Southwest Florida Archaeological Society (SWFAS)
OUR 45th YEAR
November 2025 Newsletter

https://swflarchaeology.org/

PRESIDENT'S CORNER *By John F. Furey M.A., RPA,* jffurey@charter.net

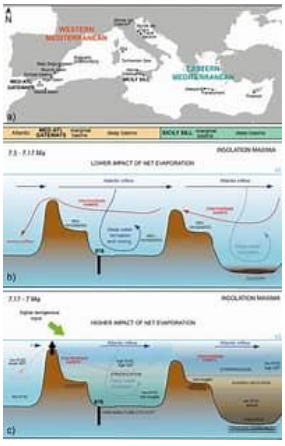
Please note that SWFAS has permanently moved our November and April meetings from the Collier County Museum in Naples to the Bonita Springs Fire Station No. 24 located at 27701 Bonita Grande Drive. See the directions below.

Our November presentation celebrates Native American Heritage Month, and SWFAS sponsors an interesting presentation by Jacob Winge, a well-known local historian and speaker on The Seminoles and the Seminole Wars. Save the date, Wednesday November 19, 2025 at 7:00 PM. We will see you there!

I have noticed that many of the recent archaeological articles published are based upon DNA evidence that can often confirm what the 'dirt archaeologist' who excavated the site has hypothesized or it may offer a totally new direction for future research at that site. DNA is still dependent on analysis of archaeological excavated material and has enabled a greater scientific understanding of these sites.

RECENT RESEARCH

GEOLOGISTS DISCOVER WHEN AND HOW THE MEDITERRANEAN SEA FORMED



Around 200 million years ago, during the Mesozoic, the Mediterranean region was a part of the Tethys Ocean that separated supercontinents Gondwana and Laurasia. Tectonic activity forced the African and Eurasian plates together and isolated the sea from the ocean. Isolation caused it to nearly fully evaporate leaving behind a large salt plain. About 5.33 million years ago the sea is believed to have been refilled by a gigantic "mega flood" that filled the sea in one rapid flooding event when the Strait of Gibraltar opened. Using seismic waves, they found underwater bedrock erosion channels between the Gulf of Cadiz in southern Spain to the Alboran Sea and across a submerged land bridge named the Sicily Sill that filled the far eastern part of the sea called the Noto Canyon. The size of these erosion channels revealed the immense power of this mega flood that created the Mediterranean Sea. Source: *Science Daily. See https://www.sciencedaily.com/releases/2025/01/250121125808.htm*

MELTING ARTIC AND ANTARCTIC ICE SHEETS SLOWING EARTHS STRONGEST OCEAN CURRENTS

The strongest ocean currents are being slowed by melting glacial ice at both poles. This alters the salinity of the water as fresh water is less dense than saltwater which allows the denser water to sink and drives the ocean currents. This melting alters many things as ocean currents regulate the planets climate and it is critical for marine life by redistributing oxygen and nutrients. As this very complex mechanism breaks down there will be severe consequences on both land and in the sea. This is compounded by climate warming and sea level rising. Source: *The Independent. See https://www.independent.co.uk/climate-change/antarctic-ice-sheets-melting-ocean-currents-b2706968.html*

SWFAS 2026 OFFICERS AND BOARD MEMBER OPENINGS

Are you interested in furthering archaeology, cultural, and historic preservation in Southwest Florida? Why not join us at SWFAS as a board member in achieving these goals. We are looking for interested individuals to work with us and we have openings in our roster. If you are interested, please contact me at jffurey@charter.net to volunteer to join our 2026 leadership group.

ARTICLES

PREHISTORIC GRAVEYARD UNCOVERED IN FLORIDA

The Steinhatchee River, running from Steinhatchee Springs in Lafayette County to the coast at Deadman's Bay in Taylor County, has given up a long-held secret from a sinkhole. 500,000 years ago, many animals got stuck in the mud and their remains preserved. The meandering of the river connected to the sinkhole and recently exposed these fossil remains. See below.

WHAT IS THE WALLACE LINE IN SOUTHEAST ASIA?

Named after 19th century British naturalist Alfred Russel Wallace, the Wallace line defined the boundary between Asian animals and Australian animals on the various SE Asian islands. These sharp differences between islands, despite their proximity, has finally been explained. See below.

PERU: NEW 5,000-YEAR-OLD CEREMONIAL CENTER DISCOVERED

Under the sand dunes in the Ucupe-Zana Valley, about 30 miles from the city of Chiclayo, a well-preserved mudbrick temple has been uncovered. Dr. Luis Armando Ynonan from Peru's Pontifical Catholic University announced that the site appears to be a temple complex with other associated sites that dates to the formative period. See below.

NOVEMBER PRESENTATION: WEDNESDAY, NOVEMBER 19, 2025, 7:00 PM BONITA SPRINGS, BONITA SPRINGS FIRE STATION 24

Topic: The Seminole & The Seminole Wars

Jacob Winge, a master story teller, will provide a history of the Seminole Wars. Spanning from 1817 to 1858, these three conflicts between the United States and the Seminole people stand as the longest and most costly Indian wars in American history. This program will highlight significant causes and moments across the decades of conflict as well as the lasting legacy of the wars, from the forced removal of Native peoples to the survival of the unconquered Seminole Tribe in Florida today.

Jacob is a fifth generation Floridian and recognized public historian. He is a member of the Brigade of the American Revolution and the Southern Conference on British Studies. He is a former Board President of the Friends of the Collier County Museums, the Florida College System Student Government Association, East Naples Kiwanis, and East Naples Civic & Commerce among service with over thirty nonprofits, chambers, and government advisory boards.

He has received multiple awards and honors for his leadership and contributions, such as the "40 Under 40" by Gulfshore Business Magazine, the FCSSGA Bob Graham Lifetime Achievement Award, the Daughter's of the American Revolution Community Service Award, and the FCSAA Leadership Enhancement Award.

He is completing his MBA from Ave Maria University and holds a BA Sc in Supervision and Management from Florida SouthWestern State College. Jacob is a graduate of Associate Leadership Collier, Leadership Collier, and Charter Class Alumni of Leadership Estero. He lives in East Naples with his wife Alexandria and daughter Wren.

BONITA SPRINGS FIRE DEPARTMENT STATION 24 – To go there:

Located at 27701 Bonita Grande Dr, Bonita Springs, FL 34135.
Turn off of I-75 at the Bonita Springs interstate Exit 116 (CR-865) to the East opposite the beaches. Go for 0.7 mi. Turn left onto Bonita Grande Dr at red-light (Publix and Racetrack). Go north for 0.3 mi. Turn East onto Snell Lane to the entrance. The parking lot is well lit. You may also access Bonita Grande Dr from West Terry St.

SWFAS PRESENTATION SCHEDULE 2025 – 2026

NOTE THAT ALL SWFAS PRESENTATIONS ARE FREE TO THE PUBLIC

NOVEMBER 19, 2025, 7:00 PM, BONITA SPRINGS, BONITA SPRINGS FIRE STATION 24
Jacob Winge, Civic Leader and Local History Advocate
Topic: The Seminole & The Seminole Wars

DECEMBER 2025 **Field Trip: TBA**

JANUARY 21, 2026, 7:00 PM, FT. MYERS, IMAG MUSEUM
Robert Macomber, Local Author
Topic: Key West in the Civil War

FEBRUARY 18, 2026, 7:00 PM, FT. MYERS, IMAG MUSEUM
Dr. Jonathan Harrison, Adjunct Professor Hodges University
Visiting Professor FGCU
Topic: The Rise of Jim Crow in Fort Myers 1885-1930

MARCH 18, 2026, 7:00 PM, FT. MYERS, IMAG MUSEUM
Alf Monoghan, Lecturer
Topic: Ireland: A Sacred Island Before Christianity

APRIL 15, 2026, 7:00 PM, BONITA SPRINGS, BONITA SPRINGS FIRE STATION 24
Presentation: TBA

MAY 8, 9, and 10, 2026 **FAS ANNUAL Meeting**

ARTICLES

DIVERS UNCOVER HUNDREDS OF 500,000-YEAR-OLD FOSSILS IN AN UNDERWATER SINKHOLE IN FLORIDA

By Amber Morgan; Edited By Cara Johnson
Updated February 26, 2025
From All That's Interesting at https://allthatsinteresting.com/steinhatchee-river-sinkhole-prehistoric-fossils

Credit: Florida Museum/Kristen Grace

Around 500,000 years ago, a sinkhole opened in Florida's Big Bend region. Hundreds of animals met their deaths in its depths, and their remains were eventually entombed in sediment. In 2022, two hobbyist fossil hunters diving in the Steinhatchee River stumbled upon this prehistoric graveyard, unearthing more than 500 fossils from creatures like horses, sloths, and giant armadillos. Now, these bones are revealing more about the fauna of Florida half a million years ago.

In June 2022, Robert Sinibaldi and Joseph Branin were diving in the Steinhatchee River near Sinbaldi's property, as they had many times in the past. They were familiar with the murky depths of the water. "It's like diving in coffee," Sinibaldi stated in a press release from the Florida Museum of Natural History. At first, the pair had little luck on their dive. Then, just as they were about to move to a new section of the river, Branin spotted horse teeth protruding from the riverbed. As they searched the area, they uncovered even more fossils, including part of a hoof and a skull. "When I dropped my gear off, there was a row of horse teeth laying at the waterline right on the bank, exposed by the falling tide. We felt around the waterline with our hands and just below in the shallow water and began finding tons of bones, and getting more excited, however it wasnt until the next day that we dove along that bank we found much of the material eroding out of the boulders and old sinkhole clays, in about 6-8′ of water," Branin told *All That's Interesting*.

The duo reached out to Dr. Richard Hulbert, the collection manager for the Division of Vertebrate Paleontology at the Florida Museum of Natural History, regarding their findings. "We emailed Dr. Hulbert, mostly about the abundance of horses. He became much more interested upon seeing that the symphysis was from an earlier subspecies of equus. I knew we wouldn't get to hold onto the fossils after he said "There's definitely a paper in this," Branin explained.

An examination of the fossils revealed that they dated back 500,000 years to a period of the Pleistocene known as the middle Irvingtonian, a little-understood time of evolutionary transition. So, why were they all gathered in a sinkhole beneath the Steinhatchee River? Experts believe that the sinkhole in which the fossils were found formed about 500,000 years ago. The animals whose remains were inside had fallen in and perished in its depths, and over time, their bones were covered with sediment and preserved. Then, as the Steinhatchee River shifted its course over the millennia, its waters eventually covered the sinkhole.

In a study now published in the journal Fossil Studies, researchers from the Florida Museum of Natural History detailed the impressive collection of fossils Robert Sinibaldi and Joseph Branin discovered. In total, 552 fossils dating back more than half a million years were pulled from the sinkhole. The specimens included the well-preserved bones of prehistoric animals like early horses, sloths, giant armadillos, and possibly even a new species of tapir. One of the fossils revealed the massive foot of Holmesina septentrionalis, an armadillo that could reach 475 pounds. Scientists were surprised to see that the foot had features of an earlier, smaller Holmesina ancestor. "This gave us more clues into the fact that the anatomy kind of trailed behind the size increase," Rachel Narducci, a vertebrate paleontology collections manager at the Florida Museum, stated in the press release. "So they got bigger before the shape of their bones changed."

Another key fossil found in the sinkhole was a skull from what may be a previously unknown tapir species. "We need more of the skeleton to firmly figure out what's going on with this tapir," Dr. Hulbert, the lead author of the study, stated in the press release. "It might be a new species. Or it always could just be that you picked up the oddball individual of the population." Meanwhile, the overwhelming majority of the fossils belong to an early horse species. Because these animals typically live in grasslands rather than the dense forests that make up the area around Big Bend, researchers believe that this region looked vastly different half a million years ago.

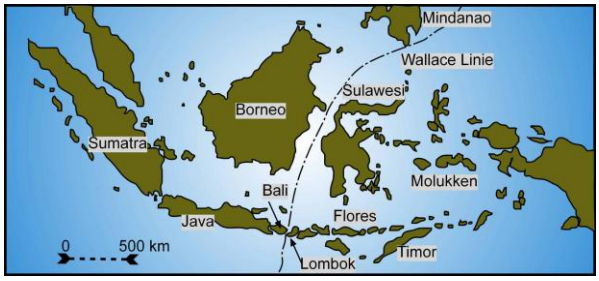
Analysis of the fossils is ongoing, and researchers have plans to return to the Steinhatchee River to collect more specimens in hopes of putting together the missing pieces of Earth's prehistoric history.

THE WALLACE LINE FORMS AN INVISIBLE BARRIER THAT SEPARATES ASIAN AND AUSTRALIAN SPECIES. SCIENTISTS NOW KNOW WHAT HAPPENED

By Tibi Puiu

February 18, 2025

From ZME Science News at https://www.zmescience.com/science/news-science/wallace-line-climate-change/



Credit: Wikimedia Commons

For over 160 years, the Wallace Line has been one of biology's most enduring mysteries. This invisible boundary, slicing through the Indonesian archipelago, separates two worlds of wildlife. To the west, tigers and rhinos roam. To the east, marsupials and cockatoos dominate. Scientists have finally solved the puzzle of the mysterious Wallace Line, explaining the uneven distribution of animal species on either side of this boundary. This unseen but impactful line, first mapped out by British naturalist Alfred Russel Wallace in the 19th century, was drawn by a dramatic collision of continents and a climate upheaval that reshaped life on Earth millions of years ago.

The Wallace Line

You've likely heard of famed naturalist Charles Darwin, but not a lot of people know that Alfred Russel Wallace, another famous British naturalist, independently proposed a theory of evolution due to natural selection around the same time as Darwin. He is best known, however, for something you might find quite intriguing: the Wallace Line. In the 19th century, while on an expedition, Wallace noted a surprising contrast in animal species on either side of an invisible boundary running between the Indonesian islands of Borneo and Sulawesi. To the west, the islands— including Borneo, Java, and Sumatra— are home to animals commonly found in Southeast Asia. However, when you move east past the line to islands like Sulawesi, New Guinea, and the Moluccas, the animals are more akin to species found in Australia.

The Wallace Line delineates two distinct zones of animal and plant life. But the curious thing about this line is that it exists despite the geographical proximity of the islands. One might expect a gradual transition of species between areas so close, but that's not the case here. It's as if someone drew a line and said, 'On this side, you get Asia. On the other, you get Australia.' Only it wasn't some divine being that drew the line, but rather natural forces. This clear division of wildlife has puzzled scientists for over a century. Now, a new study may have finally explained the conundrum: extreme climate change triggered by tectonic activity around 35 million years ago played a crucial role in creating the Wallace Line.

Around that time, Australia drifted away from Antarctica and collided with Asia, causing significant changes in geography and also Earth's climate. The continental collision birthed the volcanic islands of Indonesia while also opening up a deep ocean surrounding Antarctica. In turn, this led to the formation of the Antarctic Circumpolar Current, which dramatically cooled the climate.

Stepping stones across Indonesia

The findings were made by biologists at the Australian National University (ANU) and ETH Zurich in Switzerland, who ran a computer model that predicts how this ancient tectonic event affected the range and diversification of species. This model revealed that the changing climate affected species differently on both sides of the Wallace Line. "If you travel to Borneo, you won't see any marsupial mammals, but if you go to the neighboring island of Sulawesi, you will. Australia, on the other hand, lacks mammals typical of Asia, such as bears, tigers or rhinos," said Dr. Alex Skeels from ANU. Although the global cooling caused by the merger of Australia and Asia unleashed a mass extinction event, the climate on the newly formed Indonesian islands was relatively welcoming for life: it was warm, wet, and tropical, much like today. "So Asian fauna were already well-adapted and comfortable with these conditions, so that helped them settle in Australia," Skeels said.

The researchers hope that their computer model can help forecast how modern-day climate change will impact living species. By understanding how species adapted to historical climate changes, scientists can better predict which species may be more adept at adapting to new environments in the future.

The Wallace Line serves as a demonstration of how geographical and geological factors can influence biodiversity. But it is not the only example. Closer to the Wallace Line, you'll find two other lines named after the scientists who discovered them: Weber's Line and Lydekker's Line. Weber's line runs east of the Wallace Line and shows a gradual transition from Asian to Australian species. Further east is Lydekker's Line, which borders the edge of the Australian continent. Beyond this point, the species are predominantly Asian.

The Aïr and Ténéré Line is another fascinating biogeographical boundary. It runs through the Sahara Desert in Niger, separating the Western Saharan flora from the Eastern Saharan flora. Despite the harsh conditions, the regions on either side of this line boast different plant species adapted to their specific environments. As the planet warms at an unprecedented rate, understanding these boundaries has never been more urgent. Although their boundaries may be invisible, their impact is very much real.

5,000-YEAR-OLD CEREMONIAL TEMPLE DISCOVERED UNDER SAND DUNE IN PERU

By Kaleena Fraga; Edited By John Kuroski
February 17, 2025
From All That's Interesting at https://allthatsinteresting.com/zana-peru-temple

Credit: DDC Lambayeque

Beneath a sand dune near Zaña, Peru, archaeologists have unearthed the ruins of a stunning ancient temple — and it could be 5,000 years old. The mud structure contains impressive friezes and several human remains. And the temple was just one exciting discovery that archaeologists made in the region during their excavations.

The Temple Under The Sand Dune

According to a press release from Peru's Ministry of Culture, excavations in the Úcupe-Zaña Valley, about 30 miles from the city of Chiclayo, began on June 3. Before long, they yielded astonishing results. Under a sand dune, archaeologists came across the remains of a stunningly well-preserved temple "belonging to the formative period that would be approximately five thousand years old." "We are probably looking at a five-thousand-year-old religious complex that is an architectural space defined by walls built of mud," Dr. Luis Armando Muro Ynoñán of Peru's Pontifical Catholic University, who led the excavation, explained. "We have what would have been a central staircase from which one would ascend to a kind of stage in the central part." Archaeologists believe that the structure, which predates Peru's celebrated Machu Picchu by thousands of years, was once the site of "special ceremonies." It's decorated with elaborate friezes depicting "anthropomorphic images," including one that features a "human body with a bird's head, feline images, and reptile claws."

Chillingly, archaeologists also found the remains of three adults within the temple. According to Reuters, one was wrapped in linens and accompanied by offerings. This could suggest that the site was once used by ancient people to conduct human sacrifices. But the 5,000-year-old temple wasn't the only thing that archaeologists discovered during excavations in the area.

Other Archaeological Discoveries Nearby

In addition to the 5,000-year-old temple, archaeologists also uncovered a more recent temple during their excavations. Dating to between 600 and 700 C.E., the structure contains ceremonial architecture and is probably

linked to the Moche culture, which developed some 1,400 years ago. “The monument has buttresses and bases of a large stepped platform,” the press release explains. As in the older temple, archaeologists also found human remains. This time, they came across the body of a child between the ages of five and six, who was apparently buried at the site during “a later period.”

Though little is known about the civilization that created the first, older temple, researchers know more about the Moche people. Sophisticated and entrepreneurial, they were known for building large temples, crafting fine works of art, and for their use of canals, reservoirs, and aqueducts. The Moche people were also known to practice human sacrifice. They worshiped gods like Al Paec, the creator or sky god, Si the moon goddess, and a half-man, half-jaguar god known as “Decapitator.” To appease Al Paec, the Moche frequently offered sacrifices of both prisoners of war and their own civilians. Archaeologists have found evidence of dozens of human sacrifices in which young men were apparently mutilated and thrown from the top of a pyramid.

But for now, many questions about both sites remain. How were these temples used? What role did they play in the larger society? Perhaps ongoing excavations at the site will yield some answers.

SWFAS OFFICERS AND BOARD OF DIRECTORS FOR 2025

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Find us on Facebook at Southwest Florida Archaeological Society!

Check out our website at http://swflarchaeology.org/

SWFAS AND FAS MEMBERSHIP APPLICATIONS

We encourage those interested in Florida archaeology to become members of The Florida Anthropological Society (FAS) and The Southwest Florida Archaeological Society (SWFAS). Annual dues are due in January and membership applications to both organizations are attached. Membership in the FAS provides you with four annual volumes of *The Florida Anthropologist* and occasional newsletters on anthropological events in Florida in addition to the annual statewide meeting. More information on FAS can be found online at: www.fasweb.org. Membership in SWFAS offers you a local series of talks on archaeological and anthropological subjects that you can attend. The SWFAS monthly newsletter keeps you up to date on local events as well as other important archaeological topics. We urge you to support both with your membership. All of the SWFAS Lecture Series are open to the public at no charge.

JOIN US!

The Southwest Florida Archaeological Society

http://swflarchaeology.org/

The Southwest Florida Archaeological Society (SWFAS) was founded in 1980 as a not-for profit corporation to provide a meeting place for people interested in the area's past.

Our goals are to:

- Learn more of the area's history
- Create a place for sharing of this information
- Advocate for preservation of cultural resources

Its members include professional and amateur archaeologists and interested members of the general public. Members come from all walks of life and age groups. They share a lively curiosity, a respect for the people who preceded them here, and a feeling of responsibility for the conservation of the places and objects they left behind.

The Society holds monthly meetings between October and April, attracting speakers who are in the forefront of archaeological and historical research. Occasionally members join in trips to historical and archaeological sites.

A monthly newsletter, Facebook page, and website keep members abreast of our events and happenings.

The organization is a chapter of the Florida Anthropological Society, a statewide organization that publishes quarterly newsletters and a journal, *The Florida Anthropologist,* and holds an annual conference.

I want to help The Southwest Florida Archaeology Society preserve and interpret Florida's heritage!

Name (please print) _____

Address_____

City/Town_____ State _____ ZIP _____

Phone _____ Email _____

Check One:

Individual ($20) _____ Sustaining Individual ($50) _____ Family ($35) _____

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Donation to Support SWFAS Speakers and Programs _____

Skills, training, interests: _____

I hereby agree to abide by the rules and bylaws of the Southwest Archaeological Society. I further release from any and all liability due to accident and injury to myself, dependents and any property owners cooperating with the society.

Signature: _____Date _____

Please make your check out to SWFAS and mail to:

Charlie Strader
SWFAS Treasurer
27655 Kent Road
Bonita Springs, FL 34135

REV. 12052017

FAS Membership Categories

Membership in the Society is open to all interested individuals who are willing to abide by the Florida Anthropological Society Statement of Ethical Responsibilities, which can be found on our website **fasweb.org.** *Membership is for one year.* SELECT LEVEL BELOW.

___Student*	$20	___Institutional	$50
___Regular	$40	___Sustaining	$100
___Family	$45		

*Student membership is open to graduate, undergraduate and high school students. A photocopy of your student ID must accompany payment. ****Add $25 for foreign addresses.**

Member Name:_____

Email:_____

Address:_____

City:_____State:_____ZIP:_____

Phone:_____ FAS Chapter:_____

Please choose how you wish to receive the quarterly journal, *The Florida Anthropologist*.

___Digital Only (via a password protected web link) Note: Student members only receive digital access.

___Both Digital and Printed

This is a Gift Membership from: _____

In addition to this Membership, I also wish to make a donation to:

$_____ Dot Moore/FAS Student Grant Fund $_____ Florida Archaeology Month Account

$_____ Florida Anthropologist Monograph Fund $ _____ Florida Anthropologist Endowment Fund

Total Enclosed: $_____

_____ I agree to abide by the Code of Ethics of the Florida Anthropological Society.

_____

Signature Date

Send Membership Form and Dues Payment to:

Florida Anthropological Society, P O Box 1561 Boynton Beach, FL 33425

You can join online or pay Membership dues renewals via PayPal on our website fasweb.org.

THE FLORIDA ANTHROPOLOGICAL SOCIETY, INC. IS A TAX-EXEMPT 501C3 ORGANIZATION. TAX ID#59-1084419.