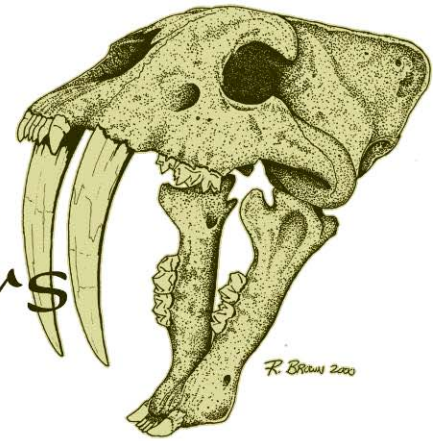


NEWS

Florida Fossil Hunters



Florida Prehistorical Museum, Inc. dba/ Florida Fossil Hunters
Volume 21, Number 6

June 2011

From the desk of the President...

Welcome to half a year gone....times a-flying, summer is here, and soon it will be Christmas. I say it all the time: get down to Peace River. A full report on our weekend cookout/dig is inside this issue.

Saturday, June 18th, brings us to the first of two auctions that we have each year. Dave Dunaway and I have gotten together 30 auction items (full list inside). Our club auctions use "fossil bucks" earned by attending meetings, field trips, helping out at events, writing articles, etc. A list of how to earn more is also inside this Issue.

I encourage everyone who attended the Peace River weekend to please bring in what they found. We all like to see the different fossils being found wherever they are from.

Saturday, July 16th, will be the Summer Party at Dave Dunaway's house (600 Ferne Dr., Longwood, 32779 - Map below). Now I could write a book about all the things at Dave's and you'd think I was making it up. So ask someone who's been there and let them tell you about the swimming pool, 1890's fort, chicken house, citrus trees, gardens, fireworks, rock piles, gravel bar of sharks' teeth.....and that's just in the backyard. Please sign up at the meeting (or email Bonnie at bjrb48@netzero.com) The club will provide hamburgers and hot dogs. We ask that everyone bring a covered dish to share for the feast. (this is a non-alcoholic event and Dave's even got a jail for those who break the "law".)

If you want to see a bunch of old, weird stuff...and I'm not talking about us, but Dave's remarkable collections...come on out. You will not be disappointed.

On the 20th of August, weather permitting, we're planning a trip to the spoil islands at Yankeetown to collect echinoids. More info on that event inside.



Good hunting.
Russell Brown
President



Coming Events

UPCOMING MEETINGS at the Orlando Science Center

Saturday, June 18, 2011

2:00 pm Kids' Fossil Blast

3:00 pm Meeting and Fossil
Buck Auction

OSC Learning Labs, 2nd floor

July 16, 2011

Club Picnic at Dave's House

August 20, 2011

Page 2 info on Picnic

For more info...

www.floridafossilhunter.com

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Fragments

Thousand Trails Campground, Peace River

Thousand Trails Campground is located right off Hwy. 17 on the south side of Wauchula with lots of campsites right along the river and cabins if you don't have camping gear. The people there are friendly and helpful. They have canoes, kayaks, digging gear for rent, and even a transport service if you have your own canoe/kayak. Just call ahead of time, ask for Patti, and she'll fix you up with what you need. For a family weekend outing, I highly recommend it. The website is www.1000trails.com and the phone # is 863-735-8889.

Yankeetown Fossil Hunting

Weather permitting, on Saturday, August 20th, we're planning on heading to Yankeetown's spoil islands. This will be INSTEAD of a meeting inside a building. We'll meet on a beautiful island for a cookout (like Peace River) and collect echinoids and sand dollars. More details ...what to bring, etc.....will be in the August newsletter.

Dave Dunaway and Dave Cass have offered the use of their small boats to ferry people over the 100 ft. stretch of water between the islands and the shore. If you have a canoe/kayak, please bring it to make the transporting gear and people easier. You can call me at 352-429-1058 before 8 pm in the evenings if you need more info before August or if you have a boat we can use. - *Russell Brown*

Gainesville Artifact & Fossil Show

This annual event put on by the Sunshine State Archaeological Society is being held on Saturday, June 11, 2011, from 8 am to 3 pm. It will be held at St. Madeleine Catholic Church, 17155 US Hwy. 441, High Springs, FL 32643. Directions: I-75 to Exit 399. Go west on Hwy. 441 toward High Springs. The church is exactly 3 mi. on the right. Admission is \$3 for adults and kids 16 yr. & younger get in free.

For more info call Hugh McKenzie at 407-472-5854.

Kids' Fossil Blast

The creativity was running wild at the April Kids' program as they constructed the environments for their chosen prehistoric creature.

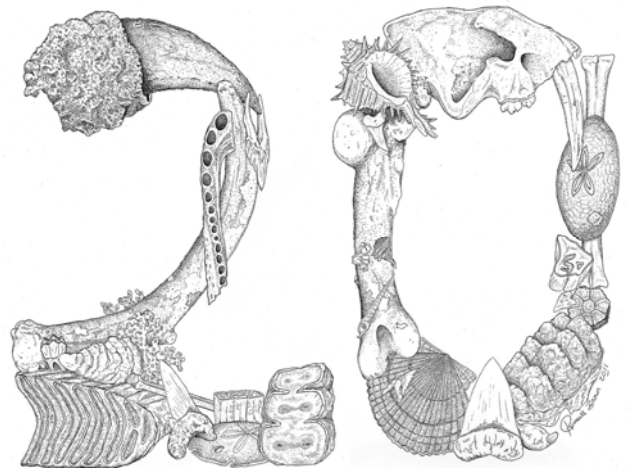
On June 18th at 2 pm, the kids will have the chance to tell everyone about their animal and the habitat they made. Each kid that speaks will receive a bag filled with surprises. For more info, email Bonnie at bjrb48@netzero.com or call 352-429-1058.

2011 Fossil Club T-Shirt

Hope you have enjoyed the artwork that Bonnie has beat out of me these last few years. But next year I may lay my pen down for a rest. I've been talking with an up-and-coming young artist that we have in the club to see if she might be interested in doing the design for a t-shirt. I've seen some of her work and I believe she would do a great job.

Meanwhile.....For this year's shirt, I've done a 20th year commemorative design. Haven't met with the printer yet so the font may be different than shown here but the words will be the same. Haven't picked out the color(s) for the shirts yet either.

Florida Fossil Hunters



20 years collecting,
preserving,
educating

1991 | Orlando, FL | 2011

The Weekend at the Peace

Thousand Trails Campground was the site for our annual Peace River dig this year. The weather for the past few weeks made for great river conditions but the forecasters had predicted a 30% chance of rain so I was up early on Saturday worrying about what the day would bring us....high water, silty water, all day rain, gator attacks, no sharks' teeth???? But on arriving at Thousand Trails, we found the fog had blown away, the sun was out, and the water was clear. I knew a good day was in store for us.

Saturday we had almost 70 fossil-crazed people show up. Just a few feet from a great spot on the river, Dave Cass and Dave Dunaway had set up the tables and grill for the hot dogs. Dave C. did a corn and potato boil both days, and with everything that other folks brought, we had plenty of fossil-finding fuel.

The weather that day did give us a scare early on with a few rumbles of thunder and a little rain. But as they say in Florida - if you don't like the weather, wait 15 minutes and it will change. The sun came back out and people spread out up and down the river. Some were screen washing, some were floating and snorkeling in the current, and Dave C. dove in a deeper hole nearby. Everyone found something: sharks' teeth, a couple horse teeth, gator fossils, fish fossils, snake vertebrae, stingray fossils, ear bones, pieces of giant tortoise shell, etc., and of course, the plentiful dugong rib pieces. Dave C. came back from diving with a bag full of big bone pieces, a couple vertebrae, a horse astragalus (I sure wish Robin had stuck around to see that haul!) Dave also found some huge plates of mammoth teeth...but no full teeth. Maybe next time, Dave.

At 3 am Sunday morning, I woke to the sound of pouring rain and thunder. Turned on the weather channel and saw a huge band of rain passing right over the Green Swamp to the campgrounds. I thought, "Oh, no. This is going to mess up the Sunday Peace River Cookout/Dig." But once again, our luck held out and a dozen or so of us had another great day on the river. Dave Cass brought up another load of bones from his diving hole, more food was brought and eaten, and a good time was had by all.

I hope our new members and first-time diggers found out how easy and enjoyable, not to mention educational, going down to the Peace is. I thank everyone who attended and helped out on pulling this off again. I hope this experience for the kids will last and open their eyes to some of the treasures that await them in the Great Florida Backyard.

ID sheets are included in your membership packets. That should help you identify what you found. If not, bring

them to the meeting and we'll all help if we can. Bring your fossil finds also to let the other members see them....we all love to look at what is found anywhere.

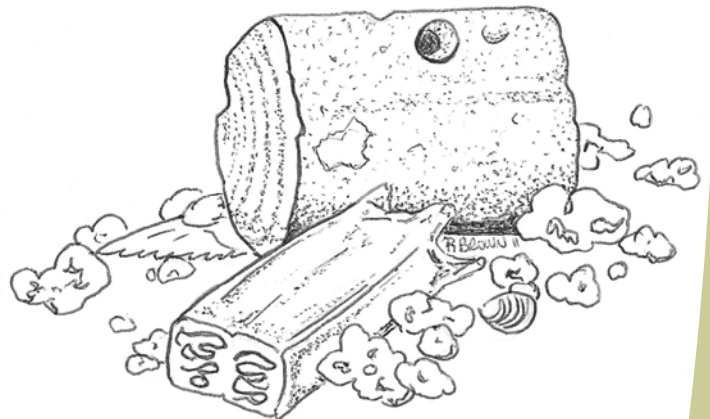
Nobody got bit by gators. Didn't even see any but lots of other wildlife was out. Saw many different fish: bream, bass, gar, etc. and also saltwater snook, mullet, and blue crabs. A couple harmless water snakes made their appearance. On Saturday an otter swam around catching fish for a couple hours. There were more squirrels than you could shake a stick at (and we were shaking sticks to shoo them away from the food tables). There were birds galore...even a couple of the giant woodpeckers.

In thinking about next year's event, I thought we might try a couple hours float/paddle from Wauchula to Thousand Trails. Those who don't have a canoe or kayak or just want to walk in, can go straight to the Campground. Once those that paddled down the river get to the campground, we'll have the cookout.

But that's next year. Meanwhile don't wait, go to the river soon....before the rainy season starts and the water levels go up.

On closing, I'd like to tip my hat to Dave Cass for working, cooking, letting the kids have some of the goodies he had found diving, and just being himself. Thanks, Dave.

Russell Brown



Sniff Sniff...

Smelling Led to Smarter Mammals, Researchers Say

ScienceDaily (May 20, 2011) — A rose by any other name would smell as sweet; the saying is perhaps a testament to the acute sense of smell that is unique to mammals. Paleontologists have now discovered that an improved sense of smell jumpstarted brain evolution in the ancestral cousins of present-day mammals. The research appeared in the 20 May 2011 issue of the journal Science.

The findings may help explain why mammals evolved such large and complex brains, which in some cases ballooned 10 times larger than relative body size. By reconstructing fossils of two Early Jurassic Period mammals--*Morganuocodon* and *Hadrocodium*--the authors provide new evidence that the mammalian brain evolved in three major stages: first by improvements in sense of smell or olfaction; next by an increase in touch or tactile sensitivity from body hair; and third by improved neuromuscular coordination or the ability to produce skilled muscle movement using the senses.

"Now we have a much better idea of the historical sequence of events and of the relative importance of the different sensory systems in the early evolution of mammals. It paints a much more vivid picture of what the ancestral mammal was like and how it behaved, and of our own ancestry," said lead author Tim Rowe, Director of the Vertebrate Paleontology Laboratory at the University of Texas at Austin.

The study used a medical imaging technique called X-ray computed tomography or CT to reconstruct brain molds or endocasts of the 190 million year old *Morganuocodon* and *Hadrocodium* fossils from China. These tiny, shrew-like critters are thought to be precursors to existing mammals or "pre-mammals." A brain endocast is a mold of the space or cavity that encases in the brain. The brain endocasts used in this study occurred naturally through fossilization.

CT technology is indispensable for analyzing fragile fossils because it allows researchers to create pre-



cise, three-dimensional images of a fossilized brain cavity without having to destroy the fossil in order to expose the endocast.

Rowe's team spent several years CT scanning over a dozen pre-mammal brain endocasts at the High-Resolution X-ray Computed Tomography Facility at The University of Texas at Austin. The scans are archived online and freely available on www.digimorph.org.

The three-dimensional images gave the researchers a magnified, inside view of the brain and nasal cavities of the fossils. The team observed that the nasal cavity and related smell regions were enlarged in the pre-mammal fossils, along with areas of the brain that process olfactory information. Both characteristics indicate an improved sense of smell in pre-mammals.

The study also looked at the influence of body hair development on brain size. For example, the paper clip-sized *Hadrocodium* sported fur, and evidence

from fossilized pelts or skin of closely related animals hints that *Morganucodon* likely had hair too. The authors speculate that hairy early mammals were quick to develop a keen sense of touch or tactile sensitivity, along with enhanced motor coordination.

Rather than being used for warmth, body hairs initially served as tiny air traffic controllers, allowing pre-mammals to navigate small crevices and avoid harm. This heightened tactile sensitivity eventually led to the formation of intricate sensory fields in the neocortex of mammalian brain, the authors propose.

Since the neocortex is involved in tasks like sensory perception and the generation of motor commands, improvements in its function likely lead to the fine-tuning of early mammals' motor skills and neuromuscular coordination. In both fossils, the size of the cerebellum (the region of the brain responsible for sensory-motor integration) grew so large it began to ripple over into folds; this increase in size supports the idea that early mammals developed advanced neuromuscular coordination.

Comparing the mammal brain endocasts with fossils of other groups, like those of primitive reptiles called cynodonts, revealed that the brains of the *Morganucodon* and the *Hadrocodium* were almost 50 percent larger than the brains of mammal precursors. Taken together, the results hint that the ability to exploit a world of information dominated by odors and smells made early mammals extraordinarily different from even their closest extinct relatives.

"Now that we have a general picture of the brain in mammals ancestrally, we plan to explore the subsequent diversification of the brain and sensory systems as mammals evolved and diversified. This will unlock new secrets about how huge brains and extreme sensory adaptations evolved in mammals, such as electroreception in the platypus, and sonar in whales and bats. It is all very exciting!" Rowe said.

This research was funded by the National Science Foundation, the University Of Texas Jackson School Of Geosciences, and the National Natural Science Foundation of China.

American Association for the Advancement of Science (2011, May 20). Sniff sniff: Smelling led to smarter mammals, researchers say. ScienceDaily. Retrieved May 25, 2011, from <http://www.sciencedaily.com/releases/2011/05/110519141603.htm>

Archaeologists Uncover Oldest Mine in the Americas

ScienceDaily (May 20, 2011)

Archaeologists have discovered a 12,000 year-old iron oxide mine in Chile that marks the oldest evidence of organized mining ever found in the Americas, according to a report in the June issue of *Current Anthropology*.

A team of researchers led by Diego Salazar of the Universidad de Chile found the 40-meter trench near the coastal town of Taltal in northern Chile. It was dug by the Huentelauquen people -- the first settlers in the region -- who used iron oxide as pigment for painted stone and bone instruments, and probably also for clothing and body paint, the researchers say.

The remarkable duration and extent of the operation illustrate the surprising cultural complexity of these ancient people. "It shows that [mining] was a labor-intensive activity demanding specific technical skills and some level of social cooperation transmitted through generations," Salazar and his team write.

An estimated 700 cubic meters and 2,000 tons of rock were extracted from the mine. Carbon dates for charcoal and shells found in the mine suggest it was used continuously from around 12,000 years ago to 10,500 years ago, and then used again around 4,300 years ago. The researchers also found more than 500 hammerstones dating back to the earliest use of the mine.

"The regular exploitation of [the site] for more than a millennium ... indicates that knowledge about the location of the mine, the properties of its iron oxides, and the techniques required to exploit and process these minerals were transmitted over generations within the Huentelauquen Cultural Complex, thereby consolidating the first mining tradition yet known in America," the researchers write. The find extends "by several millennia the mining sites yet recorded in the Americas."

Before this find, a North American copper mine dated to between 4,500 and 2,600 years ago was the oldest known in the Americas.

University of Chicago Press Journals (2011, May 20). Archaeologists uncover oldest mine in the Americas. ScienceDaily. Retrieved May 25, 2011, from <http://www.sciencedaily.com/releases/2011/05/110519101231.htm>

Fossil Bucks Auction, June 18, 2011

- 1. Fossil shell centerpiece - donated by Sara Morey
- 2. Display case with artifacts - made by Dave Cass
- K 3. Shark tooth necklace
- 4. Moroccan giant shark vertebra and tooth (lamna sp.)
- 5. Cretaceous crayfish and fish, China
- K 6. Stuffed mammoth toy
- 7. Juvenile mastodon tooth cast by Jim Tatum, with stand
- 8. Magnifying glass
- N 9. Fossil shell assortment, Pine Crest Beds, Pliocene
- 10. Alligator fossil collection in case
- 11. 3-D artifact picture
- K 12. Encyclopedia of Dinosaurs book
- 13. Star sand
- 14. "First Floridians" signed black & white print by Marisa Renz
- K 15. Zebra shark jaw
- 16. Dinosaur books, 7 different ones
- 17. Florida Paleontological club t-shirt (med, lg, xlg, or 2x)
- N 18. Fossil shark teeth, Peace River
- 19. Petoskey stone bracelet
- 20. Shell assortment, Pine Crest Beds, Pliocene
- K 21. Petrified wood, Oregon
- 22. Horse fossil collection in case
- 23. Sloth dermal scutes (rare), 2 scutes in case
- K 24. Wood dinosaur model
- 25. Agatized coral pieces
- 26. Camel fossil collection in case
- N 27. Agatized coral
- 28. Assorted antique bottles and insulator
- 29. Worm shell, large cluster, Vermiculoridæ p.
- 30. Ear bones: Dolphin and whale petrosals and auditory bulbæ in case

K- items for kids 14 yr. and under
 N- new members (less than one year)

How to Earn Fossil Bucks

Fossil bucks are the club's version of "money" earned by participating in club activities. Twice a year we hold auctions of fossils and related items that you can bid on with your "fossil bucks".

These are some of the ways you can earn fossil bucks.

Meetings:

Attend a meeting	50
Wear your name badge at the meeting.....	50
Set up tables/chairs or restore to original order	50
Bring a guest to a meeting	100
Recruit a new member	100
Arrange for a guest speaker.....	100
Do a Kids' Fossil Blast program	200

Newsletter:

Short article (less than 1/2 column).....	50
Medium article (1/2 to 1 column).....	100
Long article (more than 1 column)	200
Email link to an article used	50
Edit newsletter.....	1000

Field Trips:

Lead a field trip.....	200
Attend a field trip	100

Fossil Fair:

Work during the fair - per hour	100
Fossil Fair Chairperson	1000

Donations to the Fossil Lotto, Fossil Auction, and Fossil Fair are based on the item(s) and decided by the person in charge of that function.

Florida Fossil Hunters

Membership Application

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 is \$17 per year. Other household members may be included at no charge.

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	Russell Brown	(352) 429-1058
Vice President	Dave Dunaway	(407) 493-4253
Secretary	Bonnie Cronin	(352) 429-1058
Treasurer	Sara Morey	(407) 353-8675

Chairs:

Education	Bonnie Cronin	(352) 429-1058
Field Trips	OPEN	
Fossil Fair	Valerie First	(407) 699-9274
Fossil Auctions	Dave Dunaway	(407) 493-4253
Fossil Bucks	Dave Dunaway	(407) 493-4253
Fossil Lotto	Ed Metrin	(407) 321-7462
Auctioneer	Roy Singer	(407) 645-0200
Historian	Valerie First	(407) 699-9274
Membership	Bonnie Cronin	(352) 429-1058
Newsletter	Bonnie Cronin	(352) 429-1058
	Elise Cronin-Hurley	(407) 929-6297
Photography	John Heinsen	(407) 291-7672
Webmaster	Elise Cronin-Hurley	(407) 929-6297
	elise@liseydreams.com	

Board of Directors:

Melissa Cole	(407) 834-5615
Ed Metrin	(407) 321-7462
Dave Cass	(407) 409-9095
Shelley Zimmerman	(407) 891-1260

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:

Membership is \$17 per year. Our membership year runs from January to December. All renewals are done in December and January.

Please make your checks payable to:

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

Newsletter Policy

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

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: elise@liseydreams.com. Articles can be sent as text in the e-mail or in Microsoft Word files (.doc or .docx).

Florida Fossil Hunters Mark Your Calendar

See page 2 for more information on events.

Saturday, June 11, 2011
Gainesville Artifact & Fossil Show

Saturday, June 18, 2011
2:00 pm Kids' Fossil Blast
3:00 pm Meeting and Fossil Buck Auction

July 16, 2011
No Meeting
Summer Party at Dave Dunaway's house
(see page 1 for more info)

August 20, 2011
Yankeetown Fossil Hunting/Picnic
(Weather permitting—see page 2 for more info)

IMPORTANT:

The June 18th Kids Fossil Blast at 2 pm and the meeting and Fossil Buck Auction at 3 pm will be held in the Learning Labs on the 2nd floor of the Orlando Science Center.

Be Green

Email Bonnie at bjrb48@netzero.com to receive the newsletter via email.



Join Our Facebook group, Search:

[Florida Fossil Hunters](#)

facebook

Visit us online at www.floridafossilhunters.com

Articles and comments should be sent to: elise@liseydreams.com

Florida Fossil Hunters

Post Office Box 540404

Orlando, Florida 32854-0404



Florida Fossil Hunters News