

The Ecphora

QUARTERLY NEWSLETTER OF THE CALVERT MARINE MUSEUM FOSSIL CLUB

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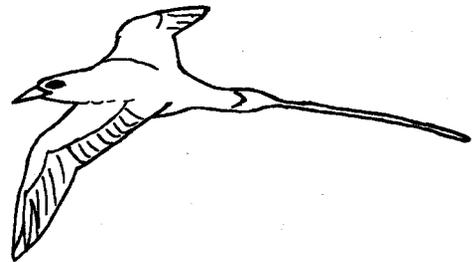
Editor: Sandy Roberts

CLUB ACTIVITIES

Fossil Tropicbird from Calvert Cliffs

Three bones found by Wally Ashby at Calvert Cliffs in 1953, an associated humerus, coracoid and scapula, have just been described as a new genus and species of tropicbird. The paper, written by avian paleontologist Dr. Storrs Olson of the Smithsonian Institution, appeared in the December 4, 1985, issue of Proceedings of the Biological Society of Washington.

Tropicbirds are so called because they seldom stray far from the tropics. They are in their own family in the order Pelecaniformes (pelicans, gannets and boobies, cormorants are the other members of this order). The three living tropicbirds (red-billed, white tailed and red tailed) are all in the genus Phaethon (son of the sun god, who drove his father's sun chariot across the sky). The new species is named Heliadornis ashbyi; ornis, Greek for bird, and the Heliades were the three sisters of Phaethon in Greek mythology.



This new tropicbird is at once the oldest known member of its family, the only Tertiary period tropicbird, and the only extinct species of tropicbird. All other known fossil specimens of tropicbird are from the Quaternary period and can be referred to one of the three living species. No other tropicbird fossils have been found at Calvert Cliffs, despite there being over 300 bird specimens known, or among the thousands from Lee Creek or elsewhere.

Recent Finds

Larry Decina found a lower jaw with one tooth of Cuvier's beaked whale Ziphius during the Delaware Valley Paleontological Society's March field trip to Lee Creek. (Ziphius only has two teeth, both at the front of lower jaws, so Larry found half the dentition.) According to Dr. Frank C. Whitmore, Jr., who identified the jaw, this is only the second Ziphius found at Lee Creek. The first was a single tooth.

Several bird bones donated by Calvin Taylor to the Smithsonian have been identified. They include a shearwater and sea gull from Lee Creek and a sea gull from the Calvert formation in Maryland.

Lee Creek mine, although heavily picked over and in need of a good rain, was still productive during the club's April 5-6 trip. Forty-five club members made the trip. Several Carcharodon teeth were found, including a 5-3/4 inch tooth by Becky Hyne and a 4-1/2 inch tooth by Douglas Donald.

Although we haven't examined everyone's finds from Lee Creek, some other notables include at least eight bird bones, several nice skate dermal denticles, a large sperm whale tooth, lots of Ecphora and a tooth of the bramble shark Echinorhynchus. Bring your finds to our party in May so we can get a more detailed report in our next newsletter.

Short News Item

The best known of the Calvert formation sea cows, Metaxytherium calvertense, has been reported in the Miocene of the Pacific coast of Peru. The two partial skulls, mandible and vertebra are reported by Christian de Muizon and Daryl Domning in a recent issue of the Bulletin, Museum National d'Histoire Naturelle, Paris. These finds corroborate ideas of a faunal interchange between the Northwest Atlantic and Southeast Pacific during the Miocene, through the then open Central American Seaway.

Fossil Club Progress Report

The club currently has 62 paid family memberships. An additional twelve copies of The Ecphora are sent out gratis. Actual membership is 91 individuals (many families include more than one member).

As of April 8, the club's balance is \$483.61. The majority of income is from dues, although several contributions have been made as a result of our participation in shows. The majority of expenses have been for the printing and mailing of The Ecphora, with some additional expenditures for long distance phone calls. Some expenses have continued to be borne by direct contributions of members, such as dinner for guest lecturers and trip leaders and refreshments for meetings.

Fossil Club Represented at Fossil Fair, Gem and Mineral Show

George Fonger and Dave Bohaska traveled to the Academy of Natural Sciences, Philadelphia, for the Delaware Valley Paleontological Society's "Fossil Fair," on March 8 and 9. Approximately 6300 people entered the Academy that weekend. This is triple last year's attendance. Academy attendance has been way up due to the recently opened "Discovery Dinosaurs" display, proving that fossils are still crowd pleasers.

Eighteen DVPS members exhibited, including exhibits of trilobites, Solnhofen limestone fossils, vertebrates, and original dinosaur paintings. Other exhibitors included the Pennsylvania State Geological

Survey, New Jersey State Museum, a dinosaur track display by Philadelphia Electric, a fossil sales table, movies, and children's activities (fossil hunts in a sandbox, fossil rubbings with crayon and coloring books). CMM's exhibit included a preparation demonstration (a fossil porpoise skull), exhibits of Calvert Cliffs fossils along with modern relatives and giveaway sharks' teeth and gastropods.

The Academy's new display is recommended to everyone. Many of the exhibits are computers or other participatory exhibits. Of particular interest to me are the specimens of historical interest. The first dinosaur found in North America is on display. The forty-foot long pleisosaur that Edward Drinker Cope (of Cope-Marsh War fame) put the head on the wrong end is on display. An ichthyosaur from Europe which Cope drew pictures of at age 10 is also displayed.

All of the mounts are based on modern interpretations of dinosaur anatomy. Much is made of the history of our changing concepts of dinosaur. Exhibits of dinosaurs (and relatives) in advertising and the popular media are included (including a film clip of Raquel Welch being carried away by a pterodactyl). The robotic Apatosaur is still on display downstairs. Several joint members of CMM and DVPS stopped by as well as Mark, Judy and Joel Rives of our club. Ivy Hartstein, Larry and Carolyn Decina helped at our table.

Last but not least, Larry, Patty and Larry Decina, Jr., played host to Dave and George with Patty's world famous and now traditional lasagne served for dinner.

The next weekend (March 15 and 16) George Fonger, Calvin Taylor, Sandy Roberts, Donna Richardson, Mike and Kathy Ellwood, and Dave Bohaska manned a similar table at the Montgomery County Gem, Lapidary and Mineral Show in Gaithersburg. There were six fossil displays among the many equally attractive gem, mineral, and modern mollusc displays. One highlight was a display of minerals on stamps with both the stamps and a sample of each mineral displayed with it. Several dealers had high quality merchandise, including trilobites and eurypterids (the dealer bought the quarry where the eurypterids occur). The fossil club was presented an attractive plaque and check for expenses for its efforts.

Many club members dropped by at both fairs. In both cases, hosts and visitors sincerely enjoyed and appreciated our efforts, making it all very enjoyable.

SPRING SCHEDULE OF EVENTS

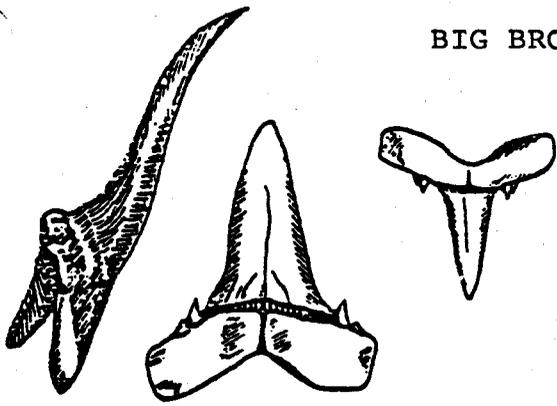
(Note that this schedule contains programs and details not in the Bugeye Times schedule.)

- April 30 - Fossil film festival (CMS program) 7:30 p.m. at Calvert Marine Museum. Films scheduled are A World Is Born (An animated adaptation of a segment of Walt Disney's Fantasia), Dinosaur Age (a 1958 film produced by the Los Angeles County Museum), and From Yesterday (a Baltimore Gas and Electric Company film about Calvert Cliffs). Free to Fossil Club and Museum members, others 50¢.
- May 15 - SEARCH lecture: Vertebrate paleontologist, Jerry MacDonald, 7:00 p.m. at Chesapeake Biological Laboratory, Solomons, Md., (Nice Hall). Jerry specializes in fossil musk ox. The title of his talk is Late Quaternary environments, extinct mammals, and Paleo-Indians at the Saltville, Virginia, localities.
- May 16 - Meeting and field trip. Informal meeting at Matoaka Cottages, St. Leonard, Md., courtesy Connie and Larry Smith. Bring refreshments to share, fossils, and photographic slides to "show and tell." This will be an excellent opportunity to show your finds from the latest Lee Creek trip. Early arrivals (5:00-7:00 p.m.) can collect fossils on the beach (Choptank formation, Miocene); the meeting will follow. Directions: Route 4 to Calvert Beach Road, St. Leonard, turn east. Stay on Calvert Beach Road, crossing Route 765, past fork with Long Beach Road. Left on dirt road with "Matoaka" sign, follow to end.
- June 7 - Field trip to Big Brook, N.J., to sieve for Cretaceous fossils about 70 million years old (see illustrations on page 5). If time permits, a Miocene locality also may be visited. Gene Hartstein will lead this field trip. If you are interested, contact Gene (302-999-9789) or Dave Bohaska (326-2042) for directions. It takes about 3½ hours to drive to Hartstein's home, so Gene has generously invited a limited number of club members who would prefer to make the drive on Friday evening to stay with them. Be sure to check with the Hartsteins if you want to do this.

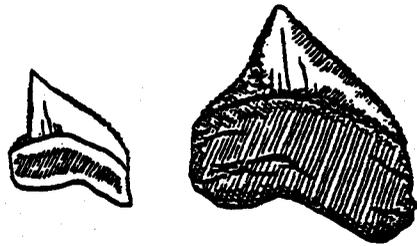
Paleontology Field Class

Members of the New Jersey State Museum will join a field camp from the South Dakota School of Mines and Technology from July 14-25 to learn techniques of paleontological field work and earn two college credits. Cost will be \$200 for tuition and fees plus perhaps \$300 for travel and camping expenses. For more information, contact the New Jersey Science Bureau at 609-292-6330.

BIG BROOK CRETACEOUS FOSSILS



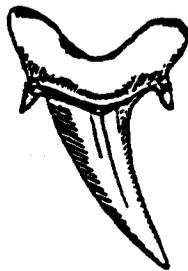
Scapanorhynchus taxanus (Roemer)
(COBLIN SHARK)



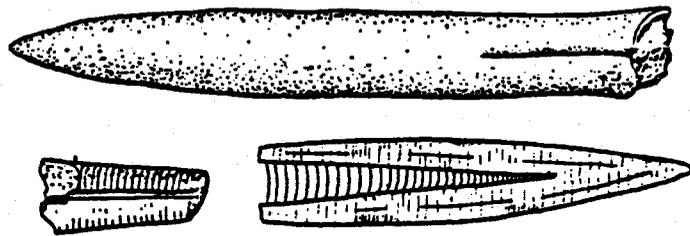
Squallcorex sp.



raspis sp.



Plicatolamna arcuata (Woodward)



Belemnitella americana (Morton)



Shark coprolite



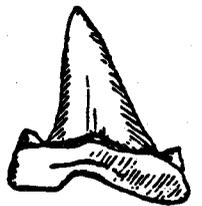
Mosasaur sp.



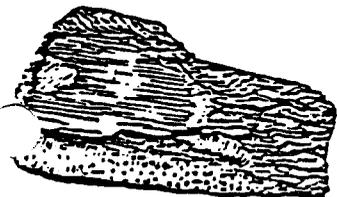
Hybodus sp.



Enchodus sp.



Cretalamna appendiculata (Agassiz)



Ischyodus bifurcatus Case



Ischyrhiza mira Laidy



Brachyrhizodus wichitaensis Roemer

Fossil Hunting

George G. Simpson is renowned for his research in vertebrate paleontology, evolution theory and zoogeography. Among other things, he wrote the best description of fossil hunting we've seen and we think you'll like it too:

"Fossil hunting is far the most fascinating of all sports. I speak for myself, although I do not see how any true sportsman could fail to agree with me if he had tried bone digging. It has some danger, enough to give it zest and probably about as much as in the average modern engineered big-game hunt, and the danger is wholly to the hunter. It has uncertainty and excitement and all the thrills of gambling with none of its vicious features. The hunter never knows what his bag may be, perhaps nothing, perhaps a creature never before seen by human eyes. Over the next hill may lie a great discovery! It requires knowledge, skill and some degree of hardihood. And its results are so much more important, more worth while, and more enduring than those of any other sport! The fossil hunter does not kill; he resurrects. And the result of his sport is to add to the sum of human pleasure and to the treasures of human knowledge."

Excerpt from Attending Marvels - A Patagonian Journal, by George Gaylord Simpson. Copyright 1934 by Macmillan Publishing Company. Reprinted with the permission of the publisher. The book is available as a reprint from the University of Chicago Press and is highly recommended.

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