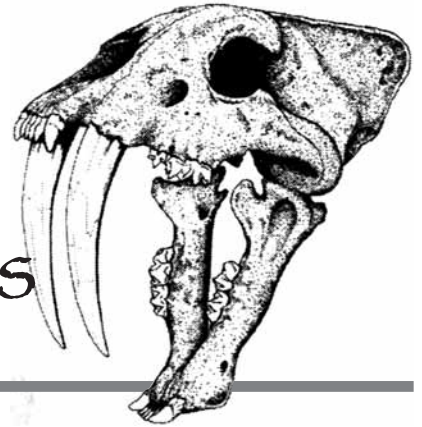


# NEWS

## Florida Fossil Hunters



Volume 16, Number 5

May 2006

### Prez Sez

Our trip to the Daytona Beach Museum of Arts and Sciences was great. We had plenty of Egyptian artifacts and fossils among other things to see. Thank you, Zach Zacharias.

Dr. Morales, who teaches Physical and Historical Geology at Valencia Community College will be our speaker at the May meeting.

In June we will have our club fossil bucks auction Roy Singer, our auctioneer, is ready and waiting. That meeting will probably be held in the College Park Library since school will be closed.

We won't have a club meeting in July. Instead we will have our annual club picnic at my house. Check the June newsletter for further info on time and date.

Our annual Peace River Fossil Hunt and Club Camp-out will be on May 6th and 7th. Looks like we'll have good weather.....no cold fronts. Last year the river never cleared up. It's low and clear now so be sure to go. Don't forget to pick up some stuff for the Fossil Fair kids' pit.

See you at the meeting.

Dave Dunaway

### Coming Events

May 17th:  
7:00pm Meeting

June 21st:  
6:00pm Kids' Blast  
7:00pm Meeting  
*Watch for info on meeting location.*

July 22nd  
Daytona Beach Museum of Arts and Sciences, 2nd Annual Fossil Fest  
*see page 2 for more info*

June 10th  
The Sunshine State Archeological Society, 18th Annual Gainesville Indian Artifact & Fossil Show  
*see page 2 for more info*

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## Fragments

Daytona Beach Museum of Arts and Sciences will hold its **2nd Annual Fossil Fest** on Saturday, July 22 from 1 pm to 5 pm. There will be family activities, games, and tours of the Sloth and Tusawilla exhibits. For more information call 386-255-0285 or visit [www.moas.org](http://www.moas.org)

The Sunshine State Archeological Society will hold its **18th Annual Gainesville Indian Artifact & Fossil Show** on Saturday, June 10th from 8 am to 3 pm. It will be at the Holiday Inn-West, 7417 Newberry Rd., Gainesville, Fl. Directions: I-75 to exit 387, the Holiday Day Inn will be on the west side of I-75. Admission is \$3.00 for adults. Kids 12 yrs. and under are free. For more information, contact Hugh McKenzie at 407-647-3074.

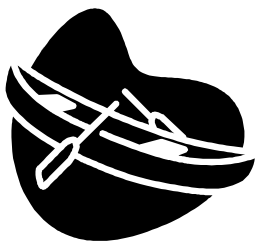
On the Friday night prior to the show, Barbara A. Purdy, Ph.D., Professor Emerata at the University of Florida will present a talk on " The CCA Site in the 1970's and Now: A Possible Pre-Clovis Site in Marion County, Florida." The lecture will be at the Holiday Inn-West. Doors will open at 6:30 pm and refreshments will be served. There will be no charge and the public is welcome to attend.

### Fossil Talks for the Library

We have received a request from the Orange County Library for fossil presentations this summer. If you are interested in giving one, contact Katherine Puller, in the Community Relations Dept. of the Orange County Library at 407-835-7493 or email: [puller.katherine@ocls.info](mailto:puller.katherine@ocls.info)

## A Piece on the Peace

This drought is awful. The grasses are all brown and the danger of brush fires is up. That being said.....I can't help but rejoice a bit because the Peace River is very low - just above 4 ft. at the Zolfo Station - and perfect for us fossil diggers. If you don't get to go this season, you have no one but yourself to blame. If you don't have a canoe, rent or borrow one.



Take provisions for the day and your shovel and sifter and find those treasures!

## 2006 Fossil Fair News

Valerie First has graciously volunteered to be chairperson for the fossil fair this year.

Please volunteer your time and expertise to help out on some of the tasks associated with the fair. Maybe you could design one of the forms needed or help in the mail outs to the dealers or helping with the advertising mail outs or make some signs.

Of course there will be plenty of need for volunteers when we set up for the fair: putting out signs, greeting the dealers and helping them find out where their tables are, etc.

Please volunteer.....we all benefit from the fair.

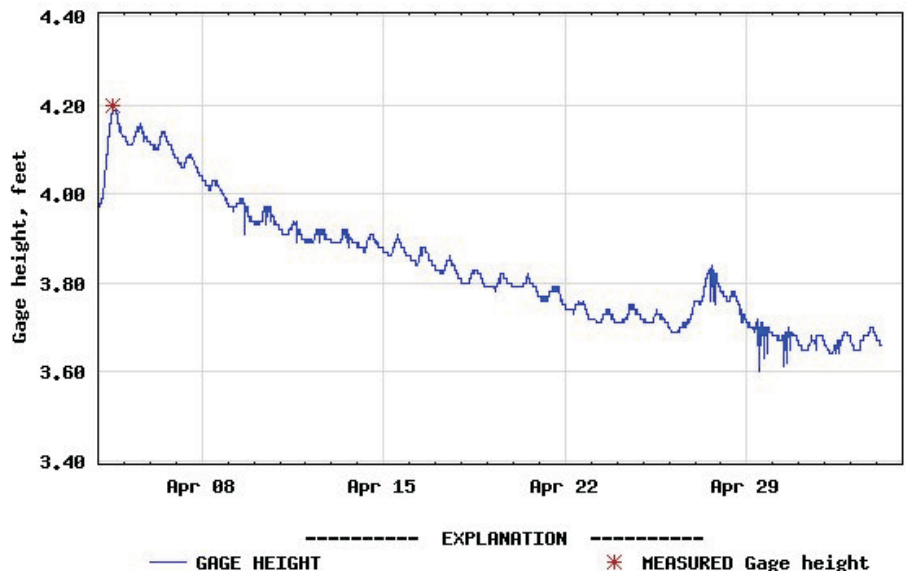
## Kids' Fossil Blast

Next meeting at 6 pm on Wed., June 21st.

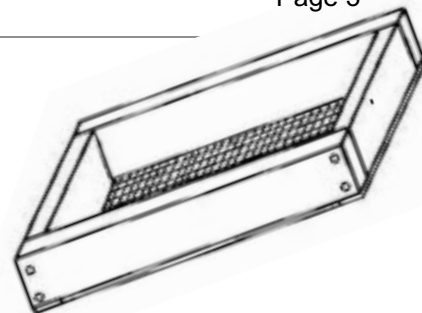
The Kids' Fossil Blast is a fun, hands-on way to find out about fossils for kids mainly ages 4 to 14 yrs. Each meeting we focus on a different type of fossil using real fossils, replicas and printed materials. Sometimes the kids even get to take real fossils home. We meet every other month at 6 pm in the cafeteria at Lee Middle School before our regular club meeting.

Bonnie Cronin

USGS 02295637 PEACE RIVER AT ZOLFO SPRINGS FL



# Field Trips



## Annual Overnight Peace River Canoe & Camping Trip

Dates: Saturday, May 6th and Sunday, May 7th

Trip Leader: Dave Dunaway (ph. 407/786-8844 between 7 pm and 9 pm)

Location: Peace River at Bowling Green south of Payne Creek Historic Park. We will camp on the island in the river and dig one bend south of the island.

Directions: Take Hwy. 17 south through Winter Haven, Eagle Lake, Bartow, & Ft. Meade. In Bowling Green look for the sign for Payne Creek park at traffic light and turn left at the light and go past park. Before bridge pull off on dirt track and meet under the bridge to put in.

Canoe Renters: If you need to rent a canoe call Peace River Canoes at 863/773-6370.

Day Trippers(with own canoes): Meet under the bridge at 8 am either Saturday or Sunday. Leave your vehicle parked by the bridge. Paddling one way without a motor takes about one hour.

What to bring: Canoe and gear OR rent a canoe, sifter, shovel, fanny pack or bag for collecting, bucket for larger items or scrap for the kids' pit. Optional: probe, stand

Enough food and drinks for the time you'll be there. Water(1 gallon per day per person for drinking and cooking) Cooler with ice to last two days. A 1 gallon milk jug filled with water and frozen works real well along with a bag of ice. Remember to drain melted water daily to keep food dry.

Change of clothes in waterproof packaging(canoes do overturn at times so bag and secure all items) plus swim suits, hats, water shoes, dry shoes, towels.

Sunscreen and insect repellent, plus personal hygiene supplies including toilet paper! This is primitive camping, folks; there are no portable toilets. First aid kit.

Cups, plates, & eating utensils.

Sleeping Bag, tarps, tent, flashlights

Optional: Camera, fishing pole, bait & license; chair; mask & snorkel, wet suit, marshmallows.

**Sign up at the April meeting or call Dave Dunaway for further information.**

## Have you forgotten?

According to the membership records, the following people have NOT renewed their 2006 club memberships. Please send in your dues ASAP so you don't get dropped.

This will be your last newsletter unless your 2006 dues are paid. If you have renewed and your name is included in error, please contact Sharon Lynes at 407-847-9453 or [momba10@aol.com](mailto:momba10@aol.com)

Beauchamp, Wanda	Hanson, Anne	Monteferrante, Deborah, Ava & Michael	Smith, Jeremy
Benchocron, Ernesto	Howard, Elaine	Moshier, Caleb	Steele, Les
Boks, George	Knaur, William & Yvonne	Munroe, Kathleen	Stingle, Michael
Brown, Michael	Knodel, Herbert & Barbara	Murill, Mary Beth	Sullivan, Jessica
Bugbee, Alan & Pam	Koutsoulieris, Alicia & Dimitri	Owen, John	Suri, Kanwal
Bush, Bridgette & Starling	Lavicott, Ron	Phillips, Grace & Theresa	Tabor, Chris & Leigh Ann
Cass, David & Trish	Louis, James	Reagan, Sharon, Jacob, Saralinda & Keith	Tomlinson, Tom & Savannah
Coram, Kelli & Derrick	McGookey, Pat & Kim	Richardson, Drew	Troy, Judy
Diaz, Mary	Mannix, Mark, Steven & Ingrid	Ross, Lawrence, Ellen, Erick, Angela,	Van Wandelen, Rosemary & Henri
Duga, Saul & Melanie	McLaughlin, Jami	Jonathan, Cecilia	Wainwright, Pete
Edwards, Keith	Mendoza, Saul	Rudolph, Raymond & Julia	Welch, Jenny, Joseph & Mike
Farley, Joe	Mettrin, Ed & Ben	Sallee, Rawleigh	Youngman, Randy
Gammon, Greg & Katrina	Meyer, Michael	Schenk, Susan	Zacharias, Zach, Allison, Quinn & Zoey
Groves, Grant & Magali	Miller, Betsy	Scura, George & Glenda	Zimmerman, Shelley

# Kennewick Man Skeletal Find May Revolutionize Continent's History

A forensic anthropologist at Middle Tennessee State University is one of a select number of scientists to participate in the examination of a skeleton that could force historians to rewrite the story of the entire North American continent.

Dr. Hugh Berryman, research professor, was one of only 11 experts from across the United States to scrutinize the bones of Kennewick Man, a 9,300-year-old skeleton found 10 years ago along the Columbia River at Kennewick, Wash.

"It's one of the oldest skeletons, one of the earliest individuals that populated this continent," Berryman says. "And we have a chance to look at those remains and learn from them what they tell us about the past and who these people were."

The 380 bones are being preserved at the University of Washington's Burke Museum under an agreement with the U.S. Army Corps of Engineers, which controls the land on which Kennewick was discovered. Berryman says he was between two and three feet deep in the ground. The burial miraculously saved the bones from the elements, the animals, machinery and man for centuries, and ancient deposits of calcium carbonate on the bones allowed the researchers to determine the positioning of the bones in the ground.

"We have evidence that the bones were still in anatomic order," Berryman says. "He was still articulated, and he appears to have been a burial. So once something is buried, that moves it at a depth that perhaps the coyotes, the wolves, scavengers could not get to it."

The July 2005 research was very nearly derailed when the Corps initially decided to turn Kennewick over to a coalition of Native American tribes. Eight scientists filed a federal lawsuit to gain permission to study the skeleton. A federal judge, whose ruling later was upheld by the Ninth U.S. Circuit Court of Appeals, decided in favor of the scientists after determining that the tribes could not prove a direct cultural affiliation with Kennewick.

Berryman says the information that can be gleaned from Kennewick came close to being lost forever.

"Since 1990, we've lost most of the skeletal remains from

groups," Berryman says. "It's a shame that a lot of these groups are already gone. We have no way of knowing what kind of movements there were in prehistoric times, where these people came from, who they were related to, what other tribal groups they might be related to."

What the experts were able to ascertain from their brief encounter with Kennewick is that he did not look like a Native American. In fact, Berryman says Kennewick's facial features are most similar to those of a Japanese group called the Ainu, who have a different physical makeup and cultural background from the ethnic Japanese.

Some Ainu's facial features appear European. Their eyes may lack the Asian almond-shaped appearance, and their hair may be light and curly in color. However, this does not mean that Kennewick Man necessarily was European in origin. His features more closely resemble those of the natives of the Pacific Rim than those of Native Americans.

Berryman, a fracture expert who was trained in the fine art of picking apart dead people at the University of Tennessee's "Body Farm," also documented three types of bone breaks in Kennewick—fractures that were suffered in his lifetime and then healed, fractures that happened after his burial, and fractures that occurred when the skeleton was eroded from the riverbank.

Part of a spear had remained lodged in Kennewick's right hip bone at a 77-degree angle, but, remarkably, the spear did not cause his death. The cause of his demise remains a mystery. What is known is that this athletic, rugged hunter suffered many physical traumas before finally expiring in his mid-to-late 30s.

"The muscle markings are pretty pronounced," Berryman says. "He was probably a well-built individual. The bones of the right arm were larger than the left."

The bigger right arm can be explained by the 18-to-24-inch-long atlatl, or spear thrower, that gave him and his contemporaries the ability to propel a spear up to the length of a football field in order to kill their food. Kennewick died long before the invention of the bow and arrow.

Berryman says Kennewick has only begun to reveal the story of his life and times, and it would be tremendous to



have other scientists examine his bones.

"It was a lot slower process than we thought," Berryman says. "The first day, all day, we looked at one bone, one femur. And then we realized at the end of the day that we were going to be lucky to be able to cover this the way that it should be in a week-and-a-half."

Age, ancestry, sex, height, pathologies, types of trauma, even whether a woman has given birth—all can be determined just from examining a skeleton, says Berryman, who often is called upon to give expert testimony on bones in criminal trials.

"Bone is great at recording its own history," he says. "Throughout your life, there are different things that you do, and they may leave little signs in the bone. If you can read those signs, it's almost like interviewing a person."

## American Archaeology

By Anne Casselman

Discover Vol. 27 No. 04 | April 2006 | Anthropology

Builders tearing up the Sheraton Biscayne Bay hotel and a downtown parking lot in Miami to make way for condo developments found themselves face-to-face with the city's native past: a pair of ancient cemeteries, remains of the Tequesta tribe that once dominated southeast Florida.

"When Ponce de Leon got to Florida in 1513, this was one of the first groups he met," says Ryan Wheeler, the Florida state archaeologist. Historians know little about the Tequestas, whose last members migrated to Cuba in the mid-18th century. "These sites may allow a glimpse into their mortuary practices as well as health and disease," Wheeler says. One site, south of the Miami River, is roughly 2,000 years old; the other, north of the river, is 500 years old. Wheeler estimates that together they contain the remains of several hundred Tequestas.

The twin discoveries are just the latest fruit of a Miami ordinance that requires developers to conduct archaeological surveys on suspected prehistoric sites before completing new construction. Eight years ago, workers uncovered the Miami Circle, a 38-foot-wide bedrock slab dating from around A.D. 100. The circle may have been the foundation of a Tequesta ceremonial structure. With Miami real estate still booming, more of the tribe's history may soon start turning up.

## Giant Fossil Scale Tree

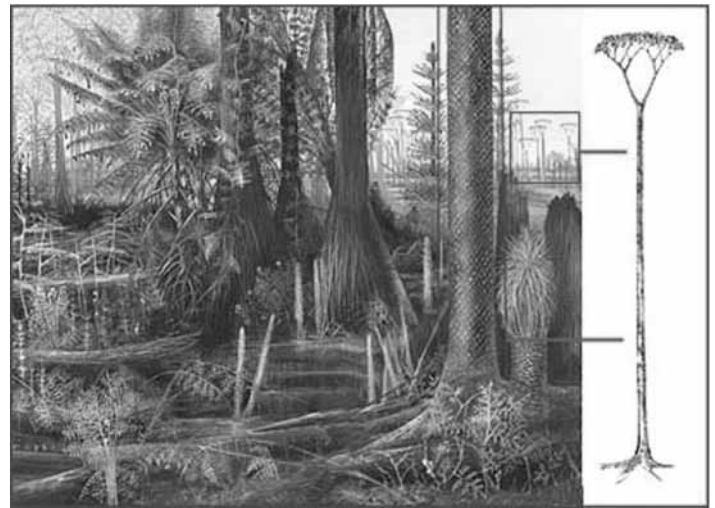


In June, 2005, the National Museum of Natural History received one of the largest plant fossils ever collected - 3.9 m (13 ft) long and 3.7 m (12 ft) high, and weighing more than 16 tons.

Fossil preparators are now working in our Mall-side parking lot to reduce the size of the block. You can see them from the Mall steps, if you look down into the parking lot on the side towards the Washington Monument.

Once the specimen is light enough that the Museum's floors can safely support it, the fossil will be brought inside for additional preparation and display.

The fossil comes from a coal mine on the Rus family farm located near Pella, Iowa. The Rus family donated the fossil to the University of Iowa, which in turn donated it to the Smithsonian through the efforts of Dr. Jeff Schabillion.



## How did this tree become a fossil?

This now-extinct species of a "scale tree", or lycopsid, was preserved 310 million years ago when it fell along a stream bank and was buried by sand. Scale trees and their relatives lived in vast swamps that eventually formed most of the coal that is mined in the Appalachians and Midwestern United States today.

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

Meetings are held the third Wednesday of each month at 7:00pm, Lee Middle School Cafeteria (Maury Road, two blocks West of Edgewater Drive, Orlando).

**Officers:**

President	Dave Dunaway	(407) 786-8844
Vice President	Paul Bordenkircher	(407) 687-3843
Secretary		
Treasurer	Sara Morey	(407) 834-0281

**Chairs:**

Education	Melissa Cole	(407) 834-5615
Field Trips	Shelley Zimmerman	(407) 891-1260
Fossil Fair	Valerie First	(407) 699-9274
Fossil Auctions	Dave Dunaway	(407) 786-8844
Fossil Bucks	Dave Dunaway	(407) 786-8844
Fossil ID Table	Andreas Kerner: intlfossils@msn.com	
Fossil Lotto	Ed Metrin	(407) 321-7462
Auctioneer	Roy Singer	(407) 645-0200
Historian	Valerie First	(407) 699-9274
Librarian	Kathy Monroe	
Membership	Sharon Lynes: momba10@aol.com	
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@lisedreams.com	

**Board of Directors:**

Dave Dunaway	(407) 786-8844
Jeremy Smith	(407) 293-9391
Roy Singer	(407) 645-0200
Ed Metrin	(407) 321-7462
Tom Tomlinson	(407) 290-8474

# Florida Fossil Hunters

## Membership Application

Names: \_\_\_\_\_

Associate Members: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_

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

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@lisedreams.com. Articles can be sent as text messages in the e-mail or in Microsoft Word files (\*.doc).

# Link between sea, land life found

Scientists have discovered fossils of a 375-million-year-old fish, a large scaly creature not seen before, that they say is a long-sought missing link in the evolution of some fishes from water to a life walking on four limbs on land.

In two reports today in the journal *Nature*, a team of scientists led by Neil H. Shubin of the University of Chicago say they have uncovered several well-preserved skeletons of the fossil fish in sediments of former streambeds in the Canadian Arctic, 600 miles from the North Pole.

The skeletons have the fins, scales and other attributes of a giant fish, four to nine feet long. But on closer examination, the scientists found telling anatomical traits of a transitional creature, a fish that is still a fish but has changes that anticipate the emergence of land animals — and is thus a predecessor of amphibians, reptiles and dinosaurs, mammals and eventually humans.

In the fishes' forward fins, the scientists found evidence of limbs in the making. There are the beginnings of digits, proto-wrists, elbows and shoulders. The fish also had a flat skull resembling a crocodile's, a neck, ribs and other parts that were similar to four-legged land animals known as tetrapods.

Other scientists said that in addition to confirming elements of a major transition in evolution, the fossils were a powerful rebuttal to religious creationists, who have long argued that the absence of such transitional creatures are a serious weakness in Darwin's theory.

The discovery team called the fossils the most compelling examples yet of an animal that was at the cusp of the fish-tetrapod transition. The fish has been named *Tiktaalik roseae*, at the suggestion of elders of Canada's Nunavut Territory. *Tiktaalik* (pronounced tic-TAH-lick) means "large shallow water fish."

"The origin of limbs," Dr. Shubin's team wrote, "probably involved the elaboration and proliferation of features already present in the fins of fish such as *Tiktaalik*."

In an interview, Dr. Shubin, an evolutionary biologist, let himself go. "It's a really amazing, remarkable intermediate fossil," he said. "It's like, holy cow."

Richard Lane, director of paleobiology at the Nat'l Science Foundation, said in a statement, "These exciting discoveries are providing fossil 'Rosetta Stones' for a deeper understanding of this evolutionary milestone — fish to land-roaming tetrapods."

Michael J. Novacek, a paleontologist at the American Museum of Natural History, who was not involved in the research, said: "Based on what we already know, we have a very strong reason to think tetrapods evolved from lineages of fishes. This may be a critical phase in that transition that we haven't had before. A good fossil cuts through a lot of scientific argument."

Dr. Shubin's team played down the fossil's significance in the raging debate over Darwinian theory, which is opposed mainly by some conservative Christians in this country, but other scientists were not so reticent. They said this should undercut the argument that there is no evidence in the fossil record of one kind of creature becoming another kind.

One creationist site on the Web declares that "there are no transitional forms," adding: "For example, not a single fossil with part fins, part feet has been found. And this is true between every major plant and animal kind."

Dr. Novacek responded: "We've got *Archaeopteryx*, an early whale that lived on land, and now this animal showing the transition from fish to tetrapod. What more do we need from the fossil record to show that the creationists are flatly wrong?"

Duane T. Gish, a retired official of the Institute for Creation Research in San

Diego, said, "This alleged transitional fish will have to be evaluated carefully." But he added that he still found evolution "questionable because paleontologists have yet to discover any transitional fossils between complex invertebrates and fish, and this destroys the whole evolutionary story."

Dr. Shubin and Dr. Daeschler began their search on Ellesmere Island in 1999. They were attracted by a map in a geology textbook showing an abundance of Devonian rocks exposed and relatively easy to explore.

July 2004, Dr. Shubin said, "we hit the jackpot." They found several of the fishes in a quarry, their skeletons largely intact and in three dimensions. The large skull had the sharp teeth of a predator. It was attached to a neck, which allowed the fish the unfishlike ability to swivel its head.

If the animal spent any time out of water, said Dr. Jenkins, of Harvard, it needed a true neck that allowed the head to move independently on the body.

Embedded in the pectoral fins were bones that compare to the upper arm, forearm and primitive parts of the hand of land-living animals. The joints of the fins appeared to be capable of functioning for movement on land, a case of a fish improvising with its evolved anatomy. In all likelihood, the scientists said, *Tiktaalik* flexed its proto-limbs mainly on the floor of streams and might have pulled itself up on the shore for brief stretches.

The scientists concluded that *Tiktaalik* was an intermediate between the fishes *Eusthenopteron* and *Panderichthys*, which lived 385 million years ago, and early tetrapods. The known early tetrapods are *Acanthostega* and *Ichthyostega*, about 365 million years ago.

*Tiktaalik*, Dr. Shubin said, is "both fish and tetrapod, which we sometimes call a fishapod."

# Mark Your Calendar

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7:00pm Meeting*

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7:00pm Meeting  
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Visit our website [www.floridafossilhunters.com](http://www.floridafossilhunters.com)

Articles and comments should be sent to: [elise@liseydreams.com](mailto:elise@liseydreams.com)

Florida Fossil Hunters

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Florida Fossil Hunters News