

The Redbeds



*The Annual Newsletter of the
Department of Geological Sciences
Rutgers, The State University of NJ*

A color Acrobat file of this document is posted at
<http://www-rci.rutgers.edu/~geolweb/>

Vol. 5: January, 2001

Editor Kenneth G. Miller (kgm@rci.rutgers.edu)

**The Geology Museum Open House, Saturday January 27, 2001 (See back page)
Rutgers Alumni Cocktail Reception, GSA Annual Mtg., Boston, Nov. 5, 2001, 7:30 PM**

Steven K. Fox Student Fund



The Department of Geological Sciences and Rutgers Foundation is pleased to announce the establishment of the **Steven K. Fox Student Fund**. This is an endowed scholarship fund that will support undergraduate research projects and graduate student stipends and tuition. This fund is established in the memory of Steven K. Fox, professor of Geological Sciences at Rutgers from 1948-1981. Dr. Richard K. Olsson will serve as the chair of the fund. The fund has a goal of raising \$150,000 during the next five years. Contributions can be made by sending donations to the Rutgers Foundation, indicating that the contribution is for the **Steven K. Fox Student Fund**.

Many of us have fond memories of Steve and many of us owe our careers in Geology to his inspiration. Who can forget the Friday field trips, Linden Court, and the big "overnight"? I miss him as I annually drive with students up Rt. 29 (with its spectacular Triassic cyclicity) or Rt. 31/46 near the famous Island Park stop. The following memento to Steve summarizes his accomplishments.

Remembrance of Dr. Steven K. Fox, Jr., Read at the Memorial Service at the Princeton University Chapel, Saturday, April 11, 1987, by Dr. Richard K. Olsson

Steven K. Fox was born in New York City on October 30, 1911. He attended the DeWitt Clinton High School where for some reason he was known as Knowlton Fox. Nevertheless, Steve entered Princeton University in 1929 where he majored in geology. In the summer of 1932 he embarked on field studies on the Niobrara Formation of southern Montana for his senior thesis. It was this work that seems to have established his life long

love for the beauty and geology of the Rocky Mountains. From 1934 to 1936 he carried on his doctoral thesis work in Montana and Wyoming. He also collected in Texas. Field work was conducted out of the Princeton Camp at Red Lodge, Montana. In those days he traveled by automobile from Princeton to Red Lodge and then drove about in the field taking samples for his research. In 1939 he collected in the Hell Creek, Fox Hills and Pierre

Shale. It was also in this year that he completed his Ph.D. thesis. In 1940 he worked on the Cannonball Formation in South Dakota. This work led to his first publication in 1942. It was during this period that Steve came to know and love such spectacular geological settings as the Grand Canyon and its Bright Angel Trail, the Phantom Ranch at the bottom of the Grand Canyon, the magnificent Grand Tetons, the Wasatch Mountains, the Beartooth and Big Horn Mountains, Zion and Bryce Canyons, Beartooth Butte and Heart Mountain. Steve took many of his students to visit these sites when he became director of the Princeton Summer Field Course from 1937 to 1941.

World War II interrupted his field work. He joined the Navy in April of 1942 as a Lieutenant J.G. He first served as an Operations Plotting Officer in New York City in a naval program to counteract German submarine attacks on allied shipping. He began combat duty as a communications officer and lieutenant on the USS Cates on North Atlantic Convoy duty. Nine trips were made across the Atlantic. In December of 1944 he began two months training at the Amphibious Forces Training Center. He then left for Pacific duty as Aide and Flag Lieutenant to Rear Admiral John L. Hall, Jr. on a command ship which participated in the invasion of Okinawa. After the surrender of Japan, he participated in the occupation of Japan. He was discharged from the Navy in March of 1946. In all he had spent four years on active service.

He returned to Princeton and resumed the directorship of the Princeton Summer Field Course. During a field trip to the Rockies in 1949 he met Eileen Fitch in Eureka, Utah. They were married in April of 1950. They had two children, Tad and Kathy.

Steve joined Rutgers University in 1948 as an associate professor. After three years at Rutgers, the Korean War broke out. Steve was recalled by the Navy in June of 1951 as a Lieutenant Commander and Aide and Flag Secretary to Rear Admiral William L. Rees who was Commander of the U.S. Navy Group – Joint American Military Mission for aid to Turkey. He served in Ankara, Turkey and was discharged in November 1952 after one and one-half years. This brought his total active duty in the Navy to five and one-half years. Steve continued to serve in the Navy in reserve status until 1962 when he retired as a Commander. During this time he taught Oceanography to naval reservists. After his discharge from naval service he returned to Turkey during the summer of 1953 as a consultant to Caltex.

In 1954 to 1956 Steve engaged in exploration for uranium in New Mexico. This activity led to the discovery of the famous Ambrosia Lake deposits which were developed into the largest uranium deposits in the United States. Exploration centered about Mt. Taylor, an ancient volcanic peak. The Westwater Sandstone, Brushy Basin, and Jackpile were heady names of geologic formations that contained uranium. Grants, New Mexico was the center of activity. Exploration was conducted from a camp site coined Mesa Gigante. The explorers were called the Green Hornets. Many a famous meal with accompanying menu was prepared at the site. It was at this site where uranium was struck in a drill hole, which became named Old Grand Dad.

At Rutgers, Steve turned his attention to the coastal plain where he focused his research on Early Tertiary Foraminifera. Collections of these microscopic fossils grew to enormous proportions during this time. He was

a supervisor of 15 senior honors projects under the Henry Rutgers Scholars program. He was a supervisor on 29 Master's degree theses and 23 Ph.D. theses. In addition, he supervised countless special projects of undergraduate students.

Steve taught Paleontology and Stratigraphy continuously since joining Rutgers in 1948. His method of teaching was to expose students as often as and as much as possible to geology in the field. Fridays were field trip days. It became an accustomed sight in the morning to see Steve and his students boarding the field vans for a day in the field, and at night to see them return all enthusiastic from what they had seen that day. Later in his teaching career at Rutgers he became involved in the field geology course which took place around the Delaware Water Gap. Each year students were exposed to his expertise of the geology of this area. In recognition of his teaching skills, Steve was given in 1978 the Rutgers College award of distinction as a member of the Society of Outstanding Teachers.

Throughout his entire professional life, Steve was a collector of spectacular fossil specimens. Rutgers' collections have grown enormously during his tenure. He collected ammonites from Rocky Mountain formations in Montana, Wyoming, and Colorado; the ancient ostracoderm fossil fish from Beartooth Butte, Montana; trilobites from the Silica Shale of Ohio; bryozoans from the Vincentown Formation, New Jersey; brachiopods from the Horner town Formation of New Jersey; belemnites from the Navesink Formation; sharks teeth from the Calvert Cliffs of Maryland; corals from the Hamilton Formation of Pennsylvania; and the spectacular jellyfish-like Dipleurozoans from the Delaware Water Gap which were discovered during a class field trip.

Steve was famous for his field trips. At Rutgers he developed these trips to a fine art. His trips crossed the coastal plain to see the Cretaceous and Tertiary formations, they went from Princeton Junction to Stockton, New Jersey across the Triassic-Jurassic rift basin, they went across the Precambrian Highlands of New Jersey and the folded Appalachians. These were classic trips. On these trips there was many a famous stop for food and refreshments. On western trips it was the Piney Dell nestled in the Bear Tooth Mountains and the Senate Bar in Red Lodge, Montana. And in the east it was the huge Pennsylvania Dutch dinners served at Linden Court in Sciota, Pennsylvania. There was Hill Billy Hall in the Sourland Mountains and the Rieglesville Inn along the Delaware.

Steve loved to go on field trips. In addition to class related trips he organized extended trips to Ohio to collect trilobites and brachiopods, to Pennsylvania to collect fossil plants, to the famous fossil Calvert Cliffs of Maryland and to Alabama and Florida. He continued participating in departmental class activities after his retirement. His last activity was at the Delaware Water Gap in August of 1986. His knees gave him problems in these last few years but this never deterred him. He just kept on going.

That seems to sum up his contributions. They were many and diverse. He touched students, faculty and staff lives in many ways that will be long remembered. His geologic career spanned 55 years. In every one of these years he left his mark on his students and colleagues. We salute you Steve for a job well done. A job well done Commander Fox.

God bless you Steve.

Peter Wolfe

We learned of the loss of Peter Wolfe this year. The following was contributed by Richard K. Olsson, Professor Emeritus



Peter E. Wolfe, 1911-2000
Professor of Geological Sciences, Rutgers University

Peter E. Wolfe was born on April 27, 1911 in the family home in Hammonton, New Jersey. Hammonton is situated in the heart of rich coastal plain agricultural land and is known nationally for its blueberry production. Peter died there on February 27, 2000. He was raised on the family farm and received his elementary and secondary school education in Hammonton schools. His roots remained at the family farm as he would return there during the academic summer months and lived at the family farm during the last 10 years of his retirement.

It is not surprising then that Peter enrolled in the Rutgers Agricultural School in New Brunswick where he received a Bachelor of Science degree in agriculture in 1933, specializing in soils and geomorphology. After graduation he attended the Graduate School at Princeton University where he studied glacial geology under Paul MacClintock, receiving a Master of Science degree in 1940 and a Ph.D. in 1941.

In 1941 he took a position with the Newfoundland Department of Natural Resource, directing soil survey studies until 1945. The first three bulletins published by the Newfoundland Department were written by Peter on the soils and geology of Newfoundland. For the rest of his professional career he focused on the relationship between soils, landscapes, and geology. The culmination of his career was the publication in 1977 of his classic book "The Geology and Landscapes of New Jersey".

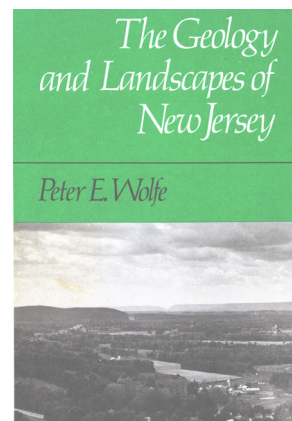
Peter returned to Rutgers in 1946 where he was appointed as a Lecturer in Geology in the Department of Geology and Geography of Rutgers College. The following year he became an Assistant Professor and in 1950 he was promoted to Associate Professor in the recently organized Department of Geology. He was promoted to Professor in 1960. One of his first assignments as a new faculty member was to develop an introductory geology course for students in the

Agricultural School. Twenty years later he reorganized the course to broaden its content for students majoring in other disciplines. The name was changed to Physical Geology and Peter continued to teach this course until his retirement in 1981 after 35 years of service. The course attracted 100's of students each year and was one of the most popular courses taught on the Cook campus. The course remains one of the bread and butter courses of the department. Other courses developed by Peter that remain part of the department's offerings include Geomorphology, Glacial and Periglacial Geology, Field Geology, and Environmental Geology. He also helped develop interdisciplinary courses (Air Photo Interpretation, Geoecology) with Soils, Botany, Engineering, and Geology.

From 1948 to 1968 Peter attended each International Geological Congress, which allowed him to travel around the world. The international congresses brought him to London, Algiers, Mexico City, Copenhagen, Calcutta, and Prague. He took advantage of this opportunity to see classic geology in Central America, South America, Europe, Africa, and Asia. He brought back to Rutgers extensive photographs of the geology of the world and used them in his courses, thereby richly illustrating the fundamentals and concepts of geology for his students.

Peter served as a Fulbright Visiting Professor in 1958 at Osmania University in Hyderabad, India, lecturing on field methods and geomorphology. One of Peter's fond memories of India was his tiger hunt on the back of an elephant. He proudly exhibited his trophy in his office for many years, much to the chagrin of his colleagues. His most spectacular geomorphic photographs were taken in the high Himalaya.

During his career at Rutgers Peter worked on peri-glacial and glacial features in New Jersey and the geomorphology of the Rocky Mountains. His field trips to New England to study Wisconsin glacial features were regarded by students as classic trips. His greatest contribution to his life-long love of geomorphology was the publication of the "Geology and Landscapes of New Jersey". It serves as a lasting memory of the achievements of Professor Peter E. Wolfe at Rutgers University.



Northeast GSA Comes to New Brunswick

Contributed by Robert Sheridan, Professor of Geological Sciences

The Northeastern Section of the Geological Society of America (NEGSA) held its annual meeting at the Hyatt Regency Hotel in New Brunswick on March 12-15, 2000. The Department of Geological Sciences was the lead host for the meeting, joined by geologists from the New Jersey Geological Survey, Stockton State College, and Rider University. There were 763 attendees registered. Bob Sheridan was general chair of the organizing committee.

The scientific theme of the meeting was geology related to societal problems in a global context. Ken Miller was the general technical program chair. Some 361 papers and posters were presented and their abstracts were published by the Geological Society of America in the abstracts with

program booklet for the meeting. Key sessions were presented on radionuclides (including radon) in geological systems, on Appalachian stratigraphy, and on the evidence in the Atlantic Coastal Plain and continental shelf for changes in global sea level. Two field trips and two short courses were also run as part of the meeting. Another highlight of the meeting was the annual NEGSA banquet. Dick Olsson was given the honor of being the banquet speaker. His was a thought-provoking, stimulating presentation about the bolide impact and extinctions at the K/T boundary. This is one of geology's most recent and interesting mystery thrillers and is of broad interest to the public.

Department News

From our new color graduate student brochure available at

<http://www-rci.rutgers.edu/~geolweb/brochure.pdf>

“The Department of Geological Sciences at Rutgers University has recently added world-class faculty and laboratories. Since 1998, we have added new faculty in stratigraphy (Aubry, Berggren, Kent, and Wright), Quaternary Studies (Feibel, Goman, and Swisher), structure and geophysics (Withjack) and global biogeochemistry (Falkowski, and Rosenthal). New labs include Kent’s multisensor track core-logger, rock magnetic and shielded room-based paleomagnetic lab, Wright’s stable isotope lab with gas mass spectrometer, Schlische and Withjack’s computer based seismic interpretation lab and Falkowski’s plankton culturing/geochemistry lab. In addition, we have greatly expanded our core facility (25,000 ft of Newark Basin Coring Project core, >17,000 ft of Army Corps of Engineers Jurassic core, and 9,000 ft of NJ Coastal Plain cores). Our department enjoys close ties with

the Institute of Marine and Coastal Sciences (IMCS), a world-class Anthropology department (including joint faculty member Craig Feibel), and one of the top Geography Departments in the country (including joint faculty member Michelle Goman). Rutgers became the 11th member of Joint Oceanographic Institutions in 1999 and is a voting member of the JOIDES Executive Committee.”

Our graduate program has remained stable during 1999-2000 at 27 (14 full time and 13 part time). Applications were up in 2000, bucking a national trend of dramatic decline, and quality was improved (with a mean GPAs of 3.3 and mean GRE’s of 516 Verbal and 668 Math). Our undergraduate program has been stable at 30-35 majors for the past 10+ years, though hints of a decline as experienced elsewhere have us concerned. We are exploring innovative ways to attract bright students to Geology.

Current Graduate Students

F = Full time; P = part time

Mark Baum, F, M.S., Structure
Louise Bolge, F, Ph.D., Petrology
Joseph Bosenberg, P., Ph.D., Meteoritics
David Cassenti, P., Ph.D. Paleontology
Bosmat Cohen, F, Ph.D. Meteoritics
Claire Condie, P, M.S., Volcanology
Benjamin Cramer, F, Ph.D., Stratigraphy
Daniel Deocampo, F, Ph.D. Quaternary Studies
Jennifer Elder Brady F, M.S. Structure
George E. Fox, P., Ph.D., Meteoritics
Paul Hanczaryk, P, M.S., Stratigraphy
John Hernandez, F, M.S., Stratigraphy
Lois Johnson, P, Ph.D, Petrology
Scott Juliano, P, M.S., Geochemistry

Miriam Katz, F, Ph.D, Micropaleontology
Alicia Kahn, F, M.S., Sed./Paleocean
Fara Lindsay, F, M.S., Geochemistry
Cynthia Liutkus, F, M.S., Sedimentology
Samantha Manburg, F, M.S., Structure
Lindsay McHenry, F, Ph.D., Quaternary Studies
Godwin Mollé, F, M.S., Quaternary Studies
Donald Monteverde, P, Ph.D., Stratigraphy
Timothy Reilly, P, M.S., Stratigraphy
Theresa Romagna, P, M.S., Geochemistry
ShayMaria Silvestri, P, Ph.D., Stratigraphy
Ethan Skinner, P, M.S., Paleo/Strat.
Scott Stanford, P, Ph.D., Quaternary Studies
Jane Uptegrove, P, M.S., Stratigraphy

Comings and Goings

Our own Michael Carr was appointed Dean of Math and Physical Sciences after Dean Richard Foley, Executive Dean of FAS, left Rutgers, resulting in Dean dominos. Richard Falk, formerly chair of Mathematics, was appointed Interim Dean. Ken Miller was elected to a 3-year term as Department Chair and Director of the Graduate Program to replace Mike and Mark Feigenson was elected to Vice Chair. In 2000, Ph.D.'s were earned by Amy Clifton (now a NSF post-doc in Iceland), Susan Maharaj (now at

USGS Reston), and Tim Maguire (continuing at the NJGS), while M.S. degrees were earned by Lousie Bolge (now in our Ph.D. Program), Cindy Liutkus (now in our Ph.D. Program), Keith Metzger (now at Geological Services Corp., Hamilton, NJ), and Nadine Lurie (now at McGraw Hill, Columbus, OH). We welcomed the arrival of new faculty Carl Swisher, Marie-Pierre Aubry, and Bill Berggren to campus and Yair Rosenthal to our department.

Dr. **Yair Rosenthal** joined our faculty in September 2000. Yair received his B.Sc., and M.Sc. from Hebrew University and his Ph.D. from the Massachusetts Institute of Technology/Woods Hole Oceanographic Institution Joint Program in Oceanography. He is an isotope geochemist and paleoceanographer with research interests in trace metal biochemistry, the global carbon cycle, and siliceous sedimentation. He was a post-doctoral investigator at the Weizmann Institute of Science, Israel and Biosphere-2 Center of Columbia University before joining the Institute of Marine and Coastal Sciences as Assistant Research Professor in 1997. He is now a tenure-track Assistant Professor with a joint position in our department and IMCS.



Dr. **Carl O. Swisher III** joined our faculty in January 2001 as a tenured Associate Professor. Carl is a world expert in geochronology and dating of vertebrate (particularly homonid) remains. He received a B.A from University of Montana, a M.S. from the University of Nebraska, and a Ph.D. from the University of California, Berkeley. Carl will establish a laser Ar-Ar mass spectrometry facility in Wright Labs, will interface with our stratigraphy group, Quaternary Sciences Program, and the Anthropology Department. We attracted Carl from the Berkeley Geochron Center to Rutgers. We welcome Carl to our department.

Dr. **Marie-Pierre Aubry** joined our faculty in January 2001 as a Research Professor. Marie is a world expert in biostratigraphy, calcareous nanno-plankton evolution, and the relationship of the stratigraphic record to geological time. She received her Doctorat es Sciences (DSc.) from the Université Pierre et Marie Curie, Paris. She has been an international leader of the Chair of UNESCO/IUGS IGCP Project 308 on the Paleocene/Eocene boundary stratotype and author of the 9-volume *Handbook of Cenozoic Calcareous Nannofossils*. Marie will establish a laboratory here for the study of Cenozoic nannofossils. Marie comes to us from the Université Montpellier. She and her husband Bill Berggren will split their time between Woods Hole and Rutgers.



William A. (Bill) Berggren joined our department as a Distinguished Visiting Professor. Bill is a Member of the National Academy of Sciences and a world expert on taxonomy, biostratigraphy, paleobiogeography of Mesozoic and Cenozoic planktonic and benthic foraminifera, global marine-continental stratigraphic correlations and time scales. He received his D.Sc., from the University of Stockholm. He and Marie-Pierre Aubry will maintain offices in Wright Labs and microscope labs in the Geological Sciences Lab Building. Bill is a Senior Scientist Emeritus at the Woods Hole Oceanographic Institution where he has worked since 1962. We welcome Bill and Marie to Rutgers.



External Funding

The rapid growth of our department in both quantity and quality is exemplified by large increases in extramural funding. We currently raise approximately \$1,300,000 per year that is used to support post-docs, graduate students, and our “wonderful toys” (mass specs, cryogenic magnetometers, etc.).

Paul Falkowski led a team of 33 scientists (including Ken Miller, Jim Wright, Dennis Kent, Rob Sherrell and Yair Rosenthal from Geology) in successfully competing for a NSF Biocomplexity Proposal *The Evolution and Radiation of Eucaryotic Phytoplankton Taxa (EREuPT)*. Paul’s team was awarded \$4,000,000 for the next 5 years. He was also awarded a NSF grant for \$358,000 for 3 years to study the Southern Ocean.

Jeremy S. Delaney was awarded 1/3 share of upgrade to Rutgers University Microanalysis (RUM) Facility in Geosciences by NASA (Major Equipment) and 1/3 share by the NSF/EAR Instruments and Equipment Division. RU contributed the final 1/3 for a total of \$138,000. He was also awarded a grant from NASA Oxidation State Measurements of Solar System Materials for \$40,000 for two years.

Craig S. Feibel was awarded a new grant by the INQUA Commission on Human Evolution and Paleoecology *Interbasinal Correlation of Sedimentary Sequences in Africa* for \$1,000.

Michelle Goman (Assistant Research Professor) received a NSF POWRE grant for *Palynological Investigations at Olduvai Gorge, Tanzania* for \$75,000. This research will focus on analyzing the pollen from Bed I and Bed II of the gorge. She also received a grant to study late Pleistocene-Holocene Climate Changes at Fort Bragg, North Carolina, from the U.S. Army Construction Engineering Research Laboratory (USACERL) for \$30,000.

Roger H. Hewins was awarded two grants from NASA, *Transient heating in the solar accretion* \$45,000/year

for 3 years and *Simulation and analysis of meteoritic material*, \$120,000/ year for 3 years.

Dennis V. Kent was awarded a NSF grant (w/ Paul Olsen, LDEO) *Testing the J1 Cusp and Supposed Association with Normal Polarity Massive Flood Basalts in the Hartford Basin*. \$105,365.

Kenneth G. Miller was awarded a NSF grant *The Effects of Variations in Global Sea-level, Tectonic Subsidence, and Sediment Supply on Sequence Architecture*, \$280,768

Robert M. Sherrell was awarded a NSF grant *Fluorescence-based diagnostic of iron limitation for analysis of natural phytoplankton communities*, \$296,553 for two years.

Martha O. Withjack and **Roy Schlische** were awarded a grant by the American Chemical Society, Petroleum Research Fund, *Geometry and Development of Oblique Inversion Structures: An Experimental Approach*, \$54,734 for two years. They also received a grant of \$19,941 from Vice President Seneca to buy high end PCs that will run commercial seismic software. Seismic software (3 licenses of Kingdom Suite) worth \$108,000 was kindly donated to the department by Seismic Micro-Technology.

James D. Wright was awarded a NSF grant (along with K. Miller, Rutgers and G.S. Mountain, LDEO) *The Architecture and Paleooceanography of N Atlantic Drifts: Seismic Profiling, Swath Mapping, and Coring*, \$141,530 for two years.

New Van and Explorer

Our replacement for our 1986 Ford van (“The Fox”) arrived and the 2001 shiny red Ford van was quickly dubbed “The Fox II” in memory of Steve. Our aging Explorer (1991 with over 100,000 miles) is nearing the end of its practical life. By leveraging gift dollars provided by you against the generous contributions of the FAS Dean’s Office, Roy Schlische’s NSF grant, and my NSF grant, we were able to get a “two-fer” and added a brand-spanking new Explorer.

Kudos

Gail Ashley was named a NSF Earth Day Distinguished Lecturer and an Association of Women Geoscientists Distinguished Lecturer. She is also serving on the NSF Geoscience Directorate Advisory Committee.

George McGhee was the keynote, lead-off speaker at a conference at the Santa Fe Institute on "Computational Approaches to Theoretical Morphology" (16 Nov - 21 Nov, 2000; Santa Fe, New Mexico). The Santa Fe Institute called the conference in direct response to the publication last

year of George's latest book, *Theoretical Morphology*

Kenneth Miller was promoted to Professor II.

Peter Rona was awarded the Hans Petterson Bronze Medal of the Royal Swedish Academy of Sciences.

Robert M. Sherrell was promoted to Associate Professor with tenure.

Martha E. O. Withjack received AAPG's George C. Matson Award for best presentation at the 1999 National Convention and was elected 2nd Vice Chair of GSA's Structure and Tectonics Division.

Students

The Vinton Gwinn Memorial Prize was awarded this year to **John Hernandez** and **Samantha Manburg**. The prize was established by the Class of 1956 in the memory of Vinton Gwinn, a Rutgers graduate and geologist who lost his life in a trench collapse in Louisiana. John received Honors in May when he was graduated from Rutgers College, based on his independent studies in stratigraphy. Sam was recognized with the Vinton Gwinn Award for her outstanding leadership, particularly as President of the Geology Club. Both Sam and John have continued their studies as graduate students in our department.

Mark Baum received \$800 grant from AAPG and \$800 from Sigma Xi to study inversion structures in the Fundy basin.

John Hernandez was awarded the 2000 Angelo Tagliacozzo Memorial Scholarship by The American Institute of Professional Geologists (AIPG).

Dave Cassenti won the Delaware Valley Paleontology Society's Paul Bond Scholarship and was awarded a K-12 Teaching Fellowship by Rutgers University

Dan Deocampo was awarded a University/Bevier Fellowship from Rutgers, a research grant from the Explorers' Club Exploration Fund, and the Roy J. Shlemon Meeting Award from the Engineering Geology Division of the Geological Society of America. Dan will be taking a post-doc position in the Department of Mineral Sciences at the National Museum of Natural History, Smithsonian Institution in January 2001.

Miriam E. Katz won the American Geophysical Union Outstanding Student Paper Award for the 1999 Fall Meeting

Fara Lindsay was awarded the Analytical Chemistry Award from the Chemistry Department of Rutgers, The State University of New Jersey for excellence in Instrumental Analysis.

Alumni

Please contact us and let us know about your activities. kgm@rci.rutgers.edu

Please contact us if you prefer to receive next year's Redbeds via e-mail as a pdf file

Mary Bowers Bean (DC82) is employed by the Fernwood Museum of Natural History in Atlantic and was highlighted in the Atlantic Journal-Constitution. She leads summer camps and is hoping to "turn kids on to science." Bravo, Mary!

From **Wallace G. Dow** "I graduated from Rutgers New Brunswick in 1959 with a BA in Geology. Following graduation I spent 3 years in the US Army fulfilling an ROTC obligation and then I was graduated from The University of North Dakota in 1964 with a BS in Geology. My career since 1970 has been primarily in organic geochemistry and I have about 60 publications in this field, including several seminal contributions. At present I am vice president of Baseline DGSI, a geochemical consulting laboratory in The Woodlands, Texas. In October of 2000, I was awarded the Arthur Gray Leonard Award by the University of North Dakota for "outstanding achievement in the geosciences".

They stated that "In conferring this award on you, we recognize your international reputation and your extensive contributions to the geochemistry and geology of petroleum". The award has been given annually since 1992 to someone previously associated with the Geosciences Department at the University of North Dakota."

From **Jack English** "I have been with Texaco ever since leaving Rutgers 22 years ago. It has been a good career and I am still doing interesting geology. I have been working international projects for 12 years and have seen much of the world in the process. I keep in touch with Al Kulpecz and have visited him in London about once a year, as business takes me through there. If you need contact information for him let me know. I also saw Tony Charlotta once here in Houston last year. The family is well. Barbara still does mostly oil painting, but has also sold quilts and glass mosaics

recently. The kids are both in high school. We still have some family in New Jersey so we visit at least once a year.”

Robert J. Kamilli is the Scientist-in-Charge of the Southwest Field Office of the U.S. Geological Survey, Geologic Division

From **Nadine Lurie** I work in Columbus, OH for the McGraw-Hill Companies on the editorial team for the high school Earth science project. I was just promoted (after only 6>months)! I am enjoying what I am doing. It is very different to be on the other side of the coin, however. To go from teaching to preparing the teacher's materials is very interesting.

From **Richard Schofield**, Ph.D. 1982. “I am still at McMurry University in Abilene and still teaching geology. I teach Physical and Historical Geology and a course called Resources and Environment which relates geology to practical problems in our society. The teaching experience has been rewarding and enjoyable in many ways. I've also

found some great spots for field trips over the years. One that I especially like is the Tertiary-age Trans Pecos Volcanic Field in west Texas. I've recently gotten into making power point presentations of our field trips and putting them on our program website. On a family note Jane and I have two children and they are teenagers now.”

Richard Turrin reported working on the trading floor of an investment bank designing new products with a team of other "rocket scientists." He left when the bank was merged, but sailed to Europe with a schooner following the tall ship celebration in NY on 4 July! “Rumor has it I have to get a job again, but for now a little sabbatical is just fine.”

Jaime Whitlock reported back from Happy Valley; she attended the GSA annual Meeting and gave a talk in the session on the Mendocino triple junction. We regret to note that **Philip Rodman Woodside** passed away August 15, 1998, succumbing to multiple sclerosis after a long illness.

Drilling Update

The New Jersey Coastal Plain Drilling Project (Ocean Drilling Program Leg 174AX) departed New Jersey for parts south. Not too far south, for Ken Miller and his team continued drilling in May-June 2000 with a 1470 ft borehole at Bethany Beach, DE in collaboration with the Delaware Geological Survey and the U.S. Geological Survey. The Bethany Beach borehole was the seventh drilled by the newly dubbed “Coastal Plain Drilling Project” and targeted Oligocene-Miocene sequences. The Bethany Beach borehole offers the potential to address several objectives within the overall themes of sea level, tectonics, and sediment supply that cannot be addressed by previous onshore boreholes drilled in New Jersey. Dr. Peter McLaughlin (Delaware Geological Survey) and Miller were co-chief scientists on the project that included broad participation by Rutgers, DGS, NJGS, and USGS employees and students. We completed analyses of the Oceanview borehole drilled in 1999 that will be published by ODP. Six presentations were made on drilling results (Browning, McLaughlin, Miller, Monteverde, Olsson, and Sugrman) at the annual GSA meeting in

Reno, NV. The NJGS has funded two more boreholes to be drilled in the Fall of 2001 at Fort Mott (600-800 ft targeting the Potomac Group) and Cedarville, NJ (1500 ft targeting Cenomanian/Turonian strata).

Bethany Beach Drillsite, June 2000



Quaternary Studies Update

Contributed by Gail Ashley, Director of Quaternary Sciences Program



Quaternary Studies is a graduate Certificate program that offers students the opportunity to conduct interdisciplinary research in the fields of anthropology, geology, geography, biology, and environmental science. Two courses are offered annually and a lecture series brings in speakers on a wide variety of topics. Celebrating the 10th anniversary this year, the faculty has grown to 17 (latest additions are Susan Anton in Anthropology and Carl Swisher, Geology). Fifteen students have received certificates and another 15 are current enrolled. Quaternary Studies Program.

Photo: Hippo pool, Ngorongoro Crater, Tanzania

Olduvai Gorge Research

Located within the East African Rift in Tanzania, Olduvai Gorge was made famous by anthropologists Louis and Mary Leakey. Based on its spectacular hominid fossils, together with its archetypal magnetostratigraphy, Olduvai has been dubbed "cradle of humankind." Field studies by Rutgers geologists began at Olduvai in 1994 as a collaborative effort among Gail Ashley, her students, Rutgers anthropologist Robert Blumenshine, his students, and Tanzanian scientists. The objectives are to reconstruct the paleolandscape across the 30 km wide basin during a narrow window of time (50,000 yr) in the early Pleistocene (~1.75 Ma). The interdisciplinary research involved mapping and correlating specific beds within the volcanoclastic succession, interpreting the climate and depositional environment and providing the paleoenvironmental context within which the archaeologists and paleoanthropologists could place their findings of artifacts and fossils. Students and faculty from Geology have made annual treks to Olduvai. Geological student research has focused on the lower Pleistocene deposits and their modern analogs: Dan Deocampo (Ph.D.) "Geochemistry and sedimentology of lake margin wetlands"; Cindy Liutkus (M.S.) "Sedimentology of freshwater wetlands"; Godwin Mollé (M.S.) "Petrology and mineral geochemistry of Ngorongoro Volcanics"; and Lindsay McHenry (Ph.D.) "Geochemical fingerprinting of tuffs."



Photo on right: Olduvai Gorge, lower Pleistocene, freshwater wetland deposits.

The Future

Our department will be evaluated by an outside committee in Spring 2001. We are strategically planning to improve our ties with the Institute of Marine and Coastal Science (with whom we share 4 faculty members, Falkowski, Rona, Sherrell, and Rosenthal) by establishing a Division of Earth and Oceans, with a Dean-level Director. This Division, equivalent to a "School" in many universities, would immediately become one of the top 10-15 Schools of its kind in the U.S., with in excess of \$10,000,000 in annual extramural funding. To accomplish our goals of closer integration with IMCS, we are seeking a joint building adjacent to the current IMCS Building on Cook. Fred Grassle (IMCS Director) holds the footprint for a building and is collaborating in planning a joint facility. However, to get the building off the ground, we need to find a source for "seed money" for the building. There is a naming opportunity available for a bargain price of \$4,000,000; for this amount, you can ensure that the "YOURNAMEHERE Earth and Ocean Building" will be built at Cook adjacent to the IMCS.

How to help us

The Geology Development Fund is the mechanism for directing alumni contributions to the department. To help the Department, please specify the Geology Development Fund on your contribution. Each month, we get a list of alumni supporters and respond with a thank you (usually). Your generous donations have allowed us to provide summer field camp awards and field expenses for graduate students to conduct their research. Your gifts also have allowed us to leverage University funds to purchase field vehicles for the department.

As noted at the beginning of this newsletter, we are also actively seeking contributions to the **Steven K. Fox Student Fund**. To direct contributions to this fund, specify Geology Department Steven K. Fox Student Fund on your contribution.

Geology Museum Open House
Saturday 27 January, 2001

PRESENTATIONS
Scott Hall Room 123

10:00 AM

Israeli Site Dates Human Migration Out of Africa

Dr. Craig S. Feibel
Department of Anthropology and
Department of Geological Sciences
Rutgers, The State University of NJ

2:00 PM

What's the Weather Under Water?

Dr. J. Fred Grassle
Institute of Marine and Coastal Sciences
Rutgers, The State University of NJ

11:00 AM

Salvaging the *Monitor*

Dr. Robert E. Sheridan
Department of Geological Sciences
Rutgers, The State University of NJ

3:00 PM

Binary Black Holes

Dr. David Merritt
Department of Physics and Astronomy
Rutgers, The State University of NJ

Throughout the Day
Mineral Sale
135 Scott Hall

Rock and Mineral Identification
202 Geology Hall

For information call:
William Selden, Collections Manager at (732 932) 7243
rwselden@rci.rutgers.edu

ALL EVENTS FREE
PLEASE POST