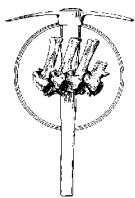


SOCIETY OF
VERTEBRATE
PALEONTOLOGY
NEWS BULLETIN

Number 157 February 1993



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OFFICIAL BUSINESS

SVP NEWS BULLETIN EDITORIAL POLICY

The objective of the SVP News Bulletin is to disseminate information of interest to the membership of the Society of Vertebrate Paleontology on a regular basis. To facilitate this, nine regional coordinating editors solicit information from the membership in their respective regions. They review this material (for accuracy, content, and length), compile it, and send it to the current editor and managing editor of the News Bulletin. These central editors review the contributions again and compile them into one of the three News Bulletins that appear during the year. The News From Members section is reserved for information regarding the activities of the membership. The Bulletin Board section is maintained for the announcement of positions, products, or services of interest to the membership. Submissions with inaccuracies, objectionable or inappropriate content, of excessive length, or that conflict with the stated objectives of the Society may be edited. The regional editors are primarily responsible for determining the appropriateness of the submissions and may suggest editorial changes to the managing editor.

MINUTES OF THE 52ND ANNUAL MEETING, TORONTO, ONTARIO, CANADA, OCTOBER 30, 1992

The business meeting of the Society was convened at 3:30 P.M. at the Royal York Hotel by President Churcher; 324 members in attendance.

Minutes of the previous year's business meeting held in San Diego, California, were approved.

The Treasurer presented his annual report on the financial status of the Society. This report appears in the News Bulletin following these minutes. In addition, the Lincoln accounting firm of Dale Gruntorad & Co. completed the first full audit of the Society's books, including the operating and endowment accounts. The final results of this formal audit appear following the Treasurer's report.

Reports from the Affiliated Societies Liaison and the Data Management Committee were presented by John Flynn. If copies of the Data Management Committee report would be useful, John Flynn or Sam McLeod can be contacted.

Rufus Churcher next read the following report from Holmes Semken, the Society's representative to the American Geological Institute:

AGI is continuing its primary goal of public education. This now has an expanded political twist as AGI implemented its Advocacy Program and now has a government liaison advocate to advise and assist member societies with programs where inside

expertise on the workings of government is needed. I am pleased to report that AGI continues in the black via both cost-cutting and improved revenue ventures. AGI can also report success with the Geologic Mapping Initiative. This will provide federal matching funds to state geological surveys to produce geologic maps. Your representative has been elected Secretary of the AGI Executive Committee. It may be possible for me to serve both roles but a new AGI representative from SVP would be most appropriate. The Member Society Council meets with GSA in the autumn and AAPG in the spring.

Information on funding by the National Science Foundation was provided by Kris Krishtalka (202-347-7475, at NSF until August 1993). He discussed six major funding areas, including systematic biology which received \$825K in awards (392 proposals, 7580 awards) and geology-paleontology which received \$400K. He encouraged comments to be sent to the National Science Foundation Board on the future of science and funding. Changes in NSF guidelines for proposals as of October 1, 1992, were noted: all proposals should observe a 15-page limit for project description; results from prior support can occupy five pages; biographical sketches include two pages per investigator (only ten citations per person); a project summary is not included in the 15-page limit; 20 copies of the proposal are still to be submitted as in the past.

The annual auction was eminently successful, raising \$7,405 for the Society endowment. Our special appreciation to Dan Chaney and Brent Breithaupt for their leadership in this great effort.

Laurie Bryant, BLM paleontologist for Wyoming, told the members that BLM is currently reviewing their policies on paleontology and at present are in the early stage of the process. This will have an impact on permits and collecting procedures. BLM can often provide material assistance to paleontologists.

The status of the Bibliography of Fossil Vertebrates was brought up to date by President-Elect Bill Clemens, who reported the current volume is in production. Considerable progress has been achieved on the bibliographic database for the 1988 volume. Bill detailed the process used to produce the IBM and Macintosh disks of the 1988 BFV with the services of the I-Mode Corporation. Disks were sold at the Toronto meeting for \$20 apiece; purchasers of these disks will be contacted to learn how well they meet the needs of members. The Society's current goal is to place the BFV from 1973 to present on these disks.

Daryl Domning then introduced the following resolution of appreciation to Dr. Herbert Axelrod which was unanimously adopted by the membership:

Be it resolved that the Society of Vertebrate Paleontology expresses its sincere gratitude to Dr. Herbert R. Axelrod for his longstanding and continued generous support of the Society through the printing and binding of the Bibliography of Fossil Vertebrates.

Rufus Churcher next read the report of the Development Committee prepared by David Whistler, Chair:

As all of you are probably aware, the Executive Committee has charged the Development Committee with the goal of increasing the SVP Endowment to one million dollars. We thank all of you who have continued to support your Society through this effort. As reported by Secretary/Treasurer Bob Hunt, the membership of SVP continues to be the mainstay in the endowment campaign.

In addition, the Endowment Committee has been seeking support from various other sources, albeit without success in this period of national and international economic stress. Specifically, Lou Jacobs has continued spearheading efforts to increase the "scholarship" monies within the endowment, Virginia Naples and Ralph Eshelman have been looking at independent foundations for possible matching support. Mark Goodwin has been exploring possible corporate support, particularly with regard to the computerized database of the Bibliography Project.

The committee is open to any suggestions the membership can offer to assist us in these efforts.

Rachel Benton, paleontologist at Fossil Butte National Monument, Kemmerer, Wyoming, reported on the highly successful conferences hosted by the National Park Service on fossil resources, particularly vertebrates, in the national parks and on federal lands in 1986, 1988, and the most recent at Kemmerer in 1992. Recommendations to the Director of the National Park Service on fossils resources were produced as a result of this conference. Representatives of the Society, the National Park Service, Forest Service, and BLM were in attendance at the 1992 meeting, ably organized and hosted by Rachel Benton and her colleagues. The next conference is planned for 1994 at Florissant National Monument, Colorado.

The report of the Ethics Committee presented by President Churcher noted that three drafts of an ethics statement are under review by the Executive Committee. The Ethics Committee recommends that the Society should seriously consider adopting a code of ethics due to the size and complexity of the current organization, and that an ethics statement should be placed as Article 9 of the By-Laws.

The work of the Investment Advisory Committee was duly acknowledged by the Treasurer, who relies on the advice of this committee in key investment decisions. The members responded with prolonged applause in appreciation of the work of the current committee chair, Wann Langston, and members Howard Hutchison and Farish Jenkins.

The report of the Financial Review Committee was provided by chair Mike Nelson:

In October 1991 the Society was in the midst of reconciling financial records. The Financial Review Committee reviewed documents in October 1991 and again in May 1992. On June 1, 1992, the committee accepted the report of Dale E. Gruntorad and Company, an independent accounting firm in Lincoln, Nebraska. The financial review was substantially less in scope than an audit and generally consisted of inquiries of Society personnel (Treasurer and Business Manager) and analytical/accounting

procedures applied to financial data. At the October 28 meeting of the Executive Committee, the committee authorized a full audit of the Society's accounts for the fiscal year, October 1, 1991, through September 30, 1992, and Gruntorad and Company will begin work on this audit in November 1992. The Financial Review Committee will review the audit and the results, and will report to the membership in the February 1993 News Bulletin.

Exclusive of the audit procedures of the Society, the Financial Review Committee suggested to the Business Office the establishment of a firm repayment date on those occasions when the Society advances monies to the host institution to fund the early expenses for the Annual Meeting. The Treasurer concurs in this request and has implemented this procedure.

Bob Emry reporting for the Journal of Vertebrate Paleontology noted the increasing number of manuscripts received by the Journal editors. The time between submission of an article and its publication is slightly less than one year at present. Bob expressed appreciation to the Associate Editors and reviewers for their important effort in producing the Journal.

The Honorary Membership Committee proposed three members for this designation: Dr. Rosendo Pascual, La Plata, Argentina; Dr. Ted Downs, Los Angeles, California; and Dr. Herbert Axelrod, Neptune, New Jersey. President Churcher noted the achievements and contributions of these individuals and they were unanimously elected by the membership. The citations for honorary membership are presented herewith:

Theodore Downs of the Los Angeles County Museum has been a member of the Society of Vertebrate Paleontology since 1948. Following his graduate studies at the University of California, Berkeley, which greatly advanced our knowledge of Miocene mammals, especially the Mascal Fauna, he continued to concentrate on Cenozoic mammals in the western United States and Mexico. His papers on merychippine horses, and most recently on the extensive faunas from the Salton Sea Basin in southern California, stand as landmark contributions.

During his long service as Chairman of Earth Sciences at the Los Angeles County Museum, Dr. Downs oversaw the integration of the Cal Tech fossil vertebrate collections, greatly expanded the facilities at Exposition Park, and orchestrated the addition of the magnificent Page Museum at Hancock Park. Born in 1919, Dr. Downs served the Society of Vertebrate Paleontology as Secretary-Treasurer in 1970 and 1971, as Vice President in 1972, and as President in 1973.

Rosendo Pascual is Professor of Vertebrate Paleontology in the Department of Natural Sciences at the Universidad Nacional de La Plata, Argentina, and also Director of the Museo de Historia Natural de La Plata. He is widely recognized for the extraordinary range of fundamental papers and elegant syntheses spanning the entire Cretaceous and Cenozoic record of mammals from South America, as well as their various biogeographic affiliations with Australia and North America. He and his students and colleagues

continue to field brilliantly successful expeditions in Patagonia despite a difficult economic climate. Dr. Pascual was born in the wine-producing district of Mendoza Province. His list of prestigious awards received is too long to recite. Professor Pascual has belonged to the Society since 1964 and served on the SVP Committee that awarded the first Romer/Simpson Medal. These many accomplishments richly justify electing Rosendo Pascual as this Society's first honorary member from South America.

Herbert R. Axelrod is recognized by the Society of Vertebrate Paleontology both for his expertise as ichthyologist/paleoichthyologist and for his extraordinary contributions as entrepreneur/philanthropist. He received his Ph.D. in Zoology at New York University, where he studied with Charles Breder and the late Donn Rosen (at the American Museum of Natural History). During his graduate years he wrote a series of extraordinarily successful books on tropical fish, which he soon began to publish himself. Thanks to Dr. Axelrod's generosity his publishing company has also printed the Bibliography of Fossil Vertebrates beginning with the 1986 volume. He has also donated fossil fish collections, fossil collecting areas in Brazil, and provided other support to the University of Guelph in Ontario, the University of Ceara in Brazil, and the American Museum of Natural History in New York. Dr. Axelrod is a member of numerous scientific societies, including SVP since 1988, and received the Smithsonian Silver Medal and the James Smithsonian Founder's Medal from the Smithsonian Institution. The Society is also pleased to honor him for his many scientific and philanthropic accomplishments.

Kathy Scott offered important changes in the procedure for the awarding of the Romer Prize in her capacity as committee chair:

(1) Students will now be permitted more than one attempt at the prize (on average, two times); (2) a student will submit a 13 page paper to enter the competition; (3) priority in acceptance in the competition will be given to M.S. and Ph.D. students in their final year; (4) about 1213 papers are anticipated as present in the competition; (5) the committee will provide feedback on the talks to the student participants.

The winner of this year's Romer Prize was Michele E. Morgan, Department of Anthropology, Harvard University, for her paper titled "Stable Carbon Isotope Analysis of Tooth Enamel Apatite of Miocene Herbivores from Northern Pakistan." The award was presented at the annual banquet at the Royal York Hotel. Honorable mention was given to Willem J. Hillenius, Department of Zoology, Oregon State University, for his paper titled "Late Permian Origins of Mammalian Endothermy."

The Romer-Simpson Medal, the Society's highest award, was presented to Dr. Loris S. Russell of Toronto for his long and distinguished career in vertebrate paleontology. A separate article on Dr. Russell appears elsewhere in the News Bulletin.

The SVP Conformable Mitigation Committee (previously the Impact Committee) report was presented by Robert E. Reynolds, chair:

We have received comments and opinions on the draft guidelines published in May 1991. I have developed a review subcommittee to look at the comments and determine if substantive changes should be made. This review subcommittee consists of individuals from western states who are:

associated with museum repositories recognized by individual states, or

associated with museums or universities that might relate research questions to construction excavation impacts

associated with agencies that may review paleontology salvage mitigation programs, or consultants

We hope to provide a final version of the guidelines to be published in the SVP News Bulletin early next year.

As a final note, as chair I provided support during the year for the Baucus Bill (S3107) at Chicago and Rapid City. The Baucus Bill reaffirms the concept that vertebrate fossils are nonrenewable resources and that they are extremely important to the scientific record and should be preserved in the public trust. The entire Society must concentrate on educating the public and their representatives on the importance of preserving this resource from the destructive process of commercialization. This concept is clearly relevant to the process of mitigation with which my committee is dealing.

Mike Woodburne, chair of the Government Liaison Committee, reported on the active year experienced by GLC members:

During the past year, the Bureau of Land Management has hired a paleontologist in three of four critical western states. These individuals are: Laurie J. Bryant (Wyoming), Lee A. Spencer (Utah), and Mike O'Neill (New Mexico). The position in Colorado is not yet filled, but may be by the beginning of the new year. Our understanding is that, in addition to managing paleontological resources on federal lands in those states, these individuals also will be charged with helping the Bureau to formulate policies and regulations for these management purposes. The GLC looks forward to working with the BLM in this process.

A number of events transpired this year that drew attention from the GLC. These include the confiscation by federal authorities of the *Tyrannosaurus rex* specimen from the Black Hills Institute of Geological Research (the specimen is now housed at the South Dakota School of Mines, and the case still is within both the criminal and civil judicial process); the Fifth North American Paleontological Convention, where Vincent Santucci hosted a discussion of "Paleontology on Public Lands"; the Northern Plains Governors' Conference, held at Rapid City; the Third National Park Service Conference on Fossil Resources on Federal Lands, held at Fossil Butte National Monument; the introduction by Senator Max Baucus (Montana) of the "Vertebrate Paleontological Resources

Protection Act." Members of the GLC attended these conventions and conferences and report that useful and valuable discussions took place. Terri Liestman (U. S. Forest Service, Rocky Mountain Region) and Jim Martin deserve our recognition and thanks for all the work they expended in putting together the Northern Plains Governors' Conference.

The GLC also is very impressed with the actions and policies of the National Park Service in supporting the fine work being accomplished by Dan Chure (Dinosaur National Monument), Vincent Santucci (Petrified Forest National Monument), Ted Fremd (John Day Fossil Beds National Monument), and Rachel Benton (Fossil Butte National Monument) in fostering rational policies for the protection of vertebrate fossils on lands under their jurisdiction. In fact, the Bureau of Land Management could do well to adopt policies comparable to those employed by the NPS.

The following resolution was passed by a strong majority at the Toronto business meeting of the Society of Vertebrate Paleontology. Before the resolution can be fully adopted by the Society, however, the constitution requires that the Society poll the membership by mail, and that a mailed response (ballot) be obtained. On 20 January 1993, over 92% of votes received (550) supported the resolution.

The resolution derived from the report of the Government Liaison Committee presented at the business meeting, and relevant parts of that report are summarized here in order to give you the background available to those who voted at the time of the business meeting. This information is followed by the resolution, identical to that presented in Toronto.

Government Liaison Committee Report, 1992 (in part)

The Baucus Bill (Senate Bill-3107: Vertebrate Paleontological Resources Protection Act) has come under much discussion over the past months. Each SVP member now has a copy of the bill (see October 1992 News Bulletin #156) as submitted to Congress in late July 1992. The purpose of publication in the News Bulletin is to let all SVP members see for themselves exactly what is and is not contained in the bill.

This is **not** the final version. Although read into the Congressional Record in July, Congress recessed before the bill could be acted upon. The bill will be reintroduced in early 1993, and some of the provisions now contained in it will be modified. Among those areas that will be modified to clarify the intent of the bill are the following:

(1) the requirement that fossils collected be retained near the area where found will be removed; (Sec.7[a].1(B))

(2) the bill states that "the paleontological resource that is excavated or removed from public lands will remain the property of the United States"; a clause will be added to this that states that fossils will necessarily remain the property of the United States (regardless of the Baucus Bill, this is the situation at the present time) but will be placed on **permanent loan** to the institutions that conserve them; (Sec.6[b].1(F))

(3) language shall be inserted in the bill to further encourage the participation of amateur and hobby collectors;

(4) language in the bill that could be interpreted to mean that anyone casually collecting a fossil might be open to prosecution will be clarified to eliminate any such intent.

The GLC intends to use the time between now and the resubmission of the revised bill to help develop modifications of its language so as to address as many as possible of the concerns that have been and are being articulated, and the GLC hereby solicits comments from the membership. Due to the legislative process, the Subcommittee on Public Lands, National Parks and Forests, will be reconstituted in January. As soon as we are informed of the revised membership, SVP members will be notified. In any case, we believe it extremely important for all members of the SVP to write to Senator Baucus and to the membership of the Subcommittee to express their individual opinions about this bill. Even though Congress now is in recess, it is important to continue to advise Senator Baucus as to our concerns.

Even though details of language will change, it is clear that the main provisions of the Baucus Bill will remain. These include the protection of vertebrate paleontological resources on federal lands from barter, sale, or export; the recognition and encouragement of amateur collectors' participation in enjoyment of the resource; providing for supervision of professional and amateur collecting of fossil vertebrates on federal land via association with appropriate scientific or educational institutions and, in the process, promoting the acquisition and conservation of fossils and the contextual data with which they are associated. These provisions are consistent with the goals and aims of the Society.

Resolution to be adopted:

WHEREAS The fundamental goals of the Society of Vertebrate Paleontology are to foster the scientific and educational appreciation of fossil vertebrates for the professional and amateur alike, and

WHEREAS The ultimate aim of the Society is to enrich the collective as well as individual enjoyment, appreciation, enhancement and development of fossil vertebrates as representing the fundamental tangible evidence of past vertebrate life on our planet, and

WHEREAS Achieving these goals and aims is best accomplished if collectors of fossil vertebrates undertake their activities in a manner that ensures that all pertinent contextual data are recorded at the time of collection, and

WHEREAS Conserving these irreplaceable fossil vertebrate specimens and their contextual data is best achieved when specimens and data are maintained in the collections and records of appropriate scientific and educational institutions, and

WHEREAS The sale, barter, or export of scientifically significant fossil vertebrates collected from federal land is counter to the stated goals and aims of the Society,

BE IT THEREFORE RESOLVED by the Society of Vertebrate Paleontology that statutes, policies,

and practices consistent with the goals and aims of the Society should be supported and,

BE IT FURTHER RESOLVED that the goals and aims of Senate Bill S-3107 (Vertebrate Paleontological Resources Protection Act) are consistent with the goals and aims of the Society.

Please note that the term "export" in the fifth paragraph is meant to refer only to "export for commercial purposes," not the usual inter-institutional loans and exchanges that already take place.

Please note, also, that it is not the intent of this resolution to speak to any particular language in the Baucus Bill, but only to its goals and aims.

Following Dr. Woodburne's presentation of the resolution to the membership at Toronto, it was moved and seconded from the floor that the text of the resolution be printed in the News Bulletin. Discussion of the resolution was vigorous and sustained: a single modification in the original text was made and this was the insertion of the words "scientifically significant" in the fifth paragraph so that the appropriate line now reads, "The sale, barter, or export of scientifically significant fossil vertebrates collected from federal land is counter to the stated goals and aims of the Society."

The vote to mail the resolution to the membership for ballot approval was overwhelmingly approved, with 6 against, 12 abstentions, and 306 yeas.

President Churcher declared the following officers elected following their nomination by the Nominating Committee of the Society: Dr. William Clemens, President; Dr. Robert Hunt, Jr., Secretary-Treasurer; Dr. Katherine Scott, Member-at-Large. Dr. David Krause was proposed as nominee for Vice President and elected unanimously.

Dr. Michael Woodburne, past President, and Dr. Margery C. Coombs, Member-at-Large, leave the Executive Committee after many years of service. Their dedicated and energetic contributions to the Society were acknowledged by acclamation and they both will be greatly missed.

The resignation of Dr. Clayton Ray as Vice President was announced by President Churcher. Dr. Ray has contributed extensively to the programs of the Society and has exercised strong leadership in his participation in Society and Executive Committee affairs. The committee greatly regrets his resignation, and wishes him well in his

endeavors. His role in establishment of the Society's endowment was especially noteworthy.

President Churcher transferred the presidential gavel and hat to incoming President Bill Clemens. In his opening remarks, Clemens announced the imminent mail ballot to be sent to all members that would request a vote on the Baucus Bill resolution, on the separation of the office of Secretary-Treasurer into two offices of Secretary and Treasurer, and the creation of a new Member-at-Large on the Executive Committee. He also suggested that the Government Liaison Committee will endeavor to act as a liaison where possible between amateur groups and the Society. Communications with members of the Executive Committee is encouraged of all members. An informal lunch meeting was scheduled in the Banff Room of the Royal York Hotel so that members could express their views on various issues to the committee at Toronto.

Dr. Clemens encouraged the attendance of the members at the 53rd Annual Meeting of the Society to be held in Albuquerque, New Mexico, from October 13 to 16, 1993, including four pre-meeting field trips on the geology and paleontology of the Mesozoic and Cenozoic rocks and faunas of the surrounding region.

President Rufus Churcher was thanked by Bill Clemens for his outstanding service to the Society during his tenure as president. We also express our gratitude and appreciation to Rufus Churcher as host and organizer of the annual meeting, as well as his colleagues who contributed so much to the success of the meeting in Toronto. As Treasurer I wish to extend my personal thanks to Rufus for his support and leadership during the financial and political crises involving the Society during the last two years, events which required expenditure of time far beyond the usual duties of president.

At the meeting's conclusion Farish Jenkins rose to present to the assembled members our collective thanks for the efforts of the Toronto team in providing us with an exemplary and enjoyable meeting. His well-chosen remarks were met with overwhelming applause for our colleagues and organizers of the Toronto event. The meeting adjourned at 5:50 PM. (Robert Hunt, Jr.)

REPORT OF THE SECRETARY-TREASURER FOR THE FISCAL YEAR OCTOBER 1, 1991, TO SEPTEMBER 30, 1992

Membership

On September 30, 1992, the Society recorded 964 Regular, 296 Student, 283 Associate, 28 Honorary, and 4 Senior members, totalling 1,575, an increase of 104 members this year, a gain of 7.1%. We are experiencing a steady increase of 78% per annum in membership at the present time.

Income

The Society received its principal income from dues, endowment contributions, publications, contributions to award funds, and from income generated through the auction and receipts from the annual meeting (*see* Financial Report, Income). Total income for this fiscal year was \$245,316.62. This year Society dues payments were \$82K, about \$3K above budget projections. However, endowment contributions were significantly lower: our estimate of \$45K far exceeded actual contributions of only \$28,907. This reduced income from contributions is perhaps to be expected after a prolonged effort to build the Society's endowment. However, the marked decline in endowment income seriously affects the Society's ability to support its publications, in particular the Bibliography of Fossil Vertebrates (BFV), where sales do not equal production expenses.

Income from all publications totals \$93K exclusive of dues payments. Healthy institutional sales (\$20K) of the Journal of Vertebrate Paleontology (JVP) and an excellent response to page charge requests (\$21K) provided a large portion of the \$46K generated by the Journal. About \$10K of this amount is attributable to a JVP Memoir, where page charges were contributed by the authors. Our only negative note is that the abstract volume produced for the annual meeting by the Journal cost the Society about \$4,250, whereas the recently-increased abstract fee (\$15) generated only about \$2,700.

The Lincoln Business Office initiated a second annual sale of the Bibliography in April of this year based upon our perception that endowment income was likely to fall below budget projections. This sale eliminated much of the backlog of BFV volumes and was successful to the degree that the 1979 volume had to be reprinted to provide complete sets of the BFV. We now hold only about 40 copies of the 1979 volume, so complete sets of the BFV soon will be at a premium: if you don't own one, this is the time to buy.

The sale of BFV volumes this year produced \$17,797, of which \$6,030 was sent to the American Geological Institute (AGI) in payment for volumes printed by them and sold through the Society, leaving the Society an income from the sale of \$11,767.37. This income was important in offsetting the \$16K that had been anticipated as endowment contributions but was not received. If we had not carried out the sale, we would have encountered cashflow problems during the fiscal year.

Generous donations by two anonymous contributors supplied sufficient monies to investigate the feasibility of placing the Bibliography in database format, and to initiate a pilot project in which the 1988 BFV will be placed on disk (IBM or Mac compatible) for sale at the Toronto meeting. Bill Clemens, Mike Woodburne, and associates are crafting a proposal to NSF to support the Society's effort to computerize the 1973 to present BFV volumes and link this database with collection data. We thank them for this time-consuming and important service to the Bibliography at a time when its financial survival is crucial. At present the Society no longer receives any income subsidy from the National Science Foundation in support of the Bibliography.

Annual auction receipts during the San Diego meeting totalled \$6,400, attesting to the importance of the auction each year to the financial health of the Society.

Reimbursements to the Society by Judy Bell for theft of Society monies amounted to \$1,068.57 during the fiscal year. Bell makes no regular payments at present to the Society, and the recovered monies were seized by the Society's attorneys early in the year in a single legal action. The Society retains a civil judgment against Bell for the full amount of the stolen funds and can initiate civil proceedings at any time in the State of California where Bell now resides. A decision on this action is pending.

Expenses

Expenses during the fiscal year totalled \$217,957.57 (*see* Financial Report, Expenses). Most prominent costs are the production of the Society's publications, the maintenance of the Business Office, and legal and accounting expenses.

The News Bulletin remained well within its projected budget for the year; although budgeted at about \$10K, News Bulletin costs were held to about \$8,300 thanks to the dedicated efforts of the outgoing editor, Tony Barnosky. We express our appreciation to Tony for his outstanding management of the News Bulletin during his tenure as editor, and welcome Dave Berman to this task as he undertakes the position with the good services of Managing Editor Mary Ann Schmidt.

The Journal of Vertebrate Paleontology was asked to maintain costs at or near \$70K this fiscal year: editors Bob Emry and Hans-Dieter Sues met this financial goal while continuing to produce a high quality journal of international stature. We owe them a vote of thanks for their long hours of effort in the production of the Journal. Memoir costs continue to be paid by authors and are not charged to the Society.

The Bibliography of Fossil Vertebrates continued production under the able guidance of Judy Bacskai, George Shkurkin, and Bonnie Rauscher. BFV costs run at about \$64,500 exclusive of charges necessary to initiate the computerization of the Bibliography. BFV income from all possible attributable sources is approximately \$39K. Hence it is necessary to subsidize production of the BFV at a level in the neighborhood of \$25K. An improved level of giving to the endowment will be needed to accomplish this goal, together with supporting efforts by the Society's Development Committee.

General office expenses included the following major categories: Salary, Business Manager (\$24K); Legal and Accounting (\$5,677) which includes legal counsel, accountants' review of books and procedures, and bonding fee; Postage and Shipping (\$4,300); Office Supplies (\$2,500); and Reimbursements (\$5,600) which include return of funds paid to us inadvertently and hence reported as income. These costs total approximately \$42,500 which include 93% of general office expenses. Denise Petersen, our Business Manager, was commended by the Executive Committee at their mid-year meeting for excellent performance in the handling of the Society's books and in membership duties. Dee has been extremely helpful to me in putting the Society's records in order following the recent embezzlement.

Net Income, Operating Accounts

For this fiscal year, income of \$245,316.62 minus expenses of \$217,957.57 produces a net income of \$27,359.05, an amount very close to last year's net income of \$27,901.

Internal Fund Transfers

During the fiscal year, two internal fund transfers were completed in order to maximize interest income on Society investments in the endowment: (1) \$50,000 was transferred from the Operating Account (National Bank of Commerce, Lincoln) to the endowment. This was done after calculating that current cashflow demands would not require access to these monies based on budget projections for the fiscal year. This proved to be the case. Because investment strategies adopted by the Society have created high liquidity in the endowment, it is possible to return these funds to the Operating Account at any time should they be needed to pay current expenses. (2) Near the end of the fiscal year in June 1992, a U. S. Treasury Note valued at \$10K came to maturity and was transferred to the Operating Account to produce sufficient cashflow to sustain expenses until new income was received in August and September 1992.

Endowment

Performance of the various funds achieved very good gains during the fiscal year. In summary the Society has seen a growth in its endowment in this fiscal year from \$683,782 to a new high value of \$814,028. This is the first time that the Society has exceeded the \$800K mark.

Here are the 12-month fiscal year returns on our principal Dean-Witter funds: U. S. Government Securities Trust (9.33%), Utilities Fund (12.71%), Dividend Growth Fund (11.42%), Allstate Prime Income Trust (6.23%). For a full statement on all endowment monies, see Endowment Report.

Audit

As reported to the membership during the annual Business Meeting in Toronto, the Society completed a formal audit of its books and business procedures, including all physical assets and endowment accounts, on December 17, 1992. We recommend that an annual audit become a regular event in the management of the Society's finances. Although this will create additional expense for the Society relative to the more simple and less expensive financial review carried out in the past, the Society's stature as an international scientific organization with assets and cashflow of over a million dollars per annum requires more rigorous management of its finances. The initial audit, reported herein, was carried out by the Lincoln accounting firm of Dale Gruntorad and Company. (Robert Hunt, Jr., Treasurer)

FINANCIAL REVIEW COMMITTEE STATEMENT

The Financial Review Committee has reviewed the audit report entitled "Financial Statements and Report of Independent Certified Public Accountants, Society of Vertebrate Paleontology" dated September 30, 1992, and submitted by Dale E. Gruntorad and Company. In addition, the Chair of the Committee visited with Mr. Ronald L. Ecklund, CPA, of Dale E. Gruntorad and Company (via telephone) about the report. The Committee accepts the report and suggests publication in the News Bulletin. In addition, the Committee would like to suggest that the Society consider changing from an accrual basis of accounting to a general ledger method of accounting. The Committee also notes, with interest, that Dale E. Gruntorad and Company believes the Society could benefit financially from accepting commercial advertising in our publications. (Michael E. Nelson, Chair)

SUMMARY OF ANNUAL BFV SALE

(October 1, 1991September 30, 1992)

Total AGI Volumes 5% Amount Due

Sales Period Sales Sold Discount AGI

4/01/014/19/92 \$ 6,180.00 \$2,350.00 \$117.50 \$2,232.50

4/20/925/26/92 6,620.00 2,427.50 121.37 2,306.13

6/01/927/19/92 2,185.00 607.50 30.38 577.12

7/20/929/30/92 2,812.50 962.50 48.12 914.38

Grand Totals \$17,797.50 \$6,347.50 \$317.37 \$6,030.13

Total BFV Sales \$17,797.50

AGI Payments - 6,030.13

Profits to SVP from BFV Sale \$11,767.37

RICHARD ESTES MEMORIAL AWARD FOR GRADUATE RESEARCH IN NON-MAMMALIAN VERTEBRATE PALEONTOLOGY

The SVP is pleased to announce the first annual competition for graduate student research in non-mammalian vertebrate paleontology, named and funded in honor of the late Richard D. Estes. An award of \$500.00 will be presented at the annual meeting to an SVP graduate student selected by the Estes Award Committee. This committee will establish criteria for the award and select a recipient from among the applicants. At this time the committee envisions that appropriate proposals would be those for field work and/or museum study. Proposals solely for travel to the SVP annual meeting would be unacceptable. Details of the application procedure will appear in the June 1993 News Bulletin.

The committee is actively seeking additional contributions to the Richard Estes Memorial Fund. Your gift will assure the growth and maintenance of this inspirational new program of the SVP. (Gregory K. Pregill, Chair)

ROMER PRIZE COMMITTEE

During the last two years a number of members have expressed their dissatisfaction with the changes made in the Romer Prize rules in 1991, which limited students to a single chance to compete. The members of the Committee shared this concern, although we also recognized the need to limit the number of participants, as the Romer Prize Session had reached unmanageable proportions before the change in rules. The committee members agreed that a single morning or afternoon session of approximately 12 presentations would be an appropriate size, and that to achieve this some form of screening was necessary. As a rule, the committee felt that students should not expect to compete more than twice (for their Master's and Ph.D. projects), and every student should have at least one chance to compete. The Romer Prize Committee therefore suggested the following modifications in the selection criteria for the Romer Prize, which were approved by the Executive Committee at the Annual Meeting in Toronto. Beginning this year, students interested in competing for the Romer Prize must submit a short (13 double-spaced pages) paper describing the study they will be presenting, in addition to the standard abstract. Eight copies of the paper should be sent directly to the Chair of the Romer Prize Committee and will be due *two weeks* before the regular abstracts. The Romer Committee will review the manuscripts and select finalists to present their work in the Romer Prize session based on the scientific quality of the study. Any students not selected would be scheduled for regular papers. Candidates should also provide the following information on a separate sheet: educational background, including degrees completed (and where and when); degree program currently enrolled in; expected date of completion; and previous years in which you competed for the Romer Prize. This information will help the committee to be sure that all students have at least one chance to compete for the Romer Prize.

The members of the Romer Prize Committee would like to extend their congratulations to this year's winner, Michele Morgan of Harvard University, for her presentation "Stable carbon isotope analysis of tooth enamel apatite of Miocene herbivores from northern Pakistan." We would also like to congratulate Willem Hillenius, who received an Honorable Mention for his presentation "Late Permian origins of mammalian endothermy." We thank all of the students who competed for their hard work and excellent presentations.

I would like to thank the members of this year's committee: Judd Case, Catherine Badgely, Lance Grande, Larry Flynn, Dave Elliott, John Flynn, and Dave Weishampel. (Kathleen Scott, Chair)

BRYAN PATTERSON AWARD COMMITTEE

More proposals (N=28) were received for this year's Patterson Award competition than for any previous year since its establishment. The number of proposals received more than tripled the number submitted last year.

Two awards (of \$500 each) were authorized for 1992. Recipients selected by the members of the Patterson Award Committee are: (1) Federico Daza (Museo Nacional Historia Natural, La Paz, Bolivia) for a project titled "Pliocene mammals from the Inchasi Basin, Bolivia: Just before the great American interchange," and (2) Paul Matheus (University of Alaska, Fairbanks) for a project titled "A Pleistocene refugium in Alaska."

As has regularly been the case in past years, there were more excellent proposals than funds to support them, so that selecting the award winners from among these was not an easy task. The diversity and quality of these bode well for the future of our discipline.

The majority of the 1992 proposals received were for field work in North America. Ten applications, however, proposed field work in other parts of the world (Argentina, Australia, Bolivia, Brazil, China [2], Czechoslovakia, France, Italy, and Namibia).

Recommendations

(1) There should routinely be a special annual mailing in January or February to the entire membership to announce the Patterson Award Competition. This clearly produces a far better response from applicants than does publication of an announcement in the SVP News Bulletin.

(2) Far more worthwhile proposals are received every year than can be funded. The Executive Committee is urged to give serious consideration to the possibility of increasing the level of annual funding (and hence the number of awards that can be offered).

(3) Currently, recipients of the Patterson Award are required to report to the SVP membership about their field work either via the SVP News Bulletin or a presentation at the annual meeting of the Society. These are appropriate requirements and should be kept. Recipients of Patterson Awards over the past few years have been conscientious about observing these stipulations. However, *in addition*, we should probably require that: (a) any publications (including abstracts published in the annual SVP meeting supplement to the JVP) resulting from field work funded by the Patterson Award should explicitly acknowledge this source of support; (b) some kind of very brief report (no more than a few pages long), summarizing both results and expenditures, should be submitted to the chairperson of the Patterson Award Committee upon completion of the field work (but *not* completion of detailed research following and dependent upon the field work); and (c) a copy of all publications (including JVP supplement abstracts) which acknowledge support of Patterson Awards should be forwarded to the chairperson of the committee for the archives. (Roger Wood, Chair; Larry Barnes, Kay Behrensmeyer, Dan Fisher, Farish Jenkins)

MORRIS F. SKINNER AWARD

Harold W. Hamilton of Pittsburgh, Pennsylvania, was awarded the Morris F. Skinner Award of the Society at the annual meeting at Toronto on October 31, 1992. "Ham" has dedicated a span of over 35 years to the discovery of Quaternary fossil sites primarily along the Appalachian chain. During those years he was literally John Guilday's hands (in 1952, John had lost the use of arms and thoracic muscles as a result of polio), having the role of collector of the thousands of specimens used by John and other Quaternary specialists to document Quaternary faunal and climatic changes and the effects of animal migration in eastern North America.

It began in 1956 when Ham, then a dedicated speleologist, visited an area near New Paris, Pennsylvania, to satisfy his curiosity about the bones that were being excavated from sink holes there by Carnegie Museum's Guilday and his crew of assistants. Ham inspected the site, met John, and thus was created a team that worked together until John's death in 1982.

An example of Ham's prolific field efforts comes from Guilday's report of accomplishments in 1978/79 funded by a grant from the National Geographic Society: "During 42 days in the field, 53 caves were investigated (in West Virginia, Virginia, Tennessee), and 91 miles of limestone outcrops were searched on foot for possible fossiliferous fissures. The field vehicle logged 13,025 mi. Bone deposits were found in the entrances of four Tennessee caves..." Multiply this level of Ham's field activity over 35 years, expand it up and down the Appalachian chain from New York to North Carolina, and his thousands of miles on foot and hundreds of thousands by vehicle can be estimated. The bones rolled into John's lab Cumberland Cave, Maryland; Trout Cave, West Virginia (discovered by Hamilton); Clark's Cave, Virginia; Baker Bluff Cave,

Tennessee; Welsh Cave, Kentucky; Bootlegger Sink, Pennsylvania; and numerous other sites.

Ham did not, however, limit his efforts to the delights of cave explorations and the toil of excavation. He also supervised work at the New Paris field station, where tons of fossil-bearing matrix from Quaternary sites have been processed (with a good deal of the sorting done by Ham's wife Rita). He served as mentor and example for the dedicated volunteers who washed and sorted fossils from matrix to be used in the research projects of Guilday and such co-workers as Paul W. Parmalee, Paul S. Martin, and A. E. Bogan.

During much of this time Ham was "gainfully" employed at Carnegie Museum in the exhibit department. In 1990 he retired from the work, but his searches for fossils and his supervision of the New Paris facility have not stopped. The Appalachians are still the happy hunting grounds for this committed field paleontologist, who continues to add collections to the Museum's holdings, with the understanding that the scientific value of field collections is permanent. (Mary Dawson)

ROMER-SIMPSON PRIZE

I first knew of Loris Russell when I was a Master's student at the Transvaal Museum in South Africa. When it came about that I was to do my doctorate in Canada, I hoped to have him as my supervisor. However, when I reached Toronto, he had escaped me by moving from the University of Toronto to the National Museum in Ottawa where he was unable to take students. Since then, over more than 30 years, I have come to know him well through general contact, in field work, and at conferences, and have continued to admire him. His persistent pursuit of new ideas and insights, ably supported by his wife Grace, have only confirmed my first impression from afar and that my decision to be supervised by him was correct. I am therefore proud and delighted that I am the person to give Loris this brief valediction.

Loris Shano Russell published his first papers in 1926 on "A new species of *Catopsalis...*" and "Mollusca from the Paskapoo of Alberta." Since then he has published some 146 works, including books, scientific papers, and popular articles, as well as giving scientific and general talks to many audiences. His original training as a geologist shows throughout his career, as his works cover geology, stratigraphy, taxonomy, ecology, and functional anatomy. Some of his contributions were only recognized later in his career, such as that dinosaurs could have been warm-blooded (1965, 1967), a comment that has been conveniently forgotten by the gurus of hot-blooded dinosaurs, or that the K/T boundary over much of Alberta could be strata-transgressive within the rock units (1983, 1987), a concept that caused much dissension in some circles and bears on the presence or absence of post-Cretaceous dinosaurs.

Loris has held responsible positions as a Professor of Geology in the University of Toronto (1937-70), Director of the Royal Ontario Museum of Palaeontology (1948-50),

Chief of the Zoology Section and Director, Natural History Branch, National Museum of Canada in Ottawa (195063), and Head of the Life Sciences Division and Chief Biologist, Royal Ontario Museum, Toronto (196371). He is now Professor Emeritus in the University of Toronto and Curator Emeritus in the Royal Ontario Museum. He has also held offices within the Society of Vertebrate Paleontology, the highest being that of President (195859).

He is a Fellow of the Royal Society of Canada, the Geological Society of America, the Paleontological Society, the Geological Association of Canada, and the Canadian Museums Association (President, 196264). He is an Honorary Member of the Royal Canadian Institute (President, 197172) and of this Society.

Other honors bestowed upon him include the Willet G. Miller Medal from the Royal Society of Canada, the Billings Medal of the Geological Association of Canada, and an LL.D. from the University of Alberta.

He has authored 146 publications on paleontological or geological subjects (as of 1990), 19 on museology, and 12 on material culture. Some of the varied and more interesting or important topics on which he has published are: Mollusca (both freshwater and marine); fossil fishes and eurypterids; dinosaur faunas (including *Troodon*, *Laosaurus*, *Chamosaurus*, *Edmontonia*, *Parasaurolophus*); turtles; plesiosaurs; mammals (including marsupials, carnivorans both creodont and fissipeds, lagomorphs, titanotheres, mastodons, horses); mammal tracks; Devonian stratigraphy of the Gaspé (Quebec) area, Cretaceous; Paleocene to Miocene faunas (including reptiles, mammals, and molluscs); Tertiary mammals of Saskatchewan; Upper Cretaceous and Lower Tertiary stratigraphy and geology in Alberta; Saskatchewan and British Columbia; stratigraphy of Albertan and Saskatchewan Cretaceous to Middle Tertiary deposits; modern birds and snakes; and modern and ancient zoogeography. At present he is still active in research and publication, both in his chosen science and in his field of human interest, and shows little sign of abandoning his active scientific interests.

In his long career as an active scientist he has demonstrated by his continued productivity and range of expertise a remarkable grasp of many aspects of the various scientific fields that come together in the interdisciplinary arena that we recognize as vertebrate paleontology. It therefore gives me great pleasure to present Loris Shano Russell with the Romer-Simpson Medal of our Society in recognition of his outstanding and continuing work in the field of vertebrate paleontology over many years. He has brought honor on all of us. (C. S. Churcher)

URGENT

PLEASE RETURN YOUR BALLOT IMMEDIATELY

AND SAVE THE SOCIETY THE EXPENSE OF

MAKING A SECOND MAILING

On November 25, 1992, voting members of the Society of Vertebrate Paleontology were asked to vote on changes to the Constitution and By-Laws. Although we have received over 500 ballots, an amendment to the Constitution requires a majority of at least half of the voting membership that is 640 votes. If this number is not reached soon, it will be necessary to make a second mailing at a large expense to the Society. **PLEASE RETURN YOUR BALLOT AS SOON AS POSSIBLE.**

Robert Hunt, Secretary-Treasurer

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Jason A. Lillegraven, Chair/ The Geological Museum/ University of Wyoming/ Laramie, WY 82071-3006; (307) 766-5178 (office), (307) 742-5275 (home), fax (307) 766-6679, E-Mail BAGPIPE@UWYO.BITNET.

C. S. (Rufus) Churcher/ Department of Zoology/ University of Toronto/ Toronto, Ontario/ Canada M5S 1A1; (416) 978-3511 (office), (416) 926-0880 (home), fax (416) 978-8532.

James A. Hopson/ Department of Anatomy/ University of Chicago/ 1025 E. 57th Street/
Chicago, IL 60637; (312) 702-8087, fax (312) 702-0037.

Bruce J. MacFadden/ Florida State Museum of Natural History/ University of Florida/
Gainesville, FL 32611; (904) 392-1721, fax (904) 392-8783, E-Mail
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Outreach Committee

Members of the Coordinating Committee

Richard K. Stucky, Chair/ Denver Museum of Natural History/ 2001 Colorado
Boulevard/ Denver, CO 80205; (303) 370-6434, fax (303) 331-6492.

Steve Conkling/ Ralph B. Clark Interpretive Center/ 8800 Rosecrans Avenue/ Buena
Park, CA 90621; (714) 670-8052, fax (714) 771-6862.

Jennifer L. Fitzgerald/ 619 Pole Line Road, Apt. #139/ Davis, CA 95616; (916) 753-
9469.

Robert Reynolds/ San Bernardino County Museum/ 2024 Orange Tree Lane/ Redlands,
CA 92374; (714) 798-8570, fax (714) 798-8585.

James F. Hurlburt, National President (Ex Officio Member)/ American Federation
Mineral Society/ 2240 South Adams/ Denver, CO 80205; (303) 757-0283.

Doug Nelson, President-Elect/ Western Interior Paleontology Society/ 3065 Denton
Avenue/ Boulder, CO 80303; (303) 433-2597.

John Constenius, Landowner-Rancher/ 743 W. 3rd Street/ Whitefish, MT 59937; (406)
862-2872.

Craig DeTample/ Calvert Marine Museum/ P. O. Box 97/ Solomons, MD 20688; (410)
326-2042.

Sally Shelton/ Texas Memorial Museum/ University of Texas at Austin/ 2400 Trinity/
Austin, TX 78705; (512) 471-1604, fax (512) 471-9775, E-Mail
TQAF072@UTXVM.CC.UTEXAS.EDU.

Members of the Committee

Rachel Benton/ 1171 Walnut Street, Apt. 1/ Kemmerer, WY 83101; (307) 877-3128.

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Wyoming State Office/ 2515 Warren Avenue/ P. O. Box 1828/ Cheyenne, WY 82001;
(307) 775-6035.

Mike Gottfried/ Calvert Marine Museum/ P. O. Box 97/ Solomons, MD 20688; (410)
326-2042.

Jim Kirkland/ Dinamation International Society/ P. O. Box 307/ Fruita, CO 81521; (303)
858-7282, fax (303) 858-2532.

Jon Kramer/ Box 27470/ Golden Valley, MN 55427; (612) 926-4560,

Richard Lund/ Department of Biology/ Adelphi University/ Garden City, NY 11530;
(516) 877-4712, fax (516) 877-4191, E-Mail LUND@AUVAX2.INTERNET.

David Parris/ Science Bureau/ New Jersey State Museum/ 205 W. State Street - CN 530/
Trenton, NJ 08625; (609) 292-6330.

Bryan Patterson Prize Committee

Kenneth D. Rose, Chair/ Department of Cell Biology and Anatomy/ Johns Hopkins
University/ School of Medicine/ Baltimore, MD 21205; (301) 955-7172, fax (301) 955-
4129.

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Exposition Boulevard/ Los Angeles, CA 90007; (213) 744-3329.

Anna K. Behrensmeyer/ Paleobiology Department/ NHB-E207 MRC 121/ Smithsonian
Institution/ Washington, DC 20560; (202) 357-3033, fax (202) 786-2832.

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(313) 764-0488, fax (313) 763-4690.

Farish A. Jenkins, Jr./ Harvard University/ Museum of Comparative Zoology/
Cambridge, MA 02138; (617) 495-2499, fax (617) 495-5667.

Alfred S. Romer Prize Committee

Kathleen M. Scott, Chair/ Department of Biological Sciences/ Rutgers University/ Box
1059/ Piscataway, NJ 08854; (908) 932-2806, fax (908) 932-5870, E-Mail
2698001@RUTMVS1.BITNET.

Catherine Badgley/ Museum of Paleontology/ University of Michigan/ Ann Arbor, MI 48109; (313) 763-6448.

Judd A. Case/ Department of Biology/ St. Mary's College/ Moraga, CA 94575; (415) 631-4050, fax (415) 376-1847.

Margery Coombs/ Department of Biology/ Morrill Science Center/ University of Massachusetts/ Amherst, MA 01003; (413) 545-0514 (office), (413) 323-7014 (home), fax (413) 545-1696.

John J. Flynn/ Department of Geology/ Field Museum of Natural History/ Roosevelt Road at Lake Shore Drive/ Chicago, IL 60605; (312) 922-9410 x293, fax (312) 427-7269.

Lawrence J. Flynn/ Peabody Museum, Anthropology/ Harvard University/ Cambridge, MA 02138; (617) 495-3720.

Lance Grande/ Field Museum of Natural History/ Geology Department/ Roosevelt Road at Lake Shore Drive/ Chicago, IL 60605; (312) 922-9410 x466.

Michele E. Morgan/ Department of Anthropology/ Harvard University/ Cambridge, MA 02138.

David Weishampel/ Department of Cell Biology and Anatomy/ Johns Hopkins University/ School of Medicine/ Baltimore, MD 21205; (301) 955-7145, fax (301) 955-4129.

Romer-Simpson Medal Committee

Mary R. Dawson, Chair/ Section of Vertebrate Paleontology/ Carnegie Museum of Natural History/ 4400 Forbes Avenue/ Pittsburgh, PA 15213-4080; (412) 622-3246, fax (412) 622-8837.

Harold N. Bryant/ Department of Biological Sciences/ University of Calgary/ 2500 University Drive NW/ Calgary, Alberta/ Canada T2N 1N4; (403) 220-7638.

Emily B. Giffin/ Department of Biology/ Wellesley College/ Wellesley, MA 02181; (617) 283-3096.

John M. Harris/ Earth Science Division/ Natural History Museum/ 900 Exposition Boulevard/ Los Angeles, CA 90007; (213) 744-3321.

Gerald R. Smith/ Museum of Paleontology/ University of Michigan/ Ann Arbor, MI 48109; (313) 764-0491.

SVP Meeting Host 1993

Spencer G. Lucas/ New Mexico Museum of Natural History/ P. O. Box 7010/
Albuquerque, NM 87194-7010; (505) 841-8837, fax (505) 841-8866.

AGI-GSA Representative

Holmes A. Semken, Jr./ University of Iowa/ Department of Geology/ Iowa City, IA
52242; (319) 335-1820, fax (319) 335-2951.

Geosciences Advisory Committee (AGI)

No appointment made.

SVP Meeting Program Officer

Robert M. Sullivan/ State Museum of Pennsylvania/ Third and Worth Streets/
Harrisburg, PA 17108-1026; (717) 783-9897.

Conformable Mitigation Committee (formerly Impact Committee)

Robert Reynolds/ San Bernardino County Museum/ 2024 Orange Tree Lane/ Redlands,
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News Bulletin

Editor: David S Berman, Section of Vertebrate Paleontology/ Carnegie Museum of
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(412) 622-8837.

Managing Editor: Mary Ann Schmidt/ Office of Scientific Publications/ Carnegie
Museum of Natural History/ 4400 Forbes Avenue/ Pittsburgh, PA 15213-4080; (412)
622-3287, fax (412) 622-8837.

NEW MEMBERS

Alfaro, Michael 452 4th Street/ Arcata, CA 95521/ Phone: (707) 826-7168. Interested in vertebrate evolution and functional morphology. Nominated by James F. Waters.

Anderson, Jessica L. 2916 Hudson Drive/ Cuyahoga Falls, OH 44221/ Phone: (216) 929-9378. Interested in mass extinctions at the Cretaceous-Tertiary boundary and the Dinosauria (cladistics). Nominated by Michael O. Woodburne.

Barlowe, Wayne D. 6 Oakwood Lane/ Rumson, NJ 07760/ Phone: (908) 758-1035. Interested in vertebrate paleophysiology and reconstruction as they relate to art. Nominated by Peter Dodson.

Baryshnikov, Gennady F. Russian Academy of Sciences/ History of Faunas Department/ Zoological Institute/ St. Petersburg/ Russia 199034/ Phone: 7 812 218 07 11. Interested in carnivores and ungulates, evolution, and biogeography. Nominated by Larry D. Agenbroad, James I. Mead, Jeffrey J. Saunders.

Beavan, Neil 5048 Vanstone Circle NW/ Calgary, Alberta/ Canada T3A 0V9/ Phone: (403) 288-7585. Interested in Paleozoic sharks and Cretaceous paleoenvironments. Nominated by Darren Tanke.

Bennett, Jonathan 3460 Everett Drive/ Boulder, CO 80303/ Phone: (303) 499-6403. Interested in Tertiary Mammalia and Crocodylia. Nominated by Richard K. Stucky.

Bertog, Janet 3401 N. Columbus Boulevard, Apt. 20-1/ Tucson, AZ 85712/ Phone: (602) 326-0987. Interested in marine reptiles. Nominated by John A. White.

Berzal, Jorge Garin Avenida PIO XII, N 18, Esc. Izda, 6C/ Pamplona, Navarra 31008/ Spain/ Phone: 011-34-48-273714. Interested in vertebrate paleontology. Nominated by Robert M. Hunt, Jr.

Birgeles, Pete 2443 Briarford Lane/ Northbrook, IL 60062/ Phone: (708) 272-0124. Interested in dinosaurs. Nominated by Robert M. Hunt, Jr.

Bogle, Leverett L. 229 Bermuda/ New Orleans, LA 70114/ Phone: (504) 394-9719. Interested in mammal-like reptiles and archosaurs. Nominated by Robert M. Hunt, Jr.

Bottrell, Herschell 1264 Rolling Oaks Drive/ Kennesaw, GA 30144/ Phone: (404) 422-9803. Interested in dinosaurs. Nominated by Robert M. Hunt, Jr.

Bourdon, Jim Nordica Drive/ Croton-On-Hudson, NY 10521/ Phone: (914) 271-3295. Interested in aquatic vertebrates of the upper Cretaceous. Nominated by David C. Parris.

Boyden, Wesley M. 26557 Golden Valley Road/ Saugus, CA 91350/ Phone: (805) 252-7318. Interested in dinosaurs. Nominated by John W. Brandvold.

Branch, James R. 2491 Mimosa Lane/ Stephenville, TX 76401/ Phone: (817) 968-2551. Interested in sharks and reptiles. Nominated by Phillip A. Murry.

Carlson, Allen 711 Merivale Avenue/ Minnetonka, MN 55305/ Phone: (612) 591-1770. Interested in dinosaurs, pterosaurs, and dicynodonts. Nominated by Robert M. Hunt, Jr.

Carter, Dennis R. Biomechanical Engineering Program/ Mechanical Engineering Department/ Stanford, CA 94305/ Phone: (415) 723-4289. Interested in bone biomechanics in development and evolution. Nominated by Kevin Padian.

Calvo, Jorge O. 832 S. Claremont, #2R(FB)/ Chicago, IL 60612/ Phone: (312) 455-1208. Interested in dinosaurs, Sauropoda, and ichnofossils. Nominated by Robert M. Hunt, Jr.

Correia, Robert F.P. O. Box 207/ Claremont, VA 23899/ Phone: (804) 866-8623. Interested in dinosaurs. Nominated by Robert M. Hunt, Jr.

Dennison, Walter N. 8004 Pioneer Circle/ Rapid City, SD 57702/ Phone: (605) 348-8415. Interested in Cretaceous marine reptiles. Nominated by James E. Martin.

Dickenson, Mark 10161 Mayor Circle/ San Diego, CA 92126/ Phone: (619) 695-0373. Interested in dinosaur anatomy. Nominated by Robert M. Hunt, Jr.

Doney, Carl D. 208 W. Saginaw #104/ East Lansing, MI 48823/ Phone: (517) 337-9525. Interested in Tertiary fishes, reptiles, and mammals. Nominated by Hugh H. Doney.

Dunlavy, Sean P. 7501 Marshall Street/ Arvada, CO 80003/ Phone: (303) 423-2731. Interested in dinosaurs and mammals. Nominated by Richard K. Stucky.

Eberle, Jaelyn Joy Department of Geology and Geophysics/ University of Wyoming/ Laramie, WY 82071/ Phone: (307) 742-6433. Interested in mammalian radiation across the KT boundary and KT extinction scenarios. Nominated by Michael B. Leite.

Elliott, Jerold K. Box 365/ Cascade, CO 80809/ Phone: (719) 684-2062. Interested in all aspects of vertebrate paleontology. Nominated by Robert M. Hunt, Jr.

Fisher, David G. Department of Astronomy and Physics/ Academic Center Box 81/ Lycoming College/ Williamsport, PA 17701-5192/ Phone: (717) 321-4281. Interested in dinosaurs and Eocene fish. Nominated by J. Michael Parrish.

Fitzgerald, Jennifer L. 619 Pole Line Road, Apt. #139/ Davis, CA 95616/ Phone: (916) 753-9469. Interested in proboscidean systematics. Nominated by Sandy Carlson.

Gagnier, Pierre-Yves Redpath Museum/ McGill University/ 859 Sherbrooke Street West/ Montreal, Quebec/ Canada H3A 2K6/ Phone: (514) 398-4090. Interested in early vertebrates, agnathan phylogeny, microremains, and acanthodians. Nominated by Robert L. Carroll.

Green, Howard 1014 Constitution Avenue NE/ Washington, DC 20002/ Phone: (202) 546-0223. Interested in marine reptiles. Nominated by David D. Gillette.

Haase, Frank 2197 Cruger Avenue, Apt. E-10/ New York, NY 10462/ Phone: (212) 931-5710. Interested in vertebrate evolution in public education. Nominated by John P. Alexander.

Hadfield, Frank Box 742/ Teulon, Manitoba/ Canada R0C 3B0/ Phone: (204) 886-2945. Interested in reptile preparation. Nominated by George E. Lammers.

Halvorson, Hal 3512 McNair Drive/ Robbinsdale, MN 55422/ Phone: (612) 588-9023. Interested in trackways and dinosaurs. Nominated by Jon Kramer.

Head, Jason 504 Catherine/ Ann Arbor, MI 48109/ Phone: (313) 994-7164. Interested in Archosauria and Theropoda. Nominated by James I. Kirkland.

Hrechdakian, Peter 11 Avenue Winston Churchill/ Box #6/ Brussels/ Belgium 1180/ Phone: 011-322-345-4394. Interested in vertebrate paleontology. Nominated by Robert M. Hunt, Jr.

Hunnewell, Judith Route #2, Box 1830/ Litchfield, ME 04350/ Phone: (207) 268-4869. Interested in dinosaurs. Nominated by Karen Chin.

Kass, Michael Steven Old Mill Apartments, #331/ 722 W. 1720 North/ Provo, UT 84604/ Phone: (801) 370-3395. Interested in Archosauria and mosasaurs. Nominated by Wade E. Miller.

Kerr, Gary G. 1613 Shurtleff Court/ Alton, IL 62002/ Phone: (618) 462-5075. Interested in dinosaurs and mammoths. Nominated by David Peters.

Kobayashi, Shoji 235-2 Nengu-machi Monden/ Aizuwakamatsu/ Fukushima/ Japan/ Phone: 0242-26-2894. Interested in Sirenia and Pinnipedia. Nominated by Norihisa Inuzuka.

Komarower, Patricia Department of Earth Sciences/ Monash University/ Wellington Road/ Clayton, Victoria 3168/ Australia/ Phone: (03) 565-4896. Interested in history of paleontology in China and phylogenetics. Nominated by Patricia Rich.

Lewis, Paul Jay P. O. Box 81950/ Las Vegas, NV 89180/ Phone: (702) 221-9741. Interested in vertebrate paleontology. Nominated by Robert M. Hunt, Jr.

Lowe, W. S. 421 Brian Drive/ Grand Prairie, TX 75051-6409/ Phone: (214) 262-5824. Interested in vertebrate paleontology. Nominated by Lloyd E. Hill.

Lutsky, Barry 31 Longfield Drive/ Neshanic, NJ 08853/ Phone: (908) 369-7367. Interested in dinosaurs. Nominated by Robert M. Hunt, Jr.

Matthews, Kathryn M. 8407 Oak Knoll Drive/ California Energy Commission/ Granite Bay, CA 95746/ Phone: (916) 653-1648. Interested in all aspects of vertebrate paleontology; focus on impact mitigation. Nominated by David Whistler and Robert Reynolds.

McKamey, Sheldon L. Museum of the Rockies/ Montana State University/ Bozeman, MT 59717/ Phone: (406) 994-2251. Interested in public relations for paleontology. Nominated by Patrick Leiggi.

Menefee, Malik L. 2101 Allegany/ College Park, MD 20742/ Phone: (301) 314-1068. Interested in phylogenetic relationships and evolution of odontocetes, especially the sperm whale. Nominated by Clayton E. Ray.

Miller, James 710 Hedge Avenue/ Burlington, IA 52601/ Phone: (319) 754-7575. Interested in late Jurassic flora and fauna. Nominated by Robert M. Hunt, Jr.

Moore, Richard W. 401 Haring Road/ Metairie, LA 70001/ Phone: (504) 733-9315. Interested in late Jurassic flora and fauna. Nominated by Robert M. Hunt, Jr.

Nassar, Peter N. Department of Geology/ Bryn Mawr College/ Bryn Mawr, PA 19010/ Phone: (215) 526-7451. Interested in functional morphology and biomechanics of archosaurs. Nominated by Peter Dodson.

Nelson, Doug 3065 Denton Avenue/ Boulder, CO 80303/ Phone: (303) 440-9785. Interested in late Mesozoic mammalian evolution, and Triassic and earlier terrestrial communities. Nominated by Richard K. Stucky.

Newberry, Leslie 4311 Dunmore Avenue, #12/ Tampa, FL 33611/ Phone: (813) 832-4182. Interested in Pleistocene mammals and reptiles. Nominated by Rudi Johnson and Bruce MacFadden.

Oaks, Emily C. Biology Department/ State University of New York at Oswego/ Oswego, NY 13126/ Phone: (315) 341-2780. Interested in anatomy of mammals. Nominated by Jeheskel Shoshani.

Oggeri, Scott J. 14 Kellogg Place/ South Huntington, NY 11746/ Phone: (516) 351-1026. Interested in predatory dinosaurs. Nominated by Jack Horner.

Otto, Markus Inder Gemoll 29/ D3550 Marburg/ Germany. Interested in placoderms, acanthodians, and lung fishes. Nominated by Robert M. Hunt, Jr.

Panasuk, Terry W.P. O. Box 6462/ Bozeman, MT 59771/ Phone: (406) 587-5585.
Interested in photodocumentation and mapping of research sites. Nominated by Patrick Leiggi.

Patrick, Randy R.R.R. 2, Box 212A/ Roachdale, IN 46172/ Phone: (317) 522-1774.
Interested in amphibians and reptiles. Nominated by Ronald L. Richards.

Pauls, Erik B. 1138 6th Street/ Albany, CA 94710. Interested in biomechanics.
Nominated by Anthony R. Fiorillo

Perry, Michael L. 594 Blossom Ct./ Grand Junction, CO 81503/ Phone: (303) 245-6727.
Interested in dinosaurs. Nominated by James I. Kirkland.

Pope, James A. 21242 Copperopolis Road/ Linden, CA 95236. Interested in vertebrate paleontology. Nominated by Robert M. Hunt, Jr.

Riedl, Eric 611 Aspenwood Lane/ Twin Falls, ID 83301/ Phone: (208) 733-4917.
Interested in vertebrate paleontology. Nominated by Robert M. Hunt, Jr.

Saegusa, Haruo Museum of Nature and Human Activities, Hyogo/ Yayoigaoka-6/ Sanda Hyogo/ Japan 66913/ Phone: 0798-59-2017. Interested in mammals, especially Proboscidea. Nominated by Jeheskel Shoshani.

Scheepbouwer, Geert R. Tentoonstellinglaan 13/ Gent 9000/ Belgium/ Phone: (32) 91237682. Interested in dinosaurs, Green River Formation and Solnhofen. Nominated by Robert M. Hunt, Jr.

Schweitzer, Mary 1611 S. Wilson/ Bozeman, MT 59715/ Phone: (406) 587-4368.
Interested in histology and molecular paleontology. Nominated by Patrick Leiggi.

Shapiro, Mike 2699 Derby Street, #6/ Berkeley, CA 94705/ Phone: (510) 848-4712.
Interested in Mesozoic reptiles and mammalian evolution. Nominated by Mark Goodwin.

Singer, Susan E. 330 W. 55th Street, 2-H/ New York, NY 10019/ Phone: (212) 477-6770 (w) or (212) 315-5940 (h). Interested in dinosaurs. Nominated by Robert M. Hunt, Jr.

Smith, Kent S. 2212 Pembroke Drive/ Norman, OK 73072/ Phone: (405) 447-1933.
Interested in mammalian microvertebrates. Nominated by Richard L. Cifelli.

Spizuco, Matthew Paul Department of Geology, SCA 203/ University of Florida/ Tampa, FL 33620. Interested in cetacean evolution. Nominated by Bruce MacFadden.

Stevens, Nancy Jeanne Michigan State University Museum/ East Lansing, MI 48824/
Phone: (517) 355-2370. Interested in paleoprimatology. Nominated by J. Alan Holman.

Stiem, R. F. 360-2 Street SE/ Medicine Hat, Alberta/ Canada T1A 0C1/ Phone: (403) 526-4356. Interested in upper Cretaceous. Nominated by Hope Johnson.

Suzuki, Shigeru/o Hayashibara Co., Ltd./ Shimoishii 1-2-3/ Okayama-shi 700/ Japan/ Phone: 0862-24-4311. Interested in marine reptiles. Nominated by Hideo Nakaya.

Szatmary, Del 288 Van Avenue/ Brick, NJ 08724/ Phone: (908) 458-6732. Interested in developing new preparation techniques for small reptiles and mammals. Nominated by Ted Daeschler.

Timperley, Cinda 6501 Vine Street, Apt. 74/ Lincoln, NE 68505/ Phone: (402) 464-7041. Interested in mammals of the Great Plains region, fossil preparation and preservation. Nominated by Mike Voorhies.

Tobin, Robert J. 1210 Peach Street/ Lincoln, NE 68502/ Phone: (402) 477-7509. Interested in vertebrate paleontology. Nominated by Robert M. Hunt, Jr.

UiBreaslain, Seaghan P. O. Box 152/ Laramie, WY 82070/ Phone: (307) 742-7630. Interested in therapsids and early mammals. Nominated by Jason A. Lillegraven.

Van Huet, Sanja 2 Park Road/ Aspendale, Victoria 3195/ Australia/ Phone: (03) 580-9913. Interested in extinctions, environmental changes, and Quaternary megafauna. Nominated by Pat V. Rich.

Vildoso-Morales, Carlos A. Instituto Peruano de Estudio en Paleo/ Av. Capitalnes de la Jara 165/ Lima 27/ Peru/ Phone: (005114) 404661. Interested in Gondwana tetrapods. Nominated by Clayton Ray.

Wahl, Frank B., Jr. 1715 Porterfield Place/ El Cajon, CA 92019/ Phone: (619) 442-4846. Interested in dinosaur cladistics as supported by database analysis. Nominated by Robert M. Hunt, Jr.

Weege, Chris 7 Claret Ash/ Littleton, CO 80127. Interested in upper Jurassic and lower Cretaceous dinosaurs of the Western Interior and vertebrate mechanics. Nominated by Louis H. Taylor.

Weill, Steven J. 5784 Malvern Court/ San Diego, CA 92120/ Phone: (619) 583-7786. Interested in lemuriform primates and Archosauria. Nominated by George Olshevsky.

Wheeler, Richard R. 2312 Walgrove Avenue/ Los Angeles, CA 90066/ Phone: (310) 398-2165. Interested in biomechanics and computational morphology. Nominated by George T. Jefferson.

Whitehead, Heather 98 Rollingwood Circle/ London, Ontario/ Canada N6G 1P7/ Phone: (519) 474-1733. Interested in dinosaur research and vertebrate paleoecology. Nominated by Philip Currie.

NEWS FROM MEMBERS

CANADA

Manitoba Museum of Man and Nature

Ken Stewart, Gavin Hanke, and I are studying fossil material and compiling the available information on fishes of the Middle Devonian Winnipegosis Formation in southern Manitoba, with particular reference to arthrodires, which seem to be more abundantly preserved than the other fish taxa which occur in the formation.

Among the material we have obtained is a large, mostly complete right inferognathal which does not agree with any published description of arthrodire inferognathals of which we are aware. The main differences are (1) the lack of cusps on the cutting edge posterior to the anterior "fang" and (2) the presence of a sheet of enamel-like material with a squamate surface sculpture on the inner surface of the bone, extending downward from the cutting edge for about half the depth of the bone.

We would like to know if anyone has any material similar to this in their collections, or are aware of any elsewhere. In addition, we would like to know about any material attributed to the genus *Aspidichthys*, Newberry, or to *Aspidichthys notibilis*, Whiteaves. *A. notibilis* is the only large placoderm known from Manitoba, and, to our knowledge, it, and in fact the entire genus *Aspidichthys* is known only from fragmentary cranial or thoracic shield material. Any additional information anyone might have that would help us to correctly assign our inferognathal to a taxon would be greatly appreciated.

Gloria Goulet is about to complete her Master's thesis on the subfossil wolves from the sinkholes in the Interlake area of Manitoba. We wish her the best on her continuing work with these interesting mammals.

Two potential new finds that we plan to continue include the search for Paleocene vertebrates in the Turtle Mountain Formation (the lateral equivalent of the Ravenscrag Formation in Saskatchewan) and a new site either in the latest Jurassic or earliest Cretaceous that looks like it may produce an abundance of shark and mosasaur material, along with miscellaneous bony fish and possible other vertebrates.

I will be retiring at the end of the year, but the exchange of reprints and the correspondence can continue to be done through the Manitoba Museum. I will continue to work on the Jurassic/Devonian material mentioned above, as well as a paper on the Highgate Mastodon from Ontario with Dr. John Hoganson of North Dakota. (George E. Lammers)

Museum at Parc de Miguasha, Quebec

At least 28 participants from the International Symposium on the Studies of Early Vertebrates held in June 1991 at the Park of Miguasha have submitted manuscripts to the editors. The proceedings of the meeting will be published as a *Miscellaneous Publication of the Museum of Natural History, University of Kansas*.

This year the Park welcomed over 39,000 visitors between the beginning of June and the end of September. We have noticed that more and more visitors from Europe (France, Belgium, Italy, and Germany) are discovering our small Park and Museum facilities.

Last September Marius went to Paris to discuss with his colleagues from the Laboratoire de Paléontologie of the Museum of Natural History the possibility of getting some help with research on the Park of Miguasha and other sites on the Gaspé Peninsula. For the first time he crossed the Channel to pay a visit to his friends at the British Museum and other institutions. He is now working on a new manual for the formation program, concerning the new exhibit installed last year.

Richard Cloutier from the CNRS of Lille will spend the month of January visiting collections at the Royal Ontario Museum, the Canadian Museum of Nature, the Museum of Geology at the University of Laval, and, of course, at the Park of Miguasha. (Marius Arsenault)

Royal Ontario Museum

After a busy autumn of curatorial, editorial, and teaching duties, Hans-Dieter Sues has finally returned to research. Research on the early late Triassic tetrapod material from the Tomahawk locality in Virginia continues, and several papers are in various stages of completion or in press. Together with Don Baird, Hans is completing manuscripts on the anatomy and relationships of the enigmatic *Sphodrosaurus* and the affinities of the few East Coast metoposaurs, including a description of a now fully-prepared, excellently-preserved skull from the New Oxford Formation of Pennsylvania. Preparation efforts continue on the sphenosuchian skeleton from Ghost Ranch (to be studied in collaboration with Jim Clark and Dave Berman) and on bone-bearing fissure-filling material collected in collaboration with Wolfgang Munk and Dino Frey last August from a locality in the Zechstein of Hesse, Germany. Hans has also renewed his longstanding involvement with Triassic marine reptiles through a joint project with Jim Clark and Nick Hotton on Carnian-age material from northwestern Nevada, and he is planning a monographic study of a virtually complete, articulated skeleton of a thalattosaur from the Norian of British Columbia. (Hans-Dieter Sues)

Saskatchewan Museum of Natural History, Regina

Tim Tokaryk spent most of the summer trying to control chaos along the Carrot River, where a crocodylian had been partially excavated in the autumn of 1991. John Storer joined the expedition for part of the time. We retrieved the remainder of the *Teleorhinus* skeleton, as well as the first two meters of a *Xiphactinus*, and several small fish skeletons. The collecting centered around two localities, both in the Favel Formation (Turonian). We were joined by Steve Cumbaa and Rick Day (Canadian Museum of Nature) and several volunteers. Remains of *Hesperornis* were recovered from the shale dug out of a man-made pond, also in the Carrot River area. We tentatively put this occurrence in the Pierre Shale. Late Cretaceous and Miocene bird bones were also collected in southern Saskatchewan.

Tim has put together the initial description of the bird assemblage from another site along the Carrot River (Ashville Formation; Cenomanian), and hopes to visit the Kansas collections in early 1993.

John Storer has been working on a variety of review papers, and is trying to finish a manuscript on Duchesnean multituberculates, insectivores, and dermopterans from Lac Pelletier. Papers on Chadronian marsupials (with Jaelyn Eberle) and Barstovian *Mylagaulus* (with Lee McAnally) are in preparation. Student Frank McDougall (University of Saskatchewan) is studying the Chadronian fauna of the Horse Locality, Cypress Hills Formation, to look at biostratigraphy and paleoecology (John Storer)

University of Toronto, Erindale Campus

A short note by Robert Reisz and David Dilkes on the taxonomic position of the problematic synapsid *Anningia megalops* has recently appeared in the *Canadian Journal of Earth Sciences*. Otherwise, Robert continues to work with Michel Laurin on a review of amniote phylogeny. Robert is also busy preparing for yet another trip to Russia early in the new year. We can only hope that this trip will be as successful as the last one.

David Dilkes is getting ever closer to defending his Ph.D., and hopes to have a date for his defense set for early February. Meanwhile, David's paper on the evolution and physiology of the nasal region in trematopids has been accepted for publication in the *Journal of Paleontology*.

Sean Modesto and Michael deBraga successfully defended their Ph.D. appraisals early in December (1992). Sean and Robert have a paper in press in the *Canadian Journal of Earth Sciences*, a redescription of the species *Edaphosaurus novomexicanus*, the earliest known herbivorous amniote. Sean is also planning a trip to Germany this summer to look at mesosaurids in Frankfurt, Stuttgart, and Tubingen. Together with the material he has borrowed from various North American institutions, the German material should enhance Sean's sample size sufficiently so that a thorough ontogenetic analysis of the mesosaurids can be undertaken.

Michael deBraga continues to examine the procolophonid material in his possession and various other "parareptile" specimens. He hopes to submit a paper on the redescription of the North American taxon *Acleistorhinus pteroticus* and its phylogenetic position within the Amniota by the spring. This taxon is significant because it is the earliest known "parareptile." Michael and Robert Carroll (McGill University) have a paper in press in *Evolutionary Biology* which evaluates macroevolutionary patterns and processes within varanoid lizards. Michel Laurin continues working on seymouriids and also has a co-authored paper with Robert Reisz on *Romeriscus* which should be out in *JVP* early in the new year.

Catherine de Almeida is busy with her Master's work on the atlas-axis complex of synapsids. As part of this work she is looking at the specific morphology of the atlas-axis of the primitive synapsid family Varanopseidae.

Brian Moore hopes to have a paper on the dentition of the primitive cynodont *Procynosuchus* submitted by this spring. (Michael deBraga)

CZECHOSLOVAKIA

Czechoslovak Academy of Sciences, Prague

At the beginning of 1992, Zbyněk Roček spent four months in the Centre des Sciences de la Terre at the University Lyon 1, France, studying collections of Tertiary anurans from various sites in France. He focused on the discoglossid *Latonia*, and compared numerous French materials with those from Switzerland, Germany, Czechoslovakia, and Ukraine. He prepared a revision of this genus. It turned out that this large discoglossid frog was widely distributed in Europe since the Upper Oligocene to the Pliocene/Pleistocene boundary, and that some earlier authors misinterpreted the material belonging to *Latonia* as pelobatids, only because of sculpture on the skull. The paper was submitted to *Geobios*. In connection with this *Latonia* paper Zbyněk also revised all European fossil pelobatids. What remains to be done before completion of this work is to revise the status of *Eopelobates hinschei*, which does not fit into the diagnosis of the genus. Besides these two main projects, he is preparing, together with Jean-Claude Rage from Paris, a reinterpretation of a supposed "footprint" of the Middle Devonian amphibian from Brazil. Also with Jean-Claude and his Ph.D. student Saida Hossini, he is preparing a paper on anurans from the Lower Miocene of the French site Laugnac. Together with Galina Zerova from Kiev, he started to work on the Sauria from the Sarmatian of the Ukrainian locality Gritsev. The preliminary report was given as a contribution to the 2nd Cuvier Symposium "Dinosaurs and Other Fossil Reptiles of Europe" that was held in Montbéliard, France, last September. He was also invited by Borja Sanz from Madrid to write with him a review paper "Evolutionary diversification of the Anura" which was given at the Symposium on "The Biology of *Xenopus*" held in London. (Zbyněk Roček)

GERMANY

Institute of Paleontology, University of Bonn

The special event of summer 1992 was a three-week-long field trip to the rich and famous vertebrate localities of Wyoming. The trip was planned by Wighart v. Koenigswald and Hans Ulrich Pfretzschner. The participants (students and scientists) consisted not only of the Bonn crowd, but also of folks from several other universities in reunified Germany, Prague, and Zürich. Thanks to the hospitality of our American colleagues, this field trip will remain a great memory for all of us for a long time. Carl Vondra put us up at his field camp in Shell and accompanied us on the entire trip. Under the guidance of Ken Rose and Tom Bown we had the opportunity to collect in the Willwood Formation. Phil Bjork let us browse through the collections in Rapid City. The mammoth site tour with Larry Agenbroad and Jim Mead was followed by two and a half exciting days with Bob Hunt in the White River Oligocene. Jay Lillegraven and Bill Clemens took us to the K/T boundary in the Hanna Basin. Dan Chure showed us an active excavation at the Dinosaur National Monument. At Tinsky's quarry in Kemmerer we collected fishes from the Fossil Basin. And finally, Yellowstone National Park was very impressive, even to the vertebrate paleontologists. This field trip was a great opportunity for the students and for us to see exciting, on-going field research. We are deeply indebted to the many VP colleagues who helped to make this wonderful trip possible. We wish to extend our hospitality to anyone who feels the urge to tour German fossilagerstätten.

Hans Ulrich Pfretzschner has just finished theoretical work on the optimization principles in shark teeth and canines of mammalian carnivores. He is now busy on the statistical analysis of skull measurements from ungulates that he collected in autumn 1991 and summer 1992 while at several museums in the U.S. and Europe. The project will analyze the influence of the enlargement of the eyes, the brain, and the teeth on the allometric growth of the different skull regions in the phylogeny of different ungulates. In particular, the influence on jaw musculature is one of the main questions that should be answered by this study.

Editing the papers presented at the European Science Foundation (ESF) workshop on "Mammalian Migration and Dispersal Events" held in nearby Andernach in October 1991 kept Wighart quite busy, even though the main load was carried by Lars Werdelin in Stockholm. We smugly announce the speedy publication of the symposium volume in the *Senckenberg Courier* (vol. 156) last winter. A second workshop was organized by Jean Chaline in Dijon in September of this year at which Wighart gave a paper on contradicting heterochronies in schmelzmuster and morphology in arvicolid molars.

Although Wighart tortures all his English-speaking colleagues with the term "schmelzmuster," he persists with his enamel investigations. Last year he checked out the incisors of glirids (=Myoxidae) which led to systematic conclusions that will certainly provoke

some controversy, but do not seem to be any worse than the others based on molar morphology. The paper will be published in the *Zeitschrift für Säugetierkunde*. His interest in the functional adaptations and phylogeny of enamel structures has resulted in a study of myomorph molars, which he reported on in Toronto, and of lagomorphs, which he is working on with Mary Dawson of the Carnegie Museum of Natural History. Even the teeth of larger mammals are not safe from him; in sectioning brontotheres, he found most peculiar arrangements of Hunter Schreger bands. In February, Wighart will sojourn to Australia to hunt for marsupial enamel.

A number of new students started graduate work with Wighart. Clara Stefen is investigating carnivore enamel for her Ph.D. thesis. Daniela Kalthoff has begun work on her Master's project on the osteology of *Marmota* with the goal of distinguishing species in the European Pleistocene. Another Master's student, Winfried Santel, is working on a small mammal fauna from the middle Pleistocene from Yarimburgaz Cave near Istanbul (Turkey) that was excavated by Clark Howell (Berkeley). Winfried is making good progress, but would like to stall for time by quoting "good things come to those who wait."

For his Ph.D. thesis Thomas Mörs chose a sedimentological project on the fossilagerstätte Rott near Bonn, which is famous for its vertebrate remains. An extensive list of a synonymies of the Rott vertebrates, going back to the 1830s, was recently published with his coauthorship (*Decheniana*, vol. 15). Thomas has begun research on the clay mineralogy and geochemistry in cooperation with Björn Bohne (also in Bonn). As the last loose end of his Master's thesis, he has finished his paper on fish taphonomy in the Solnhofen lithographic limestones, which is in press in the *Neues Jahrbuch*. He is now working together with Elmar Heizmann of the Staatliche Museum für Naturkunde in Stuttgart on upper Oligocene vertebrate remains (mainly reptiles and mammals) from the lacustrine sediments of the Neuweid Basin near Bonn.

We also have two exchange students from Australia with us this year, courtesy of Mike Archer. Rumor has it that Paul Willis is finishing his dissertation on Australian crocodiles, while John Scanlon is presumed to be "doing" the Riversleigh snakes.

Martin Sander is still busy with his research on the enamel of lower tetrapods. He is slowly mowing up the *scala naturae*, however, as he started looking at early mammals. An important outcome of his investigations was the insight that the current existing models for the evolutionary origin of mammalian enamel prisms are inadequate. Only the detailed study of Mesozoic mammals will provide an answer to this important question, and Martin is still hopeful that he will be able to "collect" all the material necessary for sectioning. Much of Martin's spare time last year (in between changing diapers) has been taken up by his textbook(-let) on fossil reptiles. The manuscript is off to the publishers and the figures will follow suit very soon. He would like to take this opportunity to thank all who gave permission to use their published work.

On the marine reptile front, Martin has begun work on a Kimmeridgian fauna from northeastern Mexico with a *Metriorhynchus*, a pliosaur, ichthyosaur scraps, and some fish

remains (cf. *Gyrodus*). This fauna fits in well with a Callovian fauna from northern Germany that Ioannis Michelis, Martin's new Master's student, began studying for his thesis. In addition to crocs and pliosaurs, the locality (Wallücke quarry, Wiehengebirge) has produced the scanty remains of a stegosaur.

Last, but not least, Martin has joined the ranks of the gainfully employed in being hired as the curator of paleontology at Bonn. The collections at Bonn are important not because of their size, but because of their long history which began with August Goldfuß. For example, the first mosasaur find from the American West was donated to the collections by a German prince, Maximilian von Wied, who is well known for the illustrations of American Indian life in his travel reports. The specimen was described by Goldfuß as *Mosasaurus maximiliani* in 1845 and revisited last year by Gordon Bell from Texas.

Other visitors of note included Mary Maas from Durham and Gisle Fosse from Bergen, who came to work with the enamel research group. Andrej Sher from Moscow talked about the extinction of woolly mammoths in Siberia. A fascinating revelation for us all was that on Wrangell Island in the high Arctic these animals managed to hold on until the time of the Egyptian pyramids. (Martin Sander)

ITALY

Museo Civico di Scienze Naturali di Bergamo

The Bergamo Museum is known in vertebrate paleontology mainly for its rich and diversified vertebrate faunas from the Upper Triassic marine formations of the Italian South Alps. Researcher Anna Paganoni is heavily engaged in field research in the Norian sites of Imagna and Seriana valleys built up by the Calcare di Zorzino and Argilliti di Riva di Solto formations.

A new flying reptile was found in 1989 and Dr. Rupert Wild from Stuttgart Museum is completing the description. The excellent preservation of this fossil permits the description of some parts of the wing membranes in Triassic pterosaurs for the first time. The researchers of the University of Milan have finished the description of flying fishes, assigning them to the genus *Thoracopterus*, and they are completing the redescription or revision of those specimens supposedly belonging to *Drepanosaurus* sp., first described by Pinna in 1980. A. Paganoni is also working on stratigraphical correlations of Upper Triassic fossiliferous sites which yielded vertebrates.

Concerning the Pleistocene, Paganoni is cooperating with a research group working on Plio-Pleistocene lacustrine sediments in Leffe. A drilling (185 m) was completed in 1991 and the first results were presented in Salamanca at VIII Congreso Latino-Americano de Geologia in June 1992. Now begins the restoration of lower Pleistocene vertebrates which were found at the end of the 19th century in lignite mines. These fossils mainly

belong to *Elephas meridionalis*, *Dicerorhinus etruscus*, "*Cervus orobicus*," "*Bos*" *etruscus*, *Arvicola* sp., and *Mimomys* sp. nov.

The 1991 annual excavation inside of a cave close to Bergamo yielded several specimens of *Ursus spelaeus*. The first results of this field work are now in press in *Bergamo Museum Rivista*. (Anna Paganoni)

JAPAN

National Science Museum (Natural History Institute), Tokyo

The three-day workshop "Rodent Families of Asian Origins and Diversification," organized by Tak Setoguchi (Kyoto University), Chuankuei Li (IVPP, China), and Yuki, was held in Kyoto and other locations from 46 September 1992, right after the main sessions of the 29th International Geological Congress were over. The aim of the workshop was to discuss the conditions of diversification, phylogenys, paleogeographic background, and other aspects of rodents and lagomorphs that originated and developed in Asia and adjacent areas.

A total of 24 people participated in the workshop: six from China, one from France, one from India, eight from Japan, one from Russia, and seven from the U.S. As shown in the photograph, *top row* (from left to right): Everett Lindsay (Univ. Arizona), Takahisa Goda (fossil collector), Bonnie Jacobs (SMU), Takeshi Setoguchi (Kyoto Univ.), William Downs (N. Arizona Univ.), Chuankuei Li (IVPP), Zhuding Qiu (IVPP); *center row* : Lawrence Flynn (Harvard U.), Shaohua Zheng (IVPP), Robert Martin (Berry College), Margarita Erbajeva (Buryat Geol. Inst.), Louis Jacobs (SMU), Jean-Louis Hartenberger (Univ. Montpellier); *lower row* : Masanaru Takai (Kyoto Univ.), Yukimitsu Tomida (Nat'l. Science Museum), Xiaofeng Xu (SMU), Alisa Winkler (SMU), Banyue Wang (IVPP). Participants not in the photo are: Minchen Chow (IVPP), Yoshinari Kawamura (Aichi Univ. Ed.), Naoki Khono (Chiba Museum), Bahadur Kotlia (Kumaun Univ.), Hideo Nakaya (Kagawa Univ.), and Mahito Watabe (Hayashibara Co.). Fourteen talks were presented within one and a half days session. Such a comfortable schedule allowed all of the participants to join in sufficient discussions on each talk. Presentations started on the phylogeny and evolution of ochotonid lagomorphs (Erbajeva), and continued on the origin of rodents (Li and Chow), on the evolution of the following family groups: Gliroidea (Hartenberger), Ctenodactyloidea (Wang), Eomyidae (Qiu), Siphneidae (Zheng), Castoridae (Xu), Zapodidae (Martin), Baluchimyinae (Flynn), Cricetidae (Lindsay), Muridae (Jacobs and Downs), and Arvicolidae (Kotlia), on rodent dispersal between Asia and Africa (Winkler), and finally on Japanese Tertiary rodents (Tomida and Setoguchi). Then the participants moved to the Primate Research Institute of Kyoto University in the afternoon of the second day, where they discussed the original specimens that each participant brought to the meeting. The third day was the field trip to the locality in Kani City, where the majority of Japanese Tertiary rodents have been found, and at Mizunami Fossil Museum in Mizunami City, where many Miocene

terrestrial vertebrates have been found. The proceedings are being planned to be published from our museum, but for now only the abstracts are available from Yuki upon request for someone interested in this workshop. (Yukimitsu Tomida)

"Rodent Families of Asian Origins and Diversification" workshop participants.

ROMANIA

University of Bucharest, Laboratory of Paleontology and Stratigraphy

Dan Grigorescu continues the searches for dinosaurs and other vertebrate remains in the Hateg Basin of Transylvania. New agglomerations of dinosaur bones, mostly belonging to the problematic hypsilophodontid *Rhabdodon* and to the hadrosaurid *Telmatosaurus* were found in the Upper Maastrichtian Sinpetsu Formation. The chronostratigraphically equivalent Densus-Ciula Formation has provided a new clutch of four dinosaur eggs, added to those found during the last four years. Dan Grigorescu presented in the second George Cuvier symposium in Montbelliard, France, a paper on the microstructure and gas conductance through the shell, concluding on the incubation environment of the dinosaur eggs from Transylvania.

Eric Buffetaut, Jean Michel Mazin, and Sevkert Sen from the University of Paris VII visited during the summer the fossiliferous sites in Transylvania, including those with dinosaurs from Hateg and Cornet-Bihor, Triassic marine reptiles near Oradea, and Eocene mammals from R_daia near Chej-Napoca. With this occasion the Museum of Natural History from Oradea has organized a seminar on the biogeographic relations of the Mesozoic and Cenozoic tetrapods from the Northern Tethys; the seminar benefitted from the talks given by the French visitors. Next summer Dan Grigorescu is going to organize for the Dinosaur Society a paleontologic excursion in Romania that will include visits to the most important fossil vertebrate sites. (Dan Grigorescu)

University of Cluj-Napoca, Department of Geology/Paleontology

Vlad Codrea reports new finds of the rhinocerotid *Indricotherium* from the Lower Miocene of Romania. (Dan Grigorescu)

UNITED KINGDOM

The Natural History Museum, London

It has been a long while since we reported our activities. In the meantime, we have all had to learn to live with the new corporate strategy, reorganizations, and reductions of the past three years. Our old sections no longer exist, and we have recently amalgamated into the "Vertebrates and Anthropology Division," which includes a curatorial team led by Jerry Hooker as collections manager.

Dick Jefferies has retired as of January 1992 on reaching the age of 60, but is ignoring the fact. He is writing a student-level book to be called "Our Asymmetrical Ancestors," which will be published by Longmans. He is also working out the developmental genetic implications of the calcichordate theory, in collaboration with Nigel Brown of The Medical Research Council, St. Georges Hospital, London. The asymmetry of *Cothurnocystis* seems to be causally linked with the situs inversus in human twins.

At the kind invitation of Bill Schopf, Dick had the privilege of spending March to May 1992 at UCLA. Various projects follow from this: Paul Daley, a research student here is working on the solute *Castericystis sprinklei*, from the Middle Cambrian of Utah. This seems to be very primitive indeed, for Eddy Cole, of Delta, Utah, has noticed that it is attached by the end of its tail; Kevin Peterson of UCLA is now reconstructing a crownward cornute from the Upper Ordovician of Morocco, under the joint supervision of Charles Marshall and Dick Jefferies; and Ron Schmidting of UCLA will be coming to London next year to work on the North American mitrate *Enoploura*.

Paul Daley's study of *Castericystis sprinklei* will be part of a Ph.D. thesis of the University of London. His work is mainly on solutes and has already resulted in two published papers.

Segei Rozhnov of the Palaeontological Institute, Moscow, spent five weeks with us recently, on Royal Society money, reconstructing a new solute from the Ordovician of Estonia.

Peter Forey and Sally Young have completed their paper on Pragian fish fragments from Saudi Arabia with the help of Hal McClure (*Bull. Br. Mus. (Nat. Hist.) Geol.*). Clearly, the fish fauna in the Devonian of this part of the world is very interesting, with a mixture of Euramerican and Gondwanan elements. We hope that more, articulated material may be collected. Peter and Philippe Janvier have just completed a review of agnathan relationships (*Nature*), and they hope to expand this to discuss general principles of fossils and phylogeny. Peter also hopes to continue work with Lars Werderlin (Stockholm) on the use of strontium isotopes to recognize freshwater and saltwater fishes in the fossil record.

Sally has completed work on an Eocene eel, and that paper will appear in a special volume (Monument Grube Messel perspectives and relationships) of *Kaupia*. Sally is our U.K. correspondent to an IGCP project on Paleozoic correlation using microvertebrate remains (see *Ichthyolith Issues*, 10). This now has recognition by the Royal Society, and there may be some funds available. Sally is continuing her catalogue of type and figured

specimens for acanthodians and placoderms and also her work on Carboniferous acanthodians.

Alison Longbottom is continuing her work with David Ward on an identification guide to the Eocene shark's teeth and the type and figured catalogue to elasmobranchs.

Colin Patterson's works on the interpretation of chimaeroid tooth plates and on supernumerary fin rays in teleosts were published in two successive issues of *The Zoological Journal of the Linnean Society*. With Dave Johnson (USNM), he has spent the last year or so unravelling the intricacies of the intermuscular bones and ligaments in teleost fishes, opening up a whole new area of character phylogeny. Their joint paper on acanthomorphs is due out in January, and the intermuscular paper is submitted.

Lu Yi, our Ph.D. student, is nearing completion of his thesis on Cenomanian fishes from the Lebanon, including taxa from a new locality. Colin and Peter will join Lu Yi to provide a short description of the fauna.

Brian Gardiner, our permanent visitor, has continued to work with Bobb Schaeffer on the interrelationships of neopterygians, using mostly characters of the dermal bones. He has recently returned to the age-old problem of the relationships of birds and mammals and fossils in between. This time he reckons that he has cracked it, with birds and mammals as Recent sister-groups and pterosaurs and paraphyletic dinosaurs as the sister-group of birds. For all the MLRs you'll have to wait to read the paper.

Angela Milner's major preoccupation for the past two years has been the Museum's new permanent dinosaur gallery; Jack Horner was a principal guest at the grand opening in April 1992. The summer was devoted to an accompanying book with Tim Gardom (the exhibition writer), which is due for publication in April 1993. Research has inevitably been on the back burner, but is gradually moving forward again with papers submitted on the East Kirkton aïstopod for the Royal Society of Edinburgh proceedings of the very successful conference on "Volcanism and Early Terrestrial Biotas" in September 1992, and on a little Texas Red Beds nectridean "*Peronedon*," given at the 4th Permocarboneous Faunas meeting (organized by Andrew Milner), which ran back-to-back with the Kirkton meeting in Edinburgh. A paper describing the Late Cretaceous Antarctic ornithopod, together with Jerry Hooker and Sandy Sequeira (Birkbeck College, London) is close to submission. Angela and Alan Charig will be getting back to *Baryonyx* in 1993 and pushing on with the descriptive monograph for which most of the drawings have been completed by artist Jess Wallace.

Sandra Chapman's time is almost fully occupied with reptile curatorial revamp of the dinosaur collection has begun, and with wider responsibilities for computer cataloguing. Cyril Walker now has only one day a week as a paleontologist. The bulk of his time is based in the Zoology Department, planning the move of all the Museum's overflow/large collections from the old outstation (Ruislip) to a new one at Wandsworth, to be completed by March 1995.

Alan Charig is approaching the sixth anniversary of his retirement and still keeps moderately active. At the end of 1992 he published applications to the ICZN concerning *Coelophysis* (with a consortium headed by E. H. Colbert) and *Scelidosaurus* (with Barney Newman) and has submitted another concerning *Cetiosauriscus*. More substantial works in press are a critical review of phylogenetic analyses of Triassic archosaurs (presented at Giovanni Pinna's workshop in Milan in 1991) and a paper on disaster theories of dinosaur extinction in the Halstead Memorial Volume. Projects in hand are a new, enlarged and updated " *A New Look at the Dinosaurs,*" and further work on *Scelidosaurus*.

Jerry Hooker continues his work on Eocene mammals, largely in his spare time now, because of the great increase in administration associated with being collection manager of fossil vertebrates. Since the last communication, he has nevertheless managed to publish papers on the phylogeny of some Late Eocene rodents, an Antarctic astrapothere fragment, and mammalian events at both the Paleocene-Eocene and Eocene-Oligocene boundaries in Europe (the former for IGCP 308, the latter for Prothero and Berggren's book on Eocene-Oligocene climatic and biotic evolution). Joint work with Margaret Collinson (Royal Holloway, University of London) resulted in a paper on plant-mammal coevolution through the Cainozoic for a Royal Society meeting in 1991. His collecting from a detailed sequence in the latest Eocene of the Isle of Wight has revealed some interesting faunal changes, which are being linked with paleobotanical, palynofacies, isotopic, and geochemical studies in collaboration with Margaret Collinson and David Matthey (Royal Holloway), Ros Singer (King's College, London), Tim Jones (Tübingen), Pin Van Bergen, and Jan de Leuw (Delft). Preliminary results were presented at the 1992 North American Paleontological Convention in Chicago. He has also just completed a manuscript on *Hyracotherium* phylogeny in an attempt to determine the position of the equid-palaeothere split which he talked about at the 1992 VP meeting held in Bristol.

Alan Gentry, newly redundant, benefits from no longer having to think of his work in terms of management criteria of relevance nor of having to spend time and thought on the demands of "accountability." He is busy and at least feels he is productive on subjects such as Miocene ruminant faunas of central and eastern Tethys and Paratethys (with E. P. J. Heinzman), *Sinap pecorans*, various Abu Dhabi artiodactyls, the Narmada alluvium Pleistocene collections in London, and others. His cladistic and phenetic study of bovid subfamilies and tribes has been published, and he has recently acquired a D.Sc. from Oxford University. Tony Sutcliffe, after six years of retirement, remains active in Ice Age matters, and commutes to the Arctic almost as frequently as to South Kensington.

Chris Stringer and Andy Currant completed their excavations at Gough's Cave, Cheddar (with Roger Jacobi), and Andy continues his work at Tornewton Cave in collaboration with Alison Roberts' team at the BM. Chris saw the Royal Society "dating human evolution" volume into print, and has now completed his book with Clive Gamble "In Search of the Neanderthals." With the merger of the Human Origins and Vertebrate Biodiversity groups, mentioned above, Chris has handed his administrative responsibilities for the Group, and for vertebrate curation, on to Angela for the next two years, and is hoping to have a little more research time for a while.

The Palaeontology Laboratory bore the brunt of the workload for the new dinosaur gallery, with Ron Croucher overseeing almost two years of preparation, casting, and mounting activities. Ron constructed a half mount of *Baryonyx* from elements of the left side of the skeleton molded and cast by Lorraine Cornish, remounted *Hypsilophodon* in an elegant running pose, prepared a *Centrosaurus* skull, and reworked dozens of smaller specimens for display. Post gallery, Ron has been getting to grips with an East Kirkton aïstopod and crocodiles from Niger for Angela, and another ichthyosaurian "swordfish" for Chris McGowan.

William Lindsay produced two new mounts for the gallery, *Gallimimus* and *Massospondylus*, together with Nigel Larkin, and then undertook detailed preparation on the East Kirkton "reptile" for Bob Carroll, Tim Smithson, and Alec Panchen, and on an aïstopod for Angela Milner. William is currently taking a maximum of two years sabbatical leave in Leeds, working on a freelance basis. Joanna Swannel, a graduate in archaeological conservation, hired on a temporary basis to replace William, is busy piecing together parts of a large sauropod collected on the Museum's 1988 Niger expedition.

Lorraine Cornish and David Grey remounted *Iguanodon atherfieldensis* in a modern pose, and produced numerous other casts for the exhibition. Lorraine has completed an M.Sc. in Quaternary studies including a dissertation on interglacial faunal diversity from Tornewton Cave, Devon. David also concentrated on preparing our young *Edmontosaurus* (acquired from Wann Langston in 1956) for display in its death pose, and is now finishing the preparation of the last *Scelidosaurus* block.

Adrian Doyle has carried on with conservation of small marine reptiles removed from display, as well as being involved with the dinosaur gallery. He has finished the acid preparation of a complete juvenile skull of the Brazilian pterosaur *Anhanguera*, which is being studied by Andrew Milner's postdoc student Stafford Howse.

This autumn saw the start of a major three-year project to conserve the large wall-mounted marine reptiles. A temporary lab has been set up to accommodate the largest slabs just behind the Main Hall, and work is currently underway on Mary Anning and Thomas Hawkins plesiosaurs. Nigel Larkin, hired initially to help with the dinosaur gallery work, has taken up a three-year post in connection with this project. He has also enrolled for University College's Vertebrate Palaeontology M.Sc. program and is working up a dicynodont from Tanzania for his research topic. (Angela Milner)

Sedgwick Museum of Geology, Department of Earth Sciences, University of Cambridge

After a grim four-year sojourn working for Her Majesty's Government as chief palaeontologist at the Nature Conservancy Council, Dave Norman was appointed as the first Director of the Sedgwick Museum in Cambridge in the winter of 1991 incidentally the first VP to hold such a position since the days of Harry Govier Seeley (of Greensand

subdivision of dinosaurs fame), who was the assistant to Professor Adam Sedgwick in the middle decades of the last century.

The last year has been one of mind-boggling activity in the museum, largely as a result of extra funding provided for expansion of the museum storage facilities, two new environmentally-controlled buildings, the building of a new conservation laboratory (headed by a newly appointed geological conservator Chris Collins), two other appointments (a designer Chris Hall, and computerized catalogue manager Pamela Phillips); and followed this year by the appointment of another computer assistant (Dr. Heng Wang) and an additional member of the research and curatorial staff Dr. Nick Court (Tertiary mammals primarily elephants and hyracoids).

After spending an enforced sabbatical as family child minder, Nick Court is delighted to be back in the VP fold. Papers submitted almost two years ago on the higher interrelationships of ungulate mammals (*Palaeovertebrata*) and the postcranial skeleton of arsinotheres (*Palaeontographica*) are still in press! However, a short note on auditory acuity in early proboscideans (*Lethaia*), the report of a new hyrax from the Paleogene of Tunisia (*Palaeontology*), and a functional treatment of the masticatory system of *Arsinoitherium* (*Historical Biology*), did appear in 1992. Nick's joint paper with Mahamed Mahboubi on new material of the oldest fossil hyracoid *Seggeurius amourensis* (Early Eocene of Algeria) should be published in the *Journal of Paleontology* this September, and a note on a peculiar mammal from the Eocene of Tunisia has been accepted by *JVP*. A manuscript describing the periotic of *Moeritherium* (primitive proboscidean from Algeria) will, however, need overhauling in the light of a mass of *Barytherium* material kindly lent to Nick by Bob Savage at Bristol. First indications are that there is a new species of *Numidotherium* among Bob's barytheres, and the carpus and tarsus of *Barytherium* are quite unlike those of any other proboscidean. Nick is in the early stages of describing this new material and envisions a functional treatment of the barythere material and cladistic analysis of Paleogene proboscideans.

Dave Norman has two current research students in place. Paul Upchurch (shared with Jenny Clack in Zoology), working on sauropod systematics and functional anatomy, has had an extremely hard, but ultimately successful year. He is close to submitting his Ph.D. thesis spurred on by the fact that he has just been awarded a postdoctoral research fellowship at Sidney Sussex College here in Cambridge, which will see him through the next three years or so and allow him to expand his work on sauropods.

Laura Canning also joined the burgeoning vertebrate paleontology research group at Cambridge (linking Zoology and Earth Sciences departments) this autumn and will be working on the thorny problem of theropod systematics, looking at the conundrum formed by the "megalosaurs" of Britain and Europe in the first instance. As a preliminary to her work this autumn, Laura spent an extremely enjoyable field season with Phil Currie and the crew from Drumheller.

Dave Norman has been rather heavily involved in museum and teaching matters for the past year an inevitable consequence of the new job (he hopes). Recent contributions

include a paper on feeding mechanisms in small herbivorous dinosaurs (with Dave Weishampel) in *Biomechanics and Evolution* (Ed. Rayner and Wootton); fossil collecting and conservation (*Palaeontology*) and dinosaurs past and present (*Journal of Zoology*). He was also rather surprised to find that his recent book *Dinosaur!* was commended as family science book of the year by COPUS (The Royal Society-sponsored Committee for the Public Understanding of Science). Slow but steady work has been continuing this year in a number of areas. The review of the fauna of Transylvania is going ahead in collaboration with Dave Weishampel (Johns Hopkins University) and Dan Grigorescu (Bucharest), with DNB finishing off work on the small ornithopod *Rhabdodon*, and starting work on the sauropod *Magyarosaurus*. A detailed review of the ornithopods of the Lower Cretaceous of Mongolia is also underway, following on from an extremely productive visit to Moscow in collaboration with Serfei Kurzanov. Another major review under way is that (with Alan Charig) of the anatomy of the Liassic ornithischian *Scelidosaurus*. The latter is proving to be extremely important (important new material having been discovered in recent years), and rather interesting (both historically into the workings of Richard Owen! and anatomically), particularly in the light of new material described by Haubold and Sereno & Dong in recent months.

In September Dave visited South Africa for a lecture tour and little gentle research, hosted by Bruce Rubidge (during the PSSA in Johannesburg) and Gillian King (Cape Town). The hospitality was fantastic (thanks to all that I met, particularly Gillian and Bruce), and the prospects for future research collaboration on the ecology of dinosaurs and mammal-like reptiles of the Karoo of southern Africa look extremely promising. As a follow up to this lecture tour and exploratory venture, Dave should be making a return trip to South Africa in March and April of 1993 to join a team from Wits and the South African Museum for field work in the Karoo, which is being generously sponsored by the FRD of South Africa. (Dave Norman and Nick Court)

UNITED STATES OF AMERICA

Northeast Region

American Museum of Natural History, New York, New York

John Maisey's South American research is continuing on several fronts. A description of a new clupeomorph from the Santana Formation is complete. His study of the ionoscopid *Oshunia* is progressing well, and has been greatly enhanced by access to comparative *Ionoscopus*, "caturid," and ophiopsid material, especially from Solnhofen. New discoveries of Cretaceous fishes in Venezuela (by John Moody and his colleagues) are the subject of a paper submitted to the *JVP* recently. Acid preparation of Santana specimens is continuing, providing material for years of research! A second field season with Alexander Kellner and Brazilian colleagues, including Diogenes Campos of the DNPM, has provided a much larger suite of lithological samples from many sites in the Araripe Plateau.

In July John officially handed over approximately 18 hectares of land to the Regional University of Cariri, in Crato, Ceara, on behalf of the Herbert R. Axelrod Foundation. This land was purchased by the Foundation in order to create the first conservation site in the Santana Formation. The televised formal ceremony was attended by DNPM and university officials, press representatives, and about 200 spectators. The land is located right on the productive levels of the Romualdo Member, and has already produced a number of good specimens. It is hoped that the Regional University will develop the site for educational, scientific, and cultural purposes. The University (and its affiliated Museum of Paleontology in Santana do Cariri) will be able to build its collections and act as a center for paleontological research, essentially free from pervasive commercial pressures.

Dick and Beth Tedford, Steve Barghorn, and Rod Wells (Flinders University, South Australia) spent a month in northern New Mexico, planning a field trip in the Espanola Basin for the upcoming SVP Annual Meeting and continuing collection in the Zia Formation of the northern Albuquerque Basin. The field trip will be a single day excursion beginning and ending at the conference hotel in Albuquerque. Collecting this year focused on the interdune deposits at the base of the Piedra Parada Member of the Zia Sand, where a late Arikarean fauna is beginning to emerge.

Work on the Yushe Basin (Shanxi, PRC) continues, led by Dick Tedford and Larry Flynn from the U.S. side. The team is busily summarizing the fauna for a planned monograph that will bring together under one cover all the information in hand about this benchmark Pliocene succession. Last summer Qiu Zhuding from IVPP, Beijing, visited New York, Harvard, and Tucson in connection with his rodent studies for the project.

Two more colleagues from the IVPP, Zhai Ren-jie and Wang Yuan-qing, spent a fruitful summer in the AMNH. Professor Zhai mainly worked on the beautiful small mammal assemblage from the Paleocene Nanxiong Basin and had attempted to acid-prepare the specimens, rather than use the particularly difficult conventional methods. Wang Yuan-qing worked on the systematics of pantodonts for his dissertation and also went on an extensive tour of museums and a field trip to Wyoming with the Carnegie Museum crews.

Malcolm McKenna reports progress with lab preparation on a number of new mimotonid skulls from the Bumban Member of the Naran Bulak Formation, Mongolia. These newly collected early Eocene lagomorphs retain a second lower incisor behind the di2 and show similarities to rodents, as well as to more advanced lagomorphs. The dental pattern of mimotonids is clear and will permit resolution of the problems still remaining with lagomorph dental pattern homologies. A certain amount of progress has also been made in collaboration with Ann Bleefeld on the interpretation of *Anagale*. These efforts take a back burner in favor of finishing a certain other project, with which readers of these pages are all too familiar! Malcolm was awarded the Paleontological Society Gold Medal for 1992, in spite of the above-mentioned tardiness. Congratulations, Malcolm!

The last summer was the second field season of the AMNH- Mongolia joint paleontological expedition in the Cretaceous and early Tertiary deposits. The team was made up of the same personnels as the year before, i.e., Mike Novacek, Mark Norell, Lowell Dingus, Jim Clark, Priscilla and Malcolm McKenna from the AMNH, and A. Perle and D. Dashzeveg from Mongolia. See *JVP* (12:24A) for a brief description of their success.

Perle Altangerel of the Mongolian State Museum came to the U.S. for a short museum tour. He has been spending most of his time here in New York closeted with Norell, Chiappe, and Clark, working frantically on several projects. He will escape soon, however, during a two-week visit to several institutions around the country.

Jim Clark has been keeping busy with field work in Late Triassic marine deposits of Nevada with Nick Hotton, Pete Kroehler, and (in absentia) Hans- Dieter Sues; field work in Late Cretaceous and early Paleogene deposits of Mongolia as part of the Mongolian-American Museum expeditions to the Gobi; exploratory field work in Yemen with Ian Tattersall and Peter Whybrow; and a visit to the Kayenta Formation in Arizona with Gene Gaffney. He recently had the pleasure of serving on the Master's thesis committee of Victor Hugo Reynosa of UNAM in Mexico, and the NSF has seen fit to continue his collaborative project with UNAM and David Fastovsky in Jurassic deposits of northeastern Mexico one more year. Soon he will be visiting Marcello Sanchez and Omar Linares in Venezuela to scope out Jurassic deposits in the Merida Andes, which are tectonically related to the Mexican deposits. During those few moments when he is in New York, he has had the extreme pleasure of working on Mongolian fossils with Mark Norell, Luis Chiappe, and Perle Altangerel. Together they are taking a close look at the origin of birds based upon exciting fossils collected by the Mongolian- American Museum expeditions to the Gobi Desert, some of which Jim reported on in Toronto. He is also studying the spectacular skull of the segnosaur *Erlikosaurus* with Perle, as well as goniopholidid Mesoeucrocodylians (please note: Jim did **not** name this group!) with Wann Langston.

In September we welcomed our new postdoctoral fellow of the year, Luis M. Chiappe. Luis' current activities include: a field trip (together with James Lamb, Storrs Olson and Per Ericson) to the Campanian marine beds of the Moorevill Formation in Alabama, where they discovered a new Cretaceous bird to be studied by Lamb, Ericson, and himself; a systematic study of enantiornithine birds (a description of an articulated specimen from Patagonia is submitted to *JVP*, and a description of a new avisaurid from Montana is in the working, with David Varricchio, Museum of the Rockies); and a study of several theropods from the Late Cretaceous of Mongolia with Perle Altangerel, Mark Norell, and Jim Clark.

The last year has been a productive one for Xiaoming Wang who finished several papers. Among them is a monograph on the systematic revision of Hesperocyoninae and a study on the phylogeny of pre- canid miacoids (both in review). Beside the carnivorans, he is collaborating with Zhai Ren- jie to describe several nearly complete crania and dentitions

of an erinaceomorph insectivoran from the reputed earliest Paleocene of Nanxiong Basin, southern China.

Les Marcus made two visits to Mallorca in 1991 and 1992 to look at the large *Myotragus* cave sample from La Muleta, collected by Bill Waldren at the Deia Museum. A morphometric project is in the planning stages. That is one crazy bovid and there may be more than 1,000 individuals represented at La Muleta over 40,000+ years.

A paper on crania and phylogeny of living dormice (Myoxidae) written by John Wahlert, Sharon Sawitzke, and Mary Ellen Holden will be published in *American Museum Novitates*. Wahlert is removing matrix from the ear of *Rapamys*, a paramyid from the upper Eocene of Montana, and has not yet dug deep enough that confusion converges on clarity.

Ivy Rutzky was one of 25 participants who was awarded funds to attend the excellently organized NSF- sponsored Workshop on Computerization of Natural History Collections, which was held at UC Berkeley in May 1992. The workshop organizers and participants came from varying disciplines, types of institutions, sizes and types of collections, and disparate degrees of computerization. She returned with a clearer understanding of what the state of data management is.

A temporary exhibit focusing on the fossils of the Araripe Plateau of northeastern Brazil has been on exhibit since May 1992. It includes important specimens from our collections, as well as reconstructions of the environment during the early Cretaceous, painted by Ivy Rutzky.

After some unexpected delays, Bryn Mader and Alex Alexander are about to submit their manuscript describing the unusual forked- horned brontothere from Montana. This brontothere is a new species of *Megacerops* (as defined by Mader, 1989) and is known from at least three specimens (two from Saskatchewan, Canada).

Bryn Mader has submitted a Taxonomic Note to the *Journal of Paleontology* clarifying the type specimen of *Mesohippus validus*. Bryn is also working on a species- level revision of the Uintan brontothere *Sphenocoelus* (= *Dolichorhinus*), which should be completed soon. A species- level revision of the primitive brontothere genus *Eotitanops* is planned for the near future.

Bob Evander, Bryn Mader, and Frank Haase have prepared a short paper correcting catalog numbers incorrectly cited by Schultz and Falkenbach in the various oreodont papers that they published between 1940 and 1968. Evander et al. hope that this paper will help to clarify the Schultz and Falkenbach hypodidiums and will be of use to those who take on the formidable task of revising the oreodonts. The paper will probably be submitted to the *American Museum Novitates*.

John (Alex) Alexander returned to the Bridger Basin this past summer with student volunteer Carl Mehling in pursuit of more *Notharctus* bones and recovered articulated

postcranial material from a locality he discovered in 1991. Back in the lab three right hips showed up. These and other duplications indicate an MNI=5. The taphonomy of the mudflow ash in which they were found suggests a situation comparable to Herculaneum. If the ash didn't kill them outright, then the subsequent mudflow must have swept up individuals and buried them together. A monotypic mass death assemblage of Eocene primates is, however, a unique find. There is no stream sorting of bodies going on, so individuals tend to be found as complete or partial skeletons. The extreme hardness of the mudstone has made excavation a slow and laborious process. Alex has submitted a grant proposal to the NGS for a return to the site in 1993 with a jackhammer. So far parts of eight *Notharctus* skeletons have been found in a single unit on one butte, including the 1988 find of the best *Notharctus* skull ever. Alex published a report on this find in the August issue of *Natural History*. A complete skeleton of *Notharctus* based on the new material prepared by Alex will go on display at the AMNH in the new Hall of Human Biology and Evolution this May.

Dan Bryant has been busy finishing a manuscript on the oxygen isotopic composition of fossil horse teeth, and co-editing a special issue of *Palaeogeography, Palaeoclimatology, Palaeoecology* with Bruce MacFadden. Gina Gould finished her Master's thesis (Columbia University) in late autumn on the cladistic relationships of fossil erinaceid insectivores.

During this summer Alexander Kellner has done field work with John Maisey and other Brazilian colleagues in the Araripe Basin, northeast of Brazil. He reports that they did find some very nice fishes and other fossils from the Santana Formation. Alexander has also finished the preparation of some mammals collected during last year's AMNH Mongolian expedition, which will be studied by Malcolm McKenna, Mike Novacek, Mongolian paleontologists, and himself. He continues working on some projects concerning his favorite subject, the pterosaurs, and hopes to present the results very soon. (Xiaoming Wang)

Calvert Marine Museum, Solomons Maryland

This past autumn marked the beginning of construction on our new 3,000 ft² Miocene paleontology exhibit ("A Window in Time: Maryland in the Miocene"). The new hall will feature a self-guided collections study area, a working prep lab, a replica of a section of the Calvert Cliffs, recreated marine and terrestrial habitats, and an area explaining how the modern Chesapeake Bay formed (this last topic will lead into our newly-opened aquarium exhibit). In connection with the new exhibit Mike Gottfried just returned from a month in Cape Town at the South African Museum working with Leonard Compagno on a skeletal reconstruction of the fossil "megatooth" shark *Carcharodon megalodon* and skeletal anatomy of the extant Great White Shark *C. carcharias*. Earlier results of this collaborative project were presented at SVP in Toronto; Mike, Leonard, and CMM Curator of Exhibits Curt Bowman will be discussing this research further during the Great White Symposium at Bodega Bay, California, this March. Mike thanks everyone at

the SAM for their generous help and warm hospitality during his visit. The project has received generous financial support from the AAM's International Partnership Among Museums (IPAM) program, and we all look forward to Leonard's IPAM-sponsored visit to CMM this March.

Ruth Elder and Craig DeTample would like to thank everyone who helped celebrate their wedding in Toronto. They are working on their thank yous, and hope to have the first drafts in, with pictures, very soon. Craig is trying to convince Ruth that there should be a yearly anniversary party at SVPstay tuned.

Craig and Mike both volunteered to sit on the new SVP professional-amateur relations committee, appropriate given the active amateur collecting community in our region and CMM's sponsorship of a large fossil club. Craig is also serving on the Education Subcommittee of the Maryland Governor's Advisory Committee on Promoting Paleontology. (Mike Gottfried and Craig DeTample)

Carnegie Museum of Natural History, Pittsburgh, Pennsylvania

Our new research associate Gerard R. Case, in collaboration with James J. Leggett, has a paper in press in the *Annals of Carnegie Museum* on the discovery of fossil sharks' teeth from a previously considered "unfossiliferous" formation in the state of Mississippi. The material under study is Late Paleocene or Early Eocene in age. (Gerard R. Case)

National Museum of Natural History, Washington, D.C.

Steve Jabo has joined the VP prep lab. He previously worked in collections management, left for private industry, and has returned to the department. Connie Barut is busy casting a virtually complete giant wombat (*Phascolonus*) skeleton with the help of Steve and volunteers Ron Schrader and Joyce Bailey.

Late in November a small tornado struck a storage building in Silver Hill, Maryland, where the department stores many specimens, mostly unprepared Emlong collection cetaceans and Marsh dinosaurs. The building was severely damaged, but fortunately the specimens survived intact. Lab staff Pete Kroehler and Fred Grady have made several trips to the facility to assess damage and supervise the moving of some of the collections for emergency repairs to the building.

Bob Emry's term as an editor of the *Journal of Vertebrate Paleontology* ended with the calendar year. He asks that you send your mammal manuscripts to Richard L. Cifelli at the Oklahoma Museum of Natural History.

Nick Hotton and Dave Bohaska have been appointed to the Governor's (Maryland) Advisory Committee on Promoting Paleontology. Discussions have centered on preservation of sites and on education. Dave Bohaska is serving on the Calvert County (Maryland) Cliff Policy Task Force; preservation of at least a part of Calvert Cliffs for its paleontological values has been a subject of discussion in this committee also.

Bob Purdy, Fred Grady, Dave Bohaska, research associate Ralph Eshelmen, and Shyam Gupta (National Institute of Oceanography, Goa, India, visiting Bob to study shark teeth) made their annual trip to North and South Carolina. We acted as "resource people" at two fossil fairs and visited several localities around Myrtle Beach, South Carolina, and New Bern, North Carolina. (Fred Grady and Dave Bohaska)

New Jersey State Museum, Trenton, New Jersey

Bill Gallagher has been teaching a large class of Rutgers undergraduates about dinosaurs and is happy to report that dino- fever remains unabated here in New Jersey. He will also be involved in an introductory paleontology course next semester offered by the Wagner Free Institute of Science in conjunction with the Academy of Natural Science, Philadelphia. Work continues on reorganizing our Cretaceous and Tertiary fossil collection, with the ultimate goal of producing a catalogue of our paleontological type specimens.

Bob Denton and Bob O'Neill report finding baenid turtle material among the Ellisdale collections. They will be visiting the AMNH in January to check comparative specimens in their Ellisdale lizard research. They also expect to begin work on southern Utah Cretaceous lizards, as arranged with Jeff Eaton and Jim Kirkland. Bob Denton also is making additions to the upcoming revision of *Dryptosaurus* (coauthored with Baird, Carpenter, and Russell) for publication next year.

Barbara Grandstaff continues to work with the Ellisdale microfossils, including the mammals, crocodylians, and fish. She continues to work with *Enchodus* specimens as well, and is overseeing preparation of the Surratt- Bussen plesiosaur. Dave Parris is trying to complete several turtle projects this winter, while working to bring about some much-needed revisions and upgrades in the natural history hall. A conservation survey of the collections (IMS supported) will take place in February, a good chance to evaluate the Museum's natural history holdings as its centennial year (1995) approaches. (Dave Parris)

New York College of Osteopathic Medicine, Long Island, New York

We are pleased to announce that since Larry Witmer has joined Nikos Solounias as faculty in the Department of Anatomy, NYCOM (part of the New York Institute of Technology) represents a new (growing?) refugium for VP research. Located in Nassau

County, Long Island, NYCOM is another center of VP drawing on the abundant resources of the AMNH.

Nikos Solounias has finally completed the majority of his hyaenid research in collaborative studies with Bob Hunt and Lars Werdelin. The tooth microwear research is almost completed as a series of papers with Lee-Anne Hayek and Sonja Moelleken, M.D., and Nikos has been finishing up the tooth microwear studies. Sonja and Nikos have also worked on various aspects of the ruminant masticatory morphology and submitted papers. The next tooth microwear paper will be on 14 extinct giraffids with the new statistical method devised by Lee-Anne Hayek. The Natural History Museum of the Aegean has begun being built on Samos Island. Nikos plans to visit Samos next summer and help with the new museum as an Associate Director. He has been working on a paper on the fauna from Samos with new biostratigraphic data from this year's field work. In addition, he intends to finish the descriptions of most of the bovids from the Siwaliks (Chinji Formation) with John Barry and Mahmood Raza. Nikos will be going to Sweden and Finland in April for collaborative studies with Lars Werdelin and Mikael Fortelius.

Larry Witmer finished and defended his doctoral dissertation on facial evolution in archosaurs, drawing inferences from extant and extinct archosaurs alike. The work was undertaken at Johns Hopkins under the able supervision of Dave Weishampel. A major focus of the research was to determine the soft-tissue relations of the antorbital cavity. As such, Larry developed a methodology for dealing with the problem of inferring soft tissues (or anything else) in fossil taxa; this research is being published in Jeff Thomason's volume on functional morphology in vertebrate paleontology. Larry is in the process of preparing other portions of the dissertation for publication. Now that the dissertation is finished, Larry is enjoying returning to other projects previously back-burnered and new projects on archosaur VP and craniofacial ontogeny in extant archosaurs. (Nikos Solounias and Larry Witmer)

Peabody Museum, Yale University, New Haven, Connecticut

Dan Brinkman is happy to report that he has survived his qualifying exams. Unfortunately, he has yet to take his final exams and complete a term paper that is due soon. Starting in January, however, he hopes to spend less time on course work and much more time doing research. (Gerry Parisi)

Pennsylvania State Museum, Harrisburg, Pennsylvania

Bob Sullivan recently joined the State Museum of Pennsylvania as Senior Curator of Earth Sciences, replacing Don Hoff who retired from that position in December, 1991. The earth sciences collection is regional in scope and includes some 56,000 specimens (rocks, minerals, and fossils). There are, however, a few specimens (mostly minerals) from around the world. Of particular importance are the paleobotanical fossils collected by Leo Lesquereux, William Klose, and Isaac James (approximately 8,000 specimens).

There are also a number of fossil invertebrates from around the Commonwealth, and, for you vertebrate fans, the collection includes various fossil fishes, local Triassic vertebrates (limited numbers), and the Marshall's Creek mastodon.

Before coming to Harrisburg, Bob was immersed in creating the San Diego Natural History Museum's "The Dinosaur Eggs- hibit" (pun intended). This temporary exhibit, which ran from 13 June to 1 November, featured examples of dinosaur eggs, babies, and juveniles from around the world. Bob deeply appreciates all the help and cooperation he received from his colleagues and various institutions. Special thanks are extended to Mary Dawson, Betty Hill, Jack Horner, Pat Leiggi, Wade Miller, Sam McLeod, Howard Hutchison, Mike Greenwald, Don Lofgren, George Corner, Jim Madsen, Ken Carpenter, and Karl Hirsch. Without their help this exhibit would not have been a great success.

On the research front, Bob did manage to get away to New Mexico to do some limited field reconnaissance in the Kirtland Formation of the San Juan Basin. With members of the Friends of Paleontology from the New Mexico Museum of Natural History, they were able to retrieve a partial rib cage of a dinosaur that was discovered the previous year. Bob continues to work on two manuscripts on the Messel anguid lizards (*Placosauriops* and *Ophiasauriscus*) with Thomas Keller (Frankfurt). Because of all the interruptions with the "Eggs- hibit," program officer duties, and moving, progress on these and other projects has been slow. However, Bob is hopeful that he can return to these projects (in some capacity) this winter. (Robert M. Sullivan)

Rochester Institute of Vertebrate Paleontology (and friends), Rochester, New York

The RIVP was officially incorporated as a not- for- profit corporation to further paleontologic research in December, after numerous bureaucratic delays and lost paperwork. It has been a real education in the workings of corporate America. Bill Korth was elected president, and Judy Massare was elected provost at the first meeting of the Board of Directors (which by no coincidence also includes Bill and Judy). Jack Callaway (Laredo State College) and Amy Sheldon (University of Rochester) have been appointed research associates of the institute. The institute address is: 316 Cedar Place, East Rochester, NY 14445.

Bill Korth was able to get to Nebraska for some field work last summer, collecting at several micromammal quarries in the Clarendonian. He continues to work with Bob Emry (Smithsonian) on his Chadronian rodent material from Flagstaff Rim, Wyoming. Bill is also working on a book about the Tertiary record of rodents in North America to be published by Plenum Press next(?) year.

Amy Sheldon shifted her base of operations to Alabama at the beginning of November. She has several papers nearly ready to submit including: a description of a good specimen of a juvenile *Clidastes* (from her M.S. thesis), a paper on the convergence between *Hesperornis* and mosasaurs, and a paper (with Randy Rossier and Gorden Bell) on

heterochrony in mosasaurs (from her SVP presentation in October). She hopes that these will all be submitted by the time you read this.

Bobb Schaeffer and Brian Gardiner (British Museum) are engaged in a revision of their previous paper on lower actinopterygian relationships. This one will be based hopefully on a more critical analysis of cladistic implications.

Judy Massare continues her association with the Earth Sciences Department at Brockport State College. Next semester she becomes a meteorologist for two days each week to teach the weather labs. She is working on a manuscript reviewing swimming in marine reptiles for a symposium volume on the biomechanics of swimming (Marine Biological Association, U.K.), and is organizing a conference on Women in Geosciences, to be held at Brockport State College on March 12-13, 1992. Anyone interested in the latter should contact her as soon as possible. (Judy Massare)

Southeast Region

Columbus College, Columbus, Georgia

The past half-year has produced a substantial number of new crocodile specimens from the region, along with the first plesiosaur material in western Georgia and a few new fish. David Schwimmer, Dent Williams, and J. D. Stewart (LACM) read a paper at SVP on *Xiphactinus angulatus*, which seems to be the only species of the genus present in the eastern Late Cretaceous outcrop. Work continues on the great Alabama Cretaceous coelacanth project, with five specimens known to date, including an expatriate individual from New Jersey.

In September a substantial crocodile specimen arrived in a hundred-odd pieces via an amateur collector. The collecting locality, somewhere in central Alabama, remains a mystery but the matrix appears to be of Mooreville Formation lithology (early Campanian, open marine shelf facies). We have pieced together the nearly complete right mandible, nasals, right maxilla, and part of the premax and frontals. The animal is large: the mandible, with the symphyseal area missing, is over 1,100 mm long, and the skull is broad and rather alligator-like. The bearer of the specimen (who was not the collector: a long story there) believes we can find the locality in the spring, when water levels are down and the crazed hunters are away. He believes the entire post-cranial skeleton may be present, which would give us just short of 10 m of croc to dig up. No identification at present except that some of the (few) teeth show a heavily enameled *Deinosuchus*-like morphology, and some do not. No osteoscutes are known.

Other crocodile materials are appearing with great regularity in our regional outcrops, including many jaw and tooth remains showing *Deinosuchus*-like morphologies. The local abundance of large crocodiles suggests an ecosystem with crocodiles as the

dominant shore- based and marine predators, rather than one dominated by theropods, mosasaurs, and plesiosaurs.

Nevertheless, a single plesiosaur vertebral fragment turned up in western Georgia, in mid-Campanian deposits, for the first time. Similar (but much better) material has been collected recently by Dent and others in eastern Alabama; plesiosaurs are still relatively rare locally: no taxa determined from the isolated vertebrae.

Work on Cretaceous sharks is still in progress, especially a study of scavenging by *Squalicorax* species, and we would appreciate any evidences of such activity in other areas. Finally, we are waiting for publication of the Blufftown Formation dinosaur paper in the *Journal of Paleontology* early in the forthcoming year. (David Schwimmer)

Department of Biology, Berry College, Rome, Georgia

Finishing touches are being made on the manuscript "Morphological Change in the Quaternary Mammals of North America," edited by Bob Martin and Tony Barnosky. This book, to be published by Cambridge University Press early in 1992, derives from a symposium by the same name held at Berry two years ago. Bob's paper, "Patterns of variation and speciation in Quaternary rodents," is one of 15 studies by Quaternary specialists that also include treatments on identifying stasis, measuring evolutionary rates, and quantifying morphological change at a variety of temporal and spatial scales.

Bob spent an enjoyable week at the Museum of Paleontology, University of Michigan, this past summer measuring Pliocene through modern mammal specimens from the Meade Basin for an examination of the evolution of body size distributions in small mammal aggregations. He expects to compare these data with various expectations from the literature ranging from interesting statistical anomaly (e.g., all set of objects with small inter-object variance can be expected to generate a mean "Hutchinsonian ratio" of 1.3) to support for the competitive exclusion, tight coevolution model.

Bob also presented an invited paper entitled "A preliminary review of dental evolution and paleogeography in the zaidid rodents, with emphasis on Pliocene and Pleistocene taxa" at the 29th International Geological Congress in Kyoto, Japan, 46 September, as part of a workshop on Asian rodents and lagomorphs hosted by Takeshi Setoguchi, Chuankuei Li, and Yukimitsu Tomida. It was certainly the highlight of the year, and Bob wants to thank the conveners and other participants for a fine experience. (Robert A. Martin)

Discovery 2000 (formerly Red Mountain Museum), Birmingham, Alabama

In November of 1991 the Red Mountain Museum and Discovery Place (a children's learning center) merged. At that time the entire operation became a private enterprise. Red Mountain Museum had been part of the city of Birmingham. Plans are to move into a 1930s department store downtown (the old Loveman's Building), which has available some 200,000 ft² of space. The new facility will operate as a "science center," combining exhibit themes from both institutions, as well as expanding into general science. The opening date for the public is expected to be approximately 1994-1995. All of the former RMM research collections will be moved to the new facility, which will provide about five times the current collections storage space, as well as being climate-controlled. All current and future collections will be accessioned and cataloged into the existing RMM structure. All previously published specimens will continue to have the same designation (i.e., RMM #).

As part of the massive organization effort necessary to physically move the collection, our board has asked that we recall all outstanding loans. Notices have already been sent to all those with material on loan, but if you do have material from the Red Mountain collection and have not been contacted, please get in touch with Susan Henson, Collections Manager, Paleontology Department, Discovery 2000, 1421 22nd St. So., Birmingham, AL 35205; phone (205) 933-4127, fax (205) 933-4111. Anyone with material currently on loan for study will retain first rights for research/publication, and can re-borrow the material once the collection has been reorganized after the move.

This spring Susan Henson received her Master's Degree based on her studies of animal use and taphonomy of faunal remains from Middle Bronze and Late Bronze/Iron Age sites in Israel. Susan continues the onerous task of organizing the RMM collection for the move.

In September Storrs Olsen of the Smithsonian, Luis Chiappe of the American Museum of Natural History, and Per Ericson of the National Museum of Sweden visited the badlands of Alabama with James Lamb to look at sites which have produced Cretaceous birds (*Ichthyornis*). Much to everyone's surprise and delight they found three birds in four days! Two are represented by only single elements, one of these being a pelvis. The third has so far produced several vertebra, a femur, partial humerus, and a complete ilium, and may well represent an undescribed species. Luis, Per, and James will meet at the American Museum in March to make comparisons and possibly describe the guy. Per suggested "*Banjoornis*," since the bird had once traveled in Alabama.

After 12 years, James Lamb will be leaving the museum. He will be returning to school at the University of Alabama, and working at the museum there. After the first of the year, all correspondence to him should be addressed to: James Lamb, Paleontology Department, Alabama Museum of Natural History, P. O. Box 870340, Tuscaloosa, AL 35487. Phone (205) 348-7550. (James Lamb)

Louisiana State University Museum of Natural Science, Baton Rouge, Louisiana

The Museum of Geoscience and Natural Science Museum have merged, a situation that allows Schiebout to get back to teaching and research. She is working on a new VP seminar for spring and on recovering from two recent office moves, the last a freak side effect of Hurricane Andrew. Water from a broken pipe poured onto her desk, files, and some boxes yet unopened from an earlier move. All specimens and most of her books are OK, but if you have not gotten an answer to a letter, please write again or phone at her new number (504) 388-2931.

Suyin Ting is finishing two proofs: (1) "A preliminary report on an early Eocene mammalian fauna from Hengdong, Hunan Province, China," which was presented at the Messel Conference, held in Hessisches Landesmuseum in Darmstadt, Germany, in November 1991; (2) "New cranial and postcranial evidence for the affinities of two eurymylids (Rodentia) and mimotonids (Lagomorpha)," which was presented at the Mammalian Phylogeny Conference held by AMNH in 1991. Acid treatment, screening, and picking of Big Bend material from Late Cretaceous and late Paleocene (Joe's Bonebed) sites is yielding mammal teeth, crocs, fish, and lizards. Alton Dooley is putting the finishing touches on our *Allosaurus* remount.

Alton Dooley is looking for any North American specimens of the Squalodontidae (Cetacea) for his dissertation. He particularly needs information from small museums and museums on the West Coast. If you have any specimens that you believe he is not aware of, please send a note or call at (504) 334-0237. (Judith Schiebout)

Paleontologist-at-Large, Birmingham, Alabama

Cait Kiernan's application to the International Commission on Zoological Nomenclature, " *Clidastes* Cope 1868 (Reptilia, Sauria): proposed designation of *Clidastes propython*, Cope, 1869 as the type species," was published in the *Bulletin of Zoological Nomenclature* (Vol. 45, Part 2:137139) in June. She encourages others working with saurian taxonomy to submit their comments to the ICZN for publication, c/o the Commission's Executive Secretary. Postage costs being what they are, she is asking that anyone requesting a reprint of the application please enclose a SASE (P. O. Box 590133, Homewood, AL 35259). (Cait Kiernan)

The University of Florida

We did not have a report from the University of Florida in the last *News Bulletin*. Thus, since things have been quite busy around here over the summer and autumn with a number of projects going on involving research, field work, and the acquisition of new collections, this report will be particularly lengthy.

Bruce MacFadden reports that in early May he travelled to the University of Utah to work briefly there with Thure Cerling and Yang Wang on reconstructing fossil horse diets using stable isotopes. Their results so far shed new light on the classic interpretation for the evolution of hypsodonty. Back in Florida during late May, Bruce et al. sponsored two highly successful weekend digs at Thomas Farm. Between 5001,000 catalogable specimens were collected during that time, including many horses, several carnivore jaws, and a complete skull of *Parahippus* (the latter by Gary Morgan), not to mention the yet-to-be sorted microfauna. In June, Bruce went to Bolivia to collect paleomagnetic and isotope samples from an important Miocene section in the southern limb of the presumed Bolivian orocline. He worked in the field with Federico Anaya of LaPaz and Pierre-Antoine Saint-Andre of Paris. Bruce then spent the month of July back in Salt Lake City, learning isotope preparation techniques and use of the mass spectrometer. His initial interest in fossil horses and stable isotopes has now branched out to include study of what South American fossil mammals can tell us about paleodiets, community evolution, and global climate change during the late Cenozoic. Bruce's book entitled *Fossil Horses* was published by the Cambridge Press in September. During the autumn semester, he co-taught a class in evolutionary theory in the zoology department.

Dave Webb and a team of SCUBA excavators have just come up for air after spending five weeks on the bottom of the Aucilla River in north peninsular Florida. Their principle excavation known as "The Stairway into the Past" extends through five meters of fine-grained sediments spanning the Pleistocene-Holocene boundary. With an average sedimentation rate of 1 mm per year and an abundance of radiocarbon dates, a detailed local environmental history is beginning to emerge. The pollen profile indicates a dry, cool interval beginning 12,000 years ago, and this coincides with relatively rapid deposition of a vertebrate-rich stratum near the bottom of the river. Fine-grained, highly organic sediments extending upward toward the 11,000-year level consist predominantly of American mastodon stomach contents. Another rich stratum at 10,000 years reflects a warmer, wetter palynoflora, a rich sample of late Paleoindian wood and stone artifacts, and excellent samples of molluscs and vertebrates. This key section helps tie together many late Pleistocene and early Holocene vertebrate samples in north Florida.

Gary Morgan reports that the Florida Museum of Natural History has obtained two major collections during the past six months. Dr. Richard Ohmes of Bremerton, Washington, donated a large number of *Mammut americanum* and *Mammuthus columbi* maxillae, mandibles, tusks, and isolated teeth, as well as several skulls of *Bison antiquus*, from the Aucilla River in the Florida panhandle. The Aucilla collection represents the single largest mastodon sample known from Florida. We also received a significant collection from the late Rancholabrean Warm Mineral Springs Site in Sarasota County, donated by W. A. (Sonny) Cockrell and the Bureau of Archaeological Research in Tallahassee. Warm Mineral Springs is an underwater site that documents the association of Paleoindians and Pleistocene megafauna, in particular skeletons of *Smilodon* and *Megalonyx*. This new collection from Warm Mineral Springs is also very rich in microvertebrates. The Leisey Shell Pit monograph is finally nearing completion (sound familiar?). All manuscripts have been received from the authors and are now being sent out for review. Thanks in advance to the many SVP members who agreed to review

manuscripts. The Leisey monograph should appear in the *Florida Museum of Natural History Bulletin* in early 1993.

Bob Chandler reports that work on integrating the Brodkorb/Zoology Department collection into the collection of the Florida Museum of Natural History has begun in earnest. Also, he is beginning a restudy of the giant phorusrhacid bird *Titanis*; he is looking at previously collected specimens and newly collected ones from the Santa Fe River near Gainesville, with field work planned to get still more new material. In connection with his study of *Titanis*, he is looking at a newly discovered late Oligocene partial bird skeleton from Bolivia that is either the earliest record of *Cariama* from South America or *Idiornis*, a middle Tertiary genus so far reported only from France.

Russ McCarty has spent much of the summer preparing an *Amebelodon* mandible that was collected at the Moss Acres Racetrack site last year, and is largely finished with the portion of the specimen posterior to the symphysis. Once this project is completed, his next intended major project is preparation of one of the three *Amebelodon* skulls also collected last year from Moss Acres Racetrack.

Steve Emslie and a crew of four students from the University of California at Santa Cruz, Carol Carr, Déjà Munn, Matt Noel, and Chris Rado, spent the month of October excavating bird fossils at the late Blancan Richardson Road Site in South Florida. They collected over 5,000 bones of an extinct species of cormorant, including more than 1,000 with taphonomic data. Since early November, Carol and Déjà have been employed at the FLMNH, curating and cataloguing the cormorant fossils from the 1992 season, as well as working on their Senior thesis projects. Steve recently received an NSF Grant to conduct systematic and taphonomic studies on the Cormorant Site. He plans to spend part of next summer at the FLMNH, accumulating and analyzing data on fossil and modern cormorants.

Gary Morgan, Roger Portell, and Bruce Shockey travelled to Bolivia in May and early June to collect Deseadan vertebrates from the Salla Beds. In La Paz the Salla Crew teamed up with Federico Anaya from the Bolivian National Museum and two Bolivian students. Their most significant finds included several skulls and jaws of caenolestid marsupials, a complete mandible of the litoptern *Coniopterium*, a nearly complete skeleton of the notoungulate *Trachytherus*, several hundred rodent jaws and maxillae, and a partial articulated skeleton of a bird related to the modern seriema, which is currently under study by Bob Chandler.

Regarding graduate student doings, David Lambert has spent the summer and autumn working on a number of different tasks. He has finally written up the results of his study of proboscidean ivory microstructure, submitting the manuscript to *JVP*, and gave a talk on this subject at the SVP meetings in Toronto. He has also worked avidly on his dissertation, writing chapters on the geology and taphonomy of the Moss Acres Racetrack site. David has also been busy working with Crawford Holling on a study of the paleoecological significance of the comparative body size distribution in late Rancholabrean and Recent mammal faunas, measuring Rancholabrean specimens in

order to get body weight estimates for the species, using regression equations in the literature. In order to get measurements for western taxa unavailable in Florida, David made a trip in early August to the Page Museum in Los Angeles, where he examined a large number of Rancho La Brea specimens. He also made a quick trip to the Los Angeles County Museum of Natural History. David offers his sincerest thanks to George Jefferson and Chris Shaw of the Page Museum, and David Whistler of LACM for their help and hospitality.

Finally, we have a new addition to the paleocommunity here at the University of Florida. Tim Young, who just recently received an M.S. from the University of Georgia, is entering the UF Department of Zoology as a Ph.D. student as of this autumn. Some of Tim's past work has included research on the late Rancholabrean fauna of the St. Marks River in Florida, and he has expressed a possible interest in studying allometry in fossil vertebrates. (David Lambert)

Midwest Region

Illinois State Museum

We are pleased to announce the arrival of Rick Toomey, who recently finished his Ph.D. at the University of Texas at Austin. Rick will be joining the Central Mississippi River Valley Project, which is designed to examine the effects of late Quaternary global warming on mammalian communities. This study will not only help us understand the past, but it may give us insights into mammalian responses to future climate changes. Rick will also be working on a number of papers derived from his dissertation research.

Jim Oliver and Russ Graham have submitted to *Paleobiology* a manuscript entitled "A catastrophic kill of ice-trapped coots: Time averaged vs. scavenger-specific disarticulation patterns." Mona Colburn is a coauthor with Barry Miller (Kent State) and others reporting (*Quaternary Research*) an early/middle Pleistocene fauna from Indiana. Mona analyzed the fish fossils. The Illinois State Museum also published Viola Rawn-Schatzingers study of *Homotherium* (see Publications section). Russ was busy traveling this autumn with trips to the University of Michigan, University of Texas at Austin, SVP at Toronto, and Japan. In Tokyo, Russ participated in the Prehistoric Mongoloid Dispersal Symposium. He presented a paper summarizing late Quaternary environments and mammalian faunas south of the Laurentide Ice Sheet.

Mary Ann Graham reports that we are about to wrap up data entry for the FAUNMAP database which will contain more than 3,000 late Quaternary mammal localities. We are now moving into the analysis phase. The fun is just beginning! (Russ Graham)

Indiana UniversityPurdue University, Fort Wayne, Indiana

I've been too busy to submit news items the last few issues, but enough has happened to make a brief item warranted. I spent a week in Spain last summer, looking at Early Cretaceous dinosaur tracksites in La Rioja. My first impression was that their sauropod tracks were quite similar to those from Texas, albeit smaller, but that their tridactyl prints were reminiscent of theropod and ornithopod tracks from the Peace River Canyon. I'm close to finishing the initial measurements of all my tracks of emus and other ground-living birds, and by next summer I hope to be ready to begin statistical analyses of the extent to which the measurements customarily made on tridactyl dinosaur footprints can actually discriminate among different taxa of trackmakers. In other news, the folks at the Illinois State Museum have nearly finished casting the beautiful *Cervalces* rack found near Fort Wayne. Once we get the original back here at IPFW, former student Jana McClain and I will write a description of it. Continuing our connection with the folks in Illinois, Russ Graham and I are doing a study of Pleistocene felid footprints found in cave deposits at various sites in the Midwest. (Jim Farlow)

Michigan State University

Gerard Case, research associate at the MSU Museum, was honored by the Paleontological Society of America with the Harrell L. Strimple Award for his contributions to paleontology. The event was held at the OMNI Hall of Mirrors, Cincinnati, Ohio, on October 27, 1992, at a luncheon for the joint convention of the Geological Society of America and the Paleontological Society. Jerry was also recognized for this honor at the SVP Banquet in Toronto in November.

Jerry has completed a manuscript, soon to be submitted for publication, on the early Paleocene sharks and skates of the Hornerstown Formation of New Jersey. Jerry continues his joint paper with Russian colleagues on the sharks and rays of Uzbekistan, central Asia. Finally, Jerry was junior author with Al Holman on a puzzling new snake from the late Paleocene of Mississippi, published recently in the *Annals of the Carnegie Museum*.

Carl Doney had begun his study of a large herpetofauna from a new early Arikarean microfauna from northwestern Nebraska. The new locality lies near the base of the Arikaree Group along the northern Gering paleovalley. Next summer Carl will meet with Bruce Bailey of the University of Nebraska State Museum to excavate additional microfauna from this rich site.

Ken Ford defended his Master's thesis on the Albert Ahrens Irvingtonian herpetofauna of southeastern Nebraska during the autumn semester of 1992. Ken is staying on at Michigan State University to work on his Ph.D. degree in vertebrate paleontology.

Al Holman studied skeletal material of modern European amphibians and reptiles and a Pleistocene snake fauna from southeastern Spain at the Museo Nacional Ciencias Naturales in Madrid in August. He was hosted by Borja Sanchiz and Carolina Martin of

that fine collection. Al continues his work on British Pleistocene herpetofaunas and plans to visit exciting new middle Pleistocene sites in Suffolk next summer. Finally, Al is beginning a study of the herpetofauna of the unique Indian Trails Caverns latest Wisconsinan site in northwestern Ohio, courtesy of Greg McDonald and the kind people of the Cincinnati Museum of Natural History.

Dick Seltin continues his important role as research associate in the MSU Museum and is a valuable member of John Paul Zonneveld's Master's degree committee. John Paul spent his summer field season in the southern Green River Basin, Wyoming, where he collected material for his thesis topic on Eocene vertebrate assemblages and depositional environments across the WasatchBridger boundary. (Al Holman)

University of Chicago

Paul Sereno and crew are attentively watching the slow unveiling of the *Eoraptor* skeleton by preparators at the Field Museum of Natural History. A preliminary description of *Eoraptor*, the most primitive known dinosaur, from the Ischigualasto Formation of Argentina, recently appeared in *Nature*. Paul's work on *Herrerasaurus* and *Lagosuchus*, with colleagues Fernando Novas and Andrea Arcucci respectively, is in press in *JVP*, and attention is now directed to sorting out the basal dinosaurian radiation.

Cathy Forster, when she has time away from supervising medical students in the Human Anatomy course, is finishing up a phylogeny of neoceratopsians and working with Raymond Rogers on various aspects of the tetrapod fauna from the Ischigualasto Formation. Ray is also progressing well in his dissertation-related research on the stratigraphy and taphonomy of the Judith River and Two Medicine formations in Montana.

Jim Hopson has just submitted a manuscript on patterns of evolution in the manus and pes of non-mammalian therapsids. He and John Wible are continuing studies of cranial circulation patterns of Mesozoic mammals.

Tim Gaudin and Bill Stevens are trying to finish their dissertations this year while also devoting a great deal of time to teaching, Bill in the Human Anatomy course and Tim in an undergraduate physiology course. Yu Chao is finishing his dissertation on the Diplodocidae. John Alroy continues his dissertation work on mammalian biochronology. Laura Panko is studying for preliminary exams and continuing research on the caseid manus and pes. We are pleased to welcome three new graduate students, Rick Blob, Matt Carrano, and Jeff Wilson. (Jim Hopson)

University of Iowa

Matt Joeckel has published his work on the Oreodont middle ear in the *Journal of Vertebrate Paleontology* and now is working on the middle ear of carnivores. Seventy bobcat skulls that Matt procured were macerated for the carnivore project. The skulls came out well and "by-products" from the process were vented to the roof. However, because of unusual wind direction, they re-entered through the building's air handling system; almost everyone was speaking to us after a month or so. Holmes completed his second term as Chairman of the Department of Geology and did not realize how unhappy he was with that job until he once again embarked on a vertebrate research and teaching track. The Department is still alive and well, and now the University cannot do enough for us. Beginning last spring we received two faculty positions, a remote-sensing work station, a paleomag lab, ethernet, and a couple of computers and better general support. Holmes (Folk and Semken) published a paper on primate sweat glands in *Biometeorology*, another with Carl Falk on the taphonomy of micromammals associated with archaeological refuse in *Illinois State Museum Scientific Paper 23* (the Parmalee Memorial Volume), and participated as one of a number of junior authors with Dick Baker on the paleoecology of the St. Charles site in south-central Iowa (*Bulletin Geological Society America*). St. Charles produced a partial skeleton of a 34,000 years B.P. mammoth and associated pollen, plant macrofossils, and insects. At present, Holmes and Robert Foley are preparing a report on the Prairieburg Local Fauna, a near tundra-analog micromammal fauna from eastern Iowa. Data accumulation is underway for two other projects: (1) a general review of micromammal taphonomy in archaeological sites with Carl Falk, and (2) a microfauna analysis of specimens that accumulated in the bottom of vertical shafts in Paleoindian flint mines. The mines are along Alkali Creek in North Dakota.

Paula Thorson and Carmen Jans attended the Russian-American Workshop on Quaternary Paleozoology and presented poster papers on their research. These were "The Holocene Mud Creek biota: Evidence for forest expansion during the altithermal of North America" and "Paleoecology and vertebrate biostratigraphy of Duhme Cave in eastern Iowa," respectively. Carmen has burrowed through the Duhme Cave Holocene sediments into a typical non-analog Pleistocene microfauna, the faunal change now appears to have transpired within a 6 cm sedimentary interval (as yet unpicked). Paula has excavated a stratified microvertebrate fauna that is associated with a fossil leaf mat, a diverse plant macrofossil accumulation, and a snail fauna. She hopes to determine the extent of the "altithermal" forest in eastern Iowa. Her project also includes measurement of the effect of intrasite depositional environments and locality selection on paleoecological interpretations. This will be accomplished by excavating several associated faunules along Mud Creek. (Holmes Semken)

The University of Kansas

Larry Martin worked with E. Kurochkin from Moscow on a number of Cretaceous birds from central Asia. They are preparing a joint paper on a freshwater hesperornithiform. Kurochkin visited Kansas for two weeks and hopes to return this spring. Larry has

submitted a paper on the enantiornithine birds, trying to bring together the numerous new records. The enantiornithine birds may be the most common and widely distributed birds in the Mesozoic record. Larry's new book, *Paleopathology: Disease in the Fossil Record*, co-authored with Bruce Rothchild and published by CRC Press, is now available.

After returning from a half year sabbatical in Europe, Hans-Peter continued to travel to Europe. In September he took part in two meetings in Edinburgh. He presented a talk on the Hamilton Lagerstätte, Kansas, in the conference on "Volcanism and early terrestrial biotas" of the Royal Society of Edinburgh. East Kirkton, the discussed Lagerstätte of the conference, is no longer believed to be a hot spring or volcanic deposit. A day in advance of the conference, the fourth symposium on "Permocarboniferous continental faunas" was held in the National Museum of Scotland (the fifth will be held in Pittsburgh, Pennsylvania, in 1996). There, Hans-Peter presented another version on the Upper Mississippian localities of North America, whereas his coauthor, John Bolt ("Ich bin Hans-Peter Schultze **nicht** !" after he was introduced as such) presented another version at the SVP meeting in Toronto. Those who have missed both talks may look for a longer version in an upcoming *Special Paper of Palaeontology*. After Toronto, Hans-Peter went to Berlin to present a talk on the nearshore deposits in the Pennsylvanian of Kansas and the ambiguity in using vertebrates as indicators for paleoenvironment. Hans-Peter is now working on a manuscript on lungfish phylogeny for the K. S. W. Campbell symposium in February in Canberra, Australia, which only his coauthor, Charles Marshall of Los Angeles, will be able to attend.

Gloria Arratia was in Holland in October for the Ph.D. defense of Paul Lambers. Paul did an excellent thesis on fishes from Solnhofen (e.g., coelocanth, caturids, and pachycormids). Gloria was delighted to be at the University of Groningen and later at the Teyler's Museum in Haarlem, a beautiful museum with one of the most marvelous libraries in the world! At Teyler's Museum she found interesting Jurassic teleosts, and she plans to come back to study them. At present Gloria is studying very informative acid-prepared specimens of *Anaethallon* from the Jurassic of Germany. She has almost finished a monograph on new teleosts from the Jurassic of southern Germany and the relationships of primitive teleosts.

Norbert Micklich visited us at the beginning of October. Norbert and Gloria have put together a great deal of anatomical information on *Thaumaturus* from Messel; they are preparing a long paper on this fish and its phylogenetic relationships.

Gloria and Hans-Peter are happy to see the third part of the series of papers on the caudal skeleton published in the November issue of *Journal of Morphology*. A study of the phylogenetic relationships of primitive catfishes by Gloria was just published in *Bonner Zool. Monographien*.

Chris Bennett has two chapters of his dissertation coming out soon, "Sexual dimorphism of *Pteranodon* and other pterosaurs, with comments on cranial crests" in the winter issue of *Paleobiology*. He has submitted the longer chapters 13 for publication. He is presently

working on pterosaur phylogeny and functional morphology projects that are logical extensions of his dissertation research.

David Frailey is currently working on a collection of small rodents from the Amazon Basin, while continuing to study a collection of Florida Miocene material. Jonena Hearst continues to pick, sort, and catalogue specimens, and she hopes to be well into data analysis by spring. The saber-toothed cat appears to be *Ischyrosmilus* and last season's horse, *Equus* cf. *idahoensis*. Cara Burrell is finishing up at Kansas and will be in Alberta, Canada, for the spring. She will be doing neontological fieldwork with Gail Michener on *Spermophilus richardsonii* during the breeding season, gathering data on behavior, burrow contents, and morphology. She also hopes to find time to run up to Edmonton to continue working with Harold Bryant on the wolverines from Natural Trap Cave. Chris Cunningham is working hard to finish his dissertation this coming spring and has several Hamilton Quarry manuscripts in press. He is actively seeking employment in geology/vertebrate paleontology.

We would like to welcome Francisco Poyato-Ariza to the University of Kansas. Francisco will be arriving in January from the Universidad Autonoma de Madrid in Spain to do post-doctoral work on Lower Cretaceous teleosts.

Orville Bonner has been busy casting nothrotherid limb bones to put together an exhibit for the Johnson County Community College in Kansas. During the last several months, Orville has been preparing a Columbian mammoth skull collected by John Chorn and Kate Shaw from a landfill in Sumner County, Kansas. Arrangements have been made to deliver the prepared specimen to Wellington, Kansas, where it will be displayed in the Sumner County Court House. (Beth Rinaldi)

University of Michigan

Dan Fisher has been working this past summer and autumn on a site that started out as an "ordinary," late Pleistocene mastodon excavation, if any mastodon excavation is ordinary, but that got suddenly more complex when a mastodon trackway turned up. The footprints were preserved at the interface between a lower sand unit and overlying marl and were evidently made by a full-grown male, walking through shallow water along a pond margin. Dan and a group of volunteers followed the trackway for over 40 meters and made an enormous (12 meter long) mold of one ten-print section. Plans for a cast of the trackway are underway, as is an attempt to use information from the trackway and its sedimentological context to extract an estimate of body weight. In all respects, the project has been staggering.

Philip Gingerich spent much of the summer in northwestern Wyoming working in the Eocene McCullough Peaks section near Cody. Phil and crew had a successful season highlighted by the discoveries of a skeleton of *Oxyaena* and the first omomyid primate from the earliest Wasatchian (WaO). Phil, Ken Rose, and Bob Emry recently published a

description of a new skeleton of *Alocodontulum* (Palaeonodonta) from the McCullough Peaks. Will Clyde spent the summer measuring section through the Peaks sequence and taking samples for paleomagnetic analysis. It may soon be possible to tie the McCullough Peaks section into that of the main Clarks Fork Basin section.

Phil and Xisoyuan Zhou spent the last six weeks searching in the Eocene of Pakistan for new whale specimens. Phil and Zhou found several partial whale skeletons and preliminary analysis suggests the presence of at least three different taxa. Zhou, Phil, and Bill Sanders' paper on vertebral structure in *Pachyaena oseejfrags* was recently published in the UM Contributions series.

Bill (*not* Gregg and Phil as reported in the June *News Bulletin*) spent July and August working in the MioPliocene of Tanzania with Terry Harrison (New York University). Bill reports that several thousand vertebrate specimens were found, but that the hominids remain elusive. Bill and Brian Bodenbender have recently completed and submitted a paper on a functional analysis of the Moroto vertebra.

Greg Gunnell again spent the summer working in the Green River Basin in southwestern Wyoming. Beth Strasser (UC, Sacramento) and Bill Bartels (Albion College) joined Gregg in the Bridger Formation. Highlights from the summer include three new notharctine skulls, a skeleton of *Notharctus pugnax*, and, perhaps, the first bat skull from the Bridger Formation. Gregg and Bill's paper on Bridgerian paleoecology should be published sometime in the spring. Gregg, Bill, Phil, and Victor Torres also recently completed a study of the Wapiti Valley fauna (early to middle Eocene). That paper is hot off the presses even as we speak. Gregg and Ellen Miller's (Washington University) paper on *Smilodectes* and notharotine foot morphology is revised and nearly ready for resubmission. (Gregg Gunnell)

Southwest Region

Department of Geology, Northern Arizona University, Flagstaff, Arizona

It is now several years since we provided a report, however, this has mostly been due to a lack of time rather than a lack of anything to report!

Heidemarie Johnson successfully defended her thesis last year. Although she had originally intended to work on placoderms from Nevada, she found a locality almost in her back yard and ended up describing an Upper Devonian fauna from the Martin Formation of Mt. Elden. Her first paper, on *Eldenosteus arizonensis*, has already been submitted to *JVP* and two other papers are nearing completion. Heidemarie won the Bryan Patterson award in 1990. She is now starting a Ph.D. in the Biology Department here at NAU and will continue to work on placoderms from the western U.S.

In 1990, Robert Ilyes joined us from Oslo, Norway. He is also working on a Ph.D. through the Biology Department here and is studying pteraspids from the western U.S. His first paper, on new pteraspids from the Sevy Formation in Nevada, has just been submitted to the *Journal of Paleontology*, and he is currently continuing with work on a new fauna from Death Valley, California. Despite the problem of battling heat and rattlesnakes in his field area, Robert has settled into the American way of life very rapidly, even to the extent of developing an enthusiasm for monster truck rallies and a taste for hamburgers.

As noted by MNA in a recent issue of the *News Bulletin*, Randy Kirby completed his M.S. in 1991 with a record 476-page thesis on vertebrates from the Owl Rock member of the Chinle Formation in northern Arizona. Randy is completing curation of his collections and also working on a number of papers, including a new procolophonid from Utah (with Dave Elliott and Will Downs). Also based at MNA, Grace Kirby is writing up her thesis on a tracksite in the Dinosaur Canyon member of the Moenkopi Formation and has already submitted a paper to the *Journal of Paleontology* on unusual posterior grooves present on some of the tracks. She is also working with Dave Elliott on a specimen of the marine turtle *Desmatochelys lowi* from the Cretaceous Mancos Shale of northern Arizona.

A new addition to the Paleozoic fish group at NAU is Carol Dehler. She is carrying out field work in the Lost River Range in Idaho, where she is looking at a marine to non-marine transition in the Lower Devonian. Vertebrates are present in these sequences, and it is hoped that it will be possible to tie them into the conodont zonation scheme.

Dave Elliott was funded by NSF to go to the Canadian Arctic in 1990. This study was aimed at understanding the environments in which early vertebrates lived and was something of a Bristol reunion. Dave Dineley and Liz Loeffler worked on the vertebrates, and Richard Thomas dealt with the sedimentology. Despite problems with bears and the weather, a considerable amount of material and information was collected, and some preliminary results were presented at San Diego in 1991 (SVP and GSA). Dave has also been working extensively on Lower and Middle Devonian faunas from the western U.S. New localities keep turning up, and the aim now is to describe as much as possible and integrate the faunas into a biostratigraphic scheme. Currently, faunas are known from Death Valley in the south to Alberta in the north and from eastern Nevada to north-central Wyoming, apparently delineating a transgressing and regressing shoreline during the early Devonian. Any information on unpublished faunas and sites from these areas would be of great interest to Dave and the rest of the fish group. (Dave Elliott)

Rocky Mountain Region

Brigham Young University Earth Science Museum

Considering our small staff, the BYU Earth Science Museum has been involved in numerous activities since last summer. However, preparation work has been minimal, as Dee Hall took a leave to assist in a paleontological pipeline survey. Students and volunteers had been doing some of the preparation work, though.

James Gurney, originator of the whimsical *Dinotopia*, paid us a visit and received local television coverage. This boosted museum attendance. A benefit auction for the museum was held in conjunction with his visit, which proved modestly successful. It also helped in building local support.

A site near Monticello, Utah, reported to us by the BLM, appears to be an important one. It's in the Morrison Formation, where numerous sauropod bones are exposed over an area larger than a football field. Unfortunately, the site had been vandalized such that many of the bones left were badly damaged. The preservation is exceptionally good, so unexposed bones are expected to be in very good shape.

Another dinosaur locality in eastern Utah was also reported to us. This one, in the Neslen Formation, is late Cretaceous in age. A partial articulated skeleton is exposed here. What makes the find especially interesting are the numerous skin impressions thus far found in the rock by the skeleton. The discovery was made by a Ph.D. student, Brian Anderson, from UC Riverside. He found this site while looking for invertebrate trace fossils. Assisting him in the early collecting was Reese Barrick, a Ph.D. student in geology at USC. Both Brian and Reese are to be congratulated for recognizing what they'd found and its importance. The Earth Science Museum staff and the Utah Valley Chapter of Friends of Paleontology helped in collecting all the scattered pieces of bone and skin impressions that had washed down the slope. We will collect this specimen in the spring as soon as weather permits. Based on very preliminary work, it appears that the dinosaur is some type of hadrosaur.

BYU graduate student Paul Bybee is continuing his work on a histological/growth study of *Allosaurus*. The Cleveland-Lloyd collection constitutes the bulk of his research material. He will visit the Museum of the Rockies to learn some of the techniques developed there by Jack Horner and others relating to rates of dinosaur growth. Michael Kass is preparing and studying a mosasaur skull and jaws collected from the Mancos Formation in western Colorado. The specimen is especially large and well preserved. (Wade Miller)

Denver Museum of Natural History

At the Denver Museum of Natural History construction for the new paleontology exhibit, Prehistoric Journey, continues apace. Bill May has been hired as a new preparator to help with the building of the exhibit, and Tom Hardy has been hired as a graduate assistant in charge of discovering all the information available on each specimen in the exhibit. Bryan Small has almost finished reconstructing and mounting a specimen of *Dimetrodon*,

after solving the problem of the articulation of the feet which apparently has never been adequately represented. His next task is the cleaning and rearticulating the *Eyops* cast that has been on display for some decades. Ken Carpenter and crew dismantled the *Stegosaurus stenops* skeleton for the new exhibit and began removing the varnish and paint to determine how much of the specimen was real. Ken was quite surprised to find that the skull was not all plaster, but contained parts of the braincase and posterior skull roof. Ken is busily cleaning and studying this serendipitous find. Bill May and Jon Christians are erecting the new *Allosaurus* for the exhibit, consisting partly of a specimen discovered in Moffat County, Colorado, and partly of casts provided by Jim Madsen in Utah. Bill has finished assembling two *Diplocaulus* skulls from the Permian of Oklahoma and is now removing hematite from one, using a technique described in *JVP*.

Richard Stucky has found some time between administrative duties and working on the new exhibit to continue work on his artiodactyl paper and Wind River Washakiins project and to work over the specimens from last summer's expeditions to the Wind River, Sand Wash, and Bridger Basins. Next year he will teach a course in mammalian paleontology for the Paleontology Certification Program, a program designed to teach amateurs the techniques of fossil collection and curation. This year the museum graduated 14 students from the program. Kirk Johnson, while looking for plant remains near the KT boundary this autumn, discovered a set of bird tracks in the Raton Formation very near the boundary. Ken Carpenter has passed his preliminary exams at the University of Colorado, Boulder. Pat Jablonsky continues chiropteran studies at Lechuguilla Cave and Carlsbad Cavern. She will be expanding the project to include guano analysis (C-14 and palynology) and large mammal bone recovery at Lechuguilla in 1993. (Logan Ivy)

Dinamation International Society, Fruita, Colorado

We are happy to report that DIS's first summer intern, Randy Nydam, is at the University of Oklahoma to work with Rich Cifelli on mid-Mesozoic lizards. We hope all our interns are as successful at advancing their careers.

The Expedition program's excavations at the Upper Jurassic Mygatt-Moore Quarry has resulted in the recovery of a great many new specimens from this Morrison waterhole. This wealth of material and the great extent of this quarry, together with numerous other sites in the immediate area, has led the Bureau of Land Management to request funding for the construction of an interpretive center at the site. This is a move that both DIS and the Museum of Western Colorado strongly support, in that we have more than 100 visitors a day to the site.

Jim Kirkland's research on Upper Jurassic and Lower Cretaceous nodosaurs is proceeding smoothly. A preliminary description of the Upper Jurassic material from the Mygatt-Moore Quarry is in the works with Harley Armstrong, Museum of Western Colorado. This specimen is represented by numerous scutes and spines, a ribs, and several vertebrae. It would appear that there is no nodosaur material in the Cleveland-

Lloyd collections, although it would seem that the material labeled as such (code-named XKE) in the University of Utah Museum of Natural History collections warrants further examination by someone with an interest in stegosaurs. The latest news is that some scraps of nodosaur material is turning up in the Morrison near Como Bluff, Wyoming, and Garden Park, Colorado. When it rains, it pours.

Field work at the Gaston Nodosaur Quarry in the basal Cedar Mountain Formation north of Arches National Park is proceeding nicely, although somewhat slowly due to the wealth of bones in a relatively hard matrix. That the work is proceeding at all is due to the hard work of Don Burge, Director of the College of Eastern Utah's Prehistoric Museum and the Utah Friends of Paleontology. The main component of the quarry consists of material assigned to *Polacanthus*, with the main question now being the beast's relationships to *P. marshi* from the Lakota Formation. We now have the skull and, with the material excavated to date (with more to come), it would seem to be the most complete acanthopholid-grade nodosaur ever found. In addition, the co-occurrence of the giant dromaeosaur "Utahraptor" has received more press than anyone would have dreamed possible. A preliminary description of this new beast is nearing completion. It would appear that there is both a Lakota and a Cloverly fauna preserved in the Cedar Mountain Formation of central Utah. Jim would like to thank all the folks at the College of Eastern Utah, Brigham Young University, and University of Utah for all their help during his whirlwind tour of their Cedar Mountain collection. Research on the Lower Cretaceous of the Colorado Plateau through the work of Jeff Eaton, Rich Cifelli, and Frank DeCourtin is just beginning to hit its stride. "Brooks Britt come back we need you!"

Work at the Fruita Paleontological Area resulted in the discovery of a *Dryosaurus* nesting site. A paper on possible nest raiding by small, cursorial, terrestrial, mesosuchian-grade crocodylians is an early result of work on this site, with Karl Hirsch writing up the egg shell. It is hoped that Rod Scheetz will continue the research on this site as part of his own research on *Dryosaurus* reproductive behavior and biology. Work at Como Bluff, Wyoming, with Bob Bakker and his crew of volunteers was a real experience and clearly affirms to this Como neophyte what a national treasure the Como Bluff through Freezeout Hills area truly is.

Finally, last winter Mike and Jim had a chance to visit some of the Upper Cretaceous dinosaur sites in southern Coahuila, Mexico, with René Hernandez-Rivera. DIS will be assisting the research program of René and his volunteers through the DIS Expedition program starting this winter. René has some fabulous dinosaur sites in the Upper Campanian Cerro del Pueblo Formation. Nearly all the sites appear to be associated with shallow brackish water environments, and the skeletons are often encrusted and bored by bivalves. At present, dinosaur remains appear to be sparse in more arid upland settings. These tropical sites will eventually provide an important contrast to the better-known Judithian sites of the United States and Canada.

Research on the whole-body fossil fish from the Morrison continues, with both semionotids and a coccolepid paleoniscid recognized from sites in western Colorado. Jim

has called for help on this material, and it's hoped that some of the folks at Tyrrell will be taking over on some of these materials.

With all this going on, Jim is still trying to get the systematics section of his dissertation cleaned up for publication and continue his work on Cretaceous fossil fish from micro-vertebrate sites on the Colorado Plateau. Thank goodness for cooperative coworkers and dedicated volunteers. (Jim Kirkland)

Hagerman Fossil Beds National Monument

As of September, Hagerman Fossil Beds now has a full-time paleontologist on staff. Plans are in full swing for a number of projects, including the relocation and mapping of all known fossil localities within the monument (*see* notice in Bulletin Board). Plans are also in the works for the construction of a functional lab to facilitate the preparation of specimens that show up this summer during the survey. Greg McDonald, the new paleontologist, is busy tracking down horse material from the Hagerman Horse Quarry in an attempt to try to reconstruct a population profile of the sample collected by the Smithsonian. Greg requests that anyone with material from the Horse Quarry that was obtained from the Smithsonian to please contact him. Greg would also be interested in hearing from anyone that has material from Hagerman in their collections. Long-term plans call for building a computer database that would help researchers track down Hagerman specimens.

Part of Hagerman Fossil Beds mission is to support paleontological research. Anyone interested in research projects at Hagerman or working on projects which include Hagerman material are encouraged to contact the monument. (Greg McDonald)

Idaho Museum of Natural History

The remodelling of the museum continues; events so far have completely confirmed our long-held belief that the word "architect" should be spelled I-D-I-O-T. Even so, we will wind up with a first-class collection facility in spite of the idiot. The big problem is that the appropriated funds were not enough to finish renovation of the exhibit area. By the time you read this, all vertebrate paleontology offices, labs, and the range will be back in the remodelled space, with very sensitive temperature and humidity controls. We will be a bit crowded until the rest of the building is finished this summer, but we can accommodate visiting researchers immediately.

Bill has spent all autumn on teaching and prowling the remodel work trying to catch the idiot's foul-ups before they created major havoc. Most of you who have been waiting to hear from Bill should have gotten something by now as, in December, he started plowing through the accumulated correspondence, requests, and demands which accumulated

during the renovation ordeal. Allen, with the help of students, was kept busy moving everything out of the spaces to be remodeled and then moving it back. We did get to Palisades Reservoir (Booth Canyon local fauna) and recovered several male *Bootherium* crania (one of which is almost perfect!) associated with partial postcrania, some pieces of a female *Bootherium*, a set of large *Bison* horn cores, a partial mountain sheep cranium, etc. Allen got most of the stuff prepared between moves and is justifiably proud of the complete *Bootherium*. We also recovered more of the young mammoth just south of Salmon, Idaho.

John Pinosof has become a free man by successfully defending his dissertation, and Sue Miller continues to peck away at hers. Mary Thompson is still gathering data on how modern muskrats and other mammals swim and trying to locate more fossil muskrat hind limb material.

We welcome Greg McDonald back to his adopted home state (as the Park Paleontologist at Hagerman) and look forward to some cooperative work in the near future. (William Akersten)

Museum of the Rockies, Montana State University, Bozeman, Montana

Arthur H. Wold became director of the Museum of the Rockies on September 1, 1992. His 20-year museum career includes directorships of the Nevada State Museum and Historical Society in Las Vegas and the Millicent Rogers Museum in Taos, New Mexico, in addition to curatorial and research positions at the School of American Research, Arizona State Museum, and University of Nebraska State Museum. Trained as an anthropologist, Art has authored numerous articles on the topics of southwestern archaeology, native American pottery and weaving, and Hispanic folk arts. He is an accreditation visitor for the American Association of Museums and an active member of the AAM's Museum Advocacy Team, which discusses museum issues with members of Congress. A native of Colorado, Art enjoys Bozeman and living in the Gallatin Valley.

Jack Horner continues to work on a number of papers for the eggs and babies volume (University of Cambridge Press) with Ken Carpenter and Karl Hirsch. Jack led a tour to Mongolia in late summer 1992 and had the opportunity to work with Dr. Barsbold in their museum collections. Jack plans to lead another tour in late August of 1993.

Bob Harmon, Des Maxwell, and several volunteers returned to the Big Al site in Wyoming to excavate a large, partially-articulated diplodocid found in the *Allosaurus* pit last year. A few more elements belonging to Big Al were recovered, making the skeleton approximately 90% complete. They also discovered the partially-articulated remains of four sauropods and partial remains of several others in the surrounding area. They were assisted for two weeks by Kevin Padian and a crew of 16 enthusiastic and very capable volunteers from California.

Allison Gentry continues to run the histology lab with frightening efficiency despite working part time and is currently instructing Ellen Lamm and Sherri Horowitz, among others, in the methods for converting a chunk of bone into a histological slide. Allison and her apprentices have sectioned bones from all manner of dinosaurs and a few pterosaurs in recent months.

Sherri Horowitz arrived to start a one-year internship last July. She received an introduction to fieldwork in the Morrison and Two Medicine formations last summer and is now preparing early Miocene mammal material from Canyon Ferry. Allison and Sherri cast the first dinosaur footprint found in Montana and have forwarded the cast to Martin Lockley (University of Denver) for identification.

Ellen Lamm is preparing, casting, and thin-sectioning bones of a *Coelophysis* specimen from Ghost Ranch kindly provided by the AMNH. She continued to care for the MOR's reptile collection and recently constructed a large 'gator cage for her dearest charges, Puff and Bubba.

Des Maxwell is working on *Tenontosaurus* histology and Montanan tyrannosaur and ankylosaur material. He has submitted manuscripts with John Ostrom and Jack Horner on the taphonomy of *Tenontosaurus-Deinonychus* associations and the first Lower Cretaceous baby dinosaur remains, respectively. He has also submitted a detailed description of the Scottish pareiasaur *Elginia mirabilis*.

Pat Leiggi is busy wrapping up Vertebrate Paleontological Techniques Volume I (University of Cambridge Press) with Peter May. Work on volume II is expected to begin in the autumn of 1993. He will be joining Jack Horner on the trip to Mongolia next summer.

Dave Varricchio continues to examine the taphonomy of a Two Medicine multispecies bonebed after another successful field season which included the recovery of further *Troodon* and pterosaur material. He has two papers in press, one on the histology of *Troodon*, and another on Two Medicine paleoclimates.

Scott Sampson (University of Toronto) visited the MOR in December and is busy completing his doctoral dissertation on ceratopsid dinosaurs, including descriptions of two new taxa, and will defend this spring.

Carrie Ancell joined Bob Harmon and Vicki Clouse at the end of May for field work in the Judith River Formation. Carrie was assaulted (bit) by a prairie rattler who fled the scene of the crime. An APB has been issued for the capture and prosecution of the limbless varmint. Carrie was not deterred by the incident and returned to the field as soon as she was able to walk again. Recently she has been preparing a dromaosaurid from the Two Medicine Formation and a crocodylian from the Hell Creek Formation.

Karen Masta spent the summer of 1992 in Makoshika State Park near Glendive, assisting Diane Gabriel in her extinction project. Karen has completed the preparation of a sub-

adult *Triceratops* skull collected in 1991. The skull will be sent to the new interpretive center being constructed at Makoshika for display. She is currently preparing the postcranial material associated with the skull.

In November Yoshi Katsura defended his thesis (M.S.) "Paleoenvironment and taphonomy of the fauna of the Tullock Formation, eastern Montana." He is currently interested in morphological and histological studies of champsosaurs and plans to continue his work in the graduate program at Montana State University.

Mary Schweitzer continues her work on the microstructure of *Tyrannosaurus rex*. Jody Smith and Chadra Roukema are continuing their work on morphometrics of various dinosaur skulls. Rod Scheetz recently entered in Montana State University's graduate program as a Ph.D. candidate. He is researching North American hypsilophodonts by comparing embryonic and baby dryosaurs with the MOR's collection of *Orodeomeus makelai*. (Paleontology Department)

Petrified Forest National Park, Arizona

The Paleontology Program at Petrified Forest National Park experienced growth in a number of different areas during 1992. The backlog of uncatalogued paleontological specimens has been curated. The collections obtained by Rob Long between 1983 and 1988 will be returned from Berkeley. The remains of the Late Triassic stauikosaurid dinosaur nicknamed "Gertie" was returned during the summer and is being cast for an exhibit. The park's paleontological site database began modification to incorporate into the Petrified Forest NP Geographic Information System (GIS). The incorporation of the paleo site data into GIS will facilitate the inventory, monitoring, and overall management of fossil resources in the park. The park received a four-year grant to study fossil theft, and the fine for petrified wood theft in the park was increased substantially.

Field investigations continued by Spencer Lucas (NMMNH), Adrian Hunt (University of Colorado), Russell Dubiel (USGS), Sid Ash (Weber College), and Ron Litwin (USGS). Steve Hasiotis began work on identifying trace fossil localities in the park. Bill Wall lead a field group from Georgia College into the park and plans to examine aquatic adaptations of Chinle vertebrates. Phil Murry and Rob Long indicate that they are near completion on their Late Triassic vertebrate monograph. Mike Whitelaw (UTEP) began a pilot study involving a paleomagnetic examination of the Bidahochi Formation. The study will attempt to correlate sections of the Bidahochi in the park with the type locality and the classic "White Cone" faunal zone.

Vince Santucci spent a busy summer beginning to rewrite the park's Resource Management Plan, chairing the NAPC Roundtable Discussion entitled "Paleontology on Public Lands," editing a NPS publication on paleontological research in the national parks, and continuing field monitoring of paleo sites in the park.

U. S. Geological Survey, Denver, Colorado

1992 has been a busy year thus far for Tom Bown. In February, accompanied by Jorge Genise and Marcelo Tejador (Museo Argentino Ciencias Naturales), Tom was sent by John Fleagle to search for the elusive Santacrucian locality of Sehuen, a site discovered by Carlos Ameghino somewhere on the Rio Chalia, and one later worked by John Bell Hatcher. It is believed that the exact site where Hatcher's wagons descended over the high barranca into the valley of the Rio Chalia was located, and with the site some 600 specimens of small mammals. Tom and John Fleagle's monograph on the systematics, biostratigraphy, and dental evolution of the extinct South American caenolestoid marsupial family Palaeothentidae is now in press with *Paleontological Society Memoirs*.

In April and May, Tom, accompanied by Elly Brouwers also of the Denver USGS, worked a third season with the joint U.S. Geological Survey/National Drilling Company of Abu Dhabi Groundwater Research Project, based in Al Ain. There, Tom, Elly, and Don Hadley (USGS, Al Ain) studied the sedimentology and paleoenvironments of Miocene continental and marine rocks in western Abu Dhabi Emirate and Quaternary paleosabkhas and paleodune deposits in the northern part of the emirate. Tom found a skullcap and horncores of a Miocene bovid (in Al Ain for study by Alan Gentry and/or Peter Whybrow) and at least three ichnospecies of early Miocene subterranean termitaria.

Mid-June through early August was occupied in the Bighorn Basin camp in Wyoming, where Tom collected early Eocene vertebrates with Ken Rose, Jennie Rose, Maureen O'Leary, Myron Shekelle, Naoko Yokoyama, Charlotte Otts, John Hunter, Ines Horovitz, and, for various parts of the summer, a cast of thousands. We especially enjoyed a week's visit by Carl Vondra, Wieghart von Koenigswald, Oldrich Fejfar, and about 26 of their students in geology and paleontology, and are grateful to Suzanne Strait for finally discovering abundant fossil mammals (where we have repeatedly failed) in the Fort Union Formation of the Honeycombs Basin. Numerous interesting fossils were found in the course of daily collecting in the Willwood Formation (*see* account by Ken Rose in previous issue), and Tom documented the paleosol stage occurrences of another 118 fossil vertebrate localities and discovered the first Willwood fossil termitaria (two examples). A paper on the time-stratigraphic reconstruction of the Willwood Formation (co-authored with Mary Kraus) is in press with *Palaios* and due out this year. In late August, Tom spent a few days in Idaho and Oregon collecting late Tertiary mammals as part of the USGS COGEMAP project.

In September and early October, Tom accompanied John Fleagle, John Kappleman, and Solomon Yirga to southwestern Ethiopia, where more remains of the *Australopithecus afarensis* dentition of the year before were encountered, and numerous early Miocene mammal, fruit, and wood fossils were recovered from other sites. Also found were excellent, silicified examples of a new ichnogenus of subterranean early Miocene termitarium. Tom arrived in Egypt in early October and worked briefly at the late Eocene L-41 locality and other sites with Elwyn Simons and his field party before setting out on

a National Geographic Society funded exploration of the Qattara Depression. There, about 15 new early Miocene fossil vertebrate sites were discovered, the distribution and paleoenvironment of the Bait Owein Member of the Moghra Formation was studied, new trace fossils were found, and many significant new observations regarding the multiple mechanisms of origin of the Qattara, El Areg, Bahariya, and Farafra depressions were recorded. These will be the foundation of a major paper now in progress. In his 1,500 km Qattara exploits, Bown was accompanied by Abd al-Latief Mohamed Achmed, Aly Bakarar, David Froelich, Saber Helmy Abdel Gawed, Jorge Genise, Hassan Atris Abu el Magd, Kevin McKinney, and Ellen Miller. Tom is grateful to all the above and to Elwyn Simons, Prithijit Chatrath, David Hobbs, and El Said Hashem Sherif for participating in the Qattara project and making it possible in many ways. Once returned to the Fayum camp, Tom and Jorge Genise discovered, excavated, and studied two new ichnogenera of constructed fossil termitaria and later, in Colorado, laid the foundations for several publications on ichnofossils, including those from Argentina (Cretaceous), the United Arab Emirates and Ethiopia (early Miocene), Wyoming (early Eocene), and Egypt (late Eocene/Oligocene), and a study of the evolution of subterranean nest-building behavior in Isoptera. (Thomas M. Bown)

University of Colorado at Denver

The University of Colorado at Denver Dinosaur Trackers Research Group and the Friends of Dinosaur Ridge have just completed the first phase of an excavation for dinosaur tracks in the Cretaceous (Albian/Cenomanian) Dakota Sandstone, near Morrison, Colorado. The excavation, which was sponsored in part by the Jefferson County Scientific and Cultural District and Amoco Production Company, removed a three-foot unit of sandstone (about 1,000 tons of overburden) from a 40° dip slope to expose fresh tracks on the continuation of a known track-bearing surface.

This area, now known as "Dinosaur Ridge," is a National Natural Landmark that includes several of the historic Morrison Quarry sites excavated by Arthur Lakes for Othniel Marsh in 1877-1879. The area is also the type locality for the ichnospecies *Caririchnium leonardii*, a distinctive ornithopod (iguanodontid) trackway made by a quadrupedal trackmaker. Recent work has shown that the track-bearing layers can be traced from northern Colorado to northeastern New Mexico, a megatracksite that has been dubbed the "Dinosaur Freeway."

In the last three years, since the establishment of the Friends of Dinosaur Ridge as a non-profit organization, the area has been developed as an outdoor interpretive center, with new explanatory signs and a schedule of guided tours. Visitation to the area is at least 20,000 per year (about 10,000 on formal tours, the rest self-guided).

The purpose of the excavation is to expand the existing track-bearing surface, which has suffered from vandalism in the past, and develop the site for public education. The site

shows parallel ornithopod trackways indicative of herding behavior, and various theropod trackways.

In another project related to this area, our research group has prepared a complete transcription of the letters written by Arthur Lake from Morrison during the excavations of 1877-1879. These are being prepared for publication and a future presentation at the annual SVP meeting. (Martin Lockley)

University of Wyoming, Department of Geology and Geophysics

Jay Lillegraven and Jaelyn Eberle continue to work hard on their respective projects dealing with the geology and paleontology of the Hanna Basin in south-central Wyoming.

Mike Leite has been busier than ever with various projects in progress and in the planning stages. Along with Brent Breithaupt, he has been finishing up the manuscript on alligator hole taphonomy, which, if all goes well, should be in the review stages by this spring. He has also been working with Chris Faucette on a research proposal for a project dealing with quantitative stratigraphy and mathematical treatment of biostratigraphic information. And he has lately been developing his taphonomic model for vertebrate fossils in lakes, which should be ready for publication in another year or so. In his spare time, Mike continues to search for the elusive tenure-track position.

Brent Breithaupt continues to develop various programs at the UW Geological Museum. Recently, displays of minerals, plesiosaurs, a pterosaur, a mosasaur, plaster jacketing, and the skulls of a phytosaur and *Camarasaurus* were added to the museum's exhibit hall. The UW Geological Museum's Friends of the Dinosaurs is gaining membership with various associated public programs planned for the upcoming year. Hopefully as this group develops and a volunteers group begins to form, the resources and manpower necessary to run a successful museum program will be generated. Last autumn Brent traveled to the western part of Wyoming to participate in the Third Conference on Fossil Resources in the National Park Service in Kemmerer, gave several lectures in Jackson, and returned to southeastern Wyoming to lead a Wyoming Geological Association field trip to Como Bluff for the AAPG-SEPM-EMD Rocky Mountain Section Meeting. He also taught the freshman course entitled "Introduction to University Life." He continues to work on various research projects dealing with the history of paleontology and the faunas and taphonomy of various Mesozoic sites in Wyoming. (Brent Breithaupt)

West Coast Region

California State University, San Bernardino

We're happy to provide the first report from California State University, San Bernardino. California's "Inland Empire" added another paleontologist to its ranks, as Stuart Sumida arrived at CSUSB for an assistant professorship in the Department of Biology here. Stuart's primary teaching duties will be with the human anatomy and physiology courses, as well as the comparative chordate anatomy course.

Teaching, attempting to set up a lab, keeping up on various manuscripts, and a bit of consulting have all kept Stuart very busy. Stuart and Dave Berman (Carnegie Museum of Natural History, Pittsburgh) have just submitted a manuscript to the *Annals of Carnegie Museum* on the pelycosaurian taxa from the Upper Pennsylvanian Badger Creek Locality in Colorado. Dave and Stuart have now begun to look at an interesting little trematopsid amphibian from the Lower Permian Bromacker locality of what was formerly eastern Germany (with Thomas Martens, Museum der Natur, Gotha, Germany). Galley proofs have just arrived on a paper with Eric Lombard (University of Chicago), reviewing recent progress in our understanding of early tetrapod evolution. It will arrive in *American Zoologist* some time soon.

Along with Karen Martin (Pepperdine University), Stuart has been asked to organize a symposium for the International Congress of Vertebrate Morphology IV in Chicago for the summer of 1994. The tentative symposium title is "Paleontological and Neontological Approaches to the Amphibian to Amniote Transition."

Stuart has continued his enjoyable relationship with the Walt Disney Studios. His latest efforts have been to help teach the animators about the anatomical basics of a variety of African animals, as they prepare for their summer 1994 release "King of the Jungle," a sort of a Bambi in Africa type of story.

Despite our somewhat remote location, visits from a number of colleagues have kept "paleo talk" off of the back burners. Visitors have included Peter Vaughn (UCLA), Dave Berman (Carnegie Museum of Natural History), Elizabeth Rega (University of Sheffield Archaeology), and Karen Martin (Pepperdine University). Anyone coming through this neck of the woods is welcome to visit, especially with the Western Association of Vertebrate Paleontologists Meeting at the San Bernardino County Museum in February of 1993. (Stuart Sumida)

George C. Page Museum

By the time you read this report, and unless a minor miracle occurs, our curatorial staff of four will have been reduced to one a 75% decrease! Gone will be George Jefferson, Cathy McNassor, and Shelley Cox (representing over 50 years of collective experience); only Chris Shaw will remain, at least temporarily, to serve as "caretaker" of the collection and the empty laboratory. This devastating turn of events will begin on January 15, 1993, with the arrival of "pink slips," courtesy of the Director of the "parent" facility, the Natural History Museum of Los Angeles County. Although the Director's action was

apparently prompted by a directive from the Los Angeles County Supervisors that he reduce the total museum staff by some percentage, why the "Page" was singled out to take such a "terminal" hit is not known at this time.

The total effect of this short-sighted action will be incalculable. For example, most (if not all) curatorial work will cease; all outside access to the collection will be curtailed; and the 50-plus volunteer force will cease to function. As of this writing, a concerted and unsolicited campaign organized by a number of the volunteers has not been successful in reversing the lay-off decision. Tragically, these bad times are anticipated to become worse; California budget woes are expected to continue well into this coming fiscal year and beyond.

In the meantime, George continues to write and publish; Chris carries on with his curatorial work on *Canis latrans*; Cathy remains occupied with her archival work; and Shelley keeps her volunteers busy. All of us are hoping that the collective effort to "Save the Page" will ultimately succeed, and that this potential tragedy can be avoided. But whatever happens, you can be assured that we didn't give up easily, or leave quietly! (Ted Connors)

John Day Fossil Beds National Monument, Oregon

The field season has been busy, with excavation of some excellent material and many visitors. Among those amplifying the John Day Basin congregation this year were Bruce MacFadden, Carl Swisher, and Mike Woodburne to strategize study of several of the classic localities. Bob Hunt and Ellen Stepleton examined sites and the carnivores in the collection; we miss Ellen and were dismayed to discover she has contracted the Nebraska "look at the mitts on that puppy" syndrome. Work by Erick Bestland and Greg Retallack continues on a major NPS-funded study of the detailed stratigraphy of Painted Hills and the Clarno area which should provide an outstanding framework to hang dozens of sites that have been temporally floating.

Camille Evans studied advanced molding and casting strategies under sages Pete Reser and Mary Odano, and immediately began casting lots of stuff. Ted Fremd finally completed his survey of all the major collections of the John Day, examining specimens (with volunteer photographer Skylar Rickabaugh) from the Cope and Marsh materials at the American Museum of Natural History and Yale Peabody Museum. Xiaoming Wang, Mary Ann Turner, and Dick Tedford were genuinely helpful and hospitable. After participating in a panel at the North American Paleontological Convention in Chicago, Ted cheerfully reports there is no shortage of opinions concerning federal paleontological regulations. (Ted Fremd)

Natural History Foundation of Orange County, Newport Beach, California

The opening of a small shopping center display facility is scheduled for early January of this year. This facility will be the first after the closure of the Foundation's 30,000 ft² - museum two years ago. The displays will feature a cross-section through the various biomes of the Orange County area. A large emphasis will be placed on the fossils, archaeology, and biology of these regions.

Locality searches for the county are now routinely being handled by the Foundation. Approximately 1,000 sites are known from the county and produce fossils from the Cretaceous to Quaternary.

Recently a complete palate and ventral postcrania of *Pliohippus* was recovered from the Capistrano Formation. This is the most complete skull of the genus recovered from the Basin. The dentition of the specimen is complete except for the incisors. A series of four pathologic dolphin vertebrae was also recovered from this formation. A microvertebrate site was discovered in the Vaqueros Formation (Earliest Miocene) and has yielded hundreds of shark, ray, and fish teeth. A rodent skull was just found in the Sespe Formation (the terrestrial equivalent of the Vaqueros Formation) although isolated teeth of rodents have been recovered before, this is the first complete rodent skull known from the unit, in Orange County. The skull has not been prepared yet, but will definitely prove interesting. (Steve Conkling)

Ralph B. Clark Interpretive Center, Buena Park, California

Lisa Babilonia continues to work on the collections at the Center. She has recently reorganized our comparative collections and moved them to a new storage area. Besides making the materials more accessible, this new storage also removes the bone from the collections room, reducing the chance of dermestid beetle infestations. She is currently working on a mount of an articulated mammoth foot (*Mammuthus imperiator*), which will be added to the Center's displays.

Recent excavations in the La Habra Formation have yielded a productive bone bed. The rainy season has interrupted excavations, but a partial skull and lower jaw of a small horse were recovered and many more elements await removal.

Work on the Irvingtonian life mural by Mark Hallett continues. This display addition will day-view in June of 1993. The Field Research Support Group (FRSG) is planning archaeological excavations in the Owens Valley, and will be working with a planned excavation by the San Bernardino County Museum.

Steve Conkling is working with the Amateur Outreach Committee (AOC) of the Society. At this point, the group has developed ethical standards for amateur collectors and is working on a series of articles for magazines like *Lapidary Journal*. The purpose of these articles is to bring the society and professional paleontologists into contact with the amateur collector. The Center will be hosting a "Rock and Fossil Discovery Day" in

March of this year and will preview many of the AOC to the groups involved in the day.
(Steve Conkling)

BULLETIN BOARD

Paleontology at LACM Threatened with Extinction

Seven paleontology positions (four in vertebrate paleontology) were eliminated at the Natural History Museum of Los Angeles County on 14 January 1993. Additional cuts are threatened later in the year. These cuts are due, in part, to the continuing downturn of the economy in California. More significantly, Craig Black (Director) has championed a shift in emphasis within the sciences at LACM to marine and aquatic biology (including molecular biology), stating that he believes these are the unique things done at this institution. Seemingly, paleontology has been singled out for cuts. No other science discipline at the Museum will be losing more than one position (with the exception of Botany, which has been turned over to a sister institution in the LA area). Appeals for reconsideration from the paleontology staff to Craig Black (the Director) have met with no success, thus we encourage all to express your sense of the "relevancy" and "uniqueness" of paleontology, particularly in a Museum setting, to Craig Black.

On the other front, Los Angeles County government needs to be effectively reminded that natural history museums play a vital role in the educational and cultural well being of society, even in the face of budget crises. Former county governments have supported this Institution through 80 years of good and hard economic times without cuts as significant as those now proposed. The budget shortfall at the Museum represents less than two hundredths of one percent (0.00017) of the Los Angeles County budget for this year!

People to write:

Dr. Craig C. Black, Director/ Natural History Museum of Los Angeles County/ 900 Exposition Boulevard/ Los Angeles, CA 90007

Honorable Yvonne B. Burke, Supervisor, Second District/ Room 866, Hall of Administration/ 500 W. Temple Street/ Los Angeles, CA 90012

Mr. Ed N. Harrison, President, Board of Governors/ Natural History Museum of Los Angeles County/ 900 Exposition Boulevard/ Los Angeles, CA 90007

Baryonyx Casts

The Palaeontology Department, Natural History Museum, is considering the production of a limited run of casts of the Wealden theropod dinosaur *Baryonyx walkeri*, depending on the level of demand. A left-half mount of the complete (partly modelled) 10.5 m long skeleton has already been produced for display in the new gallery in London. If your institution might be interested in the purchase of any of the following -- left half skull, whole skull, left half skeleton, whole skeleton -- please write to Angela Milner, Department of Palaeontology, The Natural History Museum, Cromwell Road, London, England SW7 5BD.

CALENDAR OF EVENTS

North American Commission on Stratigraphic Nomenclature

The North American Commission on Stratigraphic Nomenclature passed a resolution at its October 28, 1992, meeting in Cincinnati, Ohio, to "...solicit opinion from the profession as to whether or not to amend the 1983 North American Stratigraphic Code so as to provide for formalization of sequence-stratigraphic units." A committee that will make recommendations on this matter was established at the same meeting.

All workers concerned with sequence stratigraphy are invited to communicate their opinions and specific recommendations to Donald E. Owen, Chairman, SACSN, Department of Geology, Lamar University, P. O. Box 10031, Beaumont, TX 77710. Phone (409) 880-8234; fax (409) 880-8007.

Opinions are solicited as to whether or not sequence-stratigraphic units should be considered a special type of Allostratigraphic Unit, as defined in the existing North American Stratigraphic Code (AAPG Bulletin, 1983) and how sequence-stratigraphic units relate to the Unconformity-Bounded Units (Synthems) of the ISSC (GSA Bulletin, 1987). Recommendations on exactly what kind of sequence-stratigraphic units and surfaces (sequences, parasequences, marine-flooding surfaces, condensed zones, etc.) that should be formalized or remain informal are solicited also. Comments will be considered until July 31, 1993, but earlier submittal of opinions and recommendations is encouraged. (Donald E. Owen, Chairman, NACSN)

NATO Advanced Study Institute

A NATO Advanced Study Institute will be held in Italy 18-30 July 1993 in morphometrics. For further information and applications, contact Leslie F. Marcus, Department of Invertebrates, American Museum of Natural History, Central Park West at 79th, New York, NY 10024. Applications are due 1 April 1993. Fax: (212) 769-5495; E-

Mail: LAMQC@CUNYVM.BITNET or LAMQC@CUNYVM.CUNY.EDU. (Les Marcus)

1993 Conference on Australasian Vertebrate Evolution: Palaeontology and Systematics

Theme: Pliocene and Pleistocene Vertebrate Evolution in Australasia. The conference will be held in the Glenroy Room of the Grosvenor Hotel, North Terrace, Adelaide, on 19-21 April 1993. For details, contact Secretary CAVEPS 1993, School of Biological Sciences, Flinders University of S.A., GPO Box 2100, Adelaide, South Australia 5001.

Ninth International Symposium on Gondwana Geology, Geophysics, and Mineral Resources

All interested persons are invited to attend the 9th International Symposium on Gondwana in Hyderabad, India, between 10-14 January 1994. The symposium program at present will have five days of technical sessions and associated scientific and administrative meetings, followed by geological excursions in West Bengal, Bihar, Orissa, and parts of south India. For details, contact The Secretary, Organizing Committee, 9th International Gondwana Symposium, c/o Director, International Wing, 27, Jawaharlal Nehru Road, Calcutta 700 016, India; Cable: Geosurvey Calcutta; telex 021-5967 GSIRVIN; fax 033-29-6956; telephone 29-6941, 29-6973, 29-6958, 29-6955, and 29-6965.

PREPARATORS' CORNER

While recently preparing and reconstructing a number of Eocene primate skulls, I chanced upon a novel method of restoring missing parts using cyanoacrylate ("superglue") and carbowax. I have found that it is possible to sculpt a missing part in carbowax or any soft wax, and then give it rigidity by coating the exterior with superglue. The glue can be hardened instantly with a spray accelerant. Once this coating is hard, it is possible to repeat the process on the other side of a flat area producing a glue/wax/glue sandwich. Such a structure is rigid and will hold up its own weight if the glue layers are thick enough. If you want the patch or reconstructed area to be even thinner, you can scrape away the wax and apply the second glue coat to the back of the first, producing a thin, hard, and transparent coat. It is also possible to coat a three-dimensional reconstructed area made of wax and then scoop out wax, leaving only the light hollow shell. The benefits of this method are: 1) the glue can be carved with an exactoknife and hold surprisingly fine detail; 2) areas can be built up with wax and glue additively as well as removed subtractively; 3) unlike plaster, pycree, sculpy, or other compounds, the

method is easily reversible, and the glue can be popped loose, cut away, or dissolved with acetone; 4) unlike plastiline modeling clay, or wax alone, reconstructions in glue or glue and wax can be permanent. I recommend this method for reconstructing specimens prior to casting. The material has successfully survived silicon rubber molds. It is perfect for restoring skulls with lots of pieces missing and permits you to change your mind and undo previous reconstructions.

I have used the Satellite City brand name "Hot Stuff" glue and gap filler and "Hot Shot" accelerant with good results.

Warning: follow all safety directions on the cyanoacrylate tube carefully, avoid skin contact, and use only in a well-ventilated area with a chemical filter face mask. (John P. Alexander)

PUBLICATIONS

New Homotherium Publication

Rawn-Schatzinger, Viola 1992. The Scimitar Cat *Homotherium serum* Cope-Osteology, Functional Morphology, and Predatory Behavior. *Illinois State Museum Reports of Investigations* No. 47:80 pp. Available from the Illinois State Museum, Spring and Edwards, Springfield, IL 62706. Cost: \$6.00 + \$1.00 handling and Illinois residents add 7.25% sales tax.

Bibliographic Database of Fossil Vertebrates

The Society of Vertebrate Paleontology just released its long-awaited *Bibliographic Retrieval System* produced as a pilot project utilizing data from the printed version of the 1988 *Bibliography of Fossil Vertebrates*. These diskettes are distributed with the understanding that new owners will be contacted by the editors for evaluation and comments about the format and mode of operation of this system. An order form is included at the back of this issue. (J. A. Bacsikai)

JOB OPENINGS

Paleo Intern, Petrified Forest National Park

During 1992, Petrified Forest National Park, Arizona, will continue its Paleontological Intern Program. This program will provide the opportunity for a student to spend the

summer in the park conducting field work in the late Triassic Chinle Formation. This can provide the opportunity for someone trying to develop a thesis project in geology or paleontology. Interested applicants can contact Vince Santucci, Petrified Forest National Park, P. O. Box 2217, Petrified Forest, AZ 86028; (602) 524-6228 x229.

Hagerman Fossil Beds National Monument

Hagerman Fossil Beds National Monument anticipates having one or two temporary positions for the summer of 1993, depending on available funds. These will be filled at GS 4/5 level depending on the experience of the applicants and can be filled for only a maximum of 120 days. Starting dates are flexible, but primary field season is June through August. Field work includes mapping of fossil localities within monument with laser transit and transcription of data into data base. Work will include some collection of fossils. Previous experience with a transit or in mapping is desirable but not necessary. Terrain at Hagerman Fossil Beds can be steep, and summers are hot, so work will be somewhat strenuous. Hagerman Fossil Beds N.M. does not have housing so employee(s) will be responsible for own food and housing. For further information or to apply for positions contact: Greg McDonald, Paleontologist, Hagerman Fossil Beds National Monument, P. O. Box 570, Hagerman, ID 83332. Phone (208) 837-4793.

Applications Sought for Senior and Postdoctoral Research Associateships

The National Research Council announces the 1993 Resident, Cooperative, and Post-doctoral Research Associateship Programs to be conducted on behalf of 30 federal agencies or research institutions whose 115 participating research laboratories are located throughout the United States. The programs provide opportunities for Ph.D. scientists and engineers of unusual promise and ability to perform research on problems largely of their own choosing, yet compatible with the research interests of the sponsoring laboratory. Initiated in 1954, the Associateship Programs have contributed to the career development of over 7,000 scientists, ranging from recent Ph.D. recipients to distinguished senior scientists.

Approximately 350 new full-time Associateships will be awarded on a competitive basis in 1993 for research in: chemistry; earth and atmospheric sciences; engineering and applied sciences; biological, health, and behavioral sciences and biotechnology; mathematics; space and planetary sciences; and physics. Most of the programs are open to both U.S. and non-U.S. nationals, and to both recent Ph.D. degree recipients and senior investigators.

Awards are made for one or two years, renewable to a maximum of three years; senior applicants who have held the doctorate at least five years may request a shorter period. Annual stipends for recent Ph.D.s for the 1992 program year range from \$27,750 to

\$44,000, depending upon the sponsoring laboratory, and will be appropriately higher for senior Associates.

Financial support is provided for allowable relocation expenses and for limited professional travel during duration of the award. The host laboratory provides the Associate with programmatic assistance, including facilities, support services, necessary equipment, and travel necessary for the conduct of the approved research program.

Applications to the National Research Council must be postmarked no later than January 15, April 15, and August 15 for reviews in February, June, and October, respectively. Initial awards will be announced in March and April/July and November for the two later competitions followed by awards to alternate candidates later.

Information on specific research opportunities and participating federal laboratories, as well as application materials, may be obtained from: Associateship Programs (GR430/D2), National Research Council, 2101 Constitution Avenue, NW, Washington, DC 20418. Fax (202) 334-2759.

Fossil Butte National Monument Paleontological Internship

Fossil Butte National Monument is offering a six- to eight-week (during June and July) internship position which will entail fossil preparation work, preparation and presentation of interpretive programs, and field research, which will culminate into a small resource management project. The stipend is \$2,000.00. The Monument was set aside to protect a portion of the Eocene Green River Formation and to promote scientific research. The paleontological internship program provides an opportunity to pursue potential research projects and to work with respected scientists. For more information, please contact Rachel Benton, Park Paleontologist, at (307) 877-4455.

Museum of the Rockies Paleontology Field Program

The Museum of the Rockies will be hiring experienced field personnel to assist in the operation of the Paleontology Field Program near Choteau, Montana. Approximate dates of operation are June 23 to August 15, 1993. Please write to Patrick Leiggi, Museum of the Rockies, Montana State University, Bozeman, MT 59717, for a job description and information packet. Only people that are committed to the entire length of the program should reply.

Curatorial Assistant, Paleontology

Duke University Primate Center is seeking applications for an initial two-year appointment of a curatorial assistant. The Primate Center currently has a collection of about 12,000 vertebrate fossils that have been collected as part of a search for early and middle Tertiary primates, as well as subfossils from Madagascar. There is an active program in paleomammalogy and paleoprimateology. Duties for this position include: identification, preparation and cataloguing of fossils, casting and molding, and assisting in the operation of field expeditions. Ability to drive field vehicles required and some knowledge of automobile mechanics preferable. This is a full-time position which reports to the Curator of Paleontology and Scientific Director. Salary range is \$7.28\$9.30. Deadline is February 15, 1993. Send resume and the names of two references to: Prithijit S. Chatrath, 3705 Erwin Road, Durham, NC 27705-5000.

Summer Internships, Dinamation International Society

The Dinamation International Society has openings for summer interns to work with our participant funded research program. Work will involve assisting in the supervision of participants in the excavation of a dinosaur quarry in western Colorado and assisting the Bureau of Land Management in providing interpretation and security for the site. A minimum of a two-month commitment is required. The applicant should be "people oriented," with a deep interest in dinosaur paleontology and be able to provide own transportation. Benefits include housing in a trailer on site and a stipend of \$300 for living expenses. Interns will receive training in all aspects of field paleontology and will have many opportunities for training in preparation techniques as well. It is hoped the interns will use this position for independent study credit. Send two letters of recommendation and resume to Michael Perry, Director, Dinamation International Society, P. O. Box 307, Fruita, CO 81521.

OBITUARIES

Giles T. MacIntyre

Dr. Giles Ternan MacIntyre, a high-school dropout with a Phi Beta Kappa key and an expert on the evolution of mammals, died on November 8, 1992, at Presbyterian-University Hospital in Pittsburgh. He was 66 years old and lived in Great Neck, New York.

He had gone to Pittsburgh for a liver transplant and died of liver failure, reported Queens College of the City University of New York, where he had first gone as an evening lecturer in 1959. Dr. MacIntyre, a member of the biology department, specialized in mammalian paleontology, tracking the origin and development of major carnivores, including dogs.

He was born in New Jersey. He dropped out of William Howard Taft High School in the Bronx to support his widowed mother. He then served in the Army, Air Force, and Air Force Reserve, got a high-school equivalency certificate and graduated cum laude from the Columbia University School of General Studies. He joined the Queens College faculty full time in 1962. He was an associate professor, teaching both undergraduate and graduate courses since 1969.

Dr. MacIntyre's survivors include his wife, Dorothea; two daughters and a son from a previous marriage; and two stepsons. (Condensed from a notice in a Berkeley newspaper)

Jean Piveteau (1899-1991)

Professor Jean Piveteau, Honorary Member of the SVP among his innumerable titles, left us on 7 March 1991, at the age of 92. His long career profoundly marked several generations of French paleontologists (for many he was the determinate element in their choice of profession) by the quality of his research, his exceptional teaching ability, and his talent as a writer.

Born in Rouillac (Charente), France, Jean Piveteau began his life's work in the Laboratoire de Paléontologie of the Muséum national d'Histoire naturelle, then directed by Marcelin Boule. After a period in the Ecole des Mines à Paris, he joined the staff of the Sorbonne and was named professor in 1942, professorship that he continued in the Faculté des Sciences de Paris (Jussieu). Elected a member of the Académie des Sciences, he became its president in 1973.

Jean Piveteau voyaged extensively and studied a wide variety of fossil vertebrate groups: fish, amphibians, reptiles, and mammals, including man. As he himself acknowledged, he was particularly attracted by two large themes: the problems of the organization and evolution of vertebrates on one hand, and human paleontology on the other, both concerned with the problem of origins. With respect to the first theme, one can cite the subjects of cranial architecture, the conquest of the land, and general cerebral evolution; he was especially intrigued by the various solutions adopted by vertebrates in achieving cerebral enlargement and refinement. For the second theme, he investigated with keen enthusiasm the phenomenon of hominization and the phyletic significance of Neanderthal Man. But his interests extended widely beyond paleontology and included the history of science and the philosophical works of Buffon and Teilhard de Chardin.

Jean Piveteau left us more than 250 papers and books. For many, his name is a synonym of the enormous "Traité de Paléontologie," a monumental synthesis in seven tomes and ten volumes which appeared between 1952 and 1969. Under his direction 51 different authors from the international scientific community collaborated on the texts. Completing an exceptional career, his last book, "La main et l'hominisation," was edited only a few weeks before his death.

Maintaining a remarkable activity, he came regularly to his office in the Muséum until 1991, to work and to meet his colleagues, students, and friends; we thus had the opportunity to appreciate for many years his immense culture and his extreme courtesy, animated by an elegant sense of humor. (D. E. Russell)

Montagu Arthur (Pont) Wiffen

Montagu Arthur (Pont) Wiffen, husband of and co-worker with Joan Wiffen, died peacefully at their home on 17 September 1992. Pont was an assiduous worker with Joan in the finding and extraction of bones of dinosaurs, mosasaurs, and other animals from the upper Cretaceous rocks of Mangahouange Stream, Ureweta Country. Pont was 78. He is survived by his wife Joan, a daughter and a son, and two grandchildren. (Ron Scarlett)