Fossil Club of Lee County

April 2018

Letter from the President

Please read this newsletter. After this one, the format will change and much of the 'static" items will be on the website. I plan on having the president's letter, event notifications, member's finds and only that which may be of interest to most of you. Future newsletters will be much shorter. Maybe, print this one out so you have a ready copy of websites, etc.

TRANSITION TIME!! Easter has come and gone, seasonal snowbird residents are heading back home, spring is in the air and summer is coming fast! The almost total lack of rains this winter has allowed the water levels to get exceedingly low in the Peace River and surrounding creeks. It's a great time to go look for fossils!!

We just had a walk-in tri-club trip, at Crews Park in Wauchula! We did the first ever combined hunt between the Manasota Fossil Club, the Southwest Florida Fossil Society and the Fossil Club of Lee County! Attendance was pretty good. About a dozen kayakers launched and took off and about 30 other clubs' members showed up and hunted both upstream and downstream! Since the immediate area has been hunted a good bit over the years, not a lot was found, but some interesting fossils showed up and many folks were happy. It was a nice day, and it was good for everyone to mingle together and swap stories and show their finds! Pictures are posted on the FCOLC Facebook page.

Last month-March-was our annual fossil auction. We broke our record-again!. Lots of folks attended and I believe enjoyed their night. Traditionally, great refreshments are provided by the Bonita Beach Club fossil gang, and this year was no exception! Good eats!! Thanks go out to all the folks who contributed. This includes any member who donated fossils, all the members who showed up early to help set up, our directors and board members who helped man the administrative table, our great Bonita Beach club refreshment gang, and also to everyone who bid to win!! This is our number one annual fundraiser, and we use the money for ongoing expenses as well as scholarship donations! Thank you all!

The Board has met, and have decided to award $4,000 in scholarships this year. These are distributed to the University of Florida, the University of South Florida, and Zack Deyo. We have managed the club's monies well, and even with this donation, we are in strong financial shape.

As happens some years, we receive donations for the auction in an untimely manner, which cannot be placed into the regular March auction. For this reason, we will hold a "mini-auction" at the April meeting. It will not be long, consisting mostly of silent auction items. We have some nice items available, so if you missed out in March, you may get a second chance!

We depend on donations from members to do a lot of the things we do. So, keep this in mind if you have too many fossils. We use all kinds for various purposes, from kids' digs to dollar raffle to auction items. And, consider making the club a beneficiary in your will, if you decide our organization is something you would want to help pass on your legacy. For instance, our present scholarship fund is called the Ken Ericson Scholarship, named for a past member whose collection was auctioned by the club and the proceeds used to start the scholarship fund which we have continually funded for well over $20,000 since inception.

In the absence of a speaker this month, besides the mini-auction, we will have a show-and-tell! I know lots of you have been finding fossils, so BRING EM IN!! Show them suckers off! If you're too shy to talk about them, no problem. But, we want to see them! We have had several fossil shows where members have acquired nice fossils. We want to see them!

Besides the mini-auction and show and tell, I will do an ID presentation. Lots of members would like to learn more about their fossils, and I will try to explain how to identify them.

Speaking of fossil shows, the Venice Shark tooth Festival is coming soon! April 13, 14 and 15. It's a good one!!! Don't miss it!! Plan on spending the day. Lots to see. And the beach, (with shark teeth!) is right there, by Sharkys Restaurant and the pier. And, downtown Venice is nice "old Florida". And the three huge fossil tents are loaded with fossils!!

Elections were held at the March meeting and all current executive and board members agreed to stay on again. And, welcome to our newest director, Travis Willis. Travis has also taken on the task of "Trips coordinator". He is currently in the process of trying to arrange some outings for us, while also trying to keep up with his own busy schedule. Welcome Travis, and thank you.

We have a unique opportunity for fund raising that was presented to our club by Valarie Rahn. It's called Amazon Smile. If you sign on according to the instructions contained within this newsletter you will then enable a certain percent of your purchase to be awarded to the club. No change will take place in your dealing with Amazon, but the club will benefit. Thank you.

Bill Courtwright will be the speaker at the May meeting, speaking about agatized corals.

Joshua Frank, a longtime FCOLC member, discovered an important and unique offshore Indian Burial ground, while diving for shark teeth off of Mannisota beach. This is now recognized as the only underwater ancient burial ground in the Americas!!! Only two others are known to exist in the world.

Joshua contacted the right people at FLMNH and started the investigation and has dove several times with the underwater archeologists. He has written his account of this discovery, and it is inside this newsletter. Please read!

Don't forget—bring in your show and tell fossils!! We want to see them!!

See you at this month's April 19 meeting!!

Louis Stieffel
President
Fossil Club of Lee County

OFFICERS

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Dave Seehaver
Jeanne Seehaver
Dr. John Taraska
Travis Willis

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Curt Klug, Web Master
Cherie Jacobs, Newsletter Developer
Al Govin, Badges, Membership, Trips
Travis Willis , Club Trips
Cindy Bateman, Librarian
Dave and Jeanne Seehaver, Merchandise
Dean Hart, Refreshment
Victoria O'Toole, $1 Raffle
Lou and Valerie Rahn, Festival Organizers
Louis Stieffel, Auctioneer, FOSSIL project representative, Newsletter editor, Speakers, Vertebrate Education

Here is a site that has every river and creek mapped **for the whole state**, separated by county. Click on the zoomify tab below each map to zoom in. Enjoy !

Save to your desktop so you can find and use it often!

http://fcit.usf.edu/florida/maps/galleries/hydrography/index.php

Meetings are on the third Thursday of the month, 7:00 pm, in the Fellowship Hall at Zion Lutheran Church , 7401 Winker Road, Fort Myers, FL 33919

Websites & Locations of Interest

Fossil Club of Lee County: www.fcolc.com

FCOLC Fossil Club of Lee County, Inc. c/o AL GOVIN
TREASURER
3584 MIDDLETOWN ST. PORT CHARLOTTE, FLORIDA 33952

The FCOLC website is a source for links to Fossil websites of interest, archived monthly club newsletters, details on club meetings and officers.

Museum of Natural History @ Gainesville www.flmnh.ufl.edu/

The Fossil Project www.myFOSSIL.org

Randell Research Center PO Box 608, Pineland, FL www.flmnh.ufl.edu/RRC/

Smithsonian Natural History Museum www.mnh.si.edu

Southwest Florida Museum of History 2031 Jackson St., Fort Myers www.MUSEUMofHISTORY.org

The Bailey-Matthews Shell Museum, 3075 Sanibel-Captiva Rd, Sanibel, FL www.shellmuseum.org

Cracker Museum at Pioneer Park in Zolfo Springs, FL Tel 863.735.0119
www.hardeecounty.net/crackertrailmuseum/about.html

Cape Coral Friends of Wildlife Burrowing Owls
www.ccfriendsofwildlife.org

Calusa Nature Center and Planetarium 3450 Ortiz Av, Fort Myers Tel 239-275-3435
www.calusanature.org

Imaginarium 2000 Cranford Ave, Fort Myers
www.i-sci.org

Florida Fossil Clubs
Southwest Florida Fossil Club
www.southwestfloridafossilclub.com
Tampa Bay Fossil Club
www.tampabayfossilclub.com
Orlando Fossil Club
www.floridafossilhunters.com
The Fossil Forum
www.thefossilforum.com/index.php
Fossil Treasures of Florida
www.fossil-treasures-of-florida.com
Florida Paleontological Society
http://floridapaleosociety.com/

Collecting Vertebrate Fossils on Florida state lands ***requires*** a permit. A fossil hunting permit is also part of being an ethical Florida fossil hunter.
Florida Vertebrate **Fossil Permit** http://flmnh.ufl.edu/natsci/vertpaleo/vppermit.htm

Peace River Water Levels
http://waterdata.usgs.gov/fl/nwis/rt

Picking Up Isolated Native American Artifacts www.flheritage.com/news/faq.cfm

ANNOUNCEMENT AND PROCLAMATION!!

Zack Deyo,

The board has met and allocated the annual allotment of funds towards scholarships. It has been decided to award Zack Deyo $1500, in the form of two $750 scholarships, one at the beginning of each of the next two regular semesters. As before, to qualify for this, an acceptable grade point average of 3.0 or higher is needed.

We realize that your degree is not in paleontology, but we also have greatly appreciated your involvement with the FCOLC, and your continued desire to do so, and your dad's ongoing support and participation in the club.

Congratulations! Myself, the executive board, the directors, and the members of the Fossil Club of Lee county wishes you all the best!

Louis Stieffel
President
Fossil Club of Lee County

USEFUL WEB SITE FOR FOSSIL HUNTERS!

Facebook

Carol Copas and Crystal Monahan posted in **Manasota Fossil Club**

(https://www.facebook.com/groups/954122411264547/)

Rare Bear tooth, found by Valerie Rahn, in the Peace River!!

Aimeee's Corner!!

Making do in a slow season

Sometimes I have to make a conscious decision to NOT look at Facebook fossil pages because it seems like everyone is pulling palm-sized megs and buckets of amazing fossils out of thin air these days. It wouldn't bother me if I were a mature adult but...I'M NOT! I'm jealous! I'm having a super slow fossiling season even though I'm putting in major time and muscle.

I always write my blog posts even when I'm barely finding any fossils because I know, realistically, there are many fossil hunters that, from time to time, don't find much and consequently, they don't post. Just keeping it real. I also know that in Florida we have amazing opportunities to easily find small fossils that most people in our country and even around the world can only dream of finding. It's all in perspective.

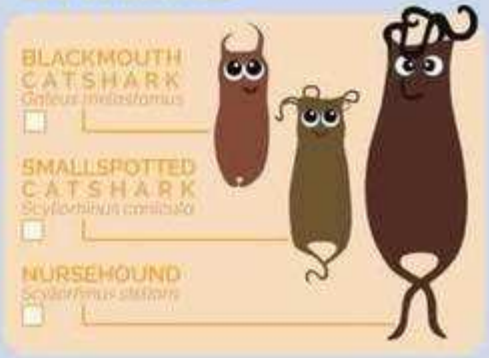
My most recent visit to the Peace yielded a small handful of fossil that are common around these parts with the exception of the 2 small pre-equus horse teeth in the photo I've included with this article. Since I didn't have many fossils to sort, I dug into my cabinets of odds and ends and found some modern deer teeth and puffer fish mouth plates to use as comparison to their fossilized counterparts.

I try to incorporate a little fossil hunting into any trip that I take and consequently, I've ended up not having a true "off season" anymore so maybe I'll use this slow spell to organize my fossils.

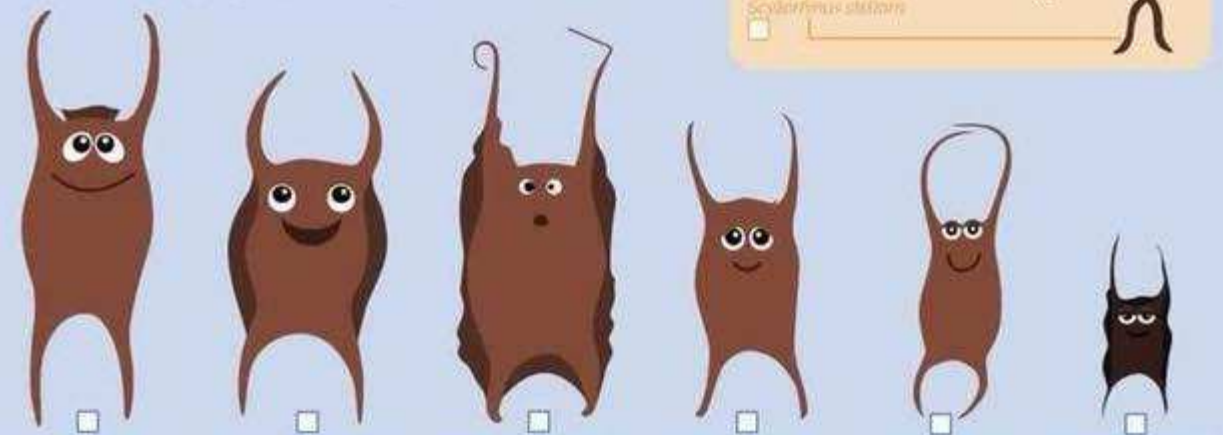
That's what they all say, right? Lol!

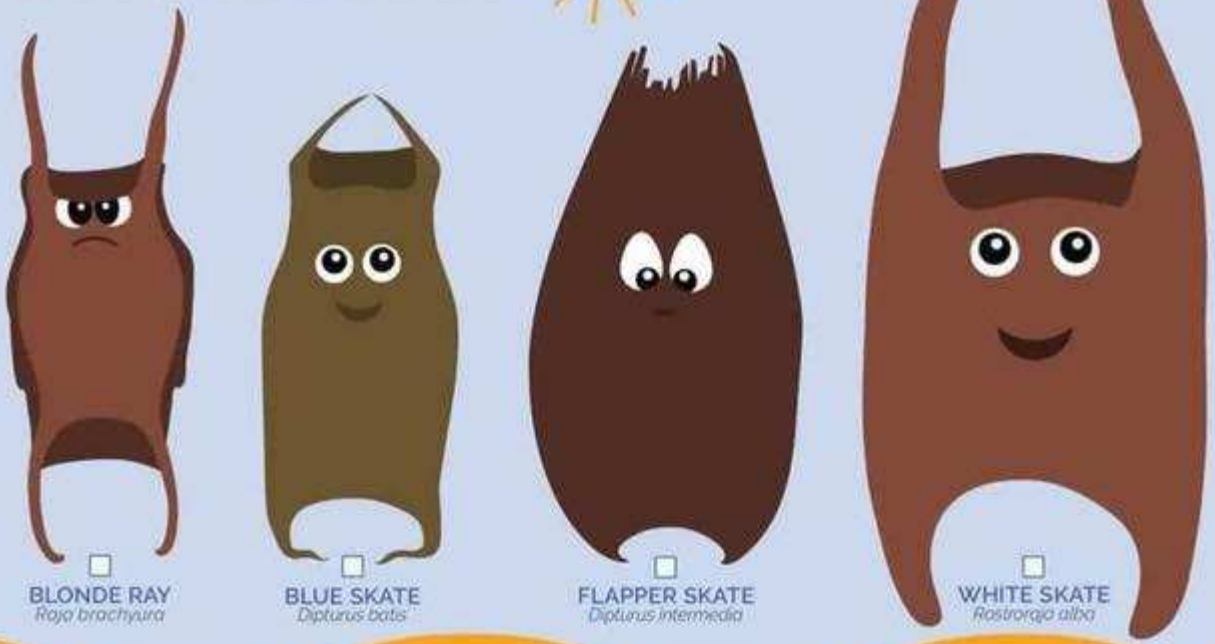
EASTER EGGCASE HUNT

SHARKS



SKATES & RAYS





SHARK TRUST

Great Eggcase Hunt

www.eggcase.org

ONCE IN A LIFETIME DISCOVERY!!!

Accidental Discovery

On most weekends I scuba dive off the coast of Venice to hunt for megalodon shark teeth and other fossils. As most club members know, Florida has been under water and above water at many different times throughout its history. Due to the fluctuating amounts of water locked up in glaciers and the earth's poles, the Gulf of Mexico off Venice has been deeper than it is currently, and it has also been dry land extending out to the west much further, in some areas over 100 miles further west. The fossils found while diving off Venice are a combination of aquatic and terrestrial organisms. In some areas you find more land animal fossils, while in other areas you find predominantly fossils of animals of the sea.

One day while scuba diving, I came across a rectangular section of bone that seemed to be half of a jawbone with a worn down molar type of tooth in it. It was stained dark brown and was not as heavy as most of our mineral permeated fossils. This section of bone didn't look like a protected species I would expect to find in the Gulf, so I picked up the bone to identify it later. In the past I have encountered the shell and skull of a dead sea turtle, but I didn't collect them as it is illegal to do so. The same is true for a dead alligator that floated by me on the Peace River one day. I would have liked to pluck a tooth, but that is also illegal.

I found the bone on a Saturday dive. The next day, when looking at the bone, I started to have concerns that it might be human. I sent a picture to Dr. Dana Ehret, a scientist friend on social media, who earlier was kind enough to answer some of my questions on prehistoric sharks. He showed the picture to a colleague at the museum where he worked, who said it looked enough like human bone to warrant getting the proper people involved.

They put me in touch with the Archaeology Department at University of Gainesville. By early afternoon, I was speaking with Dr. Ryan Duggins from Florida's Bureau of Underwater Archaeology in Tallahassee. He said his impression from the picture was that this was a very old human bone. He explained that because of sand accidentally ingested in the their diet, many Native American molars would be very worn down. Dr. Duggins arranged to have a forensic anthropologist from FGCU collect the bone from me that day, when I got home from work.

The captain of the boat that I dive from was kind enough to give me the GPS coordinates to where we had anchored when I picked up the bone. He allowed me to share those coordinates with the Bureau of Archaeological Research. Dr. Duggins arranged to bring his team to the area, and my wife and I were allowed to dive with them, to show them where I found the piece of bone. I had remembered that I was about 200 ft south of the GPS location. The divers with the state had a communication system to be able to talk to the person in the boat and

Accidental Discovery continues on page 8

Accidental Discovery continues from page 7

to each other, in their closed face masks. We did not. I went with the archaeologists on dive 1, from the GPS boat anchor spot, to the location 200 ft south. The same bottom of compacted peat wood fibers that I originally saw was where I expected to find it. I showed the archaeologists the area. We finished that dive and returned to the boat.

My wife and I were going to be paired up as dive buddies on the second dive. We were told that we could hunt for megalodon teeth on this dive while they continued to survey the area. We descended to the bottom, with the 2 archaeologists, then were off to go off to hunt megalodon shark teeth, the most fascinating of fossils. When we got to the bottom of the anchor line, my wife pointed out a bone to the archaeologists that ended up being a human femur. Dr. Duggins seemed to be surprised or excited. Their enclosed face masks showed more of their faces, which is how I saw the excitement in his eyes. We went off to hunt for megalodon teeth. After about 20 minutes of hunting, I spotted what looked like a brown coconut staked to the bottom of the gulf, with approximately 2 feet of wooden stake showing. After briefly examining it, I waved my wife over to see it. We both just kept looking at it for a few minutes. We surfaced and I yelled over to the boat, “We have found something of interest.” We were over 150 ft away. I don’t think the archaologist who was topside heard us. We swam back to the boat, and described to her what we saw. She spoke via the communication system with the state archaeologist divers to tell them that we saw what could be a skull staked to the bottom of the Gulf. They spent the rest of their tanks looking for the object, but didn’t find it. I said, “If you give us 2 tanks, we will find it in less than 5 minutes.”

They gave us 2 fresh tanks, and we went to the bottom of the anchor line. They had a large reel line attached to the anchor line. My wife and I descended and retrieved the reel and set out to again find the skull. In less than 2 minutes, Christina had crossed over and re-found the skull, and we left the reel line at the skull. We surfaced and they allowed us to burn the rest of our tanks looking for megalodon teeth. The archaeologists entered a little later and followed the reel line to the skull and examined it for a considerable amount of time. We finished our tanks and went back to the boat. The archaeologist topside didn’t say if they confirmed if it was a skull. When the other archaeologists were back to the boat, they said it could be a human skull, but they didn’t see any suture marks, that are usually on skulls, where skull plates fuse together.

Before diving the site, Dr. Duggins said that he theorized that the original single piece of bone I found had eroded out of a cliff and washed into the water where I had found it. I think they expected to survey the site for a weekend, and likely not find further bones. The femur and skull, found in relatively close proximity, in such a turbulent area of the Gulf, pointed to someone’s remains being interred there, as opposed to washing out of a dune and into the water.

The next weekend I went back to Venice to dive with my usual charter. I saw the state archaeologists on their boat, docked behind the charter that I go out with. After greeting Dr. Duggins, I asked, “Was it a human skull that we found ?” He said said yes and that they had found several more. The presence of 3 or more skulls proved that it was a burial ground. He also confirmed that the stake that was going through the skull, was the stake that had initially been driven through the skull by a Native American 7200 years ago. He told me that this could likely be very big news when the science was interpreted and released. This would be the only example of a burial being preserved in a salt water environment in this hemisphere. In the world, there are only 2 other sites of burials that have been preserved in a salt water environment. The discovery of this site has possibly advanced the science of archaeology, by showing what degree of preservation is possible in the gulf off of Florida.

They recovered 7200 year old bones and textiles that survived in the salt water for thousands of years. Considering the storms I have witnessed, in the 17 years I have been in Florida, it is amazing to think of the number of storms that have caused very high and violent seas, that have occurred here in the last 7200 years. And yet, burials, let alone textiles were preserved beneath those at times very violent waters.

I was allowed to dive with the state archaeological team a few more times, which was wonderful for them to allow. One of the archaeologists, Franklin Price, brought up an important idea to keep in mind when visiting the site once it was found to be a burial ground. These remains, though 7200 years old, were fully modern humans and their remains certainly deserve the utmost respect be given to them. They were living humans. They experienced the same emotions that we do. As fancy as we want to think our 21st century selves are, there are some similarities in our lives, shared with the people buried so long ago, at this site.

Accidental Discovery continues from page 8

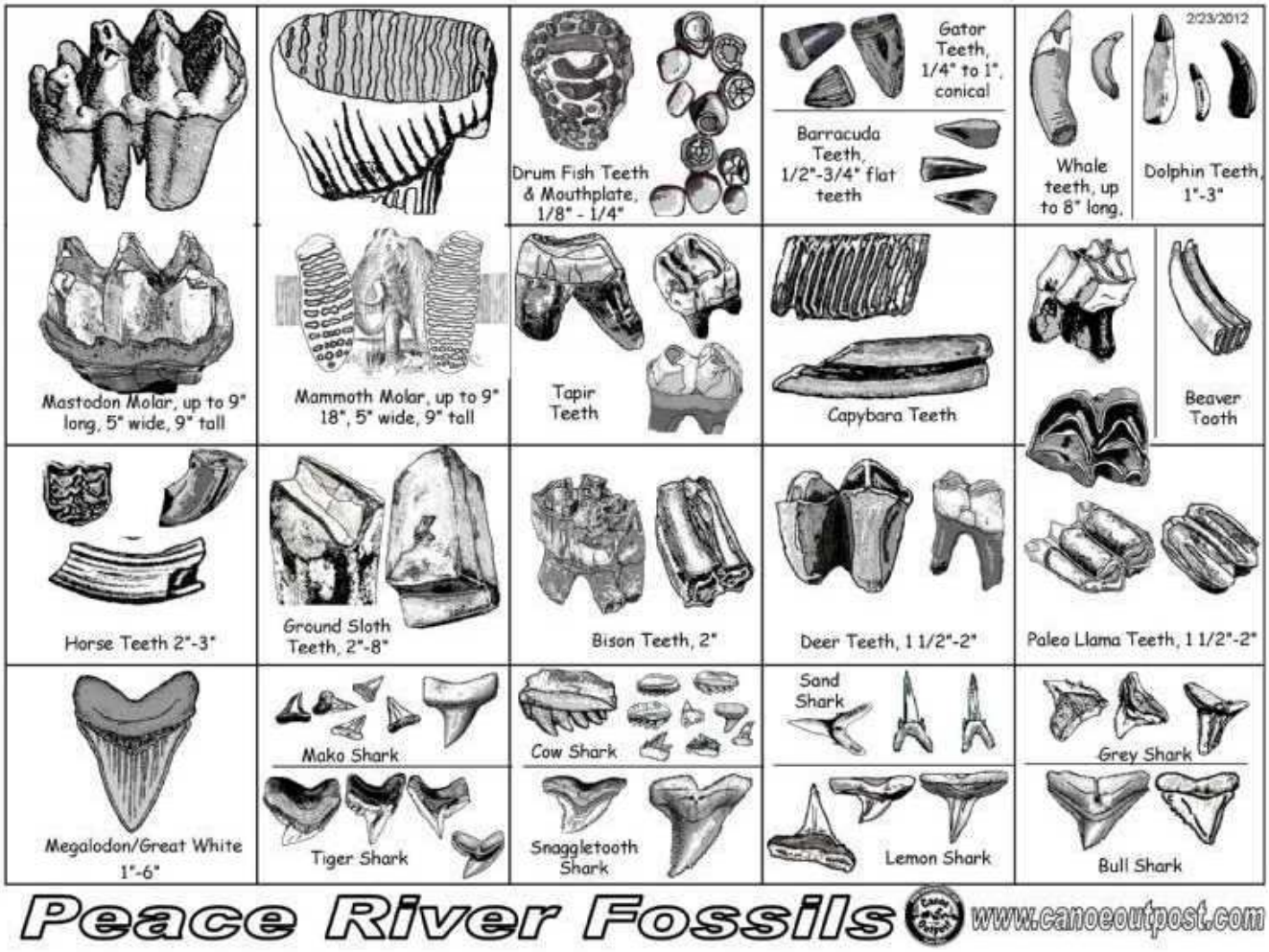
On one dive with the archaeologists, after they had been at the site for a year, Dr. Diggins was able to paint for me the picture of what happened on this section of the bottom of the Gulf. When we were back at the boat, he said that a rock formation at one edge of the site was definitely present at the edge of a pond, when the individuals were buried there. They had done sonar scans, showing the bottom of what was once a pond. It was fascinating to think where I was diving was a pond 7000 years ago, where a group of people buried some of their dead. Dr. Duggins thinks that they may have only found 1% of the site, and that there is much more to this site.

I was at times bothered by the fact that I had unknowingly collected human remains. I have apologized to the person in my mind. If there is an afterlife, I hope to apologize to them again. I would hope that they didn't mind and liked the idea of being part of furthering the understanding of Florida's native people, but of course I can't speak for them. Legally, the modern Native American tribes of Florida speak for the people who's remains were buried there. I did not mean any disrespect to the people buried at the site, or the modern tribes who represent them. The state worked very closely with the Seminole tribe at Big Cypress. The state was able to document the site and learn what they can, while strictly following the requests of the modern tribe's guidance. All of the scientists that I saw at the site were entirely respectful of the site, and the people buried there and were the utmost professionals. Dr. Duggins had local archaeologists from Sarasota County diving with him at times and doctoral students in related sciences from FGCU to assist, not hoarding all of the science and glory for the Bureau of Underwater Archaeology. I was very impressed with all of the scientists and archaeologists I was able to dive with and meet. They were all amazing in what they did.

Here is a terrific idea, brought to the club's attention by Valerie Rahn! Seems that Amazon will donate a portion of any purchase you male—to the Fossil Club of Lee County!! But, you need to register with Amazon, to be able to have this work. It cost you nothing, and you still shop exactly the same as you normally would. Valerie posted these instructions on our FCOLC Facebook page. I copied them here. **THIS IS A GOOD THING!! PLEASE do this!**
Thank you VALERIE!!

Please Help Us with our
Community Outreach
and our scholarships
By
Making us Your
AMAZON Smile
Contribution

1. Go to www.smile.amazon.com
2. Select: **Fossil Club of Lee County, Inc.** as your Non-profit.
3. Use www.smile.amazon.com every time you shop Amazon will donate a portion of the proceeds to us.
4. It costs nothing but can mean everything.
5. **THANK YOU!!**



For those of you who ask what books to get-- here's a great group!

We offer most, if not all, in the club store at the meetings.

FLMNH Database search tutorial

Here's the tutorial for the search function my talk was based on. This should help navigate the database and look at fossils.

Sean Moran, M.S.

Ph.D. Student

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Florida Museum of Natural History

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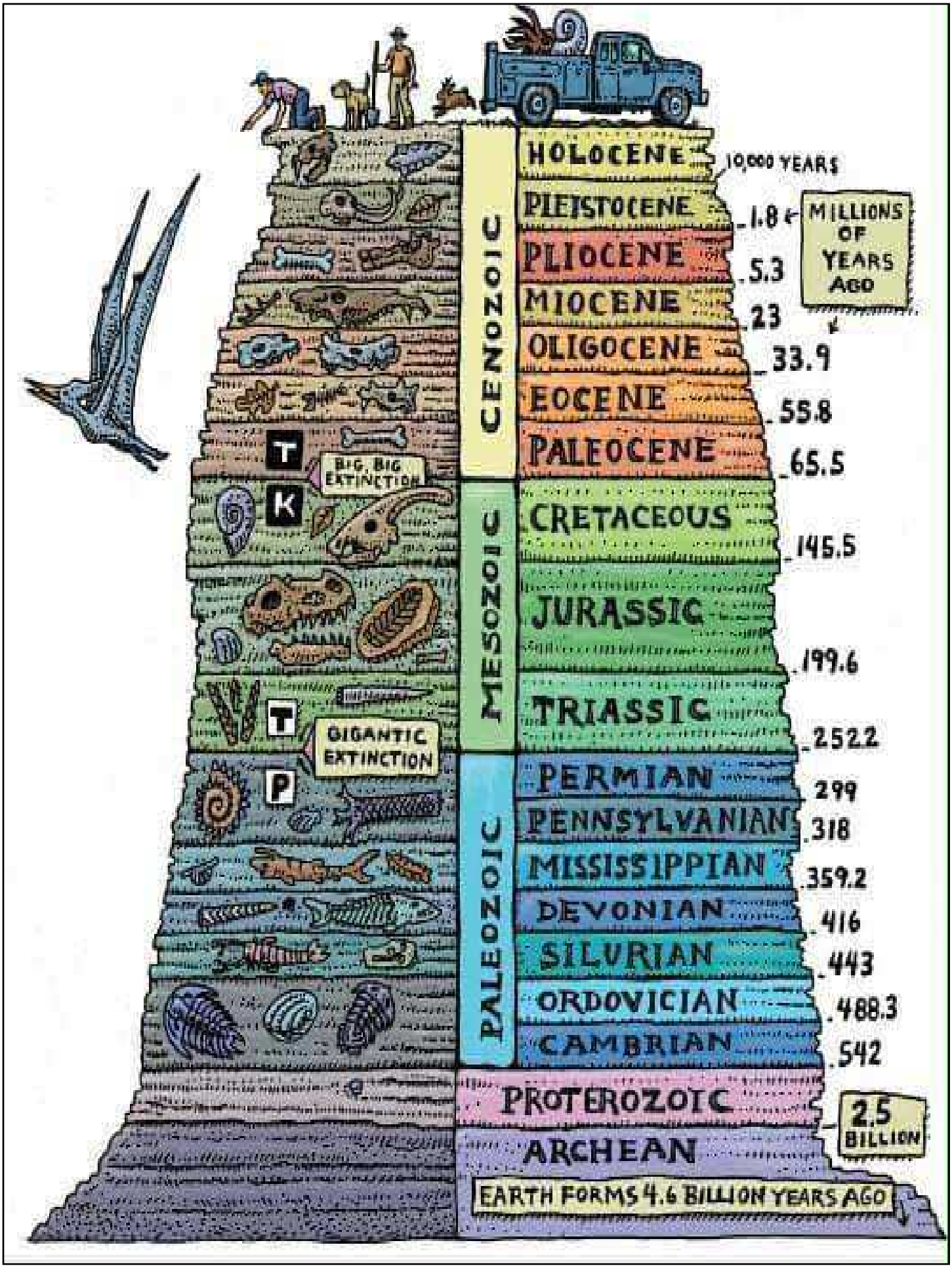
To view images of vertebrate fossils from the Florida Museum of Natural History collections:

1. Go to floridamuseum.ufl.edu/vertpaleo-search
2. To see images check the "Only Results With Images" box at the top of the search
3. Enter your search terms of interest:
   - Taxonomic terms (e.g., Class, Order, Family, Genus, Species)
     - These are all latinized names, so you will need to know (generally) what you are looking for. Good resources include "The Fossil Vertebrates of Florida" -Richard Hulbert, the taxonomic lists on the FLMNH Vertebrate Fossil Sites pages (floridamuseum.ufl.edu/florida-vertebrate-fossils/sites/), FLMNH species accounts (floridamuseum.ufl.edu/florida-vertebrate-fossils/species/), or simply by using Google.
   - Locality terms (e.g., County, Site, Formation, Land Mammal Age, Epoch)
     - Again, some of these terms may be unfamiliar to a general collection, such as the Hemphillian North American Land Mammal Age, but resources on the FLMNH website (e.g., floridamuseum.ufl.edu/florida-vertebrate-fossils/land-mammal-ages/) should be able to provide some help.
   - Collection terms (e.g., Collector, Donor Name, Date Collected)
     - These should be fairly self-explanatory.
   - Anatomical terms (Nature of Specimen)
     - This will perhaps be the most commonly used search field, but also the trickiest to navigate without familiarity of the terms used. I would recommend changing the drop-down menu from "Equals" to "Contains" so that search returns all results with the search term entered. Most anatomical terms will bring back the terms you will likely be looking for. For example, typing in "ulna" in the Nature of Specimen field and changing the drop-down to contains will return all ulnae from our collection that have been imaged, "femur" will return all femora, "vertebra" all vertebrae, "skull" all skulls, "mandible" all lower jaws, etc.

       However, due to our identification system, searching on "tooth" will only return a subset of all the photos of our teeth. This because our teeth are labeled as C, I, P, or M (for canine, incisor, premolar, or molar, respectively) for mammals and then given a number that pertains to which exact tooth it is (1 through 4). So, a P4, left upper would be a left upper fourth premolar while a m3, right lower would be a right lower third molar. If you simply switch the drop-down to "Contains" and type "p1" then "p2" then "p3" then "p4" into the Nature of Specimen field you should all images that contain a premolar in them or "m1", "m2", "m3" for specimens that contain a molar. It's a little tricky, but feel free to email me atsmmoran@ufl.edu if you can't get it figured out. Hopefully, in the future the database search function will be a little more user-friendly.
4. Click the blue "Submit Query" button
   - This will return all the images at the bottom of the page for the search you typed in above.

Other useful hints include switching between the table and list option in results box, clicking the "Display" box for a field that may not show up by default, sorting by a particular field using the "Sort Direction" drop-down menu, and exporting the results as a .csv file.


HOLOCENE
10,000 YEARS
PLEISTOCENE
1.8
PLIOCENE
5.3
MIOCENE
23
OLIGOCENE
33.9
EOCENE
55.8
PALEOCENE
65.5
CENOZOIC
MILLIONS OF YEARS AGO
T
K
BIG, BIG EXTINCTION
CRETACEOUS
145.5
JURASSIC
199.6
TRIASSIC
252.2
MESOZOIC
T
GIGANTIC EXTINCTION
P
PERMIAN
299
PENNSYLVANIAN
318
MISSISSIPPIAN
359.2
DEVONIAN
416
SILURIAN
443
ORDOVICIAN
488.3
CAMBRIAN
542
PALEOZOIC
PROTEROZOIC
2.5 BILLION
ARCHEAN
EARTH FORMS 4.6 BILLION YEARS AGO