

SOCIETY OF  
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PALEONTOLOGY  
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**- OFFICIAL BUSINESS -**

**LETTER FROM THE PRESIDENT**

As the SVP has grown over the past several years, the Executive Committee has had to make a more concerted effort to stay in touch with the membership. It is crucially important for the Executive Committee to provide more information to, and to obtain greater feedback from, the membership to assist it with its deliberations and decisions about the future course of the Society. As part of this process, at the 1992 Annual Meeting then President Bill Clemens initiated an open, informal Saturday noontime meeting with the Executive Committee that allowed members to voice their concerns in person about any aspect of the Society-this has become a tradition and has proved to be an enlightening and very productive forum for discussion. Since then the SVP has also developed the VP ListServer and a home page on the World Wide Web (<http://eteweb.lscf.ucsb.edu/svp/>). In addition, the Executive Committee has conducted various surveys, the most recent ones being concerned with the establishment of a companion 501(c)(4) organization (Save America's Fossils for Everyone-SAFE) and the restructuring of the *Bibliography of Fossil Vertebrates* project.

This letter represents a further attempt to disseminate information and solicit feedback. My intentions are to briefly summarize some of the various directions that the Society has pursued during my twoyear term as SVP President and to provide some indication of where those pursuits might/

should lead. Although I am writing the letter with several weeks left in my tenure as President, by the time it is printed I will be the SVP's most recent Past President and Lou Jacobs will be firmly ensconced as current President of the Society.

**Administration**

In March of 1994, the administration of the SVP was assumed by the professional management firm, Smith, Bucklin & Associates, Inc. (SBA), headquartered in Chicago. The increasing size of the Society and its many programs and publications have made management a very complex enterprise, one for which continuity is vital. SBA provides that continuity in that the location of the Business Office will not change and, while officers and committees will come and go, crucial procedures and information will be retained.

With the management skills and experience of SBA, and the dedication of the employees assigned to the SVP account, primarily Business Manager Pam D'Argo and Membership Services Coordinator Kathy Lundgren, we have been able to restructure several programs and undertake several new initiatives. Here are just a few examples (others can be found throughout the rest of this letter), in addition to the daily activities, of what our new Business Office has accomplished:

- 1) Converted the SVP membership database to an integrated database system (entitled *iMIS*) with specialized modules. *iMIS* allows for greater flexibility in the way membership demographic information is captured and reported. This same application also serves as the registration software for the Society's annual meetings.
- 2) Developed a professional computerized system for quarterly budget reporting that has greatly assisted the Executive Committee in understanding and managing the Society's finances.
- 3) Worked with Treasurer John Bolt to select new investment, audit, and legal counsel for the Society within the Chicago area.
- 4) Appointed a Convention Coordinator, Charlene Russell, to assist the host committees in making arrangements for the annual meetings. The Business Office will play a more prominent role in the administration of annual meetings in the future.
- 5) Provided Director and Officer Liability Insurance to the Society.
- 6) Worked with the Executive and Government Liaison Committees to assist in the incorporation, formation, and administration of SAFE.
- 7) Suggested to the Executive Committee that a separate Membership Committee be created to fulfill the role of approving membership applications. Also suggested new marketing techniques be used to recruit members.
- 8) Suggested new sources of revenue (e.g., advertising) and restructured other sources (e.g., page charge process, exhibits fees at annual meetings, advance negotiation of hotel contracts for future annual meetings).

9) Supported the Executive Committee's efforts to reinvigorate the Society's fund-raising efforts and assisted it and the Development Committee in soliciting donations from SVP members, foundations, and corporations.

10) Encouraged the continued documentation of SVP policies and the development of an SVP policy manual.

In the past year alone, the Business Office, recognizing the financial status of the Society, has provided several complimentary services related to the incorporation and early development of SAFE and evaluation of the sites for the 1996 and 1998 Annual Meetings.

The bottom line from a budget perspective, however, is that we are still in the red. We are still deficit spending but, with the Business Office's guidance, we have taken a long, hard look at the various programs with which the SVP is involved, prioritized our efforts, and have aggressively attempted to reinvigorate old ways and find new ways to generate revenue. As a result, the 1995-96 yearend forecast predicts the lowest deficit in several years, just over \$22,000-this is approximately onequarter of what the deficit was in 1994-95. It appears that we have turned the corner toward the black.

## **Governance**

The Executive Committee has recognized the need to revise the Society's constitution and bylaws. The original constitution was drafted by George Gaylord Simpson and became effective at the organizational meeting on December 28, 1940, where it was signed by the 34 vertebrate paleontologists in attendance. Some three months later there were 150 members. Now, some 56 years later, the Society has approximately 1600 members and over 20 committees, publishes the *JVP*, *BFV*, *Memoir Series*, *News Bulletin*, and abstracts for the annual meeting, has an endowment of over \$1,000,000, is strongly involved in legislative issues, has initiated a companion 501(c)(4) organization (Save America's Fossils for Everyone), and the annual meeting is routinely attended by 700-800 individuals. Times have changed, but the constitution, although having undergone piecemeal revisions (e.g., splitting up of Secretary/Treasurer position, addition of Bylaw on Ethics), has changed little and not kept pace. Past President Bill Clemens and Secretary John Flynn have been charged with revising the constitution and bylaws and are working closely with the Business Office on this project.

## **Membership**

A separate Membership Committee was formed two years ago and, under the energetic leadership of Catherine Badgley and Emily Buchholtz, it has revised the application forms, streamlined the nomination and approval pro-cess, and reinvigorated recruitment efforts. This has involved the development of a membership kit and the initiation of a recruitment campaign to affiliated professional societies, complete with a small SVP exhibit for display at the annual meetings of other societies. It has also involved the development of a sponsorship program to better enable colleagues in developing

countries to become members of the Society. Catherine and Emily were also extremely helpful in developing merchandise for sale at the 1995 meeting, an initiative that has since been assumed by the Development Committee.

In July, a telemarketing campaign to members who had not yet renewed for the 1995-96 fiscal year was undertaken. This project cost \$1,112 but generated \$1,955 in revenue.

## **Publications**

### ***Journal of Vertebrate Paleontology***

The *JVP* is a first-rate scientific journal, the premier journal in the discipline, and the flagship publication of the SVP-of that the Society can be justly proud. But, two years ago, we recognized that the *JVP* was in serious trouble; it had become a victim of its own success. Manuscript submissions had doubled from 1990 to 1995 while funds dedicated to the journal's publication remained flat. As a result, a huge backlog of publishable manuscripts had accumulated. The lag time from date of acceptance to date of publication had risen to the unacceptably high level of a year and a half. To compensate, a two-year plan was developed by the Executive Committee and the editors to increase the number of pages, to recover more from page charge costs, institutional subscriptions, and sales of back issues, to maximize per page space, to increase the rejection rate, and to increase subscriptions.

The Development Committee was charged with the task of raising over \$32,000 to be dedicated to the publication in 1995 of the large number of manuscripts that contributed to the growing backlog and lag time. The campaign to do so was successful and the number of pages published in *JVP* was increased dramatically, beginning in late 1994. The number of pages published rose from 543 in 1993 to 882 in 1995, an increase of 62%. Correspondingly, the lag time from date of acceptance to date of publication has been reduced from a peak of 18.2 months in vol. 14(4), to 14.4 months in vol. 16(2), and to a predicted lag time of 12 months or less in vol. 17(4). In addition, \$200,000 was raised for the *JVP* through a single corporate donation (see section on Fund Raising below) and added to the Endowment Fund, with interest proceeds intended to sustain a *JVP* of at least 800 pages/year in perpetuity.

In order to recover more in the way of page charge costs, four actions were taken:

- 1) The Dinosaur Society was approached to pay for page charge costs on any paper relating to dinosaurs for which the author(s) could not pay. The Dinosaur Society readily agreed to this proposal and has generously contributed over \$36,000 to this effort.
- 2) Charges to authors for pages over 15 were made mandatory.
- 3) A mechanism was established by the *JVP* editors and SVP Business Office (with Pam D'Argo serving as Managing Editor) in which the maximum page charge costs can be recovered from authors on a voluntary basis. This new mechanism has been implemented

and revenue from this source has risen dramatically, increasing sevenfold between 1993-94 and 1994-95 (final figures not yet available for 1995-96).

4) Charges were increased from \$120/page to \$140/page in order to compensate for a steep increase from Allen Press, the firm that publishes the *JVP*, in paper costs. The Dinosaur Society has graciously agreed to absorb these increased costs for papers on dinosaurs.

More revenue for the journal is being obtained through the sale of back issues and subscriptions than was previously the case. The rate for back issues was increased from \$14 to \$20 for individuals and from \$28 to \$40 for institutions. Subscription rates were raised from \$37.50 to \$50 for individuals and from \$85 to \$125 for institutions. These increases bring rates for the *JVP* more in line with those of comparable scientific journals.

To make optimal use of per page space, the editors, working closely with Allen Press and with the approval of the Executive Committee, have instituted a number of changes to the design and format of the journal. These changes have included smaller font size, smaller margins, and more efficient use of space for illustrations. Additional savings have been obtained by using a slightly lighterweight paper and elimination of page varnish. The rejection rate of manuscripts was doubled, from approximately 17% to 34%.

Efforts to increase institutional subscriptions for the *JVP* has primarily entailed advertising in an Allen Press catalog of scientific journals and attempts to get *JVP* coverage in *Current Contents* and *Science Citation Index*. The latter has not yet been successful but is being pursued aggressively by former *JVP* editor Rich Cifelli.

Lastly, in response to suggestions from the membership, a new section has been added to the journal, *Rapid Communications*. This section is intended to provide an avenue for publication of short papers of broad significance in vertebrate paleontology in a more timely manner. It is hoped that in some respects this avenue will become more attractive to vertebrate paleontologists than journals such as *Nature* and *Science*, particularly in that the illustrations will be of higher quality.

The overall result of all of these efforts is that the journal is larger, of even higher scientific quality, more broadly circulated, and on a much firmer financial footing than it was two years ago.

And finally, effective 1 January 1996, Richard Fox succeeded Richard Cifelli as *JVP* Mammal Editor.

### ***Bibliography of Fossil Vertebrates***

*BFV* sales have declined dramatically in recent years while expenses have risen; the resulting *BFV* deficit quadrupled in the fiveyear period from 1990-91 to 1994-95, rising to approximately \$65,000. Only a small percentage (10-12%) of the SVP membership

now receives the *BFV* as individual subscribers and a still smaller percentage (4-6%) special order the *BFV*. Institutional sales dropped from 71 for the 1989 volume to 35 for the 1992 volume. Some of the increased expenses are owing to the fact that the UCMF changed quarters and was forced to withdraw its support in the form of office space for the *BFV* staff. The staff has now moved and office rental has been assumed by the SVP. Clearly, in light of declining sales and increasing expenses, the *BFV* project required reevaluation.

In 1994 the Information Management Committee was charged with the task of reviewing the *BFV* project and reported that "As currently issued the strengths of the *BFV* as a resource do not outweigh the costs.... The *BFV* cannot continue without changing as it will become increasingly more cumbersome to use and less costeffective as a resource." In 1995 the Executive Committee conducted a comprehensive survey of the membership to assist it in determining the future course of the *BFV* project. The results of the survey were published in the October 1995 issue of the *News Bulletin* (pp. 2-8). The survey showed that the membership feels that the deficit incurred by the project is unacceptably high, the financial impact on the endowment and other SVP programs too great, and the current number of printed *BFV* volumes too cumbersome to use efficiently in light of current technology. Furthermore, the survey showed that many members are using other, more current and comprehensive bibliographic sources that are electronically searchable. The primary conclusion of the survey is that the majority of SVP members feel that the *BFV* should not continue in its present form. Over 75% of the respondents favored the idea of developing an electronically searchable database derived from all of the published volumes of the *BFV*.

Since the survey, many options and strategies have been discussed by the Executive Committee. In the interim, the *BFV* project was able to continue owing primarily to a major donation from Don Baird that permitted compilation of the 1993 volume. Thanks largely to John Damuth, the data from the 1981-1990 *BFV* s were released to the VP community over the internet to further assess interest in searching these data electronically (<http://etoweb.lscf.ucsb.edu/svp/>). The response has been strong. A proposal for a pilot project, to convert the first *BFV* (O. P. Hay, 1901) into a searchable, electronic format, was submitted to the Seidell Atherton Endowment of the Smithsonian Institution and declined. Subsequent to that declination, a proposal was submitted to a potential corporate sponsor for conversion of all *BFV* s to electronic format; it too was declined. Since that declination, The Dinosaur Society was approached to fund the project and I am very delighted to report that it has agreed to do so. The resulting product, when completed, will contain all references on vertebrate paleontology in the *BFV* volumes from the 19th century through 1993 and will thus be an invaluable resource.

Negotiations were also pursued with both the American Geological Institute (publishers of *GeoRef*) and BIOSIS (publishers of *Zoological Record* and *Biological Abstracts*) to determine the feasibility of working jointly to compile *BFV* data into the future. In spite of early indications that AGI might be willing to undertake some significant level of financial support for the *BFV* project by incorporating greater coverage of the vertebrate paleontological literature in *GeoRef*, this did not materialize. Negotiations are still

ongoing with BIOSIS and the potential of moving forward on a joint *BFV* project will be determined at the upcoming Executive Committee meeting in New York City. The continued support of Herbert Axelrod, President of T.F.H. Publications, Inc., in printing hardcopy versions of the *BFV* appears likely but this can only be done if funding for continued compilation of bibliographic data is secured. The *BFV* project is clearly at a crossroads.

### ***SVP News Bulletin***

There have been no major changes in the publication of the *SVP News Bulletin* over the past two years. Approximately two months ago, however, a new and improved issue of the *Address Directory* was published, complete with email addresses (where available) and various data of historical interest (e.g., sites of past and future meetings, past award winners).

### **Fund Raising**

Put simply, we can't have our cake and eat it too. The various publications and programs of the SVP cost a great deal of money. Past efforts to raise the necessary funds to run the Society have come primarily from two sources: 1) dues, and 2) donations from members (e.g., Endowment Fund Drives and the Annual Auction). In the past two years, the Executive Committee has not raised dues but has continued to solicit donations from members through a reinvigorated development campaign headed by John Wible, Chair of the SVP Development Committee. The campaign has raised over \$63,000—these funds were primarily targeted to help reduce the unacceptable backlog of *JVP* manuscripts that had accumulated (see section on *JVP* above). In addition, several members have stepped forward to help with specific programs. Of particular note in this regard is the extremely generous donation of \$65,000 by Don Baird last year to compile the 1993 *BFV*. I must also acknowledge the financial sacrifices made by the many committee members who travel on SVP business. Whether to attend mid year committee meetings, special meetings in Washington, or whatever, these travel expenses are not reimbursed from the SVP budget.

In addition to dues and member donations, the Executive Committee has explored or already developed several new sources of funding:

1) Merchandise—in 1995, scale bars, mouse pads, annual meeting lapel pins, and commemorative SVP logo lapel pins were developed and offered for sale. Sales of the scale bars and commemorative pins have been brisk. Ideas for new items of merchandise are, of course, always welcome.

2) Nonmember Donations—In addition to appealing to the membership for voluntary contributions, direct appeals were made for contributions to corporations, foundations, and other societies. These efforts resulted in two major successes: a) a contribution of \$200,000 from a corporation that chooses to remain anonymous (see section on *JVP*) but to which the Society will be eternally grateful, and b) \$55,560 in contributions from The

Dinosaur Society to defray costs for publication of the *JVP* and the Society's *Memoir Series*.

- 3) Advertising Program-Through the efforts of Brent Breithaupt, Secretary John Flynn, and Business Manager Pam D'Argo, the SVP has recently developed an advertising policy, rate list, and contract and has actively solicited advertisements for publication in the *JVP*, *News Bulletin*, and Abstracts supplement. If you know of anyone or any company or organization that might be interesting in advertising in the Society's publications, please put them in contact with Pam.
- 4) Created a prospectus that acts as a marketing tool to recruit potential exhibitors at the annual meetings. Also restructured exhibit fees to be competitive with like societies.
- 5) Malcolm McKenna and Susan Bell's Mammal Classification-Malcolm and Susan have generously offered to donate to the Society a portion of the royalties from the sale of this proposed volume.
- 6) SVP Speakers Program-The Development Committee, with Stuart Sumida providing the spark, is working on the development of an SVP Speakers Program that would recognize the Society's best public speakers. Through agreement with the speakers, a percentage of the honoraria would be donated to the Society.
- 7) Bequest Program-Executive Committee Member at Large Betsy Nicholls and Pam D'Argo have been charged with the task of developing a Bequest Program in which SVP members may choose to leave a lasting gift to the Society via their wills.
- 8) Travelling Exhibits-At the suggestion of SVP members Mark Goodwin and Pat Leiggi, the Executive Committee is currently considering the development of a travelling exhibit program that would result in both fund raising and public education. Several volunteers (Cathy Forster, Peter May, Scott Sampson) have stepped forward to assist in this endeavor but more will be needed if this program is approved-if you are interested in helping out, please contact me.

### **Government Affairs**

The Society is committed to developing responsible policies and legislation to protect vertebrate fossils on public lands from commercial exploitation. This, unfortunately, has also involved a battle against bad legislation promoted by the American Lands Access Association in the form of bill H.R. 2943, "The Fossil Preservation Act of 1996" introduced by Congressmen Tim Johnson (D, SD) and Joe Skeen (R, NM). In 1995 and early 1996, various members of the Government Liaison Committee and the Executive Committee made several trips to Capitol Hill in attempts to work with Congressman Johnson's staff in developing responsible legislation. Ultimately, however, when those efforts were thwarted and H.R. 2943 was introduced in Congress, the Society was forced to work toward defeating the bill. Those efforts appear to be going well in that there is no indication at the time of this writing that H.R. 2943 will be considered during the current

session of Congress. I thank all of you who have worked toward promoting responsible legislation and the defeat of H.R. 2943 by visiting with or writing to your Congressperson, writing editorials, doing newspaper, television, and radio interviews, etc.

As part of the SVP's greater involvement in government affairs, the membership voted in the spring of 1995 to form a companion 501(c)(4) organization, Save America's Fossils for Everyone (SAFE), in order to protect the Society's taxexempt status. The mission of SAFE is to conserve and protect the fossil heritage of the USA through promotion of responsible legislation and to educate the public at large about the scientific and educational value of vertebrate fossils on public lands. Through the efforts of Lou Jacobs, who secured *pro bono* legal services, SAFE was incorporated in Texas, with Larry Flynn serving as President, Mark Goodwin as Vice President, Mike Woodburne as Treasurer, and Lou Jacobs and myself as additional board members. With the help of David Polly, a SAFE home page (within the SVP home page) was developed (<http://eteweb.lscf.ucsb>

[.edu/svp/](http://eteweb.lscf.ucsb.edu/svp/)). Fund-raising efforts for SAFE were initiated and, with those funds, SAFE hired a highlyregarded, Washingtonbased lobbying firm, Conservation, Environment, and Historic Preservation (CEHP). CEHP was very effective in advising SVP volunteers about how to promote our cause on Capitol Hill and in arranging numerous meetings with legislators, government agencies, and affiliated societies. Unfortunately, SAFE's initial fund-raising monies were consumed while trying to defeat H.R. 2943. In an effort to contain expenses, SAFE suspended CEHP's contract until such time that additional funds can be raised.

The SVP has attempted to work with a number of professional and amateur organizations to leverage support for responsible federal legislation. This has resulted in several productive alliances. For instance, at its 1995 midyear meeting, the Executive Committee decided to attempt the formation of a Joint Legislative Task Force, with representation from The Dinosaur Society, The Paleontological Society, and the SVP. The goal of this task force was to arrive at consensus concerning the preservation of fossil resources on public lands and thereby provide a unified paleontological voice to legislators and land management agencies. Representatives from The Dinosaur Society (Steve Gittelman), The Paleontological Society (Jack Sepkoski), and the SVP (Lou Jacobs) have accomplished a great deal in terms of developing communication among the three societies on this issue, although much more remains to be done. Also, in response to the work of this task force, a public opinion poll, published in the February 1996 issue of the *News Bulletin* (pp. 35-51), was conducted by MKTG, Inc. The poll demonstrated that the vast majority of Americans is opposed to the sale of scientifically significant fossils from public lands.

Meetings have also been held with the leadership of several other societies (e.g., American Association of Museums, Government Affairs Program of the American Geological Institute, American Society of Museum Directors, Association of Systematic Collections, Society of American Archaeologists, Western Interior Paleontological Society) to inform them of the SVP's concerns and to solicit their help. These too have

been productive. The Society of American Archaeologists and the Western Interior Paleontological Society, for instance, have developed grassroots campaigns against H.R. 2943 and the American Society of Museum Directors recently passed a resolution in strong opposition to the bill. Additionally, the SVP, in the person of Executive Committee Member at Large Larry Flynn, now has official representation on the Government Affairs Program Council of the American Geological Institute.

In addition to numerous meetings with individual legislators, several meetings have been held with representatives of relevant land management agencies—the Bureau of Land Management, Forest Service, Fish and Wildlife Service, National Park Service, and Bureau of Indian Affairs—in an effort to convey the SVP's concerns about the need to protect vertebrate fossil resources on public lands. These have been very productive. In partial response to these meetings, for instance, the BLM and Forest Service have recently developed uniform policies that are consistent with the SVP's mission to protect and conserve vertebrate fossil resources. Another outgrowth of these meetings was the development of a Partnership Agreement with the BLM, which was signed by Deputy Assistant Secretary of the Interior Sylvia Baca and myself in August of this year at a ceremony hosted by the Denver Museum of Natural History. At this ceremony the SVP awarded its first ever Good Stewardship Award to the BLM on the occasion of the latter's 50th anniversary (see separate announcement in this issue). Our nation's fossil heritage is at serious risk. The threat of commercial exploitation of vertebrate fossils is increasing and our efforts to work with land management agencies, legislators, affiliated societies, and the avocational community in developing responsible policies and legislation must continue. The need for a strong volunteer effort and for building partnerships is vital if the Society's commitment to this cause is to be successful. It behooves every SVP member in the United States to let his or her feelings be known to his or her Congressperson about this issue. If apathy reigns, the consequences could be far reaching and permanent.

### **Affiliated Societies**

In addition to contacts made with several societies with regard to government affairs (see section above), attempts have begun to ally the SVP more closely with various affiliated societies, and two in particular: The Dinosaur Society and The Paleontological Society. But much more, in my opinion, can and should be done in working with these and other organizations. The need for affiliations is apparent, for instance, in the current climate of decreased federal and university funding for paleontological research and in light of legislative issues that impact directly and indirectly upon our discipline. Alliances are mandatory for these efforts.

### ***The Dinosaur Society***

By far the strongest alliance developed in recent years has been with The Dinosaur Society. Affiliations with the group whose subject interest falls completely within the broader scope of vertebrate paleontology *should* be strong. The missions of the two societies are obviously different, in large part because the majority of The Dinosaur

Society's membership is children whereas a criterion for membership in the SVP is that an individual must be 18 years of age.

The Dinosaur Society has been of great assistance to many SVP members, and to the Society as a whole, in the following ways:

1) Provided funding for 62 research grants and four art grants. The research grants, totalling over \$500,000, have sponsored research in Argentina, Australia, Brazil, Canada, Croatia, Hungary, India, Madagascar, Malawi, Mexico, Mongolia, Romania, Russia, Spain, South Africa, Transylvania, the United States, and Zimbabwe. These grants benefit all vertebrate paleontologists, of course, since they allow more from other sources of funding to be distributed to nondinosaur paleontologists.

2) Provided \$68,000 to allow the SVP to convert and release all bibliographic data captured in previously published *BFV* s in electronic format (see section on *BFV* above).

3) Provided 25 publication grants, including over \$36,000 in page charges for papers on dinosaurs published in the *JVP*. This, of course, has allowed the printing of many more *JVP* papers on nondinosaurian vertebrates than would otherwise have been possible. These contributions are a key element in the SVP's goal to sustain the *JVP* as the premier journal in the field.

4) Provided \$18,960 in page charge costs for two monographs on dinosaurs in the SVP *Memoir Series*.

5) In May, 1995, I asked Dr. Steven Gittelman, as President of the Dinosaur Society, to join the SVP in its attempts to protect vertebrate fossils on federal public lands from commercial exploitation. Steve quickly agreed and has since become a very strong leader in the fight against H.R. 2943 ("The Fossil Preservation Act") and in the development of responsible legislation concerning fossil collecting on public lands. He has represented The Dinosaur Society and put in long hours on the Joint Legislative Task Force (see section on Government Affairs above). And, at considerable personal expense, Steve's company, MKTG, Inc., conducted a public opinion poll on the issue of fossils on public lands (see section on Government Affairs above). As part of this effort, The Dinosaur Society has allowed free and open access by the SVP and SAFE to a public relations firm, Todd Shapiro & Associates, retained by The Dinosaur Society to assist in the fight against H.R. 2943. This has resulted in innumerable radio, television, newspaper, and newsmagazine interviews by SVP members and thereby assisted greatly in educating the public and legislators about the scientific and educational value of vertebrate fossils on public lands.

6) Provided a Dinosaur Society Graduate Fellowship to a fulltime graduate student in vertebrate paleontology in exchange for assistance with The Dinosaur Society publications and interactions with the public.

7) Advanced the careers of many SVP members who are also dinosaur paleontologists by publishing their articles in the *Dinosaur Report* and disseminating information about their work in both the *Dinosaur Report* and the *Dino Times*.

8) Popularized the discipline of vertebrate paleontology to over 2.5 million people through its very popular and successful museum exhibit "The Dinosaurs of Jurassic Park," which has toured 17 major museums in this country and abroad.

9) Appointed the SVP President as an Ex Officio member of the Advisory Board of The Dinosaur Society to further strengthen the link between the two societies.

10) Contributed funds to help defray costs of various social functions at the annual meetings.

### ***The Paleontological Society***

Interaction with the leadership of The Paleontological Society has increased in recent years. This also is as it should be since there is considerable overlap in the interests and concerns of the membership of the two societies. Indeed, approximately 25% of the membership of The Paleontological Society are also members of the SVP.

A paleontological short course for teachers of K-12 children, developed primarily by Judy Scotchmoor of the SVP Education Committee, is being sponsored by both the SVP and the Paleontological Society. The short course will be presented at the upcoming GSA meeting in Denver.

The SVP has volunteered to contribute sets of available issues of the *BFV* to vertebrate paleontology grantees of the PalSIRP (Paleontological Society International Research Program) program to facilitate the research of paleontologists in the former Soviet Union and eastern European countries.

Finally, as mentioned above, representatives of the Paleontological Society, The Dinosaur Society, and the SVP have worked diligently over the past year on legislative issues in an attempt to arrive at consensus. It is important that dialogue with The Paleontological Society continues on this and other issues of mutual interest.

### **Information Management**

The Information Management Committee, under the leadership of Annalisa Berta, has been particularly active in the past few years. In addition to involvement with the Society's various publications, it has provided oversight for the development of the VP ListServer, which is managed by Sam McLeod and, at last count, has over 500 subscribers.

The SVP home page is a new service that will be (was) announced at the New York meeting (<http://eteweb.lscf.ucsb.edu/svp/>). Under the direction of the Information

Management Committee, the home page was put together by David Polly and Pam D'Argo and is maintained by David as well as John Damuth. The SVP home page provides general information about the Society (e.g., membership, publications, annual meetings, activities, awards, officers and committees, price lists), an online email database of SVP members, 21,000 searchable *BFV* references (volumes 1981-

1990), and a list of other paleontology sites. I invite you to use this new SVP service and provide the Business Office or any member of the Executive Committee with your comments on how it can better serve your needs.

### **Education and Outreach**

The Education and Outreach committees of the Society have taken on a variety of missions over the past two years, all having to do with educating and involving nonprofessionals interested in vertebrate paleontology.

The Education Committee, chaired by Dave Weishampel, has compiled and made available information on graduate programs in vertebrate paleontology on the SVP home page, selected the recipients for the SVP Predoctoral Fellowship, and attempted to develop a stronger outreach to women and minorities. The Society recognizes the need to expand its membership base to include groups currently unrepresented or underrepresented in the field of vertebrate paleontology (e.g., in North America, African Americans, Hispanic Americans, and Native Americans). The Executive Committee asks SVP members to investigate and participate in the minority outreach programs currently in place at their institutions, and to encourage educational initiatives aimed at bringing a greater diversity of participants to our discipline.

Judy Scotchmoor of the Education Committee has spearheaded a project to develop a workshop on paleontology for teachers of K-12 children in paleontology that will be presented at the upcoming annual meeting of the Geological Society of America in Denver. Judy is also developing a "Joint Symposium on Paleontology for the Classroom" to be presented at the National and International Science Teachers' Association's International Convention on Science and Science Education in December of this year in San Francisco.

The Outreach Committee, headed by Sally Shelton, has continued its efforts to involve the avocational community. It has done so, in part, by producing the first Outreach Committee Newsletter and a brochure entitled "Opportunities in Vertebrate Paleontology for Amateurs," which identifies various professional programs where amateur paleontologists can get information on ongoing projects. Sally has been instrumental in developing an alliance with the Society for Amateur Scientists as well.

### **Public Relations**

The need for a higher profile for our discipline in the public eye has become apparent in recent years. One of the primary missions of the Society is to foster the scientific,

educational, and personal appreciation and understanding of vertebrate fossils by the general public. For fiscal year 1994-95 I appointed a Public Relations Officer, Chris Beard, to facilitate greater access to the media by individual members at the annual meeting. The success of that interface resulted in the formation for 1995-96 of the Media Liaison Committee, which I asked Hans Thewissen to chair. The *raison d'être* for this committee is simply to promote the scientific activities and accomplishments of SVP members. Its missions and objectives are more explicitly detailed by Hans in this issue of the *News Bulletin*.

## **Annual Meetings**

The phenomenal growth in attendance at our annual meetings in recent years (700-800 attendees) has presented both new problems and new opportunities. Owing to this growth, I have asked Pam D'Argo and Executive Committee Member at Large Betsy Nicholls to provide greater oversight of the selection process for future meeting sites. The sites for the annual meetings have already been selected for the two years after the 1996 meeting in New York City: Chicago, Illinois, in 1997 and the Snowbird Resort near Salt Lake City, Utah, in 1998.

The SVP's outgoing Program Committee Chair, Kevin Padian, has done an outstanding job in what must be the Society's most thankless position. Kevin's replacement will be Mike Parrish. This is the tenth year in which the Society has published abstracts of papers and posters presented at the annual meeting. The number of abstracts has more than tripled in that ten-year span, from 114 in 1987 to about 380 this year. To compensate for this growth and yet retain the flavor of our technical sessions (i.e., no more than two concurrent sessions of platform presentations), the Program Committee restructured the program somewhat by making more of the presentations posters but, at the same time, creating a special poster session, unopposed by presentations from the platform. The Executive Committee is currently evaluating a suggestion from the membership that a Poster Prize be awarded annually.

## **A Final Word**

The Executive Committee exists to represent and act upon the concerns of the membership; it cannot do so if it does not know what those concerns are. I therefore encourage you to provide feedback to the Executive Committee. If you have concerns about what the Society does or have ideas about what the Society could do better, pick up the phone (3123213708) or send an email message (svp@sba.com), fax (3122451085), or letter (SVP, 401 N. Michigan Ave., Chicago, IL 606114267). And, more importantly, I encourage you to get involved. The Society is an extremely dynamic one for one simple reason-it has a strong core of very dedicated and talented volunteers. But there's a lot more to be done. If you detect a problem with the Society, get involved and help solve it. If you see an opportunity for the Society, get involved and help seize it.

I cannot end this letter and my tenure as President without expressing my most sincere gratitude to the staff in the Business Office, particularly Pam and Kathy; my colleagues

on the Executive Committee; all of the committee chairs; the editors of the various SVP publications; the *BFV* staff; and all of the committee members who have sacrificed countless hours to the various causes of the SVP during the past two years. From many of you I have asked much more than I had any right to, and you oftentimes gave even more. The SVP is a truly great organization. Although it has grown to be quite large, it is still one in which there is a strong willingness to serve and a great sense of collegiality and comradery that is so much in evidence at our annual meetings-may that always remain.

## **SVP PRESENTS GOOD STEWARDSHIP AWARD TO THE BUREAU OF LAND MANAGEMENT**

On August 13, 1996, the Society of Vertebrate Paleontology presented its firstever Good Stewardship Award to the Bureau of Land Management on the occasion of the BLM's 50th anniversary. The award ceremony was held in Denver, Colorado, and was hosted by the Denver Museum of Natural History. Following introductory remarks by DMNH Chief Curator Richard Stucky and President Raylene Decatur, SVP President Dave Krause presented the award in the form of a granite plaque to the Bureau of Land Management. Accepting on behalf of the BLM was Sylvia Baca, Deputy Assistant Secretary of the Department of the Interior. Following the award ceremony, Dave Krause and Sylvia Baca signed a Partnership Agreement between the SVP and the BLM.

In addition to the individuals mentioned above, on hand for the ceremony were the following:

**BLM** : Special Assistant to the Director Tony Garrett (Washington Office); Assistant Director for Public Affairs Gwen Mason (Washington Office); Paleontology Program Coordinator Carl Barna (Washington Office); Colorado State Director Don Glaser; Wyoming State Director Al Pierson; Cindy McKee (Public Affairs, Colorado Office); Paleontologist Laurie Bryant (Caspar Office); Paleontologist Harley Armstrong (Grand Junction Office).

**SVP** : GLC Cochairs Pat Leiggi and Mike Woodburne; GLC member Brent Breithaupt; Ken Carpenter; Peter Robinson.

**Garden Park Paleontology Society** : Preparator Donna Engard; Chairperson of Field Research Pat Monaco.

**Western Interior Paleontological Society** : President Malcolm Bedell; Michael Graham.

What follows are excerpts from the comments by Dave Krause and Sylvia Baca, the text of the Partnership Agreement, and excerpts from a letter sent by BLM Acting Director Michael Dombeck to Dave Krause some two weeks after the ceremony.

### **Excerpt of Comments by SVP President David Krause**

The Society of Vertebrate Paleontology is an international organization with some 1600 members; well over half of them are from the United States. The membership consists primarily of professional vertebrate paleontologists but includes a large number of student and avocational paleontologists as well. The society has two primary goals. First, to discover, conserve, and protect the fossils of backboned animals, such as dinosaurs and mammoths. And second, to foster the scientific, educational, and personal appreciation and understanding of fossil vertebrates, not just by paleontologists but by the general public as well.

The Society of Vertebrate Paleontology is extremely delighted and honored to present its first ever Good Stewardship Award to the Bureau of Land Management in recognition of the BLM's strong efforts to conserve and protect fossil resources on public lands, and in celebration of the BLM's 50th anniversary. Our Society recently also celebrated its golden anniversary; the past 50 years have witnessed the development and growth of a strong and cooperative working relationship between the SVP and the BLM. And it's a relationship of which we are very proud and which we hope continues to grow.

The BLM has long recognized that fossils on public lands should be protected for the scientific and educational benefit of the public, that important fossils belong to *everyone* and should therefore remain in the public trust. Public lands are obviously not just the source of fossil specimens, but are also the source of the rock in which those specimens are contained. Those rocks, as well as the fossils, are crucially important sources of information in reconstructing the past life on this planet.

Every fossil has a story to tell and if the fossil is not collected completely and with care and attention to geological details, that story is lost. The stories behind fossils come from knowing how the animal was oriented in the rock, at precisely what level the fossil occurred, what other fossils were associated with it, and so on. From careful excavations and analyses, paleontologists have been able to infer how fast dinosaurs and other extinct creatures could move, what they ate, how they died, what kind of environment they lived in, aspects of social behavior, and so on. Without the collection of these kinds of data by trained individuals, fossils become scientifically and educationally meaningless—the stories behind them can never be revealed.

And there's no better place than the Prehistoric Journey exhibit here at the Denver Museum of Natural History to make this point emphatically. The stories are told here in all of their splendor. It's here where scientists can study important fossils and where children, of this generation and future generations, can see and learn from fossils—that could not happen if the fossils became private property and ended up in private collections. The fossils are not displayed here as isolated objects but are placed and interpreted in the broader context of the history of life. It's here where we can learn about the history of primate evolution in North America, which is based on a record derived almost entirely from fossils collected on BLM lands in the Western Interior. And it's here, to cite another example, where we can learn about the origin of birds from dinosaurs, a story that could not have been told if it were not for the discovery of the skeleton of *Deinonychus* on public lands in Montana and Wyoming. Similar stories are

told in museums and universities throughout the country, in large part because of the protection afforded our national fossil heritage by the BLM.

Now proudly displayed in the Geological Museum at the University of Wyoming, Laramie, for instance, is a cast of the best skeleton ever discovered of the dinosaur *Allosaurus*, a specimen known as "Big Al." This specimen is a particularly poignant example because it was rescued from the grip of an overseas commercial collector by the Museum of the Rockies of Montana State University, Bozeman, in cooperation with agents of the BLM. It's because of these examples, and countless others in American public institutions, that we can come to appreciate firsthand the value of protecting fossil resources on federal public lands.

The Bureau of Land Management has struck an appropriate balance between regulation and use; this balance benefits the public at large. On the one hand, the BLM has appropriately recognized that some fossils, such as those of most backboned animals, are relatively rare and require protection; permits are therefore required to collect these specimens. The permits are made available, at no cost to the researcher, with the stipulation that the fossils will be kept in the public trust. On the other hand, the BLM has recognized that other fossils, such as trilobites and petrified wood, are relatively common and, in general, allows their collection, without permits. Both actions benefit the public at large, making both rare and common fossils maximally available to them, as well as the information that can be gleaned from those fossils.

As part of its efforts to appropriately and responsibly steward fossil resources, the BLM has developed new policies and is working with the Forest Service to ensure that national opportunities and regulations are coordinated across jurisdictional boundaries. This is consistent with one of the recommendations made by the National Academy of Sciences in 1987, that policies concerning fossil collecting on public lands should be uniform among land management agencies.

One of the new policies requires that fossil resources be considered before any surface disturbance occurs, yet another indication that these resources are valued by land managers. The new policy will allow for appropriate preconstruction surveys to be conducted before new pipelines are installed and oil and gas developments are undertaken; this will result in the recovery of many significant new specimens. The potential for this is perhaps best exemplified by the discovery several years ago of the largest assemblage of Columbian mammoths in the world at what is now known as "Mammoth Site." This site was discovered during construction of a housing development in Hot Springs, South Dakota.

Public lands, and particularly those managed by the BLM, have become a haven of refuge for vertebrate paleontologists because the fossils that we study and that occur on those lands are protected from casual collecting and the increasing pressures of commercial collecting. The rapidly expanding commercialization of fossils is making it increasingly difficult to collect fossils on private lands and increasingly difficult to protect those that occur on public lands. And a bill, misnamed "The Fossil Preservation

Act of 1996" and which has recently been introduced in Congress, would make matters much, much worse if enacted into law. The proposed legislation would allow hundreds of millions of acres on federal lands, including all of those managed by the BLM, to be opened up to commercial exploitation of fossil resources.

The bill leaves unprotected all fossil bones that can be picked up from the surface or that can be excavated from an area of less than two square meters. In reality, the overwhelming majority of fossils are not huge and could indeed be collected from the surface or from an excavation of less than two square meters. The bill would therefore allow anyone, no matter what their training, to collect any vertebrate fossil that is not huge and unique, no matter what its educational and scientific value, to own that fossil, and to sell it. That's just plain wrong! Fossils collected from federal public lands belong to everyone. The Fossil Preservation Act would result in pillaging of fossil resources in the western states on an unprecedented scale, turning important specimens into art objects and curios and, in the process, destroying their educational and scientific value. Vertebrate fossils on public lands should not be sold to the highest bidder and should not reside in private collections; they belong in public institutions like this one. The BLM has developed a policy that recognizes this fundamentally important fact; it's a policy that retains the American public's fossils in the public trust, and it's a policy that works. It is for that reason that we are very proud to make this award.

So, in recognition of the BLM's role in conserving and protecting vertebrate fossils on public lands, I, as President of the Society of Vertebrate Paleontology and on behalf of its membership, have the distinct honor to present the Society's Good Stewardship Award to the Bureau of Land Management. The wording on this plaque reads as follows: "In recognition of 50 years of valued stewardship of our nation's fossil resources, the Society of Vertebrate Paleontology presents this Good Stewardship Award to the Bureau of Land Management." We are particularly pleased to have Sylvia Baca, Deputy Assistant Secretary of the Department of the Interior, accepting on behalf of the Bureau of Land Management.

### **Excerpt of Comments by Sylvia Baca, Deputy Assistant Secretary of the Interior**

It's a privilege to be here to receive this award. The Society of Vertebrate Paleontology is one of the Bureau of Land Management's most important and effective partners. I salute you for your work. And on behalf of all BLM employees, thank you.

As the Bureau celebrates its 50th anniversary, there is no better time for us to recognize the work of our partners. Together, we are working to pass our public land heritage and our rich fossil legacy on to our children. And I want to extend a particular welcome to all the children in the audience. At the BLM, we want to ensure that as you grow up, you too can enjoy the opportunities offered by the public lands.

As we think about the nation's 270 million acres of public lands and their wealth of resources, probably none captures the imagination more than what they tell us about dinosaurs. Millions of years ago, these great creatures roamed across the same land.

Although they became extinct, we know about them today from fossils found on the public lands. These fossils are part of the mosaic that helps chronicle the history of life on earth.

BLM manages the public lands for multiple use on behalf of all Americans. That means that we provide some of the finest recreation areas available anywhere in the country, we manage commercial uses, such as oil and gas leasing, and we protect features of significant cultural and scientific importance. This includes dinosaur fossils.

We also provide opportunities to collect some kinds of fossils on public lands-but if you find a *vertebrate* fossil, that belongs to everyone. Such significant finds can't be private property. Access to these lands is something that you are guaranteed because they are public lands. Many paleontologists, scientists, and students are unable to collect fossils on private land because they cannot afford the fees. And fossils from private land often end up in private collections, where they are shut off from public view.

I want to tell you a couple of stories about fossils found on the public lands. The first concerns "Big Al," the world's most complete *Allosaurus*. In 1991, a BLM pilot flying wildfire reconnaissance over the Big Horn Mountains in Wyoming noticed unauthorized road improvements made by Swiss commercial fossil collectors. When BLM officials surveyed the area, they found that the dinosaur bones were on public land, which ensured that they were retained in public ownership. The bones of "Big Al" are preserved in the Museum of the Rockies in Bozeman, Montana, and a full cast can be seen at the Geological Museum of the University of Wyoming in Laramie.

I also want to tell you about a rare fossil found in the DeNaZin Wilderness in New Mexico-the skull of *Parasaurolophus*. This is one of only about half a dozen known specimens of this dinosaur. This dinosaur was a type of duckbilled dinosaur that lived about 75 million years ago when New Mexico was a lush, tropical area. The dinosaur was about 30 feet long and weighed two to three tons-the size of a small elephant. This skull has recently been CATscanned, and it's so well preserved that scientists can now learn much more about the sounds these dinosaurs made with their crests.

Throughout the West, we are enjoying another gift from the dinosaurs. Our extraordinary fossils are drawing visitors nationally and internationally.

- Dinosaur Depot down in Cañon City has been open for just a year and has already attracted tens of thousands of visitors.
- I understand that over half a million people have visited Prehistoric Journey since it opened in September 1995.
- Elsewhere in the West, the Museum of the Rockies in Bozeman, Montana, reported that museum visits increased from 155,000 to 189,000 during the year when robotic dinosaurs and a special exhibit of bones were on display. Polls of museum visitors show repeatedly that the dinosaurs are everyone's favorite exhibit.

· Overseas visitors are also attracted here by our dinosaur fossils. They learn about us from magazines such as *RealAmerica*, which is published in Germany, France, the Benelux countries, and in the United Kingdom. And if we have any overseas visitors here today, I'd like to extend a particularly warm welcome to you.

Maybe we should rethink the phrase that we sometimes use to criticize things that are old or out of date-"It's a dinosaur"-because the dinosaurs have proven their durability and we learn something new about them every day. Their legacy has survived millions of years to give a very special gift to the present. A gift to the children and adults alike-be it in our dreams and our imaginations, or in the reality of new jobs and economic opportunity for communities of the West.

Thank you.

### **Society of Vertebrate Paleontology/Bureau of Land Management Golden Anniversary Partnership Agreement**

#### ***America's Vertebrate Fossil Heritage***

"The Society's goals are to discover, conserve, and protect vertebrate fossils and to foster the scientific, educational, and personal appreciation and understanding of them by amateur, student, and professional paleontologists and the general public."

In recognition of the preeminent role played by the Bureau of Land Management (BLM) in managing and protecting America's largest outdoor laboratory and classroom for paleontological research and education, and the Bureau's commitment to facilitating the appropriate scientific, educational, and recreational use of vertebrate fossils, the Society of Vertebrate Paleontology (SVP) is pleased to enter into this Golden Anniversary Partnership with BLM. This partnership will foster the meeting of our mutual goals of educating the public about the significance of vertebrate fossils and sharing with land managers the Society's professional expertise so as to enhance their ability to manage and protect these significant and nonrenewable resources.

The Society of Vertebrate Paleontology agrees to do the following:

- a) Provide professional assistance and expertise to the BLM on issues relating to the management, interpretation, and protection of vertebrate fossils;
- b) Work with BLM in developing and implementing education and outreach efforts to foster public appreciation of and support for the appropriate management and protection of vertebrate fossils;
- c) Recognize this Golden Partnership Agreement in the Society's newsletter and encourage SVP members to cooperate with BLM State, District, and Resource Area offices in furthering these mutual objectives.

The Bureau of Land Management agrees to do the following:

- a) Continue to facilitate the appropriate scientific, educational, and recreational use of vertebrate fossils;
- b) Continue to develop and integrate paleontological resource data into its decision-making processes;
- c) Ensure that its field managers solicit and utilize the expertise of professional vertebrate paleontologists when addressing issues related to the management, use, interpretation, and protection of vertebrate fossils;
- d) Work with the SVP to develop and implement public outreach and education efforts to gain public support and appreciation for the appropriate management, use, and appreciation of vertebrate fossils.

Signed on this August 13, 1996 by:

BUREAU OF LAND MANAGEMENT

Mike Dombeck, Acting Director

SOCIETY OF VERTEBRATE PALEONTOLOGY

Dr. David W. Krause, President

**Excerpt from Letter by BLM Acting Director Michael P. Dombeck to SVP President David W. Krause, Dated 28 August 1996**

On behalf of the Bureau of Land Management, thank you for bestowing the honor of the Society of Vertebrate Paleontology's first Good Stewardship Award to BLM.

I understand that...the Denver Museum of Natural History...hosted an excellent reception and awards ceremony using the Prehistoric Journey exhibit as a backdrop. We are very fortunate to have exceptional institutions such as the Museum who are dedicated to protect fossil resources for their scientific and educational benefit.

BLM is proud and very fortunate to have SVP as a valued partner. We completely agree that these important fossil resources found on the public lands belong to everyone and should remain in the public trust. That is, and will continue to be, the policy of the Bureau.

**THE NEW MEDIA LIAISON COMMITTEE**

Unlike most sciences, paleontology enjoys a healthy share of public interest. Although some paleontologists feel that this is a nuisance, most realize that this interest is good for

paleontology, the broader scientific community, and society at large. Using fossils, scientists can teach scientific reasoning and critical thinking to the public. Interest by kids in dinosaurs and other extinct forms is especially important, because unthreatening, exciting science at a young age may prevent adolescents from turning away from science all together. Paleontology can be an ambassador of the sciences to society if professional paleontologists support the accurate representation of their science to the public.

Aside from these lofty goals there is also a more practical reason to educate the public. Laypeople pay for most of our work, whether it is through state or federal funding, private foundation grants, or through rich alumni and benefactors. Therefore, it is reasonable to display the fruits of the people's investments. In addition to being only fair, this will make a case for future funding.

The role of the press in these matters is straightforward. Most scientists do not have access to venues of publication that run into the tens of thousands and therefore lack the mechanism to reach a broad audience. Also, many academics have a hard time explaining their work without getting trapped in jargon and are only dimly aware of what the public might find interesting about their work. The press fills the role of an interpreter, a necessary link in the chain of communication and education.

With this in mind, the President of SVP, Dave Krause, decided that the Society needed to pay more attention to the press and created a new committee, the Media Liaison Committee, with as members at this point Nick Fraser (as Editor of *JVP*), Kevin Padian (as Program Director for the annual meetings), Neil Shubin, and myself (as chair) of this new committee.

The SVP can help the media cover vertebrate paleontology accurately, fairly, and prominently. Here is what we have started to do:

- Actively bring new results from paleontological research to the attention of the media. The media cannot keep tabs on all the interesting work that is going on all over our discipline, and the Media Liaison Committee will attempt to draw the attention of the press to exciting stories. For starters, we will be scanning the table of contents of our journal before it comes out, as well as the abstract volume for the meetings, with the intention of pointing out particularly interesting work to selected journalists. We also need your help. If you have paleontological news that might be of interest to a broader audience, let us know about it. Feel free to contact us even if you have some doubt about your news. We can maybe suggest some ways to reach the media, and help you with making the contact. Of course, we cannot make sure that your work will be covered. It is important to realize that we are not looking for papers that are to be published in some of the most high-profile journals such as *Nature* and *Science*. Most science reporters read press releases by those journals and use those to decide if they want to cover a story. We are also not specifically thinking of those SVPers who work at large research institutions or museums with a good public relations staff. Your PR department will have the funding and staff to bring your work to the attention of the media. SVP lacks the budget and the

staff to do mass mailings and faxings, and we therefore have to look at unconventional ways of making the press aware of your golden nugget.

- Showcase our science at the SVP meetings. The meetings have attracted more and more journalists every year, and an informal survey has indicated that many members of the media would like suggestions as to what to cover. We are planning an annual press conference to brief journalists on some exciting or unusual work. Also, we are actively reaching out to media that have never covered the meetings before.

- Help SVP members deal with the press. When a journalist contacts a scientist and wants an interview, many scientists are not sure what to expect. Kevin Padian is putting together what promises to be an excellent set of guidelines for dealing with the press. On the instigation of some members, I am surveying the editorial policies of *Nature* and *Science* with respect to presentations at meetings that mirror a manuscript for those magazines. Let us know if you have other specific questions about dealings with the press, and we can investigate those.

The Media Liaison Committee is new, and there is a lot of ground to cover. We have thought a lot about press contacts, but the opportunities are endless. If you have an idea of how SVP could improve the representation of paleontology in the media, let us know.

These are challenging times: creationism is not going away, funding sources are drying up, and the information age has reduced the attention span of much of our audience to soundbite length. Paleontologists are not professionals at explaining science to the public, journalists are. Press coverage of paleontology is in our interest. (Hans Thewissen, Chair, Media Relations Committee)

### **ADDRESS DIRECTORY ERRATUM-STANLEY J. OLSEN**

Due to a clerical error, 1965 Past President Stanley J. Olsen was inadvertently listed as "Storrs J. Olsen" on page 2 of the Address Directory. We regret the error and any confusion that may have resulted from it.

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**- NEWS FROM MEMBERS -**

**CANADA**

Due to a transmission error, the Canadian news was not received in its entirety and is therefore not included in this issue. It will appear in the January issue of the *News Bulletin*.

**FRANCE**

*Université de Montpellier II, Laboratoire de Paléontologie*

Jean-Pierre Aguilar se débat toujours avec les rongeurs néogènes et les corrélations. Plusieurs nouveaux sites ont été trouvés, notamment sur la célèbre localité de Bouzigues et une étude plus approfondie a été menée sur le gisement de Beaulieu où volcanisme et mammifères sont associés. Cette dernière étude, pluridisciplinaire, permet de proposer un âge limite inférieur pour l'immigration des Proboscidiens en Europe. Une autre recherche de corrélation, cette fois avec le marin, est en cours pour le Miocène supérieur dans la Vallée du Rhône (en collaboration avec M. P. Aubry et B. Berggren). Jean-Pierre et Serge Legendre concentrent également leurs efforts pour l'organisation du Congrès de Biochronologie mammalienne pour le Cénozoïque d'Europe et domaines reliés (BiochroM'97) qui doit se dérouler à Montpellier du 14 au 17 Avril 1996.

Mouloud Benammi poursuit son travail sur la biochronologie des formations continentales néogènes du Maroc. Il vient de terminer l'étude magnétostratigraphique de la coupe d'Afoud (bassin d'Aït Kandoula, sud du Haut-Atlas); à partir de ses résultats il conclut que l'âge des échanges de faunes entre l'Afrique du Nord et l'Europe sudoccidentale s'est déroulé avant la crise de salinité messinienne. A ce propos il a soumis un article à *Earth Planetary Science and Letter* (en collaboration avec J-J. Jaeger, M. Calvo, et M. Prévot). En ce qui concerne le bassin de Missouri, il a décrit deux nouvelles espèces de rongeur dans le gisement de Jebel Rhassoul (*Mellalomys rhassoulensis* nov. sp. et *Protalactage sefrioui* nov. sp.; *Geobios* sous presse) pour lequel il a proposé une reconstitution paléoenvironnementale.

Cécile Blondel termine un travail sur les adaptations du squelette appendiculaire chez les ruminants de l'Oligocène d'Europe. Suite au Congrès sur la diagenèse de l'os qui s'est tenu à Paris en Mars 1996, Cécile va soumettre un article (en collaboration avec H. Bocherens, Paris VI) traitant de l'état de préservation des rapports isotopiques stables du carbone et de l'oxygène de l'émail dentaire de ongulés oligocènes. Elle travaille aussi sur les Cainotheriidae de l'Oligocène inférieur (en collaboration avec J. Sudre et S. Legendre). Sa thèse qu'elle compte soutenir en Décembre prochain constituera un bilan sur l'évolution des ongulés à la limite Eocène/Oligocène et au cours de l'Oligocène. Cette évolution sera mise en parallèle avec les changements environnementaux par l'approche

paléontologique (changements dans la diversité, de la morphologie dentaire et du squelette appendiculaire) et l'approche géochimique.

Henri Cappetta est toujours très occupé par l'étude de faunes de sélaciens de différentes régions du monde: Crétacé du Texas et Lutétien de l'Alabama (avec G. R. Case), Crétacé d'Angola (avec M. T. Antunes), Crétacé et Paléogène du Maroc (avec A. Noubhani). Sans compter de nombreuses autres études en collaboration avec des collègues français ou étrangers sur des faunes d'âges variés dont les résultats sont sous presse ou à paraître. Les travaux de terrain l'ont conduit récemment au Maroc où de nouveaux échantillonnages de la série phosphatée, essentiellement dans le Thanétien y l'Yprésien, ont pu être effectués; une mission est prévue cette année dans les phosphates crétacés de Jordanie, en collaboration de collègues allemands.

Dans le domaine de la phylogénie moléculaire des mammifères, en particulier des rongeurs et des ongulés (Equipe François Catzeflis et al.), les faits marquants de l'année 1995 concernent:

- Une étude des relations évolutives des principales lignées d'ongulés actuels, au travers des séquences du gène mitochondrial 12S ARNr; ce travail a permis d'illustrer certaines propriétés de l'ARN 12S en rapport avec sa structure secondaire au sein du ribosome (Emmanuel Douzery).
- La mise en évidence de la monophylie des Paenungulata (Tethytheria + Hyracoidea), une hypothèse bien soutenue par l'ARNr 12S (Anne Lavergne). Notre observation vient ainsi confirmer les résultats obtenus récemment par d'autres laboratoires à partir de gènes nucléaires.
- Un premier examen des rongeurs endémiques de Madagascar (Nesomyinae), suggérant leur monophylie et proposant que leur proche parent actuel serait les Cricetomyinae (Jean-Yves Dubois).
- Une étude par hybridation ADN/ADN, visant à comprendre les relations évolutives de quelques espèces de rats (*Rattus* sensu lato

-Murinae, comprenant les "genres" *Bandicota*, *Berylmys*, *Leopoldamys*, *Niviventer*, *Maxomys*, *Rattus*) (Pascale Chevret), bien étudiés au point de vue taxonomique par G. Musser et collaborateurs à l'American Museum. Les mêmes taxons ont ensuite été examinés quant à la présence et à la distribution d'éléments répétés de type LINES qui pourraient être utilisés comme caractères en phylogénie (Olivier Verneau).

- L'obtention de séquences mitochondriales complètes pour deux gènes (cytochrome b et ARNr 12S chez tous les taxons de rang supra-familial chez les artiodactyles et cétacés a permis de tester la monophylie de divers sous-ordres, en montrant que les molécules ne confirment pas le grade des suiformes, et suggérant la position originale des hippopotames comme groupe-frère des cétacés (Emmanuel Douzery et Claudine Mongelard).

· L'échantillonnage taxonomique des rongeurs muroïdes au travers des séquences d'ARNr 12S a été poursuivi, afin d'obtenir au moins deux genres pour chaque sous-famille (Patricia Sourrouille), ce qui permettra de proposer un ordre de branchement, incluant divers taxons isolés tels *Petromyscus* ou *Mystromys* avec plus de robustesse et de fiabilité.

Stéphane Ducrocq vient de terminer un séjour postdoctoral (financé par une bourse A. v. Humboldt) au Staatliches Museum für Naturkunde de Stuttgart; il a révisé les anthrocotheridés du genre *Bothriogenys* du Fayoum conservés à Stuttgart et au Natural History Museum de Londres. Ce travail l'a également conduit à proposer une phylogénie du genre *Bothriogenys* en Afrique et en Asie, à étudier les relations paléobiogéographiques des anthrocotheridés d'Eurasie et d'Afrique du Nord, et à proposer une étude paléoenvironnementale basée sur les mammifères du Fayoum. L'étude des mammifères paléogènes d'Asie du Sud-Est s'est poursuivie, avec notamment la description de formes nouvelles: anthrocotheridé, primate, et suidé encore inédits; Stéphane a également étudié les anomalies dentaires affectant les petits anthrocothères de l'Eocène de Thaïlande (*Lethaia*). Par ailleurs les charophytes découverts récemment dans les bassins d'âge Miocène moyen de Thaïlande ont fait l'objet d'un travail en collaboration avec I. Soulié-Märsche.

Géraldine Garcia s'intéresse, dans le cadre de sa thèse, aux conditions d'incubation des oeufs de dinosaures pour les différentes espèces trouvées dans le Bassin d'Aix-en-Provence (aucune étude précise n'avait été faite sur l'ensemble des morphotypes identifiés!). En attendant d'être publiés (article à soumettre), ces résultats ont été présentés sous forme de poster lors des journées C. Babin qui se sont tenues à Lyon en Mai. Géraldine est actuellement en train d'étudier différents échantillons récoltés sur de nouveaux sites de Provence et du Languedoc, afin de compléter et préciser la biochronologie des coquilles.

Pendant l'été 1995, Marc Godinot a mis à jour sa contribution sur les adapiformes pour le traité édité par Y. Coppens. Il en a tiré une contribution technique, qui a été présentée à la Prosimian Conference de Chester, U.K., en septembre. Marc vient de transférer son bureau et ses fossiles à Paris, à l'Institut de Paléontologie, et il continue à travailler à Montpellier pour achever la publication du volume de *Palaeovertebrata* dédiée à Don Russell, Richard Verdier essaye de terminer sa thèse sur des aspects fonctionnels des dents de primates. Marc et lui ont présenté des travaux à la Dental Conference à Berlin, où les rencontres ont été très stimulantes pour Richard.

Jean-Louis Hartenberger est toujours plongé dans les rongeurs et autres glires de l'Eocène de Mongolie. Le *Journal of Mammalian Evolution* le préoccupe aussi beaucoup (Ainsi que Pat Lockett!): les manuscrits de paléomammalogistes et morphologistes sont trop rares à leur goût. Auteurs de tous les pays, à vos plumes.... Avec la collaboration de D. Dashzeveg, T. Martin, et S. Legendre il a terminé la révision du mystérieux rongeur *Ivanantonia*, et présenté la description d'une nouvelle famille attribuée aux Mixodontes lors de la table ronde "Evolution of Cretaceous-Paleogene Mammals of Asia" organisée par nos collègues Chris Beard et Mary Dawson au Meeting SVP de Pittsburgh. Il travaille

maintenant sur les autres groupes (cocomyidés, cricétidés, etc.). Pour étudier les rongeurs primitifs, Gilles Escarguel est venu renforcer les effectifs du groupe montpelliérain; après un stage "Eomyidés du Néogène," il se familiarise avec les rongeurs primitifs et a entrepris une révision du curieux *Ailuravus* : est-ce vraiment un Alagomyidae, comme JLH le prétend?

Frédéric Laudet s'intéresse aux gisements fossilifères du paléokarst quercynois. La grande variété d'assemblages fauniques biochronologiquement homogènes (malgré leur appartenance à un milieu géologiquement instable) reconnue dans ces gisements montre l'action continue de facteurs géodynamiques communs (ou convergents); l'étude taphonomique entreprise dans le cadre de sa thèse, associant les données géologiques, devrait permettre d'analyser le rôle et l'importance de ces facteurs. La première étude consacrée au site de Pech Crabit (oligocène inférieur) a permis d'émettre l'hypothèse d'un dépôt en masse, au fond du paléokarst, de plusieurs accumulations primaires plus ou moins autochtones. Des études comparables sur des sites présentant des aspects paléotologiques, taphonomiques et sédimentologiques particuliers sont ainsi prévues pour expliquer le mode de formation de ces gisements exceptionnels.

Jean-Noël Martinez compte soutenir sa thèse en octobre prochain. Ce travail avait débuté avec l'idée de tester la validité des échelles mammaliennes du Miocène d'Europe occidentale à l'aide de méthodes différentes de celles classiquement utilisées en domaine continental. Une importante base de données (plus de 400 listes fauniques de gisements français et de la Péninsule Ibérique) avait été constituée dans ce but. Les premiers résultats obtenus par la méthode des associations unitaires invitaient à une plus grande prudence quant au remarquable pouvoir de résolution obtenu à l'aide des Rongeurs. Cette thèse présentera un moyen simple de rationaliser la méthode classique des lignées évolutives par l'emploi de méthodes de parcimonie habituellement utilisées en phylogénie. Celles-ci pourraient s'avérer intéressantes pour le traitement de listes fauniques "hétérogènes," situation qui peut être due à des problèmes d'ordre taxonomique (erreurs ou incertitudes de détermination) ou taphonomique (diachronisme dû à des remaniements). Ce dernier point constitue en sujet "sensible," plus que jamais d'actualité en Paléontologie.

Les Murinae restent le thème central de travaux conduits depuis maintenant plusieurs années par Jacques Michaux. D'abord menés pour la description de l'histoire des faunes européennes du Miocène supérieur et du Pliocène, les recherches se sont développées en rapport avec les problèmes soulevés par la confrontation des investigations moléculaires et morphologiques de la classification générique et sous-familiale des rongeurs Muridae (avec François Catzeflis et Pascale Chevret). Jacques a aussi participé avec Christiane Denys à une analyse de la sous-famille des Dendromurinae que met en cause sa structure monophylétique.

Ces deux dernières années ont aussi vu un effort considérable pour utiliser la diversité de certains groupes taxonomiques de rongeurs en vue de la quantification des paramètres du climat, travail mené en collaboration avec Jean-Pierre Aguilar, Sophie Montuire, et Serge Legendre. Cette opération succède à la démarche classique qui vise à inférer à partir des

caractères dentaires ou du squelette, des adaptations relatives au mode de vie des espèces disparues pouvant indiquer certaines caractéristiques du milieu ou du climat. L'évolution insulaire représente un troisième thème des recherches de Jacques. Avec Nieves Lopez Martinez de Madrid, il a publié un âge  $^{14}\text{C}$  (pléistocène supérieur) pour un site à *Canariomys bravo* de Tenerife (îles Canaries, Espagne), ce qui fait une des premières datations numériques de ce rat géant, présent donc avant l'arrivée de l'homme dans cet archipel.

Jean Albert Remy a enfin donné sa révision du genre *Leptolophus* à publier prochainement dans *Palaeovertebrata*. Il contribue actuellement, entre autres activités, au dégagement et à la préparation de matériel du gisement éocène moyen d'Aumelas.

Bernard Sigé a poursuivi avec ses collègues l'exploration et l'étude des paléokarsts du Languedoc (E & W), où sites et fossiles nouveaux ne font pas défaut. Une fouille prometteuse a été commencée dans la molasse bartonienne de Lautrec (Bassin d'Aquitaine). Certains des travaux engagés, la plupart en collaboration, sont venus à terme: insectivores, apatemyidés, et nyctithériidés de Sossís (Eocène supérieur de Catalogne); état des données de Champ-Garimond (Crétacé supérieur du Languedoc); paléomagnétisme de la Formation Umayo (transition K/T ou Paléocène supérieur du Sud-Pérou). L'activité d'aujourd'hui n'occulte pas, cependant, une pénible réalité: le contexte technocratique et les options mandarinales laissent peu d'espoir à la survie de la paléontologie des vertébrés à Montpellier au-delà des dix ans à venir.

Jean Sudre a eu le plaisir de voir enfin publiés la monographie sur le gisement de Garouillas dans laquelle est fait le point sur plusieurs genres de ruminants oligocènes ainsi qu'un papier (avec C. Blondel) annonçant pour la première fois la présence de *Pseudogelocus* dans les gisements de l'Oligocène inférieur du Sud de la France. Il annonce la parution prochaine d'une note consacrée à une nouvelle faune de Limagne d'âge éocène terminal (avec M. Turland, J. L. Meloux, J. A. Remy, et M. Vianey-Liaud) et s'intéresse toujours autant à la radiation primitive des artiodactyles et à l'origine des familles européennes. Il va présenter bientôt (avec Jörg Erfurt, Halle) une phylogénie générale pour les formes du Paléogène ancien d'Europe. Une collaboration avec E. Gheerbrant (Paris VI) et H. Capetta devrait prochainement déboucher sur la publication d'un nouveau proboscidiien primitif d'Afrique. Durant le mois de janvier 1996 Jean a participé à une mission franco-tchadienne conduite par Michel Brunet (Poitiers) dans le Plio-Pleistocène de la République du Tchad. Il était, courant avril, avec ses collègues H. Capetta, B. Marandant, et M. Vianey-Liaud, en prospection dans le Paléogène marocain. Monique Vianey-Liaud a étudié de nouvelles populations de Theridomyidae de l'Oligocène inférieur ce qui l'a conduit à établir la réalité du niveau repère biochronologique MP24 (défini jusqu'alors par le seul gisement-type Heimersheim du Chattien d'Allemagne). En retour, un nouveau point de corrélation pour l'échelle de biochronologie mammalienne d'Europe est proposé, permettant de progresser dans la calibration de cette échelle. Dans ce cadre, l'analyse des changements évolutifs montre que ces derniers se produisent graduellement, aussi bien pour la taille des dents que pour leur morphologie. Les transformations de la taille s'effectuent toutefois à des vitesses variables: d'abord faibles, elles s'accroissent, de façon concomitante au moins pour deux

lignées, au début de l'Oligocène supérieur. Cette accélération semble être consécutive au maximum de refroidissement climatique enregistré aux environs de 29 m.a. dans les océans. L'étude entreprise avec N. Lopez (Univ. de Madrid), des coquilles d'oeufs de Dinosaures de bassins de Tresp et Ager en Espagne montre la même succession stratigraphique que celle observée en Provence, et souligne tout l'intérêt de ces fossiles pour la biochronologie du Crétacé supérieur (envoyée pour publication au *J. Pal.*) (Jean Sudre)

### ***Université Paris VII, Département des Sciences de la Terre***

En 1995, Jean Gaudant a réalisé plusieurs missions en Allemagne, Yougoslavie, et Grèce. Ses voyages en Allemagne lui ont permis de compléter enfin ses observations sur l'ichthyofaune oligocène lacustre de Seifhennersdorf (Saxe) et de terminer l'étude privé-embargo oblige!-à Belgrade où il a à la fois apprécié l'accueil chaleureux des collègues serbes (parmi lesquels un nombre significatif de francophones) et réexaminé l'ichthyofaune miocène des eaux douces et saumâtres de Serbie qui nécessitait une révision le Pliocène marin du Nord de la Crète, du compléter ses observations sur les gisements messiniens de cette île et d'échantillonner dans le Pliocène de l'île d'Egine (à une vingtaine de kilomètres au Sud-Ouest d'Athènes).

Jean a également terminé plusieurs manuscrits consacrés à des thèmes variés. Il a notamment décrit les poissons découverts dans le célèbre gisement miocène de Sansan, au pied des Pyrénées, dans lequel il a eu la surprise d'identifier des dents de Characiformes. Il a également terminé l'étude d'un gisement de poissons lutétiens de Catalogne qui renferme les plus anciens squelettes connus de Gobioides. Par ailleurs, il a décrit avec François Meunier un cas de pachyostose affectant le neurocrâne d'une espèce de Clupeidae fossile du Messinien d'Algérie. Il a encore terminé l'étude pluridisciplinaire (foraminifères, nannoplancton, diatomées, radiolaires, et poissons) de Masseria il Salto, un nouveau gisement de poissons messiniens du Sud-Est de la Sicile. Enfin, il a pu mettre un point final à un manuscrit portant sur l'analyse paléoécologique et géochimique (cette dernière due au regretté Jean-Charles Fontes) de la série vaporitique oligocène du fossé de Valence (Drôme, France). (Jean Gaudant)

## **GERMANY**

### ***Universität Tgen***

Rainer Schoch is making good progress with his PhD research. He has been investigating temnospondyl morphology and phylogeny, focusing in particular on the capitosaurians from the German Keuper. Another facet of Rainer's thesis work is his continuing comparison of the ontogeny of temnospondyls and salamanders. He has recently completed substantial research visits to Berkeley and Moscow, gaining a lot of data and ideas from the combined study of extant (via thin sections) and extinct amphibian material, as well as from interactions with a broad range of paleontologists and neontologists. Sara Metcalf has moved to Tgen from Bristol, on a Royal Society Fellowship, after successfully defending her PhD thesis "The palaeoenvironment and palaeoecology of a Middle

Jurassic vertebrate-bearing fentype paleosol in a coastal carbonate regime." She is comparing traditional methods used to reconstruct paleoclimates (e.g., recognizing various suites of minerals, sedimentary rocks, and fossil biotas) with a series of oxygen isotope analyses (with Torsten Vennemann of the Mineralogisches Institut) of phosphatic fossil material. This is currently focusing on the well-dated and stratigraphically defined marine vertebrate material from various stages in the northern European Jurassic sequence, in an attempt to provide oceanic paleotemperature distribution. The project comes under the umbrella of the SFB paleoclimatology group, directed by Volker Mossbrugger. Sara's current work also ties in with her continuing collaboration with Charlie Underwood (Liverpool University) on a taphonomic and paleoenvironmental interpretation of the vertebrate-bearing coastal marine storm "Cotswold Slate" deposits of Gloucestershire. This incorporates a description of the biota, which includes some of the earliest-known neoselachians. Sara is also working with Tim Jones (now in Cardiff) on the work he started here in extracting oxygen isotope data from Miocene shark teeth from the Upper Marine Molasse of southern Germany.

Further to her work as a research assistant at Gloucester Museum last year, Sara has completed a manuscript on a plesiosaur specimen rediscovered in the museum collections there. It derives from the Middle Lias ironstone deposits of Gloucestershire, and as such is an extremely rare find. Sara has also been working with David Dineley (Bristol) in compiling a Geological Conservation Review volume on the fossil fish sites of Britain, to be published by Chapman and Hall by 1997. She has contributed descriptions of over 50 Mesozoic and Cainozoic localities that have been selected by English Nature as Sites of Special Scientific Interest. Other recently completed projects include an overview of the biota from the Bathonian freshwater pond site at Hornsleasow (with Mike Benton, Bristol) and a study of Pliensbachian paleosols in the Severn Basin (with Nick Chidlaw, Dursley).

David Gower is making progress with the superb Kupferzell rauisuchian material, which Rupert Wild (Stuttgart) has kindly given him permission to study. Virtually the whole skeleton is known, from incomplete and disarticulated remains of about five individuals. Descriptions of the skull and braincase are well under way. David has been continuing investigations of the braincases of early archosaurs. Together with Erich Weber (Zoologisches Institut), he is currently finishing a description of the braincase of the "Watson specimen" of *Euparkeria*, in light of the renewed proposal of *Euparkeria* as a model for avian ancestry. Papers recently published or in press include a reassessment of erythrosuchid tarsi, and joint efforts with Mike Benton (Bristol) on Middle Triassic archosaur material from England; with Andrei Sennikov (Moscow) on the early archosaur *Sarmatosuchus*, a comprehensive review of Russian early archosaur material, early archosaur braincases, and early archosaur endocranial casts; with Mark Wilkinson (Bristol) on whether there is any consensus on basal archosaur phylogeny; with Glenn Storrs (Cincinnati) and Nick Large (Thornbury) on the Rhaetian diapsid *Pachystropeus*.

Michael Maisch and Matthias Kroner have assembled a catalogue of the ichthyosaur collection at the Staatliches Museum für Naturkunde, Stuttgart, which will be published in the near future. Michael is working, together with Axel Hungerb, on a reinvestigation

of the cranial osteology of Lower Jurassic temnodontosaurid ichthyosaurs, with Andreas Matzke on the Triassic ichthyosaur material from Monte San Giorgio in the collections here, and with Martin Rg on Jurassic pliosaurs and plesiosaurs. He has also completed a study of some unusual iguanodontid remains from Spain and is currently engaged with the final chapters of his diploma thesis on East African dicynodonts of the upper Permian Kawinga Formation.

Hans Ulrich Pfretzschner has successfully completed his habilitation project (in Bonn) on the biometry of ungulate skulls, and has now moved to Tgen. In addition to continuing his biomechanical and functional studies, he is commencing a new research program on the diagenesis of fossil bone, and has been involved with WolfErnst Reif in the teaching of vertebrate paleontology and functional morphology.

Several diploma thesis projects are in their early days, including Matthias Kröner on soft tissue preservation of Toarcian ichthyosaurs from the Posidonia shales and Doris Metzger on metoposaur amphibians. Matthias Witschel is further on with his project, which has thus far focused on an investigation of the ethmoidal region of a snout of *Tritylodon*, tying in with Wolfgang Maier's (Zoologisches Institut) research. Matthias has been using a combination of acetate peels of serial sections and tomography to extract information from the specimen.

With a new museum display in mind, several people have been sorting through the von Huene archives, which includes an extensive collection of the Baron's original notes, photographs, and drawings.

While concentrated in the Institut und Museum für Paläontologie, research in Tgen on or including vertebrate palaeontology is also being carried out in the Zoologisches Institut. Wolfgang Maier is continuing his study of the early evolution of mammals. He is particularly interested in applying an extended concept of ontogeny by looking at comparative life history studies in order to discover which ontogenetic stages may have influenced mammalian evolution, and which ones have been influenced by it. His recent work has concentrated on structural adaptations of perinatal stages (cheeks, tongue, secondary palate, pharynx, larynx, side wall of the braincase, basicranial articulation, macrosmaty, shoulder girdle etc.), proposing that most of these adaptations are linked with the sucking of milk by immature hatchlings or neonates. Lately he has been attempting to incorporate therapsids into his scenario of life history reconstruction of early mammals and their forebears.

Many of the other vertebrate morphologists in the Zoologisches Institut are also working on areas that touch, directly or indirectly, on important areas of vertebrate paleontology. For example, Peter Bartsch's comprehensive study of skull development based on a very complete ontogenetic series of polypterid fishes will provide a reliable framework for future work on primitive bony fishes. (David Gower)

## **UNITED STATES OF AMERICA**

## Northeast Region

### *American Museum of Natural History, New York, New York*

Our news has been missing for some time now, mostly because the whole Department of Vertebrate Paleontology (DVP) has been working flat out on the most ambitious exhibition in our history. All has been completed, six halls worth, that will inform the public about the history of vertebrates and the data and the methods we use to reconstruct it. The comprehensiveness of the DVP's collections has enabled us to demonstrate most of the shared derived characters used in the reconstruction with "real" materials. Models and audio-visual presentations provide demonstration and discussion of the nodes on the inevitable forked diagrams. All of you who come to the 1996 Annual Meeting will get a chance to evaluate the results.

Apart from this, field work and research goes on unabated. As you're well aware, the joint AMNH-Mongolian Academy of Sciences expeditions have been spectacularly successful. Now into their fifth year they have focused on two areas: the later Cretaceous and Eocene deposits of the western Gobi and the Oligocene of eastern Valley of Lakes. Over the past two seasons Mike Novacek, Mark Norell, Jim Clark, and Amy Davidson have formed a core group working in the southwestern Gobi, especially their unusually productive area at Ukhaa Tolgod, where newsworthy dinosaur and mammal skeletons have turned up in quantity, including the "nesting" *Oviraptor* and an increasingly diverse mammal fauna. Joining this team have been our postdoctoral fellows from Argentina, Luis Chiappe and Guillermo Rougier, and SUNY graduate student Inez Horowitz. During the 1996 field season a geological crew participated including Lowell Dingus, formerly chief coordinator of our exhibition project, Carl Swisher of Berkeley Geochronological Center, and David Loops of the University of Nebraska, a specialist in aeolian sediments. Through their efforts a regional stratigraphy, chronology, and paleoenvironment is emerging. Malcolm and Priscilla McKenna, aided by Columbia graduate student Marc Carrasco and former grad student Dan Bryant have been concentrating on the critical Oligocene section in the eastern Valley of Lakes, particularly the Hsanda Gol Formation. The stratigraphy and geochronology using radioisotope dating of the interbedded basalts (dates by Carl Swisher) and paleomagnetism (in Dennis Kent's lab at Lamont-Doherty) coupled with careful biostratigraphic collecting is bringing some order to one of the few sites in Asia where dated volcanics can be used to orient the paleomagnetic column within Oligocene time. The deposits themselves are extremely fossiliferous, and contain a fauna that can be recognized in many other localities in western China and Kazakhstan so the importance of a chronological standard is evident. Throughout all the joint Mongolian work Demberlyn Dashzeveg has continued to serve as local contact and collaborator.

Neogene deposits in China are also being investigated by AMNH teams in collaboration with IVPP colleagues. The longest running project, initiated with support from both Chinese and US NSF, is the classic late Miocene and Pliocene succession in the Yushe Basin of southeastern Shanxi Province, east-central China. The faunas from this area were partially described by Teilhard de Chardin and coworkers prior to the end of WWII. This project, going on since 1987, teams Dick Tedford, Larry Flynn, Will Downs, Eric

Delson, and terrestrial paleomagnetism fatherfigure Neil Opdyke with the entire Neogene group of the IVPP headed by Qiu Zhanxiang. The project's results are being prepared as a monograph on the geology, geochronology, and biostratigraphy of a rich fauna that lived in the uplands of the Taihang Range during the eventful span of 6-2 Ma.

Former postdoctoral fellows, and now Research Associates, Wang Xiaoming and Meng Jin have initiated their own field work in China in cooperation with IVPP colleagues. Jin joined the IVPP field party in the northern Junggar Basin this season, and has been working on the late Paleocene deposits of Inner Mongolia with fascinating results. Jin and family will move to the University of Massachusetts where he takes a tenure-track job in the Department of Biology. Xiaoming has initiated a stratigraphic and paleomagnetic study of the classic mid-Miocene Tunggur area of Inner Mongolia which also continues this season.

Closer to home Dick Tedford and Xiaoming are working with NSF support to corral the voluminous canid subfamily Borophaginae so richly represented in the Frick Collection. Malcolm McKenna continues to fine tune the mammal classification and is involved in work ranging from *Ankylodon* relationships to *Yegua* anthracotheres. He and Jin have an NSF grant to ransack the skeletons of the *Glires* for clues as to its reality and higher level relationships within it (if it does exist). Malcolm is also a coPI with Mike and Guillermo along with John Wible on an NSF grant to make sense out of the burgeoning Mongolian Cretaceous mammals.

Gene Gaffney has just about had it with cryptodires and their phylogeny, putting together a description of the oldest of them all from OZ. This thing has some significant relationships with central Asian turtles in a zoogeographic déjà vu. He has partially broken free to tackle pleurodires. This has been much abetted by collections in Brazil that Gene and Diogenes Campos are working jointly.

John Maisey also continues with things Brazilian but has been heavily impacted by the final exhibition Hall of Vertebrate Origins producing a stunning exposé of craniate origins (his preference) with material never before exhibited. This hall deals with all the really major events of craniate evolution: crania, jaws, ossified vertebrae, limbs, and the amniote egg; the remaining five halls are all fine tuning! John continues his reconstruction of food webs in the marine Cretaceous of Brazil by examining stomach contents of the remarkably preserved fossil fishes from the Santana Formation. His timely marriage to invertebrate paleontologist Gloria de Carvalho has sharpened this line of research. John completed his study of *Protospinax* ("the *Archaeopteryx* of the shark world," as he says) a Jurassic elasmobranch that appears to be a stem group of living shark and ray clades.

As noted, Mark Norell is deeply embroiled in the Mongolian Cretaceous especially with the large number of lizard remains. Postdoctoral Fellow Gao Keqin is working with Mark to document the diversity of lizards. The media hoopla over the "nesting" *Oviraptor* was diverting, nevertheless the specimen is remarkable as are many of the articulated

spectacular remains from Ukhaa Tolgod. Mark and Vivian welcomed an addition to their family this summer.

Columbia graduate students are all moving toward their respective goals: in June Sherri McGehee had little trouble defending her thesis on notoungulate relationships as seen from the perspective of the cranium; Alex Kellner successfully defended his thesis on pterosaurs in July; Gina Gould is still grappling with hedgehogs; Marc Carrasco continues with Mongolian things; Jonathan Geisler continues with cetacean problems despite McKenna's attempts to entice him by the Mongolian Oligocene (he did find *Arctoryctes* among the Hsanda Gol treasures). (Richard H. Tedford)

John (Alex) Alexander completed a series of productive forays into the Bridger Basin of Wyoming this past June. Ironically, the crown jewel of six years of prospecting at Grizzly Buttes occurred during the final week. Matthew Turnow (University of Montana) found bone fragments on a cliff face that led to the discovery of a nearly complete skull of the rare palaeodont *Metacheiromys marshi*. We had to cut footholds into a wall 10 m up and hang on through a sand storm to recover the skull, a concentration of *Metacheiromys* postcranials and a *Thinocyon* skull which suggests *Hyaenodon*-like sexual dimorphism in limnocyonines. Ben Burger (University of Colorado) has measured geologic sections through Grizzly Buttes which will permit this and other discoveries to be nailed down to section at meter resolution. Matthew also found skulls of *Sciuravus* and *Pantolestes* and a jaw of the rare artiodactyl *Microsus*. This discovery led to the reidentification of a more complete *Microsus* jaw found the previous year which preserves the symphysis. A new locality was found "hidden" in Crooked Canyon which produced a juvenile *Notharctus tenebrosus* skeleton with all the epiphyses open (ALX). Ernie Luikart (Montana State) found part of a *Smilodectes* skeleton, Patrick Light (University of Montana) found the dentition of a large *N. pugnax*. All three primates came from the same level. Matthew also found a beautiful *Notharctus tenebrosus* I<sub>1</sub>-M<sub>3</sub> jaw at Church Buttes. Noteworthy discoveries from the B5 horizon above Grizzly Buttes were a *Leptotomus* skeleton (ALX) which may fall between described species; an enigmatic *Notharctus* jaw with characteristics of both *N. pugnax* and *N. robustior* (EL) and an incredibly young *Orohippus* jaw (MT) with dP<sub>2-3</sub> in place and dP<sub>4</sub> fallen out of the crypt.

Between 1991-96, the project at Grizzly Buttes fulfilled its principal objective in the recovery of complete skulls, jaws, and skeletons of *Notharctus* and *Smilodectes*. It also produced the skulls and skeletons of several creodonts, skulls of *Palaeosyops*, a skull and skeleton of the rare crocodilian *Pritochampsus vorax*, a skull of the rare amphisbaenid *Spathorhynchus fossorum*, many complete turtle shells, and significant samples of *Microsyops*, *Orohippus*, and *Hyopsodus*, all from a single horizon. (John P. Alexander)

### ***Amherst College and University of Massachusetts-Amherst***

At Amherst College, museum projects at the Pratt Museum of Natural History continue smoothly. The computerization of the VP collection is about 95% complete, and hopes are that at least the types will be made accessible through a Museum home page in the near future. Staff curator, Linda Thomas, attended the Advanced Conservation of

Geologic Materials course in May. This is the second-level offering taught by Sally Shelton and Chris Collins originating from the International Academic Projects of London. Paul Olsen (Lamont-Doherty/Columbia University), in conjunction with his soon-to-be-published book on dinosaur footprints, is putting the final touches on a WWW site including highlights of Hitchcock's ichnology collection.

At the University of Massachusetts, we are delighted to welcome Jin Meng, a mammalian paleontologist, as our new colleague in the Department of Biology and Graduate Program in Organismal and Evolutionary Biology. Meng was chosen last spring after a grueling search which included over 80 applicants from various disciplines of vertebrate morphology. He will occupy David Klingener's former office and be in charge of the neontological mammal collection.

Willy Bemis's monograph on amiid fishes, coauthored with Lance Grande, was sent off at last to the *SVP Memoirs* in August. Willy has stepped down from his successful headship of the Graduate Program in Organismal and Evolutionary Biology and is devoting himself to the development of a University museum which will unite biological collections from various segments of the campus.

The manuscript of Margery and Walter Coombs's comprehensive paper on the taphonomy of Morava Ranch Quarry, early Miocene of Nebraska, is finally in press in *Palaios* and will appear next summer. The paper is dedicated to the late Ted Galusha, who first opened the quarry in 1940. Margery's other current projects include a coauthored paper on John Day and other small Arikareean chalicotheres and another on phalangeal fusion in chalicotheriids. Kathy Munthe was here in January for continued work on the VP textbook with Margery. Luke Holbrook is planning to defend his dissertation on cranial and postcranial osteology and phylogeny of tapiromorph perissodactyls this fall. Luke's paper with Spencer Lucas (New Mexico Museum of Natural History and Science) on a new genus of Eocene rhinocerotoid from Utah has been accepted by *JVP*. Luke is also working on a study of sagittal crest development in extant tapirs and a study of tooth replacement in hyraxes.

Susan Feeney is completing her dissertation study of postcranial osteology and myology of red and gray foxes. Becky Mattison has submitted thesis chapters on pelvic structure and myology of water birds and predatory birds while working as a lab instructor and preparator at Wellesley College. Tim Koneval's dissections of armadillo hind limb musculature proceed well; he presented a talk comparing the rather different hind limbs of *Dasypus* and *Tolypeutes* at the June ASM meetings in North Dakota. Gina Semprebon passed her oral prelims in April and is pursuing a thesis involving fossil ruminants, probably emphasizing dromomerycids. (Margery Coombs)

### ***Brown University and University of Rhode Island***

Dave Fastovsky (URI) is currently doing field work in Mongolia-thus no information is available from him!

Steve Gatesy and Kevin Middleton (Brown) are continuing their studies of theropod limb proportions as evidence of locomotor diversity. Their ongoing analysis of theropod footprints from the Late Triassic sediments of East Greenland is now focusing on information below the surface. Sectioned tracks are being reconstructed in 3-D to discern the pattern of the toes through the substrate. They are using these data to model theropod foot kinematics and track formation using 3-D animation software.

Tracy Popowics (Brown) successfully defended her thesis in June on dental form and function in mustelids and viverrids. She has just been awarded an NIH postdoc to continue her work on mammalian dental issues with John Rensberger and Sue Herring at the University of Washington.

Finally-the news that many of you have been waiting for: yes, the "Tertiary Mammals of North America" book has finally gone to press! CUP tells me that it should be out by SVP 1997 (if you need to ask the price, you can't afford it; seriously, I don't know right now). Hopefully there'll be a flyer about it at SVP this year. Christine Janis is now crawling back into bed and pulling the covers over her head. (Christine Janis)

### ***Johns Hopkins University School of Medicine, Baltimore, Maryland***

The Joint Muzeul Civilizatiei Dacice si Romane Deva (Romania)-Johns Hopkins University expedition in the Hateg Basin of Transylvania was a success this year. Dave Weishampel and Cora Jianu report new *Magyarosaurus*, *Rhabdodon*, *Allodaposuchus*, and *Kallokibotion* material, and further surprises including a new pterosaur specimen. Nopsca biographical work also continued during the summer with a trip to Vienna, the location of several important archives containing Nopsca material. Now to sift through it all!

Finally Dave had the pleasure of attending the "Mesozoic Faunas of Central Europe" symposium, held in Deva, Romania, on the 22nd and 23rd of August 1996. The symposium was attended by vertebrate paleontologists from Italy, Spain, France, Hungary, the United States, and Romania. Special thanks go to the organizers of the symposium, especially Cora Jianu, for making this event a great success. (David B. Weishampel)

Maureen O'Leary and Kathy Rafferty successfully defended their dissertations last spring. Kathy is continuing a postdoc at Brown, while Maureen has accepted a position teaching anatomy at NYU.

Ken Rose and Tom Bown conducted another successful field season in the Willwood Formation of the Bighorn Basin, Wyoming, in July. We were assisted by an international team including Don Kron (University of Colorado); Amy Chew, Mario Gagnon, Bill Moore, and Chris Rancourt (University of Toronto); Ingo Raufuss (University of Bonn); Jackie Runestad (University of Western Illinois); Jay Mussell (Johns Hopkins); Debbie Anderson (St. Norbert College); and Hopkins graduate students Mary Silcox, Naoko Egi, Brenda Chinnery, and Gail Krovitz. Highlights of collecting included a well-preserved

*Anacodon* skeleton, dentitions of some very small insectivores from a quarry, and a third jaw of a new plesiadapiform described recently in the *Annals of Carnegie Museum*.  
(Mary Silcox)

### ***New Jersey State Museum***

The Great Russian Dinosaurs! exhibition will be hosted by the New Jersey State Museum from 21 September through 22 December 1996. As the only East Coast venue for the exhibition, we will be pleased to welcome visitors during the SVP meetings and afterwards. Group tour arrangements from other institutions are welcome, of course, and we will have many auxiliary programs for all ages. We're truly looking forward to having as many of you as possible during this big event.

Bill Gallagher's new book, "When Dinosaurs Roamed New Jersey," is now being released by Rutgers University Press and will be another summary milestone in New Jersey paleontology. It is also symbolic of our commitment to ongoing research despite the obligations of this year's exhibition events and the planned renovation of our natural history hall. The completion of our survey studies under a Dinosaur Society grant (Bill Gallagher, Barbara Grandstaff, and others) remains a priority. Work at the Ellisdale site (Bob Denton and Bob O'Neill) also continues with additional multituberculate material now being found.

Dave Parris and Ken Langer are just back from the annual joint field course with South Dakota Tech on the Missouri River lakes. Collecting results were again good, as Jim Martin and Gordon Bell will report. Dave and Ken were also to excavate more of an *Alzadasaurus* on Phil and Deb Collins' ranch in western Kansas with Pete Bussen hosting the work, as usual, and the Swann and Houston families and others assisting. Thanks to everyone! (David C. Parris)

### ***The New York Paleontological Society***

Jim Brown, the Society's past treasurer, is now the President of the Geological Association of New Jersey (GANJ), and, in addition to curating the New Jersey Cretaceous collection that he has donated to the Newark Museum in New Jersey, is also completing his doctorate in geology at CUNY.

Jim Bourdon continues his work on the fossils of the Miocene coastal plain of North Carolina. Previously working with Bob Purdy at the Smithsonian on fossil shark teeth from the area, he is now concentrating on those of sharks and rays. The high specimen count in his collection should allow him to use statistics to help describe the population dynamics of skates and rays in the Miocene of eastern North America.

Bill Scott has been studying shark microfossils of Miocene-Pliocene eastern North America. It is not clear whether many of these teeth are from juvenile or adult sharks, and Bill hopes to complete a guide to these shark microfossils in the future.

Don Phillips will be teaching a series of short courses in paleontology for the Continuing Education Department at Hofstra University in Long Island starting in October 1996. One of the courses will emphasize the increasing use of evolutionary theory in paleontological research, and another will concentrate on the role plate tectonics has played in the evolution of life.

The New York Paleontological Society meets on the third Sunday of every month from September to May. Among last year's speakers were Dave Parris (New Jersey State Museum, Trenton) on the evolution of birds, Rob DeSalle (Molecular Biology Lab, AMNH) on the understanding and uses of fossil DNA, and John Maisey (AMNH) on the current understanding of the evolution of fish, and the soon-to-open Hall of Vertebrate Origins at the museum. Don Phillips led a tour through these halls at their opening in the spring. A monthly newsletter is also published.

The Society will be helping with some logistics at the 1996 Annual Meeting of SVP in the American Museum of Natural History in New York City. (D. Phillips)

### ***Smithsonian Institution and George Washington University***

Jim Clark (belated for the first time) reports that the graduate program in systematics at George Washington University is taking off rapidly. It is a rare and happy event when a PhD-granting program involving five or more new faculty in a fairly specialized area is initiated, perhaps unique in the field of systematics. Ties between GWU and NMNH are being firmed up, presenting the opportunity for graduate students utilizing the resources of both the museum and the university. Jim continues to work with the American Museum of Natural History's expeditions to Mongolia, and his research focuses on the theropod dinosaurs with Mark Norell and Luis Chiappe. He has also led several National Geographic Society-funded trips to Nevada to collect Late Triassic marine reptiles with Hans Sues (ROM), Rex Hangar (GWU), and Pete Kroehler (NMNH). Graduate student Maureen Kearney is well on her way in studying the relationships among amphisbaenians utilizing both fossils and extant forms, and in so doing has become engrossed with questions of character coding.

Things have been really hectic at the Smithsonian over the summer. First, the Society of Avian Paleontology and Evolution (SAPE) met here in early June. It was a very pleasant and stimulating meeting with lots of nice discussion, especially about the origin of birds, the nature of *Archaeopteryx*, and the relationships of it and other Mesozoic birds with dinosaurs and modern birds. Not surprisingly, many and varied views were expressed on these topics although, happily, they were very civil and were true discussions. The number of Mesozoic birds being found and described is truly amazing with highlights from China, Madagascar, and Spain including at least 20 or 30 different specimens. These wonderful discussions were led by moderators Larry Witmer and Luis Chiappe and included strong input from Larry Martin, John Ostrom, Peter Wellnhofer, Greg Paul, Sankar Chatterjee, Evgeny Kurochkin, Paul Sereno, Cathy Forster, and Lianhai Hou to name just a few. There were also a number of very interesting presentations on modern bird relationships, systematics, and functional morphology including, among the many,

papers by Craig Jones, Alexandr Karhu, Peter Houde, David Steadman, and organizers Storrs Olsen and Helen James, who did an amazing amount of work and whipped some of us locals into submission and brought about a wonderful meeting.

The next week things were brought up an extra notch by the Sixth North American Paleontological Convention (NAPC) which included lots of talks and symposia of interest. In addition to more general and theoretical symposia on topics such as diversity, extinctions, and morphospace concepts, there were symposia on VPrelated topics such as dinosaur distributions, the nature of the conodont animal, the origin and evolution of terrestrial herbivory, dinosaurs in the public eye, and a day-long session on the origin and early evolution of whales. It was an exhausting but great meeting as well.

In early August the Smithsonian Institution celebrated its 150th birthday with a big party on the Mall here in Washington and in each museum as well. Among the SVP members giving lectures and answering questions in the halls were Steve Jabo, Linda Deck, and Ralph Chapman. Vertebrate Paleontology was wellrepresented during this celebration and in the exhibition that has been traveling across the country, "America's Smithsonian."

Now onto individuals. Fred Grady spent two weeks in late June and early July with Tim Heaton and others collecting in caves on Prince of Wales Island, Alaska. Later Fred attended the National Speleological Convention in Colorado and gave a presentation in a symposium on Porcupine Cave, significant for its Irvingtonian fauna. Fred also visited the cave and was impressed by Don Rasmussen's setup there.

Pete Kroehler visited the Solite Quarry near Eden, North Carolina, with Nick Fraser (Virginia Museum of Natural History) to collect lacustrine Triassic fossils. Several fish and swimming reptiles were collected, along with various plant remains for Conrad Labandeira. As mentioned above, Pete also spent a week collecting Triassic marine material at Buffalo Mountain, Nevada, with Hans Sues (ROM), Jim Clark (GWU), and Rex Hangar (GWU). Ichthyosaur, thallosaur, and sauropterygian remains were collected with the aid of a gaspowered rock saw.

Ralph Chapman had a very busy summer. He, along with Diego Rasskin and Dave Weishampel (Johns Hopkins), presented a talk at SAPE on analyzing lousy, holefilled data matrices such as you typically get with fossil birds and dinosaurs. They also presented a paper on morphospace approaches at NAPC. Ralph, along with Alan Cutler and Kay Behrensmeyer, presented a paper on vertebrate taphonomy at NAPC as well. Ralph and Diego chaired the Morphospace Symposium along with Matt Wills (Bristol) which went very well and should lead to a symposium volume. Currently, Ralph is finishing up some papers for the Dinofest symposium, and assembling taphonomy talks and papers with Kay and Al. The greatest push is in doing 3-D digitization and visualization of dinosaur and related materials using a variety of 3-D digitizers, laser scanners, and a new CAT-scan being installed at the NMNH Department of Anthropology. This work is being done with Diego Rasskin, Eugene Hunt, a past research intern here at the museum who has returned to work on the project thanks to a Dinosaur Society grant, Alfie Rosenberger, a primatologist at the National Zoological

Park, and Bruno Frohlich, an anthropologist in the museum. First results will be presented at SVP in October with, hopefully, lots more to come.

Speaking of CATscans, Nick Hotton has been working with Bruno and has a lovely scan of the skull of *Ophiacodon* that he and Arnie Lewis found a few years back. He hopes to do a lot with that one this coming year. Also, Nick spent much of April and May in the field in Texas with a camcorder recording more than 60 of the classic Permian localities there.

Linda Deck is deeply immersed in production of our new Geology, Gems, and Minerals Hall which is slated to open September 1997 and things are moving at light speed right now. Linda also is finishing up a paper for Dinofest on developing natural history exhibits. She will present a poster at SVP in October on fieldtesting the contents of paleontology exhibits.

Dan Chaney reports that he spent the second week in July on a paleobotanical field trip in Utah and Colorado. One of the leaders of this field trip was a purported vertebrate paleontologist, Brooks Britt. It was an interesting trip and they even found some vertebrate material. Has Brooks seen the light? Time will tell. Dan then went to Chadron, Nebraska, and spent an enjoyable week with Marian Galusha sorting through boxes of slides in an attempt to determine which slides are personal and which should be sent to the AMNH to document her late husband Ted's field work. Fortunately, Ted was very meticulous and labeled every slide with full documentation, even township and range information. Very useful. Now Dan has to get his slides in order. Dan continued north into South Dakota for a rendezvous with Jim Marin & Co. Jim, Dan, and Carrie Herbel spent two days before Dan was called away on personal business, doing some reconnaissance in the redbeds of the Spearfish (Permo-Triassic) for plants and vertebrates. They came up emptyhanded, but there are a lot more outcrops to look at.

Kevin de Queiroz is working on his normal theoretical topics, including phylogenetic theory and the Linnean hierarchy, but he also is working on some fossil material as well! Kevin is studying a Miocene *Anolis* from Dominican amber.

Steve Jabo also has been busy. During the 150th birthday bash, Steve worked in the exhibit prep area all day. Tourists could watch Steve prepare fossils using a scope because of a video hookup between the scope and a large TV monitor. He also operated the PaleoCart, which has real fossils that kids can touch and learn about, and gave impromptu lectures in the halls. Also, the exhibit prep lab has been renovated and is back in operation again with running water, new walls and ceiling, and more electricity and air lines. It's staffed by paleo people and volunteers. Most of the latter graduated from our Paleo Training Program and a new group is taking their final course for the 1996 program.

Dave Bohaska continues his field work collecting vertebrates from the local Tertiary deposits. Among the many interesting items is an unusual sperm whale skull from the Maryland Miocene found by amateur collector Pat Gotsis.

Bob Purdy continues his work on the Lee Creek fishes, which is almost done—we really mean it this time. Amateur collector George Powell has donated an associated dentition of *Parotodus benedeni* from the Pliocene sediments of Lee Creek, North Carolina. Bob's paper on the paleoecology of fossil *Carcharodon*, published in a new Academic Press book entitled "The Biology of the White Shark" should be out by the time this *News Bulletin* comes out.

Bob Emry has been away a lot since his last report. He spent April through June in a number of interesting places, including two weeks in Tbilisi (Georgia), one and a half weeks in Moscow, and a month in the field, again in Kazakhstan, and found some neat stuff. He's trying to catch up to where he was before he left now that he's back. (Ralph Chapman)

### ***State Museum of Pennsylvania, Harrisburg***

Bob Sullivan and Kesler Randall recently returned from a successful two weeks of field work in the Late Cretaceous Kirtland Shale, San Juan Basin, New Mexico, coupled with a research stint at the New Mexico Museum of Natural History and Science, Albuquerque. This year Bob discovered a pachycephalosaur skull (the first known from New Mexico) a few hundred meters from the site where he discovered the *Parasaurolophus* skull last summer. The pachycephalosaur skull preserves much of the left lateral side but lacks the maxillae, lower jaws, jugals, and quadrates. There are many associated fragments that may pertain to the missing skull elements and the right side of the skull. The specimen, which is currently being prepared, differs from *Pachycephalosaurius* in that the cranial osteoscutes cover much of the lateral side of the dome. Bob will be describing this skull in a forthcoming paper.

The *Parasaurolophus* project continues to receive a lot of attention. Bob Sullivan and Tom Williamson (New Mexico Museum of Natural History and Science) were recently awarded a grant from The Dinosaur Society to revise the genus. The grant, which is gratefully acknowledged, provides the necessary funds to travel to Uppsala, Toronto, and Chicago to study the type specimens of the three named species. Bob will be presenting a preliminary report on the new skull at the SVP 1996 Annual Meeting in New York. Tom, Bob, and Carl Diegert (Sandia National Laboratories) have submitted a short paper (correspondence) to *Nature* on the internal morphology of the crest from the CT data. Carl has produced some outstanding internal images of the crest generated from the CT scans. He continues to work closely with Tom towards creating a computer model of the crest that can produce a facsimile of the vocalization of a living *Parasaurolophus*.

On the Triassic front, Hans-Dieter Sues (Royal Ontario Museum) and Robert Reisz (Erindale College) and Bob are collaborating on describing skulls of *Coelophysus* (formerly *Rioarribasaurus*) from the Ghost Ranch (Whitaker) quarry. In addition, Bob is describing the "Orphan Mesa theropod" discovered a few years ago in the Upper Triassic Petrified Forest Formation (Chinle Group) adjacent to Ghost Ranch. A paper concerning the Orphan Mesa locality and the local stratigraphy, titled "The type locality of *Coelophysus*, a Late Triassic dinosaur from north-central New Mexico (USA)"

(coauthored with Spencer G. Lucas [New Mexico] and Adrian P. Hunt [Mesa Technical College]), was published in March in *Paläontologisches Zeitschrift*, 70:245-255.

Other recent publications include a chapter on "Squamata" by Bob and Al Holman (Michigan State University) in the book "The Terrestrial Eocene-Oligocene Transition in North America" edited by Don Prothero (Occidental College) and Robert Emry (Smithsonian Institution) published by Cambridge University Press and a review of E. H. Colbert's book "The Little Dinosaurs of Ghost Ranch" which was published in the *Journal of Vertebrate Paleontology*, 16(2):363-365. (Bob Sullivan)

### ***State University of New York, Geneseo***

Bob Anemone (Anthropology) and Jeff Over (Geology), along with Dana Cope (College of Charleston) and a large number of students spent most of July in the Great Divide Basin, collecting late Paleocene and early Eocene mammals for the third year. We had an excellent field season highlighted by the identification of a laterally extensive sandstone unit with rich concentrations of Wasatchian mammals, and nearly marred by a sagebrush wildfire (caused by a lightning strike) that burned to within approximately half a mile of our field camp in the Oregon Buttes area. We collected additional specimens of some interesting archaic "primate" taxa (including *Plesiadapis cookei* and *Carpolestes simpsoni*) from sediments of the Ft. Union Formation north of Bitter Creek, as well as adapid and omomyid primates from exposures of the Wasatch Formation. Several students from Geneseo and Charleston are working on the alpha taxonomy of various mammalian groups in our collections, including Laura Kassan (perissodactyls), ToniAnn Iovine (hyopsodontids), Brett Nachman (primates), and Ed Johnson (*Meniscotherium*). Bill Korth from Rochester has been kind enough to identify our rodents, and Bob and Dana are concentrating on the primates and carnivores, respectively.

Earlier in the summer, Bob presented some of his work on chimpanzee dental development at a conference on dental development and microstructure and human evolution. Held in Paris and organized by Fernando Ramirez-Rossi (CNRS), this conference provided an opportunity for approximately 20 active researchers from around the world to present and debate their work in an intensive workshop format over four days. It was one of the finest opportunities for scientific discussion that I have ever been a part of, and I'm sure all the other participants (several of whom are also SVP members) join with me in thanking Fernando for inviting us and showing us Paris at its best.

Bob is also happy to report that he has been awarded a WennerGren grant to work on the hind limb of some spectacular *Omomys* skeletons collected by University of Colorado crews over the past few years. Thanks to Bert Covert and Peter Robinson for allowing me access to these wonderful specimens. Also, both Bob and Jeff were awarded tenure and promoted to associate professor over the summer. (Bob Anemone)

### **Southeast Region**

#### ***Florida Museum of Natural History/University of Florida***

The entire crew is gearing up for Paleofest 96, a festival celebrating Florida paleontology. This will occur November 8-9 in Gainesville and will include the unveiling of a mounted *Equus* skeleton from Leisey, dedication of the Eocene Sea exhibit, numerous workshops, and a talk by keynote speaker Louis Jacobs of the Shuler Museum of Paleontology at Southern Methodist University. (For details see our web page: <http://www.flmnh.ufl.edu/>)

Bruce J. MacFadden mostly spent the summer preparing manuscripts on stable isotopes, herbivore feeding ecology, and the origin of the grazing guild in terrestrial mammals. Papers recently have appeared on functional morphology of the fossil horse hind limb (with Hermanson) in *JVP*, paleomagnetism of the late Cenozoic San Timoteo badlands (with NortonHehn, Albright, and Woodburne) in *Earth & Planet. Sci. Letters*, and Argentine isotopes and mammals (with Cerling and Prado) in *Palaaios*. Bruce also worked on a paper describing a late Miocene horse (*Protohippus*) from southern Alabama (with Dobie of Auburn University).

In August, with support from the National Geographic Society, Bruce, Federico Anaya, and Bruce Shockey discovered a new Plio-Pleistocene interchange site (Uquian?) near Cochabamba, Bolivia.

An article about volunteer participation at the late Miocene Thomas Farm site appeared in the June 17 issue of *U. S. News and World Report*. Bruce recently received funding from NSF to develop an online virtual museum exhibit entitled "Fossil Horses in Cyberspace," which can be accessed at <http://www.flmnh.ufl.edu>. and then clicking on the online exhibits section, or directly accessed at <http://www.flmnh.ufl.edu/natsci>

[/vertpaleo/fhc/fhc.htm](http://www.flmnh.ufl.edu/vertpaleo/fhc/fhc.htm).

Dave Webb continues to pursue the intricacies of ungulate phylogenies, including cervids, antilocaprids, camelids, and elephantids. He has also enjoyed participating in FAUNMAP (late Quaternary mammal database) led by Russ Graham in Denver and Ernie Lundelius in Austin. (This database is so rich in space, time, and other dimensions, that it truly challenges the paleontologist accustomed to ordinary scattered records, to pose creative questions.

Meanwhile, back at the Aucilla River, Dave's pet project has acquired a 20-foot mullet boat and a 17-foot canoe to extend its reach to Sloth Hole, where the team has encountered evidence of two butchered mastodons in stratigraphic context with Paleoindian lithic tools. We are pleased to welcome Matt Mihlbachler as a member of the Aucilla team and a zoology student having an interest in proboscidean paleobiology.

Russ McCarty remains busy in the prep lab, processing more sloth and turtle specimens from Haile 7C, in addition to the fairly constant supply of fossils from Thomas Farm.

With SVP support via the Brian Patterson Memorial Award, Bruce Shockey, along with Federico Anaya, accomplished a paleontological survey of several rivers in lowland

Bolivia. They encountered Pleistocene fossils in the Rio Maniqui (within the sovereign territory of the Chimani people), but failed to find the Tertiary fossils they had hoped to discover. In the coca-producing Chapare region, they abandoned their search for Tertiary localities when it came to their attention that they were about to be murdered. They later encountered much pottery and human bones in the sediments of the banks of the Rio Mamoré, suggesting a method of dating the widespread Holocene flooding that occurred in that region.

Several visitors have worked in our collections over the summer. These include Jennifer White of Simpson College, who's working on Caribbean ground sloths; Janice Saysette, Colorado State University, who's studying antilocaprids; and Richard Hulbert, Georgia Southern University, who's putting the finishing touches on a popular book about Florida vertebrate fossils.

Bob Chandler left us this summer to accept a position at Georgia College in Milledge, Georgia. We wish him the best of luck. (Bruce Shockey)

## **Midwest Region**

### ***Cincinnati Museum Center***

Glenn Storrs spent the summer in two rather disparate parts of the world, Nevada and Bristol, England. The Nevada trip constituted field work in the Middle Triassic Favret Formation during May and June, continuing efforts of Olivier Rieppel (Field Museum) and Martin Sander (Bonn) in the region. Indeed, Martin joined the Cincinnati crew for two weeks. Other crew members were Antonio Irranca and Sally Neininger (Cambridge), Martha Ashworth (Albion), Matt Rolfes (CMC "Lab Rat"-i.e., education volunteer), and Dick Glover (CMC CEO). We turned up a wealth of Anisian marine vertebrates, including the head and neck of a new pistosaurid sauropterygian, a skull and partial skeleton of a small durophagous ichthyosaur-presumably *Phalarodon* -and a new 1.5 m coelacanth. We intend to return next season to collect two skeletons of *Cymbospondylus* that remain in the field. A brief excursion allowed a linkup with Jim Clark (George Washington) and Hans Sues (ROM) in an adjacent basin. Glenn thanks them for their hospitality and the chance to visit their localities.

Glenn's Bristol trip finished up the data collection phase of his investigation of Liassic plesiosaur anatomy, taxonomy, and phylogeny. He was also able to put some work in on several manuscripts and to visit a number of classic localities with good results. Glenn and Mike Benton spent some time collaborating on their joint study of *Thecodontosaurus* with Lars Juul (Capetown) and Peter Galton (Bridgeport). Glenn's studies of *Pachystropheus* with Dave Gower and Nick Large (Bristol) and "*Plesiosaurus* " *hawkinsi* with Mike Taylor (Edinburgh) have appeared in *Palaeontology* and *JVP*, respectively.

Tamaki Sato has continued to develop her plesiosaur skeleton from Japan which turns out to be one of the few good Asian polycotylids. She has also written a large part of her

specimen description for her thesis. A new student has joined our ranks this year, Derek Parker, who got his VP initiation from John Flynn in Chicago. Derek will perhaps study some aspect of fossil herps as indicators of paleoclimate.

In May, another major donation was made to the VP section with the transfer of the Kopf collection of fossil vertebrates from the University of Cincinnati. Max Kopf of Lancaster, New York, an avid collector in the early part of this century, included Devonian fish as one of his many paleontological interests. The collection contains over a hundred specimens from western New York, some with hand-written identifications by W. Bryant. Volunteers Susan Jackson and George Reichman have taken on the responsibility for its incorporation into the museum.

Our big push for the near future is to get our paleo lab into full swing and to raise funds for the preparation of the new Nevada material. This is a big job and we hope to acquire professional help for the task. With any luck, some seed money can be raised locally to bring in a trained preparator. It's early days yet, but we hope that such a person could thereafter become permanent staff. (Glenn Storrs)

### ***Michigan State University***

All of the VP graduate students at MSU (Carl Doney, Ken Ford, and Rachel Walker) are presently either in the field (Walker is in Wyoming) or on other trips at the time of this writing, thus I have no new items to report from them. All are working, admittedly at a somewhat slow pace, on the same PhD dissertation projects mentioned in previous *SVP News Bulletins*. Ken Andrews, who was studying various biological aspects of the turtle shell for his PhD dissertation, left for Arizona several months ago and has yet to forward his new address.

Al Holman relishes the prospect of having no teaching or committee work until July 31, 1997, when he officially retires. Holman has already moved into his "retirement room," which is smaller than before, but adequate. He suddenly discovered what a huge mass of stuff piles up during 30 years!

Holman is travelling to gather information for his forthcoming book on "Pleistocene Amphibians and Reptiles in Britain and Europe." He studied several Pleistocene herpetofaunas from northwest Germany and The Netherlands with Thijs van Kolfshoten at Leiden in May, travels to England in August, and hopefully to Poland in October and November. This research is funded by the National Geographic Society. (Al Holman)

### ***University of Illinois, Museum of Natural History***

Steve Sroka (U of I MNH) and Russ Jacobson (Illinois State Geological Survey) led a successful year two of their Hell Creek field program in South Dakota. With a crew of nearly 20 people they recovered a significant amount of dinosaur and other vertebrate material from the Hell Creek Formation in northwestern South Dakota. They continued to recover material from the original hadrosaur site, and recovered frill and other skull

material (including horns) from a *Triceratops*. More material remains at this site which will be excavated next season.

At other sites the crew found limb and pelvic elements of other *Triceratops* including a site where the bone showed evidence of predation (teeth marks on the bone and a shed tyrannosaurid tooth). Three new turtles were recovered this year by the team, including one fairly complete specimen and two partially complete specimens. Near one of the turtles we found more hadrosaur material (ribs, vertebrae).

Another site was found that yielded the greatest diversity of material including an amphibian jaw, juvenile crocodile jaw, complete turtle skull with broken shell elements, crocodile teeth (several types of crocodile), scutes and vertebrae, dromeosaurid teeth, several more tyrannosaurid teeth, theropod limb bones, a small possible "troodontid"-like jaw with teeth, numerous vertebrae (crocodile and other species), gar teeth and scales, abundant turtle material (shell elements, limbs and other postcranial elements), and dinosaur limb and pelvic materials.

The crew also recovered a number of isolated limb elements (most are ceratopsian and typical of the Hell Creek in the field area) during field exploration. Probably the most interesting (and significant?) find during field work was a large, wellpreserved skull cap of a pachycephalosaur including the squamosals with the spikes and projections, as well as other upper skull elements that will be examined when the specimen is prepared from its jacket. This will probably be one of the first specimens prepared late this summer.

The crew found another interesting *Triceratops* site where we recovered a femur that may be partially articulated to other limb elements. However, since this was on the last day of the field program, the rest of the site was left for next season.

In addition the crew found even more invertebrate material than last year at another site where nicely preserved snails and bivalves, and vertebrate material (*Triceratops* tooth and other bone) were found. The invertebrates were associated with abundant fossil pine cones.

All this year's recovered material is now housed at the U of I Museum of Natural History. Like last year, Steve Sroka and museum volunteers will prepare the new dinosaur and other vertebrate material for use in study and for display. Given the amount of material found this year, and what remains in the ground, Steve and Russ plan to return for a third season next year. Many of the crew members from this season also plan to return to help next year. (Russ Jacobson)

### ***University of South Dakota***

Gary Johnson spent two weeks in the Texas Permian sampling a new locality in his efforts to document the change in xenacanth faunas across the Wichita-Clear Fork boundary. He also sampled a layer of *Orthacanthus platypternus* calcified cartilage in the Craddock Bonebed in the lower Clear Fork Group. Some of the cartilage is nicely

preserved, but preparation and study will take a while. A preliminary look at the cephalic spines suggests several individuals of different sizes are present. Thanks go to Bob Hook for making arrangements to collect at the site and for pointing out this horizon. Time spent in the San Angelo Formation failed to yield anything significant.

Tim Heaton spent a month in Alaska excavating in caves on Prince of Wales Island with Fred Grady and several assistants funded by a grant from the National Geographic Society. They excavated in three caves with emphasis on one that has yielded middle and late Wisconsin vertebrate fossils. They found a number of species that no longer inhabit the island-

brown bear, red fox, ringed seal, marmot, and heather vole-as well as the typical assemblage of black bear, otter, and ground fish bone. Their most significant discovery was a human burial and several artifacts in one of the caves. This had to be brought to the attention of the local Tlingit and Haida Indians, who were persuaded to allow study of the remains by archaeologists and continued excavation of the site. Eventually the human remains will probably be reburied in the cave in accordance with the Native American Grave Protection and Repatriation Act. (Gary Johnson)

## **Rocky Mountain Region**

### ***Dinamation International Society, Fruita, Colorado***

First we would like to announce who was awarded our Scholarships and our Summer Internship.

The Alfred and Rose Miniaci Foundation sponsors two scholarships with cash awards of \$1500 each. One is awarded to a graduate student, the other to an undergraduate student. Winning candidates must not only show academic achievement, but must demonstrate active community involvement and service.

Oscar Alcober of San Juan, Argentina, is the 1996 winner of the graduate scholarship. He is a student at the National University of San Juan and is working towards his doctorate degree. Work he has been a part of has been important to finding the origin of dinosaurs.

The winner of the 1996 undergraduate award is Barnas G. Monteith of Randolph, Massachusetts. This fall he will be a junior at Tufts University in Massachusetts, with dual majors in geology and biology. He is also a volunteer exhibit interpreter for elementary school students at Harvard's Museum of Comparative Zoology.

1996 will mark the fifth summer internship awarded by Dinamation Society. Philip Senter of North Carolina was chosen for the 1996 field season intern. He is currently beginning graduate school at Baylor under Dawn Adams. This award carries a \$500 per month stipend. This program is designed to give undergraduate field experience crucial to pursuing graduate studies.

For students interested in applying for a scholarship or an internship with Dinamation International Society, contact the Scholarship Awards Committee, Dinamation International Society, 550 Jurassic Court, Fruita, CO 81521; (800) 344-3466. Deadline for applications is March 15, 1997.

After a long winter working on a comprehensive exhibit on ceratopsian dinosaurs, it was good to get back in the field. Field work at the Mygatt-Moore Quarry went well this summer with a significant amount of a large *Allosaurus* recovered. Parts of the holotype specimen of the Jurassic ankylosaur *Mymoorepelta mayai* continue to be uncovered, with a jugal, tibia, and cervical vertebra joining the collection. A second egg in the quarry was a real surprise.

New finds continue to be made in the Cedar Mountain Formation, thanks to the help of Don Burge and Rich Cifelli. Both Ken Carpenter and Mike Parrish have joined forces with Jim Kirkland to get material described. Kirkland hopes to have a preliminary description of the complete polacanthid ankylosaur submitted for publication by the time you read this. A post-meeting field trip to see these sites will be part of the 1997 GSA meeting in Salt Lake City. It is hoped a similar trip can be organized for the 1998 SVP meeting.

We were pretty excited to excavate part of a *Tyrannosaurus rex* up in South Dakota this spring. We recovered a pelvis and parts of the back of the skull. But after extensive bobcatting, there is no more to be found. While disappointing, the discovery of a multigeneric bonebed seems to bode well for next year if we can get permission from the landowner to begin serious excavations next spring.

Finally, we would like to officially welcome George Callison to western Colorado. After years researching the Fruita paleo area, George has just completed building a new home overlooking the Morrison. For a while, he will continue to divide his time between here and California before moving here full time. He can be contacted via the Dinamation International Society. (Jim Kirkland)

### ***Garden Park Paleontology Society/Dinosaur Depot, Cañon City, Colorado***

What a busy summer the Depot has had! Volunteers and staff have been busy doing tours of the Garden Park Fossil Area as well as facilitating visitors through the museum. We are continually pleased with the reaction of visitors both local and out of state to the exhibits and the *Stegosaurus* body jacket in the laboratory. Work on the top of the jacket is very nearly complete by Donna Engard, preparator, and come this fall we will "flip" the now less-than-six-ton jacket over and begin work on the underside. The "bottom" should hold some interesting things such as more of the microsite and various sauropod bones. Pat Monaco, field research coordinator, was off much of the summer doing field work with and cooking for the following: University of Colorado's Bridger Basin Field School near Mountain View, Wyoming; Denver Museum of Natural History's Paleontological Field School near DeBeque, Colorado; Peter Robinson in the Powder River Basin; Richard Stucky in the Bridger Basin; and field trips for the Colorado

Scientific Society and San Bernardino County Museum's Earth Sciences Department. Members of GPPS also assisted Kenneth Carpenter and the Denver Museum of Natural History in their July work in the Cañon City area on a Jurassic lacustrine site discovered in 1995. During their stay here, Kenneth Carpenter was able to locate a "missing" historic quarry that had been worked in the 1890s by a local miner named Lambuth who sent bones to O. C. Marsh and E. D. Cope among others.

Kenneth Carpenter's new book, "The Dinosaurs of Marsh and Cope, the Jurassic Dinosaurs of Garden Park" is now available through Dinosaur Depot. All proceeds benefit Dinosaur Discovery Center in the Garden Park Fossil Area. Please call the Depot at the number below for information. Illustrations in the book are by Gregory Paul and Mike Skrepnick.

Perhaps the most important news for GPPS was the granting in August 1996 of repository status for Dinosaur Depot for fossils from public lands granted by the U. S. Department of the Interior's Bureau of Land Management office in Colorado. Although this will increase the work load for us, it is indeed a privilege and responsibility we proudly assume. At this time a collecting permit for public lands is pending according to the above agency.

Though our hours of business at the Depot will be changing after Labor Day, we do hope you will make time on your Colorado travel agenda to come and visit. After September 2 until Memorial Day weekend, we will be open Wednesday through Sunday from 9 A.M. until 5 P.M. Group tours to the Garden Park Fossil Area are available on a reservation basis. For reservations and other information, call us on our toll-free number, 1-800-987-6379, during business hours, Mountain Time. (Pat Monaco)

### *Sheridan College*

The summer part of field season 1996 had Sheridan College faculty and students working at a number of sites within the Cloverly and Morrison formations of southern Montana and northern Wyoming.

The Sauropod College Quarry continues to provide an excellent field/

lab teaching site for a number of colleges and universities from a number of Rocky Mountain and midwestern states.

The northern Powder River Basin and northeastern Big Horn Basin of Wyoming and Montana continue to provide exciting new vertebrate paleontological material. Bill Matterson and Mike Flynn have located a partial *Allosaurus* within the upper Morrison. Dan Olson, Brian Flynn, and Pete Wilson continue the inventory of fossil localities along the western Powder River Basin.

Mike Flynn continues research to locate, excavate, and examine vertebrate faunas spanning the K/T boundary in the Hell Creek Formation of southeastern Montana. (Mike Flynn)

***University of Wyoming, Department of Geology and Geophysics and Geological Museum***

Jay Lillegraven returned to regular academic horrors after a productive sabbatical year of completing new geologic maps and papers on the stratigraphy, paleontology, and Laramide tectonic history of Wyoming's Hanna Basin. Of most general interest to VPer is the first paper of a series being coauthored with Jaelyn J. Eberle on the late Lancian and Puercan stratigraphy, multituberculates, and marsupials of the type Ferris Formation, west-central Hanna Basin. We are most happy to welcome John H. Burris (formerly of Miami University of Ohio) and Michael W. Webb (formerly of the University of Alberta) to our graduate program in vertebrate paleontology.

Penny Higgins completed two months of field work in the northern Hanna Basin this summer. Her research concentrates on a section of the Paleocene Hanna Formation which contains abundant mammal fossils which may be transitional between the Torrejonian and Tiffanian North American Land Mammal Ages. She plans on spending the winter examining the fossil collection from this section which is held at the University of Wyoming to see if this is the case.

After spending a delightful summer working at Museum of the Rockies' Camp Makela, Anton Wroblewski returned to delve back into thesis revision. This fall he plans to continue revision and squeeze in some more field work on the K/T boundary section in the Ferris Formation. He also hopes to be able to enter a PhD program somewhere in the upcoming year or so.

John Burris has recently joined on with VP at the University of Wyoming. John just completed a successful summer of field research in the northeastern part of the Hanna Basin. He is studying the occurrence of shark teeth in the Hanna Formation within the same beds as Paleocene mammals.

Dr. Lillegraven's new PhD student Michael Webb has recently completed his master's thesis on a new Paleocene (middle Tiffanian) mammal locality, under the guidance of Richard C. Fox. Michael will be busy with course work this year, while researching potential dissertation topics.

Ross Secord graduated in May and has been working on a project for the U. S. Forest Service through a partnership with the University of Wyoming. Ross is assisting in the development of a predictive model designed to assess the potential for finding fossil vertebrates (and other important fossils) in the various rock units of the High Plains region, for the purpose of managing these resources.

With the new database up and running, Jean-Pierre Cavigelli was all set for the move into the new building when a water pipe burst and set us all back at least a month. This gave J-P plenty of time to work with the database and iron out some of the details. As he writes this he is excitedly preparing for a short leave from the office as he has been invited to join a Dinamation group in the Cretaceous of Mongolia for 20 days.

Brent Breithaupt, Director of the UW Geological Museum, continues his work on various topics dealing with the history of fossil collecting in Wyoming and taphonomy of various sites, as well as developing new displays, educational activities, and public programs in the museum. (Brent Breithaupt)

## **West Coast Region**

### ***California State University San Bernardino***

It has been quite some time since our last update, and much has happened during that time. Stuart Sumida has continued his collaboration with Dave Berman of the Carnegie Museum of Natural History. Together with Dave (and the help of National Geographic and NATO), Stuart has spent the past few summer field seasons in eastern Germany where they have been quarrying at the Lower Permian "Tambach Locality." This past summer, they were joined in Germany by Amy Henrici (CM) for the field season. Together with Thomas Martens (Museum der Natur, Gotha, Germany), they have been excavating tetrapod fossils, some of which are remarkably similar to those found in the desert southwest of the United States, and some which appear to be quite unique. Those that appear to be unique include a new trematopid amphibian, a diadectomorph similar to *Diadectes* but with sharp, laterally compressed teeth; a small, possibly diapsid, reptile with hind limbs nearly twice as long as its fore limbs! Together with Martens, Dave and Stuart have a paper in due out in August or September on the "Biostratigraphic correlations between the Lower Permian of North America and Central Europe using the first record of an assemblage of terrestrial tetrapods from Germany" in *PaleoBios*. A paper describing a the new trematopid amphibian is currently in review.

The paper in *PaleoBios* is one of six included in a collection on "The Uses of Vertebrate Fossils in Biostratigraphic Correlations" being edited by Stuart along with Chris Bell. Stuart is also busy editing another volume on "The Origin of Amniotes" for Academic Press with Karen Martin of Pepperdine University. The volume includes contributions by both paleontologists and neontologists as they attack the problems of determining the biological events that marked the origin of amniotes. In addition to editing duties, Stuart has two chapters in the volume; one on locomotor features near the transition to amniotes, and one on the biogeography of the taxa important to the transition that is coauthored with Dave Berman and Eric Lombard of the University of Chicago.

The past year saw an enormous increase in the paleontological holdings at CSUSB. Dave Berman arranged the gift of numerous casts for teaching and research. Additionally, Drs. Fritz Hertel and Blaire VanValkenburgh of UCLA oversaw the generous donation of a huge collection of Pleistocene mammal and bird material from the LaBrea Tar Pits to

Stuart's care in the Department of Biology at CSUSB. The material was originally to have gone to UC Berkeley, but was diverted to CSUSB to enhance its teaching and research collections. We are now in the process of organizing the materials. As is always the case, facilities aren't easy to come by. However, after seeing the department's plight, Mark Raymond of "Cabinetry by Mark" came to the rescue with the donation of a bank of custommade storage cabinets. Mark even convinced his suppliers to donate the materials and hardware for the job! With the storage facilities in place, undergraduates Marc Stamer and Bronwyn Weis are nearly finished with a complete articulated mount of a dire wolf, and undergraduate Anne Marrocco has cleaned and mounted a very nice sabertooth cat skull.

Teaching and student advising was given a much needed boost at CSUSB while Dr. Elizabeth Rega spent the past academic year here. In addition to doing an enormous amount of work in a number of courses in human biology, Beth taught a graduate course in paleopathology. While at CSUSB Beth put the finishing touches on a couple of invited book chapters on her work with Bronze Age populations from (what was formerly) Yugoslavia. She also spent time helping with the German field work and conducted her own field work in northern Hungary. In June she presented a paper at the North American Paleontological Convention on the structure and functional morphology of great apes including fossil humans. She will be missed as she moves on to a position with the Joint Sciences Department at the Claremont Colleges. We wish her the best of luck.

The graduate program in vertebrate paleontology at CSUSB has increased recently as well. Gavin Albright has moved in to work on a restudy of the cranial structure of the small captorhinid reptile *Captorhinkos chozaensis*. He is still in the preliminary stages of his study, working on background literature and preparation of numerous specimens collected by the late Everett Olson of UCLA. James Walliser has also taken up residence in the master's program. He is currently removing old, yellowing epoxy from the type specimen of *Tseajaia campi*. Together with some new specimens collected by Dave Berman, he is planning on a thorough study of the postcranial skeleton of this enigmatic diadectomorph. James and Gavin have also been recruited to help Stuart in the valiant attempt to organize the paleontological research and storage space at CSUSB.

Finally, Stuart continues his collaboration and consultation for animated films. He spent an afternoon playing with camels, goats, and sheep as he explained their anatomy to animators at DreamWorks Studios. Along with Beth Rega, he has also been consulting on a couple of Walt Disney Feature Animation's upcoming features. Work is ongoing on the humans, apes, and elephants for "Tarzan" (in California) and this past September saw a trip to their studio in Paris for additional anatomical consultation on "Hercules." (Stuart Sumida)

### ***Stanford Linear Accelerator Center, Stanford University, CA***

The Stanford *Paleoparadoxia* specimen full skeletal mounting is now open to the public in the new SLAC Visitor Center. This imposing display can be seen along with a number of interesting demonstrations of the high energy particle physics research and

synchrotron radiation research carried on at the laboratory. The *Paleoparadoxia* virtually complete fossil skeleton was discovered at SLAC in 1964 during the original excavations for the accelerator tunnel. SLAC was given a complete set of plaster casts of this specimen, received from the University of California Museum of Paleontology, in exchange for the actual fossil that resides in the UCMP collections. The *Paleoparadoxia* display has been under construction since 1969, the work having been carried out part time over all these years by Adele Panofsky along with mechanical and engineering help from many of SLAC staff, and the invaluable advice, instruction, and cooperation of a great many VP friends, all of whom deserve grateful thanks from Adele and SLAC.

The SLAC Visitor Center of the Stanford Linear Accelerator Center, at 2575 Sand Hill Road, Menlo Park CA, is now open to the public weekdays from 8:00 A.M. to 5:00 P.M. To obtain more information, or to arrange for access at other times, call the SLAC Public Affairs Office at (415) 926-2204, or call Adele Panofsky directly. (Adele Panofsky)

**- BULLETIN BOARD -**

**\$1500 GRADUATE SCHOLARSHIP**

Through Dinamation International Society, the Albert and Rose Miniaci Foundation annually awards a scholarship to a graduate student pursuing a degree/career in paleontology. This scholarship carries a \$1500 cash award. The 1996 winner was Oscar Alcober of San Juan, Argentina.

Interested candidates must submit a cover letter, résumé, and three letters of recommendation, one of which is from a major advisor. Verification of acceptance into a graduate program is required. Demonstration of active community involvement and service is important. Successful candidates must be of good character, integrity, and have demonstrated a potential for success.

Submit information to: Dinamation International Society, Attention, Scholarship Awards Committee, 550 Jurassic Court, Fruita, CO 91521, USA. Application deadline is March 15, 1997. (Mike Perry)

**\$1500 UNDERGRADUATE SCHOLARSHIP**

Through Dinamation International Society, the Albert and Rose Miniaci Foundation annually awards a scholarship to an undergraduate student pursuing a degree/career in paleontology. This scholarship carries a \$1500 cash award. The 1996 winner was Barnas G. Monteith of Randolph, Massachusetts.

Interested candidates must submit a cover letter, résumé, and three letters of recommendation, one of which is from a major advisor. Verification of acceptance into graduate is required. Demonstration of active community involvement and service is important. Successful candidates must be of good character, integrity, and have demonstrated a potential for success.

Submit information to: Dinamation International Society, Attention, Scholarship Awards Committee, 550 Jurassic Court, Fruita, CO 81521, USA. Application deadline is March 15, 1997. (Mike Perry)

## **FOSSIL HORSES IN CYBERSPACE**

This new online, virtual museum exhibit can be accessed through the WWW at <http://www.flmnh.ufl.edu/natsci/vertpaleo/fhc/fhc.htm>. (Bruce J. Shockey)

## **- CALENDAR OF EVENTS -**

### **THE GREAT RUSSIAN DINOSAURS ARE COMING!**

The New Jersey State Museum will host the only East Coast engagement of the internationally-traveling paleontological exhibition, "The Great Russian Dinosaurs." The exhibit will be on view September 21 through December 22, 1996, at the New Jersey State Museum, 205 West State Street, Trenton.

The exhibition, consisting of paleontological specimens gathered over the past century from sites across Russia and Mongolia, includes 24 full skeletons (some as large as 19 feet high), two dozen skulls, dinosaur eggs, and dozens of other fossilized creatures. It has appeared outside Russia only in Japan, Australia, Arizona, and Iowa.

In addition to the paleontological specimens, "The Great Russian Dinosaurs" exhibition will feature:

- Computer-assisted education that gives visitors an opportunity to explore a variety of topics concerning dinosaurs;
- *Design-A-Saur*, a three-dimensional dinosaur that visitors design themselves by adding arms, legs, a tail, and a head of their choosing;
- *Sandstorm Struggle*, an animated recreation of a *Velociraptor* and a female *Protoceratops* locked in a death struggle on a dune in an ancient Mongolian sandstorm; and
- The Working Scientist window where visitors can watch and ask questions of a paleontologist at work on fossil preparation.

The New Jersey State Museum's Shop will be transformed in honor of the visiting exhibition. Many new gift shop items featuring New Jersey symbols, as well as *Hadrosaurus foulkii* (New Jersey's own dinosaur), will be part of the expanded shop.

The exhibition is organized by the Monash Science Centre, Melbourne; the Queen Victoria Museum, Launceston; and the Paleontological Institute, Moscow; with support from Qantas. Support for its New Jersey engagement has been provided by the State of

New Jersey, Friends of the NJ State Museum, Governor's Tennis Tournament, Merck Company Foundation, Poppe Tyson Advertising and Public Relations, Tosco's Bayway Refining Company, the Schley Family, Imo Industries Inc., PNC Bank, an anonymous donor, the Gund Family, and the Inversand Company (listed by contribution level as of 7/12/96).

The New Jersey State Museum is located at 205 West State Street in Trenton, New Jersey. The Museum, a division of the NJ Department of State, is open Tuesday through Saturday from 9 A.M. to 4:45 P.M. and Sunday from noon to 5 P.M. For more information about "The Great Russian Dinosaurs" or for directions to the NJ State Museum, please call (609) 292-6464. (Dave Parris)

### **THIRD WORLD CONGRESS OF HERPETOLOGY**

As previously announced, the Third World Congress of Herpetology, 2-10 August 1997, Prague, Czech Republic, will provide a platform for meetings and discussions between neo- and paleoherpetologists. By the end of August 1996, about 1000 persons were preregistered. "Paleobiology of Dinosaurs," "Mesozoic amphibians and reptiles," and some other interesting paleoherpetological symposia were proposed. There will be a post-Congress tour specially focused on fossil sites and museum collections of extinct amphibians and reptiles in central Europe. Further information may be obtained from the Second Announcement (Call for Papers and Registration Form) which was published at the end of July and which is available on request from the Congress Secretariat (Third World Congress of Herpetology, Congress Secretariat, c/o Czech Medical Association, J. E. Purkyne, P. O. Box 88, Sokolovska 31, CZ-120 26 Praha 2, Czech Republic; fax ++42-2-294610, ++44-2-24216836; e-mail lon@czechmed.anet.cz). Preregistered persons receive the Announcement automatically. (Z. Rocek)

### **- PREPARATORS CORNER -**

#### **MEMBRANE BOXES FOR STORAGE OF DELICATE MICROVERTEBRATES**

Small, delicate fossil vertebrates commonly present a challenge to exhibit, store, or pack safely for shipping. Cotton or similar padding materials often obscure morphology or get stuck on specimens, and crafting custom-made foam cradles can be time consuming. Vials, which are often used to contain specimens, must be shimmed or placed in trays so that they don't roll. For some specimens, at least, membrane boxes may be a preferable alternative. Membrane boxes, available from Henri Picard & Frère Ltd. (Abacus House, 249 Merton Road, London SW18 5EB, England; telephone 0181 870 1342, fax 0181 870 1342), were originally designed for housing delicate mechanical parts during shipping and are commonly used for electronic components; according to the supplier, some are currently in use for fossil exhibits by the MNHN, Paris. Each box consists of a clear, plastic (polystyrene) shell; the base of the lid is inset halfway into the box via a shoulder joint. The base of the lid and the inside of the box each hold a drum-like membrane made of polyurethane; these two membranes occlude tightly when the box is closed. The membranes, which are virtually invisible and highly elastic, gently but firmly enclose any

object placed in the box. According to the supplier, boxes in use for greater than 15 years have not suffered any loss in elasticity of the membranes. Boxes are available in two shapes, square (with rounded corners) and round, and a variety of sizes, from the square micro, 39 □ 39 □ 19 mm (deep) to the round 165 mm dia. □ 80 mm deep.

A great advantage of membrane boxes is that they securely and gently hold specimens while at the same time permit casual study, at least, through both top and bottom-hence a delicate specimen can be passed around for inspection, and even dropped on the floor (which sometimes happens at the SVP meetings), with little danger. Furthermore, a specimen can be turned over for direct inspection, without ever touching the fossil itself, simply by turning the box over and opening it from the other side. This can potentially avoid time-consuming procedures such as mounting the specimen on a pin or embedding it in polyethylene glycol. Because the membranes are tightly stretched, however, these boxes are not well suited to specimens with long, delicate processes protruding from them nor to specimens that are both extremely fragile and deep. A disadvantage to use of these boxes beyond special situations (e.g., exhibit, or travel and storage of important materials, such as types) is their cost: the square micro boxes, noted above, cost £1.30 each. However, quantity discounts of up to 40% are available, so that interested institutions might consider pooling their orders. (Richard L. Cifelli and Nicholas J. Czaplewski)

**- PUBLICATIONS -**

***DINOSAUR STALKERS: TRACKING DINOSAUR DISCOVERIES OF WESTERN COLORADO AND EASTERN UTAH BY BOB SILBERNAGEL***

Publication of *Dinosaur Stalkers* marks the formation of a unique partnership between the U. S. Bureau of Land Management, the Museum of Western Colorado, and Dinamation International Society. These three organizations jointly manage the Rabbit Valley Research Natural Area, which encompasses the Mygatt-Moore Dinosaur Quarry. Proceeds from the sale of this book will be used to further protection, preservation, and education about fossil resources on public lands.

The book chronicles over 100 years of paleontology in western Colorado and eastern Utah. Full of illustrations and photographs, this 64-page paperback is informative and entertaining. Reasonably priced at \$6.50, the book is available from Dinamation International Society (800) DIG-DINO or Museum of Western Colorado (970) 245-7695. (Mike Perry)

***PALEONTOLOGY AND GEOLOGY OF THE LEISEY SHELL PITS, EARLY PLEISTOCENE OF FLORIDA; BULLETIN OF THE FLORIDA MUSEUM OF NATURAL HISTORY, 1995, VOLUME 37, PARTS I & II, 660 PP.***

This volume contains 20 individual papers covering all aspects of the stratigraphy, chronology, taphonomy, and paleontology of this major Irvingtonian biota, with primary emphasis on fossil vertebrates. Includes an extensive review of all Florida Blancan and

Irvingtonian vertebrate localities by G. S. Morgan and R. C. Hulbert, and descriptions of four new species (two birds, two mammals). The cost is US\$30 for both parts plus \$3.50 for shipping (\$5.50 outside of USA). Order from Rhoda J. Bryant; Managing Editor, Bulletin; Florida Museum of Natural History; P. O. Box 117800; Gainesville, FL 32611; USA. (Bruce J. Shockey)

**A CHINESE-ENGLISH AND ENGLISH-CHINESE DICTIONARY OF VERTEBRATE PALEONTOLOGY TERMS, 1994-95. P. V. RICH, Y. P. ZHANG, M. C. CHOW, B. Y. WANG, P. KOMAROWER, J. H. FAN, R. SLOSS, J. K. M. MOODY, AND J. DAWSON. MONASH UNIVERSITY PUBLICATIONS COMMITTEE AND THE MONASH SCIENCE CENTRE, MELBOURNE, 358 PP.**

A vast literature on vertebrate paleontology and related topics in biology (including medicine) and geology exists in the Chinese language. To non-Chinese readers, this literature, unfortunately, is nearly, if not entirely, impossible to decipher. Most unfortunate this is, as papers reporting on material from the rich fossil fields of the People's Republic of China are of marked relevance to paleontologists the world over.

This dictionary project began as a joint venture between several institutions in China (e.g., the IVPP, the Institute of Geology, Beijing University), Australia (Monash University, Museum of Victoria) and the U.K. (Cambridge University) right at the end of the Cultural Revolution, with the idea in mind to provide a computer database of terminology that might be used to translate papers using computers.

The dictionary is divided into two parts as the title implies and the pinyin pronunciation is included in each listing. It provides an extensive listing of many of the technical terms used in all fields of paleontology, with emphasis on vertebrate paleontology. The dictionary includes synonyms of technical terms that developed independently in many institutes around China when many were isolated from one another during the 1960s and 1970s allowing different words to be used for the same features.

The dictionary was compiled using WMDOS 5 in combination with Chinese Wordstar and dBase 3. It can be obtained on disk and with the necessary software can be accessed. (For costings on this method of delivery, contact P. Vickers Rich at the Monash Science Centre, fax 011-66-03-99051370 or 9905-4903).

Cost of the dictionary is \$65.00 including postage (surface post internationally). Contact Dr. P. Vickers-Rich, Monash Science Centre, Monash University, Clayton (Melbourne), Victoria, 3168, Australia. (P. V. Rich)

**- POSITIONS AVAILABLE -**

**POSTDOCTORAL RESEARCH POSITION, FLORIDA MUSEUM OF NATURAL HISTORY**

A postdoctoral position is available to assist in research involving Cenozoic mammals, magnetostratigraphy, and stable isotopes. Duties include primary responsibility for laboratory analyses, data management, and day-to-day logistic project coordination (40%), assisting in writing grants, reports, and papers for publication (40%), and field and museum work (20%). A PhD degree (in-hand), prior experience in paleomagnetic and/or stable isotopic techniques applied to fossil mammals, demonstrated research and grant productivity, and excellent communication and organizational skills are required. This is anticipated to be a two-year, limited-term appointment with a competitive salary and allowances. Continuation of the appointment after the first year is contingent upon satisfactory performance and receipt of final funding for Year 2. This position is currently available and the optimal starting date is no later than 2 January 1997.

Applicants for this position should send a cover letter describing their background and interests relevant to the above-mentioned project, a CV, copies of publications, and the names and contact information (including e-mail addresses) for three professional references by 15 November to Bruce J. MacFadden, Florida Museum of Natural History, P. O. Box 117800, University of Florida, Gainesville FL 32611-7800; inquiries via e-mail at bmacfadd@flmnh.ufl.edu. (Bruce J. MacFadden)

### **SUMMER FIELD INTERNSHIPS**

Dinamation International Society will be awarding two summer field internships for the 1997 season. All previous interns are currently enrolled in graduate programs.

Interns serve as field assistant to Dr. James Kirkland at the Mygatt-Moore Quarry. These positions are for undergraduate to beginning graduate students in paleontology and carry a \$500 per month stipend, with housing provided on site. The intern must have reliable transportation and commit to two months of service.

Interested parties should submit a letter of interest, résumé, and two letters of recommendation. Submit information to: Dinamation International Society, Attention, Internship Awards Committee, 550 Jurassic Court, Fruita, CO 81521. Application deadline is March 15, 1997. (Mike Perry)

### **SMITHSONIAN RESEARCH FELLOWSHIPS IN HISTORY, ART, AND SCIENCE**

The Smithsonian Institution announces its research fellowships for 1997 in the fields of history of science and technology, social and cultural history, history of art, anthropology, biological sciences, earth sciences, and materials analysis.

Smithsonian fellowships are awarded to support independent research in residence at the Smithsonian in association with the research staff and using the Institution's resources. Under this program, senior, predoctoral, and postdoctoral fellowships of three to 12 months, and graduate student fellowships of ten weeks are awarded. Proposals for research in the following areas may be made: history of science and technology, social

and cultural history, history of art, anthropology, biological sciences, earth sciences, and materials analysis. The deadline for submission is 15 January 1997.

Postdoctoral fellowships are offered to scholars who have held the degree or equivalent for less than seven years. Senior fellowships are offered to scholars who have held the degree or equivalent for seven years or more. The term is three to 12 months. Both fellowships offer a stipend of \$25,000\* per year plus allowances.

Predocctoral fellowships are offered to doctoral candidates who have completed preliminary course work and examinations. The term is three to 12 months. The stipend is \$14,000\* per year plus allowances.

\*Predocctoral, postdoctoral, and senior stipends are prorated for periods of less than 12 months.

Graduate student fellowships are offered to students formally enrolled in a graduate program of study, who have completed at least one semester, and not yet have been advanced to candidacy in a PhD program. The term is ten weeks; the stipend is \$3,000.

Awards are based on merit. Smithsonian fellowships are open to all qualified individuals without reference to race, color, religion, sex, national origin, age, or condition of handicap.

For more information and application forms, please write: Smithsonian Institution, Office of Fellowships and Grants, 955 L'Enfant Plaza, Suite 7000, Washington DC 20560; or e-mail [siofg@sivm.si.edu](mailto:siofg@sivm.si.edu). Please indicate the particular area in which you propose to conduct research and give the dates of degrees received or expected.

## **SMITHSONIAN MINORITY INTERNSHIP PROGRAM**

Internships, offered through the Office of Fellowships and Grants, are available for students to participate in research and museum-related activities for periods of ten weeks during the summer, fall, and spring. U. S. minority undergraduate and beginning graduate students are invited to apply. The appointment carries a stipend of \$250 per week for undergraduate and \$300 per week for graduate students, and may provide a travel allowance.

Application deadline is 15 February, for summer (to begin after June 1, 1996), fall (to begin after October 1, 1996), or spring (to begin after January 1, 1997). For applications and/or information, please write: Smithsonian Institution, Office of Fellowships and Grants, 955 L'Enfant Plaza, Suite 7000, Washington DC 20560; or e-mail [siofg@sivm.si.edu](mailto:siofg@sivm.si.edu).

**- OBITUARIES -**

### **KARL F. HIRSCH, 1921-1996**

Karl Hirsch died during his sleep while visiting friends in southern Utah. He had returned to Colorado three weeks earlier from a visit to Europe where he gave the opening speech for an egg exhibit in Switzerland.

Karl Hirsch was born the son of a businessman in Berlin in 1921. He had a couple of difficult years because his mother died when he was two years old until he found a place in the new family of his father. He enjoyed traveling and hiking as a teenager in youth groups. The second world war marked his life. He survived the battle of Stalingrad and the Russian POW camps so that he celebrated yearly his 1947 born-again return to Berlin. Disillusioned by the bureaucracy in Berlin after the war, he and his wife decided to start a new life in the United States. They immigrated to the States in 1952, where he started as a mechanic in Pennsylvania and Ohio before they moved to Denver, Colorado, in 1960. They preferred Colorado because of its natural beauty and the possibility of outdoor activities and collecting fossils. After two years waiting time, he started to work at the atom bomb factory Rocky Flats near Denver. He worked the night shift so that he could have the days for his hobby, collecting fossils. He took classes in paleontology from Judy Van Couvering (now Harris), and his hobby became oriented to science. First he started with baculites, but the find of a Tertiary egg in Nebraska changed the direction. Whetmore assured him that he had an egg, but if he wanted to know more about it he had to study it himself. He was alone in the field when he started to study fossil egg shells. He published his first egg shell paper in the *Proceedings of the Crane Workshop* so that D. Baird asked him if he wanted to hide his next paper in the "journal of the railway society." Starting on his own in this new research field, he proceeded with different techniques and a broad approach in methodology. He used the traditional thin section method with normal light microscopy, etched sections under SEM and cathodoluminescence, and CAT-scans for complete eggs. He studied not only the crystallography of the egg shell and its diagenesis, but also the organic components and the function of the shell for exchange of oxygen and water. He had the advantage to find Mary J. Packard, an ornithologist studying extant eggs, nearby at Colorado State University at Fort Collins. He learned much about extant eggs from her, and they published some papers together. It was important for Karl to expand his knowledge to eggs of other amniotes. Karl became well known when he extended his research to include egg shells of dinosaurs. He retired early to concentrate on research. To his grief, his wife Hildegard died of cancer. She had encouraged his research and helped with English. He had never completely accepted that she died of cancer whereas he, being often exposed to radioactivity, did not get cancer. Everyone remembers that her name often appeared in the conversation. He brought her back in his speeches when accepting the Harrell L. Strimple award in 1990 of the Paleontological Society and the presentation of the honorable PhD by the University of Colorado, Boulder, in 1990.

He tried to pass on his knowledge to younger people and scientists. He went into schools and talked about eggs, he helped a boy with his science project. He helped young students and scientists like Emily Bray and Darla Zelenitsky to grow from his knowledge. Many colleagues from overseas visited him to learn from him; he was a friendly host for them even though his economical resources were limited. Emily will see that his thin

sections, films, notes, etc., will be assembled at the University of Colorado, Boulder, so that she and other researchers can use that material in the future.

Karl was known not only for his scientific accomplishments, he also impressed everyone as a friendly, helpful, and thoughtful person. He helped many people through difficult times in their lives. He had the capacity to listen to others, to let others express their problems and pains. He had based his principles on a lifelong experience. On that base he gave his opinion and tried to help others to understand their own situations before they made any decisions.

The thoughtful procedure was the principal guidance in his research. He preferred and tried to convince his "pupils" to do a careful study before publishing anything. In that way, Karl has accomplished a remarkable amount of scientific production with little academic background during the last 20 years of his life. His guidance will be missed especially among many young researchers. (H.-P. Schultze)

### **EMMA LEWIS LIPPS, 1919-1996**

Emma Lewis Lipps, a former SVP member and a long-time friend of and contributor to vertebrate paleontology, died in Rome, Georgia, July 19, 1996, from complications after major surgery. Lewis, a botanist by training (PhD, University of Tennessee, 1966), was a highly respected biology teacher at Shorter College, Rome, Georgia, for 44 years before her retirement in 1990. From the 1950s to the mid-1960s Lewis was very active in vertebrate paleontological projects in Georgia, and was especially involved in coordinating studies of the rich Ladds Quarry Pleistocene vertebrate locality near Cartersville.

Lewis worked with Clayton Ray in the early studies at Ladds and coauthored a seminal paper on the site with him in 1966 (*Bulletin of the Georgia Academy of Science*). Later she worked with Al Holman in his restudy of the Ladds site in the early 1980s. She also was senior author of an annotated bibliography of the Pleistocene vertebrates of Georgia with Bob Purdy and Bob Martin in 1988 (*Georgia Journal of Science*). One of her richest contributions to vertebrate paleontology was her involvement of many Shorter College students in the various Ladds Quarry projects over the years. Her enthusiasm about Pleistocene vertebrates, especially the Pleistocene vertebrates of Georgia, was contagious, and she will be sorely missed by her many paleontological colleagues and friends. (Al Holman)

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