

Things You Need to Know:

- 2012 Quarter 3 Reports Due by October 10, 2012
- October Lecture Series on War of 1812
- Oyster Roast October 13, 2012
- Archaeology Day October 20, 2012

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"Helping to preserve and protect South Carolina's maritime heritage through research, education, and public outreach."

2nd Annual Oyster Roast

By SDAMP

The Sport Diver Archaeology Management Program (SDAMP) will be hosting its 2nd Annual Maritime Heritage Awareness Oyster Roast this October. This event is to help raise awareness of the needs of maritime heritage in the state of South Carolina. There are multitudes of underwater archaeological sites all over the state that range from 4,000-year-old canoes to 20th century tugboats. The many waterways served as the roads of their time and experienced early settlements, wars, agricultural growth, and technological

advancements. The waters of South Carolina and the sites they hold can answer many questions about our past as Americans and as people.

The mission of the Maritime Research Division is to protect these incredible cultural and natural resources, learn from them, and share that information with all those interested in the past. The SDAMP Maritime Heritage Awareness Oyster Roast serves as a platform in the pursuit of this mission. Whether those needs be financial, material, or volunteered labor, anyone can get involved

with the program and the preservation of South Carolina heritage on any level. Get involved and talk with archaeologists and other members of the public about what this state can do to further the protection, preservation, and education regarding our very own maritime heritage resources. Join us October 13, 2012 from 4-7pm in Charleston for an evening of fun, entertainment and presentations about the maritime archaeology our great state of South Carolina has to offer. Tickets are on sale now for \$35 per person.

(Continued on page 5)



2012 SDAMP Oyster Roast



October Quarterly Reports

This is a reminder that your 3rd quarter 2012 reports are due by October 10, 2012. These reports should cover all of the collecting you have done between July 1st and September 30th of 2012.

Please file your artifact reports using our new online system.

You can submit forms online at: <http://src6.cas.sc.edu/sdamp> (Note: If this is the first time you are filing on this system, you will need to activate your account by following the directions on the home page).

All report forms can be found on our website at:

http://artsandsciences.sc.edu/sciaa/mrd/sdamp_hdl_forms.html

Please use the newest versions of the forms. We will no longer be accepting outdated versions.

Your artifact reports should be filed online or may be sent to:

Artifact Report Forms
PO Box 12448
Charleston, SC 29422

You may also fax forms to: (843) 762-5831

Email forms to us at: sdamp@sc.edu

Your fossil report forms should be emailed to Dave Cicimurri at: dave.cicimurri@scmuseum.org

Or mailed to:
Chief Curator of Natural History
301 Gervais St.
Columbia, SC 29201

Make sure that you file reports with both agencies even if you have not done any collecting. Just tick the box that reads "No Recoveries Made This Quarter" and send it to the appropriate agency.

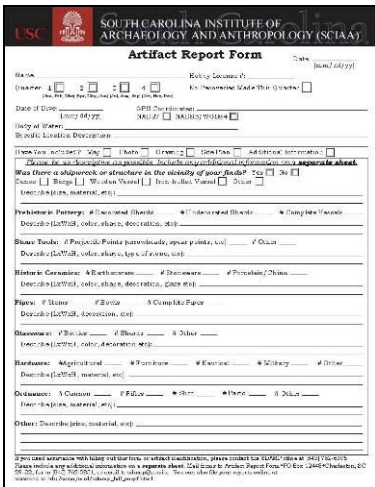
If you have any questions regarding reports, please visit our website at:

www.cas.sc.edu/sciaa/mrd/sdamp_hdl_forms.html

Or give us a call at: (843) 762-6105. ■



Quarterly Reports due by October 10, 2012



2012 Field Training Course Part II

Once students pass Part I, they are eligible for Part II. Part II offers students the opportunity to move to the next level of training where they work on a real wreck site in South Carolina along with Maritime Research Division staff. Three students participated in the 2012 Part II FTC, which took place from July 12-15 on Hilton Head Island.

The wreck that was the focus of this project was reported to SCIAA in late 2010. SDAMP went to look at the wreck in March of

2011. The wreck is beached not far from Harbour Town in Sea Pines Plantation. Only a small portion of the wreck outline (6 m) could be seen exposed above the sands at low tide. Immediately, it was obvious that the wreck needed further study and that it would make a wonderful potential FTC project. Plans developed over the next year to determine how to excavate and record the wreck using the help of students. The goals for the project were twofold; 1) to record the wreck

before the elements deteriorated it much further and 2) teach students how to effectively record a real shipwreck site.

While working on the project, staff, including Ashley Deming, Carl Naylor, and Joe Beatty, and

(Continued on page 3)



2012 Field Training Course Part II

FTC Part II (Continued from page 2)

students stayed at DNR's researcher housing at Waddell Mariculture Center in Bluffton. Students met staff there in the afternoon of July 12 for a brief refresher course on shipwreck mapping and to discuss the plans for the next day. After being shown images of the site and discussing the methodology that would be used, students were very excited to get out to the site the following morning.

Each morning everyone helped load up the pontoon boat and headed out to the Broad Creek public boat landing. From there the FTC Part II team motored out into Calibogue Sound and up to the wreck. The total trip from Waddell to the site took about one hour. This meant being on the road by no later than 7:30 a.m. each morning to make the most of the tides. We had only about four hours each day to excavate and record before being forced out by the incoming tide.

Students worked diligently each day to reveal and record more and more of the wreck. Shovels and trowels were used to get through the first layer of sand and oyster shell, a layer of sand, then mud as the sun pounded down on our heads. The work was backbreaking, but uncovering history was well worth it. Each day we uncovered more frames, planking, the keelson, and a few ballast stones. Carl and Joe expertly filled sand bags while the students worked on recording the site. Everyone had a job to do and was really enjoying themselves despite the heat.

The site was separated into six sections (A-F) using surveyor's tapes to accurately record the site. Only A and F were excavated during this FTC as these sections were expected to yield the most information. The team excavated to the 50 cm level in the time allotted for the project. At the end of each day, the team filled the wreck back in with the sand bags to minimize damage to the exposed areas and to create a layer signifying where the work had finished the day before. Once the sand bags were in place, the pontoon was loaded back up and we headed back to Waddell to draw up the measurements from the day on gridded drafting paper.

The team decided to dig a test pit outside the wreck to determine definitively if we were looking at the bow or the stern. The pit revealed sacrificial planking, a draft mark, and a fabric presumably treated with a sealant. Additionally, the bluff shape of the exposed remains strongly suggested that we were working in the bow section of the wreck. The draft mark is a Roman numeral two, meaning that it is two feet above the keel of the vessel.

The vessel appears to be listing to its starboard side, so there is much more to uncover

to get down to the starboard frames and planking. The port side is almost entirely gone, but still retains some inner and outer hull planking. There is significant evidence of burning in the frames and planking and quite a bit of charcoal has gathered inside near the stempost. The burning event appears to have taken place after the vessel was deposited on the beach, as we would expect to see a more even burn line should it have happened while the vessel was upright on the water.

Very few artifacts have been found so far, but more may be uncovered in the depths of the starboard side. The team did uncover a wine glass stem that may date to the 1750s, a piece of salt-glazed stoneware, and a wooden sheave. The wine glass was found high in the sand matrix of the site, reducing the likelihood of it being associated with the wreck. The stoneware was uncovered in the test pit next to the outer hull, thus calling into question its origins. The sheave is the only artifact that most likely can be associated with the wreck as it was buried in mud stuck between the stempost and the first cant frame. The sheave is in excellent condition and appears to be made of *Lignum Vitae*, which is a very hard wood often used for ship fittings due to its denseness and resistance to water damage.

Samples of the charcoal, wood from the wreck, fabric, and the other artifacts have been brought back to the SDAMP office in Charleston for further analysis. All artifacts are being kept in fresh water that is periodically changed out to lower the salinity in the artifact and keep them stable until further conservation can be done.

Much more work needs to be done on this wreck to ascertain its age, how it came to be in that location, and how it was used (i.e. warship, cargo vessel, pleasure craft). Current plans are to revisit the site next year with another group of students. The students from the 2012 season are all interested in coming back next year and helping out with future Maritime Research Division projects.

Many thanks to USC's Office of Media Relations for helping to promote this project locally and nationally. Thanks to Piggly Wiggly for their support with feeding our hungry troops. A very special thank you to the Hobby Diver, who would like to remain anonymous, for donating 300 sand bags to the project. Last, but not least, thank you to all of the staff and students who made this project possible. We had an incredible time and are all looking forward to returning for the 2013 season.

Students participating in the Field Training Course Part II students were Brianna Blacklock, Don Davis and Bruce Orr. ■

Upcoming Events

Lecture Series

SDAMP will be hosting another great lecture series each Wednesday night in October in celebration of Archaeology Month. Four lecturers will be discussing various topics relating to the War of 1812. Please see page _ for details of the lectures.

Oyster Roast

SDAMP is thrilled to announce we will be

having our 2nd Annual Oyster Roast on October 13, 2012. Tickets are on sale now and can be ordered through our website at: Please see page _ for more details on the roast and tickets.

Wing Nights

SDAMP will not be hosting wing nights again until January 2013 due to the Oyster Roast in October and the upcoming holiday

season. Join us again in the new year for more great wing nights.

Archaeology Day

Join archaeologists from around the state in celebrating Archaeology Month during the month of October. Events will be happening all over the state with the culminating event of Archaeology Day on October 20th at Santee State Park. This year's

theme is Civil War Shipwrecks, so you can bet on us being there with lots of great info and things to do. Admission is \$5 for adults and \$3 for children.

Please continue to read the *Quarterly Reporter*, emails, our website, and follow us on Facebook for information about upcoming events and volunteering opportunities. ■

SDAMP News

It is important to us that our Hobby Divers are aware of the education and outreach we do throughout the year. We hope to keep you updated on all that we are involved in so that you too will get involved.

Remember that SDAMP is on [Facebook](#)! Leave a message on our wall!

July

- SDAMP kicked off their part in the Big Anchor Project by recording a couple of grapnel anchors that came out of the Stono.
- The Field Training Course Part II was held between July 11th and 15th. Three students worked to excavate and record a shipwreck on Hilton Head Island. See page 2 for details on the project.
- SDAMP and the South Carolina State Museum worked an artifact and

fossil identification table during the State Museum's Museum Roadshow July 21st.
 •Wing Night was held on April 25th in Charleston.

August

- SDAMP hosting an Artifact Identification Workshop in Columbia for 8 students on August 25th.
- Columbia Wing Night was held on August 29th at the British Bulldog Pub with around 50 attendees.
- SC State Underwater Archaeologist Chris Amer retires.

September

- Jim Spirek takes the reins of the Maritime Research Division as the new SC State Underwater Archaeologist
- The Maritime Research Division heads to Port Royal Sound September 17-20 in search of the HMS Colibri. Please see page 11 for details

about the project.

- September Wing Night held in Charleston on the 26th at Wild Wing Café.

Upcoming...

October

- Maritime Lecture Series each Wednesday night in October. The theme of the Lecture series is the War of 1812. Please see page 5 for details on the lectures.
- The 2nd Annual Maritime Heritage Awareness Oyster Roast will be held October 13th at the Fort Johnson Marine Resource Center. Please see page _ for details and ticket information.
- ASSC will be holding Fall Field Day on October 20th in celebration of Archaeology Month. Please see our Upcoming Events webpage for details and

visit www.assc.net.

November

- The SDAMP office will be closed November 20-23 for the Thanksgiving holiday.
- There will be no Wing Night in November.

December

- There will be no Wing Night in December.
- Our Charleston office will be closed December 24th-January 2nd in observance of the holiday season. ■



ASSC Fall Field Day 2012

Oyster Roast (continued from page 1)

Oysters, chicken purlow, a vegetarian option, banana pudding, Carl's famous peanut butter cake, and iced tea will be provided, but feel free to bring a cooler with

beverages of your choice. Contact Ashley Deming at 843-762-6105 or deming@sc.edu for more information. Ticket order forms must be submitted by October 8th and may be

found at: http://artsandsciences.sc.edu/sciaa/mrd/sdam_pubedops_events.html

SDAMP Maritime Heritage Awareness

Oyster Roast
Date: October 13, 2012
Time: 4pm-7pm
Where: Fort Johnson Marine Resource Center, James Island, Charleston, SC
Cost: \$35pp■

War of 1812 Lecture Series

The Sport Diver Archaeology Management Program and the Charleston County Library are teaming up to offer an amazing lecture series about maritime archaeology and history featuring the War of 1812. Come hear presenters from South Carolina speak about their research involving the War of 1812 from shipwrecks to ghost stories. The lectures will take place each Wednesday night in October in celebration of Archaeology Month.

Where: Charleston County Public Library
Date: Each Wednesday in October
Time: 6:30pm-7:30pm
Cost: FREE

October 3, 2012

In Southern Waters: The War of 1812 and the Wreck of HMS Colibri

James D. Spirek (State Underwater Archaeologist, University of South Carolina)

On 23 August 1813 the British warship, HMS *Colibri* (16-gun),

wrecked on Martins Industry Shoal off Port Royal Sound, South Carolina. *Colibri* and another British warship had spent the previous two days in the sound attempting to suppress inland navigation between Savannah and Charleston, harassing American militia units on St. Helena Island, and raiding abandoned plantations. Sailing out to sea *Colibri* grounded on the shoals fringing the channel and finally remained fast on the main bar. The warship attempted to lighten its load by jettisoning iron ballast and ordnance overboard and float over the sandbar, but to no avail. A hurricane on 27 August caused the stricken warship to break into three parts. No salvage attempt is known to have been made at the wreck site shortly after the incident or at any other time. The warship then simply faded into the sands of the shoal and time. Spirek will discuss the historical context of British efforts to blockade the Atlantic seaboard of the US during the War of 1812 and then focus on

archaeological investigations to locate the remains of HMS *Colibri* at Port Royal Sound.

October 10, 2012



Geoarchaeology of Black River Bay (Sackets Harbor): Cold War of 1812

Dr. M. Scott Harris (Professor of Geology, College of Charleston)

In eastern Lake Ontario,

Black River Bay was the site of a major shipbuilding operation for the United States during the War of 1812. In Canada, the British were building larger and larger ships, and to keep the peace on the lake, the US in return would respond with yet larger ships. Peace was not always the case, and when the war ended, ships were scuttled, abandoned, or

(Continued on page 6)

**SOUTH CAROLINA INSTITUTE OF
ARCHAEOLOGY AND ANTHROPOLOGY (SCIAA)**

Maritime Archaeology Lecture Series

The Sport Diver Archaeology Management Program and the Charleston County Library are teaming up to offer an amazing lecture series about maritime archaeology and history featuring the War of 1812. Come hear presenters from South Carolina speak about their research involving the War of 1812 from shipwrecks to ghost stories. The lectures will take place each Wednesday night in October in celebration of Archaeology Month.

Where: Charleston County Public Library
Date: Each Wednesday in October
Time: 6:30pm-7:30pm
Cost: FREE

Lecture Details

October 3, 2012
"In Southern Waters: The War of 1812 and the Wreck of HMS Colibri," presented by Jim Spirek (State Underwater Archaeologist, Maritime Research Division, SCIAA)

October 10, 2012
"Geoarchaeology of Black River Bay (Sackets Harbor): Cold War of 1812," presented by Dr. Scott Harris (Department of Geology and Environmental Geosciences, College of Charleston)

October 17, 2012
"Proving The Times Wrong: A Historical Account of How Charleston Became a Successful Privateer City During the War of 1812," presented by Michael Slot (Intern, Sport Diver Archaeology Management Program, SCIAA)

October 24, 2012
"The War of 1812: Post War Charleston- Politics, Policing, and a Prelude to the Paranormal," presented by Bruce Orr (Local author and historian)

Hosted by the
Sport Diver Archaeology Management Program and the Charleston County Library

Lecture Series (continued from page 5)

lost. A large geophysical survey was conducted of Black River Bay, including parts of Sackets Harbor, to determine if any ships remained on the floor of the bay.

As a faculty member in the Department of Geology and Environmental Sciences at the College of Charleston, Dr. Harris' primary responsibilities focus on teaching and research. Utilizing an array of remote sensing techniques, he strives to understand the landscape and stratigraphic evolution of coastal plains and continental shelves. He can often be found on archaeological sites picking millimeter by millimeter through the sediments to understand the detailed history of a specific area. He has worked on numerous terrestrial and marine archaeological sites throughout his career as a geoarchaeologist, including the Topper site, Dixie Plantation, Hampton Plantation, Drayton Hall, the Wall, and Marion Square.

October 17, 2012

Proving The Times Wrong: A Historical Account of How Charleston Became a Successful Privateer City During the War of 1812

Michael Slot (Intern, Sport Diver Archaeology Management Program, University of South Carolina)

"The least prominent of any of the Cities on the Continent, in equipping Privateers, or small private Vessels of War," –I.S. writing for Charleston's *The Times* Newspaper, printed July 8, 1812

Launching its first privateer on July 10, 1812, Charleston embarked on a successful three year campaign against British merchant shipping lanes. Although the city's accomplishments were dwarfed in comparison to the larger northern cities such as New York and Baltimore, Charleston proved to be very dangerous and costly to England's maritime supply during the War of 1812. Ships such as the *Saucy Jack*, constructed at Charleston's own Pritchard and Shrewsbury shipyard, accounted for taking more prizes than the ports of New Orleans and Savannah combined. And with daring captains and hundreds of patriotic crew members, the privateers of Charleston not only left a strong impression on their

home port but also played a major role in the War of 1812 and maritime history of a budding United States.

Michael Slot graduated in the spring of 2011 from Grand Valley State University in Allendale, Michigan. He holds a B.S. in Anthropology with a strong focus in underwater archaeology. Michael previously conducted ROV research with the Great Lakes Naval Memorial and Museum before moving to Charleston. He is currently interning with the Sport Diver Archaeological Management Program. He enjoys archaeological fieldwork and hopes to one day pursue a Masters' degree in underwater archaeology.

October 24, 2012

The War of 1812: Post War Charleston– Politics, Policing, and a Prelude to the Paranormal

Bruce Orr (Local author/historian)

The War of 1812 drove Charleston, and the entire country, into the first economic crisis the nation had ever experienced. How Governor John Geddes dealt with the crisis through politics and the Colonial Justice System

in the years after changed the city's direction and also set the grounds for the greatest ghost story in Charleston's history...the story of John and Lavinia Fisher.

Bruce Orr is a retired criminal investigator turned author. After retiring in 2002, Mr. Orr combined his love for investigation and research with his love for history and writing. As a hobby, he began researching local Lowcountry legends and as a result of that endeavor signed with The History Press Publishing Company. His first book, "*Six Miles to Charleston*," is an in-depth look at the facts behind the legend of John and Lavinia Fisher, who were accused of robbing and murdering their guests at an Inn outside of Charleston in 1819. He has recently completed research and investigation into his fourth book project. "*Ghosts of the USS Yorktown, the Phantoms of Patriot's Point, SC*" is scheduled for release in October 2012. Mr. Orr is a current hobby diver with the Sport Diver Archaeology Management Program. ■

Archaeology Month

By SDAMP

We are very excited to be teaming up with lots of great agencies for Archaeology Month in South Carolina. There are things going on all over the state. Besides hosting our own events (lecture series and oyster roast),

we will be participating in the Archaeology Society of South Carolina's Fall Field Day. This is a great event that brings together archaeologists from across the state who study all periods of SC history.

As Archaeology Month will focus on Civil War shipwrecks, we will be featuring many interesting things at this year's Fall Field Day. We will have a display about the program, underwater writing, a dive gear demonstration, and shipwreck mapping station. Some of our hobby divers will be there with display tables of their artifacts. There will be a displays on the *CSS Pee Dee*, the *HL Hunley*, and other Navy wrecks. The College of Charleston will have a boat on the water to demonstrate remote sensing techniques.

Additionally, there will be several lectures on maritime archaeology projects involving shipwrecks.

For more information on Fall Field Day or how to become a member with ASSC visit:

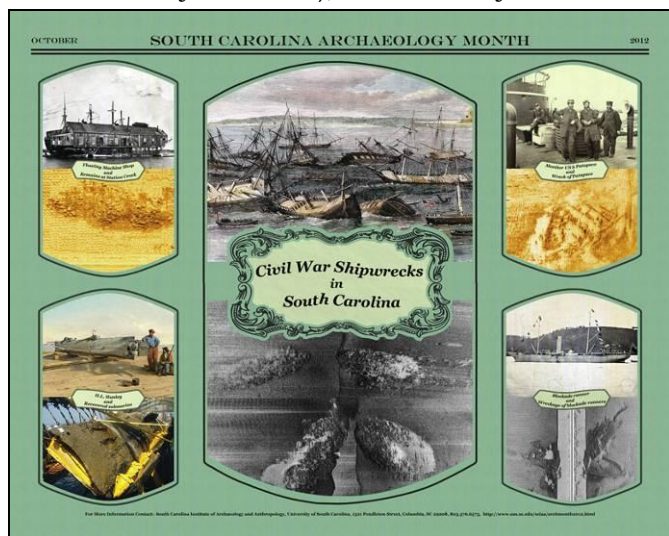
www.assc.net

ASSC is a great way to get involved in the archaeology around the state.

If you want to know what else is going on around the state and in your area this month, check out:

<http://artsandsciences.sc.edu/sciaa/PdfDocs/ArchMonthCalendarOfEvents2012.pdf>

Help us celebrate Archaeology Month and support local archaeology by coming out to some of these great events. ■



2012 Archaeology Month Poster designed by Jim Spirek and Chris Amer

Hobby Diver of the Quarter

This section of the newsletter is devoted to the hobby diver(s) who go above and beyond the call of duty. He/she has submitted excellent reports, been an exceptional volunteer, has gone out of their way to preserve cultural and/or natural heritage in the state, or has been a general inspiration to other licensees, the public, or us.

Each quarter we will pick a licensee that resembles one or more of these noteworthy traits. Hopefully, it will be you! If you know of

someone who fits some or all of these categories and would like to nominate them, please send us a brief email of who and why you think they should be Hobby Diver of the Quarter.

The honor of Hobby Diver of the Quarter for Quarter 3 2012 goes to diver Catherine Sawyer (#4913). For the last three years Catherine has joined her fellow Dredgeheads at our Allendale Project. She is the first one to volunteer for diving and the last one to come up

at the end of the day.

Catherine files exemplary reports and has even written an article or two for our newsletter about her finds and experiences as a hobby diver.

If we need recruits for projects or are trying to drum up some support for events, Catherine is the first person to go to and she always comes through.

We know we can count on Catherine when we call. She continues to be an exceptional supporter of

the many aspects of the program and we appreciate everything she does for us. Thank you, Catherine! You are truly an inspiration to us all! ■



**Hobby Diver of the Quarter
Catherine Sawyer**

Feature Hobby Diver Article

Each quarter we would love to feature one or two articles by you, the hobby diver. Your article can be about an artifact or fossil you found, your collection, your research, your experience with the program, a humorous diving anecdote, or just something interesting

that relates to South Carolina's past. Feel free to include images that can be used with your article.

You should submit your articles to SDAMP for review and editing. Once we have approved your article, we will do our best to get it into the next

issue of the *Quarterly Reporter*. If your article is accepted, we will contact you to let you know.

We want to hear from you, so get writing! Submit your articles to: sdamp@sc.edu ■



**Fall Field Day 2011 volunteers
Doug and Edwige Lee**

A Piece of the Paranormal

By Bruce Orr, Hobby Diver #5246

As divers we know that South Carolina's history does not stop at its shore line. As members of SDAMP each and every one of us has reached down through sand and silt and picked up a piece of that history. But how many of you realize that the piece of pottery or the broken Bellarmine Bottle on your fireplace mantle may have served a different purpose than what you think?

Colonial culture, Gullah culture, and Native American culture

were quite different in many aspects but as a diver, author, and historian I have learned that there are two things that connected these and every other culture that has ever existed. The first is superstition. The second is water.

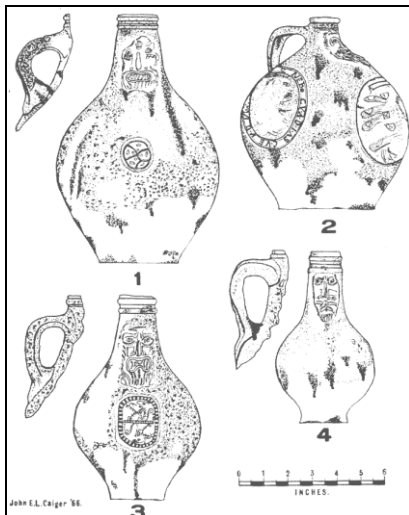
Colonists brought over their superstitions when they reached our shores. With that came their fear of the supernatural... and in particular...witchcraft. One way to protect

against it was to place iron nails and personal body clippings (hair / fingernails) into a Bellarmine Bottle and bury it or cast it into a body of water. This is how they became identified as "Witch-Bottles."

The slaves also brought with them their own beliefs. The Gullah culture was adapted using beliefs that traveled with the slaves from Africa. Soon they were casting Colonoware pottery filled with fermenting

fruit into SC waterways to appease the ferocious Cymbee water spirits. These creatures drown unsuspecting souls if they were not appeased.

As Halloween rapidly approaches take a minute or two and research the legends and folklore of the places you live. Often times it may reveal a clue as to where you should dive.



Bellarmino Jugs



Bruce Orr with stoneware jug

Success to the *Saucy Jack*!

By Mike Slot, SDAMP Intern

Privateering in American waters was first established in 1739. Its popularity rose during the American Revolution but really hit its heyday during the War of 1812. Leading up to 1812, however, South Carolina as a whole was ill prepared for privateering. Many privateers were converted merchant ships. Unfortunately, a majority of the commercial vessels trading in Charleston were not locally owned, coming from either New England or Britain. There was also an issue with manpower. Because slaves made up a large portion of the work force there were few others to select as crew. Ship owners were skeptical of arming

slaves in fear they would revolt. These factors could explain the article in *The Times* of Charleston stated that Charleston was: "...the least prominent of any of the Cities on the Continent, in equipping Privateers, or small private Vessels of War." -I.S. writing for Charleston's *The Times* Newspaper, printed July 8, 1812

This was to be proven false. Days after the article appeared two merchant schooners set sail from Charleston after being refit as privateers, within a month there were two more. The Pritchard and Shrewsbury shipyard commissioned the *Saucy Jack* on July, 28, 1812, and she set sail the end of August. The first Charleston-built

privateer, and what was to become the most successful of the South, the *Saucy Jack* claimed more prizes than privateers from Savannah and New Orleans combined. Originally designed as a pilot-boat schooner, *Saucy Jack* was transformed into a privateer with the addition of nine 12-pound guns. She was 170 tons, painted black with a distinguishing

white stripe and carried a crew of 150. In total the little schooner brought in six ships, six brigs, nine schooners, and two sloops.

To hear more of the *Saucy Jack* and Charleston's privateers come to my talk at the second annual Maritime Archaeology Lecture Series on Oct 17 at the Charleston Downtown Library. Please see page 5-6 for more on the lecture series. ■



**Charleston privateer
the Saucy Jack**

Federal Law Forbids Sale or Reuse of this Bottle

By Carl Naylor, SDAMP

Embossing can be a successful marketing tool for products sold in bottles. It's called "brand identification." Messaging—such as those raised product or company names and distinctive logos—can and does affect behavior (ask Coca-Cola). Leave it up to the federal government to find a way to provide the exception to the rule.

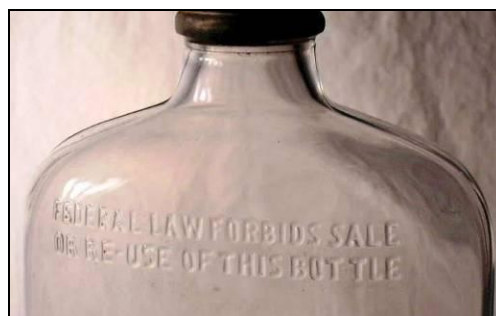
In 1935 the federal government passed a law requiring all liquor sold in the United States to be in bottles embossed with

the statement "Federal Law Forbids Sale or Reuse of this Bottle." The statement was not required on wine or beer bottles. The requirement was intended to discourage bootleggers and moonshiners from re-using liquor bottles for their products.

Yeah, right! I can't imagine moonshiners worrying about putting the product of their already highly illegal enterprise into bottles that federal law says can't be re-used. On the contrary, I

suspect they would find it amusing to do so. Actually, the business of moonshining and bootlegging was curtailed more by the repeal of Prohibition in 1933 than by any embossing on empty liquor bottles.

The law requiring this statement was repealed in 1964. So, If your bottle has this statement embossed in the glass, it is a machine-made liquor bottle that dates between 1935 and the mid-1960s. ■



Historical Marker Honors Shipwreck

By Carl Naylor, SDAMP

How many of you—raise your hands—have driven over the Cooper River bridge toward Mount Pleasant and wondered what that shipwreck was in the shallows on the east side of the river? No, that's the USS *Yorktown*. I'm talking about the long thin abandoned vessel that looks like it was made from cement.

Well, mystery solved. According to the Mount Pleasant Historical Society who has recently erected an historical marker near

Patriots Point honoring the vessel, it is the *Col. J. E. Sawyer*.

Commissioned as a river steamer for the U. S Army Quartermaster Corps, the *Sawyer* was built in 1919 by the Newport Shipbuilding Corporation of New Bern, NC. The 700-ton *Sawyer* was 128.5 feet in length and, the marker claims, was able to carry 500 passengers (something I find hard to believe looking at the remains).

Its claim to fame is in being the first American-built

passenger vessel made from concrete, actually something called ferrocement.

According to the marker: *In 1923, Joseph Sable brought the decommissioned Sawyer and an identical ship the Maj. Archibald Butt to Charleston for commercial use. In 1926, the Sawyer sank near Adger's Wharf creating long-term problems for port authorities who dubbed her the "old sunken hull." As thousands cheered, the Sawyer was raised on June 22,*

1929, after weeks of frustrating yet amusing attempts. The old hull was towed to this site and remains an iconic fixture. Local lore named this steamer the Archibald Butt; however, that vessel was relocated to Miami in 1925.

According to news accounts, no one knows why this confusion over the name persists. Are they kidding? You've got to admit "the *Maj. Butt*" is a much more memorable name. ■



The USS *Yorktown*

The *Sawyer* today



Launching the search for the wreck of HMS *Colibri*

By Jim Spirek, SC State Underwater Archaeologist

On 23 August 1813 during the War of 1812 the British warship, HMS *Colibri* (16-gun) wrecked on Martins Industry Shoal off Port Royal Sound, South Carolina. *Colibri* and another British warship had spent the previous two days in the sound attempting to suppress inland navigation between Savannah and Charleston, harassing American militia units on St. Helena Island,

and raiding abandoned plantations. Sailing out to sea *Colibri* grounded on the shoals fringing the channel and finally remained fast on the main bar. The warship attempted to lighten its load by jettisoning iron ballast and ordnance overboard and float over the sandbar, but to no avail. A hurricane on 27 August caused the stricken warship to break into three parts. No salvage attempt is

known to have been made at the wreck site shortly after the incident or at any other time. The warship then simply faded into the sands of the shoal and time.

Recently, the MRD attempted to locate the remains of the British warship at the entrance to Port Royal Sound. On Monday, 17 September, we deployed a cesium magnetometer and a

Humminbird 997c side scan sonar unit to begin the search for the warship. Our search area began along the entrance channel and then spanned across Martin's Industry Shoal to the northeast. Quartering the waves headed southeasterly and gently rolling with the waves headed northwesterly, the survey boat completed 30 one-mile long

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HMS Colibri (Continued from page 10)

transects over a width of 655 yards over a portion of the shoal. Several magnetic and acoustic anomalies were detected in the survey area. One magnetic anomaly, however, seems connected to the near-by channel buoy, while one acoustic anomaly appears to be a modern vessel. Bearing the appearance of a square-transomed shrimpboat, measuring approximately 70 ft. in length and 17 ft. in breadth, the lack of a significant magnetic signature seems problematical, unless salvagers recovered the outriggers, engines, and the hull was built of wood rather than of steel/iron. Additional post-processing of the electronic data is ongoing, but we do not believe the location of *Colibri* was detected in this brief foray on the shoal. Despite the negative data, we at least know where it's not, and will continue radiating out in our attempt to locate the British warship.

Originally, we had planned to spend two days searching for the wreck and then spend a day diving on visible anomalies that seemed good candidates for the wreck. Discounting a harbinger of the engine issue to come while motoring out to the shoal, blaming it instead on floating spartina reeds getting entangled in the propellers, we had a good day surveying. Then the engine problem manifested itself after completing the day's survey. Anticipating an hour trip back to the ranch, the port engine started slipping out of gear when going over 3000 RPMs. To make a two-and-a-half hour story shorter, we at least made it home. Inclement weather the next day provided a perfect time to try and get the engine repaired which appeared to be related to corrosion in the shifter cable. Unfortunately, no boat repair establishment had the necessary 26 ft. sized cables on hand. Soliciting a boat mechanic's opinion regarding the advisability of using and perhaps further damaging the engines, and receiving positive assurances, we decided to continue surveying, but only going at a speed of 2000 RPMs, and staying inside the sound waterways.

Besides looking for *Colibri*, we had planned on going to Station Creek to look for the elusive other half of the Floating Machine Shop. The Floating Machine Shop was formed by lashing together two hulks, originally intended for the stone fleets off Charleston, but instead were diverted to create a naval repair facility for the South Atlantic Blockading Squadron during the Civil War. In the early 2000's, we had located one of the shipwrecks in the creek, which we believe to be the ex-whaling vessel *Edward*, but not the other vessel, *India*. As a final Swan Song for Chris Amer, who had just retired, we hoped to get closure by finding the wreck. Relying on the Humminbird side scan sonar, we surveyed along the shoreline of both sides of the creek. Since we had a full day instead of the anticipated half-day to spend

looking for *India*, we also went searching along the shoreline of Hilton Head Island for two other stone fleet vessels that were purposefully sunk near the Tee-dock during the Civil War. We also had time to gather additional sonar on the Skull Creek Wreck, perhaps another Civil War-era vessel.

While post-processing the sonar data from Station Creek that evening, an intriguing sonar anomaly appeared in the sonogram. The anomaly appeared to resemble a pretty good acoustic image of a ballast mound. Despite the seemingly proof positive that this was a shipwreck, we had some trepidation about identifying it conclusively as such, since we had already been burned once before when diving down in the creek on the anticipated ballast mound and instead finding numerous oyster clumps descending along the bottom. Despite any uncertainties about the identity of the acoustic anomaly, we decided to dive the site the next day before heading our separate ways to Columbia and Charleston. Ashley and I dove on the site, after slicing through the several knot current on the incoming tide, to find a mound of rocks. Searching along the perimeter and the top of the ballast, and finding timber and several copper-alloy fasteners, seems to confirm that the elusive other half of the Floating Machine Shop has been located. Once cast asunder, they are now intertwined in the archaeological record and available for future research endeavors. Ashley enjoyed the dive, as it was her first experience in zero visibility seeing bioluminescence zooming by her mask.

Despite the mixed results of not spending as much time as hoped for looking for *Colibri*, the shifting of focus to close the loose end in Station Creek, and looking for some new sites made for a productive four days. It also provided us a last endeavor with the recently retired State Underwater Archaeologist, Chris Amer. We look forward to continuing our work, as there are still many shipwrecks to find in Port Royal Sound. ■



Side scan image of possible square-transomed shrimpboat

Diver Safety

Rebreather Forum 3.0: Consensus, Findings, and Recommendations

By Dan Orr, President, Divers Alert Network (DAN)

Rebreather Forum 3.0 was held in Orlando, Florida May 18-20, 2012 bringing together the world's experts in the development, training and use of this advanced technology. At the end, the participants discussed and debated everything they heard and developed consensus findings and recommendations. While these have to do with rebreathers, many of these findings and recommendations have application to many forms of diving.

Checklists

The Forum acknowledged the overwhelming evidence demonstrating the efficacy of checklists in preventing errors in parallel fields that share similar technical complexity. Two recommendations regarding checklists were consequently agreed:

1. The Forum recommends that rebreather manufacturers produce carefully designed checklists, which may be written and/or electronic, for use in the pre-dive preparation (unit assembly and immediate pre-dive) and post-dive management of their rebreathers.
 - Written checklists should be provided in a weatherproof or waterproof form; and,
 - The current version of these checklists annotated with the most recent revision date should be published on the manufacturer's website.
2. The Forum recommends that training agencies and their instructors embrace the crucial leadership role in fostering a safety culture in which the use of checklists by rebreather divers becomes second nature.

Training and Operations

1. The Forum applauds and endorses the release of pooled data describing numbers of rebreather certifications by training agencies and encourages other agencies to join ANDI, IANTD, and TDI in this initiative.
2. The Forum endorses the concept of making minimum rebreather training standards available in the public arena.
3. The Forum endorses the concept of a currency requirement for rebreather instructors. We recommend that training agencies give

consideration to currency standards with respect to diving activity, class numbers, and unit specificity for their instructors.

4. The Forum recognizes and endorses the industry and training agency initiative to characterize "recreational" and "technical" streams of sport rebreather diver training. These groups will have different operational, training and equipment needs.

Accident Investigation

1. The Forum recommends that training agencies provide rebreather divers with a simple list of instructions that will mitigate common errors in evidence preservation after a serious incident or rebreather fatality. These instructions will be developed under the auspices of the Undersea and Hyperbaric Medical Society Diving Committee in consultation with the relevant RF3.0 presenters.
2. The Forum endorses the concept of a widely notified centralized "on-call" consultation service to help investigators in avoiding errors or omissions in the early stages of a rebreather accident investigation and to facilitate referral to expert investigative services.
3. The Forum recommends that in investigating a rebreather fatality the principal accident investigator invite the manufacturer of the incident rebreather (or other relevant equipment) to assist with its evaluation (including the crucial task of data download) as early as is practicable.
4. The Forum endorses the DAN worldwide initiative to provide a means of on-line incident reporting with subsequent analysis and publication of incident root causes.

Design and Testing

1. The Forum recommends that all rebreathers incorporate data-logging systems, which record functional parameters relevant to the particular unit and dive data, and allow download of these data. Diagnostic reconstruction of dives with as many relevant parameters as possible is the goal of this initiative. Footnote: An ideal goal would be to incorporate redundancy in data logging systems, and as much as practical, to standardize the data to be collected.
2. The Forum endorses the need for third party pre-market testing to establish that rebreathers are fit for purpose. Results of a uniform suite of practically

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Rebreather Forum (continued from page 12)

important unmanned testing parameters such as canister duration, and work of breathing (qualified by clear statements of experimental parameters) should be reported publicly. Ideally, this testing should be to an internationally recognized standard.

3. The Forum acknowledges recent survey data indicating a poor understanding of rebreather operational limits in relation to depth and carbon dioxide scrubber duration among trained users, and therefore recommends that:

- Training agencies emphasize these parameters in training courses; and,
- Manufacturers display these parameters

in places of prominence in device documentation and on websites.

4. The Forum strongly endorses industry initiatives to improve oxygen-measurement technologies, and advocates consideration of potentially beneficial emerging strategies such as dynamic validation of cell readings and alternatives to galvanic fuel cells.

5. The Forum identifies as a research question the issue of whether a mouthpiece-retaining strap would provide protection of the airway in an unconscious rebreather diver.

6. The Forum identifies as a research question the efficacy of a full-face mask for use with sport rebreathers.

Conservation Corner

Conserving Waterlogged Artifacts From an Early Colonial Fortification

By Johanna Rivera, Conservator, HL Hunley Project, Warren Lasch Conservator Center, Clemson University

In 1670, the inhabitants of Charles Town began building defensive fortifications as they settled in a hostile environment under the constant threat of invasion by the French and Spanish. The walls constructed around the city were made of wood, brick, and stone.

Fast forwarding to present time, excavation of a section of the wall at the South Adgers Wharf in downtown Charleston began in 2008, as the City was completing utility work at the site. Archaeologists, students and volunteers explored the foundations of the wall and several wooden piles. Historical records indicate that the wooden piles extended across the entire length of Charleston's waterfront. They also uncovered thousands of artifacts, such ceramic

sherds, bottle fragments, bone, wood fragments, clay pipes, and many others objects.

Hunley conservators were called to the Adgers Wharf excavation site in August 2009, to give their opinion regarding the conservation of waterlogged artifacts such as shoes and wood fragments that were found during the 2008 and 2009 seasons. We agreed to conserve their excavated artifacts as the Warren Lasch Conservation Center (WLCC) is one of the only labs capable of treating waterlogged materials in South Carolina.

Martha Zierden, curator of the Charleston Museum, brought the waterlogged artifacts to the WLCC for their treatment. Twenty-four shoe fragments and seven

wood fragments were received for conservation. All of the artifacts were completely waterlogged and in a relatively fragile state. The treatment began with the careful removal of sediment and debris from the surface through the use of dental tools. The artifacts were then impregnated using a waxy solution - Polyethylene Glycol (PEG) - that consolidated and provided mechanical strength to the interior cellular walls of the wood and leather while the water was being removed. The second step was to freeze the artifacts at -36 C, which transformed the water and PEG within the artifacts into ice. Finally, the artifacts were placed in the freeze dryer unit that will allow the frozen

water to be removed slowly by sublimation means (directly from solid to vapor). Once the artifacts were completely dried they were packed in acid free boxes and sent to the Charleston Museum for their permanent storage and display.

For more information on the project:

<http://walledcitytaskforce.org/category/south-adgers-wharf> ■



Artifacts from excavation (photo courtesy of the Warren Lasch Conservation Center)

Paleontologist's Panel

Hobby Diver Fall 2012

By Dave Cicimurri, Chief Curator of Natural History, South Carolina State Museum

Last quarter the Quarterly Reporter featured a story from a hobby diver about a large *Carcharocles megalodon* tooth that he found while diving in an SC river. He loaned the tooth to a friend of his, who happened to work at a nuclear generating station. All was fine and well throughout the day as the gentleman showed off the tooth to co-workers at the plant. The story changed as he tried to leave at the end of the day. He got quite a surprise when he set off the radioactivity alarms at the plant! A quick search revealed that his skin and his clothes were not radioactive, and he wasn't trying to steal any uranium-bearing material from the plant. Turns out, it was actually the large *megalodon* tooth he was showing off earlier. Well, plant officials confiscated and analyzed the tooth to try and determine why the alarms went off. The

list of the radioactive isotopes detected within the tooth includes Bismuth 214, Radium 226, Thorium 228 and 234, and Uranium 235. This may sound nasty, but the analysis shows that the radioactivity of the tooth is well within the maximum allowable exposure levels that have been determined for those isotopes. However, that doesn't mean that you should walk around with a *meg* necklace all the time, or sleep with one under your pillow...

Having the analysis of that tooth in hand, and after hearing about the radioactive *megalodon* teeth that were recently found in the McKissick Museum's collection (at USC's main campus), I decided to perform a quick scan of our collection of dive-recovered *megalodon* teeth. Of the four drawers of teeth, less than 10 were found to be radioactive. In general, the larger teeth (5+ inches in height) were radioactive, and some were "hotter" than others. Only a few teeth less than 4 inches in height were radioactive, but these particular specimens happened to have very thick crowns and roots. Uranium

naturally accumulates in fossils like *megalodon* teeth, but I'm not sure why relatively few of our specimens are radioactive. Perhaps the uranium source is only along one river? Unfortunately, the river(s) from which the teeth were collected is unknown, so I can't make a correlation between radioactivity and collecting locality. Interestingly, none of our *C. ariculatus* dive specimens are radioactive. Seems like a research project for a graduate student...

Well, our radioactivity sweep revealed a number of other hot fossils, including Pleistocene mammal bones and 30 million year old turtle bones (the same age as bones you might find while diving at Givhan's Ferry). What are we going to do with these radioactive fossils? Keep them in the collection, of course. Although the radioactivity is at "acceptable" levels, we'll still take precautions with the fossils. When possible, the radioactive fossils were individually bagged and marked with a radioactivity warning label. A label was also placed on the drawer containing the

radioactive fossil, as well as on the cabinet door. This prevents dust from being irradiated and possibly breathed in. In fact, the bag itself blocks much of the radiation that may be emitted by the fossils. One of the products of the radioactive decay of uranium and thorium is radon gas, which itself is radioactive. The buildup of this gas could be a problem, but I'll "air out" the cabinets for a couple of hours before I stick my head in, so that any radon gas will mix with the air in the room, which is climate controlled. I also discovered that the cabinet doors are blocking any radioactive particles that are generated. If I need to handle any of these specimens, I'll open the bag and let it air out, and wear latex or nitrile gloves when handling to keep radioactive particles from coming in contact with my skin. A mask will inhibit particles from being inhaled, and I don't plan on eating any of the fossils. I'll also limit my exposure time – more than likely these fossils won't be place on exhibit, but they'll still be available to researchers.■



Sport Diver Archaeology Management Program

The *Quarterly Reporter* is a quarterly newsletter from the Sport Diver Archaeology Management Program (SDAMP), part of the Maritime Research Division of the South Carolina Institute of Archaeology and Anthropology at the University of South Carolina.

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Letters to the Editors

If you have something that you would like to say about the program or have questions that you think others like yourself would like to have answered, look no further. This section of the newsletter is just for you. Send in your

questions, comments, and concerns and we will post them here. You can also send in comments responding to letters from other hobby divers. Ashley and Carl will respond to your comments and answer your questions

for all to read.

Just like your artifact report forms, you can email, fax, or send your letters to SDAMP. We look forward to hearing from all of you.■

Notes from the Editor

We would very much love for you to help us welcome new State Underwater Archaeologist Jim Spirek. Jim has been with Maritime Research Division for 16 years and been involved in projects from the *Hunley* to our current search for the HMS *Colibri*. We know Jim has some great stuff in store for us and we are looking forward to working with him.

One of the things we are hoping to update for the division is our boats. Many of

you know we are working with some veteran equipment that we have really put some stress on. We are looking to retire some of that equipment and are hoping that some of you might be able to help us look for some new stuff. At the moment, we are interested to know if anyone is or knows of someone who might be willing to donate a 28-ft pontoon boat, trailer and engine to our cause. We aren't necessarily looking for anything brand new,

just in good shape. We would greatly appreciate any assistance anyone could provide in helping us look for this equipment. We want our next season to run smoothly and some new equipment would really help us accomplish that goal. If you are interested in donating, helping in our search, or need more information, please feel free to give us a call. Operation New Pontoon is a go!■



Good 'Ol Ponty!

Useful Website Information

For more information on

SDAMP: www.cas.sc.edu/sciaa/mrd/sdamp.html

MRD: www.cas.sc.edu/sciaa/mrd/mrd_index.html

SCIAA: www.cas.sc.edu/sciaa

SCIAA publication *Legacy*: www.cas.sc.edu/sciaa/legacy.html