BECOMING A PALEONTOLOGIST pg. 5

TEXAS NATIVE READY TO LEAD UA MUSEUM RESEARCH AND COLLECTIONS
YOUNG WATERSHED RESEARCHERS • CITIZEN SCIENCE AND NATURAL HISTORY COLLECTIONS
UA MUSEUMS RECEIVES GRANT TO HELP ALLEVIATE POVERTY THROUGH OPPORTUNITY
ARCHAEOLOGY: USING THE FUTURE TO UNDERSTAND THE PAST
spring 2015 EVENTS CALENDAR

**february**

1 Monday
MUSEUM MONDAY – $8 PER, KINDERGARTEN – 2ND GRADE
3:45 p.m. – 5 p.m.

5 Friday
GROWING UP WILD – PRESCHOOLERS AND THEIR CAREGIVERS, $2 PER
10 a.m. – noon

6 Saturday
HANDS-ON FAMILY NIGHT – FREE, ALL AGES
5:30 p.m. – 8 p.m.

**march**

4 Friday
GROWING UP WILD – PRESCHOOLERS AND THEIR CAREGIVERS, $2 PER
10 a.m. – noon

5 Saturday
SATURDAY IN THE PARK – ANCIENT TOOL AND WEAPONS WITH BILL SKINNER
11 a.m. – 4 p.m.

7 Monday
MUSEUM MONDAY – $8 PER, KINDERGARTEN – 2ND GRADE
3:45 p.m. – 5 p.m.

11-12 Friday-Saturday
2016 MOUNDVILLE Knap-In
9 a.m. – 5 p.m.

19 Saturday
SATURDAY IN THE PARK – SHELL CARVING WITH DAN TOWNSEND
11 a.m. – 4 p.m.

**april**

1 Friday
GROWING UP WILD – PRESCHOOLERS AND THEIR CAREGIVERS, $2 PER
3:45 p.m. – 5 p.m.

2 Saturday
SANDERS LECTURE – FREE, BUT RSVP NEEDED (AJONES@UA.EDU)
10 a.m. – 2 p.m.

SATURDAY IN THE PARK – SOUTHEASTERN POTTERY WITH TAMMY BEANE
11 a.m. – 4 p.m.

4 Monday
MUSEUM MONDAY – $8, 3:30 p.m. – 5:00 p.m.

9 Saturday
SATURDAY IN THE PARK – ANCIENT HUNTING AND FISHING WITH BILL SKINNER
11 a.m. – 4 p.m.

16 Saturday
SATURDAY IN THE PARK – GARDEN DAY – MOTHER EARTH AND THE THREE SISTERS
11 a.m. – 4 p.m.

17 Sunday
SCIENCE SUNDAY – FREE, ALL AGES
3:45 p.m. – 5 p.m.

23 Saturday
SATURDAY IN THE PARK – CHEROKEE WEAVING WITH CAT SLOAN
11 a.m. – 4 p.m.

**may**

2 Monday
MUSEUM MONDAY – $8
3:30 p.m. – 5 p.m.

6 Friday
GROWING UP WILD – PRESCHOOLERS AND THEIR CAREGIVERS, $2 PER
10 p.m. – noon

7 Saturday
SATURDAY IN THE PARK – MISSISSIPPIAN COPPERWORK WITH BILL SKINNER
11 a.m. – 4 p.m.

14 Saturday
JUNIOR NATURALIST – 3RD-6TH GRADE, $8
10 a.m. – noon

SATURDAY IN THE PARK – CHOCTAW CRAFTS WITH JUANITA GARDINSKI
11 a.m. – 4 p.m.

21 Saturday
SATURDAY IN THE PARK – MICA ART AND ORNAMENTATION WITH TAMMY BEANE
11 a.m. – 4 p.m.

28 Saturday
BIRDFEST! – MOUNDVILLE’S WEST ALABAMA BIRDING TRAIL EVENT
9 a.m. – 5 p.m.

**Location Key:**

- Moundville Archaeological Park
  (205) 371-2234
  *All events are free with paid admission*

- Alabama Museum of Natural History
  (205) 348-7550

- Gorgas House
  (205) 348-5906
We hope you enjoy receiving the Museum Chronicle and reading about all of the exciting things happening in the University of Alabama Museums. We can’t share everything in these limited pages, so we use multiple outlets, such as social media and our websites, to keep our members informed of our programs and exhibits. These are wonderful resources, but the many positive comments that we receive from our members affirms that a printed museum newsletter remains relevant.

Last year, we changed the look of the Museum Chronicle, and we continue to explore new ways to improve. For example, starting with this issue, we are selecting a theme for each issue to highlight specific aspects of our multifaceted operations. This issue we focus on the important museum-based research that happens throughout UA Museums. The Association of Academic Museums and Galleries often says, “great universities have great museums.” Museum-based research is one way that we contribute to greatness at the Capstone. Since The University of Alabama’s founding in 1831 when one of the founding staff members was a “curator” charged with collecting and exhibiting natural history specimens for study, through the early 20th century when discoveries at Moundville captured international attention, to today, when we perform cutting edge research in archaeology along with biodiversity studies through Alabama’s rich fossil record and the study of specimens of living species, UA Museums have contributed greatly to the expansion of knowledge through research.

For our cover story, we highlight the fascinating work of Dr. Dana Ehret, our curator of paleontology. I know you will enjoy reading his account of how he managed to fulfill his dream since childhood of becoming a “real-life” paleontologist. As you will also read in this issue, we are very happy to welcome Dr. John Abbott to our staff as the Director of Museum Research and Collections, a new position charged not only with the important task of directing the care and management of our collections, but with facilitating interdisciplinary museum-based research initiatives across campus. You can also discover how the general public contributes to scientific research and even how you can become a “citizen scientist.” You will even read in this issue how Discovering Alabama is integrally involved in exposing children as young as pre-K to scientific research methods.

As important as research and the expansion of knowledge is to UA Museums, our staff is ever-mindful that the primary reason we exist, is to educate. We expand the body of knowledge so that we may, in engaging ways through quality exhibits and public programs, bring that knowledge to you.

William F. Bomar, Ph.D.
Growing up as a child in New Jersey, some of my earliest memories are of collecting fossil shark teeth with my father and uncles in the Shark River, Monmouth County. I also remember visiting the Princeton University museum with my grandmother and marveling at the elk-moose, Cervalces, skeleton. As a 5 year-old living on the beach near Asbury Park, I never could have imagined the path that one of my earliest passions would take me. I have many early influences to thank, including: my family, second grade teacher Ms. Ardythe Wright, seventh and eighth grade science teacher Mr. Rich Muhlenbruck, undergraduate and graduate advisors Drs. Roger Wood and Bruce MacFadden, and my shark mentor Dr. Gordon Hubbell who fostered my enthusiasm and ideas. The path to becoming the Curator of Paleontology at the University of Alabama was a long and arduous path that I could not have ever accomplished without the support of many, many people.

When asked when did I decide to become a paleontologist, I recall the first time I met with my undergraduate advisor, Roger Wood, during my first semester freshman year at Stockton University in Absecon, New Jersey. I was taking his ‘Dinosaurs’ class and he asked me what did I want to do for a career. I said, “I’d love to be a paleontologist but I know I can’t, that’s only what people on television do.” Roger’s reply to me was, “Well if that is what you want to do, just do it!” That is when the hard part started. My first introduction to paleontological research was working with Roger Wood and Dr. Ted Daeschler at the Academy of Natural Sciences of Drexel University. Roger himself is a turtle paleontologist and set me up working on Late Cretaceous turtles from Wyoming. I set out to sort, prepare, and identify the fauna. In the process I visited other collections at the Smithsonian and the American Museum of Natural History, meeting prominent paleontologists along the way and learning research along the way.

By comparing the growth and paleobiology of these animals, I could infer what might happen to living tortoise populations as our climate changes today. This research was so useful it was cited in the legislation to uplist the gopher tortoise in the state of Florida to a Threatened Species.

– Dr. Dana Ehret
At this time Bruce MacFadden came to me and asked if I would work on a Ph.D. dissertation with him looking at the evolution of great white sharks and the evolution of extreme body size in the megatoothed sharks (including Megalodon, the largest shark that ever lived). I jumped at the chance! The first step was to learn about fossil sharks. Luckily, one of the world’s authorities on fossil sharks, Dr. Gordon Hubbell, lived less than a mile from my house. Under Gordon’s guidance, and with the help of his wife Kate’s excellent grilled cheese sandwiches, I was able to become an authority on a wide range of fossil shark species. My research took me to places like Sacaco, Peru (where we survived an 8.0 earthquake) Warsaw, Poland and Durban, South Africa (where I was almost chased up a tree by a hippopotamus) to study white sharks and present on my work. During the course of my Ph.D., I published three papers on fossil white sharks, a paper on Megalodon nursery areas, a paper on fossil sharks of Panama, and described a new species of fossil turtle from Florida. Three of these papers were featured articles in scientific journals, and a point of personal pride, I was given the honor of naming an extinct species of shark after Gordon, 

I started at the Alabama Museum of Natural History in January of 2013 after a short stint teaching at a university back in New Jersey. My first prerogative when I got to Tuscaloosa was to do an inventory of our collections. I spent the next couple of weeks pulling out every drawer in every cabinet, opening every box to see what treasures the collections had waiting. I also took over the responsibility of managing our Paleontological Research Site, Harrell Station down in Dallas County. The 142-acre site has been a well-known locality for collecting Late Cretaceous fossils since the 1940s and the trips made to the area by the Field Museum in Chicago. I was able to identify the strengths and weaknesses of the collections and started devising a research plan.

The strength of our collections is the Late Cretaceous (approximately 85-65.5 million years old) marine fossils that can be found throughout the Black Belt of Alabama. Paleontologists have never studied many of the specimens in our collections, and many scientists do not even know that our collections exist. Therefore, I gave priority to updating our collections database with the goal of eventually getting them online so that other researchers can search our holdings and hopefully request to study them.

Seeing that I work on sharks, shortly after starting at Alabama I was asked by the McWane Science Center’s Director of Collections, Jun Ebersole, to work with him and two other co-authors on a book identifying the fossil sharks and fishes of Alabama. This has been a monumental task! Alabama’s rocks span over 500 million years of geologic time, and many of these rocks hold fossils. Over the past 2 ½ years, Jun and I along with a large number of colleagues and researchers have scoured the different aged sediments of Alabama to get a detailed picture of the sharks and fishes that once inhabited our state. This means that I might spend one day collecting 300 million year old shark teeth in Florence, 85 million year old sharks and fishes in West Greene the next day, and looking for 35 million year old megatoothed sharks in Grove Hill the next. The University of Alabama Press will eventually publish

Dr. Bing Blewitt preparing a vertebra of a mosasaur, Clidastes, from the Black Belt of Alabama. (Photo by Jeff Hanson)
At the University of Alabama, which hosts a monthly evolution lecture series, Alabama Lectures on Life’s Evolution (ALLELE), this program has brought in well-known speakers such as Bill Nye, Lawrence Krauss, and E.O. Wilson to discuss the importance of evolution in society. All of these programs are critical for enhancing the knowledge of our museum patrons.

I would like to take this opportunity to thank all of the great staff at the Alabama Museum of Natural History for their support of my work and projects since I came here three years ago. Our museums system is a ‘hidden gem’ on campus that is often overlooked. I would encourage everyone to visit the museums, get involved, volunteer, and please enjoy all the programs we offer.

If you would like to volunteer in the collections at University of Alabama Museums, contact Dr. Dana Ehret at 205-348-7425 or email him at djehret@as.ua.edu.

I have realized that there are so many wonderful fossils and opportunities for research in Alabama, that one, two, five, or even 20 researchers, in a lifetime of work, could not finish documenting the organisms, paleoecology, and geology in Alabama. As a result, I have had to start finding collaborators to help work on all of these projects. My research interests are broadened to cover a wide range of projects and groups of organisms. Aside from the book on fossil sharks and fishes of Alabama, I can divide other ongoing projects by time periods. My colleagues and I are currently working on Mississippian (360 million years old) sharks and have a paper describing a new Pennsylvanian (~300 million year old) fish swimming trace fossil from the Union Chapel Mine. The Late Cretaceous fossils (85-65.5 million years ago) in the state are very interesting and projects include: a description of flying reptile (Pterosaur) bones, first records of lungfishes in Alabama and Mississippi, descriptions of new sharks, a redescription of the toothed bird, Ichthyornis dispar, a description of a sawfish, work on rudist clams, and mosasaurs. Another large project is a redescription of Late Cretaceous sea turtles. UAB graduate student, Drew Gentry, started this work for his Masters degree and is now pursuing his Ph.D. partially under my guidance. We have already identified one new species in our collections. Work on fossils from the Cenozoic Period (65.5 million years ago-present) includes projects on: Paleocene (60 million year old) turtles, Eocene (35 million years old) megatoothed sharks, and Eocene crocodiles. Aside from all of this work on Alabama fossils, I am also working with colleagues on Oligocene (~25 million years old) turtles from Mississippi, Miocene (~15 million years old) sharks from Indonesia, and the extinction of Megalodon.

As mentioned previously, I could not possibly do all of this work myself! I have research colleagues from institutions such as: Emory, Yale, the Mississippi Museum of Natural History, the College of Charleston, the South Carolina Museum of Natural History, Wright State University, Indiana University, University of Alabama Birmingham, the American Museum of Natural History, the Florida Museum of Natural History, the Virginia Museum of Natural History as well as colleagues in South Africa, the Netherlands, and even Cuba. The sheer amount of material that is available in Alabama is astounding! I see myself as a ‘mediator’ to help find researchers trained in different areas to study the plethora of fossils that we have at the museum.

Another important aspect of my job here at the Alabama Museum of Natural History is outreach. I think it is very important to share my knowledge and our collections with the general public. Events that I host include: National Fossil Day, Science Sunday, Darwin Day, Museum Expeditions, and A Hunt for the Cure. All of these events try to raise awareness of the rich fossil diversity of Alabama and the importance of evolution. Working with the University of Alabama College of Engineering and adjunct professor Jamey Grimes, we have also started scanning and 3D printing fossils for use in research as well as outreach. Children love to be able to handle (and even take home) copies of the fossils in our collections that are much too fragile to be handled. This project has worked so well that Jamey and I have joined a partnership with the National Museum of the Bahamas to 3D print and send copies of fossils from the islands for use in outreach. Finally, I also co-chair the Evolutionary Studies Working Group at the University of Alabama, which hosts a monthly evolution lecture series, Alabama Lectures on Life’s Evolution (ALLELE). This program has brought in well-known speakers such as Bill Nye, Lawrence Krauss, and E.O. Wilson to discuss the importance of evolution in society. All of these programs are critical for enhancing the knowledge of our museum patrons.

If you would like to volunteer in the collections at University of Alabama Museums, contact Dr. Dana Ehret at 205-348-7425 or email him at djehret@as.ua.edu.
THE IMPORTANCE OF MUSEUM TEACHING COLLECTIONS

BY TODD HESTER

Humans have a natural affinity for collecting things. Archaeology has proven that we have been collectors for thousands of years. *Homo sapiens* translates to “wise person” in Latin; how is it that we became so wise? One of the many ways is through the collection and study of materials that are important for our further understanding of our world and universe. Humans first demonstrate this affinity for collecting as children, stuffing pockets with rocks or toy cars. This process of collecting is a way of giving meaning to the world around them, and it is vital in cognitive development in children. Children recognize the details associated with an item and become adept at identifying similarities and differences. Naturally, curiosity and enthusiasm grows with each new piece of knowledge gained from the experience of collecting. It is to this end that we utilize our teaching collections within the museums. Unlike our permanent museum collections, which are typically only accessed for research or exhibition purposes, the museum teaching collections can be touched and studied by anyone—from families experiencing a Museum of Natural History program to children receiving a museum outreach program in their classroom. Our teaching collections range from fossils that span the geologic time represented in the rocks of Alabama, rock and mineral collections that highlight the various rock types and convey the properties of minerals, as well as archeological collections of pottery fragments, arrow and spear points. Letting people inspect and examine these objects allow tactile connections that foster long-term, meaningful learning.

Rocks and minerals in the ALMNH teaching collection. (Photo by Alycia Sorlie)

Fossils from the ALMNH teaching collection. (Photo by Alycia Sorlie)
WE WANT YOUR OPINION:
UA MUSEUMS STAKEHOLDER INPUT NEEDED

The University of Alabama is beginning the process of strategic planning. A University-wide Strategic Planning Council has been formed and will lead the efforts for establishing a forward-looking plan for our campus. As a member, advocate or donor of The University of Alabama Museums, you are a stakeholder in this process. If you have ideas you would like to share with the Strategic Planning Council, please submit them on the input form found at:

www.ua.edu/strategicplan/input.html

The University of Alabama Museums will also embark upon our own strategic planning as part of the overall process for The University of Alabama.

INTERVIEW WITH HUMAN OSTEOLOGIST AND UA MUSEUMS CURATOR, DR. KEITH JACOBI

BY KELLI HARRIS

Describe your main responsibilities at UA Museums.

I am Curator of Human Osteology. That means I am in charge of the care and academic and educational outreach of the prehistoric, historic and modern human skeletal remains that we have.

Why did you decide to become a human osteologist?

Actually my grandmother started things off when she bought me a fern fossil when I was in third grade. I told her that I wanted to find more fossil ferns and also fossil dinosaur bones. So, my grandmother and mother would plan family trips to fossil collecting areas in the Midwest, the Plains, the West, and Southwest. I got to know museum curators from the Field Museum in Chicago and other museums when I was in grade school, middle school and high school. When I went to college I shifted my interest to archaeology and the study of prehistoric human remains.

Who are your heroes?

Jane Goodall
Charles Darwin
Mary Kingsley (Look her up!)
James Thurber (fabulous writer)
Batman

What is something you think students should know?

How to sit down and read a book from front to back. To take the time to read the whole work instead of getting the quick gist of things. It is many times the road traveled as opposed to the end that is interesting.

Why are museums important?

They preserve wonders found in different times to share with future generations of humans who want to learn about our natural, intellectual and artistic place in the universe.

What is the craziest thing that has ever happened to you related to your job?

That’s classified!

If you were 80 years old, what advice would you give your children?

First of all they would be grown up. Enjoy every day and see the good in everyone.

What is your favorite bone?

The bone of contention.
While the noted Alabamian and sea turtle conservationist Archie Carr once said that “Any damn fool knows a catfish,” most people do not realize how diverse and successful catfishes have been around the globe. The truth is neither did I prior to studying the biodiversity of catfishes. Now after several decades of research on four continents, I recognize that catfishes are in fact one of the most successful and diverse lineages of fishes that has ever lived, and they are a major component of the fish fauna in freshwater ecosystems around the globe. In all there 37 distinct families of catfishes, and more than 3,400 described species, plus hundreds of additional species yet to be discovered and formally described.

Or to put it another way, about one in ten fish species is some kind of catfish!

I first became fascinated with fishes in general as an undergraduate at the University of Central Florida, but my research specializing on catfishes only began when I started my graduate research at Duke University. For my dissertation project, I chose to study a little known group of South American catfishes called banjo catfishes (Family Aspredinidae). These catfishes get their name from the fact that they have relatively flattened heads and skinny bodies that make them superficially resemble the musical instrument.

For this project, I studied the external and internal morphology of these catfishes in order to reconstruct the evolutionary relationships to other families of catfishes, and to improve our understanding of the taxonomy and nomenclature of species of banjo catfishes. This research involved visiting museum collections all over the US and South America to examine fish specimens collected by others. In the course of studying these museum collections, I often encountered specimens that did not fit into any previously described species, and then had the opportunity to describe them as new species.
My interest in research on fishes as a career further solidified in graduate school when I had the opportunity to travel to Brazil and spend ten weeks living and working on a riverboat that was trawling for fishes in the Amazon River. This was the experience of a lifetime, and got me “hooked” on searching for catfishes and other fishes in exotic places.

Several years later when I began working as a curator of fishes at Cornell University, my wanderlust for fishing in far off places took a slight turn when I shifted my focus from South America to Africa. Since banjo catfishes are endemic to South America, I also needed to find another group of catfishes in Africa to study. Thus I began doing similar kinds of research on...after several decades of research on four continents, I recognize that catfishes are in fact one of the most successful and diverse lineages of fishes that has ever lived, and they are a major component of the fish fauna in freshwater ecosystems around the globe.

– Dr. John Friel

The author, Dr. John Friel, collecting fishes in the Democratic Republic of the Congo with an electroshocker. (Photo by John P. Sullivan)
Another interesting group of catfishes, the African squeakers and suckermouth catfishes (family Mochokidae). This group of catfishes get their name for the squeaking sounds that some species produce when raising and lowering their pectoral spines, and also includes a group of species that have highly modified mouths and lips that can function like a suction cup to allow the fishes to attach themselves to rocks in fast flowing rivers and streams. Much like earlier research, on banjo catfishes, I found there were many undescribed species in this African family of catfishes, and have been describing many new species including several that I have collected myself in the field.

During my time at Cornell, I was also fortunate to participate in two large biodiversity projects funded by the National Science Foundation. The first one focused on catfishes, and the second one on cypriniform fishes like carp, minnows and suckers. Both of these projects provided major funding to do fieldwork with collaborators at other institutions and collect fishes in parts of the world where the fish fauna is not well known. This gave me an amazing opportunity to do research all over Africa, and I was able to conduct over a dozen trips to various African nations including: Cameroon, Gabon, Guinea, Central African Republic, Democratic Republic of the Congo, Ethiopia, Gabon, Republic of Congo, South Africa, Tanzania and Zambia. In all, I and my colleagues were able to collect tens of thousands of fish specimens that have now been deposited in several museum collections such as the American Museum of Natural History, Cornell University, Auburn University, Tulane University, the University of Florida, and the South African Institute for Aquatic Biodiversity. All this material has now been used for dozens of scientific publications and several thesis projects, and is still actively being studied by researchers around the world.

Now as the Director of at the Alabama Museum of Natural History, I’m no longer regularly traveling to far-flung places in search of new catfishes. Nevertheless, I am continuing to do basic research when time allows. Twenty years of collecting has produced quite a backlog of new catfishes that I still need to describe. So many catfishes, so little time… 🍲.
Sarah Gayle has been selected to join her daughter Amelia Gayle Gorgas in the Alabama Women’s Hall of Fame. The Hall of Fame began in 1970 to honor the lives of outstanding women from the state of Alabama, and Sarah Gayle will be a member of the 2016 induction class on March 3rd. The Alabama Women’s Hall of Fame is located in Howard Bean Hall located on the campus of Judson College in Marion, Alabama.

Sarah Haynsworth Gayle is being recognized as the wife of early Alabama governor John Gayle and the mother of Amelia Gayle Gorgas. Her journal, recently edited by Dr. Sarah Wiggins and published by The University of Alabama Press, is one of the most widely studied accounts of antebellum life in the American South. Born on January 18, 1804 near Sumter, South Carolina, Sarah was six years old when the family moved west to an area north of Mobile and into what was then the Mississippi Territory. The areas where her family lived in the first twenty years of her life were lands that had only recently been ceded to the American government by Native American tribes. Sarah lived in a world where Indians were always nearby and where white settlers were always armed for their safety. In spite of her wilderness surroundings, Sarah would become a well-educated woman and an avid reader who possessed a strong intellectual curiosity that fueled her self-education.

Sarah was fifteen when she married the twenty-seven year old John Gayle on November 14, 1819. At that point, John Gayle had already begun his political career and was often absent from home. Sarah began her journal in 1827 when she was mother to three children, including Amelia who had been born in Greensboro in 1826, and had no other relatives in Alabama with whom to find company. She termed her long stretches alone “my sort of widowhood” as Gayle pursued his political career to the governorship in 1831.

Sarah Gayle’s importance as a chronicler of everyday life in the early days of Alabama’s statehood knows no parallel. Her journal recounts how in the early days of The University of Alabama she witnessed students attack each other and their professors with bowie knives and pistols, break in to the president’s study and damage and scatter his papers. Sarah Gayle also shared a special friendship with Francis Scott Key who visited Alabama to confer with her husband about the settlement of Alabamian white settlers on Native American lands after a crisis that saw a falling out between Governor Gayle and President Jackson.

While many manuscript collections exist that detail the lives of her contemporaries, Sarah Gayle’s journal stands alone as a personal window into the life of an Alabama woman from 1827 to 1835. We have Sarah and her descendants who preserved the journal to thank for this work. It is for this contribution to Alabama history along with serving as an early First Lady of Alabama, mother to Amelia Gayle Gorgas, and grandmother to Surgeon General William Crawford Gorgas that she was elected to the Alabama Women’s Hall of Fame.

All Gayle and Gorgas descendants of Sarah Gayle are invited to the event which will be held at 10 a.m. on March 3, 2016 at Judson College.

To learn more about the life of Sarah Haynsworth Gayle, please see The Journal of Sarah Haynsworth Gayle, 1827-1835: A Substitute for Social Intercourse, edited by Dr. Sarah Woolfolk Wiggins.
Administered through the Office of Archaeological Research (OAR), University of Alabama Museums (UAM) received an AmeriCorps VISTA (Volunteers In Service To America) grant this past November, funding six full-time positions at five different facilities, three of which are a part of the UAM system. In addition to OAR, Moundville Archaeological Park and the Alabama Museum of Natural History are partnering with the Oakmulgee Ranger District of the Talladega National Forest (U.S.D.A. Forest Service) and the U.S. Fish and Wildlife Service’s Cahaba National Wildlife Refuge. These new fulltime, capacity building volunteers will help alleviate poverty in Bibb, Hale and Jefferson Counties through education programs focused on environmental and cultural stewardship.

Envisioned by President John F. Kennedy and passed through Congress in 1963, the AmeriCorps VISTA program is geared towards overcoming poverty in America. For the current UAM project, the goal is to increase the scientific and technology knowledge base in impoverished areas within the three county area in both rural and urban settings. Cultural resources and natural resource management are major components of the region’s economy, providing many potential career opportunities. Timber and land management, heritage preservation and tourism, sustainable agriculture, environmental science careers and ecotourism are all offshoots now experiencing growth spurts within the project area. Access to information about these industries and professional development opportunities is often limited for students living in both rural counties and inner cities. By pooling our assets, project partners will intertwine an ethically grounded understanding of our shared cultural and natural resources with hands-on, outdoor and/or technology based learning for previously underserved students.

Although the VISTA grant must be renewed each year, a three year project is being planned. During the first year, project partners will develop educational programs and materials as well as strategies for promoting and implementing the project over the next two years. According to project director Matt Gage, “We couldn’t be more fortunate than to have such a diverse grant project team. The end result – impacting poverty by educating underserved students in both rural and urban settings – will speak for itself.”
With over 13,000 cubic feet of curated materials from Alabama, the region, and beyond, it’s no surprise that the Archaeology Collections of The University of Alabama Museums are a well-known and oft-utilized resource for museums and research institutions far and wide. The Department of Research and Collections is currently tracking 45 loans of archaeological material, some for exhibition and some in support of research activities at institutions such as The Field Museum in Chicago (where researchers were performing mass spectrometry studies of Late Woodland and Mississippian ceramics to examine questions pertaining to Native American trade and migration), to the Centre for GeoGenetics in Copenhagen, Denmark (where researchers were performing genetic analysis of New World canines).

The author, Bill Allen, pulling a collection from the Repository for an outgoing loan. (Photo by Kareen Hawsey)

The research closer to home is no less important—over the years, the collections, even those acquired more than 80 years ago, have provided the basis for dozens of M.A. theses, Ph.D. dissertations and other important research projects at The University of Alabama, some of which are among the most important studies in the archaeology of the United States.

As Dr. John Blitz, Professor of Anthropology and the Museums’ Curator of Southeastern Archaeology, explains:

“I use the collections at UA Museums for my own research and as a resource for undergraduate and graduate student projects. For example, one study measured over 900 stone projectile points that ranged in age from 10,000 to 500 years old in a study to identify when the bow and arrow was first introduced to Alabama. In another study, residues absorbed into a prehistoric pot from the Moundville site were analyzed to determine the 700-year-old contents of the vessel.”

Other collections-based research projects that have taken place at the University include: chemical tracing of elements in prehistoric pottery to reconstruct ancient trade routes; measuring the size and distribution of pots to identify the locations of feasting and food storage in ancient communities; comprehensive recordings of images on artifacts for clues about ancient beliefs and symbols; measurements of ancient plant remains to track the rise of agriculture, and many more… each investigating, in the words of Dr. Blitz, “critical questions about what life was like in ancient Alabama.”

“The UA Museum artifact collections,” he continues, “play a particularly important role in providing students with their first introduction to the research process. For example, every spring semester I teach a Laboratory Methods in Archaeology course in which undergraduates work together as a team to measure and analyze artifacts, animal bones, plant remains, soils and documents from UA Museum collections, to write an archaeological report of the findings.”

Lisa Marie Malishke (Ph.D., The University of Alabama, 2015) adds:

“For graduate students, investigating a collection is a low-cost and efficient way to approach material analysis. For instructors, collections offer a way for students to get lab experience, test out theories and apply research techniques and methods in a hands-on manner. Lastly, experience with collections gives students exposure to curation processes, which is important knowledge for any future lab work.”

Dr. Blitz concurs: “For archaeology students… a collections-based research project allows them to make valuable and original research contributions to their chosen field. As a teacher and a researcher, I count myself fortunate to have access to one of the most important museum collections in the United States, right here at the University of Alabama.”
TEXAS NATIVE READY TO LEAD UA MUSEUM RESEARCH AND COLLECTIONS

BY KIM EATON

TUSCALOOSA, Ala. – Dr. John Abbott has been an insect lover for as long as he can remember. He has studied the fascinating creatures for most of his career. The Texas native is now bringing that knowledge and passion to The University of Alabama as the new director of Museum Research and Collections.

“I was drawn to the position because I enjoy collections-based research and it presented a great opportunity to help further build an already great program,” Abbott said. “My wife and I wanted to stay in the south and Alabama is a tremendously diverse state, especially when it comes to the freshwater fauna.”

Abbott received his doctorate in biology from the University of North Texas in 1999 with a biogeographical study of the dragonflies and damselflies of the south-central U.S. After a short post-doc at the Stroud Water Research Center at the Academy of Natural Sciences in Philadelphia, he took a faculty position at the University of Texas at Austin and became Curator of Entomology for the Texas Natural Science Center at UT.

“I have a great deal of experience working with and building university collections,” he said. “I have also had a great deal of success in promoting citizen involvement with collections. I spent 14 years at the University of Texas as curator of entomology...building that collection from a dusty orphan to the second largest in the state. I have also created three different citizen science initiatives focused on dragonflies and damselflies.”

In the summer of 2013, Abbott left UT to become the Director of the Wild Basin Creative Research Center at St. Edward’s University in Austin. His research focuses on aquatic insects, particularly the systematics and biogeography of dragonflies and damselflies (Odonata). He has authored many papers on aquatic insects and written three books including, the “Dragonflies and Damselflies of the South-central United States,” and field guides to the damselflies and dragonflies of Texas. With his wife, he is currently revising the Peterson Guide to Insects of North America. He is also the creator of several citizen science initiatives, including OdonataCentral (http://www.odonatacentral.org), the Migratory Dragonfly Partnership (www.migratorydragonflypartnership.org) and Pond Watch (www.PondWatch.org).

“This new position reflects a renewed emphasis on museum-based research in the University of Alabama Museums,” said Dr. William Bomar, executive director of University Museums. “Besides overseeing the management of our extensive museum collections and conducting his own research, Abbott will facilitate interdisciplinary research projects among our outstanding team of faculty and staff curators. His extensive museum experience as a Curator at the University of Texas at Austin and Director of the Wild Basin Creative Research Center in Texas make him the ideal scholar to lead our Department of Museum Research and Collections.”
While excited to start his new position, Abbott acknowledges that there will be some initial challenges, mainly learning what is in the UA museum collections and looking for funding sources to support the maintenance and research opportunities in the collection. Despite the challenges, Abbott is ready to jump in and can’t wait to get started.

“I’m most looking forward to working with a great team of folks and ultimately helping to elevate the collections and museum research programs,” he said.

“This new position reflects a renewed emphasis on museum-based research in the University of Alabama Museums.

– Dr. William Bomar, Executive Director of University Museums

A dragonfly, *Libellula saturata* Uhler, from the personal collection of Dr. John Abbott. (Photo by Jeff Hanson)
Ooooh look at our turtles! What kind are they? Will this one grow to the size of that one? What are they going to eat? It is getting cold; what will happen to them? Ugh! Look what he is doing!!

Research questions and skills start early at Discovering Alabama’s Model School, Woodland Forrest Elementary. Pre-kindergarten four-year-old students in Jeannie Largin’s class explore characteristics of animals and plants in their local watershed habitats. Animals brought in from the school’s nature trails are observed, measured and weighed. Specimens are compared; measurements are made; drawings are colored; and children share their results of each lesson. Research questions are formulated through direct observation as Mrs. Largin carefully guides the children through techniques that will later be used in the Discovery Lab. Children learn respect for each other and the live animals as they are introduced to the process of scientific observation.

Science safety lessons are taught as children begin to accept responsibility when practicing research skills. Children discover that their own behavior can influence the animals, plants and habitats that they are studying. While studying reptiles that live in the Black Warrior watershed zone, these young researchers practice using a magnifying glass to observe the shells of two box turtles. Mathematical and scientific concepts are taught together as children begin to count the keratin-covered segments of each turtle’s shell called scutes. During one investigation they learn that scutes grow in size but not numbers as the box turtle ages.

After learning proper clean-up techniques, the children read about turtles in stories. Excitement builds as they take virtual field trips via the Discovering Alabama videos and website to learn about the diversity of animals and plants in their watershed zone.

Fast forward to fifth-grade students in Misty White’s class and you see that research skills are being reinforced and leadership traits are being developed. Field investigations in the outdoor classrooms at Discovering Alabama’s Model School enable students to bring in soil, rocks, sand and water to support small animals and plants in model systems known as EcoColumns that simulate characteristics of ecosystems within the watershed zone. These EcoColumns, made from 2 liter recycled plastic bottles and designed by students, show how abiotic features such as water, temperature and atmospheric conditions impact the biotic components of ecosystems. They also learn to distinguish between producers, consumers, and decomposers in an ecosystem while observing material cycles. After investigating environmental conditions, students make predictions on how various changes will impact the watershed zone and local water quality. They conduct follow-up studies while collaborating with other schools as they attend the “Waterfest” in the spring. Many students have also taken canoe trips with Museum naturalists to sample water from local creeks, which is documented in the Discovering Alabama Model School DVD that was broadcast statewide on APT and also shown to students, teachers and parents at the school.

After viewing Discovering Alabama programs, students are inspired to begin investigating conservation issues. These investigations lead to research questions that prompt debates through simulations in the classroom. This process allows students to become aware of differing opinions on topics as they learn the importance of using research to support their views. Their research helps them understand the complexity of issues and helps them see how decisions can be made to prevent and or solve many environmental problems.

Research skills transfer across every academic discipline: reading, writing, math, science, history, geography, economics, social studies, art, music and physical education. Using an E-STEM (Environmental, Science, Technology, Engineering and Mathematics) approach to studies at Discovering Alabama’s Model School, students use research skills in the classroom, in the Discovery Lab, in the school gardens, on the nature trails, and in the media room where they share results through oral and written presentations.
Studies at this *Discovering Alabama* Model School align with the Alabama Course of Study for every discipline and incorporate other programs such as Alabama Mathematics, Science and Technology Initiative, Alabama Reading Initiative, GLOBE, Druid City Garden Project, Junior Master Gardening and *The Leader in Me*. These young researchers are learning that research skills are critical in making decisions and supporting ideas throughout their lives.

Every child at Woodland Forrest Elementary has an opportunity to develop research skills in the school’s Discovery Lab. Here science and math concepts are reinforced through “hand-on, minds-on” experiments. Students conduct research, write up their findings and present the results through various modes. These presentations may be shared with the entire school through their school’s TV station or presentations at the school’s amphitheater.

In one unit, students research the impact of farming in their watershed zone as they grow crops. Under the direction of Diana Marchant, the school’s science resource teacher, students successfully plant and harvest herbs and vegetables that they can sell to consumers in the local community.

Parent involvement is improved, too, as they are invited to see the results of their children’s research efforts. Local businesses and organizations participate with the students during Earth Week each spring to celebrate DISCOVERFEST. At this event students are able to see how research skills can be applied in the workforce.

Nature trails on school grounds provide areas for watershed study. (Photo by Pam Sloan)

EcoColumn study from local watershed. (Photo by Misty White)

Fifth grade students practice reading skills during science lessons. (Photo by Misty White)
The terms citizen science and citizen scientist entered the Oxford Dictionary in 2014. Citizen science is defined as “scientific work undertaken by members of the general public, often in collaboration with or under the direction of professional scientists and scientific institutions” and citizen scientist in today’s vernacular, is defined as “a scientist whose work is characterized by a sense of responsibility to serve the best interests of the wider community” or “a member of the general public who engages in scientific work, often in collaboration with or under the direction of professional scientists and scientific institutions; an amateur scientist.”

So how are museum collections affected by citizen science and how do they in turn, serve the amateur scientist in pursuit of their chosen interest?

Looking into the Alabama Museum of Natural History’s acquisitions, two of our important early collections were compiled by amateur collectors: The W.C. Avery bird collection and the H.P. Löding Beetle collection. William C. Avery was a physician who took an interest in birds and pursued his interest by corresponding with many well-known ornithologists of his day. Knowledgeable in his study of avifauna, he realized the serious implications of importing birds from England and elsewhere, which had no state-side checks on their spread. It was his ambition to record the bird species of Alabama for scientific use, and some 900 specimens that he collected and prepared, were purchased for the Alabama Geological Survey by its director, Eugene Allen Smith, which are now part of the museum’s holdings.

Likewise, the museum’s collection of beetles from Henry P. Löding, was also the contribution of an amateur naturalist and florist from Mobile, who accompanied museum staff on expeditions throughout Alabama in the early 20th century. These important contributions were instrumental in establishing the faunal natural history holdings of the museum after losing most of its legacy collection when the campus was burned during the Civil War.

Today, it would be difficult for an amateur to amass the kind of collection these early naturalists were able to acquire, but there are many other opportunities to contribute to the advancement of Natural History and have fun doing it. With the advent of smart phones, crowd-sourcing and online data banks, technology has helped spread the citizen science initiative in a big way.

Implementation of an online Alabama Butterfly Atlas is underway, relying on documentation from citizen science observations throughout the state along with photo verification. The life cycle of a butterfly involves host plant species on which the butterflies lay their eggs, the size and appearance of the eggs, the caterpillar, the chrysalis and the adult butterfly. All these “appearances” need to be documented to determine the extent of species that reside in Alabama and their distribution throughout the state: a formidable task for a single research scientist to accomplish. That is why enlisting the help of citizen science enables the research scientist to cover far more territory in a shorter amount of time, with a better chance of documenting rare species or hidden populations in remote areas. Discoveries like this help augment the historic...
collections found in the museum by advancing the knowledge of what was previously known about a species.

The annual Audubon Christmas Bird Count (CBC), in its 116th year, is one of the longest running citizen science initiatives and one of the most respected by ornithologists and conservationists. Data provided by the CBC, have contributed to more than 200 peer-reviewed papers and Federal agency regulations on the welfare of birds. And the Christmas Bird Count is open to anyone who has an interest in birds and wants to be out in the field with knowledgeable birders across the country. Learning how to identify birds in the field is both challenging and rewarding, plus it increases the observers' chances of seeing something unexpected or unrecorded in a given area. Just feeding birds in your yard and keeping a record of what shows up can be useful data when entered into the eBird database through its web address or smartphone app.

To sum things up, Dr. John Abbott, our new Director of Research and Collections offered this: “As funding for physical collections and the study of natural history becomes more scarce… the role of enthusiastic and knowledgeable citizens helping to further document distributions of species, is becoming more vital. Not only are citizens helping to further authenticate species distributions, there are many examples of new species being discovered because of citizen science initiatives! Citizens can help with the collection, curation and maintenance of museum collections, and help grow data with their personal observations kept in digital repositories.” Indeed, the possibilities appear to be many…

If you would like to get involved as a volunteer behind the scenes of Alabama Museum of Natural History, contact Mary Beth Prondzinski at 205-348-5625 or contact her at mbprondzinski@ua.edu

Florist, Henry Peder Löding and a drawer of his beetles from the collection of the Alabama Museum of Natural History. (Left: Photo from The University of Alabama Museum archives, Right: Photo by Mary Prondzinski)

William C. Avery, M.D. and a drawer of his birds from the collection of the Alabama Museum of Natural History. (Right: Photo by Mary Prondzinski)
The collections of the Alabama Museum of Natural History hold an amazing array of objects and artifacts that serve as a valuable resource not only to faculty and students here at the University of Alabama, but also to researchers from other academic institutions in the U.S. and beyond. For example, the museum recently hosted two such visitors that were seeking materials and data to incorporate into research projects for their graduate degrees.

Kelcee Smith, a graduate student from Louisiana State University visited in June as part of her project to study the genetic diversity of the Smalltooth Sawfish (*Pristis pectinata*). This particular fish species has historically been found in shallow waters along the Gulf of Mexico and Atlantic coast, and is extremely vulnerable because of their propensity for entanglement in nets, and low rate of population growth. It is presently listed as an Endangered Species, and Kelcee’s study will examine genetic variation in historic and contemporary samples of this species to estimate effective population size and to examine how genetic variation and structure may have changed over time.

Sawfish are unusual among fishes in that historic samples are often available because their “saws” or elongated tooth-bearing rostra are often cut off, dried and kept as trophies or curios. Our collection contained several such specimens, and Kelcee plans to extract DNA from these dried rostra to include in her study.

Joshua Lively, a graduate student at University of Texas- Austin, visited in December to examine some of the 900 plus mosasaur fossils in our collection to research environmental change. Lively commented, “I am studying the potential effects of environmental change during the Cretaceous on the anatomical diversity - or disparity - of mosasaurs. Were there certain time periods when mosasaurs were less disparate, with more similar anatomical features? Did the origin of novel anatomical features correlate with changes in the global climate or the local environment?

During the Late Cretaceous, between about 99 and 66 million years ago, North America was split in two by a vast seaway that connected what is now the Gulf of Mexico with the Arctic Ocean. The deposits left behind by this seaway, including the chalk of Alabama, preserves an abundance of mosasaur fossils. Because of the large sample size of mosasaurs, they are a great study system for looking at changes in the ecosystem during this period of prolonged warm climate. Understanding how mosasaurs and other organisms reacted to changes in the environment during a greenhouse climate in deep time could hold the key to predicting how the biota of the future may respond to prolonged warm global climate.”
Technology for the sake of technology is fairly useless.

But, when it can be used to help solve problems or open the door to unanswered questions, the possibilities are endless.

“People are always coming up with new questions, and every time you come up with a new question, you have to find a way to answer it,” says Matt Gage, director of The University of Alabama’s Office of Archaeological Research. “But, getting to that answer may require coming up with a whole new way of looking at something.”

From 3D imaging and printing to ground penetrating radar and photogrammetry, UA archaeologists and researchers have recognized the importance of using these tools of the future to better understand the past.

3D Imaging

Archaeological excavation, by its very nature, results in the destruction of an archaeological site. But, supplemented with meticulous documentation and artifact recovery, “what we’re able to do with this 3D work is recreate in virtual reality what’s being destroyed in reality,” says Jeremiah Stager, cultural resources assistant at OAR.

They do this in two ways: 3D modeling and 3D documentation.

With 3D modeling, researchers use historic photos and maps to rebuild something that no longer exists. Stager was able to use fire insurance maps, some sketch drawings from a historic architect and a few rare photographs from the late 19th century to virtually rebuild a downtown Tuscaloosa city block where the Embassy Suites Hotel now stands, including the location of the Bank of the State, the Drish Building on the corner, a tavern and one of the first log buildings in the city.

A more recent example of 3D modeling is the Lay Dam project. Construction of the dam (it began operation in 1914 and is one of the oldest hydroelectric dams in the country) spawned a village. The village – once the temporary home of construction workers and their families – later transformed into permanent housing. Of the nearly three dozen buildings that once existed in the village, only two remain, Stager says.

Using planning maps from the Alabama Power archives and hundreds of historic photos from families who lived and worked there, Stager virtually rebuilt almost the entire village, which can be viewed in a video tour.

“It brings archaeology, history and a little bit of anthropology together,” he says. “3D modeling really connects well with people, especially kids. When I’m excavating at a park and a group of visitors comes up to me, and I’m trying to show them the dirt stains, which we think are really interesting, sometimes it’s hard for people to envision what was there. With 3D modeling, I’m trying to tell a story, help them re-imagine what it was like.”

Stager also utilizes 3D documentation, a method in which he takes multiple images of something that still exists, whether it’s an artifact or historic building, and creates a replica. This method makes the images easier to share across the Internet. Rather than someone traveling to Moundville to see an artifact, Stager can create a 3D model, upload it to a website and share the image with a virtual visitor. They can rotate it, look inside and even take measurements – all online, he says.
The next step is the 3D printing of artifacts. OAR works with UA’s 3D Printing Lab to generate replicas that, while not exact, are useful for display and handling by visiting school groups.

“Sometimes artifacts break,” Stager says. “It would be good to get a good scan and then print them while they are still whole. It would also provide a better experience for museum visitors.

“While having the ‘real’ artifact behind a case looks cool, and it’s really neat to look at or read about, being able to interact with it often gives people a much better experience. It is a huge tool in connecting with the public.”

**Remote Sensing**

Remote sensing technology has been around for decades, but some of its uses have evolved over the years. For instance, ground penetrating radar was originally used to identify tunnels in Vietnam, but UA’s Office of Archaeological Research utilizes it to identify graves, prehistoric fire hearths, storage pits, post holes and more.

“We use it to identify subsurface anomalies that are anthropogenic in origin,” Gage says. “It allows us to investigate under the surface without actually doing excavation.”

OAR uses ground penetrating radar primarily for mapping cemeteries, which has proven particularly helpful with older plots that have numerous unmarked graves.

Gradiometry is another tool regularly employed by OAR. This technology is used for near surface features and produces a higher resolution picture, which allows archaeologists to see smaller items.

Through the use of gradiometry, the UA researchers have discovered single-set post holes indicating a home’s outline, as well as fire hearths, disposal pits and borrow pits – where people mixed clay to make pottery or made daub to smear on the outside of houses.

**Dendrochronology**

Oftentimes, OAR staff not only pulls in technology while searching for answers to the past, they also employ other science methods, such as dendrochronology, which is the study of tree rings.

Tree rings are the most accurate form of geochronology, says Dr. Matthew Therrell, an associate professor in UA’s geography department. The formation of each ring can be dated, so dendrochronologists know exactly which
Wooden samples are shown in a campus lab. (Photo by Jeff Hanson)

Through dendrochronology, the study of tree-rings, researchers, like Therrell, can better understand when wooden structures were built. (Photo by Jeff Hanson)

year the ring formed. This can be used to determine when a tree was cut down.

This method is helpful to OAR when a project involves dating wooden structures.

“There’s no real way to tell when a building was built unless someone wrote down when they cut the trees and started building, but no one did that,” Therrell says. “Sometimes researchers will look at tax rolls to see when a property became more valuable and then make the assumption that is when a structure was added on the property. But, you still don’t know for sure.”

Dendrochronology, however, can not only reveal which year the trees were cut, but also the season, which is a good indication of when the structure was built. OAR most recently utilized this method in determining the age of three separate cabins and whether those cabins were built in association with the Creek Indian War.

The speculation was that the cabins had been part of Fort Armstrong, which was built on the banks of the Coosa River and then later incorporated into Snow Hill Plantation, Gage says. In actuality, the logs were cut in 1849 and 1855, which means they were definitely not part of Fort Armstrong, he says.

In addition to the historic significance, these wooden structures also have a lot of scientific value, Therrell says. In the Eastern United States, it is difficult to find trees more than a couple hundred years old.

“The great thing about wooden buildings is that the trees were cut down when they were probably about 150 years,” Therrell said. “It allows us to extend our chronology further back into the past than if we were to study living trees. We’re getting geophysical data that we would not get otherwise – helping us in understanding climate change. It’s a record that’s been preserved.”

The Future of OAR

As technology develops, OAR will strive to use those tools to help uncover even more answers to lingering questions.

“It boils down to efficiency and cost reduction,” Gage says. “Everyone wants to get the most information for the cheapest amount of money. A lot of this technology allows us to interpret large areas and be able to examine things that we wouldn’t normally be able to see in a fast, noninvasive way.”

OAR has worked with multiple colleges and departments across UA’s campus in creating tools that will help further its research.

“It’s great for us to be able to experiment and create things that will work for what we need,” he says. “We can look at what other researchers have done and what has worked and not worked for them, and then make our own.”

Employing technology to help find answers, however, is not the same as using technology to do the labor.

“We are the ones that ask the questions,” Gage says. “We’re the ones that have to find the answers. You can use technology to identify a shape or color or pattern, but someone still needs to ask the question in the first place.”

Wooden samples are shown in a campus lab. (Photo by Jeff Hanson)
The UA Museums’ Office of Archaeological Research provides archaeological services for governmental agencies and private corporations across the Southeast and in the Caribbean.

Left to Right: Eugene Futato (Deputy Director), Dr. Jera Davis, Samuel Mizelle II, Dr. Virgil Beasley III, Tamela Wilson, Robert Barlow, Darrell Smith, Lesley Mashburn, Dr. A. Brooke Person, Gene Ford, Bouran Mozayen, Donald Brown, Jeremiah Stager, F. Lindsey Gordon, Ronald Stallworth, V. Caitlyn Cowley, Ciarra VanWagenen, Ben Lundberg, Jamie Ide, Russell Holloway, Traci Roller, Dr. William DeVore, M. Shane Lollar, Brandon Thompson, Kristen Koors, Joel H. Watkins, Matt Gage (Director).

Not shown: Daryll Berryman, Rose Pearson, Cynthia Snead, Carlos Solis, Eric Stauder, Will Turner, Jennifer Wilson, Lynn Wilson

Tom Kallsen is no stranger to the University of Alabama Museums family. Throughout his 31 years at the University of Alabama as the Map Library Supervisor in the Department of Geography, Tom Kallsen has volunteered at museum events, donated educational materials for teachers and students, and has generally been an avid supporter of the Museums. Now in retirement, Tom has generously begun to donate his time as a regular museum volunteer at the Alabama Museum of Natural History (ALMNH). Tom has warmly greeted patrons at the door of museum events, helped elementary students find bears and alligators in the Grand Gallery, and built snowmen out of fluff with preschool explorers.

When asked about his time with ALMNH, Tom remarked, “I very much like volunteering. Without kids of my own, it is interesting to see the lightbulb go off in their heads when they get something. Plus, they make me laugh with their joy in doing things.” With his warm, inviting, and adventurous attitude, Tom has been an invaluable addition to the ALMNH family and someone we look forward to working with more.

“Alone we can do so little. Together we can do so much.” - Helen Keller

Tom Kallsen, ALMNH Volunteer
UNIVERSITY OF ALABAMA MUSEUMS MEMBERSHIP
GIVING LEVELS & BENEFITS

Much of the natural beauty of Alabama is found among its many rivers. To recognize the vital role these rivers play in making our state unique, The University of Alabama Museums has designated gift membership levels with the names of some of Alabama’s best-known and beloved rivers. All membership levels are important to the Museum. We hope you will be as generous as your circumstances allow.

Note: Each membership level receives the benefits listed plus all benefits of levels that precede it.

Alabama River ($40–$99)
- Unlimited admission (except for special events) to Moundville Archaeological Park, Alabama Museum of Natural History, Gorgas House and Paul W. Bryant Museum
- Membership newsletter
- Discounts on Museum programs and Summer Expedition
- Membership card and decal
- Recognition in newsletter
- Invitations to special member events

Black Warrior River ($100–$249)
- Discovering Alabama DVDs
- 10% discount at University of Alabama Museum Shops

Cahaba River ($250–$499)
- Free admission to Moundville Native American Festival
- Unlimited admission to Museums for five guests
- A one-year gift membership at Alabama River level
- Additional 10% (20% total) discount at University of Alabama Museum Shops

Coosa River ($500–$999)
- Unlimited admission to Museums for two additional guests (seven total)
- Reduced rental rates for Museum facilities

Sipsey River ($1,000–$2,499)
- Unlimited admission to Museums for three additional guests (10 total)
- Two additional one-year gift memberships (three total), all at Black Warrior level

Douglas Epps Jones Society ($2,500–$4,999)
- Unlimited admission to Museums for two additional guests (12 total)
- Special recognition in Smith Hall Foyer
- Three one-year gift memberships upgraded to Cahaba River level

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- Book on natural history from The University of Alabama Press
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