

SECTION OF VERTEBRATE PALEONTOLOGY  
REPORT FOR APRIL 1 - JUNE 30, 1999

**COLLECTIONS, CURATION.** Seventy-two specimens were catalogued into the computer. There were four loans of 39 specimens outgoing, and eight loans of 82 specimens returned.

Associate Curator Chris Beard continued to curate the late Paleocene mammal specimens collected in the 1998 field season in the Fort Union Formation, Sweetwater County, Wyoming.

Scientific Preparator Amy Henrici continued preparation of a dissorophoid amphibian, a small reptile, and a new diadectid collected during the 1998 field season in the Lower Permian deposits of Germany. She also prepared a small mammal from the Late Jurassic of Colorado, and made a cast of an *Ecolsonia cutlerensis* skull.

Scientific Preparator Alan Tabrum continued the preparation of specimens from Big Multi Quarry and other localities in Wyoming and China, and made molds and casts for Beard, as requested. Tabrum also supervised volunteers Barton Bevans, Lindsay Flood, Walter Fort, Steve Girard, John Howard, Lauren Lucas, Emmy Magel, Randy May, Diane McDowell, Timothy Romrell, David Taylor, Linda Walker, and Elissa Ward. His volunteers principally worked on the screening and picking of matrix from the Middle Eocene Shanghuang fissure fills of China, but also screened and picked matrix from the late Duchesnean Diamond O Ranch local fauna of southwestern Montana and from several of Curator Mary Dawson's localities in the Kishenehn Formation of northwestern Montana. Checking and sorting the materials they picked proved to be very time-consuming. Tabrum also supervised the work of part-time employee Brian Ruskin, who is beginning to make a dent in our tremendous backlog of unprepared material from the Wind River Basin of Wyoming.

Volunteer Ralph Shuster has made 11,362 entries into the computerized bibliographic program; volunteer Gus Tremmer continues to organize the small mold collection; and volunteer Chuck Kubit has completed printing 122 of the 124 negatives in the O.A. Peterson photographic collection from 1904-1908.

**EXHIBIT RESPONSIBILITIES.** For the first time in the history of CMNH, timely information regarding scientific field work was made available to visitors to the CMNH web site, largely through the efforts of Ilona Weyers. During this summer's field work in the Fort Union Formation in Sweetwater County, Wyoming, Ilona produced a daily journal, complete with numerous digital images recording aspects of field work and daily life, which was transmitted to CMNH from the remote locale (Wyoming). The regularly updated web site was available to internet users who clicked on the heading "what's new" on the museum's home page.

Laboratory Manager Norman Wuerthele and Henrici began making casts of the correct *Diplodocus* front feet to be installed on the skeleton in Dinosaur Hall. These replace the incorrect *Camarasaurus* feet that have been there for decades.

**EDUCATIONAL/PUBLIC SERVICES.** Dawson met with writer Bob Batz of the Pittsburgh Post-Gazette newspaper for an article about *Quetzalcoatlus*. She attended numerous meetings about the *Diplodocus* centennial celebration and associated events: scientific accuracy of specimens and label copy, what scientific specimens should be on display, arranging for the cast of *Herrerasaurus* from the Triassic of Argentina from Matt Smith. She also attended regular meetings of the Exhibit Review Committee, worked with Ron Lutz of Exhibits about a Duquesne University behind-the-scenes, project, and talked to the Education docents about the fossil record and the significance of pterosaurs. She also conducted a behind-the-scenes tour to Mr. & Mrs. Philip Oswalt for Development, and gave a tour to a group of first-graders from Belle Vernon. She had an interview with Barb Klein of City Paper for the Open House, and at least five other newspapers.

Curator Dave Berman wrote label copy and provided accurate research information for the *Diplodocus* and *Herrerasaurus* exhibits.

On April 13 Beard organized a seminar by visiting scientist Dr. Peter Waddell, a prominent molecular systematist working on the higher-level relationships of mammals, for CMNH staff and other interested persons. On April 22 he presented a lecture on the evolution of mammals to Dr. Susan Henry's biology class at Carnegie Mellon University. Dr. Henry, the Dean of Science at CMU and a member of the board of the Carnegie Science Center, organized and team-taught an introductory course on evolution at CMU for the first time in recent years. The lecture was attended by about 30 students. Beard produced text and photos for use by Doug Patinka, who is developing an online exhibit called "Profiles in Science" as part of his Jurassic Classroom web site. On May 7, 1999 Beard was invited to present a seminar at the Department of Biological Anthropology & Anatomy at Duke University in Durham, NC. The title of his seminar was "Out of Africa or East of Eden: New Data on Early Primate Evolution in Asia." It was attended by approximately 45 students and faculty.

There were several press and TV interviews of various Section staff by local TV stations who were previewing the Open House scheduled for June 12 and 13. The Big Bone Room and the Preparation Lab were open to the public during that weekend and 801 people attended. The following staff participated in the Prep Lab: Chris Beard, Amy Henrici, Albert Kollar, Ilona Weyers, and Norman Wuerthele, and volunteers Eve Heidecat and Emmy

Magel; and in the Big Bone Room: Elizabeth Hill and Mark Klingler, and volunteers Richard Kissel and Michael Trick. Klingler hosted an informative display for the public on scientific illustration here at the Carnegie in Vertebrate Paleontology. A pamphlet on Natural History Illustration which lists texts on the history, methods and mediums, and societies was available for career direction and general interest in the importance of scientific illustration. This was produced by Klingler and Museum Librarian Bernadette Callery. Klingler also gave a lecture, Watercolor painting for Science, to the Penn Art Association, Penn Hills, Pennsylvania, on 11 May, 1999 and had an article in the PAA Newsletter. The attendance included 65 members of the society. The internship for Eve Heidekat is proceeding well. She has developed clean preparation art of a raccoon skull, and is currently drawing dinosaur-bone art (*Stegosaurus* and *Apatosaurus*) for future education and exhibits projects. Her experience in the preparation-booth and with the collection storage is going well. Daniel Singerman has been working with Wuerthele in Preparation and meeting with Klingler on scientific illustration instruction once a week. He is working primarily at home and in the exhibit space working on the dinosaur-bone art image of *Tyrannosaurus rex*.

Henrici was interviewed for a school project by Megan Griffith, a sophomore at Slippery Rock College, and also set-up a mini-exhibit about the German project for a group of Girl Scouts who were led on a behind-the-scenes tour by the Docents. She also gave a behind-the-scenes tour of the Preparation Lab to 25 third-graders from Haine Elementary School, Cranberry Township. All three preparators worked in the Dino Lab booth and directed the volunteers who worked in the booth.

Wuerthele helped to move the Pleistocene exhibits to make room for Beakman's World traveling exhibit. He also cast the *Diplodocus* trackway from the mold he made in Denver. However, it proved too large to be placed on exhibit for the *Diplodocus* centennial.

Hill corresponded with Suzanne Strait of Marshall University in Huntington, WV, concerning Strait's visit here and provided hotel/travel guide information. Hill had a telephone conversation with Clare Beavis of BBC-TV of London about Dinosaur Hall and recent changes to exhibits, and mailed a brochure and a color photocopy of the *Diplodocus* restoration to her. Hill also met with Doug Patinka and Matt Phillips of Education concerning historical material for use on our web site, and began writing a history of the Section for this purpose. She assisted Tom Rea, a writer from Wyoming, with archival material about William Reed's connection with Carnegie Museum, spending four days at this. She was interviewed by Bob

Batz of the Post-Gazette in company with Matt Phillips of Education about the history of the discovery of *Diplodocus*, and continued to confer with Batz over the telephone about details. She also gave tours of the Bone Rooms and Prep Lab for friends or family of Paul Trunzo and Mike Nelson.

The seismograph that was on exhibit was disconnected and removed to the Prep Lab.

**FIELD WORK AND TRAVEL.** On May 6-7 Dawson went to Ontario to check the accuracy of the *Diplodocus* restoration being made there by Peter Maye's company, Research Casting Incorporated.

On May 7-8 Beard studied the collection of late Eocene primates from the Fayum Depression of Egypt at the Duke University Primate Center, Durham, NC. June 3-8 he studied the collection of early Arikareean mammals from the Sharps Formation of southwestern South Dakota at the Los Angeles County Museum of Natural History. June 14-July 5 he directed a field expedition in the Washakie Basin/Rock Springs Uplift region of southwestern Wyoming.

On June 9 Assistant Curator Zhexi Luo departed for field work in China.

Accompanied by two University of Pittsburgh undergraduate students as field assistants, Tonya Penkrot and Kari Prassack, Tabrum departed June 11 for field work in the Paleocene of the Washakie Basin of southwestern Wyoming, meeting Chris Beard, Ilona Weyers, and Shadyside Academy high school student Nick Reise at the Rock Springs Airport on June 14. The participation of these students was supported by a "Research Experience for Undergraduates" supplemental award to Beard's current NSF grant.

All three students were taught basic aspects of field paleontology, including stratigraphy, sedimentology, and aspects of the anatomy of the fossil organisms they collected. The field crew was later joined by Vin Morgan and Gus Winterfeld and had a quite productive field season, developing several new localities and significantly supplementing the collections from several other localities that they had first worked last year. Although quarrying at the Big Multi locality was less productive than in previous field seasons, they did obtain several good specimens.

Wuerthele went to the Philadelphia Academy of Natural Science with Pat Martin of the Exhibits staff to examine their dinosaur dig to help plan the Cenozoic Hall dig for children.

**PROFESSIONAL SERVICES.** Dawson submitted requests for Bureau of Land Management permits for work in Utah and Montana on behalf of two of our research associates. April 30 and May 1 she took part in the symposium to honor William Cassidy of the University of Pittsburgh, and introduced the speaker for the invited lecture. She reviewed one manuscript for an archaeology magazine.

Beard was heavily involved in scientific strategic planning for the off-site Board retreat at the University Club on April 27, which he also attended. He and Dawson attended the CMNH Board meeting on May 4. He continued to serve as Associate Editor of the Journal of Human Evolution, and reviewed a manuscript for Science, a chapter for an edited volume on tarsiiiform primates (Rutgers University Press), a manuscript for the American Journal of Physical Anthropology, two manuscripts for the Journal of Vertebrate Paleontology, and a manuscript for the Journal of Human Evolution. At the request of Jay Apt, Beard attended a meeting with Apt, Seddon Bennington, Bill Stein, Paul Trunzo and others at the Carnegie Science Center on May 25. The purpose of the meeting was to discuss the feasibility and complexity of a temporary dinosaur exhibit to be hosted by CSC at the same time as a future Pittsburgh Regatta. Beard presented some concerns on the part of CMNH that mitigate against such a plan.

Henrici continued as Associate Editor for the Journal of Vertebrate Paleontology. She hosted Dr. Ana Maria Baez during Dr. Baez's ten day visit to collaborate on the Miocene Yemen pipids anurans project.

Wuerthele made casts of the *Apatosaurus* skull for Luo to take to China, and the *Dimetrodon* skull for Martin Locksley. **GENERAL.** On May 23 Dawson received an honorary doctorate from Chatham College at ceremonies to which Hill and Alice Guilday were invited as guests.

Wuerthele made many trips to the parking garage storage area to clear it out for Ron Diulus. He took dinosaur bone casts from the fake wall representing Dinosaur National Monument that was made for the summer exhibit two years ago and put them in the lab.

Visitors to the Section: Suzanne Strait, Marshall University; Robert M. Sullivan, State Museum of Pennsylvania; Hartmut Haubold, Universite Halle, Germany; Mathew Wedel, University of Oklahoma; Masanaru Takai, Primate Research Institute, Kyoto University, Japan; Richard S. Laub and Edward Schaefer, Buffalo Museum of Science; Mary Silcox, Johns Hopkins University; Stuart Sumida, California State University at San Bernardino; Ana Maria Baez, Buenos Aires, Argentina; and Christina Seiffert, Senckenberg Museum, Germany.

**GRANTS.** Beard: Current: National Science Foundation, Physical Anthropology Program, SBR 9615557: \$237,106 "Paleontological Field Work and Research on Eocene Anthropoids and Other Primates from the People's Republic of China." Awarded: L.S.B. Leakey Foundation: \$12,000 "Paleoanthropological Survey for Early Anthropoids and Hominoids in Tibet".

**RESEARCH.** Beard's research focused on the early Wasatchian Red

Hot local fauna from Mississippi, and its biostratigraphic and paleobiogeographic implications.

Berman and Henrici, in collaboration with Research Associate Stuart Sumida and Thomas Martens of Germany, are working on a Redescription of the Lower Permian German *Seymouria* (Seymouriamorpha) based on newly discovered, nearly complete, mature specimens.

Henrici and Ana Maria Baez are studying *Xenopus* from the Oligocene of Yemen.

Dawson: (1) Rodents from the Tuscahoma Formation of Mississippi; (2) *Zhailimeryx*, a new artiodactyl (Mammalia) from the middle Eocene of central China (with Jianwei Guo and K. C. Beard).

Klingler continued to do illustrations for scientific papers by Beard, Berman, Dawson, Luo and others, and for public relations projects.

**Papers published:** none.

**Papers In Press:**

Beard, K.C. Dermoptera (flying lemurs). In Encyclopedia of Life Sciences, Macmillan Reference, Ltd., London (illustration by Mark Klingler).

Beard, K.C. Scandentia (tree shrews). In Encyclopedia of Life Sciences, Macmillan Reference, Ltd., London (illustration by Klingler).

Beard, K.C., and Dawson, M.R. Intercontinental dispersal of Holarctic land mammals near the Paleocene-Eocene boundary: paleogeographic, paleoclimatic and biostratigraphic implications. Bulletin de la Société Géologique de France (illustration by Mark Klingler).

Dagosto, M., Gebo, D.L., and Beard, K.C. Revision of the Wind River faunas, early Eocene of central Wyoming. Part 14. Postcranium of *Shoshonius cooperi* (Mammalia: Primates). Annals of Carnegie Museum. (Some or all artwork done by Mark A. Klingler.)

Dawson, M.R. Paleontology of the Lagomorphs and Rodents. In: Encyclopedia of Paleontology.

Gebo, D.L., Dagosto, M., Beard, K.C., and Wang, J. A first metatarsal of *Hoanghoniuss stehlini* from the late middle Eocene of Shanxi Province, China. Journal of Human Evolution.

Ji, Q., Luo, Z., and Ji, S. A Chinese triconodont mammal and mosaic evolution of mammalian skeletal evolution. Nature.

- Luo, Z., and Gingerich, P.D. Transition from terrestrial ungulates to aquatic whales: transformation of the basicranium and evolution of hearing. Papers on Paleontology (Monograph Series), Museum of Paleontology, University of Michigan.
- Luo, Z. Symmetrodonts. *In*: The McGraw-Hill Encyclopedia of Science and Technology, Ninth Edition. New York, NY.
- Rasmussen, D.T., Hamblin, A.H., and Tabrum, A.R. The mammals of the Duchesne River Formation. *In*, Gillette, D.G. (editor), Vertebrate Fossils of Utah.
- Sumida, S.S., Lombard, E.R., Berman, D.S., and Henrici, A.C. Late Paleozoic amniotes and their near relatives from Utah and northeastern Arizona, with comments on Lower Permian biostratigraphy. *In*, Gillette, D.G. (editor), Vertebrate Fossils of Utah.

**Papers Submitted:**

- Beard, K.C., and Dawson, M.R. Early Wasatchian mammals from the Gulf Coastal Plain of Mississippi: Biostratigraphic and paleobiogeographic implications. *In*, Gunnell, D.G. (editor), Eocene Vertebrates: Unusual Occurrences and Rarely Sampled Habitats, Plenum Press, New York.
- Berman, D.S. Origin and early evolution of the amniote occiput. *Journal of Paleontology*.
- Henrici, A.C. Reassessment of the North American pelobatid anuran *Eopelobates guthriei*. *Annals of Carnegie Museum*. 21 manuscript pages.