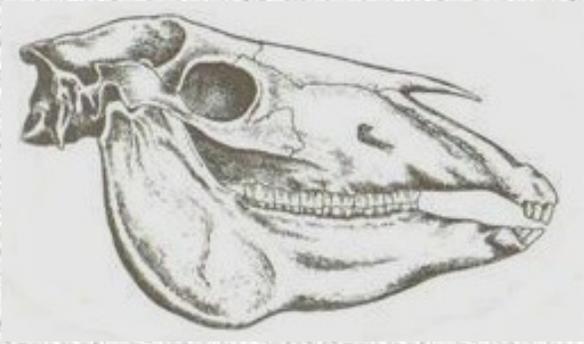


FOSSIL CLUB OF LEE COUNTY

JANUARY 2012



Message from the President



New Years greetings to all members and friends. As always, we look forward to enjoying another good year of fun, fossiling, and friendships.

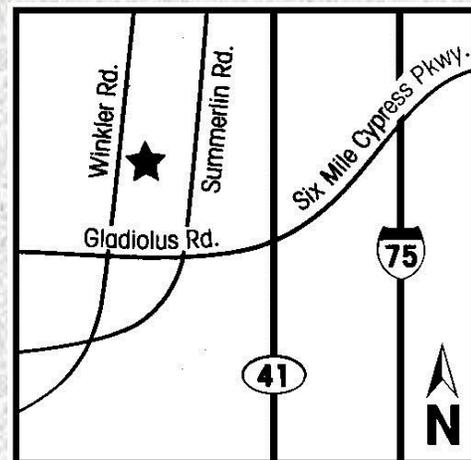
Our speaker this month is our own Dr. Charles O'Connor who will tell us about his fossil trip to Panama with the University of Florida Panama Paleontological Project. We are looking forward to his presentation which he has entitled Fossils, Fauna, and Flora---South America Treasures. Also, this month we will sign up for a field trip, not to Panama, but to Polk County.

As we look ahead, our club will exhibit at the Burrowing Owl Festival in Cape Coral on February 25th and our Tampa Bay fossil friends will have their annual fossil show in late February. Then comes our big event, the Annual Auction, which is on March 15th. We always appreciate all those members who donate some great items for the auction and for all of you who participate. One of our club's goals is to garner enough proceeds from the auction to make a generous donation to the University of Florida and the University of South Florida Paleontological Scholarship funds. We have a short fall of donated items at this time so if you would like to help out, bring a donation to the January meeting.

Many of our members are anxiously awaiting the return of warmer weather so they can go fossil

hunting in the Peace River. If you have a wetsuit and don't mind a little chill, its not that bad out now so give it a try. We are working on a few trips that don't require a wetsuit. Hopefully, these can be announced at our next meeting.

The program for our January 19th meeting (to be held at the Zion Lutheran Church) is new business, door prizes, speaker, refreshments, and the monthly raffle. Club merchandise will be available. Come and join the camaraderie'. Best regards, Bill



Next Meeting

Our next meeting will be January 19th
7:00 pm at Zion Lutheran Church
7401 Winkler Road for those who will want to use
their GPS to find the meeting place.

WELCOME NEW MEMBERS

Everett Gage

OFFICERS

Bill Shaver, President, 239-834-0694
billshaverpeacriver@hotmail.com
Michael Siciliano, Vice President,
239-980-1406
Ray Seguin, Treasurer, 239-939-1921
Kathy Pawlowski, Secretary, 239-267-6130

DIRECTORS

Dean Hart, 941-979-8217
Gunther Lobish, 941-268-7506
Charles O'Connor, 239-246-5526
Pam Plummer, 239-573-7807
Joshua Frank, 239-248-5094

COMMITTEES

Cherie Neat, Newsletter
Curt Klug, Web Master
Bill Shaver, Speakers
Louis Stieffel, Auctioneer
Kathy Pawlowski, Club Merchandise
Pam Plummer, Club Badges
Ray Seguin, Membership
Joshua Frank, Refreshments
Dean Hart, Refreshments co-chairman
Gunther Lobish, Pit Trips
Michael Siciliano, Raffle and Dive Trips
Coby Pawlowski, Youth Activities Director
Hollie Tiner, Club Photographer
Gunther Lobish, Invertebrate Education
Louis Stieffel, Vertebrate Education

MINUTES OF DECEMBER MEETING THE FOSSIL CLUB OF LEE COUNTY

The Club had its annual Holiday Dinner Meeting on December 15th, 2011 at the Zion Lutheran Church in Fort Myers. Formal minutes were not taken at the December meeting. The Club thanks Charles Ferber for preparing the ham. Bill Shaver for roasting the turkey, Mike Siciliano for bringing in the beverages, and thanks all of the members who brought in such delicious desserts and wonderful hot and cold dishes.

Louis Stieffel was awarded a Lifetime Membership in recognition of his many years of service to the Fossil Club of Lee County

SPEAKER FOR JANUARY 2012

Dr. Charles O'Connor's talk will be Fossils, Flora, and Fauna---South American Treasures. His presentation will include a close up look at the University of Florida Panama Canal Fossil Project as well as an overview of the fossil record and jungle explorations.

HUNTING FOSSIL SHARK TEETH IN VENICE, FLORIDA

This is a new book in our club merchandise inventory and will be available along with several other books at the January 19th meeting. The author provides an introduction to finding shark teeth and other fossils in the waters off Venice, along the nearby beaches, and in the local rivers. There are sections on SCUBA diving, the local geology, fossil identification, fossil cleaning and preservation, and some ways to display your fossil finds. In the authors words, this book will tell you everything you need to get started!

Happy New Year

SCHEDULE OF EVENTS AND SPEAKERS

Jan. 19th Club Meeting at Zion Lutheran Church
Jan. 19th Speaker is Dr. Charles O'Connor--Panama Paleontology Project
Feb. 4th Field Trip---sign up at the January meeting
Feb. 11th Southwest Florida Club Annual Auction (see club website)
Feb. 16th Club Meeting at the Calusa Nature Center Planetarium
Feb. 16th Speaker--open at this time
Feb. 25th Annual Burrowing Owl Festival in Cape Coral (FCOLC will exhibit)
Mar. 15th FCOLC Annual Auction at Zion Lutheran Church
Mar. 24th and 25th Tampa Bay Fossil Club Annual Fossil Show (see club website)
Mar. 31st Cape Coral Fossil Show at Rotary Park (FCOLC will exhibit)

REFRESHMENTS HONOR ROLL FOR 2011

January	Pat and Ted Oakes, and Linda and Dick Kemper
February	Sue and Tyler Schoenherr and Gunther Lobish
March	Bonita Beachcombers Extravaganza
April	Jack Boyce
May	Kathy, Kevin, and Joseph Arnold
June	Melanie Hutchinson and Joshua Frank
July	Dennis Von Linden
August	Marilyn and Ray Villarreal and Margaret Mabe
September	Kathy, Bob and Coby Pawlowski
October	Marc Cantos
November	Melanie Hutchinson, and Joshua Frank and Bill Shaver
December	Lots of nice people!

MEMBERSHIP DUES

Dues for 2012 are being collected at the January meeting. Please plan to renew your membership at that time. See your esteemed Treasurer, Mr. Ray Seguin---he accepts cash or checks. If you joined the club in October, November, or December 2011, you are paid for all of 2012. See the club website www.fcolc.com for a membership application and mailing address if you would rather mail in your dues. Thanks for your prompt payment.

Websites & Locations of Interest

WEB SITES & LOCATIONS OF INTEREST

Fossil Club of Lee County: www.fcolc.com

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

Florida Vertebrate Fossil Permit <http://flmnh.ufl.edu/natsci/vertpaleo/vpppermit.htm>

Southwest Florida Fossil Club
www.southwestfloridafossilclub.com

Orlando Fossil Club
www.floridafossilhunters.com

PEACE RIVER Water Levels
www.canoeoutpost.com

Mark Renz's Fossil Expeditions
www.fossilx@earthlink.net

Smithsonian Natural History Museum
www.mnh.si.edu

Florida Fossil Clubs
www.fossil-treasures-of-florida.com

Picking Up Isolated Native American Artifacts
<http://dhr.dos.state.fl.us/archaeology/underwater/finds>

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

Imaginarium 200 Cranford AvE, Fort Myers
www.cityftmyers.com/imaginarium

Southwest Florida Museum of History 2300 Peck St., Fort Myers www.swflmuseumofhistory.com

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

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

Cracker Museum at Pioneer Park in Zolfo Springs, FL Tel 863.735.0119

Lost in Time, 4719 69th Street, N. St Petersburg, FL 33709, Tel. 727-541-2567 Owner Brian Evensen

Tampa Bay Fossil Club
Www.tampabayfossilclub.com

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

Whales' fossils in desert pose mystery

[SANTIAGO, Chile](#) — More than 2 million years ago, scores of whales congregating off the Pacific Coast of South America mysteriously met their end.

Maybe they became disoriented and beached themselves. Maybe they were trapped in a lagoon by a landslide or a storm. Maybe they died there over a period of a few millennia. But somehow, they ended up right next to one another, many just meters (yards) apart, entombed as the shallow sea floor was driven upward by geological forces and transformed into the driest place on the planet.

Today, they have emerged again atop a desert hill more than a kilometer (half a mile) from the surf, where researchers have begun to unearth one of the world's best-preserved graveyards of prehistoric whales.

Chilean scientists together with researchers from the Smithsonian Institution are studying how these whales, many of them the size of buses, wound up in the same corner of the Atacama Desert.

"That's the top question," said Mario Suarez, director of the Paleontological Museum in the nearby town of Caldera, about 700 kilometers (440 miles) north of Santiago, the Chilean capital.

Experts say other groups of prehistoric whales have been found together in Peru and Egypt, but the Chilean fossils stand out for their staggering number and beautifully preserved bones. More

than 75 whales have been discovered so far — including more than 20 perfectly intact skeletons.

They provide a snapshot of sea life at the time, and even include what might have been a family group: two adult whales with a juvenile between them.

"I think they died more or less at the same time," said Nicholas Pyenson, curator of fossil marine mammals at the Smithsonian's National Museum of Natural History. Pyenson and Suarez are jointly leading the research.

As for why such a great number perished in the same place, Pyenson said: "There are many ways that whales could die, and we're still testing all those different hypotheses."

The scientists have yet to publish their findings about the fossil bed and the extensive remains, which began to emerge in June last year during a highway-widening project that is now on hold.

So far, the fossils have been found in a roadside strip the length of two football fields — about 262 yards long and 22 yards wide.

Pyenson said the spot was once a "lagoon-like environment" and that the whales probably died between 2 million and 7 million years ago. Most of the fossils are baleen whales that measured about 8 meters (25 feet) long, Pyenson said. The researchers also discovered a sperm whale skeleton and remains of a now-extinct dolphin that had two walrus-like tusks and previously had only turned up in Peru.

Dolphin, Porpoise, and Whale Lineage

All dolphins, whales, and porpoises are related. Fossil evidence from the early Eocene epoch, indicate that the early dolphins or *Protocetidae* were already aquatic 45-50 million years ago. However they bore little resemblance to the dolphins and whales we know today. It has been suggested that a primitive early mammal called Mesonychiidae roamed across the planes of Africa during the early Eocene Epoch. Although long extinct today, during their time these early mammals evolved into many ecological niches and ranged in size from cat to bear. It has also been suggested they may also be the antecedent of the modern horse. By comparing the fossil structures

of the jaw and teeth of mesonychiidae with the *protocetidae*, palaeontologists believe that groups living on the coast began spending more time foraging for food in the swamps and ocean. Over time they may have become increasingly dependent of the ocean's abundance and passed through an amphibious stage before becoming committed to the ocean. One can imagine that during the transition between land and ocean, the primitive dolphin was like the seals we see today; feeding in the ocean while coming back to land for breeding. Fossil dolphins can be traced through time by the changes in their teeth. Once in the ocean, it took millions of years for what is

known as true cetaceans to develop. By 40 million years ago was the Dorudontinae. These creatures showed telescoping of the skull, yet their nostrils were still on the snout although further back than Protocetidae. Eventually during the upper Oligocene, about 30 million years ago the early dolphins split into the two main divisions known today: the toothed whales, (Odontoceti) and the baleen whales (Mysticet). Delphie, the group from which modern dolphins arose, began to appear in the early Miocene -25 million years ago. Because the dolphins evolutionary line diverged some 50 million years ago, their physical structure had time to develop independently from terrestrial mammals. For instance, the fossil record indicates that there was a stage when the animals were amphibious. However, this record also shows that once the early dolphins decided to be aquatic, it didn't take long for the bones of the hind limbs to disappear altogether. The obvious streamlining of a dolphin's bodies caused by living in water has produced several other modifications to the animal's physiology. The thickened body and raised head has caused the vertebrae of the cetacean neck to become fused. Instead of the major blood supply to the brain running up the outside of the neck, as in land animals, it passes through an artery within the fused vertebrae. This insures a constant supply of blood when the dolphin dives to extreme depths in the ocean. Because of the dolphin's and whale's elongated skull, it is easy to think the nostril or blow hole has moved behind the skull. In fact the pronounced dome shaped structure sitting in front of the blow hole is a fatty tissue called the melon and corresponds to our upper lip. The melon acts as a lens to focus sound when the dolphin produces high pitched clicks for echolocation. For many years it was thought that the melon also receive the sound as it bounced back, giving the dolphin a sonar image. However, it is now known that a small bone underneath the chin called the pan bone receives the sonic report and stimulates the brain via the inner ear. It is also thought that the dolphin's teeth will vibrate in harmony with a targeted object's echo giving the dolphin more information. The melon exists in all dolphins and whales, however the larger whales are not known to have the echolocation ability. It alternately could be used to send or receive ultra low sound waves that will travel thousands of miles through water. This fatty tissue is

particularly oily in the whale and has been prized for many centuries by perfumeries and cosmetic companies- even after synthetic compounds have been discovered. It is unknown how many whales have died for human vanity. After all these modifications the dolphin has still retained the main characteristic which makes it a mammal. The female has teats buried within her genital grove from which a baby dolphin will suckle. In an aquatic environment the mother must squirt the milk into her baby's mouth as it nuzzles the pouch with its beak. *Eurhinodelphis*, the long-snouted dolphin, was a common sight in the ancient mid to late Miocene seas. In fact, *Eurhinodelphis bossi*, which reaches 6 to 7 feet in length, may possibly be the most common cetacean found in the Miocene Calvert formation. *Eurhinodelphis* fossils have been found along both the east and west sides of the Miocene Atlantic Ocean, from Maryland and Virginia to France and Belgium.

Like all porpoises and dolphins, *Eurhinodelphis* belong to the Odontocete Order, the toothed whales. Specifically, *Eurhinodelphis* belongs to a Family of primitive dolphins called Rhabdosteidae, which was traditionally called Eurhinodelphinidae. Members from this Family can be found in Miocene deposits throughout the world including North and South America, Australia, and Europe, as they appeared to be very successful in the Miocene. This primitive dolphin family, ranging in size of 6 to 9 feet in length, is characterized by their incredibly long snouts.

At any rate, by the end of the Miocene, these strange looking Rhabdosteidae dolphins, which were as common as the dolphins one sees at a beach today, were becoming extinct. They were being replaced by the evolution of the modern dolphins, which are still with us today.

Article by Jim and LeAnn Rathbone provided by weborders@DomoAjiGiftShop.com



NEW YEARS MEGALODON

First meg of the year! Beautiful meg found by Mike Siciliano on New Years Day at 8:15am.



Megalodon shark tooth found in the Peace River on January 3rd, found by JB.



VOLUNTEERS AT THE CALUSA NATURE CENTER

The Executive Director at the Calusa Nature Center expressed his appreciation to the Fossil Club of Lee County members who supported the Annual Arbor Lights Festival. The volunteers were Melanie Hutchinson, Joshua Frank, Kate Decker, Dean Hart, Sally Jane Moore, Barry Rogers, Chet Patterson, and Mike Siciliano.



FIELD TRIP ON FEBRUARY 4TH, 2012

A Club Field Trip to a pit in Polk County is scheduled for Saturday, February 4th, 2012. Sign up sheets and liability waiver forms will be available at the January meeting. Waiver forms must be completed and given to the trip coordinator at the meeting. Participants must be 15 years of age or older for this trip. The trip is limited to 30 people and car pooling is requested. Directions and additional details will be provided at the meeting.



ANNUAL FOSSIL AUCTION

The Annual Fossil Auction is scheduled for March 15th and will be held at the Zion Lutheran Church at 7401 Winkler Road in Fort Myers. This is a wonderful event for everyone. We plan to have over 100 items for auction and as usual there will be some great deals for our members. Our goal is to also raise enough money to fund club trips, continue funding scholarships at the University of Florida and University of South Florida and to make a donation to the Calusa Nature Center. The Board of Directors meets to consider recommendations by all members regarding donations to worthy causes.

At this time the Club has accumulated about 30 items for the auction. All members may make donations for the auction. About 70 more items are needed. Items needed are nature and fossil books, old bottles, Indian artifacts, fossil specimens, sifters/screens, appropriate framed pictures, antlers, skulls, fossil equipment, wire-wrapped teeth, minerals, rocks, and gemstones, and any other items that might be useful for fossil hunters and fossil collectors.

Please consider participating in this worthwhile event. Bring your donations to the January meeting so they can be logged and itemized for the auction. Your support will be appreciated.

LIFETIME MEMBER

LOUIS STIEFFEL

On this date, December 15th 2011, The Fossil Club of Lee County is privileged to grant a LIFETIME MEMBERSHIP to Louis Stieffel. Louis is a Past President and in that capacity he led the effort to revitalize and reorganize the Club.

Over the years, Louis has held the offices of co-president, vice president, president, and director. He has provided strong leadership and enthusiastically shared his knowledge of paleontology with his fellow members.

Louis is recognized as the club's resident fossil identification expert and he leads the vertebrate education program. He has researched and written numerous articles for the club newsletter and he inspires his fellow members to learn more about the many aspects of paleontology.

Louis is also the club auctioneer and he has been a major contributor to the success of the annual auction.

The Fossil Club of Lee County is pleased to award a LIFETIME MEMBERSHIP to Louis Stieffel for his leadership and outstanding support of the club.