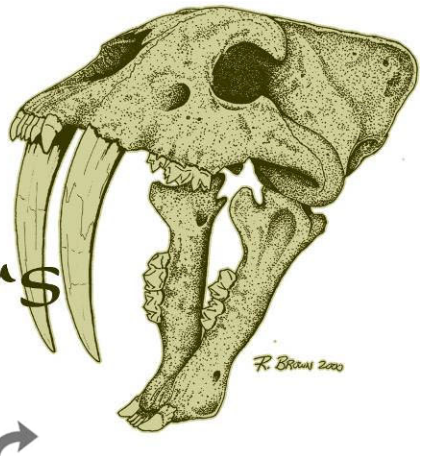
NEWS
Florida Fossil Hunters



Florida Prehistorical Museum, Inc.
dba/ Florida Fossil Hunters
Volume 31, Number 1

JAN/FEB 2021

From Ye Olde President.....

Hello *and welcome all FFH Members.*
Happy holiday and New Years 2021.

2020 was difficult year with Covid and I'm happy all members are heathy.

It's time again to renew your membership for 2021.

Also its time for **elections of all FFH officers positions** in January meeting.

We're always looking for new members to volunteer and help out us "old folks". Much of the new tech is way beyond us. Your club is in need of NEW talent to take the club forward.

We had 14 members attend FFH Annual Christmas party. Lots of fun and food and want to thank Dave Dunnaway for hosting the Christmas party at his house. The auction was fun and every member won great auction items. The auction raised 80,000 fossil bucks.

The FFH 2021 OSC schedule is confirmed. FFH will have 10 meeting at the OSC for 2021. See the last page for the full schedule.

Our guest speaker for January meeting will be John McIntosh.
Topic of discussion will be about Fossil Preparation.

February: Dave Dunnaway is scheduling a **field trip** in February to Chris DeLorey Warehouse and store. The FFH February meeting will be held at Chris DeLorey's Warehouse.

FFH President
Salvatore Sansone, FFH President

January Mtg: Page 2

2021 Officer Elections
January Mtg, Page 2

Renew Now for 2021 Membership!
Page 2

Coming Events

UPCOMING MEETINGS
at the Orlando Science Center

FFH meeting at OSC
Saturday, January 16th
2 pm - Kids' program
3 pm - Meeting

FFH meeting & Field Trip
Saturday, February 20th
more info at mtg & on website

Save the Date 2021 Fossil Fair
Sat., Oct. 16, 9 am - 5 pm
Sun., Oct. 17, 10am - 4 pm
Sanford Civic Center

More events listed on back page
For more info...
www.floridafossilhunters.com

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MEETINGS

Next Meeting scheduled for:

Sat. January 16th 2 pm - 5 pm

Orlando Science Center

777 E. Princeton St., Orlando, FL 32803

Guest speaker will be John McIntosh and the topic of discussion will be about Fossil Preparation.

Sat. February 20th

Chris DeLorey Warehouse & Store

4015 Pines Industrial Ave, Rockledge, FL 32955

*Field trip to Chris DeLorey's warehouse of fossils and store. There will be viewing areas outdoors, limited sized groups rotated indoors and **masks are required**. More info at the January Meeting and on the website.*

Kids' Fossil Blast

on Saturday,
Jan 16th 2-3pm

Kids' Fossil Blast is an informal, hands-on experience aimed at kids ages 5 to 14.

REGISTER/RENEW

Membership prices have changed.

- Family memberships cost $25
- Individual membership will cost $20

RENEW NOW ONLINE!

https://floridafossilhunters.com/membership

2021 ELECTIONS

All officers positions will be available for any FFH members for 2021. Check out the officer list on page 7 for more information or email us. Voting will be held at the January 16th meeting.

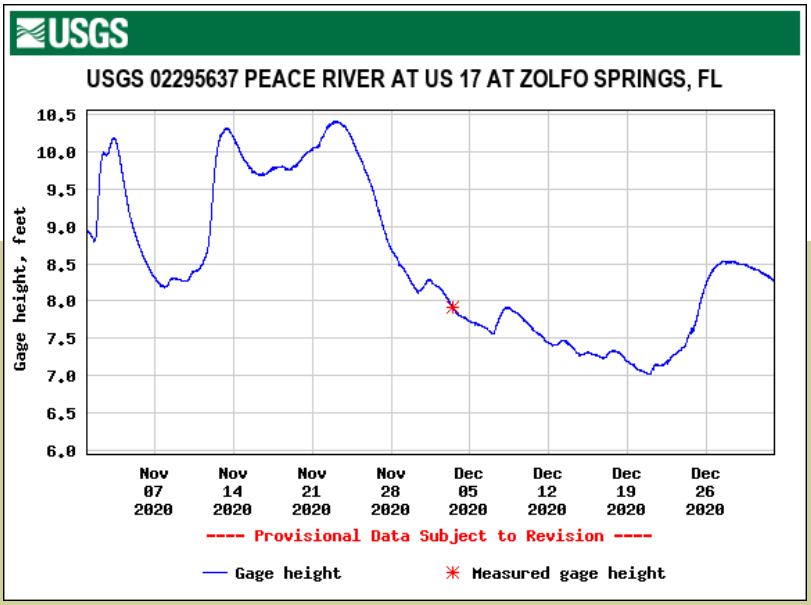
Would you like more information?

Email us at info@floridafossilhunters.com

Meetings are held at the Orlando Science Center. Unless otherwise noted. Admission and parking is FREE for those attending the meeting. Just let them know at the garage that you are there for the meeting, and they will let you in; same at the gate.

Piece on the Peace

Water level from
November 1st to December 31st



Neanderthals buried their dead: New evidence

December 9, 2020

Was burial of the dead practiced by Neandertals or is it an innovation specific to our species? There are indications in favor of the first hypothesis but some scientists remain skeptical. For the first time in Europe, however, a multi-disciplinary team led by researchers at the CNRS and the Muséum national d'histoire naturelle (France) and the University of the Basque Country (Spain) (1) has demonstrated, using a variety of criteria, that a Neandertal child was buried, probably around 41,000 years ago, at the Ferrassie site (Dordogne). Their study is published in the journal Scientific Reports on 9th December 2020.

Dozens of buried Neandertal skeletons have been discovered in Eurasia, leading some scientists to deduce that, like us, Neandertals buried their dead. Other experts have been sceptical, however, given that the majority of the best-preserved skeletons, found at the beginning of the 20th century, were not excavated using modern archaeological techniques.

It is within this framework that an international team (1) led by paleoanthropologists Antoine Balzeau (CNRS and Muséum national d'histoire naturelle, France) and Asier Gómez-Olivencia (University of the Basque Country, Spain), analysed a human skeleton from one of the most famous Neandertal sites in France: the La Ferrassie rock shelter, Dordogne. After six Neandertal skeletons were discovered at the beginning of the 20th century, the site delivered a seventh between 1970 and 1973, belonging to a child of around two years old. For almost half a century, the collections associated with this specimen remained unexploited in the archives of the Musée d'archéologie nationale.

Recently, a multidisciplinary team, assembled by the two researchers, reopened the excavation notebooks and reviewed the material, revealing 47 new human bones not identified during excavation and undoubtedly belonging to the same skeleton. The scientists also carried out a thorough analysis of the bones: state of preservation, study of proteins, genetics, dating, etc. They returned to La Ferrassie in the hope of finding further fragments of the skeleton; although no new bones were discovered, using the notebooks of their predecessors, they were able to reconstruct and interpret the spatial distribution of the human remains and the rare associated animal bones.

The researchers showed that the skeleton had been buried in a sedimentary layer which inclined to the west (the head, to the east, was higher than the pelvis), while the other stratigraphic layers of the site inclined to the north-east. The bones, which were relatively unscattered, had remained in their anatomical position. Their preservation, better than that of the bison and other herbivores found in the same stratum, indicates a rapid burial after death. Furthermore, the contents of this layer proved to be earlier than the surrounding sediment (2). Finally, a tiny bone, identified as human by the proteins and as Neandertal by its mitochondrial DNA, was directly dated using carbon-14. At around 41,000 years old, this makes it one of the most recent directly dated Neandertal remains.

This new information proves that the body of this two-year-old Neandertal child was purposefully deposited in a pit dug in a sedimentary layer around 41,000 years ago; however, further discoveries will be necessary to understand the chronology and geographical extension of Neandertal burial practices.

https://www.sciencedaily.com/releases/2020/12/201209140358.htm

Paleontologists find pterosaur precursors that fill a gap in early evolutionary history

December 9, 2020

Here's the original story of flight. Sorry, Wright Brothers, but this story began way before your time -- during the Age of the Dinosaurs.

Pterosaurs were the earliest reptiles to evolve powered flight, dominating the skies for 150 million years before their imminent extinction some 66 million years ago.

However, key details of their evolutionary origin and how they gained their ability to fly have remained a mystery; one that paleontologists have been trying to crack for the past 200 years. In order to learn more about their evolution and fill in a few gaps in the fossil record, it is imperative that their closest relatives are identified.

With the help of newly discovered skulls and skeletons that were unearthed in North America, Brazil, Argentina, and Madagascar in recent years, Virginia Tech researchers Sterling Nesbitt and Michelle Stocker from the Department of Geosciences in the College of Science have demonstrated that a group of "dinosaur precursors," called lagerpetids, are the closest relatives of pterosaurs.

"Where did pterosaurs come from?' is one of the most outstanding questions in reptile evolution; we think we now have an answer," said Sterling Nesbitt, who is an associate professor of geosciences and an affiliated faculty member of the Fralin Life Sciences Institute and the Global Change Center.

Their findings were published in *Nature*.

Fossils of Dromomeron gregorii, a species of lagerpetid, were first collected in Texas in the 1930s and 1940s, but they weren't properly identified until 2009. Unique to this excavation was a well-preserved partial skull and braincase, which, after further investigation, revealed that these reptiles had a good sense of equilibrium and were likely agile animals.

After finding more lagerpetid species in South America, paleontologists were able to create a pretty good picture of what the lagerpetids were; which were small, wingless reptiles that lived across Pangea during much of the Triassic Period, from 237 to 210 million years ago.

And in the past 15 years, five research groups from six different countries and three continents have come together to right some wrongs in the evolutionary history of the pterosaur, after the recent discovery of many lagerpetid skulls, forelimbs, and vertebrae from the United States, Brazil, Argentina, and Madagascar.

You may be asking yourself, what gave paleontologists the idea to take a closer look at lagerpetids as the closest relatives of pterosaurs? Well, paleontologists have been studying the bones of lagerpetids for quite some time, and they have noted that the length and shape of their bones were similar to the bones of pterosaurs and dinosaurs. But with the few fossils that they had before, it could only be assumed that lagerpetids were a bit closer to dinosaurs.

What really caused a shift in the family tree can be attributed to the recently collected lagerpetid skulls and forelimbs, which displayed features that were

more similar to pterosaurs than dinosaurs. And with the help of new technological advances, researchers found that pterosaurs and lagerpetids share far more similarities than meet the eye.

Using micro-computed tomographic (?CT) scanning to reconstruct their brains and sensory systems within the recently discovered skulls, paleontologists determined that the brains and sensory systems of lagerpetids had many similarities with those of pterosaurs.

"CT data has been revolutionary for paleontology," said Stocker, who is an assistant professor of vertebrate paleontology and an affiliated faculty member of the Fralin Life Sciences Institute and the Global Change Center.

"Some of these delicate fossils were collected nearly 80 years ago, and rather than destructively cutting into this first known skull of Dromomeron, we were able to use this technology to carefully reconstruct the brain and inner ear anatomy of these small fossils to help determine the early relatives of pterosaurs."

One stark and mystifying finding was that the flightless lagerpetids had already evolved some of the neuroanatomical features that allowed the pterosaurs to fly, which brought forth even more information on the origin of flight.

"This study is a result of an international effort applying both traditional and cutting-edge techniques," said Martín D. Ezcurra, lead author of the study from the Museo Argentino de Ciencias Naturales in Buenos Aires, Argentina. "This is an example of how modern science and collaboration can shed light on long-standing questions that haunted paleontologists during more than a century."

Ultimately, the study will help bridge the anatomical and evolutionary gaps that exist between pterosaurs and other reptiles. The new evolutionary relationships that have emerged from this study will create a new paradigm, providing a completely new framework for the study of the origin of these reptiles and their flight capabilities.

With the little information that paleontologists had about early pterosaurs, they had often attributed extremely fast evolution for the acquisition of their unique body plan. But now that lagerpetids are deemed the precursors of pterosaurs, paleontologists can say that pterosaurs evolved at the same rate as other major reptile groups, thanks to the newly discovered "middle man."

"Flight is such a fascinating behaviour, and it evolved multiple times during Earth's history," said Serjoscha W. Evers, of the University of Fribourg. "Proposing a new hypothesis of their relationships with other extinct animals is a major step forward in understanding the origins of pterosaur flight."

Some questions still remain in this evolutionary mystery. Now that lagerpetids are the closest relatives of pterosaurs, why are they still lacking some of the key characteristics of pterosaurs, including the most outstanding of those -- wings?

"We are still missing lots of information about the earliest pterosaurs, and we still don't know how their skeletons transformed into an animal that was capable of flight," said Nesbitt.

Nesbitt, Stocker, and a team of Virginia Tech graduate and undergraduate students will continue to study animals that appeared in the Triassic Period -- a period of time in Earth history when many familiar groups of vertebrates, such as dinosaurs, turtles, mammal relatives, and amphibians, first appeared. If and when conditions are safe, they plan on going into the field to collect more fossils from the Triassic Period.

https://www.sciencedaily.com/releases/2020/12/201209115235.htm

More Articles...

Geologist: Fla. ridges' mystery marine fossils tied to rising land, not seas

https://news.ufl.edu/archive/2010/06/geologist-fla-ridges-mystery-marine-fossils-tied-to-rising-land-not-seas.html

'Terror bird' arrived in North America before land bridge, study finds

https://news.ufl.edu/archive/2007/01/terror-bird-arrived-in-north-america-before-land-bridge-study-finds.html

Fossil snake from India fed on hatchling dinosaurs

https://news.umich.edu/fossil-snake-from-india-fed-on-hatchling-dinosaurs/

Museum volunteers discover new species of extinct heron at North Florida fossil site

May 16, 2019

When the bones of an ancient heron were unearthed at a North Florida fossil site, the find wasn't made by researchers but by two Florida Museum of Natural History volunteers.

A previously unknown genus and species, the heron has been named *Taphophoyx hodgei* (TAFF'-oh-foy-ks HAHJ'-ee-eye) in honor of landowner Eddie Hodge, who has allowed Florida Museum researchers and volunteers to excavate the site on his property near Williston since his granddaughter first discovered fossils there in 2015.

Nearly 700 volunteers have worked at the Montbrook fossil site, collectively digging more than 12,000 hours.

"You couldn't have a better group of people," Hodge said. "There's a lot of negativity when we get home and turn on the television, but it does you good to be out here seeing volunteers get excited and be positive about something."The bones used to identify the new heron were found by volunteers Toni-Ann Benjamin and Sharon Shears.

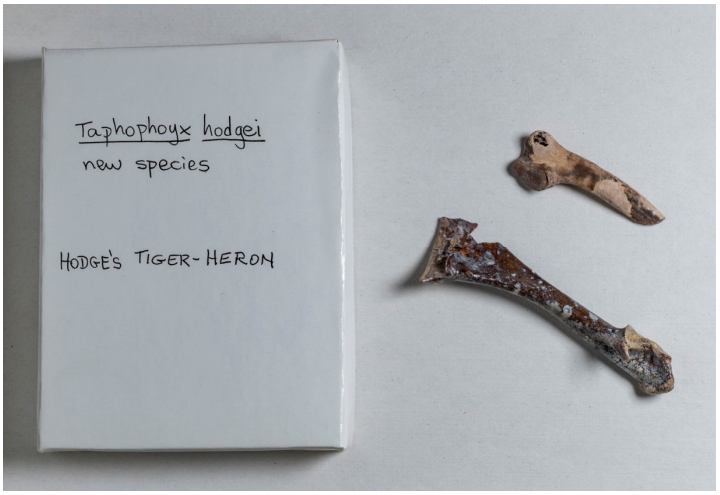
Taphophoyx hodgei -- whose genus name means "buried heron" in Greek and Latin -- is the first new species to be described from Montbrook. Many other new species from the fossil-rich site await publication.

"It's invigorated the local fossil community," said David Steadman, Florida Museum curator of ornithology and lead author of the description of *T. hodgei*. "One of the greatest values of Montbrook is that it's been such a collaborative learning tool."

Because Montbrook is such an intensively worked fossil site, processing the finds takes the teamwork of scientists and amateurs. Hodge oversees much of the land management that Montbrook requires, including moving dirt and managing drainage. In addition to working outdoors at the site, volunteers prepare and catalog specimens in the Florida Museum's vertebrate paleontology lab.

A good day of digging requires between 10 and 20 days to process in the lab, said Jonathan Bloch, Florida Museum curator of vertebrate paleontology and a coordinator of the fossil dig.

"We simply couldn't do all this work without help from the public," Bloch said. "Volunteers are not only the backbone of the dig, they're actively contributing to scientific discoveries."



Steadman and then-master's student Oona Takano used the characteristics of the bird's scapula and coracoid, two bones that intersect to support the bird's shoulder, to determine the relationship between this ancient heron and modern lineages.

They believe *T. hodgei* is most closely related to today's tiger-herons, which live in Mexico and Central and South America. They have given the new species the common name "Hodge's tiger-heron."

"This heron adds to this big suite of aquatic birds we're finding at Montbrook," Steadman said. "We're seeing the same families of birds you'd see around wetlands today, but they're all extinct species. The fun challenge is finding out how closely related any given species at Montbrook is to the birds that we see flying and swimming around Florida today. Even after three and a half years, we're nowhere near diminishing returns."

"Through the kindness of his heart and being interested -- just wanting to know what's in the ground on his land -- Eddie let us in and one thing led to another." Steadman said. "Naming this heron after Eddie is a minor part of treating him right because he's been treating us right."

"He's genuinely interested in the fossils we're finding," Takano added.

The Florida Museum recruits volunteers for the Montbrook dig in fall and spring and regularly encourages volunteers and students to become involved, often resulting in meaningful fossil discoveries. Finds are shared on the Florida Museum Montbrook Fossil Dig Blog.

"Volunteers are fascinated by this stuff -- it's really their passion," Hodge said. "There's a satisfaction in being able to provide something like this for people interested in higher learning, and you don't get the chance to do that very often. You never know what you can find. Just the next little spoonful of dirt, brush it back and there it is."

Read the full article at:

https://www.floridamuseum.ufl.edu/science/new-species-of-extinct-heron/

Florida Fossil Hunters

is a fun and educational group whose goal is to further our understanding of the prehistory of Florida. We encourage family participation and welcome explorers of all ages.

Membership options are listed to the right.

Meetings are usually held on the third Saturday of the month but may vary with club activities. Check the website for the date and location of the next meeting or call one of the officers.

Officers:

President	Salvatore Sansone	(321) 278-9294
Vice President 1	Steve Sharpe	(352) 552-2296
Vice President 2	Paul Hardin	
Secretary		
Treasurer	David Dunaway	(407) 786-8844

Chairs:

Field Trips	**OPEN**	
Fossil Fair	Valerie First	(407) 699-9274
Fossil Auctions	Dave Dunaway	(407) 786-8844
Fossil Bucks	Dave Dunaway	(407) 786-8844
Fossil Lotto	Ed Metrin	(407) 321-7462
Membership	Ken Sellers	
Newsletter		
	Elise Cronin-Hurley	info@elisech.com
Photography	John Heinsen	(407) 291-7672
Facebook	Salvatore Sansone	
	Ken Sellers &	Paul Hardin
Webmaster	Elise Cronin-Hurley	info@elisech.com

Board of Directors:

	Marge Fantozi	
	Valerie First	
	Paul Hardin	
	Cindy Lockner	
	Ed Metrin	(407) 321-7462
	Ken Sellers	

Membership Application

MAIL in this form or Register ONLINE at
www.floridafossilhunters.com/membership

Names: _____

Associate Members: _____

_____

_____

_____

Address: _____

City: _____

State: _____ Zip: _____ Phone: _____

e-mail: _____

____ New ____ Renewal

Please list any interests, experience, talents or just plain enthusiasm, which you would like to offer to the club:

_____

_____

Family membership: $25
Individual membership: $20

Please make your checks payable to:

Florida Fossil Hunters
Post Office Box 540404
Orlando, Florida 32854-0404

Associate members are people in the same household, included at no extra charge, 2 adult votes per household with Family Membership.

Membership year runs from January to December.

Newsletter Policy

Articles must be submitted by the first of the month to be included in that month's newsletter. These can be mailed to the above Post Office Box or e-mailed to: info@ floridafossilhunters.com. Articles can be sent as text in the e-mail or in Microsoft Word files (.doc or .docx).

Please note in subject of email 'FFH News: [article or info]

Florida Prehistorical Museum, Inc.
dba/ Florida Fossil Hunters

Florida Fossil Hunters Mark Your Calendar

See inside for more information on

2021 FFH Schedule

January 16th

February 20th Field Trip & meeting at Chris DeLorey Warehouse & Store

March 20th

April 10th

May 15th

June: no meeting

July 17th

August 21st

September 18th

October: Fossil Fair

November 13th

December no meeting
(Holiday Party - date tba)

All meetings held at the Orlando Science Center, unless otherwise noted.

January 16th: Officer Elections

February 20th: Field Trip

Mark Your Calendars for the 2021 Fossil Fair

October 16 & 17

Join Our Facebook group, Search:
Florida Fossil Hunters

facebook

Visit us online at www.floridafossilhunters.com

Email info@floridafossilhunters.com to share articles, comments and how to receive the newsletters by email.

Florida Fossil Hunters

Post Office Box 540404
Orlando, Florida 32854-0404