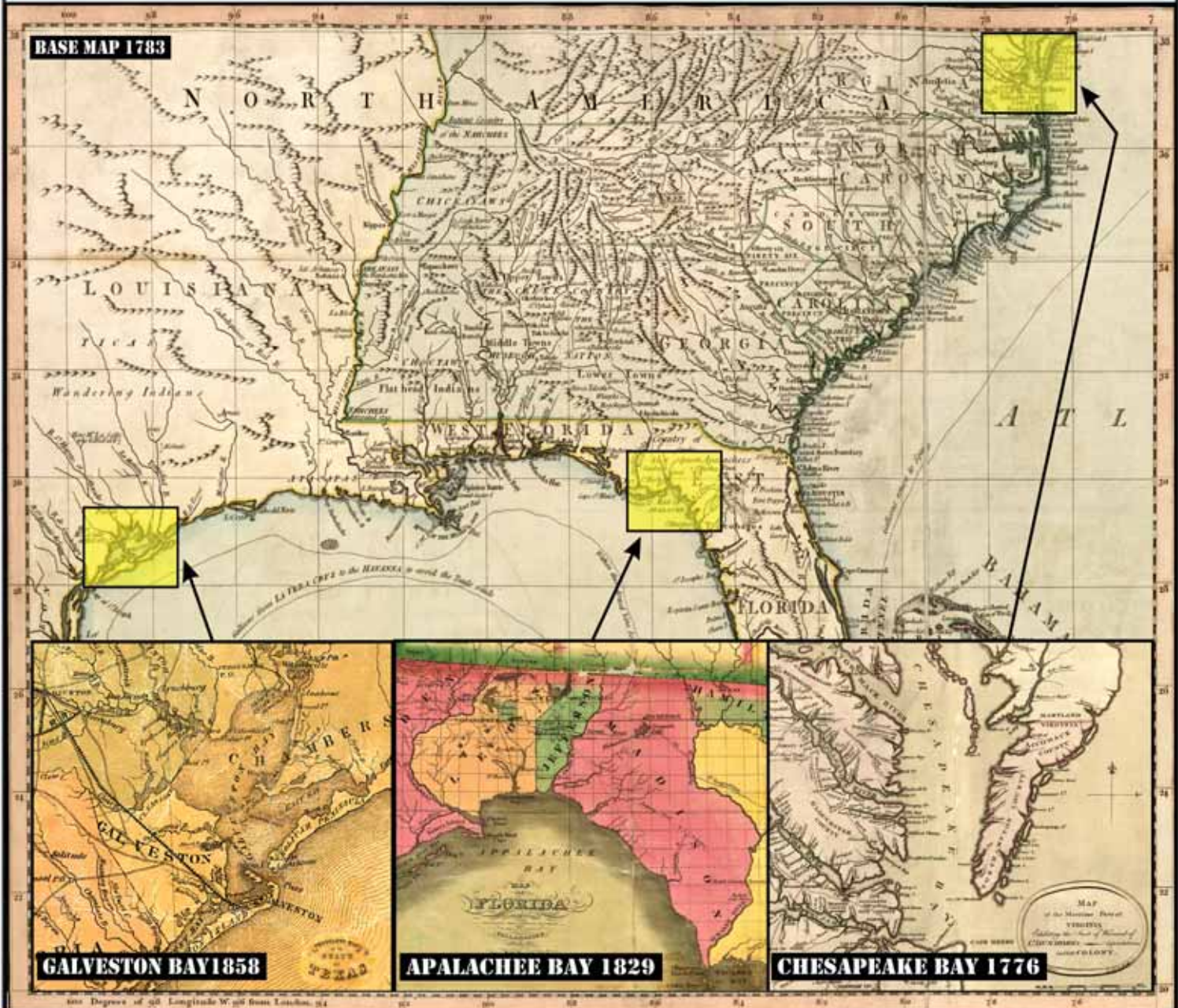


# CULTURAL HERITAGE, NATURAL RESOURCES AND LAND STEWARDSHIP - THE SIGNIFICANCE OF APALACHEE, CHESAPEAKE AND GALVESTON BAYS

--- A CONFERENCE ---



March 4 & 5, 2022

Where?

Historic Monticello Opera House, 185 W. Washington Street, Monticello, Florida

To Register Visit: [WWW.AUCILLARESEARCHINSTITUTE.ORG](http://WWW.AUCILLARESEARCHINSTITUTE.ORG)

ADMISSION IS FREE

A First Floridians Series Conference Sponsored by: The Aucilla Research Institute, Inc.

**Topics:** Lobby Displays including Priscilla the Mastodon & Artifact Identification Booth

1. Geology including sea level & landscape changes
2. Paleobotany, past & present assemblages & environment
3. Human cultures through time & the story of us
4. Human cultures through time & the story of us
5. Technology, conservation & the future
6. Audience question and answer sessions



# Brief History of the Aucilla Research Institute and the *First Floridian Conference Series*

This conference series, now in its fifth generation, began in 2012 and led to the idea of forming the Aucilla Research Institute.

Planning intensified in the spring of 2012 as the October conference at first seemed far away and then appeared to approach more and more rapidly. Our most significant conclusion was the immense public interest in our heritage. A second takeaway was the number of volunteers who wanted to assist us. The First Floridians Conference was a major success.

After the first conference, the organizers, volunteers, and some of the speakers got together to discuss its successes. Someone said - "We need a science center or institute in this area. Scholars are already coming here due to the research potential and need a support facility and equipment." The first conference and the interest it gained was impetus for the Aucilla Research Institute (ARI) to form.

In 2015, the second conference took place and included many prominent speakers. They included Dr. Michael Waters, Director of the Center for the Study of the First Americans at Texas A&M University; Dr. Dennis Stanford of the Smithsonian Institute; Dr. Vance (Doc) Holliday, University of Arizona; Dr. Erv Garrison, University of Georgia; Dr. Chris Moore, University of South Carolina; and Dr. Jessi Halligan, Florida State University.

ARI's Spanish Missions and the Borderlands conference took place in October of 2017. The focus for this conference was current research into the Spanish mission era throughout North America. The speakers included Dr. Rochelle Marrinan, Florida State University; Dr. Eliot Blair, University of Alabama; Dr. Keith Ashley, University of North Florida; Dr. Mariah D. Wade, University of Texas; Dr. John E. Worth, University of West Florida; Dr. Willet Boyer, Aucilla Research Institute; Dr. George Broadwell, University of Florida; and others. A highlight of the conference was the attendance by the Apalachee of Louisiana, descendants of Florida's original culture for this region.

We have been amazed and delighted by the public's interest in our objectives, planning, educational outreach and research. Many have supported the conference series with volunteer work, equipment and money. Through the years, conference attendees have been eager to learn about the scientific discoveries and work being conducted by ARI. Our venue is the historic Monticello Opera House, which includes an exhibition hall and auditorium.

In 2019, the fourth in the conference series, was entitled, *Old Stories and New Discoveries*. The speakers contrasted perspectives of early research efforts versus that of modern approaches. As a regional population, we cannot effectively understand where we are going without first understanding how our traditions and approaches originated. The results of gaining such a perspective was both interesting and informative.

ARI is broadening its horizons with the fifth conference entitled *Cultural Heritage, Natural Resources and Land Stewardship - the Significance of Apalachee, Chesapeake and Galveston Bays*. The different bays are geographic locations far enough apart to have had dissimilar annual climate cycles and biota, yet possibly similar cooping mechanisms. Their geologic histories also differ which allowed regional adaptations. Where the Pleistocene coastline once was 21,000 years ago is now far offshore from today's coastline that now occupies vast bays and estuary systems with inland waterways connected to them. It is within these parameters that an understanding of human adaptation and technological development through time will be explored and can be compared. Topics include geology, paleobotany, paleontology, archaeology, technology and the history and future of conservation efforts.

# Program Schedule

## Friday – March 4

8:00 AM – Registration & Coffee

9:00 AM – Conference Welcome: Jack Carswell

### **Session 1 – Geology, sea level and the changing landscape**

9:10 AM – SPEAKER – Thomas M. Cronin

9:30 AM – Q & A

9:40 AM – SPEAKER – Joe Donoghue

10:00 AM – Q & A

10:10 AM – SPEAKER – Dan Worrall

10:30 AM – Q & A

10:40 AM – BREAK

### **Session 2 – Paleobotany, present plant assemblages and the environment**

10:50 AM – SPEAKER – Debra Willard

11:10 AM Q & A

11:20 AM – SPEAKER – Lee Newsom

11:40 AM – Q & A

12:00 PM – SPEAKER – Bruce Albert

12:20 – Q & A

12:30 BREAK FOR LUNCH

### **Session 3 – Extant animal assemblages and past migrations and extinctions**

2:00 PM – SPEAKER – Ralph Eshelman

2:20 PM – Q & A

2:30 PM – SPEAKER – Bruce McFadden

2:50 PM – Q & A

3:00 PM – SPEAKER – Andy Hemmings

3:20 PM – Q & A

3:30 - BREAK

### **Session 4 – Technology, conservation and the future**

3:40 PM – SPEAKER – Emily Klipp

4:00 PM – Q & A

4:10 PM – SPEAKER – Jim Dunbar

4:30 PM – Q & A

4:40 PM – SPEAKER – Shane Wellendorf

5:00 PM – Q & A

5:10 PM – EVENING DINNER BREAK

7:15 PM – KEYNOTE SPEAKER - EVENING – Pegi Jodry

## Saturday – March 5

8:00 AM – Registration & Coffee

9:00 AM – Morning Welcome - Jack Carswell

### **Session 5 – Human cultures through time and the story of us**

9:10 AM – SPEAKER – Darrin Lowery

9:30 AM – Q & A

9:40 AM – SPEAKER – Mary Glowacki

10:00 AM – Q & A

10:10 AM – SPEAKER – Erv Garrison

10:30 AM – Q & A

10:40 AM – BREAK

11:00 AM – Discussions Downstairs and Displays – Resources and Conservation

12:00 PM – Adjourn

Friday, March 4<sup>th</sup>

## Session 1 – Geology, Sea Level and the Changing Landscape

Tom Cronin



### Biography

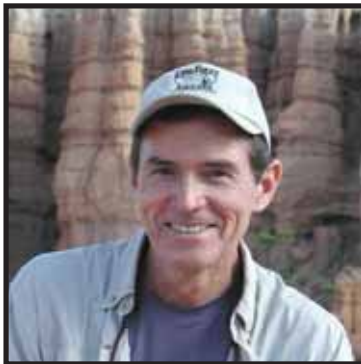
Dr. Cronin has served in many prestigious positions including in the White House Office of Science, Technology and Policy (OSTP) (1996-97). Dr. Cronin's research at the US Geological Survey in paleoclimatology, sea-level change, biostratigraphy, geochemistry and ecosystems has led to co-authored more than 200 scientific articles in more than 50 journals, proceedings volumes, handbooks & encyclopedias. He has written two books and was co-editor of *Global & Planetary Change*. He has participated in numerous sediment coring expeditions including four to the Arctic Ocean. His research has been widely reported in the media including *NY Times*, *National Geographic Society*, *New Scientist*, *Chesapeake Bay Journal*, BBC, NPR, AP, Fox News.

### Presentation One - - Sediment Record of Paleoclimate and Sea Level History of Chesapeake Bay

#### Abstract

The Chesapeake Bay, the largest U.S. estuary with a 165,000 km<sup>2</sup> watershed, contains thick sediment deposits that record more than 10,000 years of climate history. Bay sediments contain a rich and detailed array of environmental proxies including foraminifera, ostracodes, dinoflagellates, as well as geochemical signatures of Bay history. We will discuss the evolution of the bay following the last glacial maximum (~20,000 years ago) through its inundation during the final phases of deglacial sea-level rise (~10,000-8,000 years ago). We will also examine the impact of climate variability during the last 8,000 years and its impact on bay salinity and temperature.

Joe Donoghue



### Biography

Dr. Joseph Donoghue is a faculty member in the Planetary Sciences Program at the University of Central Florida. His research interests include the geology and geomorphology of coastal environments and continental margins, the causes and effects of sea-level change, and Quaternary geology and geochronology. He teaches both graduate and undergraduate courses in coastal processes, marine geology, Quaternary geology, and environmental geology. He is widely published. He is currently involved in a multi-year project examining the geologic and human history of coastal lagoons, and the extent to which human actions are affected by both long-and short-term natural processes. The work has the goal of developing methodologies to enable preparation and mitigation for the projected environmental changes resulting from global warming.

### Presentation two - - Geologic Evolution of the Apalachee Bay Region: Last Glacial Maximum to Present

#### Abstract

The Apalachee Bay coast and shelf of the northeastern Gulf of Mexico have undergone major change since the Last Glacial Maximum (LGM), about 20,000 years ago. Locations of the physical and biological resources that would attract human habitation have shifted dramatically with changes in climate and sea level. During the LGM, sea level in the Gulf was lowered more than 100 meters. The Apalachee Bay coastline has retreated landward more than 100 km landward since that time. During much of the deglacial period, the rate of sea-level rise has been rapid and not conducive to the development of coastal morphologic features such as barrier islands, deltas, lagoons, wetlands, and estuaries. But periods of slowdown in the rate of rise, such as that which has occurred during the past 6,000 years, have enabled coastal features to develop and mature, providing habitat for flora, fauna and humans. In addition to sea-level fluctuations, regional climate change has also resulted in periods of both favorable and unfavorable conditions for human occupation.

## Session 1 – Geology, Sea Level and the Changing Landscape

### Dan Worrall



#### Biography

Dan Worrall was trained as a regional geologist, holds a PhD from the University of Texas at Austin, and spent a career in exploration geology and research. In retirement, he has followed other passions in history and archeology. In 2016 he published an extensive history of the early settlers of the western part of Greater Houston. Curious about the world of yet earlier residents of his region, he then began to research and compile digital records from hundreds of archeological sites. At the same time, he worked to create a paleogeographic map record of the gradual inundation of Southeast Texas since the Last Glacial Maximum. Using ArcGIS, he integrated this archeological, geological, and historical information; a book, *A Prehistory of Houston and Southeast Texas: Landscape and Culture* is the result.

### Presentation Three - - Inundation of the Southeast Texas coast since the Late Glacial Maximum(LGM), and its effects on the Native American cultural landscape

#### Abstract

Using a map of the unconformity surface resulting from the maximum lowstand at the LGM, information from offshore cores, and a compiled sea level curve for the Gulf of Mexico, a set of paleogeographic maps were created using 3D modeling software. These maps were superimposed with temporal and cultural data from hundreds of area archeological sites. The pattern of coastal inundation is apparent in the very young ages of shell middens along the coast; earlier ones are submerged offshore. A group of fragmented, separate small river basins today in Southeast Texas and Southwestern Louisiana were once connected in a large Sabine-Trinity river basin at the time of the LGM. The inhabitants of those various basins during the early Historic Period possessed clear linguistic ties with each other. There were no apparent linguistic ties between this group and the inhabitants of other adjacent basins that were not joined with the Sabine-Trinity.

## Session 2 – Paleobotany, Present Plant Assemblages and the Environment

### Debra Willard



#### Biography

Debra Willard is a Research Geologist at the US Geological Survey in Reston, VA. After conducting graduate and postdoctoral research on palynological and paleobotanical records from Pennsylvanian-age peat swamps, she joined the USGS as a Research Geologist in 1991. Her research uses palynological evidence to document vegetational response to a range of environmental and climatic stressors in Paleogene, Neogene, and Holocene sediments. She coordinated the USGS Climate Research & Development Program from 2010–2021 before resuming a research role, focusing on the response of wetland systems to changing climate and land cover since the Last Glacial Maximum.

### Presentation One - - Holocene history of vegetation and land cover in the Chesapeake Bay watershed

#### Abstract

Extensive agriculture and urbanization since European colonization of the Chesapeake Bay watershed has influenced water quality in tributaries and the bay and reshaped vegetation and land cover. Pollen preserved in Chesapeake Bay sediments documents vegetational changes over the last 14,000 years, illustrating impacts of climate warming and sea-level rise associated with melting ice sheets from the last glaciation, multidecadal climate variability, and human land cover changes. Pollen evidence is advancing understanding of how specific changes in climate and land use influenced Chesapeake vegetation in the past and is improving capabilities to anticipate changes under future climate and land use scenarios.

## Session 2 – Paleobotany, Present Plant Assemblages and the Environment

### Lee Newsom



#### Biography

Lee A. Newsom (Ph.D. 1993, University of Florida) served on the faculty of the Department of Anthropology and as a member scientist of the Institutes of Energy and Environment at The Pennsylvania State University from 2001 to 2016, now emerita with that institution. She served as Professor of Anthropology at Flagler College in St. Augustine from 2016-2021, and currently holds courtesy appointments in the Department of Anthropology and the Florida Museum of Natural History, University of Florida. Newsom is an environmental archaeologist, specializing in paleoethnobotany, paleoecology and wood anatomy. The primary physical and intellectual foci of her research are the Caribbean islands and Florida, although her work extends also to other island systems, including Bermuda, Iceland, and the Pribilofs. Her research emphasizes human-plant interactions, domestication process, forest management and agrobiodiversity, human niche construction, behavioral ecology, and island biogeographic theory. Her (2004) co-authored book with Elizabeth Wing (University of Florida, emerita) concerns Environmental Archaeology in the Caribbean region. A new book, *Wood in Archaeology*, with Cambridge University Press, was just published (February 2022). In 2002 Newsom was named a MacArthur Fellow.

### Presentation Two - - Florida Vegetation History: Extinct Palms, Exotic Fruits, and Unique Late Glacial Forests Abstract

Florida's rich and dynamic vegetation history is the focus of this presentation. I draw from archaeological and paleobotanical evidence, with emphasis on palynomorphs and plant macrofossils, to trace taxon presence, abundance, and disappearance, from the middle Eocene through early Holocene. Among the related topics examined are no-analog plant communities and climates, and the circumstances and natural resources available to the "first Floridians," Paleoindian people.

### Bruce Albert



#### Biography

Bruce M. Albert, Ph.D. is a palynologist presently a research fellow at the Department of Archaeology at the University of Durham and previously at the University of Texas, Department of Geography Department of Geography. Doctoral work based upon comparative palynology and archaeology at multiple sites in the Czech and Slovak Republics, examining human impact on environment. Further work on a contract basis has further been achieved using alluvial pollen techniques in Texas and Mexico. He has also served as a post-doctoral research fellow at the Czech Life Sciences University, Department of Ecology and in multiple post-doctoral appointments including the Mesolithic-Neolithic transition (UK) project, the Star Carr (UK) assessment and most recently the Nebelivka mega-site project (UA). Florida archaeo-palynology work has included the Mastodon Vickerage Site, the Vero Old Man Site and sites at Eglin Air Force Base and JFK Space Center.

### Presentation Three - - Botanical Record of the Texas Coastal Area, Late Pleistocene to Today Abstract

Dr. Albert will discuss the vegetational history and related evidence of the Texas coastal area and Texas from the late Pleistocene until today. Texas unlike Florida and Virginia was a migration corridor for many extant and now extinct Neotropical species including some botanical imports that somehow made their way as far north and east as Florida.



Preserved 14,500 year old round gourd seeds (*Cucurbita pepo*) from the Paleoindian component of the Page-Ladson site, Aucilla River North Florida.



## Session 3 – Extant Animal Assemblages & Past Migrations and Extinctions

### Ralph Eshelman



#### Biography

Ralph Eshelman was a Research Associate in the Department of Paleobiology at the National Museum of Natural History, Smithsonian Institution, from 1975 until 2005. He is currently a Research Associate with the Maryland Paleontological Collections and Research Center at the Calvert Marine Museum. Ralph specializes in the study of Neogene mammals, concentrating on the mid-Atlantic and Caribbean. He is currently working on an update of the Irvingtonian Cumberland Bone Cave fauna of Maryland, and the mammalian fossils the Miocene to Pliocene Chesapeake Group as well as an overview of the Quaternary vertebrates of Maryland.

#### Presentation One - - Pleistocene vertebrates in the Chesapeake Bay region

##### Abstract:

Pleistocene vertebrates in the Chesapeake Bay region are much less common than the well-known deposits of Florida. Still, important sites are known such as the Englewood Mammoth Site, the Yorktown Mastodon Site, the Paw Paw Cove Site, and the Crofton Beaver Tunnel Complex. Englewood has been reported as a butchering site but most investigators dismiss this claim. Extinct mammalian fossils have been recovered as float from early archeological sites such as Parsons Island, Gumboro, and Cimar but there is no confirmed evidence the fossils are contemporaneous with the archeological material. Indirect evidence of human association at Parsons Island was suggested by blood-residue analyses which tested positive for camelid and bovine antiserum.

### Bruce MacFadden



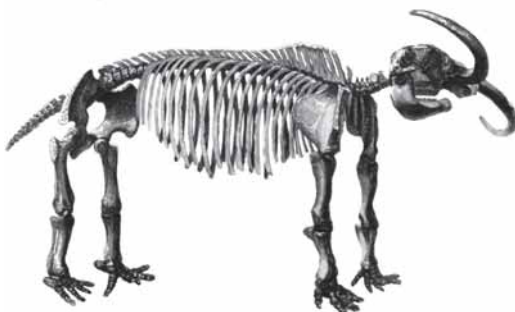
#### Biography

Bruce MacFadden is Distinguished Professor at the Florida Museum and Director of the Thompson Earth Systems Institute, University of Florida. On the UF faculty since 1977, Bruce is the author of 200 peer-reviewed articles primarily focusing on fossil mammals in the Americas. He also has authored two books on *Fossil Horses* (Cambridge 1992) and *Broader Impacts of Science on Society* (Cambridge 2019). He was the President of the Society of Vertebrate Paleontology (1986 to 1988) and the Paleontological Society (2018 to 2020). His current passion is promoting science through education and outreach, particularly in Florida.

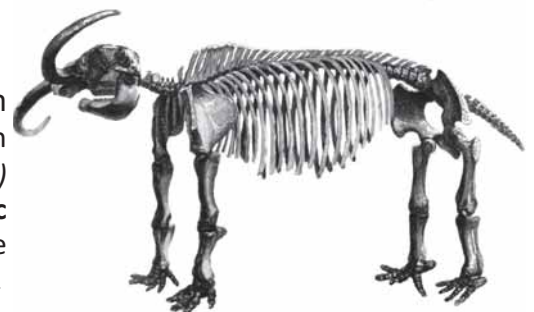
#### Presentation Two - - Ice Age (Pleistocene) Megafauna of the Big Bend Area, Florida

##### Abstract:

This talk will present an overview of the significant megafauna that preceded the arrival of humans into Florida, with particular emphasis on the Big Bend area. The various kinds of mammals will be discussed, including their origins, adaptations, and the reasons for their ultimate demise about 10,000 years ago.



Reconstruction of an American Mastodon skeleton (*Mammot americanum*) as depicted in the *Iconographic Encyclopædia* Rudolph Garrigue publishing, Astor House, NY 1851



## Session 3 – Extant Animal Assemblages and Past Migrations and Extinctions

### C. Andrew Hemmings



#### Biography

Dr. Hemmings received his short stack of Anthropology degrees from the University of Arizona and the University of Florida (BA, and MA, Phd's respectively). A post-doc at the University of Texas insured he could finish memorizing every mile of I-10 from Tucson to Jacksonville. His primary research interests are focused on the Pleistocene landscape of North America when people first arrived; the plant and animal life they would have encountered; and how they flourished in that New World. He is an avid collector of beer cans, breweriana, and Native American postcards, photo's, etc.

#### Presentation Three - - Post Glacial to Modern Fauna of the NE Texas Coastal Plain Region

#### Abstract

Since the Last Glacial Maximum (c22,000 years ago) now coastal Texas and the adjacent inundated continental shelf have been home to an exceptionally diverse group of animals both local and immigrant from areas east, west and south most notably. Recent finds provide further demonstration of how this area has long functioned as a crossroads. Issues effecting biogeography, extinction, and broad habitat changes such as sea level rise, long term climatic developments, and modern impacts, are discussed using different species and their adaptive responses to an ever changing world.

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## Session 4 – Technology, Conservation and the Future

### Emily Klipp



#### Biography

Emily Klipp with Alvan “Al” Karlin, Ph.D., CMS-L, GISP

Emily Klipp is a project manager with Dewberry and has more than 14 years of experience working with topographic and topobathymetric lidar data. She specializes in geospatial project planning and management, QA/QC of topographic and bathymetric data, vertical and horizontal accuracy assessments, and creation of a variety of digital mapping products using various software platforms. She currently manages projects for USGS, NOAA, USACE, SWFWMD, SRWMD, and other state and local governments, including aerial lidar acquisition, remote sensing, photogrammetry, and map production.

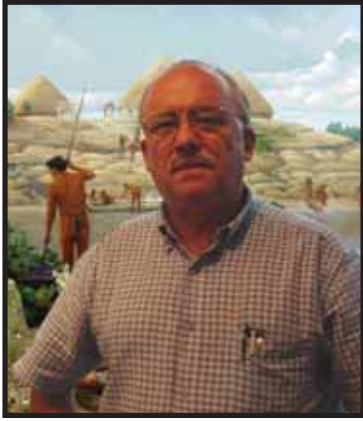
#### Presentation One - - What Else Can I Do with Topobathymetric Data?

Topobathymetric data represent submerged elevation data that can be collected by either conventional, acoustic, or lidar methodologies. While the different collection methods all provide similar data, recent remote sensing technologies from crewed, un-crewed, and satellite platforms are changing the way we manage nearshore and inland bathymetry. This presentation will touch on the way laser-based technologies operate, available technologies and will focus on applications of topobathymetric data along the Gulf Coast of Florida.



## Session 4 – Technology, Conservation and the Future

### Jim Dunbar



### Biography

Jim received a BA from the University of Florida and his MA and PhD from Florida State University. He began work for the Florida Bureau of Archaeological Research in 1976 and retired in 2011. He participated as co-principal investigator on the Paleoindian components of the Page-Ladson in the Aucilla River and the Alexon Bison and Ryan-Harley sites in the Wacissa River and was principal investigator on the Wakulla Springs Lodge site. The results of research at the Page-Ladson and Wakulla Springs Lodge sites indicate that the Big Bend area of North Florida has some of the oldest evidence of human activity in the Southeast US. He is a board member on Panhandle Archaeological Society at Tallahassee (PAST) and one of the founders and current board chairman of the Aucilla Research Institute. His research interests include Paleoindian archaeology as it relates to resources, habitats, climatic change and Paleoindian culture. He is author of the book *Paleoindian Societies of the Coastal Southeast*.

### Presentation Two - - The Aucilla River, Older than We Thought with its Wealth of Untapped Information about the Pleistocene

#### Abstract

Through decades of research that began in 1983, we now know the present channels and sinkholes of the lower Aucilla and its tributary, the Wacissa River, hold in their channel bottom sediments an untold wealth about the past. It includes a record of paleo-climate and inland water table changes, as well as, animal, plant and human development from a hundred years ago to beyond the capabilities of radiocarbon dating more than 50,000 years ago. Recently, examination of LiDAR data has revealed that an abandoned paleo-channel system that once existed near the modern Aucilla basin in the area known as the Aucilla Sinks sections of the middle river. This six mile long paleo-channel is now stranded above the water table and no longer flows. This presentation will explore what we know and believe is yet to be discovered about the Aucilla River basin. The use of sediment coring, radiocarbon dating and LiDAR have facilitated our work.

### Shane Wellendorf



### Biography

Shane Wellendorf is the conservation coordinator with Tall Timbers Research Station and Land Conservancy, an accredited land trust active throughout north Florida and south Georgia. He works on land conservation project development, conservation easements, and stewardship of conservation easements. Prior to joining the land conservancy, he worked as a research biologist with Tall Timbers. Shane holds a Bachelor of Science Degree in Wildlife Biology from Iowa State University and a Master of Science Degree in Wildlife Science from North Carolina State University and is a Certified Wildlife Biologist with the Wildlife Society.

### Presentation 3 - - Land conservation in the Red Hills, the Aucilla River watershed, and beyond: A win for people, natural resources, and archeology

#### Abstract

Since 1991, Tall Timbers Research Station and Land Conservancy has worked with private landowners to permanently conserve over 146,000 acres of natural wetlands, upland pine forests, and rural working lands. Our primary tool is conservation easements, which keeps a property in private ownership but limits future conversion to more intensive land uses. Protection of archeological and historical sites is also a critical part of land conservation. Tall Timbers and its partners, along with willing landowners, are working to conserve remaining natural lands and cultural sites within the Red Hills and the Aucilla River watershed utilizing a variety of tools and funding sources, including the Natural Resources Conservation Service and the Florida Department of Environmental Protection's Florida Forever program.

## Pegi Jodry



## Evening Keynote Presentation at 7:15 PM

### Biography

Dr. Margaret (Pegi) Jodry is an archaeologist and Research Associate in the Department of Anthropology of the Smithsonian Institution's National Museum of Natural History. Working in partnership with her late husband, Dr. Dennis Stanford, for forty years in the Paleoindian/Paleoecology Program seeking a greater understanding of Early Peoples in the Americas and their changing lifeways through time in the Rocky Mountains and Plains, Southwest, Alaska and Russia, Chesapeake Bay, and Basque Country. Her academic training at the University of Texas (M.A. Anthropology) and American University (Ph.D. Anthropology) is greatly enriched by ongoing learning with Indigenous Elders and Healers of different Nations since the 1980s. She is interested in what it means to be human both in the deep past and in today's world.

### Keynote Presentation - - Mother Waters Nourishing Life for All Relations – Human Reciprocity Through Gratitude and Caretaking

#### Abstract

Human survival relies on the gifts provided in our natural world with water as a key life-giving element. Special places, where land and sea intermingle in shifting configurations through time, provide a richness of possibilities for food and medicine, materials for homes and tools, and relationships with those who dwell there in seen and unseen realms. This talk weaves together Indigenous and Scientific knowledge and wisdom concerning humans as caretakers of a world in which plants, animals, fish, and sea life were, and are, original teachers and relatives. All who are fortunate enough to live, work, and study near Apalachee, Galveston, and Chesapeake Bays, carry knowledge that can help protect these places. Listening to and sharing these stories is part of what it means to be human and to actively safeguard places we love.

## Saturday, March 5th

### Session 5 – Human Cultures through Time and the Story of Us

## Darrin Lowery



### Biography

Doctor Lowery's family has resided on the Delmarva Peninsula since the mid-17th century. His archaeological and geological began in his youth with many excursions inspecting the eroding shorelines of Chesapeake Bay. He has conducted archaeological investigations along 3,000 linear-mile section of the bay and recorded about 1900 sites, spanning the region's prehistoric and historic intervals. He received a Masters degree from Temple University and a Ph.D. in Geology from the University of Delaware. He had both a pre-doctoral and post-doctoral fellowship with the Smithsonian Institution. He is a Smithsonian research associate and a cultural resource professional with FEMA. He has published over fifty journal articles, book chapters, monographs, and syntheses about the archaeology of the Chesapeake Bay. Recently, his focus has been on site losses due to coastal erosion.

### Presentation One - - Coastal Erosion and Sea Level Impacts to Archaeological Resources in the Chesapeake Bay

Along the 11,684 linear miles of coastline adjacent to the Chesapeake Bay, archaeological resources are threatened twenty-four hours a day by the natural actions of wind, waves, and daily tidal movements. During my life, I have seen numerous archaeological sites appear along retreating shorelines and simply disappear without any official documentation. What are the laws that govern jurisdictional responsibility for these nearshore archaeological resources? If properly directed, what can you learn from an eroding archaeological site? How can unsophisticated techniques better help archaeologists and cultural resource managers understand the archaeological record? With this lecture, I will summarize examples addressing many of these questions. I will highlight our recent work at Parsons Island, which serves as a “poster child” showing what can be gleaned if only a few salvage efforts are focused along eroding coastlines.

## Session 5 – Human Cultures through Time and the Story of Us

### Mary Glowacki



#### Biography

Dr. Glowacki is Principal of Coda Research Group, LLC, and Pre-Columbian Archaeological Research Group, Inc., a non-profit foundation. For more than twenty years she worked for the Florida Division of Historical Resources, Bureau of Archaeological Research, half of which she served as Bureau Chief and State Archaeologist. Her duties included archaeological research permitting for state lands, and oversight of Underwater Archaeology, State Conservation and Collections, and the unmarked human remains programs. Mary's research interests include the exploration and colonization of the Americas, the prehistory of North Florida, art imagery of the pre-Columbian Americas, and early complex societies, particularly, Wari culture of the Peruvian Middle Horizon.

#### Presentation two - - Archaeology of the Apalachee Bay: Societies of Florida's Early Riviera

#### Abstract

The Apalachee Bay has supported early peoples of the northeast Florida coastline and its joining river ways for millennium. This area was an active corridor for the first inhabitants of the peninsula, a rich and thriving habitat for later sedentary communities along the banks of the Wakulla-St. Marks, Wacissa, and Aucilla rivers, and an important trade route for historic Anglo settlers and entrepreneurs well into the 20<sup>th</sup> century. This talk highlights some of the many human events recorded through archaeology that characterize this portion of the Gulf coast and acknowledges conservation efforts and programs for protection of these fragile resources.

### Erv Garrison



#### Biography

Ervan Garrison is currently Professor of Geology & Anthropology at the University of Georgia (UGA)(1992- present). He holds a doctorate from the University of Missouri (1979) and a B.S. and M.A. from the University of Arkansas ('71, '73). From 1990-1992 he was Deputy Historic Preservation Officer and Marine Archaeologist for the National Oceanic & Atmospheric Administration (NOAA). Although he left NOAA for UGA in 1992, he continued to work with the agency at Gray's Reef National Marine Sanctuary from 1994-2013. He taught and conducted research at Texas A&M University from 1979-1989. During that time, he worked on Texas coastal and submerged geoarchaeology.

#### Presentation Three - - The Archaeology and Geoarchaeology of Galveston-Trinity Bay

#### Abstract

Prehistoric geoarchaeology of the Texas coast is a challenge given the length and diversity of that coast. The coast is characterized by large embayment's such as Galveston and the back-barrier lagoons such as Laguna Madre. The Texas coast is replete with estuarine areas and bayous/wetlands. Rivers arising far inland debouche along the Texas coast from the Rio Grande in the south to the Sabine River in the north. This presentation will focus on the archaeology and geology of a less-studied riverine/bayou system adjacent to the State's largest metro area - Houston. It is based on a 1980s study of shell middens along Buffalo Bayou/Houston Ship Channel and Old River of the San Jacinto River. This small study will be discussed in the context of other more extensive studies of middens along the upper Texas coast and Galveston-Trinity Bay.

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Meet Downstairs for discussion among the displays  
Meeting Adjourns at Noon



**Conference**

**Supporters**

