SOCIETY OF VERTEBRATE PALEONTOLOGY
NEWS BULLETIN

Number 164, June 1995

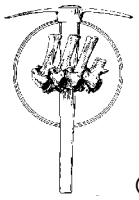

TABLE OF CONTENTS

OFFICIAL BUSINESS

Development Campaign Update

At the last annual meeting, I outlined the goals for the SVP development campaign. Our focus for member contributions will be to eliminate the backlog of manuscripts for the *Journal of Vertebrate Paleontology (JVP)* over the next few years.

I am happy to report that through your generous donations we have a total of $34,826 contributed through April 28. I would like to thank each of you for your personal contributions, which have helped launch a successful beginning to this campaign.

Evidence of this success can be seen by the 219 pages printed in the first *JVP* edition of Volume 15. With the contributions donated to date, we will be able to make the goal of 900 printed pages for Volume 15 a reality.

Although we have made significant progress, additional funding will be needed for the *JVP* initiative as well as for new programs in education and outreach. We ask that you continue to support this effort in whatever manner you can.

The committee has not only requested contributions from members, but has submitted a proposal to a private foundation with hopes of receiving a significant contribution. If you have knowledge of other foundations which would be receptive to supporting SVP's initiatives, please contact me.

Lastly, the committee has been discussing the strategy of involving key corporations in SVP fund-raising initiatives. We encourage members whose spouses may work for corporations with matching gift programs to please fill out the required paperwork so that a matching contribution can be made to SVP. All members who have other potential private or corporate sources that may be willing to donate to the campaign are also asked to contact either me or the Business Office. (John Wible, Development Committee Chair)

Recognition of Generous Contributions from The Dinosaur Society

The Society of Vertebrate Paleontology wishes to recognize The Dinosaur Society for its generous contributions in funding manuscripts on dinosaurs published in the *Journal of*

Vertebrate Paleontology (JVP) and *SVP Memoirs* series. These contributions are a key element in the SVP's goal to decrease the backlog of manuscripts in the short term and to increase the size of the *Journal* in the long term. As of April 28, The Dinosaur Society has funded three articles in the *JVP* and has agreed to fund an additional eight papers, as well as a large monograph in the *Memoirs* series. Total funded pages will exceed 195 pages or the equivalent of almost one issue of the *JVP*.

The SVP especially wishes to acknowledge the cooperation of President Steven Gittelman and Executive Director Tom Lesser as a key component in the successful partnership between the two societies. (SVP Executive Committee)

Committee Listings Update

AUCTION COMMITTEE

Please add Rolf E. Johnson Milwaukee Public Museum\ 800 W. Wells Street\ Milwaukee WI 53233. (414) 278-2745.

GOVERNMENT LIAISON COMMITTEE

Pat Leiggi (co-chair) Museum of the Rockies\ Montana State University\ Bozeman MT 59717. (406) 994-3983; fax (406) 994-2682; e-mail ammml@gemini.oscs.montana.edu.

Vincent L. Santucci (co-chair) 833 Malvern Road\ Pittsburgh PA 15202. (412) 766-6207; fax (412) 738-2529; e-mail vls@sruvm.sru.edu.

Michael O. Woodburne (co-chair) Department of Earth Sciences\ University of California\ Riverside CA 92521. (909) 787-5028; fax (909) 787-4324; e-mail mows@ucracl.ucr.edu.

L. Barry Albright (student member, GLC) Department of Earth Sciences\ University of California\ Riverside CA 92521. (909) 787-5028; fax (909) 787-4324; e-mail albrt@ucracl.ucr.edu.

Chris Beard Section of Vertebrate Paleontology\ Carnegie Museum of Natural History\ 4400 Forbes Avenue\ Pittsburgh PA 15213-4080. (412) 622-5782; fax (412) 622-8837; e-mail beardc@clp2.clpgh.org.

Brent Breithaupt Geology Museum\ P. O. Box 3006\ University of Wyoming\ Laramie WY 82070. (307) 766-4218; fax (307) 766-6679; e-mail uwgeoms@corral.uwyo.edu.

Laurie J. Bryant Bureau of Land Management\ Casper District Office\ 1701 East E Street\ Casper WY 82601. (307) 261- 7731; fax (307) 234- 1525.

Dan Chure Dinosaur National Monument\ P. O. Box 128\ Jensen UT 84035. (801) 798-2115; fax (801) 781- 1304.

Donna Engard Certified Paleontological Volunteers\ Route 1, Box 9A\ Wetmore CO 81253- 9619. (716) 275- 0631; fax (719) 275-7819 [BLM].

Larry Flynn (GLC and member at large, Executive Committee) Peabody Museum of Natural History\ Harvard University\ Cambridge MA 02138. (617) 496-3945; fax (617) 496-8041; e-mail ljflynn@fas.harvard.edu.

Ted Fremd John Day Fossil Beds National Monument\ 420 West Main St.\ John Day OR 97845. (503) 987- 2333; fax (503) 987- 2336; e- mail ted_fremd@nps.gov.

David Gillette Utah Geological Survey\ 2363 S. Foothill Drive\ Salt Lake City UT 84109-1491. (801) 467- 7970; fax (801) 467-4070; e-mail nrdomain.nrugs.dgillette@email.state.ut.us.

Mark Goodwin Museum of Paleontology\ 1101 Valley Life Sciences Building\ University of California\ Berkeley CA 94720-4780. (510) 643- 9745; fax (510) 642-1822; e-mail markg@ucmp1.berkeley.edu.

John W. Hoganson (GLC) North Dakota Geological Survey\ 600 E. Boulevard Avenue\ Bismarck ND 58505-0840. (701) 328-4109; fax (701) 328-3682.

Robert M. Hunt, Jr. W436 Nebraska Hall\ University of Nebraska\ Lincoln NE 68588-0542. (402) 472- 2650; fax: (402) 472- 8949; e- mail rhunt@unlinfo.unl.edu.

Allen J. Kihm (GLC) Department of Earth Sciences\ Minot State College\ Minot ND 58701. (701) 857-3864; e-mail kihm@warp6.cs.misu.nodak.edu.

James E. Martin (GLC) Museum of Geology\ South Dakota School of Mines and Technology\ Rapid City SD 57701. (605) 394-2467 [Museum]; (605) 394-2427; fax (605) 394-6131; e-mail jmartin@msmailgw.sdsmt.edu.

Desmond Maxwell (GLC) Department of Anatomy\ New York College of Osteopathic Medicine\ New York Institute of Technology\ Old Westbury NY 11568. (516) 626-6944 x6802; fax (516) 626-6936; e-mail anatomy@acl.nyit.edu.

Michael Nelson Divn Sciences\ Northeast Missouri State University\ Kirksville MO 63501. (816) 785- 4597; fax (816) 785- 4045; e- mail sc01%nemomus@academic.nemostate.edu.

Sally Shelton (also Chair, Outreach) San Diego Natural History Museum\ Balboa Park\ P. O. Box 1390\ San Diego CA 92112. (609) 232-3821 x226; fax (619) 232-0248; e-mail liesdnhm@class.org.

William P. Wall Department of Biology\ Georgia College\ Milledgeville GA 31061. (912) 453- 4062; e- mail: bwall@mail.gac.peachnet.edu.

Ann Walton 408 Poplar Street\ College Station TX 77840. (409) 696-4365; fax (409) 845- 4096; e-mail awalton@acs.tamu.edu.

Thomas E. Williamson New Mexico Museum of Natural History\ 1801 Mountain Road\ Albuquerque NM 87104-1375. (505) 841- 8837; fax (505) 841-8866; e-mail tom@darwin.nmmnh.abq.mus.nm.us.

Ballot Tabulation Results

In January 1995, a ballot mailing was sent to all active members. The following are the two issues voted on and the ballot tabulation results:

ISSUE YES NO ABSTAIN

a) Ballot Issue 1: **290** 23 8

Approve the proposed

SVP Bylaw on Ethics

b) Ballot Issue 2: **263** 33 25

Approve establishment of a

501(c)4 SVP-related corporation

Number of invalid ballots: 18

Coordinating Editor Wanted

Judy Massare, *News Bulletin* coordinating editor for the northeast region since 1989, is stepping down from this position, and we will need someone to replace her. The major responsibilities of this voluntary position are solicitation, assimilation, and forwarding of news from institutions and individuals in the New England and mid-Atlantic areas. If you are interested in assuming her responsibilities as the northeast regional coordinating editor and assisting in the production of the *News Bulletin*, please contact Dave Berman (412-622-3248) or Mary Ann Schmidt (412-622-3287; e-mail schmidtm@clp2.clpgh.org) as soon as possible.

NEW MEMBERS

Anderson, Jason S. 711 E. Ann #1\ Ann Arbor MI 48104. (313) 747- 6941; e-mail jason.anderson@um.cc.umich.edu.

Asher, Robert DPAS\ State University of New York\ Stony Brook NY 11794- 4364. (516) 632- 7606; e-mail rasher@ccvm.sunysb.edu.

Barbour, William C. 3712 Mizell Road, Apt. E\ Greensboro NC 27405. (910) 375- 9554.

Bennett, Geb Museum of the Rockies\ Montana State University\ Bozeman MT 59717. (406) 994- 3170; e-mail troodon@iggy.oscs.montana.edu.

Bissette, Stephen P. O. Box 335\ Marlboro VT 05344. (802) 464- 7152.

Coyle, Leslie P. 27 Capen St.\ Windsor CT 06095. (203) 285- 0859.

Croft, Darin A. 5337 South Hyde Park Blvd., Apt. 406\ Chicago IL 60615- 5721. (312) 643- 2136; fax (312) 702- 0037; e-mail dacroft@midway.uchicago.edu.

Curtice, Brian 750 S. 650 W., #126\ Provo UT 84601. (801) 374- 2114.

de la Pena Zarzuelo, Antonio Natural History Museum\ The University of Kansas\ Lawrence KS 66045- 2454. (913) 864- 3216; fax (913) 864- 5335; e-mail vertpale@ukanvm.bitnet.

Doyle, Sean 98 Electric Ave.\ Somerville MA 02144. (617) 628- 9261; e-mail doyle@tiac.net.

Ellis, Georgiana 6309 Latona Ave., NE\ Seattle WA 98115. (206) 548- 4365; fax (206) 548- 4509; e-mail ellis@radonc.washington.edu.

Esteban, Graciela Irene Miguel Lillo 205\ San Miguel de Tucuman 4000\ Argentina. 054-081- 330633; fax 054- 081- 330633; e-mail julio@unt.mre.edu.ar.

Fastnacht, Michael Elsa- Braendstroemstraße 10\ Mainz 55124\ Germany. 00496131.

Feuk, Aaron Chandler 12A Chase Ln.\ Tacoma WA 98498. (206) 581- 1444; fax (206) 536- 5055; e-mail feukac@plu.edu.

Filkins, David M. 4955 Pintail Ct.\ Frederick MD 21701- 9505. (301) 227- 3236.

Fox, Marilyn 251/2 Saint Felix St.\ Brooklyn NY 11217. (718) 858- 1882.

Girard, Thomas M. 18073 E. Ohio Ave., Apt. 101\ Aurora CO 80017- 3477. (303) 751-6094; fax (303) 373- 5141.

Gloy, Uwe Agnesstraße 8\ D- 59320 Ennigerloh\ Germany. 49- 02524- 5662.

Grainger, Jeanne 5606 Hudson\ Côte St. Luc PQ H4W 2K4\ Canada. (514) 486- 9601.

Hadley, Craig 312 McBrien Rd., #236\ Chattanooga TN 37412. (615) 756- 2738; fax (615) 267- 9344; e-mail trowel.man@aol.com.

Hammond, Richard Paul 2 Grin Low Close\ Harpur Hill, Buxton\ Derbyshire SK17 9NR\ United Kingdom. 0298 72478.

Hirayama, Ren Faculty of Information\ Teikyo University of Technology\ 2289, Uruido\ Ichihara, Chiba 290- 01\ Japan. 0436- 74- 5511; fax 0436- 74- 2592.

Hoyle, B. Gary Rt. 4, Box 8015\ Gardiner ME 04345. (207) 287- 2301.

Hunt, Jeffrey M. 1276 E. Crystal Ave.\ Salt Lake City UT 84106. (801) 484- 9043.

Ivanov, Alexander Laboratory of Paleontology\ Institute of the Earth's Crust\ St. Petersburg University\ 16 Linija 29\ St. Petersburg 199178\ Russia. 812 239 6103; fax 812 2181346; e-mail anna@dean.geol.lgu.spb.su.

Jones, Ramal (Ray) 1813 E. Edgecliff Cir.\ Sandy UT 84092. (801) 581- 6141.

Jungers, William L. Department of Anatomical Sciences\ School of Medicine\ State University of New York\ Stony Brook NY 11794- 8081. (516) 444- 3122; fax (516) 444-3947; e-mail wjungers@epo.som.sunysb.edu.

Kalsch, Marci Rt. 1, Box 228\ Maupin OR 97037. (503) 328- 6243.

Kehrt, Bettie 5951 Colgate St.\ Philadelphia PA 19120. (215) 725- 8817.

Kolb, Robin Lee P. O. Box 2142 CS\ Pullman WA 99165. (208) 882- 8935.

Kordikova, Elena G. Institute of Zoology\ Akademgorodok 32\ Almaty 480032\ Kazakhstan. 3272281230; e- mail zool2.academ.alma- ata.su.

Kriwet, Jurgen Institut für Paläontologie\ FU Berlin\ Malteserstraße 74- 100, Haus D\ 12249 Berlin\ Germany. 0307792 273; fax 030 776 2070.

Krueger, Donna M. 7211 Dodge\ Warren MI 48091. (810) 757- 4776.

Lancaster, Troy E. Paleontological Research\ 107 Varuna Dr.\ Colonial Beach VA 22443. (804) 224- 1014.

Lanzendorf, John J. 200 East Delaware, Apt. 7E\ Chicago IL 60611. (312) 751- 1101.

Lawler, David Farwest Geoscience Foundation\ 48 Shattuck Square\ Berkeley CA 94704. (510) 549- 9694.

Lesser, Thomas The Dinosaur Society\ 200 Carleton Ave.\ East Islip NY 11730. (516) 277- 7855; fax (516) 277- 1479.

Lipka, Thomas R. 2733 Kildaire Dr.\ Baltimore MD 21234. (410) 426- 1880; e-mail tompaleo@aol.com.

MacLatchy, Laura Peabody Museum\ 11 Divinity Ave.\ Cambridge MA 02138. (617) 495- 5246; e-mail maclatch@husc3.harvard.edu.

Makovicky, Peter Royal Tyrrell Museum of Palaeontology\ P. O. Box 7500\ Drumheller AB T0J 0Y0\ Canada. (403) 823- 7707; fax (403) 823- 7131.

Mallatt, Jon Department of Zoology\ Washington State University\ Pullman WA 99164- 4236. (509) 335- 3553.

Maloney, Christian 502 Deer Creek Drive\ Plainsboro NJ 08536- 3208. (201) 267- 6445.

Marcot, Jonathan D. 438 E. Prince, #215\ Tucson AZ 85705. (602) 292- 2210; e-mail jmarcot@ccit.arizona.edu.

Maxwell, W. Desmond Department of Anatomy\ New York College of Osteopathic Medicine\ Old Westbury NY 11568. (516) 626- 6944.

McCoy Brown, Carol 3035 Kincaid Rd.\ Billings MT 59101. (406) 252- 8590.

Meers, Mason B. Department of Cell Biology and Anatomy\ Johns Hopkins University School of Medicine\ 725 N. Wolfe St.\ Baltimore MD 21205. (410) 955- 7145.

Morgan, Michele Department of Anthropology\ Harvard University\ 11 Divinity Ave.\ Cambridge MA 02138. (617) 495- 5246.

Nixon, David A. Trailside Museum\ UNSM\ P. O. Box 462\ Crawford NE 69339. (308) 665- 2929.

Norejko, Jay W. 5627 Mohawk Drive\ Bethlehem PA 18017. (412) 622- 3265; e-mail jwnst2@vms.cis.pitt.edu.

Olsen, Fred S. 1236 Madison\ Denver CO 80206. (303) 377- 4211.

Payne, Virginia L. 101 Magnolia Ave.\ Selinsgrove PA 17870. (717) 374- 4411.

Pellerin, Nicole M. Department of Biological Sciences\ CW- 315 Biological Sciences Bldg.\ Edmonton AB T6G 2E9\ Canada. (403) 492- 5408.

Polk, John Department of Anthropology\ State University of New York\ Stony Brook NY 11794- 4364. (516) 632- 7620; e-mail jpolk@ccvm.sunysb.edu.

Ramos, Colleen N. 5145 S. Yampa Circle\ Aurora CO 80015. (303) 680- 8196.

Raufus, Ingo Zingsheimstraße 34\ D- 53225 Bonn\ Germany. 228 478603.

Rauhut, Oliver Institut für Paläontologie\ FU Berlin\ Malteserstraße 74- 100, Haus D\ D-12249 Berlin\ Germany. 49- 30- 7792273; fax 49- 30- 7762070.

Reynoso, Victor H. 859 Sherbrooke St. W\ Montréal PQ H3A 2K6\ Canada. (514) 398-4085.

Rogers, Marja- Leena 2644 N. 650 E.\ Provo UT 84604. (801) 374- 2124.

Rybczynski, Natalia Biology Department\ University of Toronto\ Erindale Campus\ Mississauga ON L5L 1C6\ Canada. (613) 837- 7367.

Sabath, Karol Institute of Paleobiology\ Polish Academy of Sciences\ Al. Zwirki i Wigury 93\ PL 02- 089 Warsaw\ Poland. 00 48 2 6583890; e-mail paleo@asp.biogeo.uw.edu.pl.

Sachs, Sven Norfer Straße 9\ Dusseldorf 40221\ Germany. 011 49 211- 154456.

Saint- Onge, Rex W. P. O. Box 342\ 1625 Mission St.\ San Miguel CA 93451. (805) 467- 3710.

Sanders, Charles T. 2138 Melrose Ct.\ Norman OK 73069. (405) 321- 2397.

Senter, Philip Wingate College\ Box 2276\ Wingate NC 28174. (704) 233- 8856.

Sher Khan, Tanya 1058 Island Drive Court, Apt. #104\ Ann Arbor MI 48105. (313) 913-8884; e-mail tskhan@bioloby.lsa.umich.edu.

Smith, Joshua B. 67 Main St.\ North Orange MA 01364. (508) 575- 0144.

Smith, Robin Cambridge University Press\ 40 W. 20th St.\ New York NY 10011- 4211. (212) 924- 3900 x416.

Southwell, Elizabeth H. 2445 Mountain Shadow Lane\ Laramie WY 82070. (307) 745-8307; fax same.

Springhorn, Rainer Reinhold Am Rautenberg 15\ Northrhine- Westfalia\ D- 32760 Detmold\ Germany. 49- 5231- 48728; fax 49- 5231- 25699.

Staab, Gary T. 154 Pine Rd.\ Golden CO 80401. (303) 526- 5369; fax (303) 526- 5369.

Stroik, Frank 220 E. Wrightwood\ Addison IL 60101. (708) 834- 1077.

Stunkel, Werner L. 745 East Greenview Place\ Lake Forest IL 60045- 3222. (708) 234-5182.

Tidwell, Virginia A. 17290 E. Hamilton Ave.\ Aurora CO 80013. (303) 766- 3017; e-mail tidwell@ix.umich.edu.

Trask, Michael J. 1720 13th St., Apt. 6\ Courtenay BC V9N C6L\ Canada. (604) 334-1671.

Tsogtbaatar, Khishigjaw Paleontological Museum\ Academy of Science of Mongolia\ P. O. Box 46/1058\ Ulan Bator 46\ Mongolia. 976 1 367406.

Valsa, Warren 3335 Vernon Ave.\ Brookfield IL 60513. (708) 979- 4170.

Van der Meeren, Frans Liesveldstraat 10\ Tilburg 5045 XT\ The Netherlands. 13 711394.

Warren, Brent 140 Somershire Dr.\ Rochester NY 14617. (716) 342- 0410.

Wielgat, Bryan 761 W. Oakridge\ Ferndale MI 48220. (810) 544- 4309.

Willis, Paul 3 Wanda Cros.\ Berowrd Hts. NSW 2082\ Australia. 02- 456- 2930; fax 02-456- 2930.

Wilson, Yvonne M. 391/2 Lawn St.\ Pittsburgh PA 15213- 4228. (412) 682- 6226.

Wood, Brian Robert 1400 West Lincoln Hwy., Apt. #D- 9\ DeKalb IL 60115. (815) 758- 8528.

Wright, Brad 1369 E. Hyde Park Blvd., #507\ Chicago IL 60615. (312) 363- 0745.

Wunderlich, Roshna E. Department of Anthropology\ State University of New York\ Stony Brook NY 11794- 4364. (516) 632- 7620; fax (516) 632- 9347; e-mail rwunderl@ccvm.sunysb.edu.

ADDRESS CHANGES

Akers, Brian 20062 Coltsfoot Terrace, #302\ Ashburn VA 22011. (703) 787- 0686.

Albright, Barry L. Department of Earth Sciences\ University of California\ Riverside CA 92521. (714) 787- 5028; fax (909) 787- 4324; e-mail albrt@ucrac1.ucr.edu.

Alfaro, Michael Committee on Evolutionary Biology\ University of Chicago\ 1025 E. 57th St.\ Culvern Rm. 402\ Chicago IL 60637. (312) 702- 4697; fax (312) 702- 4699; e-mail malfaro@midway.uchicago.edu.

Alvarenga, Herculano M. F. Rua Colombia No. 99\ Taubate - CEP 12.030- 520 S.P.\ Brazil.

Ambrose, Peter 911 Garnet Street\ Kemmerer WY 83101. (307) 877- 4455; fax (307) 877- 4457.

Bailey, Bruce E. W- 436 Nebraska Hall\ University of Nebraska\ Lincoln NE 68588- 0514. (402) 476- 8921; e- mail beb@unlinfo.unl.edu.

Belinky, Karen E. 14320 Winchester Dr.\ Mojave CA 93501. (805) 824- 3407.

Bell, Christopher J. Museum of Paleontology\ 1101 Valley Life Sciences Building\ University of California\ Berkeley CA 94720-4780. (510) 642- 9696; fax (510) 642- 1822; e-mail chrisb@fossil.berkeley.edu.

Bell, Michael A. Department of Ecology and Evolution\ State University of New York\ Stony Brook NY 11794- 5245. (516) 632- 8574 x8600; fax (516) 689- 6682; e-mail mabell@life.bio.sunysb.edu.

Bertog, Janet Lynn Geology\ South Dakota School of Mines and Technology\ 4525 Candlewood Pl.\ Rapid City SD 57702. (605) 342- 5285; e-mail jlb7240@silver.sdsmt.

Bjork, Philip R. Museum of Geology\ South Dakota School of Mines and Technology\ 501 E. St. Joseph St.\ Rapid City SD 57701- 3995. (605) 394- 2467; e-mail pbjork@msmailgw.sdsmt.edu.

Borodin, Paul D. 144- 21 South Drive\ Malba NY 11357- 1010. (718) 523- 1100; fax (718) 526- 4943.

Brandon, Laura L. University of Illinois at Urbana- Champaign\ 2303 S. Goebbert Rd., Apt. 209\ Arlington Heights IL 60005. (708) 439- 6417.

Bray, Emily S. Museum Geology Section\ University of Colorado\ 3240 Wright Ave.\ Boulder CO 80301. (303) 492- 8069; fax (303) 447- 1152.

Breithaupt, Brent H. Geological Museum\ University of Wyoming\ Laramie WY 82071- 3006. (307) 766- 2646; fax (307) 766- 6679; e-mail uwgeoms@uwyo.edu.

Cartelle, Castor Instituto de Geociencias\ Universidade Federal de Minas Gerais\ Belo Horizonte\ Minas Gerais 31270 CEP\ Brazil.

Case, Judd A. Department of Biology\ St. Mary's College of California\ P. O. Box 4507\ Moraga CA 94575. (510) 631- 4412; fax (510) 376- 4027; e-mail jcase@stmarys- ca.edu.

Chef- Johansson, Ingela Inst. of Conservations\ Upplandsgatan 77\ Stockholm 11344\ Sweden. 46 8 159154.

Choo, Brian 2 Sierra Chase Leeming\ Perth WA 6149\ Australia. 332 1668; e-mail nauyong@acs.vwa.edu.au

Coates, Michael I. Department of Biology\ University College of London\ Medawar Building, Gower Street\ London WC1I 6BT\ United Kingdom. 0223 336613; fax 0223 336676; e-mail mic13@uk.ac.cam.phx.

Danis, Gilles Prehistoric Animal Structures, Inc.\ Box 502\ East Coulee AB T0J 1B0\ Canada. (403) 822- 2120; fax (403) 822- 2123.

Dooley, Jr., Alton C. 10950 Darryl Dr., Apt 10\ Baton Rouge LA 70815- 1802. (504) 388- 4777; e-mail adooley@unixl.sncc.lsu.edu.

Dozo, Maria Teresa Laboratorio de Paleontologia\ Centro Nacional Patagonico (Conicet)\ Boulevard Alte. Brown S/No.\ Puerto Madryn 9120\ Argentina. (54) (965) 51- 024; fax (54) (965) 51- 543; e-mail dozo@cenpat.edu.ar.

Finsley, Charles E. DMNH Field School\ Dallas Museum of Natural History\ P. O. Box 150349\ Dallas TX 75315. (214) 291- 9255; fax (214) 428- 4356.

Fistani, Anton B. Scient. Sctr. Human Paleo. and Prehistory\ Universiteti Shkodres Luigj Gurakugi Humane & Prehistorise\ Shkoder\ Albania.

Flynn, John E-mail: flynn@fmnh785.fmnh.org or flynn@fmnh.org.

Forst, Markus H. Zaehringerstraße 21\ 65189 Wiesbaden\ Germany. (49) 0611 719450.

Freudenthal, M. Nationaal Naturhistorisch Museum\ Raamsteeg 2, PO Box 951C7\ Leiden 2300 RA\ The Netherlands. 071- 143844.

Froehlich, David J. Vertebrate Paleontology Laboratory\ University of Texas at Austin\ J. J. Pickle Research Campus\ Austin TX 78712. (512) 471- 6088; e-mail goaw714@utxum.cc.utexas.edu.

Garcia, Daniel 8252 126th Ave. NE, #D301\ Kirkland WA 98033. (206) 822- 4921.

Gardner, Jim Department of Biological Sciences\ University of Alberta\ Biological Sciences Centre, Room CW405\ Edmonton AB T6G 2E9\ Canada. (403) 492- 1252.

Gillette, David D. Utah Geological Survey\ 2363 Foothill Drive\ Salt Lake City UT 84109- 1491. (801) 467- 7970; fax (801) 467- 4070; e-mail nrdomain.nrugs.dgillette@email.state.ut.us.

Girard, Thomas M. 18073 E. Ohio Ave., Apt. 101\ Aurora CO 80017- 3477. (303) 751- 6094; fax (303) 373- 5141.

Harken, Jan 32981 130th St.\ Cedar Falls IA 50613. (319) 266- 2929.

Hayden, Martha C. Utah Geological Survey\ 2363 South Foothill Drive\ Salt Lake City UT 84109. (801) 467- 7970; (801) 467- 4070; e-mail nrdomain.nrugs.mhayden@email.state.ut.us.

Herbel, Carrie L. Museum of Geology\ South Dakota School of Mines and Technology\ 501 E. St. Joseph St.\ Rapid City SD 57701. (605) 394- 2487; fax (605) 394- 6131.

Hooks, Ed Alabama Museum of Natural History\ University of Alabama\ P. O. Box 870340\ Tuscaloosa AL 35487- 0340. (205) 348- 9482.

Hubbard, Gina D. 7422 Corliss Ave N\ Seattle WA 98103. (206) 524- 9206.

Jerison, Harry J. Department of Psychiatry\ UCLA\ 503 W. Rustic Road\ Santa Monica CA 90402. (310) 454- 9553; fax (310) 454- 3325; e-mail ijc1hjj@mvs.oac.ucla.edu.

Johanson, Donald C. 1288 9th St.\ Berkeley CA 94710. (510) 845- 0333.

Kass, Michael Steven BYU Earth Science Museum\ 1683 N. Canyon Road\ Provo UT 84602. (801) 378- 3680.

Kimbel, William H. 1288 9th Street\ Berkeley CA 94710. (510) 525- 0500; fax (510) 525- 0668; e-mail whk@iho.org.

Kirkland, James I. Dinamation International\ 550 Crossroads Ct.\ Fruita CO 81521. (303) 858- 4388; fax (303) 858- 3532.

Kobayashi, Shoji Wakamatsu Girls High School\ 235- 2 Nengu- Machi\ Aizuwakamatsu, Fukushima 965\ Japan. 0240 26 2894.

Komarower, Patricia Department of Ecology and Evolutionary Biology\ Monash University\ Wellington Rd.\ Clayton VIC 3168\ Australia. (03) 905 4000; fax (03) 905 5613; e-mail patricia@monu1.cc.monash.edu.au.

Kuga, Naoyuki Kuramae 2- 1- 32- 602\ Taito- k Tokyo 111\ Japan. 81- 3- 3861- 8444.

Laurito Mora, Cesar A. Seccion de Paleontologia y Estratigrafia\ Direccion de Geologia y Minas Mirenem\ P. O. Box 10104- 1000\ San Jose\ Costa Rica. (506) 233- 2360; fax (506) 292- 0949.

Lee, Sue Y. Department of Biological Sciences\ Humboldt State University\ Arcata CA 95521. (707) 826- 3201; e-mail lees@axe.humboldt.edu.

Magwene, Paul Department of Organismal Biology and Anatomy\ 1025 E. 57th St.\ Chicago IL 60637. (312) 324- 4312.

Manabe, Makoto Geology\ National Science Museum\ 3- 23- 1 Hyakunin- Cho, Shinjuku- Ku\ Tokyo 169\ Japan. 81 3 3364 7116; fax 81 3 3364 7104.

May, Cathleen L. Paleoresources Management\ USDA Forest Service\ Rocky Mountain Region\ P. O. Box 25127\ Lakewood CO 80225. (303) 275- 5056; fax (303) 275- 5366; e-mail clmay@violet.berkeley.edu.

McCarroll, Steven M. Department of Geology\ Field Museum of Natural History\ Roosevelt Road at Lake Shore Drive\ Chicago IL 60605- 2496. (312) 922- 9410 x336; fax (312) 663- 5397; e-mail mccarrol@fmnh785.fmnh.org.

McCoy, Jerry 2307 Saxon St.\ Martinez CA 94553- 3347. (415) 432- 3195.

McCrady, Allen D. Idaho Museum of Natural History\ ISU Campus Box\ Pocatello ID 83201. (208) 529- 5721.

McGee, Elizabeth 200 Culver Hall\ The University of Chicago\ 1025 E. 57th Street\ Chicago IL 60637- 2745. (312) 702- 5360; fax (312) 702- 3219; e-mail emcgee@midway.uchicago.edu.

Meehan, T. J. Museum of Natural History\ University of Kansas\ Lawrence KS 66045-2454. (913) 864- 3262; fax (913) 864- 4540; e-mail vertpale@ukanvm.

Mikhailov, Konstantin E. Paleontological Institute\ Russian Academy of Sciences\ Profsoyuznaya Street, 123\ Moscow\ Russia. 7- 095- 339- 21- 22; fax 7- 095- 339- 06-22; e-mail kmikh@paleo.msk.su.

Miller, Ellen Department of Anthropology\ Washington University\ Campus Box 114\ St. Louis MO 63130. (314) 725- 5725.

Milner, Andrew R. Department of Biology\ Birkbeck College\ Malet Street\ London WC1E 7MX\ United Kingdom. 171- 630- 6252; fax 171- 631- 6246.

Milner, Andrew Robert Department of Earth Sciences\ Brock University\ 500 Glenridge\ St. Catharines ON L25 3A1\ Canada. (416) 423- 9046; e-mail am94ck@badger.ac.brocku.ca.

Milner, Angela Department of Paleontology\ Natural History Museum\ Cromwell Road\ London SW7 5BD\ United Kingdom. (011) 44 171 938 8727; fax (011) 44 171 938 9277; e-mail acm@nhm.ac.uk.

Okazaki, Yoshihiko Kitakyushu Museum of Natural History\ Yahatahigashiku 6- 1\ Nishihonmachi 3\ Kitakyushu 805\ Japan. (093) 661- 7503.

Otsuka, Hiroyuki Department of Earth Sciences\ Faculty of Science\ Kagoshima University\ Korimoto 1- 21- 35\ Kagoshima, 890\ Japan. (0992) 85 8139; fax (0992) 59 4720.

Patrick, Randy R. 9882 N. 100 E.\ Roachdale IN 46172. (317) 522- 1774.

Poyato- Ariza, Francisco J. Biologia (Unidad de Paleontologia)\ Universidad Autonoma de Madrid Cantoblanco\ Madrid 28049\ Spain. 34- 1- 3978141; fax 34- 1- 3978344.

Randall, Kesler A. Paleontology and Geology\ State Museum of Pennsylvania\ 3rd and North Streets, P. O. Box 1026\ Harrisburg PA 17108- 1026. (717) 233- 5732.

Richey, King A. State Museum of Natural History\ University of Nebraska\ Rm. W- 404 NH\ Lincoln NE 68588- 0514. (402) 488- 2615.

Rougier, Guillermo Department of Vertebrate Paleontology\ American Museum of Natural History\ Central Park West at 79th Street\ New York NY 10024-5192. (212) 769-5826; fax (212) 769- 5842; e-mail grougier@amnh.org.

Rowe, Timothy B. Geological Sciences and VP Labs\ University of Texas at Austin\ Austin TX 78712. (512) 471- 1725; fax (512) 471- 9425.

Rushforth, Robert J. 683 W. Longview Ave.\ Littleton CO 80120. (303) 978- 3459; fax (303) 978- 3661.

Safko, Thomas Eugene 331 Cedar Ln.\ Mount Joy PA 17552- 1207. (717) 653- 6881.

Sakamoto, Osamu Section of Geology\ Saitama Museum of Natural History\ Nagatoro 1417- 1, Chichibu- Gun\ Saitama 369- 13\ Japan.

Salvatore, David 27 Edgewood Ave.\ Larchmont NY 10538- 2302. (919) 636- 6269.

Sampson, Scott D. Department of Anatomy\ New York College of Osteopathic Medicine\ New York Institute of Technology\ Old Westbury NY 11568. (516) 626- 6944.

Sankey- Georgiev, Julia Department of Geology and Geophysics\ Louisiana State University\ Baton Rouge LA 70803. (504) 388- 4777; fax (504) 388- 2302; e-mail julia@aapg.geol.lsu.edu.

Scheetz, Rodney D. Paleo Museum of the Rockies\ 108C Paisley Ct.\ Bozeman MT 59715. (406) 994- 3170; e- mail rod@iggy.oscs.montana.edu.

Schleich, H. Hermann Institute for Paleontology\ University of Munich\ Richard Wagner Straße 10\ Münich L80333\ Germany. 089/520- 3278; fax 089/520- 3286.

Schneiderman, John 7640 S. 39 Ave.\ Bellevue NE 68147. (402) 733- 3571.

Schubert, Blaine W. Quaternary Studies Program\ Northern Arizona University\ P. O. Box 5644\ Flagstaff AZ 86011- 5644. (602) 525- 3753.

Schult, Mark F. University of Maryland\ Yongsan Education Center Unit # 15556\ APO AP 96205- 0614. E- mail umadk24@emh7.korea.army.mil.

Sheps, Jonathan Genetics\ Pontecorvo Building\ University of Glasgow\ 56 Dumbarton Rd.\ Glasgow G11 6NU\ Scotland.

Shimada, Kenshu Department of Biological Sciences (M/C 066)\ University of Illinois at Chicago\ 845 West Taylor Street\ Chicago IL 60607- 7060.

Storrs, G. W. Frederick & Amy Geier Collections and Research Center\ Cincinnati Museum of Natural History\ 1720 Gilbert Avenue\ Cincinnati OH 45202. (513) 345- 8500; (513) 345- 8501.

Timperley, Cinda 1121 N. 28th St., #6\ Lincoln NE 68503. (402) 472- 2657; e-mail vrtibr8@aol.com.

Todd, Nancy E. Geobiology\ George Washington University\ 206 N. Trenton St., Apt 1\ Arlington VA 22203. (202) 908- 0372; fax (202) 786- 2032.

Toomey III, Richard S. Geology\ Illinois State Museum Collections Center\ 1011 East Ash Street\ Springfield IL 62703. (217) 524- 7908; fax (217) 785- 2857; e-mail toomey@museum.state.il.us.

Treace, James T. 511 Haverhill Lane\ Safety Harbor FL 34695. (813) 572- 5555; fax (813) 572- 5444.

Trexler, David Lee Box 356\ Choteau MT 59422. (403) 286- 4896.

Uibreaslain, Seaghan General Delivery\ P. O. Box 152\ Thayne WY 83127. (307) 883- 2445.

Webb, Michael Geology Department\ University of Alberta\ 1- 26 Earth Sciences Building\ Edmonton AB T6G 2E3\ Canada. (403) 492- 1252.

Webb, S. David Vertebrate Paleontology\ University of Florida\ Florida Museum of Natural History\ Gainesville FL 32611- 2035. (904) 392- 1721; fax (904) 846- 0287; e-mail webb@flmnh.ufl.edu.

Whitmore Gillette, Janet 11114 South Lyndbrook Way\ Sandy UT 84092. (605) 394- 2487; fax (605) 394- 6131.

Witmer, Lawrence M. Department of Anatomy\ New York College of Osteopathic Medicine\ Old Westbury NY 11568. (516) 626- 6944 x6808; fax (516) 626- 6936; e-mail lwitmer@acl.nyit.edu.

Yarborough, Vicki Department of Geological Sciences\ SMU Box 750395\ Dallas TX 75275. (214) 768- 2696; fax (214) 768- 2701; e-mail yarbor@lust.isem.smu.edu.

NEWS FROM MEMBERS

CANADA

Provincial Museum of Alberta, Edmonton

The Quaternary Paleontology program has been recovering fossils from gravel pits in the Edmonton region for several years now. A large number of vertebrate remains of megafaunal species, as well as micromammalian remains (from wet- sieving) have been recovered. The carnivores, including *Arctodus, Panthera leo atrox,* and *Canis lupus*, have been published by Jim Burns and Rob Young (1994: *Canadian Journal of Earth Sciences*, 1(2):393 400), and the herbivores are in prep. The species list stands at about 20

taxa. Notable are the first proven Alberta records of *Arctodus* and *Megalonyx*. Other rare finds for this part of the country include *Bootherium, Camelops, Ovis canadensis* (rare for the northern Great Plains!), *Vulpes vulpes,* and *Lemmus sibiricus* (only the third published locality south of 60 N in North America). More gravel-pit monitoring this summer for technician Peter Milot! An important offshoot of these copiously dated finds, and others, is a paper outlining the arguments favoring a single (late Wisconsinan) Laurentide glaciation in central and southwestern Alberta by (Provincial Museum Research Associate) Rob Young et al. (1994: *Geology*, 22:683 686).

Jim has a paper in the Churcher festschrift on the mid- Wisconsinan prairie dog sites near Drumheller, Alberta. These sites contain the remains of *Cynomys niobrarius churcherii*, one of only two taxa named for Rufus. Harold Bryant also has a paper in the same festschrift concerning jaw mechanics of the Pleistocene sabre- toothed felid *Smilodon*. We join to wish Rufus and his wife, Bee, a fond farewell though hardly goodbye!

And while we like to play in the Quaternary overburden outdoors, we must come down to earth indoors on occasion. From September 30, 1995, to April 8, 1996, the Provincial Museum plays host to Dinamation's carnivorous dinosaur show which we have imaginatively billed CARNOSAURS! . Just as it begins, Jim may again be in China, fossicking for late Pleistocene extincta in archaeological context, as part of a continuing cooperative venture between the Province of Alberta and our Chinese sister province, Heilongjiang. Vacation? What vacation? (Jim Burns)

Redpath Museum, McGill University

After a hugely successful year and a half as a postdoctoral researcher at the Bernard Price Institute for Palaeontological Research at the University of the Witwatersrand in South Africa, David Dilkes returned to Canada in October of 1994 as a new postdoc of Robert Carroll at McGill University. He is grateful to Bruce Rubidge for offering him the opportunity and means to come to South Africa, and extends his thanks to the staff and students at the BPI for their hospitality and friendship. It was an exciting moment in the history of South Africa, and David was fortunate to have been present to witness the country's transition as people of all ethnic groups debated the future of the country and took part in its first multiracial election. David's South African work (when he was free from the seemingly endless media interviews about Jurassic Park !) was the redescription of the Early Triassic rhynchosaurs *Howesia browni* and *Mesosuchus browni* and a phylogenetic analysis of both *Rhynchosauria* and basal *Archosauromorpha*. One paper on *Howesia* has been accepted by *Palaeontology* and a second on *Mesosuchus* and archosauromorph phylogeny is nearing completion. Now at McGill, David has shifted his research back to amphibians and is working presently on caecilian jaw muscles as a possible guide for interpretation of the Kayenta caecilian *Eocaecilia*. He is also compiling a data matrix for a phylogenetic analysis of lissamphibians and early tetrapods.

Victor Hugo Reynoso continues his doctorate on the Early Cretaceous lepidosaurs from Tepexi de Rodrigues, central Mexico. Preliminary results will be presented this summer at the II Lithographic Limestone Symposium in Spain. A description of a new sphenodontian with bead- like dermal ossifications from the Tepexi de Rodriguez locality is ready for submission. Work is also continuing on the sphenodontian from the Huizachal Canyon, Mexico, with additional exciting results. When not occupied with Mexican sphenodontians, Victor has finished Bob Carroll's vertebrate paleontology course and identified from the Lower Carboniferous Horton Bluff locality five species of acanthodians, two paleoniscoids, several rhipidistian elements, and two humeri, two clavicles, and femur of a large anthracosaur. Dirk Meckert is immersed deeply in his doctoral work on the procolophonid *Barosaurus* and the phylogenetic relationships of parareptiles. Bob Carroll reports with a great sigh of relief that the volume of the Handbüch der Paläoherpetologie on *Lepospondyli* is now ready for submission. (David Dilkes)

Royal Ontario Museum

Chris McGowan, while on sabbatical this year, completed a study trip to England and Germany to look at more ichthyosaurs. Hans Sues spent three weeks in Morocco, this time prospecting the Cretaceous with Paul Sereno's group. Meanwhile Kevin Seymour was stuck at home, editing the Churcher festschrift (along with Kathyln Stewart at the Canadian Museum of Nature). It will have 30 contributions on Quaternary vertebrates from North America and Africa. The University of Toronto Press reports that the volume is on schedule, and will hopefully be out by the SVP meeting this fall.

A new exhibit entitled The Maiasaur Project The Life and Times of a Dinosaur opens at the ROM in mid- June. A brand new preparation lab in public view will be the highlight of the new show; the preparation of the maiasaur will take place entirely in this new lab. There will also be state- of- the- art, interactive multimedia exhibits, using the same hardware and software that was used in the film Jurassic Park. (Kevin Seymour)

Royal Saskatchewan Museum, Regina

John Storer and Allison Gentry are collecting two partial mosasaurs from the Bearpaw Formation (Campanian Maastrichtian) along Lake Diefenbaker. The area seems to be unusually rich in fossil vertebrates. Late May will feature work in the Cypress Hills near Eastend in the Eocene to Miocene section with Frank McDougall and, we hope, Jim Basinger and some of the University of Saskatchewan students. From June to August we hope to get in several trips to the Killdeer Badlands (Frenchman Formation, Maastrichtian).

Jennifer Rothecker (University of Saskatchewan) has defended an undergraduate research project on the Duchesnean possums from Lac Pelletier. She has found some interestingly intermediate features in the teeth, and has sorted out where some of the Chadronian species came from. Frank McDougall (University of Saskatchewan) continues to pile up stratigraphic data on his Chadronian fauna from the Horse Locality, and continues work on the mammals. He has converted his project into a Ph.D. thesis.

In January, the Eastend Fossil Research Station began operation with Tim Tokaryk, Wendy Sloboda, Melanie Vovchuk, and Joan Scott. Work is centering on preparation of bones of the new *Tyrannosaurus rex* and other recent finds from the Frenchman Valley. By the end of May the station will be open to the public so they can see preparation in progress. So far, the gang has begun the *T. rex*, opened up a *Basilemys* shell with partial skeleton, and started the articulated neck vertebrae of an elasmosaur (Bearpaw Formation) from near Pontiex. Staff will be out at the *T. rex* site by mid- June with IMAX crews, tours, and the weather to collect the remainder of the skeleton. Until then they will be prospecting the region for something completely different. Tim has done another revision of the manuscript on Cenomanian birds from the Pasquia Hills and hopes to set it free within a few months. (John Storer)

University of Toronto, Department of Zoology

C. S. Rufus Churcher has been preparing to move from the Department of Zoology, University of Toronto, where he has been since 1954, to British Columbia, where he and Bee will settle in July. Their new address will be: P. O. Box 94, Gabriola Island BC V0R 1X0, Canada. He intends to continue with many of his paleontological interests and expects to set up a small private workshop in which to keep specimens and references. Friends and visitors will be welcome; unfortunately no phone number is available at this time.

Rufus has been completing the editing of a volume on the Dakhleh Oasis, Egypt, which addresses the stratigraphic geology, geomorphology, recent flora and vertebrate fauna, fauna of the Neolithic from midden remains, Palaeolithic and Neolithic tool cultures, Pharaonic and Roman archaeological remains, and human osteology, among other topics. His report on the fauna from the Natufian level at Saaïdé II, Lebanon, is expected to appear in *Paléorient* vol. 20(2).

Hélène Dompierre has successfully defended her doctoral thesis entitled Observations on the diets of six Late Cenozoic North American camelids: *Camelops, Hemiauchenia, Palaeolama, Procamelus, Alforjas,* and *Megatylopus* at the University of Toronto. Her present address is RR #1, Ch. Plunkett, Farrellton PQ J0X 1T0, Canada.

Grant Hurlburt will soon defend his thesis which compares relative brain size in reptiles, birds, and mammals to fossil amniotes by means of three new Encephalization Quotients. (C. S. Churcher)

University of Toronto, Erindale College

Robert Reisz has just returned from Johannesburg where he presented a paper on *Elliotsmithea*, a varanopsid synapsid from the Karroo Beaufort series, at the South African Centennial Geocongress. He has returned with several *Pristerodon* skulls for comparison with the late Permian Russian toothy anomodont *Suminia getmanovi*. Diane Scott has been working hard at drawing, preparing specimens, and supervising Robert.

Sean Modesto is currently finishing his Ph.D. thesis on the anatomy, phylogeny, and evolutionary origin of mesosaurs. Several manuscripts on unrelated topics are near completion, including two papers on captorhinid reptiles, and a collaborative study (with Brian Moore) on the origin and evolutionary implications of herbivory in Permo Carboniferous tetrapods, and the evolutionary implications of terrestrial vertebrate herbivory. Brian has recently completed his preliminary analysis of diversity in modern terrestrial amniote herbivores, and two unrelated papers on Neotropical bats.

Michael deBraga hopes to defend by the fall of 1995. His paper on a new diapsid reptile from the uppermost Carboniferous (Stephanian) of Kansas is in press, and should be in volume 38(1) of *Palaeontology*. A paper on the Permian reptile *Acleistorhinus* has been submitted to *JVP*. Michael has spent some time traveling to kindergartens and grade schools talking to kids about science, and of course, dinosaurs. Recently he has designed a course focusing on natural history to introduce mature students to basic concepts of biological as

well as geological evolution. It is hoped that this course will improve the attitude of many individuals concerning evolution and the implications of the past on the future.

Now that her teaching assistantships are finished, Catherine de Almeida is concentrating on writing up her M.Sc. thesis, which is in the final stages and should be complete within the next couple of months. The thesis examines the atlas axis complex of the Eupelycosauria and other Permo Carboniferous tetrapods.

A new graduate student, Natalia Rybczynski, is studying the cranial morphology of *Suminia getmanovi*. She has nearly completed the reconstruction, and will soon begin working on the jaw mechanics. Preparation of an *Ianthasaurus* specimen from the Garnett Locality in Kansas is also underway. She has recently submitted a manuscript with Diane Gifford- Gonzalez and Kathy Stewart on the ethnoarchaeology of Lake Turkana reptiles and will soon begin working on a paper with Dick Harington on Pliocene lagomorphs. (Natalia Rybczynski)

FRANCE

Laboratoire de paléontologie, Université de Montpellier II

Jean-Pierre Aguilar poursuit ses travaux sur les rongeurs néogènes du Sud de la France. Une nouvelle faune découverte dans le Roussillon permet d'établir une corrélation mammalogique entre les sites de Sansan et de Manchones; par ailleurs de nouvelles localités dans les Alpes de Haute Provence vont permettre de proposer de nouvelles corrélations entre les gisements néogènes de Français et d'allemagne. Jean-Pierre et Jacques Michaux ont montré l'importance des lignées évolutives de rongeurs en remettant en cause les résultats obtenus par la méthode des grades-datations; ce travail, sous presse, a été présenté au le Congrès de Stratigraphie de Toulouse. Un travail sur le datum à Proboscidien mené en collaboration avec J.-L. Welcomme, G. Clauzon, H. Maluski, et Jacques a amené a retravailler sur le gisement de Beaulieu. Ceci a permis de trouver de nouveaux niveaux à micro- et macromammifères qui vont faire l'objet d'une étude détaillée. Ces niveaux dont les relations avec le volcanisme sont à présent bien établies ainsi qu'une nouvelle datation Ar/Ar font de ce gisement de Beaulieu un repère important pour la fin du Miocène ingérieur.

Mouloud Benammi poursuit son travail de thèse sur les mammifères et les datations de formations continentales néogènes du Maroc (Bassin des Aït Kandoula et Bassin de Missour). La publication des données sur les deux bassins sont sous presse. Une étude magnétostratigraphique est entamée dans le bassin des Aït Kandoula; vu la qualité de désaimantation des premiers échantillons, il a effectué trois coupes dans ce bassin au cours de sa dernière mission (Mars 1995). La présence d'espèces européennes des genres *Occitanomys* et *Prolagus* dans l'un des deux nouveaux gisements découverts, atteste encore l'existence au Miocène terminal d'échanges fauniques entre l'Afrique et l'Europe sud-occidentale.

Cécile Blondel a mis la dernière main à la préparation d'un papier général sur les ruminants de l'Oligocène d'Europe. Elle poursuit ses travaux sur le groupe, s'interessant entre autre au fonctionnel dentaire chez ces animaux. D'autre part, elle a continué les analyses isotopiques de l'émail dentaire chez de nombreux ongulés, espérant par cette approche, avoir quelques informations sur les variations climatiques de la fin de l'Eocène et du début de l'Oligocène.

L'équipe de François Catzeflis a bénéficié de nouveaux locaux, offrant maintenant une surface de laboratoire dans laquelle travaillent Pascale Chevret, Emmanuel Douzery, Jean-Yves Dubuisson, Catherine Hänni (à temps partiel), Anne Lavergne, Claudine Montgelard, et Patricia Sourouille. Les faits marquants de 1994 sont les soutenances de thèse de P. Chevret (Phylogénie des Muridae africains et asiatiques), E. Douzery (Phylogénie des Ongulés), et C. Hänni (Contribution de l'ADN ancien). Tour trois sont en post-doc local, complétant les données expérimentales de leut thèse. C. Montgelard étudie les relations évolutives d'hippopotames actuels et fossiles, dont du matériel insulaire, et cherche à amplifier des fragments d'ADN mitochondrial préservé dans les os anciens. P. Sourouille a acquis de nombreuses séquences d'un gêne mitochondrial-12S rARN-chez les rongeurs muroidea, en collaboration avec C. Hänni, et en formant un étudiant en DEA qui a montré que les Nesomyidae malgaches étaient monophylétiques.

J.-Y. Dubuisson poursuit sa thèse visant à établir une phylogénie moléculaire des fougères Hymenophyllacae pour comprendre les phénomènes de convergence/parallélisme des morphotypes dur plusieurs continents. A. Lavergne a terminé son DEA consacré à l'acquisition des séquences moléculaires chez *Elephas, Macroscelides*, et *Orycteropus*. Son travail ainsi que celui d'E. Douzery nous permettent de confirmer la notion monophylétique des Paenungulata, et de discuter la phylogénie de Tubulidentés et Macroscelidés. C. Hänni a poursuivi ses recherches sur l'ADN d' *Ursus spelaeus*, réussissant à séquencer un deuxième individu fossile, ce qui ajoute un critère supplémentaire d'authenticité aux séquences obtenues. F. Catzeflis a essayé d'acquiérir en 1994 des données expérimentales au laboratoire mais n'a pas réussi, faute de temps.

Christaine Denys a poursuivi en 1994 l'étude des rongeurs africains du Plio-Pleistocène, en décrivant en particulier du matériel complémentaire de Langebaanweg, Isenya, et Olduwai, et en discutant la phylogénie des Dendromurinae (*Bonn. zool. Beitr.*, in press). Le travail dur les muroidea modernes d'Afrique (à partir de la morphologie crânienne et dentaire) est en cours; des publications ont été consacrées aux genres *Aethomys* (diet and dental morphology published in *Acta Theriologica* 39(4):357 364, 1994) et *Praomys* (Chevret et al., 1994, *J. Linnean Soc.*). Sur le plan de la taphonomie, Christaine s'est impliquée dans l'étude des modifications des os survenus au cours de la digestion et de la diagénèse. Elle collabore avec le groupe montpelliérain sur le programme de taphonomie des remplissages karstiques éo-oligocènes des phosphorites du Quercy.

Stéphane Ducrocq est en séjour postdoctoral à Stuttgart, où il profite des collections pour poursuivre l'étude des anthracotheridés. Marc Godinot s'est retrouvé en octobre 1994 coorganisateur de la réunion de la Société Francophone de Primatologie, à Montpellier. Il s'occupe des manuscrits pour le volume spécial de *Palaeovertebrata* en l'honneur de D. E. Russell. Marc trouve que ses étudiants aussi lui prennent beaucoup de temps: Denis Corcella fait un DEA sur les mains de Primates; Richard Verdier continue à faire du fonctionnel dentaire, et un article est en préparation avec Karen Apriletti. Du coup il n'a pu avancer ses propres recherches depuis plus de six mois! Marc ne trouve pas le temps de ranger son bureau, alors qu'il va effectivement partir à Paris en octobre prochain (nouvelle adresse: Institut de Paléontologie, 8 rue Buffon, 75005 Paris). Il a fait récemment deux conférences à Montpellier sur l'évolution, la création et l'origine de l'homme: le point de vue d'un scientifique chrétien; elles ont eu du succés. Il est très excité à l'idée de peutêtre partir bientôt au Kirghiztan avec A. Averianov.

Après deux ans d'activité administrative au service des musées d'histoire naturelle, Jean-Louis Hartenberger est à nouveau paléontologue à plein temps. Il constate à son retour au Laboratoire que les choses ont changé. La paléontologie fondamentale n'est plus une priorité pour le Directeur. Aussi la recherche de nouveaux fossiles en France ou ailleurs n'est plus à l'ordre du jour sauf pour un membre du groupe de Montpellier. En attendant des jours meilleurs Jean-Louis achève les études sur les rongeurs de l'Eocène de Mongolie que D. Dashzeveg lui a confiés, et il espère de la Communauté Européenne l'autorisation (et les subsides) pour se rendre sur le terrain dans cette contrée lointaine. D'autres rongeurs de l'Eocène inférieur, du beau pays de France cette fois, sont aussi en

examen, et pour quelques uns d'entre eux, il a relevé des indices de parent avec les nouvelles formes mongoles.

Malgré des conditions actuelles peu propices à la recherche dans le laboratoire, Serge Legendre poursuit les travaux sur les phosphorites du Quercy avec les collègues du labora-toire. Dans ce cadre, une nouvelle faune proche de la Grande Coupure vient d'être signalée (Géologie de la France, 1995). Il continue également les analyses sur les relations entre mammifères et environnements. Dans ce cadre, il participe en collaboration avec Sophie Montuire, Jacques Michaux, et Jean-Pierre Aguilar à l'élaboraation de modéles de prédiction climatique. Serge signale que les actes de ITC 5 (5th International Theriological Congress qui s'est tenu en 1989 à Rome) sont enfin parus dans *Historical Biology* (1994, vol. 8)!

Jean-Noël Martinez, dans le cadre de sa thèse consacrée aux problèmes de corrélation dans le Miocène continental d'Europe occidentale, met au point une méthode de classement chronologique des gisements inspirée des procédures de parcimonie. Ceci a fait l'objet d'une communication au Congrès Français de Stratigraphie de Toulouse en septembre 1994, ainsi que d'une publication au *Bulletin de la Société géologiquee de France*. Cette méthode doit être perfectionnée et ses limites précisées dans les mois qui viennent (communications à l/E.U.G., Strasbourg; Congrès du Néogène méditerranéen en septembre). Elle devrait être mise en parallèle avec la méthode des associations unitaires (note sous presse en collaboration avec Jean Geux, Lausanne). L'étude de morphologie comparative des astragales d'artiodactyles primitifs, qui avait fait l'objet de son DEA, doit être publiée dans *Lethaia*.

Jacques Michaux poursuit avec ses collègues espagnols (N. Lopez Martinez et des chercheurs du Musée archéologique de Santa Cruz de Tenerife) et allemands (Ranier Hutterer) l'investigation des rongeurs endémiques des îles un peu avant JC. S'interessant à l'origine de la sous-famille des Murinae et aux problèmes soulevés par la confrontation entre les résultats de la biologie moléculaire et de la paléontologie. Il espère terminer bientôt un travail commencé avec Christiane Denys, il y a maintenant un peu trop longtemps. Un autre aspect de ses activités s'est traduit par une collaboration avec Serge Legendre, Jean-Pierre Aguilar, et Sophie Montuire, relative à l'exploitation des faunes mio-pliocènes en vue de la restitution des environnements de cette période.

Le 30 novembre 1994, Sophie Montuire a soutenu sa thèse intitulée Communautés de mammifères et environnements: l'apport des faunes aux reconstitutions des milieux en Europe depuis le Pliocène et l'impact des changements climatiques sur la diversité. Dans ce cadre, de nouvelles méthodes de quantification des paramètres climatiques en utilisant les rongeurs ont été développées, en collaboration avec Serge Legendre, Jacques Michaux, et Jean-Pierre Aguilar. Deux premiers modèles ont été construits avec deux sous-familles de rongeurs, les murinés et les arvicolinés. Différents articles sur ce sujet ont déjà été soumis. Dans le cadre des prospections des phosphorites du Quercy de l'équipe de Paléontologie, elle étudie plusieurs faunes quaternaires. Sophie espre fair un post-doctorat sur l'étude des faunes de Riversleigh avec l'équipe du Professeur M. Archer (Université de New South Wales, Sydney, Australie). Un autre projet est un cours avec la

fondation Humboldt. Elle a récemment participé au Congrès Okéanos à Montpellier sur la Méditerranée, variabilités climatiques, environnements et biodiversité, et elle espère pouvoir se rendre au congrès de l'INQUA se déroulant à Berlin en août prochain.

Rajeev Patniak de l'Université de Chandigarh est maintenant au laboratoire depuis décembre 1994. Au cours de son séjour dans notre Institut, il étudie les muridés gerbillinés du Pliocène des Siwaliks.

Jean Albert Rémy a participé au dégagement des fossils d'un nouveau gisement du nord de la Limagne (Massif Central) dans lequel il se trouve particulièrement impliqué puisque ce matériel est constitué pour 95% de *Palaeotherium* et *Plagiolophus*. Jean Albert a découvert par ailleurs, dans la formation de Célas, un banc gréseux très consolidé qui lui a livré, grace au concours de quelques bonbonnes d'acide acétique, une faunule de vertébrés avec déjà, entre autres fossiles interessants, deux magnifiques crânes de Paléotheriidés. Il a décrit aussi avec A. Bonnet une molaire de mastodonte découvert dans la molasse langhienne de Vers à proximité du célèbre Pont-du-Gard.

Pendant l'année écoulée Bernard Sigé a poursuivi ses activits de terrain dans la Paléogène ancien de France, stratifié et kartsique. Un des nouveaux résultats est la datation mammalogique (MP 30) du Calcaire à Helix ramondi qui scelle les remplissages du Quercy (sous presse). De juin à août 1994, Bernard a été l'hôte choyé de l'Université de New South Wales à Sidney. D'abord initié aux conditions de gisement et de fouille des richissimes localités de Riversleigh, il a ensuite collaboré avec Sue Hand, Henk Godthelp, et Mike Archer sur différents thèmes, notamment les relations d' *Australonycteris clarkae* de Murgon au sein des chiroptères de l'Eocène ancien, et aussi certains èchanges fauniques entre l'Australie et l'Amérique du Sud. Ce séjour au sein d'une équipe enthousiaste et chaleureuse, assumant pleinement son identité paléontologique, fut un ballon d'oxygène professionnel, par contraste avec une ambiance domestique fortement dégradée.

Jean Sudre a effectué durant l'été 1994, une campagne de fouilles avec B. Marandat et J. Y. Crochet sur le gisement lutétien d'Aumelas; si de nombreux restes de périssodactyles ont été découverts (*Lophiodon* et *Propalaeotherium*) rares ont été les artiodactyles. A la demande d'un géographe (J. L. Melous), Jean est intervenu avec Monique Vianey-Liaud sur un nouveau gisement à *Palaeotherium* et *Anoplotherium* du Nord de la Limagne. Sa collaboration avec Jörg Erfurt (Halle) se poursuit et se traduit par deux publications, à paraître dans le volume de *Palaeovertebrata* en l'honneur de D. E. Russell: l'une est consacrée aux artiodactyles (plus diversifiés que prévu) du gisement yprésien supérieur de Prémontré; l'autre à la révision de certaines formes du Geiseltal. Ces travaux menés conjointement ont conduit à identifier une nouvelle sous-famille européenne de Dichobunidae, qui montre de nombreuses convergences avec les homacodontidés d'Amérique du Nord. Jean ne délaisse pas pour autant les ruminants de l'Oligocène, puisqu'un papier annonçant pour la première fois la présence de très petits gelocidés (du groupe *Pseudogelocus/Paragelocus*) dans le Sud de la France est à peu près terminé; Jean

a eu l'agréable surprise de voir publiés, les restes d'un Théropode récolté il y a une trentaine d'années dans le Crétacé inférieur du Gard (B. P. Pérez-Moreno, J. L. Sanz, J. Sudre, et B. Sigé; *Revue de Paléobiologie, Genève*). Il collabore en ce moment avec E. Geerbrandt (Paris VI) à la description d'un fossile africain du Paléogène ancien.

Monique Vianey-Liaud a vu l'achèvement (tardif) de l'article consacré à la nouvelle hypothèse sur l'origine des rongeurs africains Graphiurinae et Anomaluridae. Ces rongeurs pourraient avoir une origine commune, parmi les Zegdoumyidae de l'Eocène inférieur d'Algérie. Quelques semaines de répit dans les tâches d'enseignement et d'administration sont mises à profit pour terminer une publication commune sur les Archaeomyini (rongeurs Theridomyidae) avec Clemens Mödden, de Mainz et Bâle, ainsi que l'étude de nouveaux matériels des phosphorites du Quercy (inépuisables!), qui devraient apporter des éléments nouveaux sur l'origine de des Theridomyinae hypsodontes. L'étude des coquilles d'oeufs de dinosaures du Crétacé supérieur se poursuit, avec notamment l'achèvement imminent de l'article sur les coquilles récoltées par B. Sigé au Pérou, en collaboration avec lui, K. Hirsch

et A. Sahni. Avec Géraldine Garcia, l'étude des coquilles du Bassin d'Aix en Provence connaît de nouveaux développements.

Jean-Loup Welcomme participe à l'étude du gisement de Beaulieu avec Jean-Pierre, Jacques, et Georges, en Provence. D'ores et déjà, la découverte de nouveaux taxons (cervidés à bois et carnivore) montre qu'il s'agit d'un gisement exceptionnel tant donné le petit nombre de localités fossilifères de cet âge. D'autre part, J.-L. Welcomme a participé à pénétrer un territoire resté longtemps inaccessible à toute prospection paléontologique. Des résultats très importants, tant géologiques que paléontologiques sont attendus de l'étude du matériel récolté dans le Miocène inférieur et moyen de la région des Bugti Hills. (Jean Sudre)

GERMANY

Institut und Museum für Geologie und Paläontologie, Universität Tübingen

Tübingen vertebrate paleontologists are awaiting the imminent appearance of the latest booklet based on the institute collections. Meeres- und Süsswasserreptilien im Geologisch-Paläontologischen Institut der Universität Tübingen is edited by F. Westphal and A. Liebau, and includes contributions from A. Hungerbühler (phytosaurs, ichthyosaurs), T. Lingham-Soliar (mosasaurs, nothosaurs, plesiosaurs), M. Maisch (mesosaurs), F. Stein (placodonts), and F. Westphal (marine crocodiles).

Wolf-Ernst Reif and Theagarten Lingham-Soliar are currently studying two new Holzmaden ichthyosaur specimens. Their recent preparation by Rolf Hauff has revealed some very interesting soft tissue preservation. Prof. Reig is embarking on his sabbatical by also completing a study of the dentition of the placodont *Henodus*. This builds upon

the diploma research of Friederike Stein, and the discovery of a row of odontologically intriguing and previously overlooked incisors.

Theagarten Lingham-Soliar has spent his Royal Society fellowship working on functional and biomechanical studies of locomotion and feeding in large Mesozoic marine reptiles. His papers on the K/T event, on the mosasaurs *Mosasaurus, Plioplatecarpus,* and *Angolasaurus*, and the first report of mosasaurs from Zaire have all appeared recently. Additionally, manuscripts in review include taphonomic evidence for fast tuna-like swimming in ichthyosaurs (with W.-E. Reif) and an in-depth reassessment of plesiosaur locomotion. He is presently working on material in Russia and Sweden as part of the continuation and extension of his biomechanical research.

Ranier Schoch has commenced his Ph.D. research by initially focusing on an osteological revision of *Mastodonsaurus*, based largely on material from Kupferzell. He also hopes to address wider questions of amphibian evolution, building on his previous work on cranial heterochronics and a monograph on the comparative ontogeny of Permian branchiosaurids from southwestern Germany.

Michael Maisch has been working on dicynodonts from the Permian of east Africa

completing a manuscript on *Diictodon* from Tanzania, and starting his diploma thesis on the osteology and functional morphology of *Rhachiocephalus*. He has also been working on fish and reptile taphonomy with Axel Hungerbühler (now at Bristol), as part of a study conducted with Wolf-Dieter Junghans on the sedimentology and paleoecology of the Stubensandstein.

David Gower has recently moved here on a Royal Society European exchange fellowship after completing his Ph.D. at Bristol. He has been putting the finishing touches to papers based on his thesis research, with manuscripts on early archosaur ankles and braincases already submitted, and a monograph on *Erythrosuchus* soon to follow. He has now started to work on rauisuchian morphology making use of German, South American, and African material in Tübingen, Stuttgart, and Münich, and using this as a base from which to extend his investigation of early archosaur phylogeny. He is also continuing collaborative work with Andrei Sennikov (Moscow) on a number of Russian archosaur projects, and with Glenn Storrs (Cincinnati/Bristol) on *Pachystropheus* and some North American archosaur material.

Tim Jones, who has been working as a Humboldt fellow in association with V. Mosbrugger's SFB-funded paleoclimatology group, has broadened his extensive isotope research to include an investigation of the oxygen isotopic composition of Oligocene/Miocene shark teeth from marine incursions in the molasse of southern Germany. Several interesting problems surround this work as a result of the restricted nature of the basins and the incomplete knowledge of factors such as the water temperatures and shark lifestyles.

Finally, Professor Frank Westphal is to retire this year. We would like to take this opportunity to wish him an enjoyable retirement, and to thank him on behalf of the many visitors to the institute museum, as well as his colleagues and students, that have all benefitted from his considerable hospitality, help, and encouragement over the years. (David Gower)

INDIA

Geological Studies Unit, Indian Statistical Institute

The members of the Geological Studies Unit were shocked to learn about the sad demise of Dr. Pamela Lamplugh Robinson on 24 October 1994 [obituary in this issue]. Dr. Robinson founded the Geological Studies Unit in 1957 at the invitation of the then Director, Dr. P. C. Mahalanobis. Since its inception, she single-handedly guided the Unit and her painstaking effort helped to build a small but thriving center of geological research in India including a well-knit group of vertebrate paleontologists. Initially started with two research students, the VP group has now moved to the second generation. Her contribution to Indian geology and vertebrate palenotology will long be remembered by the geological and paleontological fraternity.

Tapan Roy Chowdhury retired this year after serving the Institute for 37 years. Incidentally, Tapan is Pamela's first Indian student who in turn has also produced several students who are at present pursuing the VP program initiated by Pamela. However, Tapan often drops in and discusses research problems with the VP group. Besides, he also teaches vertebrate paleontology and evolution in other city universities.

Saswati Bandyopadhyay has finished a manuscript on a new Indian titanosaurid along with S. L. Jain and is putting final touches to the illustrations. She and T. S. Kutty have started working on the cistecephalids of India; they are also working on and exploring the Permian and Triassic red beds of Satpura Gondwana basin.

The VP group with its reduced strength due to recent retirements was pleased to welcome Dhurjati Sengupta who joined the group as a faculty member this year. His interest in temnospondyls has inevitably drawn him to Triassic vertebrate biochronology. His paper on two Indian chigutisaurids from the Late Triassic of India will appear in *Palaeontology*, Volume 38, 1995. Dhurjati, who got married last year, has recently become the proud father of a son.

Kasturi Sen (nee Dasgupta) will be receiving her Ph.D. in the next convocation. She is finalizing two manuscripts on the Triassic archosauromorphs of India in the middle of her busy schedule with her ten-month-old son. Sanghamitra Ray has started working on the endothiodonts of the PG valley. During the past couple of years she has been to the Satpura Gondwana basin more than once exploring the Permian red beds for fossils and trying to understand the depositional environment. (S. Bandyopadhyay)

UNITED STATES OF AMERICA

Northeast Region

Calvert Marine Museum, Solomons, Maryland

Since our last report, CMM received a major NSF grant for our new Miocene paleontology exhibit. Combined with a bond bill grant from the State of Maryland, other smaller grants, fundraising events, and many individual donations, we've now secured the funding needed to open the new fossil hall by late fall 1996. Much of the work is being carried out by in-house staff, including our full-sized skeletal reconstruction of the giant fossil shark *Carcharodon megalodon*. Two other skeletal mounts the long-snouted dolphin *Eurhinodelphis*, and the false-toothed bird *Pelagornis* are being done by Connie Barut-Rankin; we are very grateful to the Smithsonian for allowing us to use their molds to produce these two mounts.

In addition to directing work on the new exhibit, Mike Gottfried is keeping involved in research projects. These include examining the otic region of Miocene shark crania, a paleopathology project with Sue Dawson (at Cornell) involving the large Miocene dolphin *Hadrodelphis*, and ongoing work on Late Cretaceous fishes from Madagascar in collaboration with Dave Krause. A paper on Miocene basking sharks will be out in the next *JVP*, and Mike recently completed (with Leonard Compagno at the South African Museum) contributions on fossil and living Great White Shark skeletal anatomy, size, and scaling for an upcoming volume of collected papers.

CMM jsut added an additional Spacesaver mobile storage unit to our collections storage area our original Spacesaver system installed less than two years ago is now almost filled. The new unit will accomodate additional expansion of the collection, which now numbers ca 15,000 catalogued specimens. If you have a potential interest in Miocene marine vertebrates and/or invertebrates, please contact Mike; the collection records are now fully entered into our computer database and easily accessible. (Mike Gottfried)

Carnegie Museum of Natural History, Pittsburgh, Penna.

At a recent news conference, Mary Dawson and CMNH Director Jim King formally announced plans for the long-anticipated renovation of Dinosaur Hall. Detailed planning will begin this summer, and additional personnel to work on the revamped exhibit will be hired over the next year. Current plans call for redesigning the entire 6,000-square-foot Dinosaur Hall. A highlight will be the remounting of our skeleton of *Tyrannosaurus rex* in a more active pose. Several new specimens will be added to the display, and the educational content of the entire exhibit will be upgraded. Dinosaur Hall has always been the centerpiece of Carnegie Museum of Natural History and will remain open throughout

the construction period so that visitors can witness the evolution of the new hall. The renovation of Dinosaur Hall is made possible through the generosity of the Scaife Family Foundation. The entire project is scheduled to be completed by late 1997 or early 1998.

Mary Dawson and Chris Beard recently departed (May 2) for a second field season in the Yuanqu Basin of China. Mary and Chris will again be investigating the soon-to-be-flooded Heti Formation sites with IVPP colleagues Tong Yongsheng, Wang Jinwen, and Huang Xueshi, and John Kappelman and Wulf Gose of the University of Texas. John and Wulf will continue measuring stratigraphic sections and looking for those elusive black and white stripes. Initial results from their magnetostratigraphic studies look very promising. This is Chris's second trip to China this year. In February and March, Chris and Qi Tao explored South China, finding some extraordinarily interesting specimens at localities in Guangxi Province.

After their return, Chris will lead a crew to the very productive Clarkforkian Big Multi Quarry in the Washakie Basin, and later in the summer Mary will join Kurt, Norm, and Leona Constenius for more work in the Kishenehn Formation of northwestern Montana.

Dave Berman has been busy. He reports that at long last the monograph describing the skull and atlas axis complex of *Camarasaurus*, which he has been working on since 1983 with Jim Madsen and Jack McIntosh, is finally in press and will be out this year in the *Bulletin of Carnegie Museum of Natural History*. On the late Paleozoic front, several projects are in various stages of completion: the cranial anatomy and relationships of the Early Permian pelycosaur *Varanosaurus*, with Robert Reisz, John Bolt, and Diane Scott, is in press in the *Annals of Carnegie Museum* ; biostratigraphic correlation between the Lower Permian of North America and central Europe based on a vertebrate assemblage from near Gotha, Germany, with Stuart Sumida and Thomas Martens, is in press in *PaleoBios* ; and a description of new cranial material of the rare diadectid *Desmatodon hesperis* from the Late Pennsylvanian of central Colorado, with Stuart Sumida, has been submitted to the *Annals of Carnegie Museum*. Dave, Stuart, and Amy Henrici will travel to Germany in July and August to continue work with Thomas Martens at the Early Permian Bromacker Quarry near Gotha. Several excellent specimens of *Diadectes*, a trematopsid amphibian, a possible protorothyridid reptile, and a possible ophiacodontid pelycosaur from the Bromacker site are currently being described or prepared.

After completing work at Gotha, Amy Henrici will travel to Bonn and Prague to look at Tertiary frogs. Amy is busy preparing a Permian reptile from the Bromacker locality and Eocene mammals from the Wind River Formation of Wyoming. She recently finished mounting a skeleton of *Hyracotherium* which is now on display in our horse exhibit, replacing the old cardboard cutout. Research continues on the *Xenopus* from Yemen.

Don Baird and Bob Hook continue episodic collecting on the coal heaps at Five Points, Ohio. Recent collecting has not produced any additional taxa. The tally still stands at 15 genera of fishes and 15 of amphibians. However, with hundreds of tons of fossiliferous sediment still to be processed, the flow of fragmentary labyrinthodonts, lepospondyls, and lungfishes remains undiminished. Loxommatids, even!

As many of you know, Leonard Krishtalka will be leaving Carnegie Museum at the end of June to become Director of the University of Kansas Museum of Natural History. We wish Kris the best in his challenging new job. Our loss will be KU's gain.

We look forward to hosting SVP this fall and hope that as many of you as can will come to Pittsburgh, one of America's most liveable cities. (Alan Tabrum)

Howard University, Washington, D.C.

Dr. Sunil Bajpai from India spent a couple of months this winter at the Smithsonian, which gave Daryl Domning the chance to collaborate with him on repreparation and redescription of an important sirenian skull from the early Miocene of Kachchh (Kutch). It turns out to be the first fossil dugongine positively identified east of Suez, and adds to the growing evidence of that group's former diversity, cosmopolitan range, and importance especially in late Oligocene and early Miocene times.

Daryl's National Geographic-supported field project in Jamaica continues to produce bones of *Prorastomus*, the most primitive known sirenian. This February's expedition collected several skull parts and appendicular elements in addition to numerous vertebrae and ribs of this quadrupedal Eocene seacow and most of the jackets have yet to be opened! Preliminary appraisal of the bits so far prepared suggests that the beast was convergent in its style of swimming on primitive whales like *Ambulocetus* or *Rodhocetus* i.e., it used simultaneous hind-limb paddling rather than tail propulsion.

Ray Bernor is preoccupied with the Rudabanya (Hungary) project (not to mention a newborn son in the house!), but neither he nor Taseer Hussain has had time to provide further details. However, both are frequently sighted in this area, usually moving at high speed. (Daryl Domning)

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

Things have been pretty busy at the NMNH since our last report. Ralph Chapman is continuing a series of studies on dinosaurs and related beasts. Detailed morphometric analyses of dinosaur footprints are in the works with Diego Rasskin-Gutman, J. J. Moratalla, and J. L. Sanz, which I hope to report on at the convention in the fall as the manuscript goes out. Other studies are on-going with Jim Farlow and Dave Weishampel as well as studies of nonvertebrate beasts such as trilobites, forensic studies, and a host of archaeological work. The major project up ahead is to chair a symposium, along with Matt Wills and Doug Erwin, on Morphospace Concepts and Applications for NAPC 1996 to be held in Washington, D.C. (June 9 12, 1996). Please also see the announcement in Calendar of Events in this issue for the meeting of the Society of Avian Paleontology and Evolution that takes place right before NAPC 96.

Ljubov Tjutkova from the Institute of Zoology, Kazakh Academy of Sciences in Almaty, and Wang Banyue from the IVPP in Beijing, People's Republic of China, have been visiting with Bob Emry and studying the teeth of small mammals that Bob and Ljubov collected in Kazakhstan in 1993 and 1994.

An old plaster cast of a plesiosaur was given a face lift by Steve Jabo and volunteer Phyllis Brenner. They repaired and repainted the 22-foot-long cast which will be remounted on a large wall at our Museum Support Center in Silverhill, Maryland.

The Department of Paleobiology has begun a Volunteer Training Program modelled after the successful Denver Museum program with four courses being offered sequentially: Introduction to Geology, Paleobiology, Preparation and Field Collecting Techniques, and Collections Management (perhaps the most important and most often overlooked area).

The NMNH Office of Exhibits has contributed financially to our Public Paleo Prep Lab by purchasing a new Olympus microscope, Sony video camera, and video monitor so that the public can now view what's happening under the scope during preparation of the Ghost Ranch block and other materials. All aspects of paleobiology are being shown, not just vertebrate stuff.

Dan Chaney reports that the trip to Seymour Island, Antarctica, was well worth while as far as the collection of vertebrate material. Also, a large collection of fossil wood and several hundred kilograms of plant compressions were collected. These should help fill out the paleoenvironmental picture of Seymour Island in the Eocene. Shifting to the Permian of Texas, vertebrate material, some of it quite interesting, keeps slowing down the collection of fossil plants. The Vail has now produced plants from about 20 sites showing in initial analysis that although not arid, there was probably stronger seasonality as regards wet dry than in the Arroyo and, certainly, the Waggoner Ranch formations (Clyde, Belle Plains).

Bob Purdy has continued his work on fossil sharks. He just had a paper on the paleoecology of fossil white sharks accepted for the symposium volume The White Shark edited by Peter Klimley. He has submitted a manuscript on the sharks of the Paleocene of South Carolina and has moved up the column to work on the Oligocene sharks of that state.

Dave Bohaska and amateur collector George Powell made a quick trip to the Lee Creek Mine, North Carolina, to salvage parts of a walrus skull (Yorktown Formation, Pliocene) found by George. Unfortunately, the skull was badly fragmented (the locality consists of spoil piles dug up by drag lines), but Fred Grady has amazingly succeeded in putting most of one tusk together along with part of the skull. Dave was truly impressed by Fred's ability to reassemble things in three dimensions. Speaking of Fred Grady, he has found even more of the *Arctodus* skeleton he has been collecting from a Virginia cave.

Linda Deck reports that tests are underway on three vertebrate specimens, *Edmontosaurus, Albertosaurus*, and *Xiphactinus* in the Fossils: The History of Life hall at the museum, to measure the ambient vibrations these specimens receive from daily activity in and around the museum. The museum's Department of Paleobiology and Office of Exhibits are conducting this study with a local vibration testing company using geophones and seismometers. They hope to learn more about the level and frequency of vibrations that could cause damage to the specimens, and thus be able to inform museum and other local construction projects of safe vibration limits. If any other institution has conducted studies such as these, please call Jann Thompson, Collections Manager, at (202) 357-2405, or Linda Deck, Exhibit Developer, at (202) 357-2606. (Staff, NMNH)

New Jersey State Museum, Trenton, New Jersey

We are pleased to report that the NJSM has received a grant from The Dinosaur Society to study Late Cretaceous dinosaurs of the Atlantic Coastal Plain. We plan to reopen research in the field at some of the historically important dinosaur sites in New Jersey and North Carolina, applying modern methods of geochronological dating, bulk matrix processing, and taphonomic techniques to a number of Upper Cretaceous dinosaur-producing localities. We hope to learn more about the faunistics of the eastern island continent in the Late Cretaceous, the taphonomic processes responsible for fossil concentrations in the coastal plain deposits, juvenile dinosaurs, and the nature of the last Mesozoic faunas (including dinosaurs) in this region. Much of the lab work will be performed in our Working Scientist public prep lab in the Natural History Hall of the museum. Barbara Grandstaff has been hired as research assistant to perform this work, demonstrating directly to our visiting public how research in dinosaur paleontology is accomplished. The final results of the grant will include a new exhibit about New Jersey's Cretaceous dinosaurs as well as a series of presentations and papers. We wish to thank The Dinosaur Society for its support.

Having completed a substantial amount of work on the Ellisdale Cretaceous lizards, Bob Denton and Bob O'Neill are now studying the amphibian fauna. They have identified a considerable portion of the skeleton of a new genus of batrachosauroidid salamander, structurally intermediate between *Opisthotriton* and *Prodesmodon*. They will make a presentation on it at the 1995 Pittsburgh meeting, and are soliciting information from any of our European colleagues concerning batrachosauroidids from the late Cretaceous and early Tertiary of Europe.

Other projects at NJSM include a review and new information on New Jersey Miocene land mammals and some more Atlantic/Gulf marine Cretaceous turtle studies. Dave Parris thanks his Texas and Kansas colleagues for their help during his 1995 spring trip. (W. Gallagher and R. Denton, Jr.)

New York College of Osteopathic Medicine, New York Institute of Technology, Old Westbury, New York

Since the completion of the anatomy course early in February, the evolutionary biology group at NYCOM has been active in a number of research areas. Nikos Solounias has been busy completing a study on the geology of Samos with a taphonomic account of several late Miocene mammalian bone beds. He is also working on a systematic study of various giraffid taxa as well as an analysis of tooth microwear in 14 extinct giraffids. Nikos and Lars Werdelin are studying the evolution of the giraffe neck. Nikos also spent time in Finland with Mikael Fortelius working on a study of ungulate tooth wear. He has submitted four papers for publication on the systematics of Siwalik bovids An additional study of the masseter musculature of bovids, complete with paleoecological implications, is in press in *JVP*.

Mike Plavcan has been working on evaluating and interpreting sexual dimorphism in primate hominid evolution. This spring, the Leakey Foundation sponsored a conference at Duke University entitled Reconstructing Behavior in the Primate Fossil Record. Mike will be coeditor together with Rich Kay, Bill Jungers, and Carel van Schaik of a book to be derived from this conference. On another track, Mike is returning to southwestern Montana to collect latest Eocene/Oligocene vertebrates with Jeff Meldrum and Allen Tedrow of Idaho State University. Last summer saw a brief but productive field season with several localities found. This summer they plan to return and expand the project.

Margaret Lewis has been continuing her research on the functional morphology and paleoecology of fossil felids, canids, and hyaenids and their impact on other faunas from the Plio/Pleistocene of Africa. She has recently expanded her focus to include Miocene carnivores from Eurasia and Africa to better understand adaptive changes within large-bodied forms. This summer she plans to travel to Sweden to work with Lars Werdelin of the Swedish Museum of Natural History on fossil hyaenids. She and Nikos Solounias are continuing their research on the functional anatomy of the ruminant foot. Des Maxwell is continuing his research focus on the dinosaurian fauna of the Early Cretaceous Cloverly Formation. He and Larry Witmer received a grant from The Dinosaur Society to fund research on the Cloverly dinosaurs. Studies under this grant will include a reevaluation by Des of the cranial anatomy of *Tenontosaurus* based on a pristine, undescribed specimen. Des and Larry are working together on the redescription of the skull of *Deinonychus*, also based on newly recovered, undescribed materials. It is hoped that additional specimens will come to light this summer when Des heads back out into the field to prospect Cloverly Formation deposits. Des has been appointed to the SVP Government Liaison Committee and is looking forward to helping implement the VPRPA.

Larry Witmer has spent the last several months laboring on a couple of long (no, very long) manuscripts. The first is a paper examining the anatomy and homologies of facial structures (soft as well as hard tissues) in extant archosaurs (birds and crocs), in particular nasal conchae and paranasal air sinuses. It should be out in *The Journal of Morphology* by the time this report appears. The second project relates to the first, but is much more paleontological. It is basically Larry's magnum opus on the evolution of archosaur faces

and the antorbital cavity. It will (Hans willing) be a *Memoir of the SVP*, funded by The Dinosaur Society. It tackles the gory details of the function of the antorbital cavity, surveys the anatomy and distribution of pneumatic accessory cavities across Archosauria (and especially Theropoda), looks at some trends in facial evolution, and probes the mysterious function of pneumaticity. Interspersed among these larger efforts are collaborative projects with Scott Sampson and Des Maxwell (ceratopsian grant proposal and *Deinonychus* skulls, respectively).

Scott Sampson has been occupied with several manuscripts, most of which involve horned dinosaurs. He recently completed an article for *Natural History* on the ontogeny and evolution of ceratopsids. A detailed analysis of the ontogeny of centrosaurine ceratopsids, coauthored by Michael Ryan and Darren Tanke of the Royal Tyrrell Museum, will be submitted for publication within several weeks. Together with Cathy Forster of SUNY, Stony Brook, Scott is conducting a cladistic analysis of the Ceratopsidae which will include osteological descriptions and a revision of the group. Larry Witmer and Scott Sampson are awaiting news on an NSF grant proposal to study functional aspects of the skulls of ceratopsids. This project would involve dissection of members of extant outgroups (birds and crocodiles) in an attempt to establish bony correlates of soft tissue structures which could then be applied to extinct archosaurs. The description of two new ceratopsid dinosaurs from Montana will appear in the December issue of *JVP*. Finally, Scott has been working on a macroevolutionary theory manuscript which addresses the impact of mate competition on large scale evolutionary patterns. Field work will take him back to Alberta this summer to work in Dinosaur Provincial Park with Philip Currie.

The most significant news item from the evolutionary biology group is the departure of Larry Witmer. Larry has accepted a tenure-track position at Ohio University in Athens where he will be crossappointed in the Department of Biological Sciences and the College of Osteopathic Medicine. It cannot be overstated that he will be keenly missed by all of us at NYCOM. Larry truly excels in all of his academic roles, from teacher to researcher to colleague and friend. We wish him continued success and sincerely hope that the increased distance will not prevent future collaborations. (Scott D. Sampson)

Division of Vertebrate Paleontology, Peabody Museum of Natural History, New Haven, Connecticut

Mary Ann Turner reports the Yale Peabody Museum, and all of the other Peabody museums, institutes, libraries, etc., celebrated the bicentennial of the birth of George Peabody, the first great modern philanthropist, this February 18th. An all-inclusive exhibit on O. C. Marsh's favorite uncle is currently at the Museum of London. Our Peabody Museum lent, among other things, casts of a *Deinonychus* claw and an *Ichthyornis* mount to the London exhibit. Other Peabody museums, etc., including our own, have/had local exhibits.

Virtually all of the division's time has been devoted to getting data into Argus, in one fashion or another. At the moment, there are approximately 50,000 records searchable. The number of records actually available on our gopher depends on how recently it has been updated. The museum hopes to have a Web page available later this year.

Data entry would be greatly facilitated if borrowers would return outstanding loans. For portions of our collections, more information was written on specimen labels than in the catalogues. Many records will not be entered until the specimens themselves have been returned. Copies of recent publications citing Peabody specimens would also be helpful.

Dan Brinkman is on the road until early June conducting research on *Tenontosaurus* specimens at various institutions. His 21/2-month trek takes him to Oklahoma, Texas, and Montana gathering data for his dissertation project.

Jessie Anderson and Cynthia Marshall are completing classes for their first year of study. Lana McNeil is continuing research on her dissertation project on the functional anatomy of *Mononykus olecranus*. In the fall, we will welcome a new student in vertebrate paleontology, Alan Gishlick, from Augustana College. (Gerry Parisi)

State University of New York at Stony Brook

Cathy Forster and Callum Ross arrived in the Department of Anatomical Sciences at Stony Brook in September of 1994 as postdocs. Somewhere in the midst of her travels through hadrosaur and basal iguanodontian collections in Europe and field work in Argentina (which is where she is at the time of this writing), Cathy has been offered an assistant professorship. Callum was also named Assistant Professor, and both Callum and Cathy will be searching for Early Cretaceous dinosaurs and other vertebrates in southern South Africa this summer on a grant from The Dinosaur Society. Congratulations Drs. Forster and Ross! Congratulations also to Laura MacLatchy (Harvard University) who will be joining us as a postdoctoral fellow in September.

Ron Heinrich also arrived as a postdoc this past fall. He continues his work on the functional morphology of early Tertiary carnivorans, and a paper coauthored with Ken Rose (Johns Hopkins) on comparative postcranial morphology of *Vulpavus* and *Didymictis* is nearing completion. The next item on his agenda will be to finish his eagerly awaited paper on the systematic relationships of *Uintacyon*. Ron will be reporting on some of this work at the upcoming GSA Rocky Mountain regional meeting.

Walter Hartwig reports a productive trip to Brazil in February. He had the good fortune of working with Castor Cartelle of the Federal Universidade Minas Gerais on material that Cartelle and a speleological team, Grupo Bambui de Pesquisas Espeleologicas of Belo Horizonte, have recovered from extensive Pleistocene caves in the state of Bahia. Among the many well-preserved Pleistocene vertebrates are two nearly complete New World monkey skeletons. Walter says they are remarkable because they are probably

twice the size of any living genus and because one of them has the nerve to possess features considered to be diagnostic of two different clades. Look for a poster by Walter and Cartelle at SVP '95.

John Hunter continues to work on his bipartite dissertation on the adaptive diversity of nearly Paleocene condylarths and on the K-T transition in mammalian faunas in new field areas in Montana and North Dakota. John will be reporting results of some of the field work in one paper coauthored with Joe Hartman (University of North Dakota) and Dave Krause, in another paper coauthored with Dean Pearson (Pioneer Trails Museum), and at the upcoming GSA Rocky Mountain regional meeting. John's work with Jukka Jernvall on the hypocone and key innovations in the mammalian dentition is complete and will be published soon somewhere. Kay Reed is finishing her thesis. Margaret Lewis will defend her dissertation on May 9.

Work continues on fossils recovered from the 1993 expedition to Madagascar led by Dave Krause, Joe Hartman, and Neil Wells (Kent State). In addition to establishing the presence of mammals in the Malagasy Late Cretaceous, a number of other vertebrate fossils have been identified. The expedition approximately doubled the previously known species diversity of Late Cretaceous vertebrates from the island. Ph.D. student Rob Asher and Dave Krause recently completed a manuscript on the frog material, which bears significantly on recent controversies concerning the plate tectonic history of eastern Gondwana. A number of other papers on the 1993 collections are underway. Thanks to a grant from The Dinosaur Society, Dave Krause, Peter Dodson, and Joe Hartman were able to examine comparative collections from the Cretaceous of Africa and India in January and February. The trip was very productive, and Dave, Peter, and Joe are exceedingly grateful to their colleagues in London, Paris, Berlin, Chandigarh, Delhi, Calcutta, and Jaipur for their hospitality and assistance. Recent good news from NSF promises a continuation of the Madagascar project. (John Hunter)

Southeast Region

Duke University Medical Center

Rich Kay and Rick Madden just returned from a successful trip to explore the middle Cenozoic in Patagonia with colleagues Freddy Carlini and Mario Mazzoni (La Plata), Ana Maria Ribeiro (Brazil), and Guillermo Ré (Buenos Aires). We revisited the classic stratigraphic sequence at the Gran Barranca, described in Simpson's Attending Marvels. Specimens were collected for phytolith analysis, paleomagnetic studies, and radiometric age determinations. Among other exciting fossils discovered were new Colhuehuapian primates and bats. (Rich Kay)

Midwest Region

Augustana College, Rock Island, Illinois

Work continues on the preparation and complete description of *Cryolophosaurus* from Antarctica. A diagnosis and brief description of this crested theropod by Hammer and Hickerson was published in *Science* last May (1994). A short article that establishes the Early Jurassic age of the fauna that includes *Cryolophosaurus* is now in press with the *Antarctic Journal of the U.S.*

Bill Hammer's article on late Early to early Middle Triassic therapsids from the Fremouw Formation finally came out in the March 1995 *JVP*. It has been waiting in line due to the backlog of papers that we have all heard about.

Bill Hickerson continues his work in the lab as research assistant and preparator. He should have all of the Jurassic material from Antarctica finished by sometime next year. After that we still have a considerable amount of material collected from the upper Fremouw (Triassic) to work on.

Last spring Hammer received new funding from the NSF to continue our present work and for another field season in the Antarctic in 1995 96. Right now it looks like we will be a five-person team working out of a small camp near the Shackleton Glacier. We will share helicopter support for part of the season with several other projects working in the same area, the rest of the time it looks like we will be on snowmobiles. This camp will be over 100 miles south of Mt. Kirkpatrick where the Jurassic dinosaurs were discovered in 1990 91, so it is unlikely we will get back to that site during this season. We intend to use the heli support to prospect for more Jurassic deposits in this new area, but most certainly we will find good Triassic material. We will be near the localities that produced excellent Triassic specimens when last visited in 1977 78 by John Cosgriff and Bill Hammer. We are scheduled to leave for the field sometime next November. (Bill Hammer)

Illinois State Museum

Russ and Mary Ann Graham, as well as their two daughters, are pleased to announce completion and publication of the FAUNMAP database (see Publications this issue). This project has consumed a lot of the family's time over the last four years. Russ and Ernie Lundelius were the principal investigators for this project which was funded by NSF. We were also helped by a number of individuals who served as regional collaborators and others who contributed valuable data. We wish to thank all of them. The FAUNMAP working group is now preparing a publication on the analysis of this database which they hope to submit later this summer. The next goals of the project will be to gather data on the rest of North America and the older parts of the Pleistocene.

The FAUNMAP database is also on-line and available through the Internet. Lynx or Mosaic users can reach it through the World Wide Webb (URL http://www.museum.state.il.us/ look under research programs and faunmap). The gopher

pathway is Gopher gopher.museum.state.il.us. The database is large so if you plan to download it, you may want to do it on off-hours to avoid tieing up your computer.

Russ and Blaine Schubert (Northern Arizona University) plan to return to Little Beaver Cave, central Missouri, for further excavations this summer. Blaine is studying the late Pleistocene fauna from LBC for his master's thesis at NAU. This cave may be another in a growing list of cave sites that are older than 40 ka. Tom Stafford is currently dating bone from this site. While investigating another cave in the area which contained archaeological deposits, Russ found a fossiliferous horizon below speleothem formations which have been dated at ca 200 ka. We now have numerous cave sites in Missouri and Illinois that can provide a long record (Irvingtonian and Rancholabrean) of faunal and environmental changes. Tom Stafford (INSTAAR), Holmes Semken (University of Iowa), and Russ have been working on a pair of papers. One study is concerned with dating the contemporaneity of nonanalogous species pairs in late Pleistocene faunas; whereas, the other one has focused on establishing terminal Pleistocene dates for a number of extinct mammal species.

Russ was recently involved in a workshop with the U. S. EPA in an attempt to establish their scientific agenda for research in the southeast. Russ talked about the importance of paleobiological records in evaluating the processes of biotic change and using fossil data to test models which predict future changes in distributions or compositions of ecosystems. This summer Russ will participate in a NATO workshop on the evolution of late Quaternary ecosystems which will be hosted by Brian Huntley near Perth, Scotland. Russ is looking forward to returning to the country of his family roots, although he is sure the Scots were glad to be rid of the Grahams a long time ago!!

In March Jeff was at the Zoological Institute in St. Petersburg, Russia, to continue his collaboration with Gennady Baryshnikov on an osteological atlas of the mammoth, based on materials from the Berelekh locality, eastern Siberia. Bones comprising the front and hind feet have been measured and those of the manus have also been sketched and photographed. These data were augmented by X rays of mummified fore and hind limbs of the Sanga Yuryakh mammoth and hindfoot of the Khatanga mammoth. After the hind foot is brought up to speed with the front foot next October, the short bone data will be prepared for publication.

In addition to continuing research on Pleistocene and Holocene faunas from caves in Illinois, Kentucky, Missouri, South Dakota, and Texas, Rick Toomey has been working on exhibits at the Illinois State Museum. He is coordinating the development of plans for a complete renovation of the museum's natural history exhibits. This work includes planning for and production of both physical and electronic exhibits. He is also producing a wide variety of on-line exhibits for the ISM World Wide Web Homepage. Exhibits that might be of interest to the paleontological community include Mazon Creek fossils and the last Ice Age in the midwestern U.S. All are welcome to visit our homepage (URL http://www.museum.state.il.us/). In addition to on-line exhibits, our homepage has information about the museum and some of its research programs, including the FAUNMAP database. (Russ Graham, Jeff Saunders, and Rick Toomey).

Michigan State University

Ken Ford delivered a paper in March at the Michigan Academy meetings in Big Rapids on fossil fishes of the late Pleistocene Sheriden Pit site, northwestern Ohio. It is one of the largest cave fish faunas known, and we are still trying to figure out how the bones were derived. Ken, Andrea Bair, and Al Holman are currently preparing a joint paper on the subject. Ken will continue his supervision of the excavation of the Sheriden Pit site next summer.

Al Holman has just submitted his report on the herpetofauna of the Sheriden Pit site to *Boreas*. Al is finishing up projects long overdue. This includes, embarassingly, amphibian and reptile material from the Williston IIIA, Florida, Pleistocene site collected by Holman in 1956 and 1957; as well as Miocene (Barstovian) material collected from Texas and Nebraska from the late 1960s to the early 1970s. In June, Holman and Les Fay will present papers on Appalachian Pleistocene herps (Irvingtonian and Rancholabrean) at the Appalachian Biogeography Symposium at VPI in Blacksburg, Virginia. This July, Holman will be visiting Cenozoic localities in Michigan, Nebraska, and Wyoming with David Harrison and Karen Bates of the Harrison Museum, Sevenoaks, England.

Peg Ostrom is coconvener of the Molecular Paleontology Workshop of the First SEPM Congress on Sedimentary Geology Linked Earth Systems in St. Petersburg, Florida, on August 13. She is presenting a paper on molecular analysis of ancient proteins as well as hosting a demonstration of computer software for molecular analysis in the afternoon session. Peg has a paper in press in *Geology* on molecular isotopic and biochemical evidence of the origin and diagenesis of fossil organic material.

Shawn Clouthier is also attending the SEPM Congress in St. Petersburg, where he is presenting a poster on the results of his master's thesis on carbon and nitrogen isotopic evidence for Tertiary grassland distribution and the evolution of horse hypsodonty.

The schedule for the MSU Museum dinosaur activities in the fall is about in place. There will be speakers, family programs, K 12 activities, the traditional dinosaur dash 5-K run, as well as the Dinosaurs A Global View travelling exhibition. (Al Holman)

Science Museum of Minnesota

Bruce Erickson has indicated that the Science Museum of Minnesota has not reported in the *News Bulletin* for quite a while (ten years or so). A considerable amount of work and collaboration has occurred recently and the time has come to be back in touch.

Andy Redline has recently joined the Science Museum of Minnesota as Director of the Hall of Paleontology after ten years at the Carnegie Museum of Natural History. While

an administrative role will be difficult to adjust to, many projects should be in the offing in the coming years. Before leaving Pittsburgh, Andy finally managed to submit for review his revised thesis (opus) concerning early Eocene *Hyopsodus* systematics to the *Annals of Carnegie Museum*. The manuscript features multiple dentitions of each taxon rendered over three years via camera lucida and laborious half-tone drawing. It is Andy's hope that this will be a useful reference for students of early Eocene paleontology and stratigraphy and that this project won't have to be done again soon. If not, who else is going to refer 10 20,000 dentitions to an appropriate taxon? Andy is also eager to examine the Tiffanian condylarths from Wannagan Creek Quarry, North Dakota collections if time ever permits. North America may not yield a suitable hyopsodontid ancestor, but very primitive specimens of *Hyopsodus* from the People's Republic of China, recovered as part of the Carnegie Museum/IVPP collaboration, may shed new light on this issue. Additionally, Andy was given the opportunity by Mary Dawson to draw the design for the 1995 SVP tee-shirt.

Recent research by Paleontology Curator Bruce Erickson has included the completion of a manuscript on the anatomy and relationships of the late Oligocene crocodile *Gavialosuchus* from coastal South Carolina. This work is being accomplished in collaboration with Research Associate T. Sawyer. The recent discovery of Miocene crocodile remains (found by divers in 20 feet of water!) and continued work on the fossil avian fauna from this area are two other associated projects. Research connections with the Charleston Museum and Al Sanders remain strong and productive. Bruce is also continuing work on a baby diplodocid skull from Poison Creek, Wyoming (it appears to have markedly different facial proportions than adults), and establishing a dinosaur egg database including SEM analyses. The paleoenvironmental studies of the Wannagan Creek Quarry area remain active, with A. Kihm (Minot State) and J. Hartman (University of North Dakota) conducting studies on the primate and mollusk faunas, respectively. Bruce's 20-year record of published studies on the chelonian, champsosaur, alligatorine, and crocodyline remains from this area will be highlighted in a planned major exhibit at the Science Museum of Minnesota. This work will be in collaboration with Andy Redline and the Paleontology Science Hall staff. Recent visitors to the paleo collections included L. Grande (Field Museum, who will describe a new species of *Amia* from the SMM collections), A. Milner and S. Sequeira (Birkbeck College working with K. Carlson *Perryella*), C. Forster (Stony Brook), and B. Rothschild (Youngstown State). (Andy Redline)

University of Chicago

As of this writing, Paul Sereno, with a Chicago crew consisting of Hans Larsson, Gabrielle Lyon, Paul Magwene, Chris Sidor, and Jeff Wilson, are crossing France on their way to Gibraltar and the Mediterranean with a final destination of Morocco, there to explore for Cretaceous vertebrates for two months. Jim Hopson and Hans Sues will be joining them for a shorter stint.

Jim Hopson and Chris Sidor have begun a reexamination of the specimens in the Field Museum collected by E. C. Olson from the San Angelo Formation (early Late Permian) of Texas and described by him as primitive therapsids. Chris has also become interested in intrafamilial relationships of caseid species and the position of this family within early synapsids. Jim, John Wible, and new American Museum postdoctoral fellow Guillermo Rougier got together in New York in March to plan some collaborative studies on Jurassic mammals.

Amy Henrici from the Carnegie Museum of Natural History visited the department in April to present a two-day tutorial on the mechanical preparation of vertebrate fossils in mudstones for our graduate students. To the accompaniment of music, and a coffee and doughnut supply, the students received an excellent, hands-on introduction to the wonders of Butvar, carbowax, crazy glue, and patience. The tutorial was organized by Eric Lombard who reports that he now needs only to attend a geology field course to complete his credentials as a paleontologist. Eric and John Bolt are pleased that their Mississippian protoanthracosaur paper will be out this year, at last, in *Palaeontology*. Manuscripts on the remaining members of the Delta, Iowa, fauna are nearing completion. As a part of this work, Eric and John spent January visiting the National Museum, American Museum, Museum of Comparative Zoology, and University of Kansas Museum of Natural History, peering at and borrowing assorted denizens of the Carboniferous. They send their thanks for all the help and hospitality received during their visit.

Leigh Van Valen finished one aspect of the Bug Creek material with the publication of a monograph on primates (*Evolutionary Monographs*, 15, published 30 December 1994). This revises *Purgatorius*, establishes a new genus (*Pandemonium*) at the base of the Plesiadapidae, and gives evidence that the Euprimates came from a *Purgatorius* -like form. Some other peripheral matters, such as incorporating the Dermoptera into the Primates, are also dealt with. After finishing work on a few early South American condylarths, he should return to the Bug Creek condylarths and some odds and ends. With luck, he will even send out a large backlog of his separates soon.

Christine Janis reports: I've finally finished unpacking since moving here this fall, and am finally having a chance to get some work done, as well as teaching seminars in VP and contributing to the undergraduate core curriculum. I've finally written up all the summary chapters for the Tertiary Mammals book, which have gone out for the other authors to comment on. I'm currently working on a little project on patterns of Paleogene carnivore diversity, which I hope to present at SVP this year. Meanwhile, plans are afoot for mega database collection and number crunching in collaboration with Mikael Fortelius (and others), to compare patterns of Neogene faunal diversity between Old World and New World faunas.

Rick Blob completed his prelims in February and is set to start work on his thesis, entitled A Biomechanical Examination of the Evolution of Therapsid Hindlimb Posture. He'll be collecting locomotor data from lizards and alligators to test the plausibility of hypothesized therapsid limb postures. Two ongoing projects on microfaunas of the Judith

River Formation of Montana (in the south with Tony Fiorillo, and in the type area with Ray Rogers, Cathy Forster, and Matt Carrano) are also progressing nicely.

Matt Carrano is beginning his dissertation work, which will examine the evolution and diversity of bipedalism in ornithodirans, in tandem with studies on different locomotor styles in modern birds. Currently, he is spending a lot of time working with Rick Blob, Ray Rogers, and Cathy Forster on vertebrate microsites in the Judith River Formation type area. He is attempting, with marginal success, to understand Mesozoic mammalian tooth morphology in the hopes of investigating these Judith River faunas in particular.

Darin Croft is describing a subfossil micromammal fauna (precise age uncertain) recovered from a cave in Honduras in the late 1930s by representatives of the Field Museum. The fauna includes specimens of the didelphid *Marmosa*, the soricid *Cryptotis*, and at least eight rodent genera. Morphometric studies are being conducted to identify species, when possible, so a faunal analysis can be completed. Climatic and biogeographic implications of the fauna will also be studied.

Janet Cushing's interests are fairly broad at the moment, and involve the evolution of Cenozoic mammals (mostly of carnivores, especially viverrids, herpestids, and mustelids). She hopes to use aspects of functional morphology, paleoecology, and paleoethology to approach macroevolutionary scale questions. She is especially intent on trying to use fossils to investigate the tectonic history of an area, as well as trying to tie her research to conservation (hence, studying Cenozoic era critters).

Laura Panko is examining the functional morphology of the vertebral column of terrestrial quadrupeds. Experimental work on intervertebral flexibility will complement morphological work on the vertebrae of fossil synapsids. (Jim Hopson)

University of Kansas

Our department is looking forward to Kris Krishtalka becoming our new museum director in the fall. Caroline Rinaldi is working on daily growth lines in rodent incisors and will be attending the 10th International Symposium on Dental Morphology in Berlin this September. Ginny Naples recently visited to work on a paper with Larry Martin on the functional morphology of the skull of *Barbourofelis*. Chris Bennett is studying a new specimen of *Pterodactylus*, which has new information about its crest. Morton Green is studying early Miocene rabbits once again, and John Chorn recently published a paper with Bob Carroll on the oldest known microsaur. (T. J. Meehan)

University of Michigan, Museum of Paleontology

Our resident dinosaur-crazed lab assistants, Ron Tykoski and Jason Head, are leaving soon to begin graduate work at the University of Texas at Austin and Southern Methodist University, respectively. We're sorry to see them go and wish them them the best in their future endeavors. Undergraduate assistant Jason Anderson has been busy helping Jonathan Bloch with acid reduction of limestone blocks from Wyoming, with excellent production of bone. Jonathan continues his studies of carpolestids and insectivores from these limestones. We welcome a new volunteer to the prep lab, Stacy Bowles, who is also helping with acid preparation and would like to acknowledge the stalwart efforts of Bill Lunk in helping with the molding of *Sinonyx* and *Rhodocetus* skeletons.

Bill Sanders has a full plate of preparation projects mostly centering around archaeocetes from Pakistan. Bill is completing description and diagnosis of proboscidean material from latest Miocene Pliocene deposits of the Manonga Valley in Tanzania. He is also much anticipating working on Sinap Formation (Turkey) proboscideans with John Kappelman (University of Texas).

Mark Uhen is making good use of his SVP Graduate Fellowship by visiting European museums to look at archaeocete fossils. Will Clyde continues his work on magnetostratigraphy of the early and middle Eocene in the Bighorn and Green River basins in Wyoming.

David Polly has just finished teaching classes on mammalian paleontology and on the history of evolutionary thought. His paper on hyaenodontid phylogeny, containing a description of the skeleton of a new genus of proviverrine, was accepted by *JVP* this term and he managed to finish a paper coauthored with Robert Gurlanick on Internet distribution systems for museums. He is continuing projects on neo-Lamarckian classification, the evolution of molar function in hyaenodontids, and the role of developmental constraints versus functional selection in the evolution of mammalian molar morphologies.

Catherine Badgley has been busier at the computer than in the field over the last couple of years. She and Kay Behrensmeyer coedited a special issue of *Palaeogeography, Palaeoclimatology, Palaeoecology* due out in May 1995. The special issue, entitled Long Records of Continental Ecosystems: Paleogene of Wyoming Montana and Neogene of Pakistan, presents comparisons of the geological, paleoclimatological, and paleontological records of two well-documented Cenozoic vertebrate records; several of the 14 papers address issues of vertebrate taphonomy, paleocommunity ecology, and the reciprocal interactions of ecology and evolution.

Serge Legendre, Catherine Badgley, and Philip Gingerich will finish their collaborative survey of size structure (through cenograms) of modern mammalian faunas in relation to climatic conditions this year and will submit a book manuscript (Mammals, Size, and Climate) to the University of Chicago Press.

Philip Gingerich continues his sabbatical and is busily working on a book on evolutionary rates. In his spare time he continues his studies of the early evolution and diversification of archaeocetes.

Gregg Gunnell has been busy migrating specimen and locality records to our new database system and with moving all of our paleobotanical collections to new facilities. He has completed a manuscript on early and middle Eocene paleoecology and habitat preference among omomyid primates and has decided that it is time to add yet another opinion to the growing points of view on the origin of anthropoids. Other projects underway include a revision of late Wasatchian and Bridgerian notharctid primates with Richard Stucky (Denver Museum of Natural History) and an examination of the relationships between mammalian frugivory and the origin and diversification of fleshy-fruited angiosperms with Robyn Burnham. Gregg, Will Clyde, David Polly, and Jon Bloch are greatly anticipating their trip to Kazakhstan in early fall. We will be examining late Cretaceous and early Cenozoic sediments in the region east and northeast of the Aral Sea and look forward to collaborating with our colleagues at the Institute of Zoology in Almaty, Elena Kordikova, Leyla T. Abdrakmanova, Peter Shilin, Dmitry Mtalkhov, and Sergey Burdelov. Gregg also plans a short visit to Wyoming with Bill Bartels in July to continue looking for basin margin faunas in the Oregon Buttes area. (Gregg Gunnell)

University of South Dakota

Gary Johnson attended the International Symposium on Permian Stratigraphy, Environments, and Resources late last August in Guiyang, China. He presented a progress report on biostratigraphic correlation of Lower Permian fish faunas from Texas (not much progress even Oklahoma is difficult). A report on the meeting and field excursions is presented in *Ichthyolith Issues* No. 14. He participated in the field excursion to the continental Permian Triassic in Xinjiang, led by Liao Zhuo-ting of Nanjing Institute of Geology and Paleontology. The presence of vertebrate microfossils appears promising in this section, so Johnson and Phil Murry (Tarleton State University) hope to take a student crew over in the not-too-distant future to do some serious sampling. (It's so interesting trying to explain to airport security personnel what you're doing with little bags of dirt and rocks in your backpack!) We will be joined by Wang Nian-zhong of IVPP, who proved to be an excellent host while Johnson was in Beijing, and Liao Zhuo-ting, who will have the formidable task of making all the necessary arrangements. Johnson has a paper in press in *Modern Geology* on a fauna in the Lueders Formation of Texas, discovered by Bob Hook and colleagues. It is important in defining the faunal transition from the Wichita Group into the Clear Fork Group. He also has described a hybodont shark fauna from a Lower Permian Oklahoma locality, which will be part of a paper by Jiri Zidek and others. He continues to wrestle with Upper Paleozoic xenacanth teeth, but progress is all too slow in light of the discoveries being made in Europe.

Tim Heaton is planning another summer trip to Prince of Wales Island, Alaska, to excavate Ice Age mammals from cave deposits in the Tongass karst. A grizzly bear femur

he submitted for AMS radiocarbon analysis from On Your Knees Cave was dated at over 35,000 years BP, far older than the late glacial and post-glacial bears previously dated from the island. This offers strong support for the coastal refugium hypothesis that is under study by archaeologist Jim Dixon (Denver Museum of Natural History). A micromammal fauna that is beyond radiocarbon age has also been found in Devil's Canopy Cave. Heaton has two short papers in press in *Current Research in the Pleistocene* describing his most recent work. These older deposits will be the focus of his field work over the next few years.

Heaton is also continuing work on the Krogman Ranch bison excavation. Bush grant funding runs out this summer, but the project is being picked up by a Howard Hughes Medical Institute grant awarded to the University of South Dakota. It's part of the outreach aspect of the grant and will involve faculty and students from South Dakota's Sioux tribal colleges as excavators and preparators. Two thousand bones have already been excavated from the site, and it's still going strong. The Howard Hughes grant is also providing fellowships to two undergraduate students who will be working with Heaton during the coming year. Dean Warrington will be working on bears, and Rebecca Parnham will be working on bison. (Timothy H. Heaton)

Southwest Region

Northern Arizona University, Geology and Quaternary Studies

The paleontology students are active. Jim Mead's students are: Al Pajak (working on the Blancan/Irvingtonian fauna from the Temecula basin, California), Blaine Schubert (working with Russ Graham, Illinois State Museum, on a Rancholabrean fauna from a Missouri cave), Marla Spry (working with Greg McDonald, Hagerman, on an early Rancholabrean fauna from Alabama), Lisa Blackford (finished her thesis in March on *Navahoceros*), Mary Carpenter (undergraduate, beginning to work on Grand Canyon material), Stu Wolf is working on using ground-penetrating radar to detect bone vs. dung layers in the dry alcoves and caves on the Colorado Plateau. Cathy Adams is a student of Larry Agenbroad and is working on one aspect of the pygmy mammoths of the Channel Islands, California. Larry will work in detail this summer on the Channel Island mammoths, and will spend his spring semester sabbatical 1996 doing the same. For Larry, July will again be spent at the Mammoth Site, Hot Springs, South Dakota. Larry and Jim finished and published the ten- year synthesis book about the Mammoth Site (buy it, good price). Dave Steadman (New York State Museum) and Jim published the edited volume in honor of Paul S. Martin. It includes papers on vertebrate paleontology as well as chapters about plants (it, too, is published by the Mammoth Site only about $16). Larry and Jim are finishing up a ten- year stint of contracts with the National Park Service about Quaternary deposits in national parks on the Colorado Plateau. A book volume is being pulled together about these various geological and biological (VP and plants) resources. Jim is shifting away from his usual packrat midden and dung studies (story of his life) and doing more with rupicaprids, other bovids, and lizards. Lizards

studies include material from Hemphillian sites in Nevada, Blancan and Irvingtonian sites in Idaho and California, and Rancholabrean material from Mexico, Nevada, and Arizona. Much of the material is with anguids (like the *Barisia* from San Josecito Cave, Mexico, with J. Arroyo- Cabrales). Jim was naïve (=stupid?) enough to get pulled into being the Chair of the Geology Department. Jim and Larry plan to submit their book Pleistocene Vertebrates from Arizona and the Colorado Plateau to press. Jim will complete his study of the carnivores from Snake Creek Burial Cave, Nevada (Rancholabrean). Chris Bell (Berkeley) and Jim are publishing various herp articles (one in press in *Copeia*). Larry will go to INQUA in Germany in July and to the Mammoth Meetings in St. Petersburg, Russia, in October. David Eliott is still publishing lots about Agnatha (see the last few issues of *Journal of Paleontology*). Heidi Johnson and Dave have been working hard on their studies of placoderms. (Jim I. Mead)

Texas A & M International University, Laredo

We've missed getting a report into the last two *News Bulletins*, thus a brief summary of the past year or so is in order. Last year Jack Callaway enjoyed field time in Sonora, Mexico, with Carlos Gonzalez-León (Instituto de Geologia, Universidad Nacional Autónoma de México, Hermosillo, Sonora), Spencer Lucas, and Pete Reser (both with the New Mexico Museum of Natural History). Upper Triassic marine sections in northwestern Sonora (west of Caborca) were examined. Most of the fossils found were invertebrates ranging from sponges to cephalopods. Some of these were associated with rather well-developed reef complexes. Wide-spread disarticulated ichthyosaur remains were also recovered. These have been difficult to assess, but appear to belong to both *Shastasaurus* and *Toretocnemus*, plus some indeterminates. Once they are sorted out, a write-up will be forthcoming. The nights were cold, the days hot, and the cactus aggressive, but all this paled in comparison to Lucas' special homemade camp chili. Ay, Chihuahua!

Also last year, Jack presented a paper relating to the phylogeny of the Mixosauridae at the annual Texas Academy of Science meeting in Houston. An impressive number of Texas and Louisiana VPers were in attendance, providing oral and poster sessions for the Systematics and Evolutionary Biology section.

In our last report, we noted the occurrence of proboscidean remains in the city of Laredo. Since then, Tom Vaughan and Jack Callaway came across additional material from a commercial gravel pit on the east bank of the Rio Grande River about 14 miles north of the city. A nice mammoth tusk, slightly in excess of 3 m, was found. Its total length is estimated to have been 4.3 m. The Webb County Heritage Foundation has been granted custody of the tusk and plans to include it as an exhibit in the soon-to-be-built new city public library. Although Jack is not overly familiar with tusked, hose-nosed critters, he hopes to have a brief article on their Webb County, Texas, occurrences in review for *The Texas Journal of Science* soon with help from Tom Vaughan and the chili aficionado, Spencer Lucas.

Jack and Betsy Nicholls (Tyrrell Museum) led a highly successful premeeting symposium, Sea Reptiles of the Past, at the Seattle SVP meeting in October. A book edited by Callaway and Nicholls under the same title is in preparation for Academic Press. One of our symposium speakers, Mike Caldwell, was awarded the Romer Prize. Mike also was the designer of the very handsome symposium tee shirts. Congratulations and thanks, Mike. (Jack M. Callaway)

Rocky Mountain Region

Brigham Young University, Provo, Utah

Unfortunately, the news from Brigham Young University is not especially good. The present BYU administration has decided that they no longer want an earth science museum at the university. Instead, they plan to operate at a lower key, recognizing only a group of paleontological collections. Ken Stadtman is managing these. At the lower level of operation, collecting activities will be dramatically reduced, conserving what little manpower exists to be directed toward preparation of fossils. The local government, however, does see great value in the BYU collections and would like to establish a local museum utilizing these collections. Negotiations between local government officials and BYU administrators are taking place to see if an agreement can be reached. Whether the collections can be transferred or not would of necessity also involve both the U. S. Forest Service and the BLM, since the bulk of our fossils were collected on their lands. Local government leaders have been apprised of the need for increased help in preparation, and that research goals would have to be met as well as those for exhibit of specimens. In principle they are in agreement. The entire situation, though, is one of uncertainty at the present time. Thanks to The Dinosaur Society and U. S. Forest Service, Grand Mesa, Uncompahgre, and Gunnison, Colorado National Forests, each of whom are providing half a preparator's salary, we do have one (but only one) full-time preparator, Dee Hall. However, both of these funding sources are temporary. Ken manages to do some preparation along with a multitude of other duties.

Michael Kass has now completed his Master's thesis and defense. We wish him the best of luck in finding a teaching position at the junior college level. His thesis is entitled A New Mosasaur from the Mancos Shale of Delta County, Colorado. Brian Curtice is busy in course work as well as his research on a comparative study of diplodocid caudal vertebrae. David Smith has been busily compiling his data on statistical analyses of growth and development patterns in *Allosaurus*, drawing largely, but not entirely, on the extensive Cleveland-Lloyd Dinosaur Quarry collection. Paul Bybee has been slowed in his research on histological studies of *Allosaurus* because of a full-time teaching position in a nearby college. However, his work is progressing.

Wade Miller has been engaged in several research projects, some of which are finally coming to fruition in terms of papers to be published. Two papers have been reviewed and accepted. One is on *Agriotherium* from Gunajuato, Mexico, to be published by the

Journal of Mammalogy, and the other on Hemphillian and Blancan felids from central Mexico, to be published by the *Journal of Paleontology*. Both papers are done with Oscar Carranza. Two other papers now completed and ready for submission involve the Cleveland-Lloyd Dinosaur Quarry of central Utah which will feature a 72" x 42" quarry map showing the position and catalogue number of each bone collected. This paper was done with Rod Horrocks and Jim Madsen. The second largely concerns an osteological study of *Camarasaurus lewisi* in which Jack McIntosh, Ken Stadtman, and Dave Gillette are joint authors.

Work in establishing greater chronologic precision of the Hemphillian Blancan boundary, as determined by sedimentary sequences in central Mexico, is proceeding. Oscar Carranza has been spending much time in the field on this and is periodically joined by Wade Miller. Bart Kowallis, also of BYU, accompanied them into the field earlier in order to obtain samples for both fission track and K/Ar (also Ar/Ar) dating. These samples are now being processed. Later this spring, Ev Lindsay will go into the field with Oscar and Wade to do paleomagnetic sampling. This work is supported by an NSF grant (EAR-9316895). (Wade E. Miller)

Denver Museum of Natural History

Almost all of our efforts have gone toward finishing up work on two NSF-funded projects the collections improvement project and work on the new exhibit, Prehistoric Journey, set to open October 20, 1995.

Lab work for Prehistoric Journey is winding down. Jerry Harris will be moving on to Southern Methodist University as a graduate student; Jon Christians plans to be a middle school teacher; Jennifer Moerman is looking into options; and Karen Alf is available as a preparator skilled in mounting specimens and micropreparation. Bryan Small and Ken Carpenter are looking forward to a slow down in the work schedule with emphasis on preparation of research specimens. Final work for Prehistoric Journey includes reconstruction, molding, and casting of a *Smilodectes* skeleton by Jon; reconstruction and mounting of a juvenile *Coelophysis* by Karen; reconstruction and casting of juvenile *Othneilia* specimens by Jerry; mounting of casts of various dinosaur legs by Jennifer; and reconstructing and mounting of the skeleton of Lucy by Ken.

Since the beginning of the year we have installed new compactors and have increased the storage facilities by over 50% for vertebrate fossils. Practically all of the collections made prior to 1994 have been prepared and catalogued. We finally located several of our obscure type specimens and now have an isolated type cabinet, and cast collections. Due to the efforts of Jennifer Snyder and Logan Ivy, collection managers, and students Mechelle Martinez, Brenda Chinnery, John Foster, and Lisa Torick, over 20,000 specimens have been catalogued, placed in new storage boxes and cabinets, and computerized.

Kirk Johnson and Richard Stucky finished a book entitled Prehistoric Journey, to be published at the time of the exhibit's opening, which has on its cover an exquisite fleshed-out painting by John Gurche of Ken's *Allosaurus* and *Stegosaurus* skeletons. Richard and Kirk shift duties every other week, writing a column for the *Rocky Mountain News* called, guess what, Prehistoric Journal. Richard also taught fossil mammals of North America through the University of Colorado, and is thinking about expanding the notes into something usable for amateurs and beginning students in identifications. Field work will again include Badlands National Park and Wyoming for Richard Stucky, Logan Ivy, and others, and Ken Carpenter and Bryan Small will again go to Canon City, Colorado. Everyone is anxiously awaiting the completion of the exhibit so that we can all shift to research for a few decades.

In addition to Jerry, several other students will be moving on to graduate studies. Brenda Chinnery has options to go to either Johns Hopkins or Stony Brook, and Lisa Torick, Jon Bennett, and Mary Wisz have all been accepted at the University of Colorado at Boulder. Ken Carpenter will be finishing his Ph.D. at Boulder this December.

The Symposium for Prehistoric Journey will feature Stephen J. Gould, Lynn Marguilis, Adolf Seilacher, Bill DiMichelle, and Elizabeth Vrba, among others. Please see Calendar of Events in this issue for information. (Richard Stucky and Ken Carpenter)

Garden Park Paleontology Society/Dinosaur Depot, Canon City, Colorado

You will notice a new name following the Society's Dinosaur Depot. For those who attended the Public Education/Outreach session at SVP in Seattle, this name will mean something. For others here is the scoop! The Garden Park Paleontology Society will finally have a place for its headquarters as well as a small showcase for visitors. In cooperation with the City of Canon City, Colorado, we will be housed at Dinosaur Depot at the River Station beginning June 1. The building is an old historic fire station that the city is allowing us to use. The Depot will house Garden Park Paleontology Society offices, exhibits about the Garden Park Fossil Area, and a working preparation laboratory. This laboratory will have as its main focus the body jacket of the 1992 *Stegosaurus* discovered here by the Denver Museum of Natural History. The specimen is on loan to the Society by the museum and preparation of it will take place in a public viewable lab by Donna Engard, a paleontology-certified amateur under the supervision of Kenneth Carpenter. For any of you traveling through Colorado this summer, we urge you to visit us. Dinosaur Depot is located at 330 Royal Gorge Boulevard, also known as U. S. Highway 50, at the western end of Canon City. Hours will be 10:00 AM to 5:00 PM seven days a week. For information about special group programs, call (719) 269-7150. Come visit the Jurassic past! (Pat Monaco)

Hagerman Fossil Beds National Monument

We had a good turnout of about 50 people for the Western Association of Vertebrate Paleontology meetings held here at Hagerman in April. Participants ranged from Nebraska to Oregon to New Mexico and included one from Louisiana (the western part of the state, we presume). We would like to extend our thanks to all those who took the time to attend and hope they'll have a chance to come back to pursue research projects here at the monument. Things are now returning to normal (or as normal as they get around here) and we're gearing up for a busy field season.

Research at Hagerman is definitely getting more international. Greg McDonald is pleased to note that his paper with Christian de Muizon on the aquatic sloth from the Miocene of Peru that was submitted in February has been accepted by *Nature* and should be out this year quite a shock since the usual turn around on most of his papers is much more slothful. Greg has a couple of other projects in the works including (for a real change of pace) one on some newly discovered borophagine canid material from the Glenns Ferry and Chalk Hills formations.

We recently received a donation of material from Mark McQueen collected by his father in Owyhee County. There is a good sample of material from the Glenns Ferry Formation and possibly the Bruneau. Some of the more spectacular specimens include partial skeletons of *Paramylodon harlani* and *Arctodus simus*.

Chris Force is busily preparing for the upcoming field season which includes work at Hagerman Fossil Beds National Monument, Craters of the Moon National Monument, and City of the Rocks National Reserve. The articulated beaver that we found late last summer has been hibernating in its plaster jacket on the Monument. This spring we hope to have it airlifted out with the help of local BLM helicopters. This should be quite the event for the little town of Hagerman. (Greg McDonald)

Museum of the Rockies, Montana State University, Bozeman

Jack Horner continues his studies on the life history strategies of Cretaceous dinosaurs and is presently focusing on comparing nesting characteristics of various hadrosaur taxa. He is also working on computer models to predict clutch size, hatchling size, and fledgling size. Jack and his new wife Celeste will spend the summer working in both lower and upper Cretaceous sediments of Montana.

Pat Leiggi has been appointed as the Museum's Assistant Head of the Research and Collections Division. Pat is actively working on collections and conservation projects for all curatorial departments in the museum and has had little time for paleontology other than administering the department. With Peter May, Pat is also working on Vertebrate Paleontological Techniques, Volume 2 (Cambridge University Press). Volume 1 was finally published in October of 1994. Pat and Peter would like to thank all authors who participated in Volume 1.

Bob Harmon continues preparation of the *Allosaurus* skeleton known as Big Al. The work is scheduled for completion in September of this year. Brent Breithaupt (University of Wyoming) plans to have the taphonomic study of the site completed for the final report. Bob has also been handling the set up and take down of the department's traveling exhibit Dinosaur Families. In the past year the exhibit has traveled to the Oregon Museum of Science and Industry, Portland, Oregon; Museum of Science and Technology, Syracuse, New York; Museum of Science, Buffalo, New York; and is presently on display in Port Washington, New York.

Carrie Ancell is preparing specimens she collected this past summer in the Judith River Formation near Havre, Montana. Highlights are a large ?lambeosaurid egg clutch, a partial hadrosaur, and a partial tyrannosaurid. Somehow, Carrie still finds time to prepare some of the backlog Two Medicine Formation material collected a few years ago.

Ellen Lamm has been busy in the histology lab working on a multitude of projects for Jack Horner and graduate students. She is also preparing allosaur thin sections for Paul Bybee's (Utah Valley State College) thesis project.

Dave Varricchio is now Dr. David Varricchio who defended his thesis the first week of April before leaving for Morocco with Paul Sereno. Dr. Dave has been busy the past few months submitting two chapters in the Dinosaur Encyclopedia, a paper now in press for *Palaeo*[3] on the taphonomy of Jack's Birthday Site, and describing a new theropod with Phil Currie. Dave will be returning in late June to lead the Museum of the Rockies public paleontology program near Choteau. Dave has accepted a curatorial position at the newly expanded Old Trails Museum in Choteau, Montana, beginning in September of this year.

Frankie Jackson, Dave Varricchio, Jack Horner, and Rod Sheetz are describing a nest structure and clutch of eggs from the Two Medicine Formation of Montana. Frankie presented the information in a poster session at the regional GSA meeting in Bozeman last month.

Yoshi Katsura is studying the morphology and histology of champsosaurs (Diapsida, Choristodera). Yoshi is studying as many champsosaurs as possible in order to accurately assess the variation. Yoshi would appreciate any information and/or champsosaur material, especially articulated or associated specimens with limb elements. He plans to continue his osteologic study of gharials, *Gavialis gangeticus*, and would be grateful for any gharial information and/or skeletal material you can provide him. You can contact Yoshi by snail mail through the museum or by e-mail (yoshi@iggy.oscs.montana.edu).

Rebecca Laws continues to work toward her Master of Earth Science (Geology) degree. For her thesis, she is researching the paleopathology of *Allosaurus fragilis* by utilizing the Cleveland-Lloyd population and Big Al, MOR 693. Rebecca has received a $3,000 award (D. L. Smith Memorial Scholarship) which is awarded by the Department of Geology at Montana State University-Bozeman to a first-year geology graduate student in recognition of their outstanding academic performance and superior progress toward the completion of their thesis research. She completed an SEM short course in December

and is using SEM for part of her research analysis. She also spent some time in February in Utah where she examined Cleveland-Lloyd allosaur material housed at BYU (Provo) and CEU (Price), as well as other allosaur material at Dinosaur National Monument. In May, Rebecca presented her analysis of the paleopathologies of MOR 693 at the Rocky Mountain Section of GSA meetings in Bozeman. She plans to present her preliminary conclusions with respect to her thesis research at the 1995 SVP meetings in Pittsburgh.

The work on the sedimentology and paleoecology of a Morrison Formation dinosaur nesting site in western Colorado by Rod Sheetz and Dean Richmond of BYU was presented by Rod at the Rocky Mountain GSA meeting in Bozeman in May. He has been preparing a paper with Emily Bray and Karl Hirsch on some soft-shelled egg fragments and embryonic turtle fragments from the same site. Rod and Jack Horner are also describing some of the known postcranial material for the Cloverly hypsilophodont Zephyrasaurus. (Paleo Staff and Students)

Partners in Paleontology Unites Agencies

The wealth of fossil resources on public lands is matched by the wealth of creative people working with those resources. A multiagency conference, Partners in Paleontology: Protecting Our Fossil Heritage, was held in Colorado Springs, Colorado, on October 31 to November 4, 1994, which brought together public agencies and private organizations on issues related to the management, research, and interpretation of paleontological resources. The conference participants were paleontologists, resource managers, museum professionals, educators and interpreters, researchers, paraprofessional volunteers, and law enforcement specialists.

Two DOI entities, Florissant Fossil Beds National Monument, NPS, and Canon City District Office, BLM, joined with two private organizations, Garden Park Paleontology Society and Friends of Florissant Fossil Beds, to host the week-long event. Partners in Paleontology, the fourth conference on fossil resources, was sponsored by the National Park Service, Bureau of Land Management, U. S. Geological Survey, U. S. Forest Service, and the State of Colorado.

The challenge of creating real partnerships was central in planning for the conference. The multiagency planning committee included: Dale Ditmanson, Margaret Johnston, and Herb Meyer at Florissant Fossil Beds National Monument; Harley Armstrong, BLM's Colorado State Paleontologist; Dan Grenard in the Canon City BLM Office; Thomas Woody Henry with the USGS in Denver; Marsha Kearney on the Pike and San Isabel National Forests; and Jim Von Loh from the Colorado Natural Area Program.

The Rocky Mountain Nature Association, a nonprofit cooperating association, was also a partner in the conference. The association worked with the planning committee on conference logistics to make this multiagency effort a reality.

A major focus of the conference was on resource management and protection, where subjects such as salvage operations, inventories, and resource accessibility were discussed. Perspectives on the differing needs for the protection of vertebrate paleontology with those of invertebrate paleontology and paleobotany were addressed. Strategies for conducting research on public lands pointed to the need for more uniform permitting processes within the federal agencies. Presentations on a variety of research projects illustrated the kind of information that fossils can provide, and a host of ways this information can be more accessible to the public through education and interpretation. Applications to interpretation and education were illustrated by presentations from museum programs that train and utilize amateur volunteers in the field and laboratory, and the use of public lands for interpretive exhibits and higher education field programs. New approaches to collections management and computerized paleontological data bases showed how paleontology can travel along the information superhighway. Partnerships between government agencies and museums, educational organizations, amateur paleontological societies, and volunteers emphasized innovative means of accomplishing mutual goals.

Creativity and partnerships were themes repeated in all the plenary sessions. Dr. Richard Stucky, Curator of Paleontology with the Denver Museum of Natural History, spoke on the significance of conducting research on public lands. Elizabeth Estill, Rocky Mountain Regional Forester, stressed the need to garner public support for fossil resources, and the USFS Paleontological Initiative Founding Father of the USGS, John Wesley Powell, made a guest appearance at the conference banquet. Reincarnated by actor Earll Kingston, Powell described the excitement and ordeal of his exploratory expedition through the canyons of the Colorado River.

Field trips to Florissant Fossil Beds National Monument (NPS), Garden Park Fossil Area (BLM), Picketwire Dinosaur Trackway (USFS), Dinosaur Ridge, and the Denver Museum of Natural History gave participants a first-hand look at problems and successes in managing paleontological resources.

The partnerships theme galvanized support for a fifth conference. As the fourth conference ended, representatives from the USFS, NPS, and BLM in Nebraska, South Dakota, and Wyoming stepped forward to host a future meeting. (Staff at Florissant Fossil Beds National Monument)

Geology Museum, Sheridan College, Sheridan, Wyoming

The past six months have been busy at Sheridan College Geology Museum. Ed Jordan and crew had a successful late fall field season studying *Diplodocus* disarticulated specimens from Sheridan College's sauropod quarry Morrison Formation in northern Wyoming. We have been busy with a number of projects involving the Morrison biostratigraphy, sedimentology, and paleogeography. Upgrading projects in the museum include plans for installation of a new computer curation system, reorganization of the

collections, increased storage areas, and the ongoing process of installation of new equipment in the preparation lab. We are also field checking old collecting sites within the Morrison of northern Wyoming within both the Big Horn Basin and Powder River Basin. Mike Flynn finished curating the Hell Creek material from southeastern Montana and with Pete Wilson (SC) is readying his work on the Cloverly track site from northern Big Horn Basin for publication. (Mike Flynn)

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

Jay Lillegraven will spend almost the entirety of the coming summer in Wyoming's Hanna Basin and Shirley Mountains, under generous support of a JAL grant. He will present part of the research story at the AAPG Meeting in Reno in mid-July. Geologically oriented VPers might be interested in participating in the four-day GSA field conference that Jay and (structural geologist) Art Snoke will lead in mid-October of 1996, just prior to Denver's GSA National Meeting. The trip is to be called A new look at the Laramide orogeny in the Seminoe and Shirley mountains, Freezeout Hills, and Hanna Basin, south-central Wyoming foreland. Beginning last January, Jay assumed new responsibilities within the UW's Department of Geology and Geophysics as its Faculty Curator of Scientific Collections. Please see this issue's Bulletin Board for related information.

We would like to welcome Mr. Jean-Pierre Cavigelli as Collections Manager for the department's scientific collections. J.-P.'s first challenge is to track down outstanding loans and get the material back to Laramie.

Jaelyn Eberle is busily writing her dissertation on Puercan mammals from the Hanna Basin of Wyoming. She plans to defend this fall. In May she spoke at the Rocky Mountain Section GSA Meeting in Bozeman on Mammalian evolution at the dawn of the Paleocene in the western Hanna Basin. This summer, Jaelyn will be teaching a six-week course entitled Geology and the paleontology of the Rocky Mountain Region to high school students from around the western United States as part of a university-sponsored Math and Sciences Initiative Project.

Ross Secord is continuing his study of Wyoming's Carbon Basin fauna and finding out how blurred the Torrejonian/Tiffanian boundary is. Ross recently finished preparing a well-preserved baenid turtle skull from his thesis area. Anton Wroblewski continues his thesis work on the dinosaur fauna from the Hanna Basin of southeastern Wyoming.

Brent Breithaupt (UW Geological Museum) continues to work on the history of paleontological collecting in Wyoming and taphonomy of various Jurassic mid-Tertiary sites, as well as developing new educational and public programs in the museum. (Brent Breithaupt)

Utah Museum of Natural History

Jeff Eaton, with the help of Jim Madsen, has been recurating the Cleveland-Lloyd Dinosaur Quarry material at the museum. We hope there will be serious progress on these collections over the next year.

Jeff continues research on Late Cretaceous mammals and stratigraphy of southwestern Utah, and has begun work on an extensive section of undescribed Late Eocene strata in the same area. He has beeen working with Howard Hutchison on this unit, which to Howard's delight, produces abundant turtles. (Jeff Eaton)

West Coast Region

Anza-Borrego Desert State Park

For a variety of reasons, the Anza-Borrego Desert State Park (ABDSP) contribution to the *News Bulletin* has not reached the regional editorial office. So, three issues-worth are included herein, of course with blatant disregard to extended length of this entry.

Paul Remeika completed Phase 1 of the state park's General Plan stratigraphic mapping project on May 1. He submitted a preliminary proposal on The Neogene stratigraphic revision of portions of the Borrego Badlands and is now back in uniform as a patrol ranger. His interagency cooperative agreement between ABDSP and the Bureau of Land Management has received final signature by the District Superintendent. The agreement is intended to enhance the conservation and long-term management of paleontologic resources on lands administered by the BLM adjacent to the park.

Paul gave an impromptu auto tour to Steve Fischbein (paleobotanist) and Charlie Lough (geologist) of the Borrego Badlands. They surveyed localities yielding reworked petrified woods as well as localities yielding woods of the new Clark Mountain Local Flora. During the cooler months of the year, Charlie Lough has been mapping bedrock exposures and detachment faults throughout the Vallecito and Pinyon mountains. Paul took Jaimie Wineberg of the University of Iowa into the Carrizo Impact Area (CIA) to conduct field research on rare *Madracis* corals. He was able to guide her to the only site known, and located for her one of the largest *Madracis* coral heads in the world. Paul returned to the CIA with Chuck Powell (USGS) to locate Mendenhall's famous coral locality (last sampled in the 1890s) and Arnold's lost pecten locality. Both efforts were highly successful, and Paul added the large pecten *Patinopecten?* to the park's marine invertebrate faunal collection.

Late in June, John Harris from the University of Utah, spent a day sampling the ABDSP collection for bits of horse and camel teeth to be used in C^{13} dietary analyses. The following day, during Borrego's 122 heat wave, he and George spent a day with Ranger

1, Chris Smith, touring various vertebrate localities in the Vallecito-Fish Creek Basin. A good (and hot) time was had by all.

On July 25, Jefferson and Remeika visited the Page Museum. Jefferson plans to report on a newly discovered proximal left ulna of what appears to be *Teratornis incredibilis* from the early Irvingtonian portion of the Vallecito-Fish Creek Basin section. This is the fourth specimen on record of this rare, very big bird. A comparative sample of La Brea's *T. merriami* ulnae were examined and measured. George also conferred with Antonia Tejada-Flores on their manuscript describing the remains of *Acinonyx*, American cheetah, from Anza-Borrego. Remeika is interested in identifying petrified wood specimens from El Golfo de Santa Clara, collected many years earlier by Ted Downs and Chris Shaw. The El Golfo material, presently stored at the Page Museum, is considered time-transgressive to Anza-Borrego's Carrizo Local Flora derived from the ancestral Colorado River. The El Golfo fossil vertebrates correlate to the Borrego Local Fauna. Also at the Page Museum, Remeika borrowed fossil softwoods from the tar pits to identify. They have been regarded as Monterey Pine *Pinus radiata* and Monterey Cypress *Cupressus macrocarpa* based on pollen and seed analyses, but not on the woody material. Paul believes this is a good excuse to revisit the Monterey Peninsula.

Ten additional storage cabinets (built by Steel Fixtures) finally arrived in May. At present they are being used to store ABDSP's paleobotanical specimens and marine invertebrates. Curation and cataloguing will follow soon. An additional eight storage cabinets are online as a part of the BLM interagency agreement. Other significant acquisitions include the scientific library of the late George J. Miller. The collection, which includes over 500 volumes, reprints, and some VP classics, was donated by Mrs. G. Miller. Thanks again, Pat.

At the San Bernardino County Museum, Mojave Desert Quaternary Research Center Symposium in May, Paul gave a presentation on Lower Pliocene angiosperm hardwoods from the Vallecito-Fish Creek Basin, Anza-Borrego Desert State Park, California: Deltaic stratigraphy, paleoclimate, paleoenvironment, and phytogeographic significance, and Paul and George presented the paper *Mammuthus columbi* and *Mammuthus imperator* from the Borrego Badlands, Anza-Borrego Desert State Park. On August 17, Paul gave an introductory lecture on The Neogene stratigraphy and paleontology of basinal depositional environments of the western Salton Trough at the San Diego Association of Geologists monthly meeting in San Diego. Paul is scheduled to lead their upcoming 1995 field trip to Anza-Borrego, and will be senior editor for the accompanying guidebook.

George is now responsible for management of paleontological resources in all of the Colorado District park units. These areas include fossiliferous deposits, equivalent in age to both the Vallecito-Fish Creek Basin and the Borrego Badlands, located along the eastern side of the Salton Trough. As a result, he has been digging through the literature and collection records form San Bernardino County Museum and UC Riverside, as well as walking outcrops scattered from the Indio Hils south to Bat Caves Buttes. A Paleontologic Resources Inventory and Management Recommendations has been produced for the Salton Sea State Recreational Area. Others are to follow.

That part of the ABDSP collection previously housed at Imperial Valley College Museum was brought to the Stout Paleontology Laboratory and added to the main collection in 1992. Park volunteer Julie Parks was in charge of packing and moving the collection and reorganizing it once it arrived. In October 1994, Lyndon K. Murray, of Northern Arizona University's Quaternary Studies Program and the prematurely defunct Animas-La Plata archaeology project, was hired on a State Natural Heritage Stewardship Program grant as collections manager. He has been examining all the vertebrate specimens in the IVCM collection and will verify and update the identifications and ancillary information. In addition, his duties include editing the master collection database in Access and preparation. Lyn has just finished a Colorado Desert District Collections Curation Manual, which includes all the standard how-to-do-its, as well as forms for amending specific IVCM collections data. A new Park aide, Joelle Emma, has joined volunteers Amber Dickinson, Bill Loerke, Julie Parks, and Pat Sena in helping Lyn get the collection in order. Joelle is planning on beginning Ph.D. work next year in physical anthropology. She is eager to get some paleontology experience.

The grant also included contract monies to transfer and digitize localities from aerial photographs to topographic maps and onto a GIS layer. We were also able to purchase some needed photographic equipment and specimen cabinets.

Our new High School Internship Program started in September with Anthony Robalos from Borrego Springs working in the preparation laboratory under the supervision of George McDaniel. In November a new Paleontology Certification Training Program opened, and seven new volunteers are now assisting in preparation, curation, and field work. McDaniel comments the lab is just perkin' right along.

Recent fossil discoveries in the Park include extraregional freshwater (?) invertebrate material from the Diablo Formation of the Borrego Badlands. The taxa are not indigenous to the Colorado River Group and may have been reworked from older Paleogene? exposures upriver from Yuma. One good sample was shipped to Farley Fleming (USGS) for further study. Several specimens of petrified wood from the interbedded sequence of the Diablo-Split Mountain Formation in the southern Borrego Badlands are now the oldest Neogene woods from the Colorado Desert. Our volunteer crew has been busy excavating most of the right hind quarters of a large camel. Discovered in the Borrego Badlands, the animal dates to approximately 800 kyr BP. Locating such sites with a GPU and base station has become routine. (P. Remeika, L. Murray, and G. T. Jefferson)

Museum of Paleontology, University of California Berkeley

Finally, the move has begun! The San Andreas Fault is relatively quiet for the moment but UCMP is not. Starting on April 24 and lasting for more than a week, staff, students, and faculty of the Museum of Paleontology were moved from the Earth Sciences Building to new quarters in the fully renovated Valley Life Sciences Building. The Museum of Paleontology mailing address is now 1101 Valley Life Sciences Building,

University of California, Berkeley CA 94720-4780. Phone and fax numbers as well as e-mail addresses have not been changed.

In early May the carriages for the compact storage units that will house the research collections are scheduled to arrive and be installed. The move of the research collections is scheduled to begin on July 1. By the end of the summer they should be in place and again available for use. If you are making plans to visit in the fall and make use of the collections, please schedule a bit of extra time to help us with the unpacking of your favorite fossils. (Bill Clemens)

San Diego Natural History Museum

Steve Walsh has two manuscripts in review on Eocene stratigraphy and mammalian faunas of the San Diego region. One report represents a joint effort with Don Prothero (Occidental College) and his students and attempts to correlate paleomagnetics with the lithostratigraphy and mammalian biostratigraphy. A second report provides an update and refinement of Eocene mammalian faunas and collecting localities. Both will appear in an upcoming volume on the terrestrial Eocene/Oligocene transition edited by Don Prothero and Bob Emry.

Steve would be interested in trading casts of San Diego Eocene insectivores, primates, and rodents for casts of similar Eocene taxa from the Western Interior. Tom Deméré has completed a global review of all well-documented Cenozoic marine mammalian paleofaunas and collecting localities. This review attempts to bring to marine mammalian paleontology the detail and geographical scope that Savage and Russell (1983) brought to terrestrial mammalian paleofaunas.

Walter Coombs (Western New England College) and Tom have a manuscript in press (*Journal of Paleontology*) describing a nodosaur skeleton collected in 1985 from the latest Campanian-aged marine mudstones (Point Loma Formation) of coastal San Diego County. This specimen preserves much of the posterior half of the animal, as well as portions of the sacral armor and isolated pieces of the dorsal armor. The lack of diagnostic skull material precludes specific recognition of this taxon.

Field work over the last six months by departmental staff (Gino Calvano, Richard Cerutti, Fritz Clark, Brad Riney, Don Swanson, and Steve Walsh) has produced several important discoveries. From the early Uintan part (Friars Formation) of the Eocene section we collected the first known skull of the brontothere, *Metarhunus? pater*, named by Stock in 1937. This specimen should help answer questions concerning the taxonomy and systematics of this taxon. Other early Uintan fossils include important new cranial and dental material of rodents (*Sciuravus powayensis* and *Pareumys* sp. nr. *P. grangeri*), carnivores (*Tapocyon* sp.), artiodactyls (*Antiacodon* sp. and *Achaenodon* sp.), and perissodactyls (*Amynodon reedi*). From the late Uintan part (Mission Valley Formation) of the Eocene section we recovered a number of whole and partial skulls of a new species

of *Protoreodon*. The Blancan portion (San Diego Formation) of the Pliocene section has produced additional remains of the odobenine walrus *Valenictus chulayistensis*, jaws of the derived cetothere *Herpetocetus* sp., and jaws of a new species of balaenopterid mysticete.

Sally Shelton was a delegate to the International Conference on the Value and Valuation of Natural Science Collections, held at Manchester University, United Kingdom, from 19 21 April. Over 120 delegates from 30 countries attended, with a variety of presentations on the scientific, cultural, and monetary values of natural science collections. Recommendations resulting from this meeting reaffirm the value of natural science collections as a global scientific heritage, and will be used to encourage institutions and governments to take all spheres of values into account when assessing the worth of natural science collections. Sally continues to gather information for a possible Outreach Committee newsletter, to be discussed in detail in Pittsburgh. The response to the idea of an Outreach newsletter has been pleasantly overwhelming.

Several SVP members have registered for the International Academic Projects course on preventive geological conservation, being held for the first time in the U. S. in June at the San Diego Natural History Museum. This course will be held again early next year to accommodate curators, conservators, and collections workers with an interest in preservation and conservation of geological-origin materials. (Tom Deméré and Sally Shelton)

BULLETIN BOARD

SVP Advertising

The Society of Vertebrate Paleontology would like to invite you to take advantage of the exciting new advertising opportunities now available in our publications the *Journal of Vertebrate Paleontology* and *SVP News Bulletin.* If you have products (e.g., books) or services of interest to the membership and not in conflict with the stated objectives of the Society, we encourage you to place an ad in these publications. In addition, if you know of companies that might be interested in advertising in the Society's publications, please have them contact the SVP business office. Please see the advertising rates published near the back of this issue.

The University of Wyoming Collections

Following thorough review, a division of paleontological functions now exists at the University of Wyoming. The venerable Geological Museum now is a separate program administered directly by the College of Arts and Sciences. Its activities include public programs, education, and the display of geological materials; Brent Breithaupt is its director. The various research collections (including the Collection of Fossil Vertebrates) that previously were part of the Geological Museum now are entitled Scientific

Collections of the Department of Geology and Geophysics (SCD). Jay Lillegraven has oversight responsibilities as SCD's Faculty Curator, and Mr. Jean-Pierre Cavigelli is the brand-new Collections Manager. Inquiries about research collections should be sent either to Lillegraven or Cavigelli.

CALENDAR OF EVENTS

Annual GSA Meeting

The Annual Meeting of the Geological Society of America will be held in Denver, Colorado, October 28 31, 1996. The scientific theme for the Denver meeting is At Home in Our Earth System.

As with past themes, this one has several meanings. In particular, we wish to emphasize that the Earth is a complete system whose processes are complexly interrelated at a variety of scales. Secondarily, the theme emphasizes that we are all inhabitants of this complex system; our actions can significantly impact, or be impacted by its dynamic behavior. Theme sessions and symposia will be offered on aspects of multidisciplinary integrated studies of the Earth System, with special emphasis on the Rocky Mountain, High Plains, and Western Interior regions. We are, therefore, soliciting symposia topics and field trip proposals from the various divisions of GSA, as well as the associated societies, that will integrate a variety of disciplines around a broad topic. Indeed, we envision coupled symposia/theme sessions and field trips in which pre- or postmeeting field trips complement technical sessions presented during the meeting. Examples of such synergy might be The Yellowstone volcanic system, The Rio Grande rift system, or The San Luis Valley hydrologic system.

Please communicate any ideas you have for symposia to John Humphrey or John Warme, technical program cochairmen, at Department of Geology and Geological Engineering, Colorado School of Mines, Golden CO 80401. Proposals for field trips should be communicated to Chuck Pillmore or Ren Thompson, field trip cochairmen, at U. S. Geological Survey, Box 25046, MS 913, Federal Center, Denver CO 80225. (John Humphrey)

Prehistoric Journey Symposium

A symposium featuring Stephen J. Gould, Elizabeth Vrba, Adolf Seilacher, Bill DeMichelle, Lynn Margulis, Kirk Johnson, Richard Stucky, and one other person will be held at the Denver Museum of Natural History on November 10 and 11. Costs will be approximately $110 for the symposium which will include the keynote address on the evening of November 10 by Stephen J. Gould and the all-day symposium on November 11. A banquet on the 11th and tour of the museum's exhibit Prehistoric Journey will also

be included. Anyone interested in attending should contact Richard Stucky by e-mail at rstucky@csn.org for information or call (303) 322-7009 for reservations. Seating will be limited.

Prehistoric Journey, a new 20,000-square foot permanent exhibition at the Denver Museum of Natural History will open on October 21, 1995. Reservations are needed to attend the exhibit during the first six months. If you plan to be in the Denver area, please call ahead and make reservations by calling (303) 322-7009. (Richard Stucky)

Society of Avian Paleontology and Evolution Meeting

The Society of Avian Paleontology and Evolution will hold its 4th quadrennial international meeting from 3 7 June 1996 in Washington, D.C., as an official part of the celebration of the 150th anniversary of the Smithsonian Institution. The Calvert Marine Museum in southern Maryland will be a cosponsor. The meeting will consist of poster and paper sessions and a Chesapeake Bay field trip and crab boil. The SAPE meeting immediately precedes the 6th North American Paleontological Convention, also in Washington at the Smithsonian Institution from 9 12 June, which will feature additional scientific sessions and field trips. Anyone who is interested in attending the SAPE meeting and who would like to be put on a mailing list to receive announcements and information circulars, please contact Storrs Olson as soon as possible, as we need information from you for planning our budget. Storrs L. Olson, NHB MRC 116 (Birds), Smithsonian Institution, Washington DC 20560. Phone (202) 357-2031; fax (202) 786-2328; internet address osborne@simnh.si.edu.

Second World Congress on the Preservation and Conservation of Natural History Collections

The Second World Congress on the Preservation and Conservation of Natural History Collections will take place 20 24 August 1996 in Cambridge, United Kingdom. This is the second major international congress on future developments, directions, and support for natural history in museums worldwide and in particular their development as a social and economic resource. The congress is aimed at everyone who either directly or indirectly uses or works in natural history museums. Participants will be involved through discussion sessions, training workshops, and plenary sessions in the development of strategies and resolutions which will be used to coordinate the development of natural history in museums worldwide. If you have opinions and want to participate in the development of resolutions and strategies which will have international impact, then you should be at this congress. Costs are [[sterling]]150 by 30 May 1996, and [[sterling]]175 thereafter, for full participants. For complete information, please contact the Administrator, Second World Congress, Department of Earth Sciences, University of

Cambridge, Madingley Road, Cambridge CB3 0EZ, United Kingdom; phone UK (01223) 62522; fax UK (01223) 60779.

SVP '95 Pittsburgh, Pennsylvania

The second circulars which contain the registration and auction forms as well as other pertinent information about the upcoming 1995 Annual Meeting will be mailed in mid-May. Please note that you will receive a $40 discount for registrations postmarked before October 1st. Checks, money orders, and MasterCard/Visa will be accepted. We look forward to seeing you in November.

PREPARATORS CORNER

Reduction of Bentonitic Claystones

Bentonitic claystones, which occur with some frequency in terrigenous rock units of the Western Interior, often contain significant microvertebrate assemblages, yet they can be exceedingly difficult to process using underwater screenwashing methods. The included clay mineral, montmorillonite (smectite), is characterized by extreme colloidal behavior, impermeability, and hydrophily; if present in sufficient quantities, rock matrix often turns to an unwashable, doughy mass or, worse, external clast layers swell with water, forming an impenetrable barrier and preventing disaggregation of individual clasts. The problem in exacerbated in field situations, where water sources are often saline, because the most prevalent salts tend to cause flocculation of individual clay flakes. Given prolonged (several days) soaking in warm, fresh water, bentonitic clasts will generally disaggregate through clay deflocculation, so that box agitation (and attendant specimen damage) is unnecessary; however, this is often impractical for large samples. We have found that many agents (detergents, wetting solutions, etc.) commonly used to disaggregate rock are ineffective on bentonitic claystones. Because charge deficiencies occur in the center of montmorillonite flakes, deflocculation can be effected by a basic solution, which provides free electrons to bond with the cations of the clay mineral. We have had some success with solutions including OH (e.g., lime, calcium hydroxide), although some salt precipitation frequently occurs. An extremely effective agent is, ironically, a salt itself: soda ash (Na_2CaCO_3). A working solution of soda ash has a pH of about 11; preliminary experiments show that it causes rapid deflocculation of bentonitic claystone. Soda ash is used to control pH in swimming pools, and is widely available, at moderate cost, at pool supply stores. We have not yet experimented with its effects on screenbox materials or on skin, but it is reasonable to advise use of rubber gloves and other protective clothing when working with it. (Richard L. Cifelli)

PUBLICATIONS

Bibliography of Tertiary Rodents

Professor R. Lavocat (France) has prepared a bibliograpy of Tertiary rodents containing 3,600 titles, plus 750 key words. These are available on two 31/2" disks and are for use with Macintosh System 7. Microsoft Word 5 is needed for the key words and End Note Plus 2 for the bibliography. The introduction is at the beginning of the bibliography under AAA LAVOCAT. End Note 2 is available from Niles and Associates, 800 Jones Street, Berkeley CA 94770; fax (510) 559-8683; phone (510) 559-8592.

Professor Lavocat has given me permission to duplicate the disks for anyone wanting the bibliography. He asks that anyone using it credit him. Please send two 31/2" DSHD disks if you would like this in your library. (Morton Green, Natural History Museum, University of Kansas, Lawrence KS 66045)

FAUNMAP

The Illinois State Museum is pleased to announce publication of FAUNMAP: A Database Documenting Late Quaternary Distributions of Mammal Species in the United States (*Illinois State Museum Scientific Papers*). This publication consists of two hard-copy volumes and a diskette. The first volume provides a description of the structure of the database, definition of codes, locality tables, bibliography, and cross-referenced indices. The second volume (305 pages) is a series of maps showing changes in the geographic distribution of more than 150 species in relationship to their modern distributions and changing ice sheet positions for the late Quaternary. An enclosed diskette contains the entire database for 2,919 paleontological and archeological sites in an ASCII format.

The FAUNMAP publication and database can be ordered by sending a check for $40 per copy + $4 per copy for handling and shipping (shipping and handling outside of U. S. is $15 per copy) + Illinois residents add $3 per copy for Illinois State Sales Tax to: Book Order, Illinois State Museum Society, Corner of Spring and Edwards, Springfield IL 62706. Make checks payable to the Illinois State Museum Society.

OBITUARIES

Diane Gabriel, 1946 1994

Diane Gabriel, 48, died on Wednesday, September 14, 1994, at the Medical Center in Glendive, Montana, after a long bout with cancer.

Diane was born May 29, 1946, in Brooklyn, New York, and attended school in Milford, Connecticut. Diane was in her late twenties when she began her undergraduate career at the University of Massachusetts. She started by taking courses in Continuing Education, surprising herself with her academic ability, and then decided to pursue a bachelor's degree, graduating Phi Beta Kappa with honors in 1977.

She majored in anthropology, inspired by Mary Ellen Morbeck, and completed an honor's thesis on the development of social behavior in young rhesus macaques, directed by Melinda Novak. As her college career developed, Diane became more and more interested in paleontology. She took Margery Coombs' graduate vertebrate paleontology course and decided to learn more about museums, working with Walter Coombs on displays at the Pratt Museum, Amherst College. The displays on horse evolution and Kinds of Fossils at Amherst still bear her mark.

Completing her degree, Diane accompanied her then-husband on a job transfer to Milwaukee. There she impressed Mac West, who employed her at the Milwaukee Public Museum. Diane quickly assumed a principal role in the complete renovation of the museum's 11,000-square-foot Geology Hall.

Diane also became a passionate spokesperson for public understanding of science in general, and more specifically, vertebrate paleontology. A major focus of Diane's work was to colead, with Mac West and Rolf Johnson, the museum's Dig-A-Dinosaur program, which not only secured significant fossil material from the Hell Creek Formation for the museum's research and exhibits program, but also set a standard for the involvement of volunteers engaged in assisting museum staff with paleontologic field work. In fact, her many years of work and contributions to the program spawned many similar programs at other museums.

In 1990, Diane left the Milwaukee Public Museum and moved to Bozeman, Montana, to continue her academic career at Montana State University Bozeman. Pursuing a doctoral program in biology under the advisement of Jack Horner, Diane continued her Dig-A-Dinosaur program through the Museum of the Rockies. Her studies on dinosaur growth rates based on ratite birds would have been perhaps her greatest scientific achievement if not for her declining health.

An advocate of public paleontologic resource protection and management, Diane offered many hours of her time in helping Pat Leiggi and other members of the SVP with her perspectives on how our natural heritage could be better protected for future generations of American scientists and educators.

It was in early 1994 when Diane's health began to decline that she decided to leave Bozeman and move to Glendive, Montana, where she could be close to her field study area, and the many friends she had made there over the years. During this period, she attended the opening ceremonies of one of her projects, the Makoshika State Park Public Information Center as an honored guest.

Diane is survived by her best friend and companion, Samuel Christopher; mother and stepfather, M. Grace and Ben Kanter; her father and stepmother, Jack and Marie Rome; her brother, Jack Rome, Jr.; and her grandparents, Mr. and Mrs. Charles Rome.

In the course of her long and productive career, Diane touched many professionals, students, and the public through her research and educational activities and programs. In her honor, the Diane Gabriel Memorial has been established by the Friends of Makoshika in Glendive, Montana. Please send your contributions to: Diane Gabriel Memorial, Friends of Makoshika, c/o Carol Swanson, 1301 North Kendrick, Glendive, Montana 59330. (M. Coombs, R. Johnson, P. Leiggi, and J. R. Horner)

Emil Kuhn-Schnyder, 1905 1994

On the morning of July 30, 1994, Professor Dr. Emil Kuhn-Schnyder, retired director of the Paleontological Institute of the University of Zürich, and emeritus professor of paleontology of the Eidgenössische Technische Hochschule Zürich, died after a short illness at the age of 89. He was one of the last of the great old vertebrate paleontologists, the same age as Ned Colbert and Sam Welles. His scientific life as a paleontologist was inseparably associated with the Middle Triassic vertebrate fauna of Monte San Giorgio in the canton of Tessin, Switzerland. This locality became one of the world's most famous fossil sites under the guidance of Kuhn-Schnyder.

Emil Kuhn-Schnyder was born on April 29, 1905, in Zürich, the son of a railway worker. He was an outstanding student and won a place at a technical high school. This was an extraordinary achievement in those times of social stratification in pre-World War I Switzerland. His graduation from this school enabled him to study natural sciences, including

zoology, at the Technical University of Zürich. He graduated with a doctor of science degree; his research topic was on Neolithic mammals of Switzerland. In 1932 he completed his dissertation while he was a teacher at a secondary school, a position he was required to take out of economic necessity. Since that time, prehistoric life, especially Pleistocene mammals, became one of his primary interests. His first marriage dissolved at this time.

In 1925, Dr. Bernhard Peyer, assistant professor at the Zoological Institute of the University of Zürich, introduced Kuhn to the Middle Triassic marine fishes and reptiles of Monte San Giorgio. In 1951 he married his second wife, Hanni Schnyder. She was an active participant in his field operations, taking responsibility for all aspects of housekeeping at the excavation site. Until this time he had published under the family name of Kuhn. But, since this was such a common name, he decided to avoid any possible confusion by changing his name to Kuhn-Schnyder. With his nomination as professor of paleontology at the university in 1955, he succeeded in funding an independent Paleontological Institute. Kuhn-Schnyder now considered his main objective

to be the investigation of the fauna of Monte San Giorgio. Progress in paleontology, he stated, was only possible through the acquisition of new fossil material and through improvement of preparation methods. The Monte San Giorgio excavations begun by Peyer and continuing under Kuhn-Schnyder from 1950 until 1968, unearthed an abundance of fossil vertebrate material. He adapted industrial abrasive techniques for paleontological use, improved upon binocular micropreparation methods, and used resins for the first time for casting fossils. The Paleontological Institute of the University of Zürich thus took a leading role in fossil preparation. Under Kuhn-Schnyder's supervision numerous monographs of Monte San Giorgio fossils were published, mainly in *Abhandlungen der schweizerischen paläontologischen Gesellschaft.* The institute also became a world center for research on Middle Triassic fossils. Kuhn-Schnyder worked on the vertebrate fauna of Monte San Giorgio until his last days at the end of July 1994. Shortly before his death he completed a critical study of the pachypleurosaurs, establishing the validity of the genus *Pachypleurosaurus*.

Kuhn-Schnyder was an engaging and highly regarded teacher, widely acknowledged by students and academic colleagues alike. He was a well-prepared and very competent speaker, not only in paleontology, but also in zoology and the history of natural sciences. He wrote biographies of Georges Cuvier, Louis Agassiz, Karl Ernst von Baer, and Lorenz Oken. Lectures and publications of Kuhn-Schnyder are characterized by their high quality, accurate preparation, and clarity. Kuhn-Schnyder was one of the few scientists in German-speaking countries who was not only familiar with geology and paleontology, but also had a fundamental knowledge of biological sciences. He published more than 150 papers, books, and popular articles in paleontology, especially vertebrate paleontology, geology, zoology, and archaeology. His primary contribution to the field was his recognition that sauropterygians are derived diapsids that originated from the eosuchians. He also demonstrated that sauropterygians and placodonts do not belong to the same clade. Despite some newer interpretations, this basic conclusion appears to be confirmed by current work.

Kuhn-Schnyder's interest in the history of life, and in his views of the primacy of our species, led him to join the Teilhard de Chardin Association. He was president of this association in the German-speaking countries of Europe from 1968 until his death. He was an honorary member of the Society of Vertebrate Paleontology, of the Paläontologische Gesellschaft, of the Swiss Paleontological Society, and of the Oberrheinischer Geologischer Verein. He was elected as a corresponding member of the Bayerische Akademie der Wissenschaften and the Deutsche Akademie der Naturforscher Leopoldina.

After retiring in 1970 Kuhn-Schnyder regularly visited his office in the institute to work and to have contact with students and colleagues. He continued until 1990, but during the last four years he was housebound. His colleague and successor, Professor Dr. Hans Rieber, kept him informed of new paleontological literature and news. Kuhn-Schnyder was buried, as he wished, in the small village of Meride in the canton of Tessin, at the foot of his beloved Monte San Giorgio, the mountain of fossils. (Rupert Wild)

Grayson E. Meade, 1912 1995

Grayson Meade with a canine tooth of *Felis atrox* at Kincaid Shelter, Uvalde County, Texas, 1948.

After a prolonged illness of several months, Grayson E. Meade died in Mitchell, Nebraska, on the morning of January 12, 1995. He is survived by his devoted wife of 57 years, Dorothy Cook Meade, and their four children Gretchen, Kirk, Evan, and Constance all of whom were at his bedside during conscious intervals in his last days of life. For them, and for his many staunch friends and colleagues, his death was a grievous loss indeed.

My association with Grayson began in the fall of 1939, when he came to Texas from Nebraska to take part in an expanded paleontological program we were then getting underway. This was part of a statewide paleontological and mineralogical survey a federal W. P. A. Project sponsored by the University of Texas' Bureau of Economic Geology. The Bureau's director, and my boss, was the late Dr. E. H. Sellards, who told me he had hired a man to supervise one of our proposed vertebrate fossil units. But all he told me about him was that he was a grandson-in-law of the eminent geologist and educator, Professor E. H. Barbour of the University of Nebraska who had strongly recommended him for the job.

But before going into my personal relationships with Grayson, I want to say something about his earlier history. He was born in Palacious, Texas, on April 8, 1912. While he was still quite young, his parents moved to Norton County, Kansas, and settled on a farm near Almina. So Grayson grew up as a farm boy, attended the Almina High School and graduated from it in 1929. Once, during those high school days he decided to try his hand at taxi-dermy, signed up for a correspondence course, and eventually tried to put his newly acquired knowledge into practice. But the mounted specimen of a wading bird that resulted from all that tedious effort didn't much resemble the beautiful American Avocet he had started with. So he decided that his talents lay outside the field of taxidermy and gave it up, but that didn't diminish his growing love for the natural world which had inspired him to try it.

During the two-year interval between the end of high school and the fall of 1931, he managed a mini golf course in Almina and saved money for college. Then in 1932, after a single semester in Hayes College in Kansas, he entered the University of Nebraska at Lincoln. Grayson knew before he got there that in order to stay in the university he would have to find some kind of a part-time job to supplement his savings, and that he would probably have a great deal of trouble doing so; for this was during the Great Depression when job hunters were everywhere and jobs exceedingly scarce.

If he hadn't made up his mind before arriving in Lincoln about what kind of career he wanted to pursue, he did so shortly after he got there, and before his actual enrollment. It

seems likely that this came about in the State Museum where he spent much of his free time studying the fascinating vertebrate fossil exhibits. On those occasions, he came to believe that working with such fossils must be the most gratifying occupation imaginable, and he yearned to learn how fossil bones were removed from the enclosing rock and prepared for study or exhibit. But the door of the workroom where such preparation was in progress bore a No Admittance sign that blocked his entrance.

During his enrollment proceedings, Grayson met with Professor E. H. Barbour, Director of the State Museum and Chairman of the university's Geology Department, and told him unequivocally, I want to be a vertebrate paleontologist. Dr. Barbour, who knew a bright prospect when he saw one, laid out an appropriate course of study and gave him some friendly encouragement. Grayson was emboldened to ask, Could I get into the workroom? . After deliberating for a time, mistakenly thinking that he was applying for a part-time preparator job, Dr. Barbour gave him the job, but explained that he could pay only 35 cents per hour. (In that same winter many of Grayson's contemporaries, including myself, were averaging no more than 20 cents per hour for hard farm labor.) This was an epochal meeting for Grayson the event that launched his career. It secured the supplemental income that made it possible for him to remain in the university income earned by working **with fossils**, which he would felt privileged to do without any pay at all. It was, moreover, the beginning of an immensely important relationship with members of the Barbour family that would endure for the rest of his life.

During the next five years his time was divided between classrooms, the museum workroom, and summer forays into the badlands to collect fossils. In 1935 he took a B.A. degree in geology and zoology from the university and was elected to Sigma Xi; and in 1937 took his M.A. in geology and paleontology. In June of 1937, he married Dorothy Cook, daughter of the gifted Eleanor Cook, who was Dr. Barbour's only child. The following winter was spent in Honduras with Paul Miller and Paul McGrew collecting fossils for the Walker Museum of Chicago. After that, until the fall of 1939, he took courses at the University of Chicago in preparation for his Ph.D. However, it took a lot more preparation fitted into spare time intervals before he eventually got that cherished degree in 1946, for he now had to have full-time employment in order to continue his part-time study.

When Grayson arrived in Austin, I had been supervising countywide W. P. A. Fossil and Mineral Projects for nearly four years and was now geologist in charge of the expanded statewide survey which would have up to eight or ten similar projects operating concurrently. After he took over the Howard County unit in west Texas, I soon discovered that I didn't need to show him how and where to look for fossils and that he was far more experienced and skillful than I at exposing and collecting them in an undamaged condition. Even so, I never missed an opportunity to visit him at work or in the little 14-foot trailer where he and Dorothy lived during their 18 months in Big Spring. This was partly because I greatly enjoyed the wonderfully stimulating conversations with him and Dorothy that we always had in the evenings, and partly because he nearly always had found something interesting to show or tell about.

One evening he had a particularly exciting announcement. In the Triassic red beds where he had been scouting outcroppings, he had found and partly exposed a quite sizeable concentration of mostly articulated bones something vertebrate paleontologists dream of finding a real fossil quarry. This turned out to be what has since been designated Dockum Quarry No. 1, Southeastern Howard County, Texas. And there for months to come he and his previously untrained crew would collect five or six skeletons of an aberrant diapsid reptile previously unknown to science. A fine mounted skeleton of this reptile since named *Trilophosaurus* is on display in the Texas Memorial Museum in Austin. This collection was, I believe, one of the three most important made in Texas by all units of the W. P. A. Program during the years I was associated with it.

In 1941, he became a charter member of the SVP, and a faculty member in the Geology Department of Texas Tech in Lubbock. He continued teaching there until the spring of 1952, except for the single year of 1948, when he worked full time for The Texas Memorial Museum in Austin. He got his Ph.D. from the University of Chicago in 1946. His doctoral dissertation The Blanco Fauna which had been published the previous year by The University of Texas, resulted from his study of another very important fossil collection made by our W. P. A. Crosby County unit supervised by Richmond Bronaugh. In 1950 Grayson was made a Fellow of GSA.

During summer months and occasional weekends of his teaching years at Lubbock, as well as during the full year of 1948, Grayson and I did a great deal of field work on various kinds of geological projects, some of which have since become familiar to both vertebrate paleontologists and archaeological geologists. These include our extensive study of land features and surface formations on the Llano Estacado, reported in a paper we coauthored, titled Quaternary of the Texas High Plains which was also published in 1945 by The University of Texas. In the course of these studies and later, we did a lot of the early work on localities that have since become famous Paleo-Indian sites: The Lubbock Reservoir Site, the Plainview Site in Texas, and the Blackwater Draw Site in the Clovis- Portales area of New Mexico.

Grayson also joined our Texas Memorial Museum crew in the excavation of two very important central Texas sites the Kincaid Shelter of Uvalde County, and the Friesenhahn Cave in Bexas County, which yielded an abundant and remarkably diverse late Pleistocene fauna. Fossils from this collection have attracted the interest of a large number of vertebrate paleontologists and have given rise to a dozen or more professional publications, including one by Grayson Meade to be mentioned in another place.

In the 20-year interval, 1952 1972, Grayson worked for Union Oil Company in Calgary, Alberta, Canada, where he soon demonstrated his ability to decipher the complexities of subsurface geology. Even so, he found enough weekends and evenings to describe the skeleton of a huge saber-toothed cat we had collected from the Friezenhahn Cave, which had been shipped up to him for study. This painstaking study was published, titled The Saber-toothed Cat *Dinabastis serus*, in Part II of *The Bulletin of the Texas Memorial Museum*, September 1961.

For a while Grayson taught a course at The University of Calgary called Bones for the Archeologist. In 1970 he went on leave to Peru to collect fossils from archaeological sites for the Peabody Foundation at Andover, Massachusetts. While I was living in Calgary and during my occasional visits there, he and I went on informal geological outings, including a memorable excursion into the spectacular fossiliferous badlands, near Drumheller, and the quarries where Wann Langston had dug out a lot of dinosaur bones. Throughout his successful midyears career as an oil geologist, Grayson retained his lively interest in vertebrate fossils and the people who work with them.

In 1972, he took early retirement from the company and moved back to Nebraska to try his hand at managing the historic Agate Springs Ranch for its owners his wife Dorothy and her three sisters. But he soon discovered that successful cattle raising had become a complex business involving a great deal of specialized knowledge, experience, and very hard work, and that he wasn't well equipped to cope with it. But a few years later he had another eopchal meeting this one with his good neighbor, Jim Skavdahl, who was, and is, imminently qualified in every aspect of the beef cattle business. They agreed that Jim would run the ranch operations for as long as that arrangement would remain mutually satisfactory and profitable. It is worth noting, I think, that that contract, made 18 years ago and still in effect, was based on a verbal understanding and secured by a handshake between two good and honorable men.

This arrangement was largely responsible for Grayson's obvious enjoyment of life throughout his graying years. It gave him opportunities to do some interesting and profitable geological consulting, and to travel with Dorothy and friends to various parts of the world. It also gave him time to revisit fondly remembered fossil localities and bring back blocks of rock-bound specimens to be prepared at leisure in his own workshop and added to his private collection. Moreover, he and Dorothy then had more time to devote to the travelers and touring groups who frequently show up at the ranch, which has much of historic and geological interest to be seen and learned about from its gracious host and hostess.

Grayson was exceptionally skillful at any kind of handwork he set his mind to, and was impartially fastidious at cleaning a trout as he was at digging fragile fossils out of stubborn rock or developing one of his fine photographs in his basement darkroom. Moreover he was obviously competent and contented when engaged in various kinds of strenuous outdoor activity. Yet he never learned to swim. Was this because he simply lacked the kind of physical coordination that swimming requires, as he permitted friends to believe? I think not. I believe he didn't take up swimming for the same reason he didn't take up track, tennis, and handball he didn't **want to** ! So, he became uncommonly adept at finding inoffensive ways of avoiding things he didn't want to do which could explain why he was also an uncommonly happy man.

As an authentic man of the earth, he felt at home and contented in his dealings with it especially so during those years at Agate Springs Ranch. When a few vine-ripened tomatoes or prime ears of sweet corn from his garden appeared on the table, he felt richly rewarded for all the hours of planting, tilling, and weeding he had invested in them.

While savoring a meal of trout from the pretty little pools in the Niobrara nearby and delicious wild mushrooms from along its banks, he could remember all of the fun he had had in catching and gathering them **and** he would feel no regrets for those outings when his creel and bucket had come up empty. In his view, every fossil and mineral he ever found and collected was worth much more than it had cost him in terms of time, effort, and shoe leather.

Though Grayson had other projects and interests that captured his full attention at times, his mind always returned to some aspect of vertebrate paleontology, the enduring lure of his life. During a prolonged telephone conversation with him shortly before the onset of his lingering final illness, he posed an interesting question. Since it clearly is the fittest individuals that survive and perpetuate their species, he said, doesn't it follow that it is the unfittest individuals, those that deviate in one way or another from the norm, which give rise to the evolution of new species. This, we agreed, was worth some serious discussion and research which we would take up at our next meeting....

At many different intervals during the past 55 years, Grayson Meade and I have worked, travelled, camped in the open, and worked together on manuscripts. We have fished together, played poker together, socialized together, and talked and talked and talked. I have spent more time with him, and have known him better perhaps than any other man. So I can say a few things about him now that ought to be said for the benefit of those who didn't know him well.

He was a thoroughly decent and honorable man, a gentleman in the best sense of the word. He was a loving and faithful husband and father, and a true and loyal friend. And he was a credit to his science, his community, and to the institution of civilization. He was witty, good natured, and intelligent, with a winning personality that made people around him feel good about themselves and him and everything else.

On January 16, 1995, snow was falling on Windmill Hill and on Grayson's family and friends assembled there to attend his simple funeral service. And they buried him there in the first grave of a new cemetery overlooking a long stretch of the Niobrara River on Agate Springs Ranch. I take some comfort in the thought that as a man of the earth, he will always be compatible with it. (Glen L. Evans)

Pamela Lamplugh Robinson, 1919 1994

Pamela Robinson died in a London hospital on 24 October 1994 after a very short illness. She will be remembered especially for her work on Mesozoic fissure sediments and their faunas, and for her major contributions to vertebrate paleontology and Gondwana stratigraphy in India.

Dr. Pamela Robinson in the field in the Cape Fold Belt during the Gondwana Symposium, South Africa, 1970.

Pamela's academic career began effectively at the comparatively late age of 28 when she enrolled, in October 1947, for an undergraduate degree course in geology at University College, London. Her earlier studies were interrupted by World War II, and by her own war service in munitions work from 1942 to 1945. Pamela remained at University College for the whole of her career, first as an Assistant Lecturer in Zoology until 1955, and subsequently as a Lecturer in Zoology from 1955 to 1956, during which time she gained a Ph.D. degree in 1957. In 1966 she was appointed Reader in Paleozoology, a post she held until taking early retirement in 1982. Pamela's early years at University College were greatly influenced by J. B. S. Haldane, Walter Kühne, and D. M. S. Watson; she herself supervised three Ph.D. students the late Beverly Halstead who worked on pliosaurs, Barry Hughes on a Karroo reptile, and Steven Rewcastle on lizard ankle and foot anatomy.

The subject of Pamela's Ph.D. dissertation was a study of the formation, stratigraphy, and faunal assemblages of the Triassic and Early Jurassic vertebrate-bearing fissure sediments from the Mendip Hills and Gloucestershire, published in the Linnean Society in 1957. A major monograph on the gliding reptile *Kuehneosaurus* from the Triassic fissures of Emborough Quarry in Somerset, associated with and following on from her thesis work, remains unpublished.

1957 also marked the first of Pamela's many visits to India at the invitation of Professor Mahalanobis, the head of the Indian Statistical Institute in Calcutta, upon the recommendation of J. B. S. Haldane. The next few years saw dedicated and energetic work in the setting up and establishment of the Geological Studies Unit at the ISI. Pamela initiated research programs in vertebrate paleontology and in Gondwana stratigraphy and sedimentology in collaboration with her Indian colleagues; her own contribution, a benchmark review of the stratigraphy of the Pranhita-Godavari Valley, stands as an essential reference on this subject. Pamela supervised several research students at Calcutta including Sankar Chatterjee, Asru Chowdhury, Tapan Roy Chowdhury, Sohan Jian, and T. S. Kutty.

Pamela was Alexander Agassiz Visiting Professor at Harvard University in the fall semester of 1972. The next year, 1973, she was awarded the Wollaston Fund of the Geological Society, in the company of Al Romer who received the Wollaston Medal in the same year. Pamela's award was largely in recognition of her work in promoting and establishing vertebrate paleontology in India. Pamela's research changed course in the 1970s with her growing interest in what was then still a young discipline of paleoenvironmental studies and paleoclimatic modelling. Although she published papers in this area, her cherished ambitions to follow them up on a broader basis, to understand better the faunal and floral changes through the Mesozoic, remained unfulfilled. Her postretirement years were spent in self-imposed solitude in east London, devoted to Indian philosophy and gardening.

Generations of undergraduates and colleagues alike will remember Pamela as an excellent, if demanding, teacher, with an immense breadth and depth of knowledge of biology and geology. She could be patient, helpful, charming, and thoroughly

entertaining but also somewhat intimidating. Pamela leaves a modest legacy of published work, but one which has contributed greatly to Mesozoic paleontology. Her scientific effects, including her collection of reptile material from the fissure sites in the west of England, have been deposited permanently in the Natural History Museum, London. (Angela Milner and Barry Hughes)

Sleshi Tebedge, 1951 1995

Sleshi Tebedge died on February 11, 1995, following complications from diabetes and hepatitis. Dr. Tebedge was born on June 10, 1951, in Debre Tabor, Gondar province, Ethiopia, and was subsequently raised in Asmara, Eritrea, and Addis Ababa, where his father was a hospital administrator and pastor in the Seventh Day Adventist Church. In 1976, Dr. Tebedge received a B.Sc. degree in biology from Addis Ababa University, following two years of national service. After coming to the U. S. for graduate studies in 1978 on a Fulbright scholarship, he received an M.A. degree in geology (1980) and a Ph.D. (1988) from the University of Texas at Austin. For both of his degrees he specialized in vertebrate paleontology, and as such he was the first Ethiopian trained in this field. Over the years, Dr. Tebedge held teaching positions at Addis Ababa University, Austin Community College, and Huston-Tillotson College.

Dr. Tebedge's research on fossil suids included pioneer field investigations in the Middle Awash Valley from 1975 1978 while working with the Rift Valley Research Mission in Ethiopia. He was a member of the initial survey team that mapped and documented scores of Mio Pleistocene fossil sites in the region, including all of those that have yielded fossil hominids since. This work formed the basis of his M.A. degree. Prevented from continuing this research for his Ph.D., he completed studies in New Mexico on a Pleistocene cave fauna for his doctorate. He is the author of numerous scientific reports to the Ethiopian government on the Middle Awash, as well as international scientific publications. (Jon Kalb)

CORRECTION NOTICE

Hugh Rose's name was inadvertently omitted from the Patron Member list in the 1993 1994 fiscal year. Dr. Rose's generous contribution is greatly appreciated. SVP sincerely regrets this error.