspaper referring to their oyster business before the hostilities (News and Courier 1865a,b).

Oyster roasts appeared to be social occasions in the years prior to the War Between the States. One such event was recorded by I. Jenkins Mikell (1923) in his wonderful book, *Rumbling of the Chariot Wheels*, about pre-Civil War days on Edisto Island.

My life, as a young boy, in ante-bellum days, was – like Gaul, of

Caesar's time, was divided into three parts. One third I spent in Charleston, one third on the plantation, while the other third did not matter... This was our home, Point Saint Pierre, anglicized into "Peter's Point." Its name simply came down to us. We do claim, however, that Lafayette re-embarked on his steamer from here in his Southern itinerary, 1825-6...

Christmas week all work was suspended. Master and slave alike rested from all labor. Among the planters, it constituted a social clearing-house, in which all obligations of a festive kind for the past year were liquidated. And one had to keep busy to get round. The annual "oyster roast" of the Honorable John Townsend to his family connections at his baronial home "Bleak Hall" was at hand. It was called "oyster roast" for want of a more comprehensive name. The "roast" was no more than the salad course, so to speak, in the entertainment.

As entertainments of this nature and on this scale have become one of the "has beens," and as the memory of them has almost passed away, it may not be uninteresting to give a brief account of a typical one, or perhaps one of the best type, as illustrating the customs, the people and the times of "Old Edisto." Some two weeks before Christmas, to forestall any other engagement or invitation, our grand old man, citizen statesman and writer, quietly remarked to father at church one Sabbath: "We hope to see you and yours at Bleak Hall on the 27th to join us in our Christmas festivities - an oyster roast." Nothing more. All knew what this meant. No one ever declined an invitation there...

On the day before the 27th, all arrangements possible to be made before "the" day were

made. It was to be a full day's work for the host. Rustic tables and seats for twenty-five or more were put in place. Cords of oak, hickory and cedar- for the aroma-ten feet long, were brought in and placed ready for the torch. The roads and bridges on the long causeway leading to Botany Bay were smoothed off and put in order for the carriages of the guest. This "Botany Bay" was an adjunct to the plantation, an island of live oaks, palmettos and cedar - - a tropical jungle, impenetrable twenty yards from the beach, five miles long and one half wide, inhabited only by half-wild and lawless cattle (hence the name), wild hogs and marsh tacksys. Deer abounded in a wild state and the beach was unsurpassed on the Atlantic coast. The "white foot" oysters were obtained a few yards from the "camp" and left in the salt water until the last minute so as to preserve their peculiar flavor and tang of the sea, for which they are noted. They were named after the tribe of "White-foot" Indians, a subdivision of the Edistoes who claimed and maintained their dominion over the territory on many a hard fought battleground among themselves. In later years, the presence there of the oyster was due to their inaccessibility to the "oyster pirate."

The morning of the 27th broke bright and temperate. By sunrise, wagons were moving, containing everything pertaining to an elaborate feast, from the humble oven to drinking water, (not, however, used to any great extent) from the ancestral silvery and table napery to the aristocratic champagne glass, accompanied by a host of household and kitchen servants. None of these things were ever stolen, or even in danger. They were of no value to the slave. Besides, their pride in the family possessions protected

the articles. With soldier-like exactness and punctuality the arrangements were carried out. At noon, the fire for the roast was started. At one o'clock when the guest arrived, the oysters were poured on the live coals by barrellfuls, and were soon ready. The oyster course had begun.

As the guest seated themselves, at each place was an individual plate mat of coarse linen to hold the wooden platters of oysters, an oyster cloth on the left, an oyster knife, with protective guards, on the right. A tumbler for each was not left off. First came the butler, with a silver pitcher of steaming hot punch, filling the glasses; hot, old-time-knock-down-drag-out-whisky punch; not your Manhattan or Bronx poison, but punch made of lemons, hot water, sugar and double-proof imported Irish peat whiskey. No vermouth, no bitters, no absinthe. The lighter wines were in reserve for the main course - - the dinner proper. Those old worthies of all ages and both sexes, did not know of and did not care for, the modern hygienic theory that oysters and whisky together mean poison. Their constitution and past experience disproved this, and they drank. The host arose and inclined his grand old classic head. Then lifting his glass he simply said: 'To our kinsfolk, our guests - welcome!' Immediately a dozen little pickaninnies rushed from the fire with platters filled with hot, sputtering oysters and placed one before each person, and for a time nothing was heard save the knife struggling with an obdurate oyster. The trimmings to this course were also in evidence. Not too much - they were purposely limited, dinner was only one hour off.

A rest. Then came the embarrassing, and to the men, the amusing disentanglement of the young women from the

stationary benches on which they were seated. The men simply stepped over them. Not so the women. With their long, balloon shaped gowns and the hoops of the day, it was some job getting out. For the custom, the modesty of the times, did not allow more than the toe of a woman's foot to be seen. If, by any ill chance, the white glint of silk hose, just above the shoe top, be seen for an instant, confusion overcame her, and "first aid to the distressed" was given by some sympathetic matron. I do not know of any casualties taking place during the disentanglement, so suppose none happened...

POST CIVIL WAR TO 1900

During the period from 1865 to 1900, an industry that was to grow to substantial size developed around the oyster resources. Oysters initially were eaten locally, but when ice became available, commercial firms were formed that sold oysters raw and as shell stock to small cities in the state and also to nearby states. Oyster shell was used to pave many roads. The first oyster cannery was constructed and canned oysters were sold in local stores. By the latter part of this period, several generations of oyster pickers had accumulated knowledge about the locations of the best harvesting areas, how to perpetuate them, and good harvesting methods, and commercial firms had learned how to process and sell the oysters and make use of their shells.

A large pile of oysters is evident in a photograph of the Charleston waterfront, in a Library of Congress collection from 1865 indicating some commerce in this resource at the time (Whitelaw and Levkoff 1975). An article in the Charleston News and Courier in 1865 noted that an "old and popular resort on Meeting Street" had reopened. This referred to the "Tivoli" restaurant which was

noted for its varied and fine menu of oysters (News and Courier 1865a,b).

Raw oysters were restricted to home use and quick consumption if acquired from a purveyor until refrigeration became available, first as shipped in ice and then mechanical produced ice in the later 1880s (Charleston City Directory 1889).

An oyster company headquartered at 21 Bee Street in Charleston and operated by Thomas McCrady sold whole oysters that were barreled, shucked meats and steamed cooked oysters at least from 1869 through 1871. It's ledger listed 59 customers with accounts, and some from as far away as New York City, Louisville, Kentucky and Augusta, Georgia, as well as 13 South Carolina cities. In February 1870, the firm sold 1,205 quarts, 44 gallons, 8 bushels, and 13 barrels of oysters to these accounts. The three largest customers were Charleston grocers who purchased chiefly quarts of raw oysters. The types of oysters were "channel" (presumed to be subtidal) at \$1.25 per bushel, "Mill Pond" at \$1.25 per bushel and 25 cents for three dozen and both types shucked at \$1.50 per gallon and "steamed oysters" (presumed to be intertidal) at 75 cents per gallon. The gallon cans were reused with the buyer paying a deposit of one dollar and receiving the same in credit when returned. A driver apparently also delivered oysters about town by horse and wagon and his accounting of collections indicated that quite a few individuals also purchased oysters from this source (McCrady 1869-1871). This company may well have been the one mentioned as a short-lived concern with John McCrady a principal by Doctor C.B. Colson (1888). The company ledger which is archived in The Charleston Museum was most likely deposited there by this John McCrady who was director of the museum from 1869 to 1873 (Sharon Bennett, pers. comm. 2002).

Ice allowed shipping and stor-

age and was available from at least 1855 to 1891 from Alva Gage who operated an ice facility at this time in Charleston. Gage advertised "Arlington Lake" ice, presumed to be shipped in by boat. In the late 1880s, he installed a mechanical ice machine (Charleston City Directory 1859; 1891; Directories for Charleston City 1998).

Oyster shell was important as road paving material in the late 1800s. Shell was used for road paving in nearly every low country town and in many rural areas. Charleston used 36,981 bushels of shell in 1890 just to maintain Meeting Street. In 1900, they were still keeping it up with 54,459 bushels required. This apparently was not the best material for a well-used thoroughfare as rainwater tended to dissolve it and according to the comment by the road commissioner "the Meeting Street shell road is an expensive nuisance" (Charleston City Year Book 1890, 1899, 1900). This practice has continued to the present time with the use of shell to keep up roads to waterside facilities and private driveways.

An early organized industry involving shucking houses that employed several gatherers (pickers) and shuckers was reported on Daufuskie Island in South Carolina by T.P. Chaplin in the early 1880s and another was operated by L.P. Maggioni in 1883 and later a large concern by Emil Cetchovich (Burn 1991). The market for the oysters was in Savannah, Georgia, where they were transported first by sailboats and later motorboats. An oyster steam cannery was started there in 1893 also by L.P. Maggioni (Burn 1991; G. Maggioni, pers. comm. 1970) (Figure 6 a; b; c; Figure 7).

It was estimated that 50,000 bushels of oysters were processed by 185 people working in the South Carolina oyster industry in 1880. This included just the areas around Charleston and Port Royal so it was probably a low estimate. These oysters were valued at four cents per bushel (Ingersoll 1881)



Figure 6. The Maggioni Cannery at Daufuskie Island in the 1890s (Maggioni family photos a,b,c)

(Figure 8, Table 1). The U.S. Fisheries Commission steamer, Fishhawk, under command of J.D. Battle made a survey of South Carolina oyster grounds in 1890. An earlier study by the same group was done for an oyster company in the Winyah Bay area. This concern had acquired a lease by a special act of the state legislature, the only method of obtaining one at this time (Battle 1892; Dean 1892; Keith and Gracy 1972).

In the late 19th century, J.W. Magwood had an oyster shucking house built on pilings in Bulls Bay. Dormitory and kitchen arrangements allowed its shuckers and pickers to live on the facility during the oyster production season (Leland 1968; C.A. Magwood, pers. comm. 2001; A. Magwood, pers. comm. 2000).

Concern for over utilization of the resource caused the state in 1891 to

authorize the Board of Commissioners of the Sinking Fund to grant rights or franchises to grounds for oyster cultivation and to establish regulations for the protection of the state's natural oyster beds and shells. These franchises were limited to 300 acres for an individual or corporation (S.C. Legislature 1891). The phosphate mine inspector assumed the additional duties as Fish Commissioner.

Canning oysters using heat to open them and processing them in a glass container probably originated in this country in New York around 1820. Tin plated metal cans later supplemented the glass. This process was adopted by Baltimore, Maryland entrepreneurs and it allowed shipment of oysters all over the country prior to the introduction of reliable refrigeration (MacKenzie 1996).

Around 1890, oyster canning moved south and provided a means of utilizing the cluster oysters of South Carolina and Georgia (Burn 1991; Keith and Gracy 1972; Lane 1977).

The L.P. Maggioni Company established a cannery in South Carolina on Daufuskie Island in 1893 (Burn 1991; G. Maggioni, pers. comm. 1969). Breslauer, Lachicotte and Company may have had an earlier cannery at Litchfield Plantation near Murrells Inlet, South Carolina (Figure 9). The exact date is not known but it could have been as early as 1878 (Hawkins 1993). Canned oysters were sold in Georgetown grocery stores in 1887 and they may have been produced at this Breslauer, Lachicotte and Company (Georgetown Enquirer 1887).

Three other canners specializing in oysters were in business in 1891. They were the Berkeley Cannery and Manufacturing Company, probably located in the Charleston area. Also the Beaufort Packing Company and McCabe and Hunt in the Beaufort area (News and Courier 1891). When they were established is not known but it was probably in the late 1880s.

Figure 7. An oyster roast put on by Mr. L.P. Maggioni for friends at his facility on Daufuskie Island, circa 1890s. Note "casual" attire in those days (Maggioni family photo).

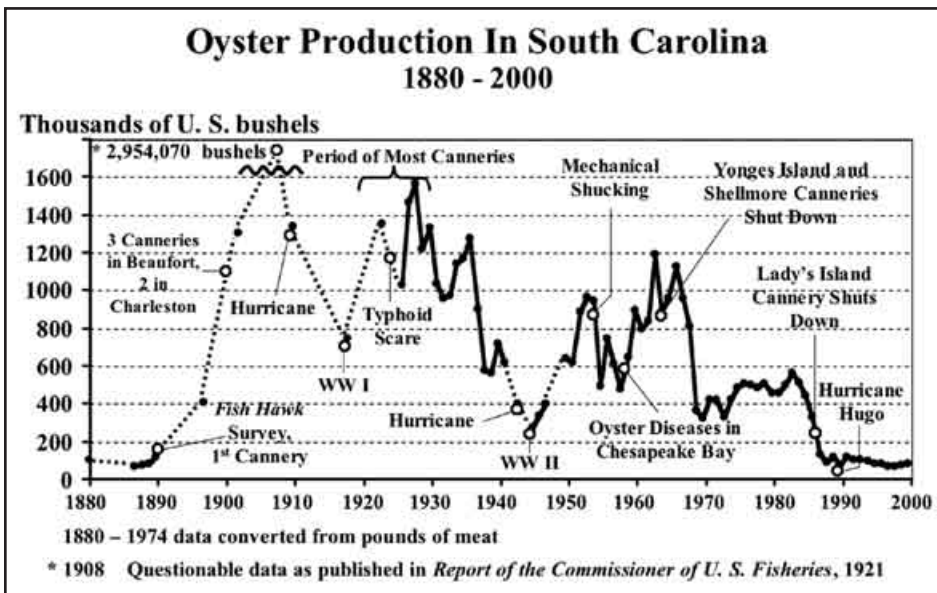


Figure 8. Oyster landings 1880 to the present.



Figure 9. Labels of the Breslauer, Lachicotte and Company cannery at Waverly Mills (Property of A.H. Lachicotte, Pawleys Island, S.C.).

Table 1. Operating units in the oyster industry and estimates of numbers employed from available records 1880-2002.

<u>YEAR</u>	<u>CANNERIES</u>	<u>SHUCKING HOUSES</u>	<u>SHELLSTOCK DEALERS</u>	<u>NUMBER EMPLOYED</u>
1880	N/A	N/A	N/A	85 ¹
1902	9 ²	N/A	N/A	
1910	N/A	N/A	N/A	1691 ³
1926	16 (11 operating)	31	24	3500 ^{4,5}
1930	7	36	14	
1935	4	27	6	3000 ⁵
1940	3	19		
1945	3	22	49	1500 ⁵
1953	7*	17	155	
1955	10*	17	103	2006 ^{5,6}
1960	3	29	53	
1965	2	32	26	1594 ^{5,6}
1970	1	20 ⁵ (19) ⁷	34	317 ⁷
1975	1	14 ⁵ (10) ⁷		384 ⁷
1980	1	15	44	619 ^{5,6}
1985	1	12	55	738 ⁸
1990		6	46	428 ^{8,9}
1995		4	51	394 ^{8,9}
2000		2	44	255 ^{8,9}
2001		2	39	293 ^{8,9}

1- Ingersoll, 1881.

2- Report of the Commissioner, 1903

3- Report of the Commissioner, 1912

4- Maggioni & Burrell, 1982

5- S.C. Board of Fisheries and Successors

6- Fishery Statistics of the United States

7- Gracy, et al. 1978

8- South Carolina Department of Health and Environmental Control

9- South Carolina Department of Natural Resources Licensing Office (W.Z. Carson and P. Wilkins)

* - The South Carolina Wildlife Resources Department (1953, 1955) listed cannery licenses sold, but not those in operation. These numbers may include those bought by L.P. Maggioni and no longer operating, or those that steamed oysters for them, but did not actually can them. Probably only three or four were actually producing a canned product.

1900 TO 1945 – THE HEYDAY OF THE CANNER

During the 1900-1945 period, oyster production, but mainly from 1900 to 1935, was to be the highest in the industry's history. The canneries grew in number, employed many workers, processed most of the state's oysters, and shipped canned oysters to many parts of the world. Oyster harvesting was limited to state residents. Sailboats towed bateaux to the oyster beds to harvest oysters for canneries and shucking houses. The sailboats later were replaced with motor boats. The operations on the beds and in canneries were carried out by hand labor at low cost, but the canneries eventually began to mechanize to reduce the labor costs. Shell was planted on beds as cultch and some was sold for chicken feed and lime. The South Carolina oyster bushel was much larger than the U.S. oyster bushel. Sanitation and licensing regulations for shucking houses were passed. The 1930s depression and World War II took many workers away from the oyster industry and production fell.

In 1903, the South Carolina Board of Commissioners of the Sinking Fund proposed to license only South Carolina oyster gatherers and boats to harvest oysters. This ostensibly to protect the resource from North Carolina and Georgia canners (Beaufort Gazette 1903a). This proposal did not sit well in the South Carolina coastal counties involved as they derived considerable tax revenue from these operations and felt this might be usurped by the state legislature. This probably indirectly led to the establishment of the Board of Fisheries in 1906 (Beaufort Gazette 1903b; 1905; 1912c; Kohn 1905a,b,c,d; FKM 1905; News and Courier 1905a,b,c; S.C. Legislature 1906).

In 1905, a delegation of what is now the South Carolina General Assembly, chaired by Senator Neil Christensen Jr., conducted interviews along the

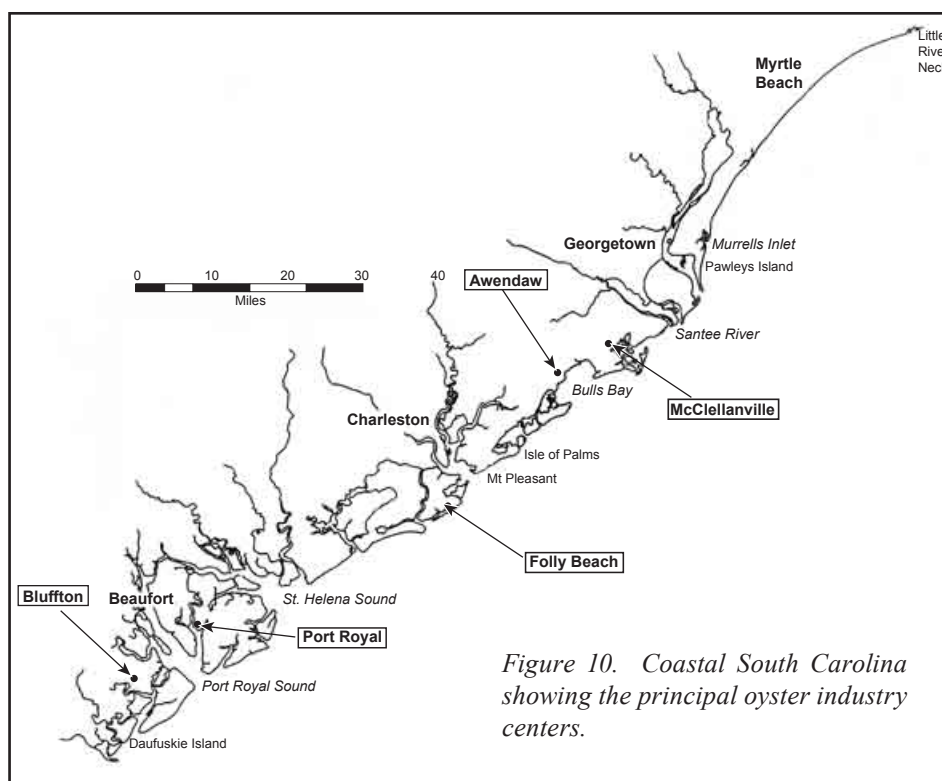


Figure 10. Coastal South Carolina showing the principal oyster industry centers.

coast to gather information necessary to create a state fisheries commission (News and Courier 1905a). Meetings were held in Beaufort, Bluffton, Charleston and Georgetown to receive input and comments from oyster producers (News and Courier 1905a,b,c; FKM 1905; Kohn 1905a,b,c,d) (Figure 10). Testimony of oyster industry members was reported in newspapers. Some of the highlights follow.

L.P. Maggioni felt that the oyster resource was inexhaustible and that

the more the beds were harvested the better the quality (Kohn 1905a). Mr. Maggioni said his Port Royal plant had opened 300,000 tubs of oysters (each tub contained 1 to 3 bushels) between October 1904 and April 1905. He employed 150 Polish immigrants in his factory (oyster canneries and even large shucking houses were referred to as factories). Maggioni and a Mr. Harley said their oysters yielded 24 ounces of meats per bushel. A bushel was measured as a half wheelbarrow



Figure 11. Polish migrant workers at the Varn and Byrd Cannery on Yonges Island 1913 (©photo collection Univ. Maryland, Baltimore County).



Figure 12. Polish and black workers shucking steamed oysters at the Varn and Byrd Cannery in Bluffton 1913 (©photo collection Univ. Maryland, Baltimore County).

load at one factory (Kohn 1905b). Mr. W.H. Fait of Charleston Canning Company said oysters planted subtidally for 10 cents per bushel would yield 40 cents per bushel when harvested in two years (News and Courier 1905b).

Mr. Varn of Varn and Byrd and Company of Yonges Island said they employed 100 Poles and they were excellent workers (Island Packet 1982a) (Figures 11; 12; 13). He said that the Yonges Island plant and another they owned at Bluffton had used over 250,000 bushels of oysters and had packed 6,938,160 ounces of meats for a yield of 27 ounces per bushel in the 1904-1905 season (Kohn 1905c).

Mr. William Fait, manager of the Charleston Canning Company, was

praised for running a model factory with many labor saving devices not seen in other establishments. He also operated a lime kiln and sold all of his shell. He said the rest of the canneries discard their shell and consider them worthless. He was one of the earliest to warn against polluting the waters (News and Courier 1905b) (Figure 14).

The Charleston Canning Company was one of the industries attracted by the Charleston and West Indies Exposition (Chibbaro 2001). This was a small scale worlds fair designed to promote the area, which had not yet recovered from the Civil War. The city

also exempted this firm from taxes for several years. The company operated until 1913 or there about (Charleston City Yearbook 1904; Charleston City Directory 1903; 1912; 1913).

Mr. L.C. Lachicotte, owner of The Champion Oyster Factory at Waverly Mills, said he canned oysters, clams, shrimp, and mullet as well as vegetables. He experimented with putting up shad and sturgeon, also. He advocated planting shell on inter tidal beds saying he could harvest “raccoon” oysters there as good as wild stock in two years. He thought the South Carolina oyster was not suitable for shell stock shipment even though he had produced some fine oysters in a brackish pond (FKM 1905).

As a result of the findings of the sessions, the state legislature established the Board of Fisheries (S.C. Legislature 1906). This legislation provided for the hiring of four inspectors to enforce regulations set forth. Their pay was not to exceed 50 dollars per month. The Board of Fisheries was authorized to lease land below the high water mark for the propagation of shellfish, terrapin or fish providing this area did not have commercially harvestable quantities already on it.



Figure 13. Containers that were hung on the side of steamed oyster cars to be filled by the shuckers with the oyster meats. (W. Collins collection)

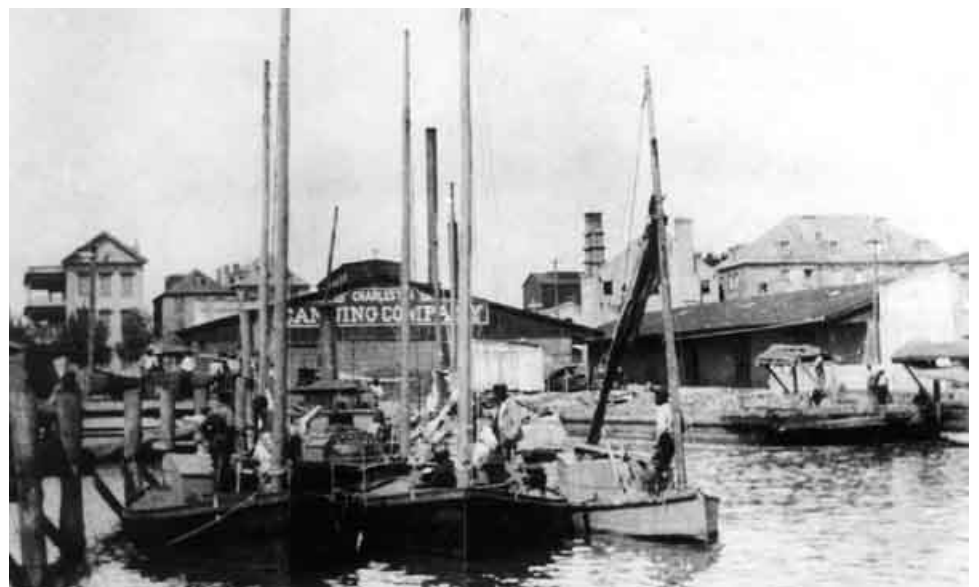


Figure 14. The Charleston Canning Company dock with sloops along side in the early 1900s (Charleston Museum photo).

The rent was 10 cents per acre for the first five years and then 25 cents per acre for up to 15 more years. Shell planting of 10 to 100 bushes per acre, determined by the Board, was required within two years after obtaining a lease. A three-inch cull was set forth with the exception of attached small oysters that would be destroyed if removed. This law also exempted “coon” or “bunch” oysters. A bushel of oysters was specified as a tub 18 inches in diameter at the top, 16 inches across the bottom and 21 inches from top to bottom. This was roughly 2.24 U.S. bushels (Figure 15). Justification for this large size in relation to a U.S. bushel was that cluster oysters take up more volume in the shell for the same amount of meat yield than single oysters found in Northern states.

Only citizens of the state could harvest oysters. The act also stipulated that no oysters in the shell could be carried out of state in any boat, vessel or any other means of transportation. This provision was to prevent Georgia



Figure 15. An official South Carolina bushel basket in use from 1906 to 1924 on right, beside the one adopted in 1986. The earlier one was over twice the size of a U.S. bushel and the newer one equals the U.S. bushel (property of R.E. Ashley, Jr.).

and North Carolina canners from using South Carolina resources needed by South Carolina canneries (Beaufort Gazette 1903a; Galtsoff 1943; Oemler 1894). Later legislation increased the area one person or corporation could lease to 500 acres and limited this

to state citizens. The Sinking Fund Commission was prohibited from further granting of franchises for shellfish propagation, although this continued up until the 1950s (S.C. Legislature 1924; S.C. State Board of Fisheries 1928). These two legislative acts led to many court actions because of conflicting jurisdiction between the Board of Fisheries and the Sinking Fund Commission. The board would lease land and the other group would grant it to another party (Baldwin 1972; Miller 1977; News and Courier 1905d).

In 1905 oysters were valued at 9 to 20 cents for cluster oysters and up to 60 cents for subtidal stock of singles per bushel (Kohn 1905b,c). South Carolina ranked sixth in number of oyster canneries in the United States in 1900 and second in 1905, and the value of canned oysters was third among the states in 1905 (Fishing Gazette 1907). In 1910, over five million cans were produced and valued at five cents per can (Report of Commissioner 1914).

In 1908, 1,062,840 South Carolina bushels of oysters were recorded as harvested in South Carolina (Fisheries Statistics of the U.S. 1967) (Figure 8). This figure is suspect because it is not known how data were gathered or computed. The poundage reported was double that of any other annual estimate (Fishery Statistics of U.S. 1968). The South Carolina State Gazette and Business Directory 1905-1910 (1910) listed eight canneries at this time, but at least two more were active but not included in this report. Three of the canneries employed Polish seasonal workers who came from the Baltimore area (Maggioni at Port Royal, Varn and Byrd at Bluffton and Yonges Island) (Kohn 1905a,c; N. McCracken, pers. comm. 2001). Many of the workers bought their children along and some as young as seven years old worked in the canneries (Hine 1986). Probably many had experience working in canneries in Maryland and this knowledge was useful at first in getting

canneries going in South Carolina.

The greatest years for the canneries were between the 1900s and 1930s. At least 3,500 people were employed in the canning industry in the 1920s (Maggioni and Burrell 1982; S.C. Bd. Fish. 1924) (Table 1). Oysters were steamed by at least 25 factories at one time or another in 17 locations: Little River, Litchfield Plantation, Waverly Mills, McClellanville (2), Awendaw, Mount Pleasant (3), Charleston, Yonges Island, Ladies Island (3), Jenkins Island, Sam's Point, Tom Fripp, Port Royal, Bluffton (3), Ridgeland (2), Hilton Head and Daufuskie Island (Bailey, pers. comm. 2000; Berry 1959; Burn 1991; Lewis 1988; Kohn a,b,c,d; G. Maggioni 1995; Missroon 1977a,b; McCracken, pers. comm. 2000; Morgan, pers. comm. 2001; News and Courier 1914; S.C. State Gazette 1910; C. and S. Toomer, pers. comm. 2000; W. Toomer, pers. comm. 2000; Woody and Johnson 1998; U.S. Army Corps of Engr. 1913). Possibly another operated in Georgetown (S.C. State Bd. of Fish. 1928; S.C. Dept. Agric., et al. 1927; Tarbox, pers. comm. 2000). All canneries were located on the waterfront, making it easy to unload oysters for processing and to load empty shell for planting. Churchill (1920) reported five canneries at Charleston and six at Beaufort and two or three elsewhere. In 1927, sixteen were present with only eleven in operation in the state (S.C. State Bd. of Fisheries 1927) (Figures 16; 17).

L.P. Maggioni had migrated from Italy and settled in Savannah, Georgia. From a small beginning selling knickknacks, he branched out into seafood and in 1883 opened a raw shuck oyster house on Daufuskie Island (Burn 1991; Savannah Morning News 1940; F. Smith 1982). In 1893, he started one of the first oyster canneries in South Carolina at the same location (Burn 1991; Lane 1977; G. Maggioni, pers. comm. 1969-2001; F. Smith 1982). His company holdings grew to include



Figure 16. *The Lowden Cannery at Bluffton in the 1930s (photo courtesy of Arthur Hancock).*



Figure 17. *The Shelmore Cannery at Awendaw in the 1930s (Magwood family photo).*

at least six canneries in the state and others in Georgia and Florida. Some of the canneries also canned shrimp, and vegetables as well as oysters (Lane 1977; G. Maggioni, pers. comm. 1970; F. Smith 1982). At one time, the company owned 137 shrimp boats, and several finfish trawlers and employed 2,500 people (Lane 1977, Savannah Morning News 1940).

Maggioni operated five South

Carolina canneries in the late teens and 1920s. They were located at Ladies Island, Yonges Island, Jenkins Island, Sam's Point, Tom Fripp and at other times at Daufuskie Island, Bluffton and Port Royal (Lane 1977; G. Maggioni, pers. comm 1970; Savannah Morning News 1940; F. Smith 1982). The canneries had to be located in several communities because of the difficulty of transporting oysters

from harvest sites to the canneries. Until the 1920s, most movement from beds to the docks was by sail or oar power, thus limiting travel (Fleetwood 1995; Lane 1977; G. Maggioni, pers. comm. 1970; Von Harten 1999c, 2000a) (Figures 18; 19; 20).

The Ladies Island factory employed at least 300 people and in some years, all of the Maggioni canneries together processed 700,000 bushels of oysters from which it packed 300,000 cases of 24 - 5 ounce cans of oysters (Lane 1977). Tomatoes and okra were processed in the summer, keeping the labor force intact (Beaufort Gazette 1933a; Lane 1977). Shells were processed and sold as agricultural lime and chicken scratch.

In an interview, Mrs. Mattie Mitchell recalled her nearly 50 years working for the Maggionis. She worked at both the Ladies Island and Yonges Island plants, as did her mother. She lived in housing provided by the company during the week and went home on weekends. She shucked steamed oysters and also raw oysters for the factory. A better meat yielding oyster was specially gathered for the raw shucking operations. Her production was 35-50 pounds of steamed meats or five or six gallons of raw shucked per day. She also worked canning okra and tomatoes in the summer. When the Ladies Island factory was upgraded to the shaker and brine system, she inspected oysters coming out of the brine tank for foreign material and noted that the quality was much poorer (many small oysters) than the hand shucked ones (Mitchell, pers. comm. 2001). This was probably true because hand shuckers would not bother with very small oysters but the machine did not discriminate and also broke the meats up by the tumbling action of the shaker. Shell from the hand shucking operation were run through the steaming process and 12 to 15 ounces of meats per bushel were recovered (Pringle 1964).



Figure 18. *The Maggioni Ladies Island Cannery, circa 1970 (Keith photo).*



Figure 19. *Two oyster sloops towing bateaux in the May River, circa 1920s (photo Bluffton Preservation Society, Inc.).*

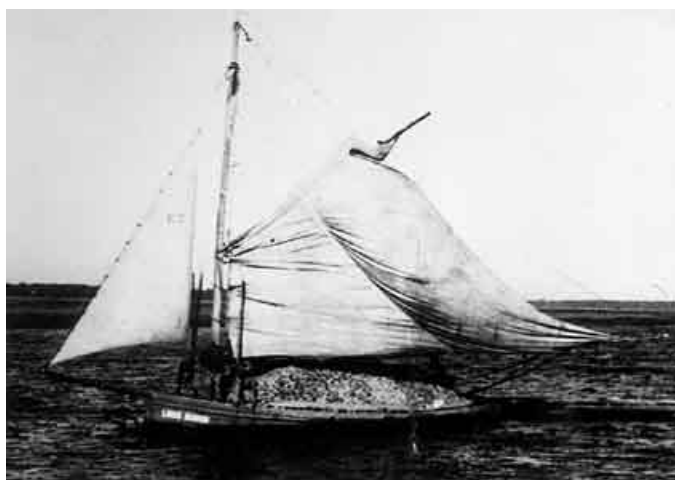


Figure 20. *The sloop, **Louis Hunter**, loaded with oysters on the way to the Maggioni Cannery in the 1930s. She was built at Bluffton in 1904 (Maggioni family photo).*

When motorized vessels and trucking came into common use, the outlying canneries were closed (G. Maggioni, pers. comm 1969-2000). Several plants were closed after being damaged by hurricanes rather than rebuilt (Huckaby 1981; McCracken, pers. comm. 2001; G. Maggioni, pers. comm 1970; F. Smith 1982) (See Appendix). Canned oysters were shipped all over the United States and Europe and for many years the Maggioni Company was the largest producer in the world of “cove” oysters, as canned oysters were called (Savannah Morning News 1940). At first, the canned oysters were sold under the labels of Baltimore, Maryland companies but soon the company introduced its own brand, “Daufauski”, and it became known worldwide. Maggioni also

marketed oysters canned by other plants in South Carolina under his label (G. Maggioni, pers. comm. 1970).

Oysters used by the canning factories were gathered by Blacks and Poles from vast intertidal beds lining many creeks and bays from Little River south to the Georgia line. In the early years, it was customary for sailboats

to tow one or two 16 to 18 ft bateaux to the beds. Oysters were loaded onto the bateau and then on to the mother boat, which held about 200 bushels. Pickers from smaller canneries often rowed to and from the oyster beds (G. Maggioni, pers. comm. 1972).

The sailboats were sloop rigged of two types: a smaller one of under 35 feet, crossed planked, flat bottomed and shaped much like a bateau; a larger one, up to 50 feet, called “diamond built”, whose bottom was planked fore and aft. Oysters were first loaded in the holds of these boats but for sanitary reasons after 1905 loads were restricted to the decks. To maximize their carrying capacity, the vessels were extremely wide beamed (Fleetwood 1995). In the summer, the larger sailboats were taken into freshwaters and the flat-bottomed sailboats and bateaux hauled out on dry land to avoid shipworm damage. The bateaux

Figure 21. *Small sailboats ebbed out at the Club Bridge Creek factory of L.P. Maggioni in the early 1900s. Note the size of the shell pile (Brown and Barton photo).*





Figure 22. The larger “diamond built” oyster sloops tied up at the Maggioni Ladies Island factory (Maggioni family photo).

had to be re-caulked before launching for the oyster harvest season (Maggioni 1995) (Figures 21; 22).

Starting in the late teens and early 1920s, motorboats began to supplement the sailing vessels and by the 1940s nearly all the sailboats were phased out. (Fleetwood 1995; G. Maggioni, pers. comm. 1970). When motor boats were used, it was common practice to tow 10 to 15 bateaux at a time, cutting them loose one at a time, at designated harvesting sites (Jackson, pers. comm. 2000) (Figure 23).

The bateau carried about 40-70 bushels of oysters and they were of heavy construction to withstand



Figure 23. A string of bateaux in tow by a gasoline powered towboat in the 1930s (Maggioni family photo).

the rough oyster shells and the frequent beaching on shelly shoals (Sam Bennett, pers. comm. 2001; G. Maggioni 1995). The pickers often left the factories on Monday and did not return until the end of the week (Sam Bennett, pers. comm. 2001; Jackson, pers. comm. 2000; Gadsden, pers. comm. 2000; G. Maggioni, pers. comm. 1970; Martin 1932). The pick-

ers sometimes worked by moonlight. They slept and ate on the towboat. When the oysters reached the factory, they were unloaded and placed into cars on rails and rolled into steam chests (Figures 24; 25). The pickers were paid by quality and quantity (Brownlee, Sr., pers. comm. 2000). These cars when “full” and “heaped up” were said to hold ten bushels, but

Figure 24. “Ten” bushel cars loaded with the oysters being pushed into the steam chests. Note that each was heaped up to increase capacity (Maggioni family photo).



Figure 25. Steam chests used to hold the oysters, were heated under pressure until they gaped open so that the meats were readily removed by shuckers, circa mid 1930s (Maggioni family photo).



many pickers thought they held more. They were paid for ten bushels (“Baby Ray” Jenkins 1998). The pickers were right because inside measurements of these cars were 45,485 cubic inches and held 11.2 1924 S.C. bushels or 9.52 1906 S.C. bushels if filled just to the brim, which never occurred. They were always heaped high which would mean two or three more bushels to the car (Jackson, pers. comm. 2000; Lunz 1950). The canneries were able to take advantage of the pickers because they lacked any alternate employment. They could underestimate on quantity and accept only a good quality oyster (Brownlee Sr., pers. comm. 2001; G. Maggioni, pers. comm. 1975). The steam chests held three cars. Steam was injected under pressure, and the oysters held for 10 to 12 minutes or long enough to open the shells. The cars were then rolled out the other end of the steam chests and women stood

on each side of the car, and picked the oyster meats from the gaped shells and dropped them into metal containers hanging over the side of the cars (Bailey, pers. comm. 1999; Brownlee, Sr., pers. comm. 2000; Jackson, pers. comm. 2000; G. Maggioni, pers. comm. 1970) (See Figures 11; 12; 13). The women were paid by weight of meat picked (Bailey, pers. comm. 1999; Brownlee, Sr., pers. comm. 2000; Jackson, pers. comm. 2000). Six women could shuck a carload in 20 to 30 minutes. Each shucker produced 30 to 50 pounds of meat per day (Bailey, pers. comm. 2001; G. Maggioni, pers. comm. 1970; M. Mitchell, pers. comm. 2001).

G.R. Lunz (1950) computed yield per bushel of shell stock by steam canneries over a 23-year period. It ranged from 28 to 41 oz per S.C. bushel measured by the so-called "10 bushel" steaming car. Measured in U.S. bushels increased by the true measure of the steaming cars this would reduce these figures to no more than 13 and 19.5 ounces respectively.

Both pickers and shuckers were paid with tokens by the canneries. Some were for a volume of meat in one or two gallons, or by monetary value, 10 cents - 25 cents, etc. These were negotiable at company stores or at other local establishments and could be cashed in, usually on Friday (Bailey, pers. comm. 2000; Collins, pers. comm. 1999; G. Maggioni, pers. comm. 1970) (Figure 26).

The cooked oyster meats were washed and placed in tin plated metal cans. After brine was added to the filled cans, the cans were sealed and loaded into a large metal basket, which was placed in a retort and heated under pressure to sterilize the contents. After cooling, the cans were labeled and placed in cases for shipment (Brownlee, Sr., pers. comm. 2000; Jackson, pers. comm. 2000). At first, most of the oysters were packed in one and two pound cans, but later



Figure 26. Tokens used by both canneries and shucking houses to pay workers for piecework (W. Collins collection).

the five and eleven ounce cans became the most popular sizes (Brownlee, Sr., pers. comm. 2001). The canneries processed oysters from September to May, the season set by the State Board of Fisheries (S.C. State Bd. Fisheries 1937). In some years, an extension was granted into June to take advantage of a good market or good yielding oysters (S.C. State Bd. Fisheries 1937). The workweek was from Monday through Friday or Saturday, with Friday's and Saturday's harvest processed on Monday. A day was missed only when the oyster supply was inter-

rupted by high tides or stormy weather (Brownlee, Sr. pers. comm. 2000).

Housing for the workers was provided at some canneries. The Polish workers stayed there for the entire oyster season (Beaufort Gazette 1912a,b). A dormitory-like building containing 12 to 15 rooms was built by Maggioni on Daufuskie Island for the migrants. This was called the "Hickey" house (Burn 1991). "Hickey" was the name given the Polish seasonal workers (McCracken, pers. comm. 2001). Blacks stayed from Monday through Friday and returned home for the weekends (Brownlee, Sr., pers. comm. 2000; Hine 1986; M. Mitchell, pers. comm. 2001; Pinckney, pers. comm. 2001).

In June, after the oyster canning season, the pickers were hired to plant shell on the beds to serve as cultch for the next crop of oysters (G. Maggioni, pers. comm. 1990; Sam Bennett, pers. comm. 2000). The shells had accumulated in huge piles alongside the canneries and they were loaded into bateaux and towed to the beds, first by sail and then later in the 1920s by powerboats (Sam Bennett, pers. comm. 2000; Lowther, pers. comm. 2000) (Figure 27). Barges or lighters also came into play, as upwards of 1,000 bushels of shell could be moved at one time and motor powered tow vessels were obtained (Lowther, pers. comm. 2000; G. Maggioni,



Figure 27. Oysters being shoveled onto intertidal beds to provide setting surface for a new crop. A 1930s photo taken in Lacy Creek (Maggioni family photo).

pers. comm. 1970; 1995) (Figure 28). The shuckers were often employed in the off-season to can vegetables and shrimp at the canneries (G. Maggioni, pers. comm. 1970; Von Harten 1999a).



Figure 28. Lighter loads of oysters lying off the cannery dock. Note the deck of the lighters folded up to allow loading in the hold, but mostly they were unfolded to allow easier off loading (T. Boozer per comm. 2000) (S.C. State Board of Fisheries photo).

Nearly every operation of the early canning industry was carried out by hand labor. In many cases, the pickers even depended on tidal currents and oar power to go to and from the beds (Maggioni 1995). Oysters were unloaded at the dock and loaded into the cars by hand to be steamed. Meats were removed from the steamed oysters by the shuckers and the cans filled and sealed all by hand. Shells were shoveled into wheelbarrows and rolled to the shell pile again with no mechanical assistance (Figure 29). Shells were shoveled into bateaux for planting and shoveled back out on the beds.

So the industry required a lot of labor and they got it at a very low cost. This was so because the south was slow to recover from the reconstruction period after the War Between the States, and few jobs were available for a large segment of the population. For many of the low country blacks, land farming was the only means of livelihood before the oyster canneries began operations. Many of these

people survived by eking out a living hunting, fishing, and gardening for their own consumption and sometimes sale for a little cash money (Murray 1933; S.C. Dept. of Agric., et al. 1908).

The canneries were for many areas the only industry present especially during the great depression of the 1930s (Maggioni and Burrell 1982).

The oyster resource was abundant and could be processed cheaply to compete with other canned goods and demand was good because canned oysters could be provided to distant markets by railroad before efficient refrigeration was available (MacKenzie 1996). Many canneries made good use of their equipment and available labor by diversifying and using them to process other items

such as vegetables, finfish, shrimp, and condiments (Beaufort Gazette 1933a; Maggioni 1995; Hawkins 1993; Jackson, pers. comm. 2000; Savannah Morning News 1940).

Several canning factories also incorporated shell crushers in their operations (News and Courier 1905b; Fishing Industries of U.S. 1931; G. Maggioni, pers. comm. 1972; McCracken, pers. comm. 2001). The products were agriculture lime and poultry feed supplement. Mr. Fait of the Charleston Canning Company chided his counterparts in the oyster industry for wasting this valuable resource (oyster shell) (Charleston News and Courier 1905b). At least four shell mills operated in South Carolina in the 1930s (Fishing Gazette 1935; 1936; G. Maggioni, pers. comm. 1972). None operated after World War II (G. Maggioni, pers. comm. 1972). Further use of shell was for septic tank drain fields and as mentioned before, roads (G. Maggioni, pers. comm. 1972).

By far, the greatest use of shell was to provide substrate or cultch for oyster settlement and this practice has been mandated by law since 1906 (S.C. Legislature 1906) (Figure 30).

In some years, as much as 1,546,354 bushels of shell were recorded as planted by oyster factories and shucking houses (S.C. State Bd. Fish. 1942). These figures may be an exaggeration, as often the amount of shell planted exceeded by a great margin the amount of oysters harvested. The Board of Fisheries lacked enough personnel at times to monitor planting, and



Figure 29. Loading oyster shell by wheelbarrow (Keith photo).

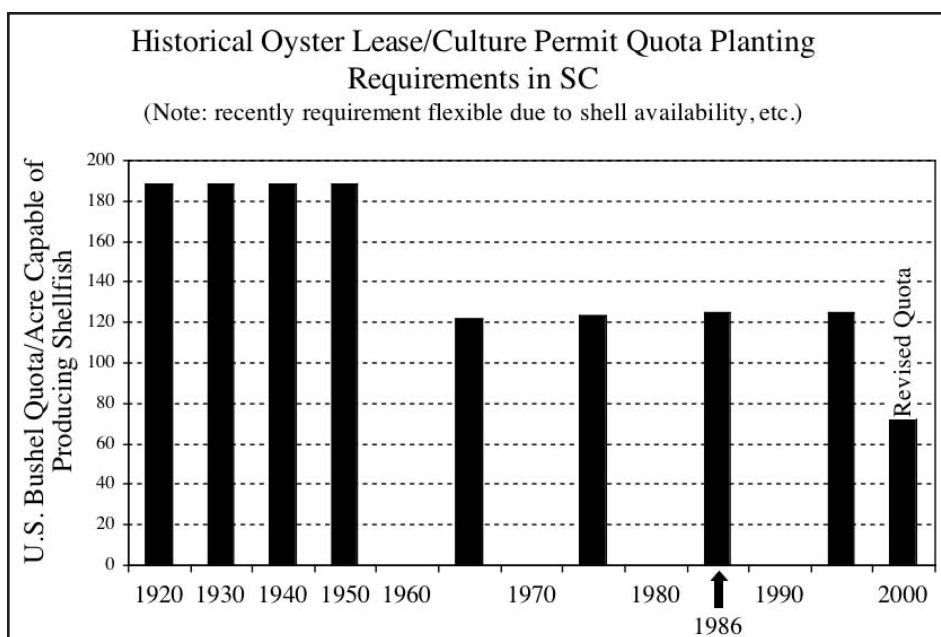


Figure 30. Planting requirements from 1922 to 2000.

they had to accept figures submitted by leaseholders (Howell, pers. comm. 2001; Lunz letter) (See Appendix).

The canneries gradually mechanized, first to increase profits by saving on labor cost and then to compensate for labor lost to other jobs as the economy improved during and after World War II. Federal programs to ease the hardships of the depression had reduced the number of employees working in the industry, and the wage and hour law made some types of labor too expensive for the canneries, while adding many people to the welfare rolls (Burn 1991; Jackson, pers. comm. 2000).

Motor vessels were increasingly employed to bring the pickers in their bateaux to the harvesting grounds and to carry shell for planting as cultch (G. Maggioni, pers. comm. 1970; 1982; 1995). The pickers, when towed by motor vessels, made daily trips instead of staying out all week. When barges came into use to move larger loads to and from the oyster grounds, water cannons supplanted shovels as a means to off-load shell on to the beds (Figure 31). Conveyors gradually came into play to move the oysters through the

processing operation. The Shelmore Cannery at Awendaw used steam power and Magionni used electric power to operate conveyors, mechanical capers and labelers to help reduce hand labor (Jackson, pers. comm. 2000; Brownlee, Sr., pers. comm. 2000).

Cultivation of oysters was most rudimentary. It usually consisted of planting shell from oysters processed at the cannery or shucking house the past season. Some growers, however, transplanted seed oysters for grow out on their leases (Galtsoff and Prytherch 1927).

Mr. J.G. Murray described his subtidal cultivation in 1905. He moved subtidal seed from near Edisto Inlet to beds in St. Pierre Creek. He planted about 500 bushels per acre at first and then harvested 100 bushels per acre the first year, 300 the second and 300 to 400 bushels every year there after. He reseeded his beds each year. His oysters were sold for 60 cents per bushel as opposed to the 8 to 20 cents per bushel the canners paid. He was of the opinion that the present rate and methods of harvesting by the canners would soon deplete the resource (Kohn 1905c). Mr. L.C. Lachicotte of the

Champion factory near Pawleys Island said he had met with more success in spreading shells above the low tide mark. He said this method produces "raccoon" oysters equal to wild stock in two years. He felt this supplied his needs and did nothing to deplete the resource (News and Courier 1905c).

Two methods of intertidal planting were employed by the Shelmore cannery at Awendaw. In one case, shells were shoveled from bateaux as they drifted with the late flood tide on the edge of the creeks so that they ended up in the intertidal zone. This type of planting was carried out on the same beds as needed year after year. The other method involved placing eight or ten bateaux loaded with oyster shell in a line and anchoring them and the tow vessel. The oysters were then shoveled off on one side of the boats to create a ridge of shell. The water depth was such that the top of the ridge ebbed out at low water. These created beds were never re-shelled and grew out from the center to form vast new oyster reefs. They could be harvested after two to three years and any year thereafter (Jackson, pers. comm. 2000). Mr. H.K. Leiding, the owner, also described how he put out cultch, caught spat and transplanted the seed to subtidal areas in the Awendaw-McClellanville area on his Shelmore leases. He was able to harvest the oysters in two years (News and Courier 1931a,b).

Mr. C.A. Magwood and his father before him produced well-shaped single oysters by breaking up clusters and replanting subtidally in selected creeks. The largest ones were planted near creek mouths, the next size further up and the smallest at the uppermost point. The lower creek oysters were harvested the next year, the next group the following year and the upper creek ones the third year (C.A. Magwood Jr., per. comm 2000; Thames, pers. comm. 2001). A similar method was practiced by the Truesdales (News and Courier 1905b).

The state required leaseholders to plant shell on their leases to provide young oysters a setting place. Over the years the amount of shell varied and substrates such as seed oysters, gravel, cement coated cardboard, bamboo stakes or hog wire were allowed as substitutes (S.C. State Board of Fish 1931, 1938, 1947; S.C. Wild. Mar. Res. Comm. 1986) (Figure 30).

Canneries were often located near productive grounds, but with the advent of both motor vessels and trucks, it became more economical to centralize operations and close outlying facilities. In the early days, sanitation around the outsides of canneries was not too important so it also helped that these establishments were sited in remote settings. A reporter for the Charleston News and Courier wrote in 1932 that, “for oystering however profitable, and however savory the product, it is not a process to appeal to the fastidious. As a matter of fact, only the strong of the human race can ever persuade themselves beyond the last hundred yards to an oyster factory. There is a smell that reeks to heaven and is about as effective as a spiked wall. It is a tenacious

sort of smell, clinging to the end of one’s nose for miles after the oyster factory is left behind” (Martin 1932).

The pickers were often Polish men at several canning plants around 1900 to about 1920 (News and Courier 1905c; Kohn 1905a,c; G. Maggioni, pers. comm. 1982; McCracken, pers. comm. 2001). Blacks also harvested oysters then and on to the present (Collins, pers. comm. 2000; Frasier, pers. comm. 2001; Palmer, pers. comm. 2000). Skill is required to gather the quality oyster needed for a particular purpose i.e. for shucking, for bag or for roasting (Collins, pers. comm. 2000; Frasier, pers. comm. 2000; Parker 1995). Quality needed also governed the amount a picker could produce in a day (Sam Bennett, pers. comm. 2000; Collins, pers. comm. 2000; Frasier, pers. comm. 2000). A good picker could gather 5-7 bushels of singles, 12 bushels of doubles or triples; 30 bushels for shucking or roasting and upwards of 75 bushels for steaming. High tides or sparse oysters on the beds limited production. If the wind and tides were favorable, the beds were exposed longer and the harvest period was longer. If tides and wind

were wrong, the opposite happened. Moon phase also affected tides and the harvest quantities. After a period of cold weather, the mud appeared to lose some of its moisture, firm up and pull away from oysters embedded in it and allow harvest to continue on beds that had looked to be completely harvested (Bailey, pers. comm. 2000; L. Toomer, pers. comm. 2000).

Old time pickers such as Nathaniel Brown recalled the rigors of harvesting for the canneries. He worked for Maggioni from 1929 to 1935. They went out on Monday and returned Friday, loading the bateau and afterward the sailboat. They slept on the sailboat and sometimes worked into the night during full moons. Low tides were important to expose oysters. Strong tidal currents helped the sailboat along when going to and from the factory. The wind usually did not blow hard enough to move the sailboats against the tide so unless the tide was favorable, they did not go anywhere. It was always best to reach the factory at near high tide so that it was easier to shovel the oysters onto the dock. Brown was paid 10 cents per bushel for his catch. (N. Brown, pers. comm. 2000).

Many of the present day pickers had early experience working for the canneries, but now gather oysters for shucking and bag sales. One, Anthony Frasier, has in recent years worked for the various operations of the Bluffton shucking house, Lemon Island Marina and with his uncle and other members of his family. He has five brothers who also are involved with oysters. He learned harvesting from his brothers and from the first liked it. When in school at 12 years old, he went with his uncle and brother, Frank, to pick. His mother and grandmother worked at the shucking houses around Bluffton. Anthony said he harvested 50 to 60 bushels per day when five pickers worked together for Maggioni. When he worked alone, he would catch as



Figure 31. Washing shell onto intertidal beds with a water cannon in 1952 (Lunz Collection, Charleston Museum).

many as 100 bushels since it was not to be shared with the rest. At this time, oysters were not graded. The oysters were loaded into trucks and measured by the inside of the truck body. He received 65 cents per bushel at first and later on \$1.25. When picking for a bag or shucking house, he would get 50 to 60 bushels. He culled with a claw hammer. By selective picking and skillful use of the hammer, many clusters were broken down into singles and doubles. Interestingly, when Anthony had a large order, he worked alone, but when he needed only 20 to 25 bushels, he took someone with him. He did not say why, but maybe it was for company when he did not have to work as fast (Frasier, pers. comm. 2001).

Joseph Young worked for the Thad Bailey's from 1928 to 1999. He unloaded oysters every day. Sometimes he walked up marsh creeks and gutters and piled oysters on the marsh edge and would go back and get them with his boat when the tide rose. He said the only jobs available were in the oysters business. His wife had also shucked for the Bailey's (J. Young, pers. comm. 2001).

Sam Bennett related that he began picking for the Ladies Island Cannery as a teenager. He recalled picking at night by moonlight and torchlight. They loaded the bateaux with 40 to 50 bushels and the sailboats with 150 to 200 bushels. The loaded bateaux and sailboats returned to the factory to be paid by the number of steaming cars they filled at ten bushels per car (Figure 32).

Sam also worked with the raw shuck houses of "Junior" Graves, the Bluffton Co-Op, the Reeves, and finally Larry Toomer. Bennett supplied his own shuckers. One of whom was his wife. He paid his crew by the number of gallons his oysters shucked out. At the end of his working days, he owned his own boat and outboard motor and harvested oysters, which he sold by the bag. He said most pickers



Figure 32. Sam Bennett, a long time Bluffton oyster picker, now retired (Burrell photo).

followed their fathers into the river, but his father farmed and raised cows (Sam Bennett, pers. comm. 2001).

The mosquito fleet fishermen continued to supply hucksters with seafood for them to peddle on the streets of Charleston from the early 1800s to well up into the 1900s. They gathered oysters in winter when weather curtailed their trips to sea (Bishop, et al. 1994; Fleetwood 1995; News and Courier 1888) (Figures 33; 34).

Records of raw shucking establishments were scanty in the early 1900s, mostly only those in the lower part of the state persisted long enough

to be recalled by older citizens (Burns 1991; Bush, pers. comm. 2000; Graves, pers. comm. 2001; Keith and Gracy 1972). The State Fishery Board first listed shucking sheds in 1925. The annual report showed 25 to be present: three in Charleston County, six in Georgetown and 16 in Beaufort (S.C. Board of Fisheries 1926) (Table 1).

During World War I, oyster production fell because of labor shortage and in 1918 only 270,429 bushels were harvested (Fishery Statistics U.S. 1965) (Figure 8). By 1919, the industry had recovered and 13 or 14 canneries were in operation (Churchill 1920). By then, nearly all the Polish workers had been supplanted by blacks (G. Maggioni 1972).

State legislation in 1924 reaffirmed the prohibition of shipping bulk loads of shell stock oysters out of state but added clams to this stipulation. The shell planting requirement was increased to 100 bushels per acre and 1/3 of shells produced by the canneries were to be planted in areas designated by the Board of Fisheries (S.C. Legislature 1924). A person or his employee was permitted to gather two bushels of oysters per day from any oyster ground. The size of a South Carolina bushel was defined as a cylin-



Figure 33. Mosquito fleet fishermen gathering oysters (Charleston Museum photo, circa 1900).



Figure 34. A young huckster offering oysters in the shell to Charleston residents in 1930s (Lunz Collection, Charleston Museum).

der 18 inches in diameter and 16 inches high or 4071.5 cubic inches volume. This contrasted with 2150.4 cu inches in a U.S. bushel, but smaller by 700 cu inches than the South Carolina bushel adopted in 1906 (Figure 35). Sixteen canneries were present in 1926 and 31 shucking houses. Beginning in 1925, licenses for operating a cannery or shucking house were required at a cost of one dollar per facility (S.C. Board of Fisheries 1925; 1926). Only 11 of the 16 canners present were operating at this time and all had much of their inventory unsold because of the oyster typhoid scare in the New York area and poor economic conditions. The State Board of Health cooperated with the Board of Fisheries and began inspecting shucking sheds to insure that all South Carolina oysters were handled in a sanitary manner. The Board of Fisheries would not issue a license until the shed had been passed. The canneries did not come under the jurisdiction of the Health Department since it was a cooked canned product. Further, the U.S. Bureau of Fisheries sent ten men to survey oyster grounds to ascertain which grounds could be used by the raw shucking trade

(S.C. Board of Fisheries 1926). A certificate of good health was required of shuckers in raw shuck houses. As a result of recommendations of a 1925 conference on shellfish sanitation in Washington, D.C., which included federal and state agencies and industry members all agreed to meet standards that would insure a safe product. These included the requirement that the picker and dealer keep a record of the source by harvest areas of all oysters they handled (See Appendix). States would enforce these regulations with federal oversight. This program called the National Shellfish Sanitation Program (NSSP) has continued with revisions over the years (Frost 1925; U.S. Dept Health and Human Services 1990). Earlier sanitation regulations may have been required of seafood markets (See Appendix).

At this time (1924), oysters cost the factories 20 cents per bushel to have them gathered (S.C. Board of Fisheries 1925). The Board of Fisheries estimated that in the mid 1920s nearly twice as many oysters were raw shucked than produced by licensed shucking houses (75,000 total instead of 44,199 gallons recorded in 1926)

(S.C. State Board of Fisheries 1927).

The Legislature in 1927 vested in the Board of Fisheries complete control of management and leasing of oyster lands. This cleared up some lingering problems with conflicting laws. Lease terms were reduced to five years and a rent scale of 50 cents the first year, one dollar the second, and two dollars the third and five dollars per acre thereafter was adopted by the board (S.C. State Board of Fisheries 1928) (See Appendix).

In 1930, the Board of Fisheries reported South Carolina produced 20% of all U.S. canned oysters (S.C. State Board of Fisheries 1930) but the oyster industry was beginning to feel the effects of the "Great Depression" of the 1930s. In 1931, prices of the same size cans of oysters dropped from \$1.25 to 62 ½ cents per dozen cans. Bulls Bay oysters sold for 35 to 45 cents per quart retail as compared to Virginia quarts at 55 cents (News and Courier 1933). The Board of Fisheries was very concerned about the fall in prices because thousands of people were employed in the industry and it kept many out of the bread lines. The largest number of shucking houses, 44, were licensed in 1931 along with six canneries (S.C. State Board of Fisheries 1931;1932; Wilson 1932) (Table 1).

The Board of Fisheries reduced rents on leases to the first year's



Figure 35. An official South Carolina measuring container used between 1924 and 1986 alongside the modern U.S. bushel basket adopted in 1986 (Burrell photo).

charges to help the canners and shucking houses retain their grounds (S.C. State Board of Fisheries 1935). All rentals became one dollar per acre in 1936 (S.C. State Board of Fisheries 1936) (See Appendix). The Board also recorded all leases on county books and began to enforce payment of rent for the first time (S.C. State Board of Fisheries 1931) (See Appendix).

The Intracoastal Waterway was completed in 1935. This created a channel through coastal Carolina and permanently altered flow in many water systems. Some biologists and oyster men felt that this had a profound deleterious effect on subtidal oyster growing areas (Donehue 1959; S. Flowers, Sr., pers. comm. 1972; S. Flowers, Jr., pers. comm. 2000; Maggioni and Burrell 1982; S.C. State Board of Fisheries 1941) (See Appendix).

A federal program established the Civilian Conservation Corps in 1933 to provide jobs for those out of work during the depression. One of the major projects was to plant many fast growing pine trees in areas that once had hardwoods. This probably increased the rate of drainage and this could have also adversely affected the oysters (Langley 2001; Maggioni and Burrell 1982.) Paper mills began to locate on estuaries and their effluent added to the environment was thought to affect oysters (Maggioni and Burrell 1982).

Several times in the early 1930s the Fisheries Board asked for an increase in license fee for canneries and shucking houses from one dollar to five dollars per annum and that barges or lighters used in the oyster trade be required to buy a license (S.C. State Board of Fisheries 1931; 1932; 1935). This did not pass.

Beginning in 1924, an impost tax of two cents per 60 ounces of canned oysters, five cents per gallon of shucked oysters and ten cents per bushel of oysters in the shell was levied by the State (S.C. Board of Fisheries 1924) (See Appendix). This

did not make sense because it took two bushels to produce 60 ounces of canned oysters or a gallon of shucked. This made the tax rate for a bushel used for these purposes one cent and two and a half cents respectively while on unprocessed bushel it was ten cents. (Lunz 1951). These taxes in the form of stamps were removed in 1959 (S.C. Wildlife Resources Dept 1960).

Experiments to increase production of oysters were carried out using Federal funds during 1938 to 1940. Brush was used as cultch with some success (R.O. Smith 1949). Shell stock from polluted waters was moved to clean areas under the supervision of the Board (S.C. State Board of Fisheries 1941).

The effects of the depression also curtailed investments in the oyster canning business. Black Island lying off James Island most commonly known as Block Island was purchased by a canning company to set up an oyster factory in the 1920s, but due to the poor economy of the late 30s it was sold for a pittance to a Charleston man, Mr. Joe Welch. He did not want the island but to keep good relations with the firm he served as a broker for he made a ridiculous offer and was taken up on it. He eventually sold it to the Ohlandt family and now the island is the property of John Ohlandt (Ohlandt, pers. comm. 2002). Federal programs to address hardships of the depression began to lure many to their unemployment rolls from the oyster industry in the late thirties (Burn 1991).

In the early 1940s, leases were for a term of five years at \$1.00 per year. Shell necessary to meet planting obligations of 100 bushels per acre were getting harder to come by even though 1,340,000 bushels were planted in 1941 (S.C. State Board of Fisheries 1941). A gallon of fresh shucked oysters was bringing 90 cents per gallon delivered from Ridgeland to Columbia (Bailey, pers. comm. 2000).

During World War II oyster

production dropped because of labor shortages even though fishing was considered a critical industry and deferments from military service could be obtained (S.C. State Board of Fisheries 1943; 1945) (Figure 8).

1945 TO THE PRESENT (2002)

Shortly after World War II, many people returned to jobs as oyster pickers and as workers in oyster canneries and shucking houses, and soon oyster production rose to nearly what it was from 1900 to 1945. A system of mechanically removing steamed oyster meats from shells was developed, which eliminated the numbers of plant workers employed, but efforts to mechanize hand harvesting of oysters were unsuccessful. Oyster roasts became popular and one annually attracted several thousand people. Increasing numbers of oysters were hand-shucked and sold fresh in containers of various sizes, but the canneries produced most of the oysters until they closed in the 1980s. The closures were forced by less market demand for canned oysters, labor costs rising, and cheap oysters from Asia supplying many markets. Thereafter, all oysters were hand shucked or sold as shell-stock. After the late 1960s, commercial oyster harvests fell, labor supply dwindled and oyster stock declined, but recreational harvesting became more important. In the 2000s, commercial oyster production has been relatively small and nearly all oysters are shipped unshucked to markets.

The Bears Bluff Laboratories on Wadmalaw Island was incorporated in 1946. Its first charge was to initiate a program of scientific research in oyster cultivation. G. Robert Lunz was its director. At this time, South Carolina had no fisheries research program. The Board of Fisheries however by law had the authority

..... “to expend such sums as they may deem advisable, not to exceed \$100 per annum in the experimental propagation of shellfish upon suitable bottoms....” (Allison 1947; Lunz 1970). The laboratories operated at first on private donations and in 1948 on a \$3,500 grant from Charleston County. In 1949, Lunz secured an appropriation of \$17,000 from the State and from then until 1970, it was the marine research arm of South Carolina (Allison 1947; Lunz 1952; Lunz 1970; McKenzie, pers. comm. 2000).

Shortly after World War II ended, many servicemen and those who had worked in war industries returned to jobs in the canneries and shucking houses and oyster production soon approached that of the late 1930s (G. Maggioni, pers. comm. 1972) (Figure 8).

In 1948, the maximum area that one individual or corporation could lease was raised to 1000 acres. One cannery (Maggioni) set up three corporations domiciled in South Carolina, but headquartered in Georgia to control over 3000 acres (S.C. Legislature 1948). Several oyster shucking house operators took the Board of Fisheries to court seeking the right to lease some of the acreage held by Maggioni (News and Courier 1948 1949). The record of the ruling on this case could not be found but Maggioni apparently did not lose any lease acreage (Keith, pers. comm. 2001).

In 1945, oysters sold for one dollar per bushel in shell, four dollars per gallon shucked and 64 cents per pound canned (S.C. State Board of Fisheries 1946). About this time shrimp became the most valuable South Carolina fishery relegating oysters to second place except for one or two isolated years when the shrimp catch was very small (Fishery Statistics of the U.S. 1967; S.C. State Board of Fisheries 1947).

The Board of Fisheries became the Division of Commercial Fisheries of the South Carolina Wildlife Department

in 1952 (S.C. Legislature 1952).

The first recorded report of an oyster kill in South Carolina was by Shelmore Cannery in Gray Bay in 1954. The cause was not determined (S.C. Wild. Res. Dept. 1955).

About this time, several cannery licenses were sold but probably only four canneries were actually putting out a canned product. Several raw shuck operations were also steaming oysters for the cannery at Ladies Island and may have been required to have a cannery permit to do this or possibly Maggioni may have continued to license the factories that they had purchased but no longer operated. The cost of this license was only one dollar so it was not of any great consequence to purchase one (S.C. Wild. Res. Dept. 1956).

Sterling Harris, the president of the Blue Channel Corporation in Port Royal, developed a system to mechanically remove steamed oysters from the shell. This consisted of a large drum called a shaker constructed of metal rods placed so gaps in between the rods allowed the oyster meats to fall through into a supersaturated salt brine bath. The oyster meat floated in the brine bath and bits of shell and grit sank to the bottom (G. Maggioni, pers. comm. 1972).

In 1955, the Sterling Harris shucking system for steamed oysters was installed at the Maggioni plant at Ladies Island and shortly thereafter at Yonges Island and at Leiding’s Shelmore plant (Brownlee, Sr., pers. comm. 2001; Jackson, pers. comm. 2000, G. Maggioni, pers. comm. 1977). This development drastically reduced the number of plant workers employed by eliminating shuckers (Maggioni, pers. comm 1970; Von Harten 1999b). This also reduced quality of oysters by breaking up the meats and hand shucked steamed oysters from other plants were brought to alleviate this problem (Bailey, pers. comm. 2000; M. Mitchell 2001).

At the Maggioni’s Ladies Island plant, the horizontal steam retorts were replaced by a vertical retort, which allowed loading from the top and unloading by gravity at the bottom as a modification of the Sterling Harris system (Brownlee, Sr., pers. comm. 2000; Maggioni, pers. comm. 1972; Von Harten 1999b; Waskiewicz, pers. comm. 2000) (Figures 36; 37). Oysters from the upright retort, after being steamed open, dropped into a shaker, constructed of rods spaced about $\frac{3}{4}$ inch apart, which rotated, shaking the meats out the bottom and moving the empty shell out the other end (G. Maggioni, pers. comm. 1972; Waskiewicz, pers. comm. 2000) (Figures 38-43). The oyster meats fell from the slots in the shaker into a tank containing a concentrated brine solution, which floated the oyster meat and allowed the shell to fall to the bottom. This eliminated all the shuckers needed to pick the oyster meats from the shells after the steaming process. Oysters were moved by conveyer belts through the rest of the process, which included a wash, an inspection for foreign objects and finally, the canning step. The canning process involved mechanical filling of cans, adding brine to the filled can, capping and loading into baskets for the final heat process (Brownlee, Jr., pers. comm. 2001; Jackson, pers. comm. 2000).

All the innovations permitted the operation of this one facility to reduce plant workers from slightly over 300 to 25 or 30 and enabled this cannery to operate for some 20 years (1965-1986) after all the rest had closed due to labor shortages.

Efforts to mechanize harvesting were not successful even though several machines were developed (Burrell, et al. 1991). The first machine developed by Maggioni could not consistently harvest oysters without unacceptable damage to the beds (G. Maggioni, pers. comm. 1972) (Figure 44). The next efforts, constructed by

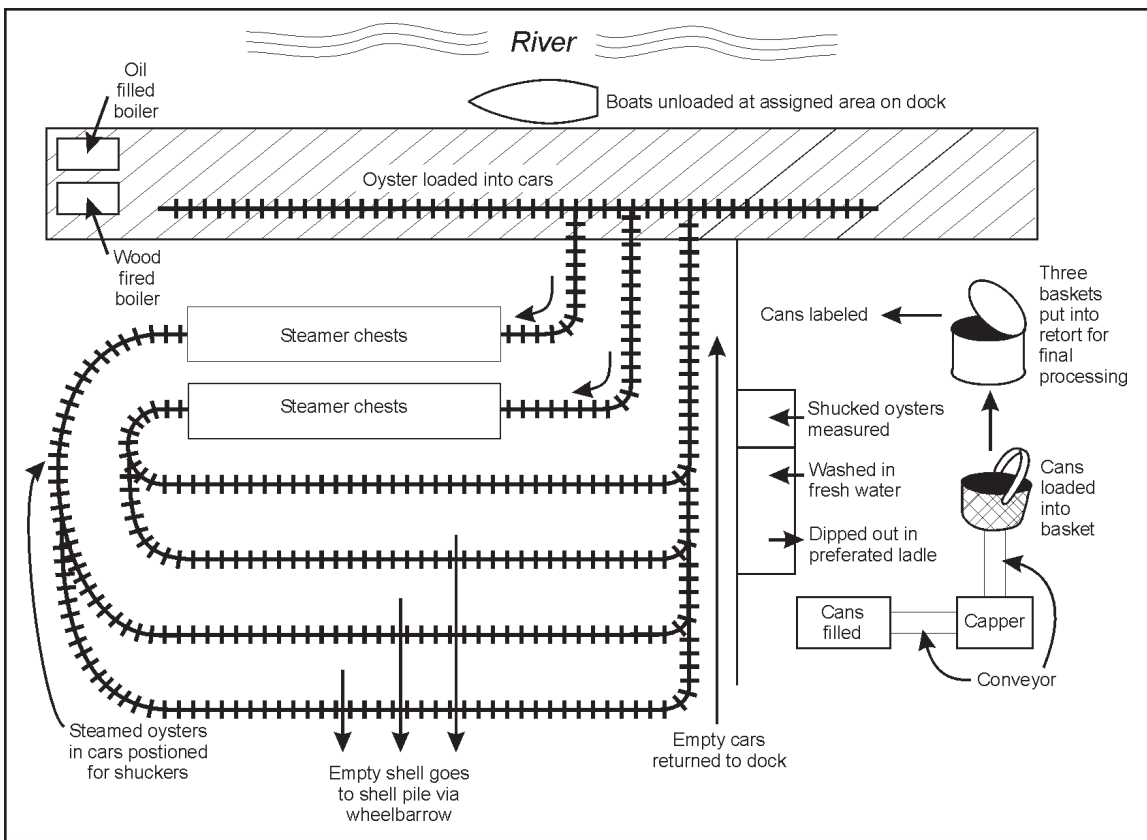


Figure 36. A diagram of an oyster factory using the method of shucking prior to the Sterling Harris Brine system. (drawn from a sketch by Joel Jackson of the Shelmore Factory at Awendaw by K. Swanson).

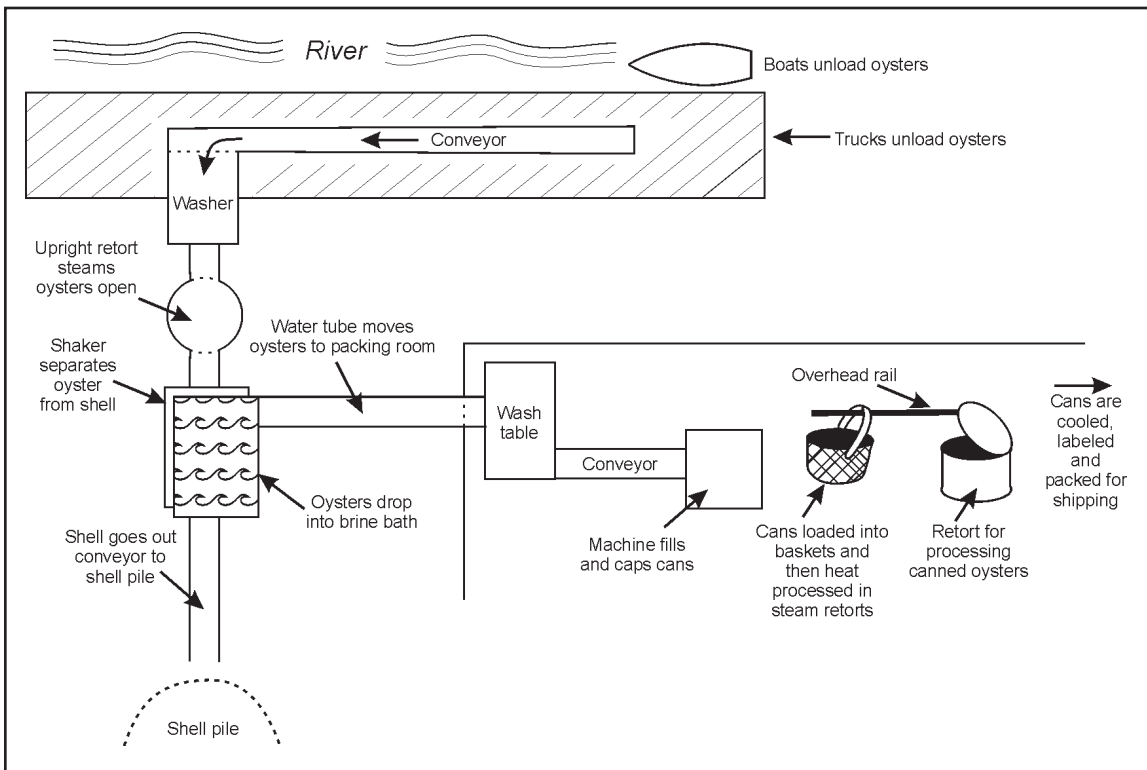


Figure 37. A diagram of the Maggioni Ladies Island plant after installation of the shaker and brine system upgrade (drawn from a sketch of A.P. Brownlee, Jr. by K. Swanson).

Clemson University, were able to overcome this problem, but they were so complicated and the maintenance was so time consuming and costly, they

were impractical. The final iteration, which was built for the state from a Clemson design, was also too costly for the industry. None of the machines

could cull oysters so their usefulness to the canneries was limited.

The canning industry provided a great means of utilizing the intertidal,

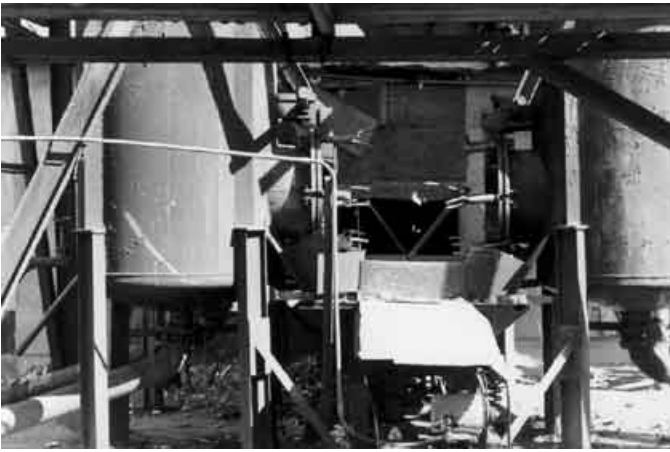


Figure 38. Upright retorts used at the Maggioni Ladies Island factory for steaming oysters. They allowed top loading and gravity feed into shakers (Keith photo, circa 1975).

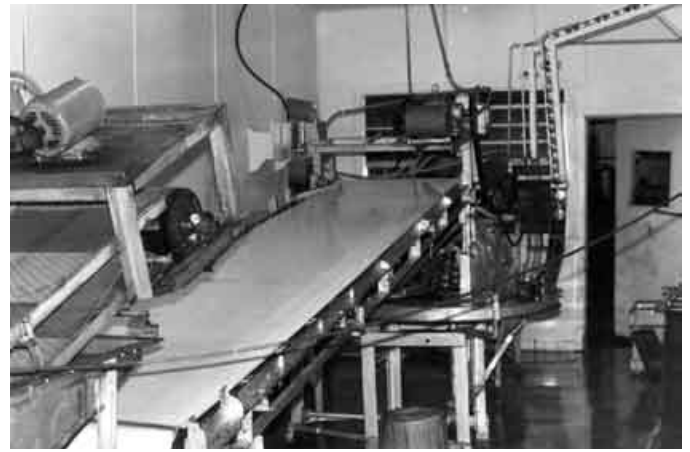


Figure 41. A conveyor belt, which moved the oyster meats from the brine bath through an inspection step to the filler and capper (Keith photo, circa 1975).



Figure 39. Shakers positioned over brine tanks so that as they rotated, oyster meats fell between gaps in metal rods into the tanks (Keith photo, circa 1975).



Figure 42. The filler and capper at the Maggioni Ladies Island facility (Keith photo, circa 1975).



Figure 40. The chute from the shaker to the oyster pile for removal of shell from the shaker (Keith photo, circa 1975).



Figure 43. Steam kettles for sterilizing the canned oysters. The late Gilbert Maggioni is operating the overhead lift to remove the basket from the cooling vat. The sterilizing kettles are on the left behind W.D. Anderson (Keith photo, circa 1975).



Figure 44. *The first intertidal oyster harvester designed by Gilbert Maggioni in 1970 (Burrell photo).*

“raccoon” oyster (FKM 1905). They used the great majority of oysters harvested in South Carolina often exceeding 90% until the 1960s. It enabled people in areas distant from the coast to enjoy oysters before reliable refrigeration was available but most importantly it provided jobs for the vast labor pool of blacks living in the coastal counties of South Carolina. In its way, this could be compared with the rice, indigo, and long staple cotton industries of South Carolina (Beaufort Gazette 1972). While never as profitable as those were, it was the major industry for many years in coastal areas and offered the only employment for a large segment of the populace (Sam Bennett, pers. comm. 2000; Lane 1977; Maggioni

and Burrell 1982; Pinckney, pers. comm. 2001) (Table 1) (Figure 45).

But, as better economic times provided more job opportunities and government welfare programs paid as much as factory wages for not working, the labor pool shrank and the canning industry began to find it difficult to make a go of it. (Burns 1991). Besides some of the oyster resources were destroyed by pollution associated with industrial and housing development, and lack of demand for the canned oyster led to the canning industry gradually dying out (Maggioni and Burrell 1982; R. Maggioni, pers. comm. 1998; Beasley, pers. comm. 2001).

Several events forced many canneries out of business. One was the typhoid scare in which people got sick

upon eating raw oysters harvested from water polluted by raw sewage in the New York City area in the mid 1920s. While this did not involve heat-processed oysters, the public was frightened of all oysters (S.C. Bd. Fish 1926). Another was the wage and hour law that was broadened to include all cannery workers; up until then they had been private contractors and thus labor costs for those plants that had not adopted the shaker and brine floatation system increased (S.C. Wild. Mar. Res. Dept. 1972). Yet another was the influx of cheap Asian (Korean) canned oysters (G. Maggioni, pers. comm. 1986; U.S. Dept. Commerce 1977). And finally the supply of oysters fell (Beasley, pers. comm. 2000; G. Maggioni, pers. comm. 1982). This last problem was also intensified because the yield of meats per bushel went down. This resulted because the remaining pickers were so much in demand that the quality requirements for good shell stock could not be enforced. Many of the oysters that were processed in the 1970s and 80s would have been refused by the factories in earlier years (Beasley per. comm. 2000; G. Maggioni per. comm. 1969-2000).

The Maggioni factory at Ladies Island in the last of the canning operations was able to continue after all others had closed by mechanizing as mentioned and using many innovative ways to obtain product. Some of these arrangements made with other oyster concerns included buying oysters and in several instances having oysters steamed out for them (Bailey, pers. comm. 2000; Brownlee, Sr., pers. comm. 2001; Lubkin, pers. comm. 2000; G. Maggioni, pers. comm. 1975; W. Toomer, pers. comm. 2000). In turn, Maggioni usually planted their beds for them to meet state shell planting requirements. Other entrepreneurs harvested Maggioni’s grounds along with their own and made a part of the harvest available

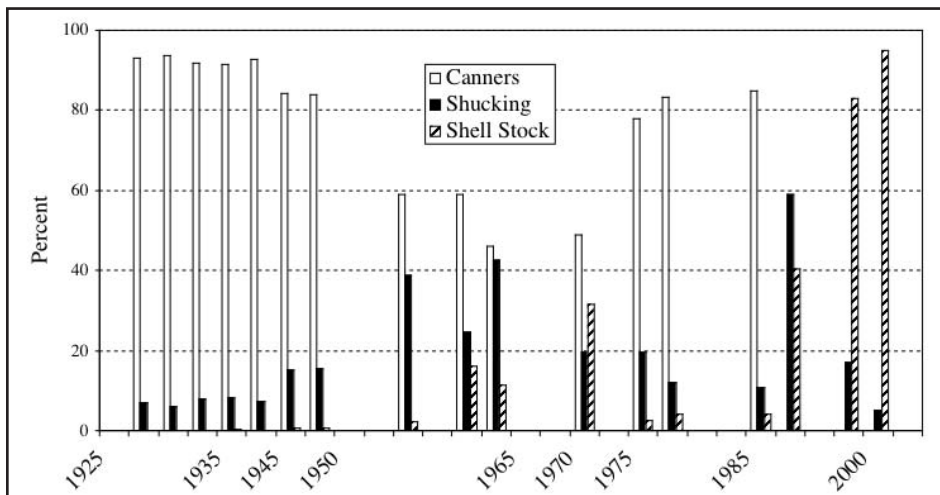


Figure 45. *Percent of oysters harvested used by the chief segments of the oyster industry 1926 to 2000.*

to the Maggioni factory (Bailey, pers. comm. 1999; Beasley, pers. comm. 2000; Collins, pers. comm. 2000; Lowther, pers. comm. 2000). Some oystermen even swapped grounds with Maggioni to improve each one's ease of reaching them (Von Harten 2000b).

The Maggioni Cannery at Ladies Island packed oyster stew and smoked oyster paste for a time in the 1950s, 1960s and 1970s (G. Maggioni, pers. comm. 1972; News and Courier 1958).

In the 1960s, the company was divided between two grandsons of the founder, L.P. Maggioni. Gilbert Maggioni received the factory and producing end and Paul Maggioni got the selling and promotion end (F. Smith 1982). The Maggioni Family again split the company in the early 1980s and Paul ended up with the factory and Gilbert got the land (Island Packet 1982b; F. Smith 1982; Spieler 1986). Plans were made to move the factory to Jenkins Creek from the site on Factory Creek on Ladies Island when Paul Maggioni's lease on the factory site ran out in 1986. However, because of permitting problems coupled with a massive oyster die-off on company beds, this did not materialize and the factory closed for good after the 1986 spring season. This brought to an end the oyster cannery industry in South Carolina and, in reality, in the United States (Beasley, pers. comm. 2000; R. Maggioni, pers. comm. 2001; S.C. Wild. Mar. Res. Comm. 1987). The Maggioni Company marketed Korean canned oysters under its label for a few years and the company finally dissolved in 1991 (R. Maggioni, pers. comm. 2001; Solomon 1991). The Maggioni label was sold to another firm and Asian oysters are marketed under the "Daufuski" name. Now this label is all that remains to remind one of a once thriving business.

The Maggioni family was the most prominent group in the South Carolina oyster industry from the 1890s until 1986 (Savannah Morning News 1940,

1992; Soloman 1991; F. Smith 1982).

After World War II, as people began to holiday at the beach many establishments came into being offering roasted oysters as the only menu entrée, while other eateries added them to their menu in the fall (Chaplin, pers. comm. 2000; C. Smith 1996). Several stand-alone roasts were in the Little River, Myrtle Beach, Murrells Inlet area, while those around Charleston generally were associated with restaurants offering other victuals.

Bennie Hudson, at his restaurant on Skull Creek, roasted a single serving of oysters as customers ordered them in a stainless steel container holding around a peck of oysters (Hudson, pers. comm. 2001). Robert Barber at his Bowen Island Restaurant had a special room reserved for his oyster roast patrons. He had an in-



Figure 46. Cookers used by Larry Toomer for oyster roasts (Burrell photo).

door roasting facility which, when in use, also provided heat for the room. Newspapers served as tablecloths (Barber, pers. comm. 2000).

In recent years, 1980s to the present, many roasts are catered. Often oyster roast caterers have very specialized equipment such as cookers and tables that can be trailered (L. Toomer, pers. comm. 2000). One such outfit had such a unique configuration that it was mistaken for a rolling liquor still (Moise, pers. comm. 1999). The entrepreneur furnished a cooker, knives, gloves, sauce, coleslaws saltine crackers, and oysters (Figure 46).



Figure 47. A poster advertising the Low Country Oyster Roast (Westendorff Collection).

Some other food usually was offered for those who are not oyster eaters or would like an additional item to go with the bivalve. This would be a low country stew (corn, potatoes, onions, sausage, shrimp boiled together), barbeque, chili, or fried fish (Barber, pers. comm. 2001; Moise, pers. comm. 2000; Simmons, pers. comm. 2000; L. Toomer, pers. comm. 2001; Westendorff, pers. comm. 2002).

An oyster roast may be organized for any reason, club meetings, church outings, visiting friends, fund raising, and just for family gatherings (Figures 47; 48). Some are traditional, so much so that permanent roasting ovens are constructed (Figures 49; 50; 51; 52). Others may be annual affairs and attract large crowds to sponsor charitable causes such as the Low Country Oyster Roast at Boone Hall in Mt. Pleasant. This event uses two semi-tractor trailer loads of oysters and attracts some 10,000 people every year. It has raised large sums of money for various charities in



Figure 51. A typical back yard oyster roast at the Lewis Godbold residence on James Island (Burrell photo).



Figure 52. The oyster roast pit at St. James Episcopal Church, James Island. It was constructed to be used by the men of the church when they sponsored, in alternate years, a roast with the John's Island Episcopal Church in the 1950s and 1960s (Burrell photo).

Figure 48. An oyster roast given for visiting sailors by the German Friendly Society was recorded on post cards dating from around 1910 (Jamie Westendorff collection).



Figure 49. A club outing on James Island. (Burrell photo).



Figure 50. Oyster eating gets right serious at an event in Bluffton in 2000. (Burrell photo).



Figure 53. One of Jamie Westendorff's roasters used at a low country oyster roast. Westendorff and his son-in-law, Gregg Mallard, are waiting for a batch of oysters to finish cooking (Westendorff photo).

the low country as well as providing some additional funds for the Greater Charleston Restaurant Association (Figure 53). The oysters used at this event have to be brought in from out of state, usually Florida and the Gulf of Mexico, because local harvesters cannot provide the necessary volume required (Barbour 2001; Britzius, pers. comm. 2001; Burger 1998; Long, pers. comm. 2001). Roasting apparatus is supplied by the caterer for the occasion (Westendorff, pers. comm. 2002).

The simplest roast occurs in home kitchens where oysters are steamed open in the conventional or microwave oven (Hawkins 1994).

Nearly all oysters produced in South Carolina at the present time are sold in shell and utilized by roasts (Ashley, pers. comm. 1995; Beasley, pers. comm. 2001; Britzius, pers. comm. 2000; L. Toomer, pers. comm. 2000) (Figure 45).

Ben Moise described modern roasts very succinctly in Zoe Sander's *Entertaining At The College of Charleston* as follows:

Some Musings on the Oyster

In the broad expanses of the Spartina marsh that lie between the barrier islands and the mainland south of Awendaw are numerous small hummocks that were the scenes of oyster roasts of South Carolina's first citizens, the Seewee Indians.. Large piles of scorched shells and broken pieces of decorated pottery provide mute testimony to the longevity of one of South Carolina's most enduring gustatory traditions, the oyster roast.

In the non-too-distant past, oyster roasts were actually roasts. Huge stocks of split oak were brought to the scene, pits dug, fires built, and large sheets of steel were set over the fire. Bushel bags of oysters were dumped onto the hot metal plates and

covered with wet gunnysacks. The sacks contained the heat and the steam and were kept dampened lest they catch on fire.

At the appropriate moment the steaming pile was uncovered and brought to the table a shovelful at a time. On the table were catsup and horseradish cocktail sauces, hot pepper vinegar, piles of rags or gloves for holding the hot oysters, and implements for extracting the little beasts from their shells and delivering them to awaiting palates.

Ancient methodology has succumbed to technology and now most oysters are steamed in various and sundry large retorts in much larger amounts than were earlier possible. The debate on whether truly roasted oysters taste better than steamed ones varies in intensity according to who is having to perform the labor.

The rhetoric notwithstanding, an oyster roast by any means is always a crowd pleaser and follows the theory of entertainment that if you are standing up and eating with your fingers, you've got to be having fun.

The rule of thumb on procuring oysters is roughly 7 people per S.C. bushel or 5 people per 40 lb. Box. These quantities will vary according to what else is being served and the method being used to cook them. Quantities may also vary according to the number of tables used; this applies particularly in reference to larger crowds.

There are many commercially prepared cocktail sauces for dipping the shucked oyster into. One good homemade receipt is 1 (40 oz.) bottle Heinz catsup, 1 (5 oz.) jar Kraft Prepared Horseradish (not horseradish sauce), 2 Tablespoons Wooster, 1 Tablespoon black pepper, and 1

½ cups apple cider vinegar. It is preferred to have the sauce a little loose so as to cover the oyster better. There are some places that use hot pepper vinegar, also known as "disinfectant," to dip their oysters in.

Generous amounts of saltine crackers and paper towels should be provided on the tables.

It may be interesting to note that oysters belong to the family Ostreidae of which there are three genera: *Ostrea*, *Crassostrea*, and *Pycnodonte*. Our principal edible oyster in South Carolina and the Gulf Coast is the species *Crassostrea virginica*.

Linnaeus himself waxed poetic about the oyster in his 1758 text *Systema Naturae*, where he wrote, "*Ostrea*. Animal Tethys, testa bivalves inaequalvis, subdurita. Cardo endentulous and tossula cava ovata, striisque lateralibus transverses. Vulva anusve nullus."

Unbelievable, isn't it?!

In closing, it would be appropriate to say that the presence of oysters demands the provision of ample quantities of "appropriate libations" such as cold beer and crisp white wine, as the British do - champagne.

It has been seen time and time again that a guest who has just consumed a succulent oyster followed by a sip of cold beer will spontaneously bow his head in a moment of silent prayer. Amen.

Ben McC. Moise, Retired Game Warden (Written by flashlight in the predawn hours of a chilly December morning on a Santee River rice field dike, waiting for trespassers to come out of the field). (Sanders 1998).

Along with roasts, sometimes shucked oysters served as a subsistence

fishery feeding many when economic conditions were poor (Berry, pers. comm. 1999; Clemons, pers. comm. 2000; Edge, pers. comm. 2001). In the 1920s and particularly the 1930s when money was scarce, this provided a livelihood for many rural blacks and whites (Berry 1996; Clemons, pers. comm. 2000; Edge, pers. comm. 2001; G. Maggioni, pers. comm. 1970).

Mrs. Albertha Edge, a retired oyster shucker now in her eighties, described how shucked oysters were provided to coastal Horry County residents in the 1930s and on until the late 1950s. She and her mother went by row boat to the oyster beds lining the creeks on the seaward side of Little River Neck in Horry County and gathered oysters by hand in the 1930s (Figure 54). They then brought them back to the landing, washed them, heated them in an iron pot filled with water and shucked them. The pot was first heated by a wood fire, then by kerosene heaters, and at the last by a gas burner. Care was taken not to overheat or keep them in the pot too long, as this would affect the appearance and taste of the finished product. After shucking into a metal pail, the oysters were transferred to another metal container with perforations and washed in the creek nearby. At this time, the waters were clear and clean, free of any pollutants. The oysters were packed in quart mason jars and loaded on her father's wagon. He then hitched up his mule and traveled to the nearby communities within a radius of 15 miles where the oysters were sold for as little as a quarter a quart or traded for farm products such as chickens, eggs, smoked or fresh pork, vegetables, grits, or whatever.

The demand for oysters increased and Albertha and others in the community began to supply oysters to a local fish market and finally nearly all of the ladies ended up working in shucking houses. David Clemons of Little River, S.C. described how his parents

often made a living in the wintertime during the "depression" by selling shucked oysters. They gathered them in the afternoon of the day before or the morning of the day which they were shucked, and delivered them to the customers the same day. Despite the lack of ice and highly sophisticated facilities, few if anyone ever got sick from consumption of these shellfish. Albertha is 82 years old, her mother and uncle lived to be 100 years old, having oysters as regular food all of their lives (Berry 1996; Clemons, pers. comm. 2000; Edge, pers. comm. 2000).

Oysters were shucked at people's residences and packed in glass containers routinely up until at least the 1980s (Bearden, pers. comm. 1990; Low, pers. comm. 2001; L. Mintz, pers. comm. 2000). The people involved in this practice took great pains to supply a good product. Some often scalded the glass jars that the oysters



Figure 54. Albertha Edge, retired oyster worker. (Burrell photo).

were packed in and all were careful to thoroughly wash the shucked oysters (V.E. Cox, pers. comm. 1956; Edge, pers. comm. 2000; L. Mintz, pers. comm. 2000). After all, their business depended on satisfying customers. In 1927, the Board of Fisheries estimated that almost half of shucked oysters in South Carolina were produced by these unofficial operations and went unreported (S.C. State Bd. Fish 1927). For many years, particularly in the northern coastal section of the state, this was the only source people had for

local raw shucked oysters. First, they bought directly from the shuckers, and later from fish markets that had obtained them from the same shuckers. Inland fish markets offered only Virginia oysters, which were repacked from gallon cans. With more concern for human health coming into play, these local oysters began to be referred to as "bootleg" (News and Courier 1962; 1964; Pringle 1961). Some purists swear that these are the finest flavored and still seek out the remaining purveyors (Low, pers. comm. 2001).

Mr. Alonzo Seabrook, director of The South Carolina Marine Fisheries, sought to curtail the practice of home oyster shucking in the early 1950s in Little River Neck. He arrested eight or nine of the oyster people and brought them up before the local magistrate. The magistrate probably was a customer of the oyster people and saw nothing wrong with their method, so he promptly dismissed all charges, much to Mr. Seabrook's chagrin (McGinn, pers. comm. 1999).

A most remarkable woman, Mrs. C.A. Magwood, operated a one woman-shucking house from the late 1920s until the 1970s on Little Bull Island (Figure 55). Her father was Captain Dan Legare, a long time operator of vessels that towed oyster bateaux for the Shelmore Cannery (Figure 56). This island, some 20 miles north of Charleston on Price Inlet, was very remote. Mrs. Magwood often picked her oysters herself when those brought in by her children didn't suit (Figure 57). The children washed them and carried them to the shucking house where Mrs. Magwood opened them. She used a solid metal knife and a chipper consisting of a file sharpened on one end and the other end inserted in a wooden block. She shucked the oysters into a colander, thus getting a completely dry pack, which resulted in a superior product. She often opened ten gallons in a day. Two days a week Mrs. Magwood went to Charleston by



Figure 55. Mrs. C.A. Magwood at work in her oyster house in the 1950s (Magwood family photo).



Figure 56. Mrs. Magwood's father, Captain Dan Legare, a long time employee of the Shelmore Cannery (Magwood family photo).



Figure 57. Mrs. Magwood picking oysters for shucking in the 1930s (Magwood family photo).

motorboat with her oysters. Here she delivered them to customers along Broad Street and other thoroughfares in the business district. On Fridays, she deposited some of them at the local liquor store and her customers picked up their oysters with their weekend spirits. Along with her oyster activities, she raised eleven children. She cooked all of their meals, washed all their clothes and ruled them with an iron hand according to her sons (C.A. Magwood, Jr., pers. comm. 2000; A. Magwood, pers. comm. 2001). One summer she worked in a vegetable cannery for the munificent sum of 20 cents per hour (See Appendix).

Mrs. Willie Mae Mitchell started shucking oysters in 1944 at Thadeus Bailey's shucking house at Okatie. She related in an interview in 2000 that her pay was 50 cents per gallon to begin with and later went to 95 cents. On the best days, she shucked nine gallons. She worked for Junior Graves and with the Reeves, the Co-op and finally with Larry Toomer. She liked working for Bailey and Graves because they furnished transportation to and from work and she didn't have to rely on others. She picked crabs one season, but didn't like it and when possible would find other jobs in the summer, such as working for the sewing plant in Beaufort, at the resort on Hilton Head, and at the Marine Base at Parris Island.

Willie Mae remembers crabbing when she was as young as eleven years old. She followed oystermen on flats when the tide had gone out and gathered blue crabs that had sought out the small puddles of water created by the depressions caused by their boots. It was not uncommon for her to get a crocus sack of crabs on a tide.

Her husband, John Mitchell, worked for Maggioni's at Ladies Island and also at Yonges Island. They were gone all week on the boats. The men got ten cents per bushel in the 1930s. He later worked for Junior Graves at the shucking houses

(W.M. Mitchell, pers. comm. 2001).

In the late 1950s, disease decimated Chesapeake oyster stocks, creating a shortage of raw shucked oysters in South Carolina markets. This increased the demand for South Carolina product. Much of the demand was local, because Virginia had supplied the bulk of the shucked oysters consumed in South Carolina prior to this (S.C. Bd. Fish. 1924; Andrews 1962; Haven, et al. 1978; S.C. Wild. Res. Dept. 1956; S.C. Wild. Res. Dept. 1963). As a result, the ten year period, 1955 to 1965, saw the height of the raw shucking business in South Carolina. The raw shucking houses used almost as much of the harvest as did the canneries (Figure 45).

The Virginia shucked oyster was different from the South Carolina one. It was run through an aeration process, which ostensibly was to wash all grit out of the meats. This involved placing shucked oyster meats in a large conical vat containing fresh water. Compressed air was introduced through a valve in the bottom of the tanks and this agitated the oysters shaking out the grit and shell pieces. It also washed out all flavor and added to the volume as the oyster tended to take up freshwater.

Prior to the early 1950s, few shucked South Carolina oysters were eaten by people living away from the coast, and many were not acquainted with the wonderful salty flavor of the local oysters. They preferred the bland taste of Virginia oysters and would add seasoning to fries and stews made from them. The Virginia oysters always brought a premium price as opposed to South Carolina ones (News and Courier 1933).

Virginia oysters were larger and often had a more pleasing appearance. Because they were grown subtidally and therefore were usually single and deeper cupped (Burrell 1986). They were easier to shuck without cutting the meat because the shell opened

more readily. Brooks (1891) timed a Maryland shucker who opened 30 oysters per minute. This was certainly an exception, as Papparella (1980) found the average for the general run of Maryland shuckers to be the 8 to 9 per minute. Personal observations of South Carolina shuckers ran from five to a high of 12 per minute in observations of 21 individuals over several time periods (Burrell, unpubl. data 1999).

The yield of meat for Chesapeake Bay subtidal oysters averaged 112 ounces of meat per bushel, whereas South Carolina intertidals ranged from 39 to 48 ounces per bushel (Pottinger 1944; Fisheries Statistics U.S. 1970; 1975; 1977; Pringle 1961).

Chesapeake Bay oysters were graded into five sizes, standards to counts, whereas South Carolina shucking houses differentiated only between standards and selects. Sometimes all sizes were lumped together with no selects. A gallon of selects contained 225 to 300 oysters and a gallon of standards up to 500 (Pottinger 1944; L. Toomer, pers. comm. 2000). Most South Carolina shuckers opened five to six gallons per eight hour day, while the most skillful opening good yielding oysters would produce upwards of ten gallons (Edge, pers. comm. 2000; C.A. Magwood, pers. comm. 2000; Pringle 1961).

Efforts to develop mechanical shuckers to open raw oysters have met with limited success. Papparella (1970; 1980) reviewed several methods that had been tried including a machine developed by Sterling Harris of Beaufort, S.C. (Peck 1968). None had proven successful enough to be adopted by industry. A new method using ultra high pressure will open oysters, but the apparatus is very expensive at this time putting it out of reach for most operators (Food Engineering 1999; Island Packet 1971a; Katz 1996).

Nearly 160,000 gallons were shucked in 1955-56 season. This was over three times the long term aver-

age. Oysters were advertised for 69 cents per pint by some retail outlets in 1956 (News and Courier 1956a).

Seed oysters from polluted areas were permitted to be shipped to Virginia for replanting and depuration. This was not successful and only lasted for a few years in the late 1950s and early 1960s (Pringle 1964; S.C. Wild. Res. Dept. 1957; 1961).

SOME OF THE SHUCKING HOUSES OPERATING OVER THE YEARS

The Bellamy Seafood Market was located at the Intracoastal Waterway Bridge at Cherry Grove Beach. During the 1960s around Thanksgiving and Christmas, it had 35 shuckers split between two shifts who opened upwards of 150 bushels of shell stock per day. The Bellamys had leases at Murrells Inlet but bought most of their shell stock from McClellanville harvesting firms. At one time, they shipped shucked oyster meats in five-gallon pails to Virginia for repacking and sold shell stock to Virginia steaming plants that supplied the soup trade. Difficulty getting labor and good-yielding oysters forced them to close in 1971 (Bellamy, pers. comm. 2000).

Donnie Mintz opened a shucking house to take over the trade built up by Victor E. Cox when he closed his shucking house in the early 1960s. His first supply of oysters came from Murrells Inlet and later from Awendaw, McClellanville and Beaufort. In the mid-1960s, he began trucking in shell stock from Maryland and finally from the Gulf of Mexico. He sold his oysters in eastern North Carolina and in South Carolina as far inland as the Spartanburg area, supplying chain grocery stores and independent markets in between. He had as many as 24 shuckers at the height of his business and they produced about 140 gallons per day when shucking single oysters that were purchased

from Maryland or the Gulf of Mexico and about 100 gallons per day when opening South Carolina clusters.

As the cost of the oysters went up and the yield per bushel fell off, Donnie closed his Little River house and moved his operation to McClellanville and joined with Carolina Seafood but that lasted for less than a year and then Donnie dropped out of the oyster business in 1978. His son-in-law, Max Vereen, said the reasons for making the business unattractive were problems getting suitable shell stock, wage and hour laws making it difficult to hire enough good shuckers to keep up production, and profit margins decreasing (Vereen, pers. comm. 2000).

There was quite a bit of difference in the way the northern and southern raw shucking houses did business in the state. Those operating north of Georgetown always used the heat shock method to relax the adductor muscle, which allowed the shucker to open the oyster more easily- that is to get the knife into it easier and to avoid cutting the meat which would reduce the yield because its fluid would drain out (Gordon, pers. comm. 2000; Russell, et al. 1964; Pringle 1964b) (Figure 58). The heat applied also may have provided some pasteurization and increased shelf life (Bellamy, pers. comm. 2000; Russell, et al. 1964; Vereen, pers. comm. 1999). The prescribed treatment was to immerse shell stock in a 145°F water bath for



Figure 58. A hot dip tank at the Sol Legare Oyster House (Burrell photo).



Figure 59. A chipper, hammer, knife and gloves used by shuckers opening oysters. (Burrell photo).

five minutes and then shuck them immediately. (U.S. Dept. of Health and Human Services 1990). Some shuckers filled the containers that receive the oyster meats about one third full with crushed ice to reduce the temperature faster (Palmer, pers. comm. 1999; Pringle 1964b). In the southern part of the state, except for a few houses, oysters were opened by placing the bill of the oyster on a chipper and hitting it with a small hammer (Figure 59). This provided an opening through which the oyster knife was inserted and the adductor muscle cut. This method requires skill to avoid cutting the meats (Bailey, pers. comm. 2000; L. Toomer, pers. comm. 2000) (Figures 60; 61).

The northern South Carolina shucking houses purchased shell stock by the bushel from pickers directly or

from shell stock dealers. Only one or two shucking house owners had leases (Bellamy, pers. comm. 2001; Berry, pers. comm. 1999, Vereen, pers. comm. 2001). Shuckers working on piecework basis were paid by unit volume shucked. Shell stock was almost always trucked to the shucking houses as often they were not located on waterfronts (D. Mintz, pers. comm. 1963; Vereen, pers. comm. 2000; Palmer, pers. comm. 1999; Leland, pers. comm. 1999). In contrast, southern shucking houses most often paid pickers by volume of meat their shuckers opened and the picker paid the shucker. Often the pickers provided the shuckers who were family members or friends. The ratio of pickers to shuckers usually was 1 to 3 (Bailey, pers. comm. 2000; Collins, pers. comm. 2000; Lubkin, pers. comm. 2000; W. Toomer, pers. comm. 2000). All southern shucking house owners had leases (Bailey, pers. comm. 2000; Hancock, pers. comm. 2001; Lowther, pers. comm. 2000; Lubkin, pers. comm. 2000). Just about all shucking houses were located on the water and shell stock was off-loaded from the boats directly into the facility across a short pier or small dock.

In the north for the most part,

oysters were packed in pint or smaller cans and sold in a large part directly to grocery stores and restaurants with a few going to fish markets (Vereen, pers. comm. 2000; Bellamy, pers. comm. 2001; V. S. Cox, pers. comm. 1960; D. Mintz, pers. comm. 1963). In the south, at first, shucked oysters were packed into five gallon buckets (Burn 1991). As more houses opened



Figure 61. The Lemon Island Marina shucking house. Shuckers Mary Frazier, left; Lavenia Jenkins, right; and roller Charlie Washington at work (Lowther photo 1990s).

up after 1900, the standard became the gallon can (Bailey, pers. comm. 2000; C & S. Toomer, pers. comm. 2000). Later on, ½ pint, 12 ounce and pint cans were packed by oyster houses but gallon cans still dominated. Nearly all oysters from Beaufort, Bluffton, and Hilton Head went through distributors in Savannah, Georgia (Bailey, pers. comm. 2000; Collins, pers. comm. 2000; Hancock, pers. comm. 2001; W. Toomer, pers. comm. 2000), with only a small quantity being sold locally. Oysters from Edisto Island, McClellanville and Folly Beach went to Charleston distributors (S. Flowers, Jr., pers. comm.



Figure 60. The shucking room at the Maggioni factory where oysters were opened for the raw shuck trade (Brown and Barton photo, circa 1950s).

2000; Palmer, pers. comm. 2000; A. Magwood, pers. comm. 2000).

Few shucking houses in the north sold shell stock (bag oysters), while in the south this was a common practice for most of the operators.

In the north, shuckers and pickers were always paid in cash usually once a week (Bellamy, pers. comm. 2000; Vereen, pers. comm. 2000). In the south, often tokens having a monetary or a volume value were given at the close of each day or in a few cases as each time a shucker gave a filled container to the measurer in the packing room. These were negotiable at company stores or could be exchanged for "specie of the realm" once a week, usually on Friday (Bailey, pers. comm. 1999; Collins, pers. comm. 1999; Hancock, pers. comm. 2001) (See Figure 26).

In the northern intertidal beds, tools were often used to cull oysters as they were harvested by hand, whereas in the south pickers commonly used grabs for many years and up until the late 1950s dredges and tongs were used to harvest oysters on subtidal beds (Ashley, pers. comm. 1999; Bailey, pers. comm. 1999; Sam Bennett, pers. comm. 2000; Collins, pers. comm. 2000; S. Flowers, Sr., pers. comm. 1973; Frasier, pers. comm. 2000). In the south, hand harvesting took over from the grabs after the canneries closed (Bailey, pers. comm. 2001; Bennett, pers. comm. 2001; Frasier, pers. comm. 2000; B. Flowers, pers. comm. 2000; C. Magwood, pers. comm. 2000; G. Maggioni, pers. comm. 1969-2000; Oemler 1894).

The season for shucking raw oysters lasted from mid-September to as late as the end of April. Market demand for oysters was highest at the first of the season, at Thanksgiving and Christmas and through the months of January and February. If the weather was bad (cold and rainy), good sales could continue into April. Shucking houses in the southern

most part of the state were able to operate longer because they sold meats to oyster breaders and freezers in Florida (Bailey, pers. comm. 2000). The southern pickers often were able to harvest oysters later than April because many of the shucking house owners could sell shell stock to the canneries (Bailey, pers. comm. 2000; W. and C. Toomer, pers. comm. 2000; Lowther, pers. comm. 2000; G. Maggioni, pers. comm. 1972). Several raw shuck houses also steamed open oysters for sale to canneries.

Northern shucking houses had a shorter season that ran mid-September into mid-February most years because many grocery stores, which were the main outlets, would stop handling local oysters when sales dropped off during warm spells, which often occurred in February. The houses had no other market available that used enough product to keep them going.

A further difference between northern and southern raw shuck operators was longevity of their businesses. In the north, the average length of time in business was less than twenty years and often not more than ten, whereas in the south, family operations in several instances spanned three generations (Bailey, pers. comm. 2000; S. Flowers, Jr., pers. comm. 2000; C. Toomer, pers. comm. 2000; W. Toomer, pers. comm. 2000). This probably was because northern operators had other occupations in the summer and no leased beds that required planting or other use of the facilities to keep their workers going all year. This reduced dependence on this one source of income as compared with southern entrepreneurs, and did not have the appeal to make this a long-term business.

Several family businesses stand out as shucking operations in the south. Flower's Oyster Company operated from about 1920 to 1986 at Edisto Beach. John Flowers, Sr. came to South Carolina to work in the Yorges Island oyster cannery of Byrd

and Varn in the early teens. He saw a potential market for raw shucked oysters and constructed a shucking house on Folly Beach about 1919 but then moved his operations to Edisto Island in 1920. He had brought his family to Edisto Island by sailboat from Maryland and they lived in this boat for quite awhile until he was able to build a house. His two sons, John Jr. and Steve joined the business at an early age and, after a rocky start, it prospered (Lindsay 2000).

Most of the oysters used at this shucking house were dredged from subtidal beds. This gave the Flowers a larger yield of meats per bushel and a higher percentage of selects than operators using intertidal stock. On one occasion John, Sr. said he dredged one thousand bushels in a day (Von Harten 2001). Just about all their production went to a wholesaler in Charleston (S. Flowers, Jr., pers. comm. 1999). In later years, these subtidal beds were destroyed by silting over due to storms and changes in water flow patterns according to Steve Flowers, Jr.

Most oysters were packed in gallon cans until the 1980s when smaller cans were introduced. The Flowers were only one of two South Carolina facilities using aerators or blowers to wash their oysters. The other one was used in a house in Georgetown (Figure 62).

Steve Flowers, Jr. shut down his



Figure 62. A blowing tank used at the Flowers Oyster Co. (Burrell photo).

shucking house in 1986, due to a lack of labor and good quality oysters but he continued marketing shell stock. This is all that remains of a once thriving business. The Flowers were and still are substantial citizens of Edisto Island. Steve, Sr. at one time owned the only grocery store and garage on the island. He opened another grocery store to handle the summer vacationers trade, closing it after the summer season and opening up the old store for the off season. The new store is still operated by family members. At the end of the oyster season, he had an oyster roast for the entire community serving oysters, fish and shrimp prepared by his family (S. Flowers, Jr., pers. comm. 1999; Kyser, pers. comm. 2000; Lindsay 2000). At the present time, a grandson of John, Sr., Bernie Flowers, still maintains the beds and sells shell stock during the season (B. Flowers 2001) (Figures 63; 64; 65; 66).

The T.M. Bailey Oyster Company located at Okatie was started by Thaddeus Bailey, Sr. in 1920 and run by Thaddeus, Jr. from the time of his discharge from World War II service until the early 1990s (Figure 67). The company shucked oysters in the early years with about 15 pickers and 35 shuckers. They sold much of their production to distributors in Savannah, but Thaddeus, Jr. recalls his father delivering oysters to Columbia for 90 cents per gallon in 1940. At this time, oysters cost 15 cents per bushel to harvest and it took two bushels to shuck out a gallon. Shuckers received 15 cents to open a gallon, the can cost 15 cents, and with the other expenses, little profit remained. In early days, they often could not hire all the people applying for jobs. Many of the pickers worked for a truck farm operation of the Baileys in summer, and help would be transported in from outlying communities often in stake body trucks. In addition, four of five workers brought a carload of workers with them. Thaddeus, Sr. also had



Figure 63. Steve, Steve, Jr., and John Flowers in the 1940s (Flowers family photo).



Figure 64. The Flowers Oyster Co. in the mid 30s. This was built in 1922 and replaced by a concrete building in the 1950s (Flowers family photo).



Figure 65. The Flowers Oyster Co. from the waterside.



Figure 66. The Flowers oyster boat used to dredge sub-tidal oysters. Lying astern is the *West Ward*, which brought the Flowers family from Baltimore, Md. and served as their home for several years (Flowers family photo).



Figure 67. The Bailey oyster factory on Bailey's Creek in 1999 (Burrell photo).

some cottages where some workers stayed all week with their families.

Thad Bailey, Jr. remembers his father telling him of keeping oysters refrigerated by placing a gallon of chipped ice in five gallon cans containing four gallons of oysters and then burying the cans in the ground to provide insulation for a day or two. They purchased fifteen 300-pound blocks of ice per week on a regular basis in oyster season.

In the 1960s and 70s, they began to steam oysters, much in the same manner as crabs were processed, using steam chests. The steamed product was sold to Blue Channel Corporation for use in their stews and soups and to Maggioni. They were transported in four-gallon galvanized pails.

The best pickers unloaded at the shucking house while the others put their catch on the steaming house dock. The ratio of steaming to raw shucked oysters was three or four boatloads to one. Many times the raw shucking house oysters were gathered by hand with grabs used only on the best producing areas. Grabs were used entirely when picking for steaming.

Several of the oyster shucking houses got together and began to supply oysters to companies that breaded and froze oysters. These were Bailey, Graves, Joe Pinckney and "Chief" Toomer and together they shipped about 1000 gallons per week. The oysters were sent to Florida by a truck, which brought back fruit. Later Paul Maggioni contracted with Bailey to pack raw oysters under his label, "Daufuski". Health officials required the Bailey permit number on the cans however. Oysters were packed in 12 ounce, pint and gallon cans (Figure 68).

Later on, in the 1970s and 1980s, the Baileys sold shell stock to the Ladies Island cannery by the truckload. As many as five 200-bushel truckloads per day were sent, but the average was three or four. Sometimes oysters were taken to the



Figure 68. Cans used by Baileys Oyster Company to pack oysters for Maggioni (W. J. Keith collection).

factory by barges. Maggioni's workers helped plant shell on the Bailey beds at the end of the harvest season.

Thad Bailey, Jr. closed his shucking operation in the early 1990s due mainly to the difficulties in getting help. Whereas in early years, the plant often had twice as much help available as they could use, at the last, there were not enough pickers or shuckers to produce enough volume to warrant continuing. The Maggioni shell stock operation now buys and harvests oysters from the Bailey leases and is responsible for planting obligations (Bailey, pers. comm. 2000).

The Toomers are another family with a long association with the oyster industry in the Hilton Head-Bluffton area. Simpson V. Toomer came to South Carolina in the early teens to work at the Maggioni factory on Jenkins Island. He opened his own cannery in the late teens on Jarvis Creek and ran it until 1928. He had his own label and shipped canned oysters as far as England. From 1928, until his death in 1958, he produced raw shucked oysters at his plant on Jarvis Creek and at Buckingham. Three of his four sons got into the shucking business - S.V. Junior, "Chief", took over the Buckingham operation; William, "Billy", continued at Jarvis Creek and Frank had a house on Skull Creek. Billy and "Chief" for a while pooled their production to supply large accounts in Georgia and this gave them a good market. Together they would sometimes open 300 gallons a

day. "Chief" tried steaming oysters and for a time sold them to Maggioni but this was a short-lived effort. He used a crab-steaming chest to process these oysters. Billy stopped shucking in 1971 and Lynn L. "Buck" Smith ran his house paying him 25 cents per gallon for what was packed. "Buck" left the next year and a restaurant now occupies the site. "Buck" was also the local magistrate and was sometimes referred to as "30 gallons or 30 days Smith". He was reported to have given some pickers who came before his court after a too exuberant weekend a choice of supplying him oysters or taking a term on the chain gang (W. Collins, pers. comm. 2000). "Chief" Toomer closed his business in the middle 1980s. Loss of labor to the resorts at Hilton Head was one of the main contributing factors in the demise of these houses, along with the inability to meet wage and hour law requirements. Frank went out of business in the 1980s also. Larry Toomer, Frank's son, was introduced to the oyster business early, as he and his siblings were sent out to pick before they reached their teens. He worked for his Uncle Billy in his plant while in high school, as a roller loading oysters on tables for the shuckers and taking away their shells. After a stint shrimping in Florida, he returned to Bluffton to run the Bluffton Oyster Company for Jerry Reeves (C. Toomer, pers. comm. 2001; L. Toomer, pers. comm. 2000; S.V. Toomer III, pers. comm. 2000; W. Toomer, pers. comm. 2000).

The Bluffton Oyster Company needs special mention in that it probably has occupied a site longer than any other oyster-shucking house in South Carolina. It did not start out as such. In the late 1890s and early 1900s, it was the meetinghouse for a gentlemen's club. In the early 1900s, Clarence "Buster" Martin obtained it and fitted it out as an oyster house. He ran it until about 1930 (Colcock, pers. comm. 2001). "Junior" Graves,

(John S., Jr.), returned from college and started an oyster business there in 1932. The building was in very poor shape at first. One could see the water underneath through the floor and the walls did little to keep out the winter winds. Junior made improvements until his facility was a model operation. The factory was situated at the foot of Wharf Street and Graves had to lease it from the Town of Bluffton. He paid his lease in oyster shell, which was used to pave the streets of town (Graves, pers. comm. 2001; Town of Bluffton 1947). All the streets of Bluffton were paved with shell prior to World War II (Hancock, pers. comm. 2001). A tornado severely damaged the factory in 1933 and it was repaired and operated at the site until Mr. Graves built a new house on land he owned adjacent to Wharf Street in 1948 (Beaufort Gazette 1933b; Graves, pers. comm. 2001; Peeples 1962).

Mr. Graves had five brothers, who at one time or another worked with him in his oyster enterprises. He had a factory on Daufuskie Island, another at Trimbleston and he also operated a plant for Maggioni at Jenkins Island (Figure 69). He learned a lot about the oyster industry working at the Lowden factory located on Bridge Street in Bluffton and from his father who was the oyster inspector for the Fisheries Board in the late 1920s and early 1930s (S.C. State Bd. Fisheries 1932).

“Junior” processed crabs in

the summer at the Trimbleston and Bluffton factories keeping his workers busy year round. He was very meticulous in planting back his oyster beds with shell and put out green shell within one or two days after shucking. He once had to go to court and prevent the state from trying to get lease rent from a King’s Grant he oystered on with the owner’s blessing (Graves, pers. comm. 2001). In later years, he and other oystermen tried unsuccessfully to force Maggioni to surrender some of his leases so South Carolina oystermen could use the grounds for harvesting oysters. At that time, Maggioni was controlling over 3000 acres through three corporations - Chatham Fish and Oyster Company, Ocean, Lake and Fish Company and the L.P. Maggioni Company (News and Courier 1948; 1949; Savannah Morning News 1945). Later on this effort led to legislation that did free up land for others. “Junior” Graves died in 1964 and his heirs ran the company for a short time (Graves, pers. comm. 2001).

The Bluffton Co-Op was the next group to occupy the facility. The Co-Op was made up of a group of blacks, many of whom were oyster workers who sought to keep the concern going and thereby protect their jobs (S.C. Secretary of State 1969). This operation lasted until 1982 when it went bankrupt (Heyward 1985; S.C. Dept. of State 1988).

Jerry Reeves and group of local

businessmen bought the assets of the Bluffton Co-op, which included the building, six acres of land and questionable rights to the oyster leases (at the time a moratorium on renewing and granting leases was in effect pending enactment of new shellfish legislation) (Heyward 1985; Reeves, pers. comm. 2000). Mr. Reeves and his partners wanted to continue the tradition of Bluffton oyster industry and possibly put a restaurant on the site. The Reeves also operated Island Resort Services, a company providing laundry and linen services to resorts in the area, and he had hoped that oyster workers would be available to work in the laundry in the busy summer season. As it turned out, the laundry business was good all year around with no winter slack time. The laundry did hire many of the people who had at one time been connected with the oyster industry.

Jerry Reeves’ son, Michael, ran the oyster business until 1993 when he was needed back in the laundry. Reeves had bought out his partners about this time. He hired Larry Toomer to run the Bluffton Oyster Company as it was again named. Larry and his sister took over the operation for themselves in 1995 and leased the factory from Mr. Reeves. Larry bought out his sister in 1998 and now he and his wife, Tina, have made a success of this business by building up a loyal workforce and customer base as well as diversifying into shedding peeler crabs in the spring and handling hard crabs in summer along with shrimp and finfish (Figure 70). Clams are also marketed. They cannot meet demands for their oysters most of the season and by careful inventory control, they are able to extend their season by freezing products as weather warms. Catering is a large part of their operation. They feature oyster roasts that include low country stew and fried fish. They have specialized equipment that enables them to provide food for several hundred people almost anywhere in the

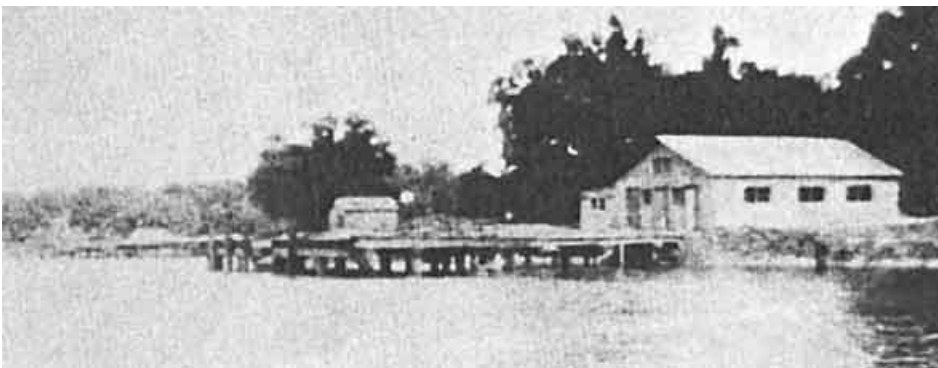


Figure 69. The Graves shucking shed on Daufuskie Island in the 1930s (Maggioni family photo).



Figure 70. Mr. and Mrs. Larry Toomer resting after a hard day at the oyster company (Burrell photo).



Figure 71. The Bluffton Oyster Company in 1999 (Burrell photo).



Figure 72. Anthony Frasier unloading at the Bluffton Oyster Company dock (Burrell photo 1999).



Figure 73. Bag oysters packed for delivery (Burrell photo).



Figure 74. Oysters to be shucked at Bluffton. Each picker's harvest is kept separate and he is paid by the yield (Burrell photo 1999).



Figure 75. Anthony Frasier and George Powell placing oysters on the shucking tables (Burrell photo).



Figure 76. The measuring and packing room at the Bluffton Oyster Company. Note the skimmer and sprayer head on the far wall (Burrell photo).



Figure 77. Washing the oysters before packing them (Burrell photo 1999).

Beaufort-Bluffton area and beyond (J. Reeves, pers. comm. 2000; Shelton 1995; L. Toomer, pers. comm. 2000 (Figures 71; 72; 73; 74; 75; 76; and 77).

Mr. Reeves recently sold the Bluffton Oyster Company, the land and the boat landing to Beaufort County Open Land Trust. A stipulation in the sale was that the "oyster factory" must be allowed to continue operation, thus assuring that this traditional industry will be perpetuated in Bluffton (Island Packet 2002).

The Bluffton Oyster Company is a typical southern oyster house. The shell stock is unloaded on the docks, washed with fresh water, and put on the shucking tables. Each picker's oysters are kept separate. The shuckers then open the oysters into stainless steel quart sized cans. When full, the cans are passed through a window into the measuring and packing room. Here they are washed on a skimmer and then packed into 8, 12, 16, or 32 ounce or gallon size containers and placed in a refrigerated holding area where they are kept at 34 to 37°F until delivered (L. Toomer, pers. comm. 2000) (Figure 78).

Ed Palmer operated the "Oyster House" on Sol Legare Road in Charleston. His plant was more like northern shucking houses. Oysters are trucked in, heat shocked and sold mostly to stores, restaurants, and the public (Palmer, pers. comm. 2000) (Figure 79). Ed had been picking oysters since he was 14 years old and complained that many who gather oysters now lack the skills to do a good job quality wise or quantity wise. When not on the oyster beds, he was a skilled shucker (Berry 1998).

The wage and hour law was applied to oyster shuckers in the mid 1960s and this led to some houses closing (Byrd 1965; G. Maggioni, pers. comm. 1970; W. Toomer, pers. comm. 2001). Contracting with the pickers to supply shuckers and to pay them, enabled some to get around hav-

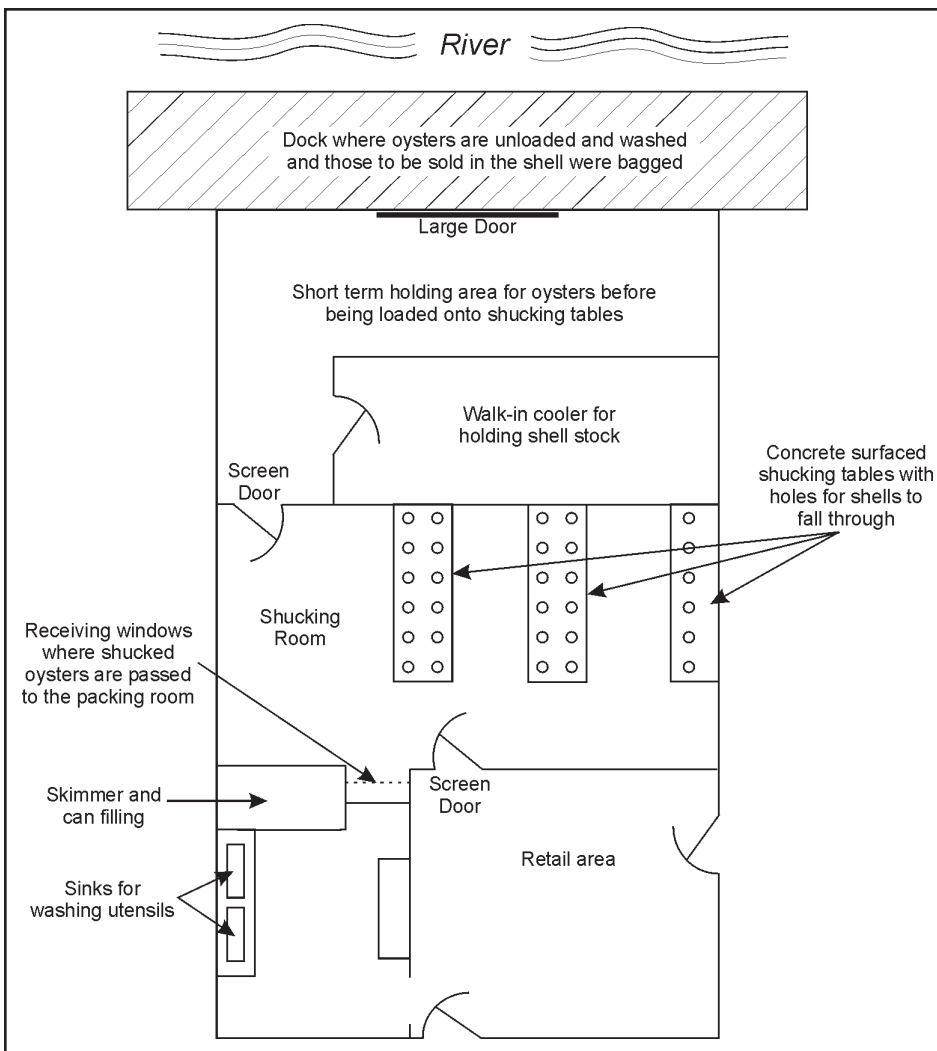


Figure 78. A diagram of a typical southern South Carolina shucking house (drawn by Karen Swanson from a sketch by V. Burrell).

ing the shuckers as employees, but still shuckers had to get at least minimum wages (Hancock, pers. comm. 2001).

During the decade of the 1960s, shucked oysters increased in wholesale price from \$5.25 per gallon to \$7.00 (Fisheries Statistics of United States 1961, 1971). Two of the three remaining canneries closed leaving

the Maggioni Ladies Island establishment the sole remaining in the mid-1960s (Fleetwood 1995; S.C. Wild. Res. Dept. 1965; 1967). With the loss of the shell stock export business and closure of several shucking houses, canned oysters again accounted for nearly all of the harvest (Figure 45).

Mrs. Thelma Harney was born in McClellanville some eighty years ago. She went to school in Charleston, but

returned to McClellanville. She began working as a shucker in the oyster shucking houses of Tom Dukes, Earl Glynn, Shephard and others retiring at 63 as the houses began to close. She got tired of staying at home and after five years she started back to work picking crabs at the South Carolina Crab Company. She said most shucking houses used the hot dip method to open oysters but some used the cracker or chipper. With fat oysters she would open eight to ten gallons in a day (Harney, pers. comm. 2000).

Carolina Seafood was the last to shuck at McClellanville. They worked with Donnie Mintz for a short period, but bought him out in the mid 1970s. They had 15 to 18 shuckers mostly former Shelmore Cannery employees. All of their oysters were packed in metal pint cans. With fat oysters, they produced 600 to 800 pints with the average shucker opening 40 and the best 60 to 80 pints per day. Most were sold from peddler trucks to seafood markets (R. Leland, pers. comm. 2000).

In the McClellanville area after the cannery closed in 1965 and shucking houses closed (1979-80), about all of the oysters have been sold in the shell. At first many of the oysters went to the shucking houses in the Little River area, but more recently they were bought by oyster roast operators.

Erwin Ashley is a one-man McClellanville concern. Prior to Hurricane Hugo in 1989, he employed upwards of 12 pickers who harvested about 300 bushels of oysters per day for him. At this time, Bulls Bay Seafood operated by Tom Duke and Carolina Seafood of Rutledge Leland III each



Figure 79. The Sol Legare Oyster House on James Island (Burrell photo).

were producing 300 and 400 bushels daily respectively. In recent years, probably all together, 500 bushels are the maximum brought to the docks per day. After Hurricane Hugo destroyed his facilities, rather than build back his oyster house with a refrigerated holding room and work toward high production, Ashley decided to do all his harvesting, planting and even, in some instances, delivering himself. He is able to gather by hand picking from 25 to 48 bushels per day of high quality shell stock. When he is not oystering, he has a going clam operation. A college graduate trained for white collar jobs, he, like many of the oyster men, will tell you that there is no desk job that can give him half the pleasure and satisfaction he gets from working on the water (Ashley, pers. comm. 1970).

One of the biggest problems of McClellanville oyster companies is a lack of cultch material. They ship their shell stock out but many of the shells are not returned. Ashley has used hog wire staked out as a good substitute cultch and Leland has used bamboo stakes to catch spat (Ashley, pers. comm. 2000; Leland, pers. comm. 2000) (Figure 80).

G. Robert Lunz was a devoted oyster biologist and worked hard to improve utilization of the oysters and became Director of the Division of Commercial Fisheries in 1959. In 1958, he convinced the state legislature to repeal the act prohibiting oysters and clams in the shell from



Figure 80. Bamboo being cut to length for planting as culch (Burrell photo 2002)



Figure 81. Oysters being loaded for shipment to Virginia for replanting (S.C. Wild. Res. Dept. photo 1959).

being shipped out of state in bulk (S.C. Legislature 1959). This led to several oyster operators trucking oyster shell stock to Virginia to be used by soup companies (Bellamy, pers. comm. 2001; Leland, pers. comm. 2000; Lubkin, pers. comm. 2001; S.C. Wild. Res. Dept. 1960 - 1970).

The soup companies paid by the pound for the yield of meats. Rutledge Leland III, one of the shippers, decided it was not lucrative enough for him to continue this as his payment was \$1.00 per bushel to his pickers and he received less than \$1.40 per bushel after they were processed (Leland, pers. comm. 2001). Others continued on into the 1970s when the Virginia oyster steaming plants lost the soup trade to foreign imports (Lubkin, pers. comm. 2000; U.S. Dept. Comm. 1977). The export of oysters to Virginia peaked in 1970 (Figure 45).

Oysters tonged from restricted subtidal beds in the Santee River were placed on trucks, the cargo doors sealed and then carried to Virginia where they were replanted in approved waters for depuration (Ashley, pers. comm. 2000; Leland, pers. comm. 2001). This operation was carried out under the supervision of the respective state health departments (Pringle 1961). Some replanting in Virginia of oysters from clean South Carolina waters was tried in the 1960s, but survival was very low and this effort was short lived (Ferguson, pers. comm. 1969) (Figure 81). Seed oyster export, also to Virginia, was tried

but again results were not favorable and this effort was abandoned by growers (S.C. Wild. Res. Dept. 1959).

About this time (1959), industrial pollution from the Savannah, Georgia area caused the Daufuskie oyster grounds to close. This ended an industry that at one time provided a livelihood to over 600 people (Pinckney 2000).

Hurricane Gracie in 1959 caused the loss of many oyster grounds due to silt. Heavy rains (30 per cent above normal) from March 1959 to March 1960 increased river flow and further damaged the beds. Many areas needed intense shelling to recover (S.C. Wild. Res. Dept. 1960).

In the early 1960s, the State set aside several areas in Beaufort County as public oyster grounds after the public's right to access leased grounds was repealed (News and Courier 1956a). In other counties, no non-leased grounds were available (S.C. Wild. Res. Dept. 1960). A head of household could gather two bushels per day for not more than two days per week on these grounds (S.C. Wild. Res. Dept. 1965).

Thirteen Public oyster grounds and three large State grounds were established in the mid 1960s. The State grounds were for use by both the licensed commercial oystermen and recreational interests. The Public grounds were for exclusive use by recreational shell fishermen. This resulted in three types of shellfish areas - leased, State and Public grounds.

Leases were only from one foot below the low water mark to the high tide

line. Subtidal water cultivation was by permit from the Wildlife Department (S.C. Wild. Res. Dept. 1964; 1965).

Many restaurants continued to offer raw oysters on the half shell, but often the oysters were brought in from other states, which have a greater supply of attractive single oysters. One restaurant in Hilton Head in the early 1990s used locally shucked oysters placed back on cleaned shells to supply the demand for half shell oysters. These were sold for 10 cents each and in one season it was estimated that 50,000 of these were served (Collins, pers. comm. 2000)

Andrew Magwood, the son of the before mentioned Mrs. C.A. Magwood, and the son who continued the oyster business begun by his grandfather and possibly his great grandfather, supplied Henry's Restaurant in Charleston with large quantities of single oysters for its half shell bar. For many years, most all the oysters the Magwoods sold were subtidal singles, but after it became difficult to grow oysters subtidally they resorted to culling intertidal stock to produce singles and doubles (A. Magwood, pers. comm. 2001).

Some drinking establishments offered an oyster "shooter". This concoction consisted of raw oyster placed in a jigger of whiskey and is ingested with one gulp - a wasting of good whiskey and oysters in the opinion of many.

In 1969, G. Robert Lunz, the one and only director of Bears Bluff, died after a remarkable career in fisheries management and research and on January 1, 1970, the Bears Bluff Laboratories, Inc. was leased by its Board of Directors to the U.S. Water Pollution Control Administration and ceased to function as the state's research facility after a 25 year fruitful existence (Lunz 1969; Lunz 1970; McKenzie, pers. comm. 2000).

The Division of Fisheries became the Marine Resources Division (MRD) in 1970 and shortly thereafter (1972)

the South Carolina Wildlife Resources Department was renamed the South Carolina Wildlife and Marine Resources Department (Laurie 1997).

The MRD was charged with management of the oyster fishery and a new facility, the Marine Resources Research Institute was given the task of conducting research that would benefit the industry. Both were located at the S.C. Marine Center located at Fort Johnson on Charleston Harbor (S.C. Wildlife 1990; S.C. Wild. Mar. Res. Dept. 1972).

The State Board of Health and the Department of Environmental Control in 1973 were merged into the Department of Health and Environmental Control (DHEC) and its Shellfish Sanitation Program certified shellfish growing areas and shucking house sanitation (S.C. Legislature 1976). This was not a task without problems (Newell, pers. comm. 2000; Payne, pers. comm. 2000; S.C. Board of Health 1971) (See Figure 82).

An outbreak of "black gill" caused several shucking houses to shut down in 1969 and 1970. This condition appeared to have occurred when oysters for some reason were not strong enough to eject mud from their gills (News and Courier 1970).

The lower Santee River was opened to a

hard clam fishery using hydraulic escalator dredges in 1973. As a bi-catch of the fishery, many high quality subtidal oysters were landed (R. Baldwin,

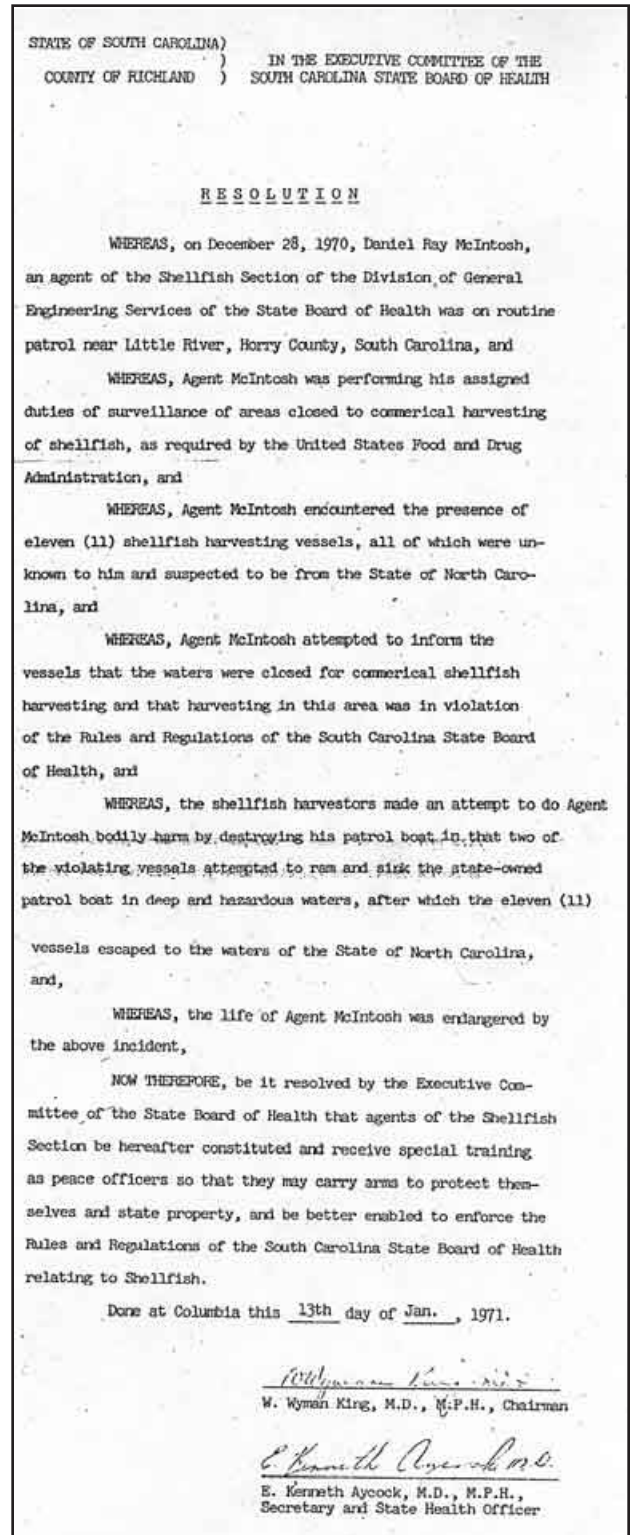


Figure 82. A copy of a resolution by the DHEC to the General Assembly requesting permission to arm its officers (copy supplied by David Payne).



Figure 83. A pile of single oysters harvested along with clams in the Santee River by hydraulic escalator harvesters in 1970s (Burrell photo).

pers. comm. 1995; S.C. Wild. Mar. Res. Dept. 1973-1985) (Figure 83).

Block leasing which consolidated existing leases so that they were circumscribed by natural boundaries such as creeks and bays was initiated in the early seventies and efforts to re-establish subtidal oysters were begun (Island Packet 1971b; S.C. Wild. Mar. Res. Dept. 1972; 73). Some subtidal Public oyster grounds were planted with 2000 bushels of seed. Survival was poor and this program abandoned (S.C. Wild. Mar. Res. Dept. 1975).

By 1975, some South Carolina shucked oysters were selling for around 10 dollars per gallon and, in 1973, region wide (South Atlantic) about 15 dollars per gallon (Fishery Statistics of U.S. 1976, 1977).

DHEC did away with the requirement that shuckers have a health certification in the late 1970s

(W. Mitchell, pers. comm. 2001)

Clemson University engineers working with MRD biologists in the 1970s developed a mechanical harvester for use on intertidal oysters. This effort eventually led to construction of a harvester to be used by the MRD to harvest oysters from polluted areas and plant them on State and Public grounds (Burrell, et al. 1981; Campbell 1998; S.C. Wild. Mar. Res. Dept. 1975; 1982). This machine and others were not practical for industry because none could cull oysters brought up. Some times less than half the material brought up was useable (Collins, pers. comm. 2000; G. Maggioni, pers. comm. 2000).

The Clemson-designed mechanical harvester was used to transfer oysters from polluted waters to state shellfish grounds for the first time in 1984. A study of the environmental effects of the use of the harvester showed they were negligible (Burrell, et al. 1981; S.C. Wild. Mar. Res. Dept. 1984). This machine was eventually sold as surplus because it was not economical to operate (S.C. Dept. Nat. Res. 1999) (Figure 84).

The legislature created a Shellfish Study Committee in 1980 to review the existing leasing system, the existing shellfish regulations and

the performance and responsibilities of state agencies relative to the management and harvesting of shellfish. A moratorium was placed on issuing new leases at this time (S.C. Wild. Mar. Res. Dept. 1982).

The MRD discontinued the licensing requirement for canners, barges, clam and oyster boats, shellfish buy and sell and shucking houses in 1983 and this left regulating of the facilities under the sole purview of the S.C. Department of Health and Environmental Control (Newell, pers. comm. 2000; S.C. Legislature 1976; 1982). However, licenses were required by the MRD for individual/non-power boats, wholesale dealers, individual land and sell dealers and the use of shellfish dredges, grabs, tongs and rakes (S.C. Wild. Mar. Res. Dept. 1983).

A bill amending the shellfish statutes and adding new ones was signed into law by Governor Richard W. Riley in June of 1985. This bill changed control of shellfish grounds from leasing to permitting and reduced acreage whereby one firm or individual could hold only 500 acres. The term of permits were five years with an option to renew at the discretion of the MRD. Mariculture of shellfish other than oysters on bot-



Figure 84. A mechanical harvester developed by Clemson University for use on intertidal beds (Keith photo).

toms was permitted. Acreage of all shellfish ground was to be measured by the actual shores containing oysters or capable of growing them. This drastically reduced the areas involved.

The fee per acre permitted was set at five dollars and 125 U.S. bushels of shell were required to be planted per acre per annum. This supplanted the 65 S.C. bushel requirement (Figure 30). Green shell from current operations must be planted within three days after gathering. MRD could require up to five percent of this shell quota to be planted on state shellfish grounds within 25 miles of the permittee's location. Double credit for planting on these areas must be applied to the permittee's quota. The standard bushel measure for harvesting, selling, planting and marketing of shellfish was reduced from 4071.5 cubic inches to 2150.42 cubic inches or the volume of a U.S. bushel (F. Smith 1985; S.C. Legislature 1985).

Oyster meats sold for 30 dollars per gallon and shell stock from 10 to 12 dollars per bushel in 1987 (Reeves, pers. comm. 2000)

The flow of the Santee Cooper lakes was re-diverted from the Cooper River back into the Santee River and in 1988 this resulted in closure of the shellfish beds in the Santee River Delta (SCWMRD 1988). Harvest of market oysters ceased, but seed oysters were still gathered there for use as cover for hard clam beds (Ashley, pers. comm. 1995; R Baldwin, pers. comm. 1995).

The South Carolina Wildlife and Marine Resources Department (SCWMRD) became the South Carolina Department of Natural Resources (SCDNR) in 1994 and the Marine Resources Division remained part of it.

Another oyster scare hurt sales of oysters in the mid 1980s. A naturally occurring bacterium, *Vibrio vulnificus*, which was present in oysters, was responsible for several human fatalities in the United States. Only

people with compromised immune systems who ate raw oysters were affected but sensational treatment by the news media caused many to drop the shellfish from their diets (Burrell, et al. 1991b; Haney 1986; Oliver 1999; Pineapple Press 1993).

A massive die-off of oysters occurred in 1986. Hardest hit were areas in the vicinity of Prices Inlet and in the Beaufort area south to Georgia. This coincided with a very hot and dry summer which may have been a contributing factor by stressing the shellfish to the extent that disease ("Dermo" - *Perkinsus marinus*) caused the mortalities (Parsons 1986; F. Smith 1986; S.C. Wild. Mar. Res. Comm. 1986). This led, in part, to the L.P. Maggioni Company closing the last South Carolina cannery and also to several shucking houses ceasing operations (Beasley, pers. comm. 2000; S. Flowers, Jr., pers. comm. 2000; A. Magwood, pers. comm. 2001; Solomon 1991; C. and S. Toomer, pers. comm. 2000). The last large shucking operation, T.M. Bailey, stopped shucking in the early 1990s. Most remaining small houses closed one by one until 2001, when only two were left. Forty-three shell stock shippers and only two new shucking houses were certified in 2001 indicating how the oyster industry has changed over the years (U.S.F.D.A. 2001). Now shell stock shippers account for over 90% of the commercial harvest (Figure 45).

In 2001, oyster prices were \$60.00 per gallon wholesale, \$65 per gallon retail and from \$14 to \$18.00 per bushel wholesale. Pickers were receiving \$6 to \$10 per bushel. Land under culture permit was 1745 acres with 102 permits held by 59 entities. Fifty-eight State shellfish grounds containing 222 acres and 20 Public oyster grounds encompassing 100 acres were present (Keith, pers. comm. 2003; Toomer, pers. comm. 2001).

IN 2002

Intertidal oyster beds are still very much a part of the landscape in many of the estuaries of South Carolina. These beds, except on permitted beds, contain few if any oysters worth harvesting. Thirty percent of these beds are condemned, conditionally opened to harvest or restricted for removal of shellfish to be depurated (U.S. Dept. Comm. 1991). North of Charleston, growers find most of the harvestable oysters in the area between mid-tide and marsh grass. Fifteen years ago before the redirection of the Santee River, the best oysters grew between the low water line and mid-tide zone. No one has been successful in growing oysters subtidally since the mid 1950s and the practice of raking down oysters into the upper subtidal zone to enhance size and shape no longer is successful (Ashley, pers. comm.; Beasley, pers. comm.; B. Flowers, pers. comm. 2000; G. Maggioni, pers. comm. 1984; Maggioni and Burrell 1982).

The value of the oyster industry (\$1,092,000) ranked fourth behind those for shrimp, blue crabs and finfish in 2000. Quahog (hard clams) which are harvested and sold by many oystermen was fifth (\$749,000) and this added much to their livelihood (Low 2001). The number of people working in the industry has remained fairly stable in the last ten years, but pickers and shuckers as a group are getting older and few young people are choosing this for a career (Bailey, pers. comm. 2000; Lowther, pers. comm. 2000; L. Toomer, pers. comm. 2001).

MARICULTURE

Cultivation over the years has changed very little. The practices mentioned of the early oystermen are basically the same today.

Mrs. Arthur Hancock operated a shucking house at Bluffton between 1960 and 1967. Her shuckers deposited shells in 20 gallon trash cans and

they would be returned to the beds the next day. Most of the small oysters on these shells survived and produced very good shell stock in a year or so. Her method of cultivation produced oysters that yielded 80 to 90 percent selects (Hancock, pers. comm. 2001).

Plantings of oysters in salt-water ponds have not proved to be commercially successful in several trials (Colson 1888; Lunz 1955). Experimental subtidal seed plantings by Keith and Cochran (1968) and Burrell, et al. (1981) gave mixed results. Often good survival was characteristic only in slow growth areas.

Many oyster farmers broke up intertidal cluster oysters using oyster grabs or by towing a cyclone fence sheet across them in the off-season (Bailey, pers. comm. 2000, Beasley, pers. comm. 2001). This served to give oysters room to grow and allowing them to improve in quality. Sometimes oysters were raked down from the intertidal zone to just below the subtidal line. This resulted, in many cases, in fine single oysters (Figure 85). In recent years, for some reason, oysters do not survive after being raked down, and this technique is no longer practiced (Ashley, pers. comm. 1999; Bailey, pers. comm. 2000; Leland, pers. comm. 2000).

Disease-free oysters are produced in a hatchery at the Marine Resources Research Institute. They are provided



Figure 85. Larry Cobb raking down intertidal oysters to the upper subtidal zone in hopes of getting some good quality singles (Keith photo 1997).



Figure 86. The shellfish hatchery at the S.C. Marine Resources Research Institute (Hadley photo).

to research interests in laboratories and academic institutions (Hadley, pers. comm. 1999) (Figure 86).

Each year the Marine Resources Department Shellfish Section currently sends each shellfish permit holder a notice of his shellfish planting requirement. Along with this is a list of acceptable means of meeting individual planting requirements. These may be shell planting, seed oyster planting, intensive cultivation or breaking up clusters, introduction of hatchery-produced seed, and other innovative techniques (Keith, pers. comm. 2001).

TOOLS OF THE TRADE

Intertidal oysters have always been harvested by hand in South Carolina. Early on, the grab became the most popular and efficient harvesting gear for the inter-tidal stock. This device easily dislodged oysters from clusters and allowed a skilled picker to toss the bivalve into the bateau along side the bed (Figures 87; 88; 89). After the last cannery closed, the grabs were abandoned and all harvesting was with culling irons and gloved hands. A culling iron was often used to break oysters from clusters to fill a basket that would be offloaded into the bateau (Ashley, pers. comm. 1999; Frasier, pers. comm. 2000). It was also used to break up clusters and knock off small oysters and dead shell and often to create singles (A. Frasier, pers. comm. 2000) (Figures 90; 91).

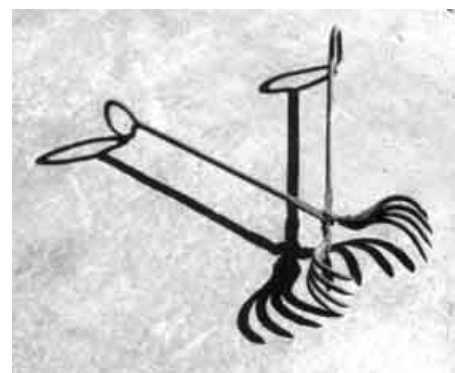


Figure 87. An oyster grab (Burrell photo).

Most of today's boats have fiberglass hulls, as opposed to the old cross-planked wooden bateaux. (Figures 92; 93) They go individually to beds powered by outboard motors instead of being towed as in the early days by sailboats and later motorized towboats. After the advent of motor vessels in the fishery, often 12 to 15 boats would be hauled to and fro to the beds dropping each off at a selected harvest site and picking them back up after they were loaded and towing them back to the factory (Bailey, pers. comm. 2000; Jackson, pers. comm. 2000; Brownlee, Sr., pers. comm.



Figure 88. Grabs in use (Charleston Museum photo).

2000; G. Maggioni, pers. comm. 1972, 1977). The first powerboat used in the industry at Little River was a steam launch operated by Victor Cox to tow oyster schooners across the inlet bar around 1905 (V. S. Cox, pers. comm. 1956). Later in the early teens, a

Captain Bessent brought in “Miss Legonia” to tow pickers to and from the Little River oyster beds. It was 18 feet long and was powered by a five-horse power Hildreth Engine. He charged 50 cents each way (Bessent 1976).

Subtidal oysters were tonged for the most part, but dredges have been used also (Figure 94). An early report of steam dredges harvesting oysters in Beaufort County is mentioned by Oemler (1894) and for many years they were towed by motor vessels in the Edisto Beach area. More recently good single oysters were taken along



Figure 89. Loading a bateau (Charleston Museum photo).

with clams in the Santee River by hydraulic escalator dredges (Ashley, pers. comm. 2000; Baldwin, pers. comm. 2000; L. Duke, pers. comm. 2001).

Several machines designed to harvest intertidal oysters have been developed and tried. Each was successful to some extent, but none was without problems.

Oysters first may have been opened by Amerinds using sharpen



Figure 90. A fancy culling iron (property of E. Ashley).



Figure 91. A not-so-fancy culling iron (property of A. Magwood).

stones as several of these have been found at Middens (W. Collins, pers. comm. 2000) (See Figure 3). Knives of all sorts have been employed. Everything from dinner and pocket-knives to especially made presentation instruments were used. Early knives were made from $\frac{3}{4}$ inch square iron bars with one end flattened into a blade (Figure 95). The shucker broke



Figure 92. A wooden bateau with a load of oysters. Note the size of the handle on the oar and the sculling notch in the transom (Charleston Museum Photo, circa 1930s).

off the oyster’s bill with a stroke of the knife and then inserted the blade into the gap created to cut the muscle and remove the meat. Knives used by the shuckers at the steam canneries were thin bladed with a wooden handle. The average life of these knives was one week (Bailey, pers. comm. 1999). Raw



Figure 93. A fiberglass reinforced resin hulled boat with an outboard motor typical of those in use in the 1980s and after (Burrell photo).

shuckers used various other wooden handled openers of various configurations. Some of these had metal guards to protect the hands from the sharp oyster shells. Plastic handled stainless steel bladed knives are the latest to be introduced to the industry. Early shuckers protected their hands with cloth rags. These have been superseded by various types of gloves (Hine 1986; Pinckney, pers. comm. 2001).

Hot water baths were common in the northern part of the state in shucking houses, but also used all along the coast by the so-called “bootleg” op-



Figure 94. Oyster tongs beside a clam fork (property of L.P. Maggioni Co.).



Figure 95. A few of the different types of oyster knives used by commercial and recreational shuckers. The one in the far right is made from a shaped bar of steel similar to the earliest types (Burrell photo 1997).

erations. These at first were iron pots heated over wood fires and later became cast iron bathtubs heated by gas burners. The latest iterations are stainless steel vats. A half bushel mesh basket containing the oysters to be shucked was immersed in the bath long enough to relax the muscle (See Figure 58).

Cold raw shuckers used a chipper and hammer to help them get the meats out whole. Chippers were shaped like an upside down "T". First they consisted of a metal blade (maybe made from an old file inserted in a wooden block). Later they were made from stainless steel bar (See Figure 59).

As mentioned, only two shucking houses used aerators on a regular basis. Other houses did not use them because this removed the salt flavor so much appreciated by low country aficionados (S. Flowers, Jr., pers. comm. 2000; Tarbox, pers. comm. 2000).

Skimmers were stainless steel or plastic trays with perforated bottoms. Shucked oysters were placed on them and washed with a freshwater spray from a plastic or rubber hose with a showerhead or spray nozzle on the end. The skimmers were most often shaped so that the oysters could be concentrated at one end and put into cans (Figure 96).

Shucking tables at first were constructed of wood. These were supplanted by concrete ones with holes located at each shucking position through which the empty shells



Figure 96. A stainless steel skimmer at the Sol Legare Oyster house (Burrell photo).

were discarded (See Figure 59). The concrete surface was finished very smooth and in later years sealed with epoxy paint before each season. The newest tables are constructed of stainless steel (Bachman, pers. comm. 2001; Johnson, pers. comm. 2000; Palmer, pers. comm. 2001; L. Toomer, pers. comm. 2001) (Figure 97).

All raw shucked oysters at first were placed in mason jars (usu-



Figure 97. The stainless steel shucking table in use at the Sol Legare Oyster house. The shuckers are from the left: Don George, Anthony Byrd and Kenny G. (Burrell photo 2002).

ally quart size), but very soon after organized shucking houses came into being, metal cans became the norm. The cans were plug type at first, that is a lid was pushed down by hand to close the can. All gallon cans remain this type, but machine-sealed smaller cans replaced the plug types. Some of these smaller size cans (8 to 16 oz.) also had a plastic insert in the bottom that allowed the customer to inspect the oysters before purchasing

(Figure 98). The machines used to seal cans were initially hand operated but soon became electric powered. Most often the can manufacturers leased these machines to the raw shuck houses (Figure 99). Plastic cups are now used entirely by the remaining raw shuck houses (Figure 100).



Figure 98. Cans from some of the prominent oyster companies (W. Collins collection).



Figure 99. An electric can sealer (W. Collins collection).



Figure 100. Plastic containers used now by oyster houses (Burrell photo).

Seafood markets bought oysters in gallon cans and packed oysters in various size paper cups (usually half pint, pint and quart) as the customer requested. This practice still occurs.

RECREATIONAL HARVEST

While not an industry per se, the recreational or subsistence fishery has always influenced oyster regulations and thus the industry. Legislation in 1924 gave the public right to gather two bushels of oysters for two days per week per head of household or servant (Lunz 1951; South Carolina Legislature 1924). This gave the public pretty much permission to gather from any oyster bed, leased or not, for private use. Abuse of this led to its repeal in 1955 (News and Courier 1956a). Sometimes a group of ten or more individuals working in concert would gather their quota for commercial purposes. This legislation required the Board of Fisheries to establish public oyster grounds in each oyster-producing county for the exclusive use by private citizens (S.C. Wild. Res. Dept. 1956; South Carolina Legislature 1959).

It proved difficult to obtain grounds at first except in Beaufort County. The other counties had all useable land leased or polluted (S.C. Wild. Res. Dept. 1961). These Public ground areas were increased over time (S.C. Wild. Res. Dept. 1962). Deep water beds as well as 13 Public grounds and three State grounds were available to the general public by 1965 (S.C. Wild. Res. Dept. 1965). By 1974, nineteen Public grounds were established in unleased areas and in grounds voluntarily relinquished by commercial lease holders (S.C. Wild. Mar. Res. Dept. 1974).

These areas along with State grounds were planted from time to time with seed oysters and shell by contract with commercial growers (Moore, et al. 1984; S.C. Wild. Mar. Res. Dept. 1976; 1979).

Mechanical intertidal oyster harvesters developed by Clemson University engineers were used to plant public beds throughout the 1980s.

In a survey of recreational fishermen in the early 1980s, a major concern voiced by respondents was a need for improved public shellfish grounds (Low, et al. 1986). They presumably wanted the State to keep them planted with oysters for their use.

A major revision of shellfish laws in 1985 was enacted with the prime purpose of allowing more public and commercial access to the state's shellfish resources. This legislation replaced the lease system with permitting. An important aspect of this bill was to change legal measure of shellfish from 4071.5 cubic inches to 2150.42 cubic inches per bushel or the same as a U.S. bushel. This reduced the daily allowance for gathering oysters for home use. The limit was returned to two bushels of oysters per day per person any day of the week in open season from Public and State grounds. Written permission from the permittee must be obtained to gather from permitted grounds (S.C. Legislature 1985).

The legislature passed the Recreational Fisheries Conservation and Management Act in 1991 and this became law in 1992. It required recreational shell fishermen to purchase a \$5.50 stamp annually to gather shellfish for personal use (South Carolina Legislature 1991). A survey of recreational fishermen estimated that during the first year of this new regulation 15,670 people made 69,641 shellfishing trips for oysters and harvested 79,808 bushels. This represented 43% of total oyster landings for the 1993-94 season (Langley 1998; Waltz 1996).

Funds derived from these licenses were to be used to improve recreational shellfisheries. The hydraulic escalator harvester designed by Clemson University engineers was funded for several years to plant Public oyster

grounds (S.C. Wild. Mar. Res. Dept. 1984; S.C. Wild. Mar. Res. Comm. 1988). This operation did not prove to be economical and the machine was declared surplus in 1999 (SCDNR 1999). Public grounds continued to be maintained by contracting industry members to plant them (SCDNR 2000). The Marine Resources Act of 2000 again limited recreational harvest of oysters to two days per week to gather two bushels per person and three personal limits per boat or vehicle or combination of both (SCDNR 2001). In 2002, the Saltwater Recreational Fishing License was increased to \$10 per year (SCDNR 2002).

EPILOGUE

What lies in store for the once great South Carolina oyster industry?

Millions of cans of oysters were once produced and shipped around the world by several thousand pickers, shuckers and factory hands. The sites where the oyster canneries and shucking houses were are now occupied by expensive residences. Golf courses line many of the waterways that were formerly the source of vast amounts of oysters that fed the canneries and shucking houses. Nearly all the remaining shuckers are at or beyond retirement age and no younger men and women are coming behind them to learn the trade. A few young men are choosing the hard life of pickers. Human and industrial wastes have put many once prime growing areas off limits (Burrell 1982; Conroy 1972; LaPeter 1995; Moss 2000; News and Courier 1961; 1990; State 1995; U.S. Dept. Comm. 1991). Changed water flow has apparently altered oyster-pro-

ducing sites and increased boat traffic eroded the intertidal zone where oysters once grew abundantly (S. Jr. and B. Flowers, pers. comm. 2000; G. Maggioni, pers. comm. 1980).

Recreational shell fishermen far out number the industry members and their catch is coming close to exceeding the commercial harvest (Waltz 1996).

All is not gloom, however. Scientists and regulators are looking at the oyster in a broader sense, not just as a table delicacy but as a vital part of a healthy estuarine system (Coen, et al. 1999). The oyster reef provides habitat for both infaunal and epifaunal estuarine organisms which in turn are vital components of the food chain. Wells (1961) found 303 species of macrofauna associated with intertidal and subtidal oyster reefs in North Carolina. Bahr found annual mean frequency of reef macrofauna to be nearly 38,000 animals per square meter including oysters on intertidal oyster reefs in Georgia (Bahr and Lanier 1981). The oysters are highly efficient water filters, recyclers of nutrients and controllers of phytoplankton blooms (Bahr and Lanier 1981; Chesapeake Bay Foundation 2000; Dame 1972; 1979; 1996; Dame and Libes 1993; Dame, et al. 1984; Leffler 2001; Newell 1988; Newell and Ott 1999; Wells 1961).

Oyster reefs are affected by sediment and currents but they also affect them. They serve as buffers to help prevent erosion on waterways that have become busy with recreational boats and adjacent highlands in case of storm surge (Bahr and Lanier 1981; Burrell 1986; Jones 2001).

A program was initiated by the SCDNR to re-establish some of the oyster reefs in coastal South Carolina. Plastic mesh bags filled with oyster shell have been placed in intertidal areas that show promise as oyster habitat. Designed and sponsored by the SCDNR, many educational, environmental and civic organizations have adopted this project. If it



Figure 101. The Callawassee Home Owner's Association members planting bags of oyster shell on a site in Callawassee Island, S.C. If successful a new oyster reef will result (Coen photo).

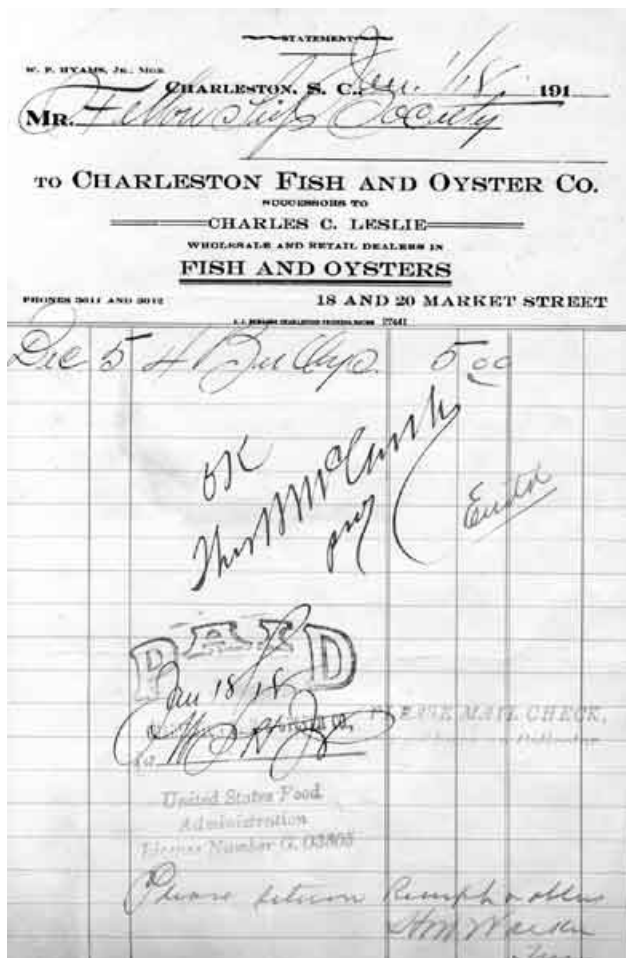
is successful in substantially increasing oyster acreage, the quality of the waters and adjacent areas is expected to improve dramatically and this of course will benefit the industry (Breitburg, et al. 2000; Coen and Luckenbach 2000; Coen, et al. 1999; Island Packet 1998; Moultrie News 2001; Radford 2001) (Figure 101).

To envision greater commercial production, one must look to innovative ways to utilize the intertidal oyster. This could include an economical means of mechanical shucking raw oysters or finding a means to make a steam opened oyster more appealing to the housewife.

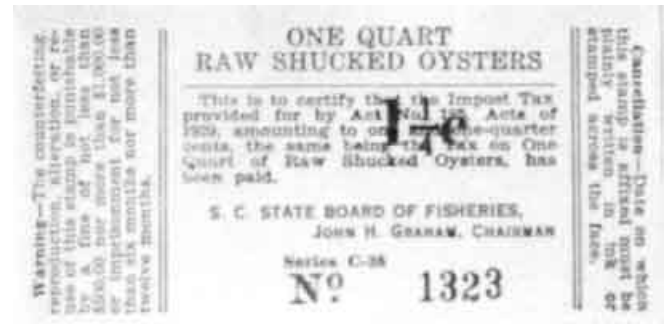
For now though, the "Golden Age" of the oyster industry in South Carolina has like that of indigo, Sea Island cotton and rice, become history.

APPENDIX

Appendix 2. *The Maggioni Yonges Island Cannery after a 1940 hurricane. This facility was repaired, but many others over the years were not and the businesses were consolidated into more centrally located facilities (R. Maggioni photo).*



Appendix 3. *An invoice for sale of oysters in 1918 showing a federal license number. Whether or not this meant meeting some sanitary requirements is not known (Westendorff collection).*



Appendix 4. *A stamp required for shucked oysters 1924 to 1952 (David Cupka collection).*

Charleston, S.C. Nov. 15th 1929 19

Received of E.B. Magwood

REGISTERED \$6 AND 00 CTS Dollars

24 acres of Leased Oyster Land from State Board of Fisheries at 25 ¢ 1929-1930

\$ 6.00

Wm. Leonard
County Treasurer
by Andrew J. Kennedy

The Walker, Evans & Company Co. Stationers, Charleston, S.C.

Charleston, S.C. MAY 22 1933 19

Received of Clarence Magwood

REGISTERED \$1 AND 45 CTS Dollars

Rent of Oyster Land leased from State Board of Fisheries
1.45 acres at \$1.00

\$ 1.45

Wm. Leonard
County Treasurer Charleston County
by Andrew J. Kennedy

The Walker, Evans & Company Co. Stationers, Charleston, S.C.

Charleston, S.C. SEP 9 - 1935 1935

Received from E.B. Magwood

REGISTERED \$6 AND 00 CTS Dollars

Rent of Oyster Land, leased from State Board of Fisheries
24 acres at 25 cents (1935-36)

\$ 6.00

Wm. Leonard
County Treasurer
Andrew J. Kennedy

Charleston, S.C. APR 25 1940 19

Received of Clarence Magwood

REGISTERED \$1 AND 45 CTS Dollars

#57 Oyster Lesse Rental State Board of Fisheries
1.45 acres to May 7, 1941

\$ 1.45

Andrew J. Kennedy for
County Treasurer

U.S. Patent

Appendix 5. Lease payment receipts, 1920s – 1940s (Magwood family collection).

1. The lessee agrees and promises to pay as rental for the said premises the sum of One (\$1.00) Dollar per acre for the first year, Two (\$2.00) Dollars per acre for the second year, Five (\$5.00) Dollars per acre for the third year, and Five (\$5.00) Dollars per acre for each year thereafter; the first year's rental to be paid upon delivery of this lease, and each year's rental thereafter to be paid in advance upon the 1st. day of January in each year. All rents must be paid to the County Treasurer of Charleston County on or before the 1st. day of January in each year; and if the same shall not be paid by the 1st. day of February in the same year then this lease shall become null and void and the lessor shall take over the said lands; the lessee agrees to quit and deliver to the lessor or its agents, peaceably and quietly at the end of this lease, all lands herein leased, in good condition and reasonable use as they now are and not to make or suffer any waste thereof.

2. Upon application of the lessee to the lessor, the said lease may be extended, at its termination, for an additional five (5) years, upon such rates, terms and conditions as the said Board of Fisheries may grant.

3. The lessee will plant and cultivate each year and in good faith, oysters or shell, at the option of the lessee, upon the said lands, under the supervision and inspection of the inspector of the district in which the lands are situated, and at the rate of not less than fifty (50) bushels per acre the first year and thereafter to plant annually upon each acre such quantity as may be required by the said Board of Fisheries in its discretion and dependent upon the condition of the acreage and in no case to exceed one hundred (100) bushels per acre; and upon failure of the lessee to plant in any year the quantity of oysters or shell upon the leased lands as hereinabove provided, this lease may be declared null and void by the said Board of Fisheries.

4. The lessee agrees not to assign or transfer this lease except with the approval of the lessor and under no circumstances before the expiration of two (2) years from the date of this lease.

5. The lessee agrees to post suitable signs or marks upon the shores adjacent to the leased lands and not more than three hundred (300) yards apart, each of which signs or markers shall contain a board, painted white, not less than ten inches (10") long and eight inches (8") wide, with the black letter "O" painted in the center, the initials of the lessee on one side of the "O" and the serial number of the lease on the other side thereof.

6. The lessee agrees to record this lease together with the plat attached thereto.

10. The Chairman of the said Board of Fisheries, or its inspector, shall have the right to reenter or repossess the said premises and to expel and remove therefrom the lessee or any other person occupying the same, if they or their agents are violating the laws as to taxation, or making false report of shipment, or of shipping without sufficient tax paid stamps attached to packages, after hearing before the said Board of Fisheries and being found guilty of violating this section.

11. That the said Board of Fisheries shall have the right at any time to have a resurvey made of the lands herein leased and, upon such resurvey being made, if it shall be found that the lessee hereunder is occupying, under color of this lease, an acreage greater than that shown by the terms hereof, then the said lessee shall pay to the lessor the cost of the said resurvey and the rental price per acre during the entire term of this lease upon the excess acreage occupied.

IN WITNESS WHEREOF the said Board of Fisheries has caused these presents to be signed by its Chairman, as the Act and Deed of the lessor, and the said Clarence Magwood has affixed his hand and seal as the Act and Deed of the lessee, this _____ day of May, in the year of our Lord one thousand nine hundred and thirty-one and in the one hundred and fifty-fifth year of the Sovereignty and Independence of the United States of America.

Signed, Sealed and Delivered in the Presence of: BOARD OF FISHERIES

Charles W. Waring } By *J. M. Witsell* Chairman.
Charles W. Waring } *Clarence Magwood (L.S.)*

STATE OF SOUTH CAROLINA
 COUNTY OF CHARLESTON

PERSONALLY appeared before me *Richard E. Rott* who, being duly sworn, says that he saw J. M. Witsell, as Chairman of the Board of Fisheries, sign, seal and as the Act and Deed of the said Board of Fisheries, deliver the within written lease; and that he with *Charles W. Waring* witnessed the execution thereof.

SWORN to before me this 14th day of May, A. D. 1931.

Richard E. Rott (L.S.)
 Notary Public for South Carolina.

STATE OF SOUTH CAROLINA
 COUNTY OF CHARLESTON

PERSONALLY appeared before me *Charles W. Waring* who, being duly sworn, says that he saw the above named Clarence Magwood sign, seal and as his Act and Deed deliver the within written lease; and that he together with *Richard E. Rott* witnessed the execution thereof.

SWORN to before me this 14th day of May, A. D. 1931.

Charles W. Waring (L.S.)
 Notary Public for South Carolina.



Appendix 6. An approved 1931 agreement leasing 1.45 acres to Mr. C.A. Magwood (Magwood family collection)

N^o 624

APTE BROS. CANNING CO.
DETACH BEFORE DEPOSITING
PAY CHECK

Week Ending 7/13 1940
36 1/2 hrs. at 20 cts.
pu. at cts.

Earnings 7.30
Federal 07
Other Net 7.23
Deductions

Net
This Receipt To Be Retained
By Employee

Appendix 7. Mrs. C.A. Magwood's pay stub for a week's work at Apte Brothers Cannery in 1940 (Magwood family collection).

Received of W.H. Magwood
Two Hundred Forty & 48/100 Dollars
Oyster damages
\$240.48 Clarence Magwood
May 14, 1936

Appendix 8. Payment for dredge damage to oyster beds by Intracoastal Waterway workers (Magwood family collection).



Appendix 9. Washing oysters on Little Bull Island in the 1970s (Magwood photo).



Appendix 10. Washing oysters at the Maggioni facility on Lady's Island in 2001 (Burrell photo).



Appendix 11. Delivery of oysters at the Maggioni facility on Lady's Island in 2000 (Burrell photo).



Appendix 12. Terry Annibale demonstrates that good-sized oysters are still available for those willing to put the effort into finding them (Burrell photo 2000).



Appendix 13. A traveling table used by the Larry Toomers' at oyster roasts (Burrell photo).



Appendix 14. Part of the crowd at the Lowcountry Oyster Roast listening to some of the entertainers (Westendorff photo 1999).



Appendix 15. A sketch by Mrs. Naomi McCracken of the Lowden Cannery at Bluffton in the mid-1930s. This factory was destroyed in a hurricane in 1939 (Sketch property of Emmett McCracken).



Appendix 16. The John S. "Junior" Graves oyster shucking and crab picking house at Trimbleston on Sawmill Creek prior to demolition in 2002 (Burrell photo).



Appendix 17. Mr. and Mrs. Joel Jackson in 2000. He worked for the Shelmore Cannery from the early 1930s until 1965 (Burrell photo).



Appendix 18. Mr. A.B. Brownlee, manager of the Maggioni Lady's Island and Yonges Island canneries, 1950s and 1960 (Burrell photo).



Appendix 19. Ralph Maggioni and various stages of oysters from fresh to steamed to the can (Maggioni family photo).



Appendix 20. An oyster cannery at Biloxi, Mississippi around 1920. This operation was identical to those in South Carolina (photo property of V.G. Burrell).

SALE TAG

CAROLINA SEAFOODS, INC.
22 Oak Street
McClellanville, SC 29458
(803) 887-3713

Ship Certificate # SC 21-SS _____

Date of Harvesting 3/18/03

Shellfish Gathered from local area _____

or Bed # 298

Quantity 1 lb

Clams Oysters
(circle one)

THIS TAG IS REQUIRED TO BE ATTACHED UNTIL CONTAINER IS EMPTY AND THEREAFTER ON FILE FOR 90 DAYS.

CONSUMING RAW OR UNDERCOOKED MEATS, POULTRY, SEAFOOD, SHELLFISH OR EGGS MAY INCREASE YOUR RISK OF FOODBORNE ILLNESS, ESPECIALLY IF YOU HAVE CERTAIN MEDICAL CONDITIONS.

OYSTER & CLAM HARVESTING TAG

Harvested From: 298

Owner: Carolina Seafood Co., Inc.

Certificate No.: S.C. 21-SS _____

Date Harvested: 3/18 Time Harvested: 130

Harvester's Name: Sea 0170

Harvester's SSG#: _____
(if applicable)

This card does not authorize the sale or storage of Shellfish. Shellfish are for immediate direct delivery to Carolina Seafood Co., Inc.

Appendix 21. Tag required by law to be attached to each bag of oysters by the harvester (S.C. DHEC 2001).

Appendix 22. Tag required by law to be attached to each bag of oysters handled by a wholesale shellfish buyers and shippers. (S.C. DHEC 2001).



47 27

SOUTH CAROLINA WILDLIFE RESOURCES DEPARTMENT
OFFICE OF THE COMMISSION
COLUMBIA

GEORGE WARREN, CHAIRMAN
HAMPTON, S. C.

May 12, 1961

C
O
P
Y

Senator James M. Raddell,
Box 543
Beaufort, South Carolina

Dear Jim:

The commercial oystermen have started planting shell under the quota system set forth in your Bill 363. If this is not yet signed into law, surely it soon will be.

There have been some who are critical of this legislation saying that we reduced the shell quota too much.

You and I know how impractical the old law turned out to be. The average harvest per acre was 125 bushels a year. Under the old law the oystermen would have had to plant back 100 bushels of shell plus one third of his volume from the previous year. One third of 125 bushels is 41 bushels. This added to the 100 bushels makes 141 bushels of shell to be planted. Yet the oystermen gathered only 125 bushels. Therefore, we had reached an impossible.

Shell planting in years past was decidedly not all it should have been, yet records in this office indicated that most oystermen were meeting the impossible quota outlined above. This past week we turned up some evidence as to how this was done.

Our Fisheries Inspectors were assigned the task of checking the number of bushels of shell planted by one of the larger oyster companies who farms the grounds between Charleston and the Santos River on the near (137,023 bushel harvest 1960-61)

A measuring unit was constructed with the exact size as set forth in the law (Code Section 29-796). The amount of shell loaded in oyster boats was accurately measured bushel by bushel. The oyster batteaux use

Appendix 23. A letter regarding estimates of shell planting by oyster companies.



Senator James M. Raddell

May 12, 1961

SOUTH CAROLINA WILDLIFE RESOURCES DEPARTMENT
OFFICE OF THE COMMISSION

GEORGE WARREN, CHAIRMAN
HAMPTON, S. C.

by this company could hold only 40 bushels of shell. More than that on a load and they sank. It is our understanding that these batteaux were considered to hold 100 bushels of shell and in years past apparently every time a batteau load was planted the State gave credit for 100 bushels.

This company uses 3 large barges. It is our understanding that in past years these barges were credited with holding 1,500, 2,000 and either 2,000 or 3,500 bushels of shell by "planting measure". Our actual bushel by bushel measurements show that these barges actually carry 500, 550 and 750 bushels of shell respectively.

With these new and corrected measurements the State will actually require more shell to be planted under the new law 363 than under the old law. The old law required 2.1 more volume of shell to be planted but under the old system of measurements the oysterman was apparently getting credit for planting 2.5 to 4 times the volume than he actually did plant.

S.E.C. Criticism to the contrary notwithstanding the State is better off under the bill you introduced and which you, Brantley and Reeve pushed through.

with best personal regards,

Sincerely,

G. Robert Lunn
Director

GRL/mr

cc: Hon. T. Reeve Sees
Hon. W. Brantley Harvey, Jr.

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