THE NEWSLETTER FOR THE ESCAMBIA COUNTY HISTORICAL SOCIETY

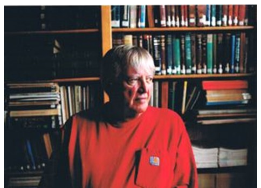
ECHOES

The Escambia County Historical Society, Founded 1971

The March 2022 Newsletter

The March Meeting will be Tuesday, March 22 at 3:00 pm in the Meeting Room in the McMillan Museum

The Program: Guess Speaker Steve Stacey Will Present a Program on Claiborne, an Early Settlement in Monroe County



Steve Stacy

Our speaker is an historian and genealogist who focuses on the history of Alabama and Monroe County. He appears on a morning talk show once a week on WPPG (the Power Pig), 101.1 FM Radio, answering questions about the history of Monroe County. Steve publishes stories about Monroe County history on the Steve Stacey Blog *(https://www.stevestacey.info/)* and on the Facebook group page “The Good Ole Days of Monroe County AL” *<https://www.facebook.com>.groups/473207576751231/>.* He is also a part-time researcher for the Monroe County Public Library.

Table of Contents

The April Meeting
April 26, 2022
Guest Speaker will be James P. Pate who edited and annotated the new edition of Pickett’s History of Alabama .

Chair used by County Court Clerk Charlie Weaver, in courthouse of 1901-1960, donated to the Museum.

Mayor Hank Loveless, who posted this picture, comments that it is a Brewton firetruck from years ago and that the picture is from a parade in downtown Brewton.

Boxcar Donated by CSX to Atmore Parking Lot Project

Volume 49 No. 3
March 2022

News and Announcements

Winner of "Name the Boxcar Contest" for the Atmore Parking Lot Project to be Announced on March 19 at Grand Opening of the Parking Lot Project

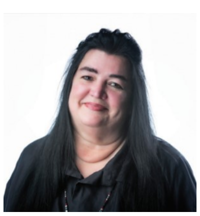
CSX Donated the Boxcar to the Atmore Parking Lot Project

The winner, who will receive $100, will be announced during the grand opening of the parking lot — located at the corner of Trammell and Ridgeley Streets, just a block off Main Street. The family event is set to begin at noon and will include "live music, snow cones and more," according to the MSA (Main Street Atmore) flyer.

The lighted property will feature the boxcar, which has a covered stage attached, a grassy area for those who attend events staged from the boxcar and 30 parking spaces, including four for handicapped individuals.

At least one ECHS member, Ann Biggs-Williams, has submitted a name for the "Name the Boxcar Contest."

****



Dr. Deidra Suwanee Dees of the Poarch Creek Indians to Make a Presentation at the Alabama Historical Ass. Annual Meeting

Dr. Dees who is the Director/Tribal Archivist for the Office of Archives and Records Management at the Poarch Band of Creek Indians will make the presentation on April 9, 2022 at the Business Session of the Association's Annual Meeting, which will be held in Florence, Al.,
April 7-9, 2022.

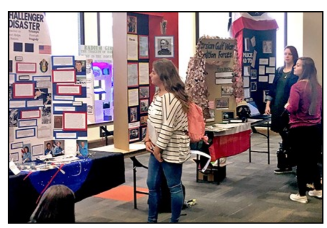
Sign Now Denotes Weaver Cemetery on Appleton Road as Burial Site of Congressional Medal of Honor Winner Wayne Seay

The sign reads:

Medal of Honor Recipient

Sgt. William Wayne Seay, Congressional Medal of Honor recipient, Viet Nam Veteran, U.S. Army, killed in action at Ap Nhi, Republic of Viet Nam on August 25, 1968. He was buried at Weaver Cemetery, Appleton, Alabama, Sgt. Seay killed many of the enemy while saving the lives of the other men at his location. Throughout history, there have only been 33 Medal of Honor recipients from the state of Alabama. We are proud to have Sgt. Seay here along with many other veterans buried here who proudly served our country from this area.

****



Alabama History Day Set for April 8, 2022

Alabama History Day is the state affiliate contest of National History Day, a history competition that engages students (grades 6-12) in robust and creative historical research. The winners of the state contest are eligible to participate in the national contest in Washington D. C.

Alabama History Day fosters interdisciplinary historical research, interpretation, and creative expression. Each year, National History Day announces an annual theme to which students respond by investigating primary and secondary historical sources relating to a topic of their choice. They then synthe-

(Continued on page 3)

News and Announcements

(Continued from page 2)

size their findings and present them in one of five categories: Paper, Documentary, Website, Performance, or Exhibit. Students work individually or in groups of up to five. By participating in Alabama History Day, students become writers, filmmakers, web designers, playwrights and artists as they create unique contemporary expressions of history.

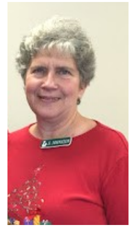
Submission for the awards was March 25, 2022. All events will be held virtually.

****

Alabama Historical Association Fall Pilgrimage, Mentone, AL Sept. 23-24, 2022,

Mentone in DeKalb County, Alabama, is located atop Lookout Mountain. One of the area's chief attractions is DeSoto Falls.

For lodging and other information, visit <*www.alabamahistory.net* >.



Sherry Johnston, ECHS Librarian Is the New Administrator for the Escambia County (Alabama) History, Facebook Page.

In a post on the Escambia County (AL) History webpage, Sherry welcomes new members and encourages members to share the page with friends, family and coworkers that you think would enjoy learning and sharing some Escambia County Alabama history with each other.

She writes, "We want to feature history related stories, family information that is pertinent to Escambia County, Alabama. Sometimes, the stories we share might be shared from our neighboring state of Florida, simply because our history is intertwined with so much of the Panhandle, so those stories, events, activities, people are acceptable as long as they are history related!"

She asks for patience as readers notice changes and as she and others formulate the rules for what is and is not appropriate for posting on the Facebook site for ECHS.

This Facebook group page, an unofficial wing of ECHS can be accessed at < *https://www.facebook.com/.groups/223394524364985/*>.

A Report on the Excavation of the de Luna Settlement by

The following is he narrative of the online presentation of the progress of the excavation of the de Luna settlement. The YouTube presentation can be viewed at <https://www.youtube.com/watch?v=9OsRNU9DfSs>.

John Worth

Luna Settlement Terrestrial Field School—Summer 2021

The University of West Florida 2021 Luna Settlement Terrestrial Field School took place at the archaeological site of the 1559-1561 Tristán de Luna settlement overlooking Pensacola Bay. The goals of the project were to continue excavations focusing on the traces of the colonial settlers who lived there after a hurricane destroyed their fleet.

During the summer, for 8 weeks field school students were exposed to a broad range of archaeological field techniques, ranging from excavation and survey, to scale drawing and record-keeping.

Dr. John Worth, the lead archaeologist for this ongoing effort, explains the history of the site and the significance of the of the settlement and the excavation of it:

We're standing in the middle of the Tristan de Luna settlement that was here in Pensacola on the bay from 1559 to 1561. Today we're in the midst of an eight week long field school so what we're doing today is essentially continuing day-by-day excavations down underneath the surface of the ground in this residential neighborhood hoping that we can eventually go through the artifact-filled layers where all the debris and everything accumulated and eventually get down to the bottom. We're looking for post holes and evidence of architecture structures, houses,

(Continued on page 4)

(Continued from page 3)

maybe even things like the royal warehouse, or there was a church as well. So the students are learning to do archaeology by doing archaeology here at the Luna settlement.

The Expedition

Tristan de Luna was charged by the King of Spain via the Viceroy of New Spain to come to Florida, which was the southeastern United States in general, and eventually was going to set up a colony on the Atlantic coast of what is now modern-day South Carolina. This plan was to prevent the English and French from settling the east coast of what became the United States, territory, which Spain had already laid claim to.

The way the Vice-Roy and Luna strategized this was to come up from Veracruz, Mexico across the Gulf and then establish a first port city or port town in Pensacola Bay, which had been found 20 years earlier during the Hernando de Soto expedition. So de Luna's goal was to set up a town and colony and take an army of cavalry and infantry all the way back across the interior southeast.

The Luna expedition brought 12 ships, 1500 settlers and 250 horses (about half of which arrived alive). The goal of the settlers was to set up this port where they would then be resupplied and from the port city move inland with this army of 500 soldiers half of which were infantry and half of which were cavalry. They were going to pick up the old Hernando de Soto route, go across the Appalachian mountains and eventually descend down to the Atlantic coast. So that was the goal.

The Hurricane

That was the goal but what happened when they arrived and chose settlement here on the edge of Pensacola Bay on a nice level high terrace was that five weeks later a hurricane struck, and unfortunately for them, they had yet to build a solid good warehouse where they could store all their food. So they unloaded all the people and the goods that could survive the weather but they left all their food on the floating warehouses which were the ships.

Survivors of the storm all congregated here and they had almost no food, so suddenly the expedition changed from, you know, moving inland and achieving their mission to, "How are we going to survive with 1500 people stranded here in Pensacola Bay and with little transportation?"

They still had their mission, which was to move inland and go to the Atlantic coast. Tristan de Luna, the governor, wanted to move forward. He also wanted to keep everybody alive, so they stayed here and they sent word to Veracruz to send more supplies. They sent the three remaining ships that they had here to Havana to buy more supplies very quickly. They spent several months waiting for their return. The relief fleet showed up in December and they got some food from it, but eventually by February and into March, they realized no more food was coming for several more months and they were starving.

Nanipacana

De Luna had sent a detachment of soldiers inland and they had actually found a large Native American village called Nanipacana somewhere on the Alabama River. We haven't yet found the archaeological site of it, but it was big and the Native Americans in that area had a lot of surplus corn which for the moment was at least available. So de Luna decided the settlers should build two small-oared brigantine vessels here at the de Luna settlement and the ships were going to carry a lot of supplies over to Mobile Bay and then up the Alabama River. The rest of the people were going to go by land. So they actually cut a road between the de Luna settlement and central Alabama.

They moved inland and left about a hundred people at the de Luna settlement. So the de Luna settlement was occupied for the next five or six months by a small skeleton group of soldiers who just stayed here to guard the port just in case ships showed up.

The Abandonment

However, once the settlers were inland, the Native Americans in that area realized the Spanish were not really good news and they pulled away and took all their food. They no longer traded with the Spaniards and de Luna arrived at the inland settlement just about the time that the local Indian groups were burning their fields, cutting their corn crops down, and burning their own villages. They even tore up all the wild foods that were near the Spaniards to encourage them to go.

Eventually de Luna acceded to the demands of his

(Continued on page 5)

Artifacts from the de Luna Settlement

Olive Jar

Glazed Lead Cooking Dish

Aztec Pottery

Majolica

Crossbow Bolts

Brass Weight, Part of Weight Scale Used by Treasurer of de Luna settlement

Fastener Nail

(Continued from page 4)

men and they returned to the coast, and from that point more relief fleets came here.

So essentially this settlement dwindled in population. It started at 1500 and dropped to about a hundred and then it went back up to 800 or a thousand, but then the settlers started sending people back every time a relief fleet would arrive. Several hundred people might leave. So a year after de Luna got here, this settlement had only 362 living people.

Gradually this settlement congregated around sort of its core, so, in other words, the big site that was initially founded, and where we find artifacts, eventually got much smaller. So today (summer 2021), we are digging right in that core area where I think they spent two years living here, setting up housing and eating and fishing and hunting and doing what they could to survive.

The Excavations

What we're doing here in this excavation is seeing if we can find any traces of what their life was like. We've got trash pits. We've got all sorts of horizontal distribution with shells and burnt bones, so these items might be able to tell us something of the strategies they used to survive. How did they get fish and how did they get deer? What was their diet like? Did they have a lot of relief supplies? We might find evidence of things like corn from New Spain or wheat.

There's a lot of documentary evidence of what they brought but there's zero, really almost no documentary record of what they did to survive while they were here because they were too busy surviving to write about everything. All we have is sort of secondary accounts, so it's really in archaeology that we can find the details that never got written down about how de Luna's colonists eventually persisted. Some of them didn't make it. The parish priest. for example, died and is buried somewhere out here, but everybody else that did survive had to have a strategy. That's sort of what we're looking for here,

We've done shovel tests, meaning making holes to sort of grab samples in the ground that allow us to determine if there are 16th century Spanish artifacts or not. We ended up bounding the site. We know it's about 31 acres or so. Over time we've gotten a good sense of how big the site is and where the hot spots are. In the core area we have been finding a consistent range of artifact types.

We find lots of broken Spanish pottery, everything from these big, what we call Spanish olive jars, which have these big, thick sort of donut-like necks ,which were used to carry wine, water and

(Continued on page 6)

(Continued from page 5)

vinegar. The smaller version of the same thing was used to carry olive oil. We found cooking pots that were glazed lead. We found casserole dishes, also used in cooking, and a few, a small number of plates made out of what we call majolica. This white, tin, enamel ceramic was occasionally painted. So that is the kind of ceramics we have.

But one of the neat parts about this is that in addition to being Spaniards from Spain, the settlers also brought Aztecs from New Spain. They actually brought 200 or so Aztecs Indians that had been converted in Mexico City. They were Christian Aztecs and they came with the expedition. So we have a lot of Aztec pottery, actually a small percent of the artifacts found, but a lot in the sense that it is the most that has ever been found in the southeastern United States.

The Aztec pottery we found occurs in the same area as we find lots of fancy, high-status Spanish material. It looks like the Spanish in 1559 who were residing in Mexico City simply went to the market there in the city and they incorporated Aztec pitchers and vessels, serving bowls, into their kitchen. Essentially, the fact that we're finding Aztec pottery doesn't necessarily mean it was Aztecs who were using it. It means that Aztecs made it and Spaniards may have brought it as their own personal possessions.

We've got lots of military hardware. We have hammered copper crossbow bolt tips. We've got eight or so. We've got a couple of iron ones made in Spain. We have an amazing assortment of fasteners with nails, essentially nails with spikes, from the large ones that are as big as my forearm all the way down to teeny tiny wide-headed tacks that would have been used on the ship's pumps to hold the leather down on the wood and make the pump work.

We've got all sorts of interesting things. One of my favorite artifacts on the site is a little tiny biscuit shaped lump of brass that's been carefully worked. It's got a stamp in it of a castle, a big X on one side of it with a C underneath. After doing some research, I found the artifact was part of a set of weights for a balanced scale weight. For that particular weight, it was ten Castellanos, a ten for the X. A Castellano was only used to weight gold and it wasn't like the settlers were going out looking for gold here because that's not what they expected to find.

What happened in that time period was that the treasurer was the only person who would have had a set of weights to value people's estates. If somebody died who had a little bit of jewelry or whatever, the treasurer was the one in charge of making an inventory, an evaluation of what they owned, and then the estate or property was sold at auction. But the treasurer was the one who had to evaluate and that artifact is probably one of the weights.

So in addition to being a really neat artifact that's very unusual, the presence of that artifact might suggest the location of the house of the treasurer, whose name we know, Alonzo Velazquez Rodriquez, and we know a lot about his history. He might have lived on that very spot where we found the weight, which is kind of neat.

A Phenomenal Discovery

The Luna settlement is the first multiyear European settlement ever to happen in the continental United States. There is no earlier one. There are two, early short lived settlements, one in Florida and another one on the coast of Georgia but Luna's settlement is the first one where the settlers stayed several years. It was also the largest. Luna is the largest 16th century archaeological site of Spaniards in all of the continental United States. It's bigger than St Augustine and Santa Elena on the east coast. It's bigger than downtown Santa Fey at the end of the 16th century in New Mexico. So we have the largest site, we have the earliest multi-year site,

The fact that this settlement with all of its people living in it was right next to where their entire fleet was wrecked right off shore is an amazing archaeological opportunity because we have the ships that brought all these people and all these supplies that were at anchor and wrecked right here, right offshore. We have the place where the supplies had been off loaded. The assemblage of pottery and different artifacts we find on the shipwrecks versus what we find on land is identical. It's an amazing opportunity to get a sampling of the terrestrial material culture of Spaniards and Aztecs and servants and their African slaves and others who lived here, and then compare it with the very same ships, not just any ships, but like literally the same ships that they came on.

(Continued on page 7)

(Continued from page 6)

It's just amazing. I can't imagine another archaeological site or area that would be more important than something like this for studies of early colonial expansion, European colonials, in the 16th century. It's just a phenomenal discovery and one that we will be studying for decades to come.

Notes on Other Colonies in Spanish Florida

1. Santa Elena: *from Wikipedia* <https://en.wikipedia.org/wiki/Santa_Elena_(Spanish_Florida>.

Sana Elena, a Spanish settlement on what is now Parris Island, South Carolina, was the capital of Spanish Florida from 1566 to 1587. It was established under Pedro Menéndez de Aviles, the first governor of Spanish Florida.

Menéndez's Santa Elena settlement was intended as the new capital of the Spanish colony of La Florida, shifting the focus of Spanish colonial efforts north from St. Augustine, which had been established in 1565 to oust the French from their colony of Fort Caroline (located in Duval County, FL, near what is now Jacksonville). Santa Elena was ultimately built at the site of the abandoned French outpost of Charlesfort, founded in 1562 by Jean Ribault.

In 1565 Menéndez destroyed the French Fort-settlement, Charlesfort, and then founded Santa Elena (Also named at some point Fort San Felipe and San Marcos as well as Santa Elena, Charlesfort). This colony, Santa Elena, had a sizeable population, including missionaries and soldiers. The settlement housed a sizeable community, and became the base of operations for the Jesuits and military working in the northern zone of Spanish Florida.

From this base, the Spanish founded six other forts during the Captain Juan Pardo expedition into the interior and the Appalachian Mountains. But local Native American tribes resisted, killing the garrisons and destroying all the forts in 1568. Spain abandoned thoughts of colonizing this area,

In 1586 Francis Drake led an English force in a raid on St. Augustine. The Spanish abandoned Santa Elena the following year, and its remaining settlers were relocated to St. Augustine to strengthen it. The Spanish never pressed their colonial claims to the area again, focusing on other areas of the American continent.

2. Fort Caroline: *from Wikipedia* <https://en.wikipedia.org/wiki/Fort_Caroline#cite_note-Horowitz,_p262-2)>.

Fort Caroline was an attempted French colonial settlement in Florida, located on the banks of the St. Johns River in present-day Duval County. It was established under the leadership of René Goulaine de Laudonnière on June 22, 1564, as a new territorial claim in French Florida and a safe haven for Huguenots, who were being persecuted in France because they were Protestants, rather than Catholics.

The French colony came into conflict with the Spanish, who established St. Augustine in September 1565, and Fort Caroline was sacked by Spanish troops under Pedro Menéndez de Avilés on September 20. The Spanish continued to occupy the site as San Mateo until 1569. The exact site of the former Fort Caroline is unknown.

3. The Huguenot Massacre: *from Wikipedia at* <https://jeanribault.org/exploring-the-role-of-st-augustine-in-the-history-of-florida/>.

Jean Ribault was a French Huguenot, a community of Protestant Christians who were being persecuted by Catholics in France at the time Menendez was establishing St. Augustine in Florida. He was one of the leading French figures in the New World at that time, sent by Admiral Coligny (leader of the Huguenots) to scout locations for potential Huguenot colonies.

Knowing that King Philip II of Spain had recently sent Menendez to the New World with orders to hunt down and destroy French efforts to establish colonies in the southeast, Ribault attempted to gain the strategic advantage and attack Menendez first.

Ribault set sail from Fort Caroline with a plan to pre-emptively attack Menendez at St. Augustine. Unfortunately for Jean Ribault, intense storms caused his ships to be destroyed and all 350 men to be shipwrecked near present day Daytona Beach.

In a very cunning counterattack, Menendez's troops marched by land, through the storm and attacked the now poorly defended French settlement of Fort Caroline (present day Jacksonville). The fort was completely overwhelmed by the Spanish. Most of the French were killed and their supplies captured.

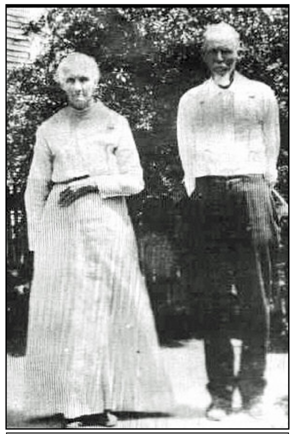
Back on the beach (at an inlet called Matanzas), Menendez was able to round up Ribault's shipwrecked men under a banner of peace. Once bound, the French Huguenots (who had managed to get back to this islet just south of St. Augustine), were given the opportunity to deny their Christian faith as Protestants or be murdered by the Catholic Menendez. All but a few chose to be executed. It is estimated that almost 350 men (including Jean Ribault) were murdered.

Today we refer to this as the Matanzas Massacre or the Huguenot Massacre.

Grandma Lou-Civil War Heroine

By Charlie Ware

I remember that at family gatherings with my grandparents way back when I was a kid, the story of Grandma Lou and her daring horseback ride from Canoe to Chattanooga during the Civil War would often be retold. Although I was too young at the time to understand the significance of the story, I can recall my great-grandmother telling of her memories of the event. I'm sure that the story has been embellished somewhat over the years as it was passed down through five generations, but the basic facts are documented in Annie Waters' book *History of Escambia County Alabama.*



Lucretia and Benjamin Bryars (circa 1912)

Grandma Lou was my great-great-grandmother, Lucretia Ellen Bryars. She was born on February 15, 1837, to James and Nellie Miles in the community of Evansville, Alabama. Evansville was a thriving community at that time located near present day Wawbeek. In 1859, she married Benjamin Henry Bryars (1836-1920) and they made their home near Canoe, just south of the Florida state line.

A few months after the outbreak of the Civil War, Benjamin left home to join the Confederate army, leaving Lucretia at home with three young children. He became a member of the 2nd Alabama Regiment which was initially garrisoned at Ft. Morgan. In late 1862, the 2nd Alabama received orders to proceed to Tennessee to become part of the Army of Tennessee under Gen. Braxton Bragg.

The Army of Tennessee had recently been forced to withdraw from Chattanooga, but Gen. Bragg was determined to retake the city. On September 18, 1863, Bragg launched a campaign against Union forces just south of Chattanooga at an area known as Chickamauga. The battle raged for three days and resulted in a Confederate victory, but the campaign became one of the bloodiest of the war with the number of casualties second only to the Battle of Gettysburg. Pvt. Benjamin Bryars was one of those casualties.

On the morning of September 19, Benjamin was severely wounded and spent most of that day lying on the battlefield, unable to move, as the fighting continued all around him. Later in the afternoon, he was picked up by a team of stretcher-bearers and taken to a make-shift field hospital located in a near-by church.

Field hospitals were located near the front lines and served as an initial treatment center for those soldiers evacuated from the battlefield. They were often in homes, churches, barns, or any other local buildings that were available. Surgeries often took place on dining tables or doors removed from their hinges. Qualified surgeons were few and most treatment was administered by local volunteers. Supplies were extremely limited and there was no anesthesia other than whiskey. A badly wounded soldier could go for days with no attention at all. It is not surprising that when a family learned that a member was injured and in a field hospital, someone from the family would try to go there and personally see to the care of the wounded soldier.

Late in September, Lucretia received word that Benjamin was in a make-shift hospital near Chattanooga and that his condition was critical. She immediately began to make plans to travel to Chattanooga and try to find and care for Benjamin. Her journey would have to be an act of faith, for she had no idea of what perils lay ahead, how she would survive, how she would find Chattanooga, or when she would ever return home. Another consideration was the location of active battlefields. There were still battles erupting and there was always the possibility of inadvertently entering a hostile area.

Lucretia decided that her youngest child, who was still nursing, would have to travel with her. She took her two older children to stay with her sister's family and then packed as much food and clothing as she could into saddlebags, saddled her horse, and with the young child in her arms, climbed into the saddle.

Apparently, at that time, women rode side-saddle, wearing a full dress with numerous petticoats. Annie Waters, in her book, described Lucretia's departure this way: "She mounted the horse, crooking her left leg over the saddle horn, placed her right foot in the one stirrup, neatly arranged her billowing skirt, and rode away to find Ben." Can you imagine riding a horse for 12 hours a day, in that configuration, while holding an infant?

(Continued on page 9)

The ECHS *Journal* Section

Grandma Lou-Civil War Heroine

(Continued from page 8)

A good horse can travel 25 to 30 miles in a day. At that pace it would have taken at least 15 days to reach Chattanooga. Because of the large number of travelers who were attempting to locate loved ones who had been wounded in the war, residents along the way were not surprised when someone needing assistance came their way. Lucretia traveled from sunrise to sunset and sometimes into the night and was fortunate to find compassionate people to provide directions, food, shelter, and any other help they could. She was finally able to locate the field hospital where Benjamin had been taken. She did not know if he was still alive or not.

When Lucretia entered the church, she found over forty wounded soldiers suffering in deplorable conditions. There was blood all over the floor and the smell was dreadful. The onset of gangrene was obvious on several of the soldiers. Benjamin was alive but was in a severely emaciated condition and his blanket and pillow were caked in dried blood. It appeared that his bandages had not been changed for weeks.

Lucretia cleaned Benjamin up as best she could and then she took off her petticoats and cut them up to make pillowcases and bandages. She cleaned and dressed his wounds, insured he had some food and fresh water, and began the process of nursing him back to health. A local family offered to provide her a place to stay and to help care for her infant son. She worked at the hospital for days, caring for the wounded as best she could while waiting for Benjamin to heal. Once she was satisfied that he was on the road to recovery, she began the arduous journey back to Canoe.

Benjamin recovered and returned home after the war. He credited Lucretia with saving his life and probably those of some of the others she cared for.

Benjamin and Lucretia became the parents of seven more children. A daughter, Mildred (my great-grandmother), lived to be 93 years old. I remember visiting with her and hearing her recollections of being left with an aunt while her mother rode away to Chattanooga. I feel I have had a unique connection to history, having listened to someone speaking who actually had memories of the Civil War era. Mildred married Andrew M. Lowery of Canoe who became the first pastor of the Olive Baptist Church in Pensacola.

Lucretia Bryars died on November 3, 1916. Benjamin followed her in death on February 28, 1920. They are buried at the Pine Barren Church cemetery near Davisville, Florida.

Traipsing the Banana Forest

By Darryl N. Searcy

The banana is the world's most popular fruit crop, with over 100 million metric tons produced annually in over 130 tropical and subtropical countries. Edible bananas are actually the result of a genetic accident in nature that created the seedless fruit we enjoy today. Virtually all the bananas sold across the Western world belong to a subgroup of the original species and are genetically nearly identical. The bananas we eat and enjoy so much are sterile and dependent on propagation via cloning, either by using suckers and cuttings taken from the underground stem or through modern tissue culture.

Imagine the good feelings all around while standing in the middle of a complete forest of the familiar bright yellow banana we see year-round in supermarkets and fruit bowls, but also imagine that this delicious product is in imminent danger. The vast worldwide monoculture (the cultivation of a single crop in a given area) of genetically identical plants have left the original Cavendish banana vulnerable to disease outbreaks. At one time in early history fungal

(Continued on page 10)

The ECHS *Journal* Section

Traipsing the Banana Forest

(Continued from page 9)

diseases severely devastated the banana industry and it could happen again if science and growers do not resolve the cause of these problems. When standing in a supermarket among fruits and vegetables I will bet the thought has never crossed your mind that the delicious produce you see at the banana display is in short supply - think again. Plant scientists, including those who harvest specimens of the original plant, are frantically working out the genetics of wild banana varieties in order to prevent a world-wide crash.

In the months of September/October of 2012 while on a plant collecting expedition in the Endau Rompin area of Malaysia, our group had occasion to top a high ridge that overlooked a valley lush with nothing but wild banana trees; we witnessed a piece of history that most people never think about, and of course the topic is rarely discussed. "Last man to eat his fill is a rotten egg!" "And while at it, grab a couple strings of ripe fruit and we'll haul them back to campsite."

One of the most prominent examples of genetic vulnerability comes from the banana itself. Up until the 1960s, Gros Michel, or "Big Mike," was the prime variety of banana grown in commercial plantations. Big Mike was so popular with consumers in the West that the banana industry established large monocultures of this variety. Thousands of acres (or hectares) of tropical forests in Latin America were converted into vast "Gros Michel" plantations.

It was Big Mike's popularity that led to its doom, when a pandemic whipped through the plantations during the 1950s and '60's. A disease called "Fusarium Wilt" or "Panama Disease" nearly wiped out the Gros Michel and brought the global banana export industry to the brink of collapse. A soil-borne pathogen was to blame: The fungus infected the plants' root and vascular system, preventing it from transporting water and nutrients throughout the stalk. The plants wilted and died.

"Fusarium Wilt" is very difficult to control – it spreads easily in soil and water. As of these times, fungicide applications in soil or in the plant's stem are generally ineffective. Moreover, the fungus can persist in the soil for several decades, thus prohibiting replanting of susceptible banana plants.

Is History Repeating Itself? The original Cavendish bananas are resistant to the devastating "Fusarium Wilt," so the plantations were able to replace the Gros Michel when it fell to the disease. Despite being less rich in taste and logistical challenges; this fruit went into international markets replacing the sweetest of all fruits, the Gros Michel. The Cavendish banana went into commercial banana plantations, and like oleo margarine changed our taste for unsalted pure butter, the entire banana industry was restructured, and to date, Cavendish accounts for nearly half of the bananas grown worldwide and 99 percent of all bananas sold commercially for export to developed countries.

Bananas in Costa Rica and most of Central America, from which the United States and the European Union get about 90% of its bananas, were affected by a different disease called "Black Sigatoka." But the Cavendish unfortunately has its own weaknesses, as it was found to be susceptible to the "Black Sigatoka" disease. This weakness left the Cavendish open to other diseases, which attacked the plants' leaves, causing cell death that affected photosynthesis and lead to a reduction in fruit production and quality. If "Black Sigatoka" is left uncontrolled, banana yields can decline by 35 to 50 percent. No grower of bananas knows this better than Dole, Del Monte and Chiquita.

Cavendish growers currently manage "Black Sigatoka" through a combination of pruning infected leaves and applying fungicides. Yearly, it can take 50 or more applications of chemicals to control the disease. Such heavy use of fungicides also has negative impacts on the environment and the occupational health of the banana workers, increasing the costs of production. It also helps select for survival of fungus strains with higher levels of resistance to these chemicals. As the resistant strains become more prevalent, the disease gets harder to control over time.

To further aggravate the situation, Cavendish is now under attack from a recently emerged strain known as "Tropical Race 4" (TR4). First identified in the early 1990s in Taiwan, Malaysia and Indonesia, TR4 has since spread to many Southeast Asian countries and into the Middle East and Africa. If TR4 makes it to Latin America and the Caribbean region, the export banana industry in that part of the world could be in big trouble.

Cavendish varieties have shown little if any resistance against TR4. Growers are relying on temporary solutions – trying to prevent it from entering new regions, using clean planting materials and limiting the transfer of potentially infected soil between farms.

"Black Sigatoka" and "Panama Disease" both cause serious production losses and are difficult to control.

(Continued on page 11)

Traipsing the Banana Forest

(Continued from page 10)

With the right monitoring in place to rapidly intervene and halt their spread, the risks and damage imposed by these diseases can be considerably reduced, as has been recently shown in Australia, but current practices don't provide a durable solution.

If there's a lesson to be learned from the sad history of Gros Michel, it's that reliance on a large and genetically uniform monoculture is a risky strategy that is prone to failure. To reduce the vulnerability to diseases, the industry needs more genetic diversity in the cultivated bananas.

Since turn of the century, over a thousand species of banana have been recorded in the wild. Although most do not have the desired agronomic characteristics – such as high yields of seedless, non-acidic fruits with long shelf life – that would make them a direct substitute for the Cavendish, they are an untapped genetic resource. Every day scientists are searching within them for resistance genes and other desirable traits to use in engineering and breeding programs.

To date, though, there has been little effort and insufficient funding for collecting, protecting, characterizing and utilizing wild banana genetic material. Consequently, while almost every other crop used for food production has been significantly improved through plant breeding over the last century, the banana industry has yet to benefit from genetics and plant breeding.

But first steps have been started. We now know the genome sequences of the banana and the fungi that cause "Fusarium Wilt" and "Sigatoka." These studies helped illuminate some of the mechanisms by which these fungal pathogens cause disease in the banana. That knowledge provides a basis for identifying disease-resistant genes in wild and cultivated fruits.

Researchers now have the tools to identify resistance genes in wild bananas or other plant species. Then they can use classical plant breeding or genetic engineering to transfer those genes into desired cultivars. Scientists can also use these tools to further study the dynamics and evolution of banana pathogens in the field, and monitor changes in their resistance to fungicides.

Availability of the latest tools and detailed genome sequences, coupled with long-term visionary research in genetics, engineering and plant breeding, can help us keep abreast of the pathogens that are currently menacing the Cavendish banana. Ultimately we need to increase the pool of genetic diversity so we don't become dependent on single clones such as the Cavendish or the Gros Michel before it. Otherwise we remain at risk of history repeating itself.

When we had returned to our campsite laden with collections, as well as a hefty supply of ripe bananas, I asked two of our students (Lawrence Istock and Bridey Jensen) to do a little research and document all we know of this delicious product. The end result was a critique which is documented above and below. Their research stunned me, as I did not expect the information they had developed. Nevertheless, it is now in your hands to read.

I'm pretty sure that I have ruined your day, so let me redeem myself somewhat by telling you that our healthy supply of bananas is not about to abruptly end. There is enough wild and raw fruit in the tropical regions and developed plantations to go around. Bananas contain a number of vitamins and minerals, so consider this marvelous fruit to remain a part of your diet. Bananas contain Vitamin B6 (one medium banana gives you about a quarter of B6 you should get each day). Bananas are loaded with Vitamin C and Magnesium, which helps control your blood pressure and blood sugar and keeps your bones strong. My personal physician once told me to "act like a monkey and eat at least one banana every day." If that weren't enough, bananas are rich in nutrients that support digestive health, aid in weight loss, support heart health, and are loaded with antioxidants. Although a green banana is bitter and distasteful, it improves your insulin sensitivity.

When in the supermarket and you see a large fruit that looks like a banana but is still green or rust colored - that one is called Plantain - go for it and give it a try. Plantains and bananas are genetically similar, but plantains are primarily eaten cooked. Like bananas, plantains were originally brought from Southeast Asia, while bananas are from both Southeast Asia and South America. The difference -- plantains are starchier than bananas and not very sweet when green. When ripe, they are sweeter and become even more so when cooked.

ECHOES
THE NEWSLETTER FOR THE ESCAMBIA COUNTY HISTORICAL SOCIETY

P.O. Box 276, Brewton, AL 36427; Phone: 251-809-1528; E-mail: escambiacohistoricalsociety@gmail.com

We're on the web!
www.escohis.org

FIRST CLASS MAIL
DATED MATERIAL
Address correction requested

"Donations and contributions that are not for books or membership dues may now be made online through PayPal to <*escambiacohistoricalsociety@gmail.com*>. Please continue to use the form shown for book requests and membership dues, by mail, as your complete name and address are needed for our records. Thank you again for your support!"

Books Available by Contribution

	Regular	Mailed
Headstones and Heritage	$20.00	$25.00
Escambia Historical Society Cookbook	$10.00	$15.00
Wildflowers of The Conecuh/Escambia River Basin CD	$10.00	$15.00
History of Brewton and E. Brewton (SC)	$35.00	$40.00
Flomaton Centennial Scrapbook	$30.00	$25.00
Addendum to Headstones and Heritage	$20.00	$25.00
Headstones & Addendum Together	$40.00	$50.00

Clip the following form and send to ECHS Treasurer, P.O. Box 276, Brewton, AL 36427

Date _______/____/_____

Name ____

Address ____

____

Phone ______________________________

Email Address ________________________

Do you prefer to get your newsletter by U.S. Mail ___ or email? ___

Dues

($25.00/person; $35.00/ family at same address; Lifetime, $500.00/person; $100.00/year business)

Dues ____________________
Donation________________
Total Enclosed ____________________

Your Interests ____________________________

____

You Will Help With ________________________

____

Dues are to be paid at the beginning of the year
Many members give a membership as a gift!
Business members get a large scale advertisement 11 months of the year.

ECHOES, The newsletter for the Escambia County Historical Society, a 501 (c) (3) corporation, is published monthly except November. Comments are welcome. You may email the Society at escambiacohistoricalsociety@gmail.com or call 251-809-1528.