THE HISTORY OF THE SHRIMPING BOAT *SANTA MARIA*

I. CONTEXT

The earliest accounts of commercial fishing in the United States date to the beginning of the nineteenth century. By around 1817, fishermen on the southeastern coasts caught shrimp using cast nets and haul seines.[1] Though cold-water shrimping in the Pacific and north Atlantic eventually developed, the industry was initially isolated in the southeast region. New Orleans and Biloxi, Mississippi were the most important commercial centers.[1] Given the technology available at the time, shrimping was labor intensive. Fishermen could catch shrimp only in shallow waters and exclusively during seasons of abundance.[2] Nevertheless, the industry grew steadily during the nineteenth century, as evidenced by the growth of canning industries in Louisiana and Mississippi.[3]

In Texas, early growth of the shrimping industry was constrained by the remoteness of major markets and the lack of development in transportation and refrigeration technology. Of all Texas port cities, only Galveston had a population large enough to support a local shrimp trade. Bay shrimpers sold shrimp in open-air markets or through door-to-door visits. As Robert Lee Maril explained in his study *The Bay Shrimpers of Texas*, "The wealthy of the city ate shrimp as a side dish to their main courses, but the poor consumed it because they could buy it inexpensively or fish for it themselves from the bay or the Gulf surf. They sometimes called it 'cheap fish.'" A shrimp cannery opened in the city in 1879, and it operated for a few years before closing. As of 1890, Galveston, with a fleet of ten shrimping vessels, was home to the state's only significant shrimp fishery.[4]

In fact, at the end of the nineteenth century, Galveston's strongest seafood markets revolved around oysters rather than shrimp. An 1896 article in the Galveston Daily News estimated that 28,800 oysters came into the city's ports daily to meet the "voracious appetites of Galvestonians." Foreign-born fishermen, predominantly Italian by origin, dominated the industry. (Texas law allowed immigrants to work in the state as fishermen, but required them to become American citizens).[5] As of 1912, the harbor was home to over 100 oystering boats.[6]

---

[1] A haul seine consists of "netting with a stretched mesh of 1/2 to 1-1/2 inches, rectangular in shape, with a lead line running along the bottom, and a cork or float line running along the top." (Condrey and Fuller, *US Gulf Shrimp Fishery*, 1992).

The boats used for fishing on the Gulf Coast during the nineteenth century were typically designed and built without written plans.[7] The earliest vessels followed the basic pattern of Mediterranean work boats,[8] owing to the prevalence of Italian, Greek, and Croatian immigrants in the boatbuilding and shrimping industries at the time.

In Mississippi, where Biloxi Bay became a boatbuilding center, one common boat type in the middle of the nineteenth century was the *catboat*—a small, wooden fishing boat with a flat bottom.[9] Schooners, which had two masts, set forward and aft, were built as early as the 1830s, and they became increasingly prevalent towards the end of the nineteenth century. While early schooners were larger than catboats, they were still limited to shallow waters. Biloxi became well known throughout the Gulf region for its schooners and professional boatbuilders.[10]

In contrast, Texas fishermen mostly built their own small boats.[11] The city's small commercial vessels were collectively known as the "mosquito fleet" due their appearance when masts and nets were extended. The mosquito fleet supplied the city with building materials, food, and virtually everything else its citizens desired, included a few small sloops dedicated to oystering. There were also a few larger fishing schooners, but these were dedicated to red snapper fishing in the Gulf rather than inshore shrimping.[12]

In 1893, a hurricane destroyed around 100 schooners from Biloxi. Caught out in the storm while shrimping, many of the city's fishermen died, and the infrastructure of the Biloxi seafood industry was devastated.[13] Tasked with rebuilding the fleet, the boatbuilders of Biloxi Bay continued to evolve their schooner designs to make the vessels better suited for use by the seafood industry. Trademarks of the new design included increased length (between 50 and 60 feet), a broad beam, and increased sail power. The design became known as the "Biloxi schooner," and examples were nicknamed "white-winged queens."[14] Sailing schooner fleets owned and operated by Gulf Coast shrimp canneries were the dominant forces of the industry in the first decades of the twentieth century. Each cannery had its own fleet, some including as many as 150 vessels. By 1903, Biloxi had recovered from the 1893 hurricane and the city adopted the title "the seafood capital of the world."[15]

In Texas, on the other hand, the number of shrimping vessels remained limited. The commercial shrimping industry stalled between 1890 and 1920 as the shrimp population of Galveston Bay declined. At the time, people believed that the waters had been overfished, but

recent research suggests that pollution was a greater factor. Though the oyster industry continued to grow in Galveston, Corpus Christi gradually became a more important shrimping center.[16]

In addition to the schooners, smaller, sail-powered boats called "luggers" gained popularity along the Gulf Coast during the early twentieth century. Like Biloxi schooners, luggers evolved from Mediterranean boat types.[17] Measuring 20 to 30 feet in length, the first luggers were flat-bottomed and smaller than contemporary schooners. Operating controls were placed at the rear of the vessel. Near the turn of the century, Biloxi boatbuilder J.D. Covacevich designed a type of lugger specifically for use in the Gulf Coast oyster industry.[18] Other boatbuilders in Biloxi Bay followed the pattern and the "Biloxi oyster lugger" became prevalent.[19]

Two early-twentieth-century technological developments contributed to the rise of the lugger as a preferred shrimping vessel. First, whereas large schooners continued to operate using sails, smaller luggers reaped the benefits of combustion engines. Gasoline-powered shrimping vessels built at the W.N. Johnson Boatyard appeared in Biloxi Bay around 1904. Covacevich worked at Johnson's boatyard at the time and may have had a role in the construction of the earliest gas-powered vessels. Some Biloxi luggers operated under "auxiliary power," using engines when catching shrimp and sails when catching oysters.[20]

In a second technological breakthrough, the use of gasoline engines allowed luggers to implement a new shrimping method called "otter trawling."[21] As R.D. Gillett explains in a 2008 "Global Study of Shrimp Fisheries,"[22]

> *Until the mid-1800s, most large-scale trawling used beam trawl gear, which relied on a heavy beam to keep the net open. Because all fishing vessels at that time used the wind for towing power, the weight of this beam was a major constraint on the size of the net that could be towed…Boards using the force of passing water to hold open the nets were invented in about 1860…The use of the boards (later called otter boards) did not become widespread* (in Europe) *until the late 1880s, when Danish fishers used them to spread their plaice seines.*

In the 1890s, Norwegian fisheries researcher Johan Hjort collaborated with Danish researchers to customize the otter trawling technique specifically for shrimping purposes. The system quickly spread across Europe.[23]

In the United States, the otter trawl was first used by shrimpers in New England.[24] One account credits Boston fishermen Billy Corkum with first bringing the otter trawl to Florida, where it quickly achieved great popularity.[25] Italian immigrant Solicito "Mike" Salvador installed otter-trawl rigs on his fleet of shrimping boats based in Fernandina, Florida and enjoyed a tenfold increase in his daily catch. Other Florida shrimpers, typically using skiffs measuring 15 to 25 feet in length and termed "trawlers,"[26] readily adopted the technique. The otter trawl reached Mississippi and Louisiana between 1912 and 1915.[27] Within two years most Gulf Coast fishermen, including those in Texas, adopted the technique.[28] By 1930, otter trawling had produced about 90% of the annual shrimp catch in the U.S and had almost completely replaced haul seining.[29]

Because sails could not generate enough power to pull otter trawls, most fishermen on the Gulf Coast switched to gasoline-powered luggers.[30] Since otter trawling from luggers required less labor yet produced greater catches than did the larger, sail-powered Biloxi schooners, the latter fell out of favor. The last operating fishing schooner built in Biloxi was Covacevich's 1929 *Mary Margaret.*[31]

According to a 1922 *Galveston Daily News* article, the adoption of the otter trawl "revolutionized the shrimp business" in Galveston.[32] By 1924, most of the city's fishing vessels operated on auxiliary power and, with a few exceptions, the shrimping boats operated under engine power.[33] Texas fishermen did not use any sail-powered vessels for fishing after 1930.[34] This evolution coincided with other important advances in infrastructure and technology. During the 1920s, transportation improvements more effectively linked the state's ports to its interior cities. Galveston shrimpers received a boost when the Galveston Ice and Cold Storage plant opened adjacent to Pier 19 in 1910.With better access to refrigeration and transportation, Galveston shrimpers could ship to more distant U.S. markets.[35]

In spite of these developments, the market for shrimp in Texas remained poor, in part due to its lingering reputation as "cheap fish." That perception began to change when a national advertising campaign promoted wider shrimp consumption. By 1922, local demand in Galveston for shrimp had bypassed that for oysters.[36] The Texas shrimp industry, bolstered by improved

technology and increased demand, boomed in the 1920s. Annual shrimp yield jumped from 164,067 pounds in 1918 to 3.5 million pounds in 1923 and 12 million pounds in 1927. However, production at the end of the decade was small in comparison to that of neighboring Gulf states Louisiana, Mississippi, and Florida.[37]

After the introduction of gasoline engines and otter trawling, the design of Biloxi oyster luggers evolved to better suit the needs of expanded shrimping operations. Their average size increased, reaching 40 to 50 feet in length, and the new luggers had greater freeboard than their smaller predecessors. V-shaped hulls replaced flat bottoms.[38] The deck arrangement of the original lugger was maintained: the pilot house was placed aft, with the fishing deck amidships, and the fish hold forward. Pine and fir were the most common wood species used in their construction, though oak was not unusual. As a result of the design changes, the new Biloxi luggers were better able to navigate offshore waters. Their seaworthiness was further enhanced by the introduction of diesel engines, which were better suited for the maritime environment.[39] Biloxi luggers achieved popularity among shrimpers in Mississippi, Louisiana, and in Morehead City, North Carolina.[40] Meanwhile, many of the remaining older, smaller oyster luggers were converted into inshore shrimp trawlers with the addition of gasoline engines.[41]

Early-twentieth-century improvements to shrimping vessels became crucial in the late 1930s after the discovery of large offshore shrimping grounds.[42] Of particular importance was a 1937 study that revealed large schools of white shrimp near Morgan City on the Louisiana Coast. Offshore shrimping operations expanded tremendously in the decade that followed, with Morgan City serving as a new center of the seafood industry.[43]

With the rapid growth of the shrimping industry in the Gulf, conflicts emerged between local fishermen, who tended to shrimp inshore waters using smaller craft, and out-of-state shrimpers using larger vessels in offshore waters. Initially, the conflicts involved fishermen from Florida, Mississippi, and Louisiana, and they focused most intensely on Mississippi and Louisiana ports. However, by 1931, a record-breaking year for the Galveston shrimp industry, large out-of-state fleets arrived in Galveston.[44] A slightly earlier expansion in the Atlantic shrimping trade may have given Florida boatbuilders an early start in modifying their vessels for offshore waters.[45] Their vessels, alternatively labeled "Florida-type vessels"[46] or "south Atlantic trawlers,"[47] similarly bore Mediterranean design influences, but they were generally larger, measuring 50 to 70 feet in length, and they had rounded bottoms and flared bows. In contrast to

the Biloxi lugger, the pilot house of the Florida-type vessel was placed farther forward toward the bow, leaving the aft deck clear for the fishing deck. The engine room was under the pilot house and fish holds were located aft.[48] These and other seaworthy trawlers yielded big catches in the newly discovered waters off Morgan City.[49]

In 1931, around 90 out-of-state vessels moored at Pier 22 overshadowed Galveston's more numerous but smaller mosquito fleet at Piers 19 and 20. The two groups worked through early disagreements to coexist peacefully for a period.[50] After World War II, the conflicts intensified and spread to other Texas ports, including Aransas Pass, Port Isabel, and Port Brownsville. While Texas bay shrimpers generally avoided the offshore waters where fishermen from Florida, Alabama, Mississippi, and Louisiana operated their larger vessels, the two groups often operated from the same ports and competed in the same markets.[51]

From the late 1930s through the 1950s, the more productive Floridian vessels had increasing influence on the designs of both inshore and offshore shrimping vessels of the Gulf Coast. One indication of this influence was the deck arrangement. Beginning in the late 1930s, some Biloxi luggers were built with "Florida rigs," also known as "Texas rigs," in which the pilot house was placed forward with the fishing deck located aft.[52] Though their deck arrangement matched those of the Florida-type vessels, the new luggers retained their typical V-shape hull. Joe Grasso Jr., after taking control of the Galveston-based Joe Grasso & Son shrimping operation upon his father's 1936 death, specified the "Texas rig" layout when he hired J.D. Covacevich to construct several Biloxi-style vessels in the late 1930s. One such vessel was the *Miss Galveston*, later renamed *Santa Maria.*

II. OVERVIEW

Joseph Grasso was born 1883 in Aci Costello, Sicily.[53] He immigrated to the U.S. at the age of 22,[54] living for a short time in Florida before relocating to Galveston. He lived modestly during his early years in Texas, working as a fisherman and longshoreman. Eventually, he saved enough money to return to Sicily to marry his wife Carmelena (Conte) and start a family in Galveston.[55] The couple had six children: Edna, Theresa, Jennie, Rosemary, Joseph Jr., and John.[56]

Grasso began his independent fishing operation with a single boat anchored at Pier 20 and grew the business during the 1910s to 1930s. For 15 years, he caught and sold shrimp solely as bait. In the late 1920s, the business reached a breakthrough when Grasso began freezing and

shipping shrimp to Japanese markets. At the beginning of the 1930s, his entire catch went to Japan.[57] He established packing facilities on the harbor and subsequently devoted most of his attention in the 1930s to managing the processing side of the business. He continued to add to the fleet and by the time of his death in 1936, he owned 25 boats. Most of the vessels were operated by independent fishermen, who brought their catch to Grasso's facilities.[58]

When Joe Grasso Sr. died in 1936, Joe Grasso Jr., at the age of 21, inherited the business.[59] He incorporated it as "Joe Grasso & Son"[60] and immediately commenced an aggressive expansion. He contracted the Covacevich boatyard in Biloxi to build several luggers and specified the Texas-style rig.

Jacob Dominick "J.D." Covacevich was born 1875 in Pass Christian, Mississippi to Croatian parents. In 1886, the family moved to Biloxi, where Covacevich took a job at a cannery owned by Lazaro Lopez and W.K.M. Dukate. He did not receive a formal education. After the 1893 hurricane nearly destroyed Biloxi's fishing fleet, Covacevich and his father took the family's boat to accomplished boatbuilder Matteo Martinolich for repairs. Soon afterwards, J.D. began to work as an apprentice carpenter at Martinolich's boatyard in Handsboro, Mississippi (now part of Gulfport).[61] He primarily focused on repairing and rebuilding two-masted schooners.[62] In 1896, he relocated to Back Bay in Biloxi to work at the W.N. Johnson Boatyard. For eleven years, Covacevich worked under the owner, Willie Johnson, learning the basics of boat design. Aside from later drafting lessons from a little-known figure referred to as "Professor Yancy," the years at the boatyards of Martinolich and Johnson embody the full extent of Covacevich's training.[63]

Covacevich became an independent boatbuilder around 1906, when Johnson left Biloxi for New Orleans. In the following decades, Covacevich grew his business primarily through the construction of Biloxi schooners, including thirty built on behalf of the Lopez and Dukate canning company for which he had worked as a young man. He enhanced his reputation with the construction of a massive 200-foot, four-masted schooner, the *Joseph Leopold*, during World War I.[64] He and his wife, Arthimease, had at least seven children: Louise, Dorothy, Oral, Ethel, Arnetta, Anthony, and Nelious.[65] Sons Oral, Anthony (called "A.W." or "Tony Jack"), and Nelious each contributed to the family boatbuilding business.[66] A.W. later took control of the business upon his father's retirement.[67]

At the height of his practice, J.D. Covacevich had significant influence on the development of the Biloxi schooner. In 1917, he began to alter the bow shapes of the schooners he produced. Previously, schooners in Biloxi had a clipper-style bow. Covacevich changed the design, giving the vessels a spooned bow. As a result, they became faster and served as useful working boats for Biloxi fishermen.[68] He also made contributions to the evolution of other styles of Gulf Coast shrimping boats. Prior to World War I, he designed and built the lugger *Ernestine D.*, which may have been the first gasoline-powered shrimping vessel in Biloxi Bay.[69] In her study "Shipbuilding Along the Mississippi Gulf Coast," historian Deanne Nuwer credits Covacevich individually as the figure who "designed the lugger for the fishing industry on the Mississippi Coast."[70]

In the late 1930s, when a boom in the Gulf Coast shrimping industry inspired Galveston's Joseph Grasso to expand his fleet, he contracted the Covacevich family to amend the typical Biloxi lugger design with the "Texas rig" arrangement. This design choice may have been related to the Grasso family's experience in Florida, where shrimp boats typically had a forward-placed pilot house. Some Galveston shrimping boat operators during this period also came from Florida and would have been familiar with this deck arrangement.

In total, the Covacevich family built at least six shrimping vessels and at least two fishing vessels for Grasso's fishing operation. The shrimping vessels ranged from 43 to 52 feet in length, and all were built with 60-horsepower diesel engines.[71] During the summer of 1937, J.D. Covacevich personally built the *Miss Galveston,* later renamed the *Santa Maria,* and the *Joe Grasso Jr*. Meanwhile, sons A.W. and Oral built two more Grasso boats: the *Edna Grasso* and the *Joe Grasso Sr.* All four boats had the same basic shape and each was equipped with a 60-horsepower Fairbanks Morse diesel engine. As of May 1938, Grasso had ordered two more vessels of the same type. The combined cost for all six shrimping boats was $45,000.[72]

Continuing his father's practice, Grasso Jr. allowed independent fisherman to operate his boats, including the *Miss Galveston,* while he would collect the catch for resale and focus on other aspects of the business. Meanwhile, he continued to look for new ways to expand the Galveston shrimping industry. In December 1937, he sent his fleet to survey offshore waters to determine the location of shrimp during the winter season.[73] In 1948, he moved the company into a location on Pier 9. Facilities included a new production plant and "one of the largest slips in Galveston."[74]

During the 1950s and 1960s, Grasso continued to expand and broaden his business interests. In addition to Joe Grasso & Son, at the time of his death in 1975 he owned the Marine Mud Company, Grasso Marine Service Station on Pelican Island in Galveston, and Border Fisheries Inc. in Port Isabel.[75] He reduced the size of his fleet, operating only five vessels in the 1970s.[76] As part of these efforts, in January 1952 he sold the *Miss Galveston* to Joseph Anthony Grillo, who had previously operated the vessel as an independent fisherman, for $10,000.[77] At the time, the vessel's length was measured at 43.4 feet, the breadth at 13.7 feet, and the draw at 4.7 feet.[78]

Grillo was born in Pensacola, Florida in 1931. His parents had immigrated to Florida from Aci Trezza, Sicily.[79] His father, Peter, was a fisherman himself.[80] The family relocated to Galveston in the 1930s. Grillo found work as a teenager working aboard Grasso's shrimping vessels.[81]Grillo was just 21 years old when he purchased the *Miss Galveston* from Joe Grasso Jr. Six years later, Grillo renamed the vessel *Santa Maria*.[82] For 52 Years, he operated the *Santa Maria* out of Galveston's Pier 19. He made outings seven days a week, beginning each day by 5:00 am. Intermittently, he had the assistance of first mates. His father Peter worked on the boat until his retirement.[83] Various articles on Grillo's shrimping routine list Rosario DiBartolo, Willie Cram, and America Negrini Sr. as among those who assisted Grillo.[84] Often, when other help was unavailable, Grillo's wife Edna Grillo participated in outings.[85]

When Grillo began fishing in the early 1950s, Pier 19 was home to about seventy shrimping vessels owned and operated by independent fishermen. Joe and Edna Grillo became leading figures in the local shrimping community. In times of severe weather or legislative troubles, Galveston bay shrimpers would often meet at the Grillo house on Avenue K to plan. The Grillos were also instrumental in the development and planning of Galveston's annual Blessing of the Fleet event, which followed the pattern of a similar tradition in Biloxi.[86]

As Grillo operated the vessel during the middle decades of the twentieth century, two developments altered the Texas bay shrimping industry. First, the 1946 discovery of large populations of shrimp off the coast of Mexico in the Bay of Campeche led many very large, out-of-state shrimping operations to establish bases in Texas ports. Second, the market for shrimp, which had long been limited to *white shrimp,* opened up to include *brown shrimp*, which had previously been poorly-regarded by customers due to its color. Perhaps due to overfishing of white shrimp, shrimp hauls during the late 1940s began to include a larger proportion of brown

shrimp.[87] This coincided with a reduced supply of meat nationally.[88] A 1958 U.S. Fish and Wildlife Service shrimp survey credits an Aransas Pass fishing cooperative with being the first group to successfully market brown shrimp. As of 1947-48, 90% of the nation's brown shrimp production came from Texas ports.[89] Within a few years, white shrimp's "dominance" of the national shrimp market ended[90] as shrimpers from other states set up offshore operations in Texas ports.[91]

As the *Santa Maria* is suited for both inshore and offshore waters, Grillo's shrimping operation included outings in Galveston Bay as well as trips to other sites, such as Louisiana, Mississippi, Matagorda, and Port O'Connor. Generally, he caught white shrimp during the day and brown shrimp when fishing at night. As a Biloxi-style lugger, the *Santa Maria* was also capable of operating as an oystering vessel. By the 1950s and 1960s, however, oystering could only earn a fisherman $10-15 a day, so Grillo focused on shrimping with periodic outings for other fish, like red fish or trout.[92]

With so much of the shrimp industry focused on offshore fishing, vessels continued to grow in size so as to improve seaworthiness. In the early 1950s, the length of shrimping boats reached an average of sixty to eighty feet. Production line models became predominant. These vessels were characterized by very high freeboard, dry working decks, and powerful engines (150 to 200 horsepower). By 1960, most offshore shrimping boats were equipped with electronic navigational equipment.[93] Over time, many of the 1930s-era luggers, including those with the Texas-style rig, fell out of use.

In the last decades of the twentieth century, gulf shrimpers gradually adopted double rigs, which were first introduced in Rockport, Texas in 1955.[94] Double rigs allowed shrimpers to use multiple trawls at once, thereby multiplying their catches. Larger boats further increased the size of their rigs in order to pull as many as four or six nets simultaneously.[95] In another advance, "turtle excluder devices" helped minimize the ecological impacts of shrimp trawling. By the end of the 1980s, regional variations in shrimping vessels had largely disappeared, and shrimp trawlers were "relatively homogenous."[96]

Over time, Grillo observed the size of daily shrimp catches dwindle, even though prices remained stagnant. By that time, the Pier 19 fleet consisted of just 20 shrimping vessels.[97] In 2003, Grillo retired and sold the *Santa Maria* to the Galveston Historical Foundation, which has since included the vessel in the collections of the Texas Seaport Museum.[98]

III. SIGNIFICANCE

The *Santa Maria,* built 1937, is a Biloxi-style lugger with a Texas-type rig. J.D. "Jackie Jack" Covacevich built the boat in Biloxi, Mississippi on behalf of Joseph Grasso, an Italian immigrant and a bay shrimper based in Galveston. In designing the *Santa Maria*, originally known as the *Miss Galveston*, Covacevich added elements characteristic of Florida-style shrimp trawlers to the otherwise typical Biloxi-style lugger design. These changes demonstrate features of the shrimping culture in Galveston, where a small industry, led by Italian Americans with experienced in the Florida shrimping tradition, grew slowly during the early decades of the twentieth century.

In 1937, surveyors discovered major shrimping grounds off the coast of Louisiana leading to a boom in shrimping production in the western Gulf of Mexico. An expanded market for shrimp consumption after World War II further boosted the growth of the industry. Amidst these developments, Grasso expanded his business and his fleet, and the *Miss Galveston/Santa Maria* is one result of those efforts. After Grasso sold the vessel to Joseph Grillo in 1952, Grillo changed its name to *Santa Maria* and operated it out of Pier 19 for over fifty years. During this period, the Grillos were among the most active members of the Galveston shrimping community. As the shrimping industry changed in the last decades of the century and these small shrimpers gradually went out of business, the *Santa Maria* was one of the last full-time shrimping boats shrimping the waters of Galveston Bay.

IV. ILLUSTRATIONS

Figure 1 – *Santa Maria* in her berth at Pier 19. (August 18, 2016, Matt Pelz, Galveston Historical Foundation).

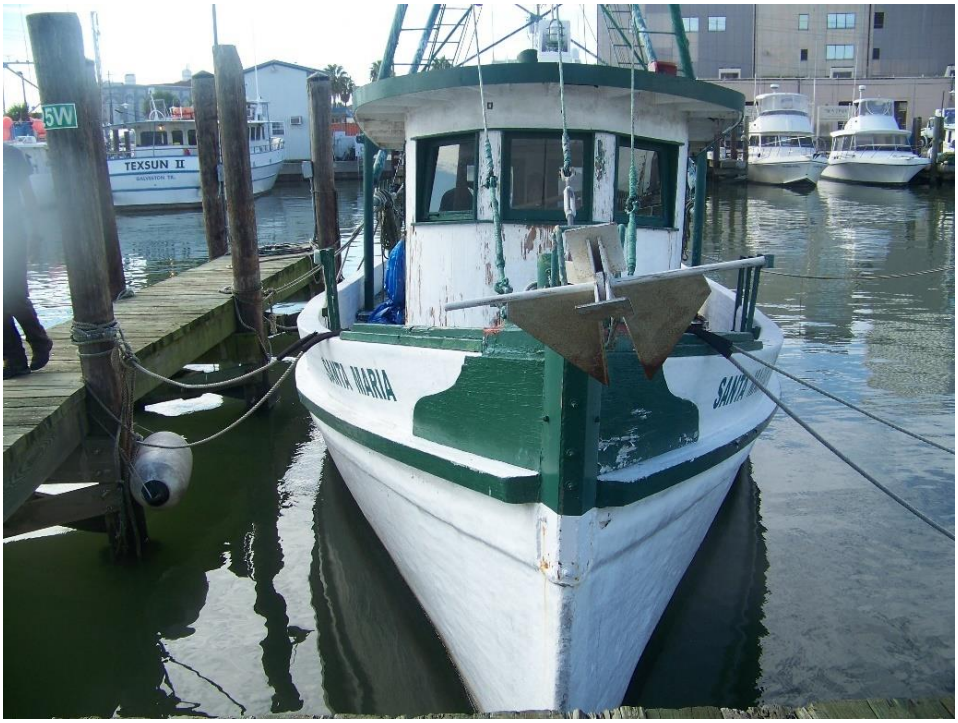

Figure 2 - *Santa Maria* in her berth at Pier 19. (August 18, 2016, Matt Pelz, Galveston Historical Foundation).

Figure 3 - *Santa Maria* in her berth at Pier 19. (August 18, 2016, Matt Pelz, Galveston Historical Foundation).

Figure 4 – The pilothouse of the *Santa Maria*. (January 2017, Courtesy of Josephine Grillo Sullivan).

Figure 5 – Inside the pilothouse of the *Santa Maria*. (August 18, 2016, Matt Pelz, Galveston Historical Foundation).

Figure 6 – The interior of the *Santa Maria*. (August 18, 2016, Matt Pelz, Galveston Historical Foundation).

Figure 7 – *Santa Maria*, drydocked in November 2016. The fiberglass covering of the hull is visible. See Figure 5 for comparison to photograph of exposed wooden hull. (Courtesy of Josephine Grillo Sullivan).

Figure 8 – *Santa Maria*, drydocked in November 2016. (Courtesy of Josephine Grillo Sullivan).

Figure 9 – Rig of the *Santa Maria*. (Courtesy of Josephine Grillo Sullivan).

Figure 10 – The earliest known photo of the *Miss Galveston/Santa Maria,* dated 1953. The original rig is visible. (Courtesy of Joseph and Edna Grillo).

Figure 11 – 1953 photo of Joseph Grillo painting the *Miss Galveston* renaming it *Santa Maria*. (Preservation Resource Center, Galveston Historical Foundation, Galveston, Texas).

Figure 12 – 1962 photo of *Santa Maria* during the Blessing of the Fleet event. (Preservation Resource Center, Galveston Historical Foundation, Galveston, Texas).

Figure 13 – Santa Maria, with wooden hull exposed before application of the fiberglass covering. The man in the photo is owner Joseph Grillo. (Courtesy of Joseph and Edna Grillo).

Figure 14 - Photo of Santa Maria *published in 1994 publication on Italian Texas. Date of photo unknown. (*"The Italian Texans," The University of Texas Institute of Texan Cultures at San Antonio. 1994. W. Phil Hewitt, Principal researcher).

Figure 15 - Photo of *Santa Maria* taken in 2002, shortly before the Grillo family sold the vessel to Galveston Historical Foundation. (Preservation Resource Center, Galveston Historical Foundation, Galveston, Texas).

V. SOURCES

[1] Condrey, Richard and Deborah Fuller. "The US Gulf shrimp fishery," *Climate Variability, Climate Change*. Michael H. Glantz, editor. National Center for Atomospheric Research, Boulder, Colorado. New York: Cambridge University Press, 1992, p. 90; Nuwer, Deanna Stephens. "The Seafood Industry in Biloxi: Its Early History, 1848-1930," *Mississippi History Now*; June 2006. Web. http://mshistorynow.mdah.state.ms. Accessed February 10, 2017.
[2] *Survey of the United States Shrimp Industry*, US Fish and Wildlife Service, 1958, 19.
[3] Powell, Murella Hebert. "Biloxi, Queen City of the Gulf Coast," *Marine Resources and History of the Mississippi Gulf Coast;* Volume 1. Mississippi Department of Marine Resources, 1998, p.142.
[4] Maril, Robert Lee. *The Bay Shrimpers of Texas*. Kansas: University Press of Kansas, 1995, pp.120, 124
[5] "The Mosquito Fleet," *The Galveston Daily News;* March 2, 1896.
[6] "Mosquito Fleet is Disappearing," *The Galveston Daily News;* May 14, 1922.
[7] Piston, William Garrett. "Maritime Shipbuilding and Related Activities in Louisiana, 1542-1986," *Louisiana History: The Journal of the Louisiana Historical Association;* Volume 29, Number 2, Spring 1988, pp.172.
[8] *Survey of the United States Shrimp Industry*, 63.
[9] Nuwer, Deanne Stephens. "Shipbuilding Along the Mississippi Gulf Coast," *Mississippi History Now;* October 2010. Web. http://mshistorynow.mdah.state.ms. Accessed January 31, 2017.
[10] Powell, "Biloxi, Queen City of the Gulf Coast," 142.
[11] Maril, *The Bay Shrimpers of Texas*, 121.
[12] "The Mosquito Fleet," March 2, 1896.
[13] Powell, "Biloxi, Queen City of the Gulf Coast," 143.
[14] Nuwer, "Shipbuilding Along the Mississippi Gulf Coast."
[15] Nuwer, "The Seafood Industry in Biloxi: Its Early History, 1848-1930."
[16] Maril, *The Bay Shrimpers of Texas*, 124-125.

[17] Comeaux, Malcolm. "Folk Boats of Louisiana," *Louisiana Folklife: A Guide to the State*; 1985. Office of Cultural Development. Web. http://www.louisianafolklife.org. Accessed February 10, 2017.
[18] Nuwer, "Shipbuilding Along the Mississippi Gulf Coast."
[19] Padgett, Herbert R. "Physical and Cultural Associations on the Louisiana Coast," *Annals of the Association of American Geographers;* Volume 59, Number 3. September 1969, p.489; Comeaux, "Folk Boats of Louisiana," *Louisiana Folklife: A Guide to the State*; 1985.
[20] Personal Statement by Russell Barnes, February 11, 2017. Preservation Resource Center, Galveston Historical Foundation, Galveston, Texas.
[21] Nuwer, "The Seafood Industry in Biloxi: Its Early History, 1848-1930."
[22] Gillett, "Global Study of Shrimp Fisheries," 9.
[23] Ibid., 9.
[24] *Survey of the United States Shrimp Industry*, 81.
[25] Burke, Brendan. "Florida's Fleet: An Ebbtide of Shrimp Boats on the San Sebastian River." Lighthouse Archeological Maritime Program, St. Augustine, Florida, December 2009, p. 3.
[26] Gillett, "Global Study of Shrimp Fisheries," 9-10, 290.
[27] *Survey of the United States Shrimp Industry*, 19.
[28] Maril, *The Bay Shrimpers of Texas*, 129.
[29] Gillett, "Global Study of Shrimp Fisheries," 9; *Survey of the United States Shrimp Industry*, 80.
[30] Nuwer, "Shipbuilding Along the Mississippi Gulf Coast."
[31] Nuwer, "The Seafood Industry in Biloxi: Its Early History, 1848-1930."
[32] "Mosquito Fleet is Disappearing," May 14, 1922.
[33] "Estimate Catch of Oysters Largest from this Point in Several Years," *The Galveston Daily News;* April 20, 1924.
[34] Maril, *The Bay Shrimpers of Texas*, 130.
[35] Canright, David. "Santa Maria," *Coast Monthly;* November 29, 2014. Web. *Coast Monthly*. www.coastmonthly.com/2014/11/santa-maria/. Accessed July 19, 2016.
[36] "Mosquito Fleet is Disappearing," May 14, 1922.
[37] Maril, *The Bay Shrimpers of Texas*, 127-130.
[38] Comeaux, "Folk Boats of Louisiana."
[39] Powell, "Biloxi, Queen City of the Gulf Coast," 150; Gillett, "Global Study of Shrimp Fisheries," 10.
[40] *Survey of the United States Shrimp Industry*, 63-64, 69.
[41] Padgett, "Physical and Cultural Associations on the Louisiana Coast," 489.
[42] *Survey of the United States Shrimp Industry*, 19; Piston, "Maritime Shipbuilding and Related Activities in Louisiana, 1542-1986;" Comeaux, "Folk Boats of Louisiana."
[43] Condrey and Fuller, "The US Gulf shrimp fishery," 97.
[44] "Galveston Shrimp Industry Strikes Phenomenal Boom," *The Galveston Daily News;* July 10, 1931.
[45] Condrey and Fuller, "The US Gulf shrimp fishery," 96.
[46] *Survey of the United States Shrimp Industry*, 63-64.
[47] Comeaux, "Folk Boats of Louisiana."
[48] *Survey of the United States Shrimp Industry*, 63-64.
[49] Gillett, "Global Study of Shrimp Fisheries," 9.
[50] "Galveston Shrimp Industry Strikes Phenomenal Boom," July 10, 1931.
[51] Maril, *The Bay Shrimpers of Texas*, 133-142.
[52] Padgett, "Physical and Cultural Associations on the Louisiana Coast," 492.
[53] "The Italian Texans," The University of Texas Institute of Texan Cultures at San Antonio. 1994. W. Phil Hewitt, Principal researcher, p.19.
[54] "Joseph Grasso's Last Rites Today," *The Galveston Daily News;* September 5, 1936.
[55] "The Italian Texans," 19.
[56] "Joseph Grasso, 53, Claimed by Death," *The Galveston Daily News;* September 4, 1936.
[57] "The Italian Texans," 19.
[58] "Joseph Grasso, 53, Claimed by Death," September 4, 1936.
[59] "Joseph Grasso Jr., Civic Leader, Dies," *The Galveston Daily News;* January 9, 1975.
[60] Legal Notices. *The Galveston Daily News;* November 16, 1936.
[61] Bach, Nenad N. "Martinolich Shipyards in America," *Croatia.Org;* March 3, 2004. Web. http://www.croatia.org/crown/articles/6298/1/E-Martinolich-Shipyards-in-America.html. Accessed February 16, 2017.

[62] Smising, Catherine Allyn. "Biloxi Boat-Building Booms Again," *Times-Picayune Magazine;* October 6, 1946; Thompson, Ray M. "Know Your Coast," *Biloxi/Gulfport Daily Herald;* April 2, 1957.
[63] Thompson, "Know Your Coast," 1957.
[64] Ibid.
[65] "United States Federal Census, 1920, Biloxi, Mississippi. United States," Database, *FamilySearch*. https://familysearch.org: accessed February 13, 2017. Washington, DC: National Archives and Records Administration.
[66] Nuwer, "Shipbuilding Along the Mississippi Gulf Coast."
[67] Smising, "Biloxi Boat-Building Booms Again," October 6, 1946.
[68] Personal Statement by Russell Barnes, February 11, 2017. Preservation Resource Center, GHF, Galveston, Texas.
[69] Powell, "Biloxi, Queen City of the Gulf Coast," 146.
[70] Nuwer, "Shipbuilding Along the Mississippi Gulf Coast."
[71] "Boat Construction Keeps Two Shipyards at Biloxi Active," *Biloxi Daily Herald;* May 28, 1938; "Building Large Boat," *Biloxi Daily Herald*; January 29, 1938; "Launching New Boat," *Biloxi Daily Herald;* March 16, 1939; "Launch New Boat," *Biloxi Daily Herald;* October 12, 1937; "Launch Trawler," *Biloxi Daily Herald;* October 27, 1937.
[72] "Boat Construction Keeps Two Shipyards at Biloxi Active," May 28, 1938.
[73] "Shrimp Company to Send Boats to Make Study," *The Galveston Daily News;* December 26, 1937.
[74] "The Italian Texans," 19.
[75] "Joseph Grasso Jr., Civic Leader, Dies," January 9, 1975.
[76] "The Italian Texans," 19.
[77] Elder, "End of the Voyage," June 15, 2003.
[78] "Joe Grasso & Son, Inc. to Joseph Anthony Grillo, Oil Screw or Vessel called the "Miss Galveston" Bill of Sale of Licensed Vessel Under 20 Tons. Treasury Department Bureau of Customs. Customs Form 1344.
[79] Written Statement by Joseph Grillo, October 21, 2016.
[80] Prather, Laura. "A Santa Maria Morning," *Galveston*, September 1975, p.7.
[81] Elder, "End of the Voyage," June 15, 2003.
[82] Legal Notices, *The Galveston Daily News;* March 18, 1958.
[83] Elder, "End of the Voyage," June 15, 2003.
[84] Prather, "A Santa Maria Morning," 7-11; Gooden, Alicia. "Isle Shrimper Has No Plans to Quit," *The Galveston Daily News;* March 22, 1999; Elder, "End of the Voyage," June 15, 2003.
[85] Written Statement by Joseph Grillo, October 21, 2016.
[86] Ibid.
[87] *Survey of the United States Shrimp Industry*, 19.
[88] Maril, *The Bay Shrimpers of Texas*, 137-138.
[89] *Survey of the United States Shrimp Industry*, 19-20.
[90] Condrey and Fuller. "The US Gulf shrimp fishery," 98-99.
[91] Maril, *The Bay Shrimpers of Texas*, 138-139.
[92] Written Statement by Joseph Grillo, October 21, 2016. Preservation Resource Center, Galveston Historical Foundation, Galveston, Texas.
[93] Gillett, "Global Study of Shrimp Fisheries," 10.
[94] McComb, David G. *Galveston: A History*. Austin: University of Texas Press, 1986, p.19.
[95] Written Statement by Joseph Grillo, October 21, 2016.
[96] Gillett, "Global Study of Shrimp Fisheries," 10.
[97] Elder, "End of the Voyage," June 15, 2003.