

SIERRA COLLEGE NATURAL HISTORY MUSEUM

NEWSLETTER

FALL 2004



Upcoming Events

October 29—Minerals as Medicine. Dr. Jean DeMouthe, California Academy of Sciences

November 19—Winged Migration: A Monarch Story. John Lane.

December 3—A Celebration of Raptors. John Hendrickson. 3 p.m & 7:30 p.m.

Above events: 7:30 p.m., Sewell Hall (Science) 111
General public \$2/Students \$1/Museum members free

May 8, 2005—Dinosaur Day

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SIERRA COLLEGE
NATURAL HISTORY MUSEUM

Sewell Hall
5000 Rocklin Road
Rocklin, CA 95677

check out our web site
www.sierracollege.edu/museum



RECENT LOANS

Cal Academy of Sciences

The museum recently obtained a light weight replica of a *Tyrannosaurus rex* skull from the California Academy of Sciences. It has been placed on display by George Bromm in the dinosaur diorama case. Now the little *Thescelosaurus* skeleton has a good reason to be running away and looking back over its left shoulder. This will be one more attraction for the museum's usually biannual Dinosaur Day on Mother's Day, May 8, 2005.

Across from the dinosaur diorama is another glimpse of dinosaur life. It is a three-toed footprint of a theropod, or meat-eating, dinosaur. It is over 20 inches long, with deep toe impressions.

George Bromm and Charles Dailey recently moved the North American mammal heads in Sewell Hall to accommodate a 22' long *Ichthyosaur* (big extinct marine fish-like reptile) plaque that Lynn Roath and Charles Dailey brought back from The Academy in San Francisco a week earlier. If it had all of its tail, it would be about eight feet longer.

The plaque weighs over 400 pounds, so it took a small army of staff and students and some fancy foyer bench swapping to lift it into position. It is an impressive cast of the 225 million year old holotype specimen (*Cymbospondylus petrinus*) that U.C. Berkeley's Museum of Paleontology extracted from the mountains near Lovelock, Nevada. Thanks to all who helped! ■



RENOWNED RESEARCHER Dr. Tim White

On October 13, 2004, the Museum sponsored Dr. Tim White's presentation, "African Origins: Exploring Human Evolution in Ethiopia."

For the last 20 years a large team of geologists, archaeologists and paleontologists have converged at the Middle Awash study area in Ethiopia. The results of this extensive research establish this area as the longest hominid-inhabited geographic locale anywhere on Earth. Sediments more than one-half mile in thickness reveal a variety of fossil hominids along with a long record of stone tool development. Over 13,000 fossil vertebrate specimens have been collected including 213 hominids, such as the newly recognized hominids *Ardipithecus kadabba*, *Ar. ramidus*, *Australopithecus garhi* and *Homo sapiens idaltu*. The Middle Awash record and its contents therefore witness nearly six million years of hominid evolution and technological development.

Dr. White is a faculty member and researcher at the University of California, Berkeley. ■



JUST PUBLISHED

Sierra Foothills Nature Guide

The second Sierra College Press book was released in April 2004. The title of the new publication is *Sierra Foothills Nature Guide: A guide to the biology and ecology of the Sierra College Nature Trail*.

Shawna Martinez, a Sierra College professor in Biological Sciences, along with other colleagues and students have updated and edited this fourth edition of the Sierra College Nature Trail guide. This edition features the flora and fauna one can see while exploring the College's Nature Trail and much of the Sierra foothills.

The original Sierra College Nature Trail was designed

and constructed by members of the Sierra College Science Club and their faculty advisors in the 1960s. As knowledge of the Nature Trail area has grown, the guide has changed with it. The newest edition of the guide is beautifully illustrated by artists Sarah Tomich, Ken Kirkland and Heather Mehl. It includes detailed drawings and descriptions of plants, mammals, birds, reptiles and amphibians common to the foothill regions of California.

Faculty advisor Shawna Martinez said, "The publication of this Nature Guide would not have been possible without the efforts of many students and staff members. Each person involved has left a piece of themselves within the pages of the book."

The Sierra College Natural History Museum and the Associated Students of Sierra College helped to provide funding for the publication of this sturdy, wire bound version. The book is available for \$12.95 from Shawna, Science Club members, the Sierra College Bookstore, other selected bookstores, and Sierra College Museum events. Profits from the book will benefit the Sierra College Science Club. ■

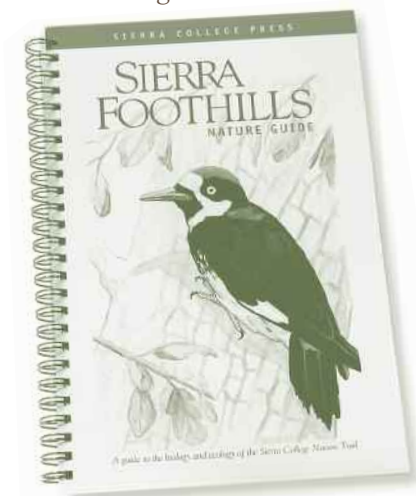


SUMMER FIELD TRIP Fossil Hunt

This past June, Sierra students and professors took a Field Paleontology trip to Arizona. Led by Dick Hilton, Charles Dailey, Holly Dodson and George Bromm, the Biol Sci 16G class traveled 2863 miles. Snow Canyon State Park, Utah; Zion National Park, Utah; Grand Staircase-Escalante National Monument, UT; Grand Canyon National Park, AZ; Petrified Forest National Park, AZ; and Meteor Crater, AZ were the geologic tourist part of the nine day trip.

The primary reason for the trip though was collecting fossil vertebrates near the Petrified Forest in the Chinle Formation, a set of Triassic layers about 220 million years old. Our federal collecting permits were for land in the badlands managed by the BLM. Hopes were for finding bones of some of the large reptiles of the time, such as Metoposaurs, Phytosaurs, Aetosaurs and *Placerias*. Small dinosaurs were also around such as *Coelophys* and of course petrified wood. Back then this part of current Arizona was situated in the climate type of southern Mexico today.

Our finds included lungfish teeth (pictured), skull and leg bones of a *Rutiodon*, *Desmatiosuchus*, fish skin, clams, petrified wood and bone fragments yet to be identified. ■



NEW ADDITION

Get Ahead

It maybe hard to get ahead in this world, but the Sierra College Natural History Museum is doing so. George Bromm, Geology and Astronomy Tech, recently placed a replica skull of the extinct flightless giant Moa of New Zealand in the bird skull case in Sewell Hall. It was one of the largest birds to ever have lived. It took a long time for Charles Dailey, Zoology professor, to obtain this replica because as the New Zealanders would say, "Thea ah no moa Moa." Arg!!!! ■

COSMIC CORNER

News from the Sierra College Planetarium & Observatory

ROBOTIC OBSERVATORY NEARS COMPLETION

After about three years of planning and raising funds, the Sierra College Robotic Observatory entered its construction phase on the NCC campus and should be ready for Spring 2004 classes.

Through the use of state-of-the-art hardware and software, the observatory is designed for students to gain control of the telescope via the internet and to create images of a variety of celestial objects. A dedicated web page is being designed to allow the public to view the student



observation sessions. For information on the status of the observatory, contact Professor Dave Kenyon at 916-781-0459. ■

PLANETARIUM PRESENTATIONS

The Astronomy Department offers "Wonders of Astronomy"—a presentation given in the Sierra College Sewell Hall Planetarium, this lecture/demonstration showcases our present understanding of the universe with a multimedia arrangement that includes a slide show, a hands-on activity, and the projection of star images on the planetarium dome. Lots of fun for all ages, call Dr. Harry L. F. Houpis, the Planetarium Director, at 916-789-2715 to schedule a presentation time.

STELLAR VOCABULARY AND TIDBITS

Constellation—One of 88 named regions of the sky, encompassing a grouping of stars, and officially recognized by the international community of astronomers. Examples are: Orion (The Hunter) and Ursa Major (The Big Bear).

Asterism—A grouping of stars named for their appearance. Examples are: The Big Dipper (located in Ursa Major) and the Summer Triangle (composed of the three stars Altair, Vega, and Deneb).

Blue Moon—Defined in recent times as the second full Moon in a given month, the actual historical definition of a Blue Moon depends on Easter and a particular definition of when the various seasons start. In short, when a season contains four full Moons, the third one is called a Blue Moon. For a more precise definition, see the article http://skyandtelescope.com/observing/objects/moon/article_127_1.asp

Perigee—The point of closest approach to Earth of a celestial object (apogee is the farthest point). ■



Sky Watch

If you want the latest information on what to look for in the sky with all the details and future predictions, consult the following web site by Sky and Telescope magazine: <http://skyandtelescope.com/observing/>. This site also includes an interactive sky chart to help you locate constellations, planets, and other sky objects.

Here are the two major highlights for the next several months for observers in the greater Sacramento area:

- Do not miss the last total eclipse of the Moon until the year 2007. It occurs on October 27th just after sunset. Look to the eastern horizon for a shadow-bitten Moon and enjoy the eclipse as the Moon falls into complete coverage over the next hour.
- Starting his comet-hunting "career" in 1975 with a regular regimen of observations now totaling over 7000 hours, Donald E. Machholz of Colfax, California, has discovered his 10th comet. Currently, Comet Machholz is visible only through a telescope, but the comet is expected to become visible to the naked-eye by the end of 2004 and early January, 2005, just as it glides right of the Pleiades in Taurus. ■