



Vol. 4, June 1988

1988 NEWSLETTER

GREETINGS

It was gratifying to hear from so many of you in response to last year's Newsletter. Your support, financial and otherwise, is especially encouraging in light of UNM's dismal funding by the state legislature.

This year's Newsletter begins with items sent in by you -- our alums and friends. Next, you'll read about new programs and initiatives that continue the tradition of quality that has become a hallmark of our department. And finally, there are a few words about the Biological Society of New Mexico. We hope you take time to read about us, and then, if you're so inclined, to reciprocate with news of yourselves.

ALUMS

Dorothy (McGuire-Boyd) Beck (B.S. 1962) is currently teaching in a bilingual classroom in the Los Angeles Unified School district. She recently finished several science courses as part of a retraining program to teach General and Life

Sciences at the senior and junior high level. In addition, she keeps busy raising two teenage daughters, camping, and conducting dog obedience training.

William C. Bennett (M.S. 1970) is manager of the Environmental Services Division for the City of Albuquerque Environmental Health Department.

Teresa Benton (B.S. 1976) received her D.V.M. after leaving UNM and is currently a veterinarian in Torrance, CA, where she also enjoys backpacking, climbing and skiing.

Beverly J. Berger (M.S. 1967) received a Ph.D. in population genetics from the University of California at Davis. She is now the Assistant Director for Life Sciences in the Office of Science and Technology Policy, Executive Office of the President, Washington, D.C.

Gregory Borah (B.S. 1972) received an M.D. and D.M.D. from Harvard University and is an Assistant Professor of

Plastic Surgery at the University of Massachusetts Medical School.

Mary Margaret Brandt (B.S. 1984) is a medical student at UNM in the class of 1990.

Daniel K. Brannan (Ph.D. 1981) is currently working as a microbiologist for Proctor and Gamble in Cincinnati, OH. In addition to his Ph.D., he also has an M.S. from Ohio State University. Dan remains busy with two sons, church, camping, and canoeing.

Pat Mehlhop-Cifelli (Ph.D. 1981) is a biologist working with rare animal conservation for the Oklahoma Natural Heritage Inventory in Norman, OK.

Dr. James R. Cole II (B.S. 1963) received the D.D.S. in 1967 and the certificate of Oral and Maxillo Facial Surgery in 1973. He is in private practice with Oral-Maxillo Facial Surgery Associates in Albuquerque

and continues to be an avid skier.

Malcolm Y.T. Chang (B.S. 1975) and his wife Vicki are now in Tempe, AZ where he is a systems consultant for ADAC Laboratories.

Eva L. Courtright (B.S. 1985) is currently a student in Huntsville, AL.

A. Samuel Crowe (B.S. 1976) is a biologist for the USDA in Fort Stockton, TX.

Paul L. Delgado (B.S. 1977) has stayed in Albuquerque where he works as a concrete dispatcher.

Candice DeMar (B.S. 1972) still enjoys playing with kids, music, cooking and her husband Daniel. She is working as a housewife and microbiology laboratory technician in Albuquerque.

Jennie A. Ozog Duffy (B.S. 1971) went on to receive an M.S. from Harvard University in 1973 and an M.D. from Baylor College of Medicine in 1978. She currently is a dermatologist in Houston, TX.

Terry Dunbar (M.S. 1983) is the Naturalist Center Supervisor for the New Mexico Museum of Natural History in Albuquerque.

Theodore B. Fleck (B.S. 1940) received an M.A. from Columbia University in 1947 and spent 24 years

as a biology professor at Upsala College in East Orange, New Jersey. He then spent 12 years as a rehabilitation counselor and Coordinator of the Rehabilitation Program at the V.A. Medical Center in Tucson, AZ where he is now retired. He is looking forward to the 50th Anniversary Homecoming in 1990. We look forward to seeing him.

Robert Foreman (M.S. 1967) got his Ph.D. from Berkley and then his M.D. from UNM. He is a physician in Albuquerque and does research on migraine headaches. When he gets a headache, he fly fishes or plays tennis.

Luke George (Ph.D. 1987) is a postdoctoral associate in the Department of Fisheries and Wildlife Biology at Colorado State University in Fort Collins, CO. Luke reports that he does not have time for other activities.

Frederick A. Giere (Ph.D. 1953) is Professor and Chairman of Biology at Lake Forest College in Lake Bluff, IL. He is also an electrophoresis consultant and Chairman of the Research Committee of the American Cancer Society-Illinois Division. His generous gift of \$100 to our Society was made in honor of the late Dr. W.J. Eversol.

Patti E. Gotti (B.S. 1980) also received a B.S. in Pharmacy from UNM in 1983. She is a pharmacist in Albuquerque and serves as a precept for pharmacy students. Patti also raises Great Danes and enjoys swimming.

Cheryl Fossum Graham (B.S. 1968; M.S. 1970) received an M.D. in 1978 and now works as a medical reviewer for the Food and Drug Administration in Rockville, MD. She also keeps busy raising 2 natural and 3 step children, participating in numerous outdoor activities, and going to soccer games and musical performances.

Julianne Green (B.S. 1955; M.S. 1967) teaches biology and physiology and is Science Department Chairperson at St. Pius X High School in Albuquerque. She is active in science fairs and in the New Mexico Science Teachers Association and she enjoys riding.

Alvin R. Grove (M.S. 1937) is retired and lives in State College, PA.

Cathy (Yirka) Gulick (B.S. 1976) received her B.S.M.T. in 1977 from UNM and works as a medical technologist in Gallup, NM. She is also raising 3 children and works with

the Crisis Pregnancy Center.

Dorothy Harris (B.S. 1964; M.S. 1980) enjoys sports and works as a Quality Assurance Officer in Albuquerque.

Mollie E. Hayes (A.B. 1938; M.S. 1939) was known as Betty Gordon when she was a student at UNM. She is now retired and living in Belen, NM.

Kim Kleyboecker (B.S. 1986) is working on a Master's Degree at UNM. His research involves speciation in antelope ground squirrels in Baja California, Mexico.

Rebecca Daniels Kush (B.S. 1975; Ph.D. 1980) is a Medical Research and Pharmacology consultant in Paris, France, where she is also working hard to master her French.

Christine Lambert (B.S. 1987) is still taking classes and doing research in parasitology while working as a veterinary technician in Albuquerque.

David Lang (B.S. 1973) is a Quality Assurance Engineer in systems integration and launch support for Hughes Aircraft Company's space and communications group in Lawndale, CA.

John E. Leder (B.S. 1965) received an M.S. in Botany (Plant Ecology) from the University of Washington

in 1973. He is an Environmental Scientist and Planner in Seattle, WA and a Captain in the U.S. Naval Reserve. He and his wife Anne Scott have 2 children. He coaches and plays soccer and spends time in the out-of-doors in the Pacific Northwest.

Ana Lopez-Vera (B.S. 1978) received her M.D. from UNM in 1984. She now lives and works in Dixon, CA.

Rod Luhn (B.S. 1972) received his M.D. in 1977 and currently works as a physician for the U.S. Navy.

Lynn Marple (Ph.D. 1979) gave birth to her first child, Katherine Anne ("Kate") on 2 December, 1986. Lynn is a software engineer for Merit Technology in Plano, TX.

Margaret Watson O'Neill (B.S. 1958). We give special thanks and our sincere condolences to the O'Neill family. Margaret passed away in early 1987. Her husband Bill visited the department in August 1987 and delivered a check for \$500 which Margaret had given to Biology in her will. Thank you very much Margaret and Bill.

Harriet M. Oyler (M.S. 1970) works as a corporate industrial health environmentalist for Nabisco Brands Inc. in Caldwell, NJ.

Andrew Paquet, Jr. (B.S. 1967; M.S. 1970) received his Ph.D. in 1974 from the University of Arizona and is now Chairman of Biology at Texas Christian University in Fort Worth, TX. His daughter entered UNM as a freshman in Fall 1987.

Karen Petersen (M.S. 1977; Ph.D. 1983) is a Visiting Assistant Professor in the Department of Biology, University of South Florida, Tampa, FL.

Ray Quintana (B.S. 1982) received an N.T.S. from the New Mexico School of Natural Therapeutics. He currently works as a janitor in Albuquerque and he and his wife Anna-Lena have a son, Toby.

John B. Roberts (B.S. 1949; M.S. 1952) received his M.D. from the University of Colorado in 1955 and is an Otolaryngologist in Albuquerque.

Claudia J. Schmidly (B.S. 1982) is a Lieutenant in the U.S. Navy. She is working on a Master's Degree in Operations Research at the Naval Post Graduate School, Monterey, CA.

Rich Seeley (B.S. 1972) is an independent insurance agent for Perteat, Parks and Associates in Ruidoso, NM.

John F. Sheldon (B.S. 1939) received his M.D. from the University of Southern California after leaving UNM. He is now retired from general practice and doing psychotherapy (Logo therapy) and hypnotherapy in Stockton, CA.

H. Wayne Springfield (B.S. 1942) received an M.S. from the University of Arizona in 1949 and a Ph.D. from fighting Texas A&M University in 1959. He is now retired from the U.S. Forest Service and with wife Cordelia lives in Sun City, AZ. He is available as a consultant in range sciences and enjoys reading, travel and tennis (and probably watching Aggie football).

Ken Stalter (B.S. 1976) is a surgeon in Franklin New York. He received the M.D. from UNM in 1982.

Cydney Stewart (B.S. 1976; M.S. 1981) is a resident physician in Los Angeles. Cydney received the M.D. from UNM in 1985.

Elizabeth Vencill Stowe (B.A. 1971) works as a Medical Technologist in Modesto, CA. She remains active in the Multiple Sclerosis Society, Daughters of the American Revolution, and Ladies Auxillary of the California Society Sons of the American Revolution,

of which she is the past California State President.

Thomas W. Swetnam (B.S. 1977) received the M.S. (1983) and the Ph.D. (1987) from the University of Arizona. He is now an Assistant Professor of dendrochronology at the University of Arizona. Tom also does research on forest ecosystem disturbance and landscape ecology.

Susan Tornquist (B.S. 1980; M.S. 1987) also has a B.A. in philosophy from Michigan State and a D.V.M. from Colorado State (1985). She currently works as a veterinarian for Adobe Animal Clinic in Albuquerque, is married and has one daughter. Susan failed to mention what she does in her free time.

Ellonora H. Trotter (Ph.D. 1987) received a B.A. from Sarah Lawrence College, and a B.A. and an M.S. from the University of Washington before coming to UNM. She won the Best Student Paper Award from the North American Benthological Society in 1985 and currently is a Postdoctoral Fellow at UNM working with Professor Cliff Dahm.

Robert B. Troxel (M.S. 1940) is retired and living in Nokomis, FL with his wife Lucille A. Fetherolf. He is

currently busy with traveling, photography, church activities, and growing tropical fruits.

Alice I. Walker (B.S. 1978) went on to get an M.S. in Communicative Disorders after receiving her degree in Biology. She is now a Speech and Language Pathologist in Sacramento, CA. Alice is an avid environmentalist and enjoys outdoor activities of all types.

Steven W. Walker (B.S. 1969) also received an M.S. in Public Health from the University of California at Berkeley. He is the manager of the Air Pollution Control Division for the City of Albuquerque.

Kenneth A. Williams (B.S. 1977) is a Lieutenant Commander (LCDR) in the U.S. Navy. He and his wife Karen live in Virginia Beach, VA.

Glenn L. Wilson (B.S. 1971) received a Ph.D. in Anatomy in 1976 from the University of Illinois. He is currently an Associate Professor of Anatomy at the University of South Alabama, College of Medicine.

Ted Yaeger (B.S. 1973) received the M.D. in 1981 and is a physician in Ponce, FL. Ted also participates in sailboat racing and plays the guitar.

Fred Youberg (B.S. 1974) is still helping keep biologists out of trouble as Purchasing Manager for UNM. Ted and his wife Shena have 2 daughters who keep them busy while they backpack, garden, and remodel their house.

Helen Zuelzke (M.S. 1949) is an investor and real estate entrepreneur living in Santa Fe, NM.

Other Friends and Supporters of the Society and the Department

C. Berkefelt, Midland, MI
Margaret Caffey, Albuquerque, NM
Clifford S. Crawford, Albuquerque, NM
Saul Cross, Albuquerque, NM
Roger Conant, Albuquerque, NM
Clifford N. Dahm, Placitas, NM
Dow Chemical, Midland, MI
Jamieson K. Duell, Albuquerque, NM
Galen Malk and Ann Lynn Eversole, Roswell, NM
Flatow, Moore, Bryan and Associates, Inc., Albuquerque, NM
Clyde Giebler (deceased), Escondido, CA
Ed Kelley, Albuquerque, NM
Dara A. Lehans-Scott, Largo, FL
Mariah Associates, Albuquerque, NM
Minnesota Mining and Manufacturing, St. Paul, MN
Duncan W. Martin, Univ. of Arkansas, Fayetteville, AR

W.R. Mullison, Midland, MI
Victor D. Nielson, Springfield, OR
Natalie B. Pattison, Albuquerque, NM
M.L. Riedesel, Albuquerque, NM
Charles C. and Nancy Reith, Carlsbad, NM
Cathy Stewart, Albuquerque, NM
Gail D. Tierney, Santa Fe, NM
David J. Velasquez, St. Paul, MN
Kathryn and Al Vogel, Albuquerque, NM
Warren C. Whitman, Fargo, ND

CELLULAR AND MOLECULAR BIOLOGY

Having arrived at a nationally recognized position of strength in the general area of ecology, evolution, and organismic biology, our department is now taking a hard look at its future growth needs. Two shortcomings, namely the numbers and breadth of representation among faculty members, are immediately apparent. With regard to the first of these, we maintain that an approximate doubling of faculty size would put UNM's one department devoted exclusively to the life sciences on a par with comparable academic units at other regional, national, and international institutions of higher education. We expect to elaborate on

that issue in a future Newsletter.

As to breadth, we are aware that a serious deficiency exists in the general area of cellular and molecular biology. This was pointed out by outside reviewers of our graduate program a few years ago, and is perceived as a problem by faculty and graduate students in all areas of the department. Two significant hurdles, however, prevent us from making real progress in rectifying the situation. One is money, the other is space. Until UNM is better funded, neither of these commodities is going to be easy to come by via the usual channels.

Nevertheless, we are determined to make a start. To that end, and with strong assurances of support from Arts and Sciences Dean Hobson Wildenthal, we have made some significant advances in our program of cellular and molecular biology. Most recently, we hired Margaret Werner-Washburne, now studying molecular genetics in yeast at the University of Wisconsin, where she is an NIH post-doctoral fellow. We are fortunate to have such a well-trained person on board, considering the near freeze on faculty hiring at this lean and

precarious point in the university's history.

Other bright spots in the cellular-molecular program include the recent funding of Katherine Vogel by NIH for a period of five years. She and her research team will continue to investigate the structure, metabolism, and functional role of proteoglycan in tendon tissue. The award is for \$763,689. Kate, who teaches immunology and advanced courses in cell biology, previously held an NIH 5-year Career Development Award. In July she will also assume the departmental post of Assistant Chair.

Several other cell-molecular faculty members also have major grant funding. One is Sam Loker, who is investigating trematode induced immunosuppression in snails that transmit schistosomiasis, perhaps the world's most widespread disease in humans. Both NIH and AID support Sam's research. Finally, there is Donald Natvig, who with Tokio Kogoma (one-third Biology, two-thirds School of Medicine) has an NSF grant to study cellular responses to oxidative damage in bacteria. Don also has his own NSF grant, "Phylogenetic analysis of Neurospora using cloned

nuclear DNA hybridization probes."

We note with appreciation that each of the above individuals is regarded by UNM students as an outstanding teacher. It is that combination of superior teaching and research that we seek as we carefully broaden our representation in cellular and molecular biology.

LONG-TERM ECOLOGICAL RESEARCH: THE SEVILLETA PROPOSAL

For over a decade, the Sevilleta National Wildlife Refuge has been the site of intense interest among UNM Biologists. Covering an area -- south of Belen and north of Socorro -- half the size of Rhode Island, this former Spanish Land Grant was deeded to the U.S. Fish and Wildlife Service by the Nature Conservancy for research studies only. To date, relatively small research programs have been carried out on the Refuge. UNM and New Mexico Tech, together with several federal agencies, have been the main institutions involved in these activities.

Last fall, after much planning, a team headed by ecologist Jim Gosz began to organize a proposal to establish one of the nation's dozen or so long-term Ecological Research

(LTER) sites on the Sevilleta. The proposal, which focuses on biotic responses to climatic fluctuation, was submitted in late winter. Principal Investigator Gosz, Project Leaders Jim Brown, Bruce Milne, Manuel Molles, and fourteen other scientists (most of whom are UNM biologists) contributed to the proposal.

Recently, we learned that NSF will award full funding (\$2.4 million for six years) of our proposal. If all goes well, we expect that the Sevilleta, with a climate and biota that represents the intersection of the Great Basin, Great Plains, Chihuahuan Desert, and Mogollon Conifer Woodland, will provide decades of opportunity for UNM biologists to study natural events ranging in scale from molecular to global.

LATIN AMERICA - THE GALAPAGOS

The Biology Department, in conjunction with UNM's Latin American Institute (LAI) is currently seeking funding for an exciting new Latin American Biodiversity Program. This joint venture is being developed to: 1) foster basic and applied biological and conservation research on Latin American species

and ecosystems, 2) educate Latin American biologists and conservation personnel, and 3) promote the conservation of biodiversity in Latin America.

Principal investigators in the Biology Department are to be Donald Duszynski, Howard Snell, and Terry Yates. They will work closely with Gilbert Merx, LAI's director. Recognizing the threatened state of the remaining rainforests and other natural ecosystems of Latin America, these individuals are requesting funds specifically to provide seed money to initiate graduate assistantships for Latin Americans, and to develop cooperative activities with Latin American institutions and conservation organizations. A total of 15 UNM Biology faculty already have research interests in Latin America, and can thereby add strength to this innovative program.

Meanwhile, Howard Snell (together with Tom Fritts, an adjunct faculty member also with the U.S. Fish and Wildlife Service), is coordinating a workshop/symposium on the research and conservation of Galapagos Island reptiles. The Tinker Foundation has awarded UNM Biology \$50,000 for

the symposium, which was held from May 28 - June 9 at the Charles Darwin Research Station and Galapagos National Park Service Headquarters on those famous islands. Scientists with Galapagos experience, as well as Galapagos managers and administrators and outside experts (including Bruce Milne and Bill Rice, also UNM biologists) attended this historic meeting.

MAJOR BIOLOGICAL CONFERENCES AT UNM

This past year saw three major biological gatherings at UNM. Each was organized by one or more Biology faculty members. In June, 1987 the 67th National Meeting of the American Society of Mammalogists was hosted by Jim Findley and Terry Yates, with the able assistance of many student, staff, and faculty volunteers. Over 270 papers were presented in regular sessions and symposia that covered subjects from conservation through molecular evolution. More than 600 persons attended the meeting from around the world making this one of the largest scientific meetings ever held at UNM.

In July, Larry Barton and Gordon Johnson were responsible for the smoothly run 4th International Symposium on Iron Nutrition in Plants. While the symposium's

emphasis was on microbial interactions that affect iron nutrition, the comprehensive nature of the meeting was reflected by the presence of an assortment of 140 scientists from 22 countries.

During the most recent spring break, approximately 180 ecologists, planners, sociologists, and interested professionals from other walks of life attended the 3rd Annual Meeting of the International Association for Landscape Ecology. New landscape ecologist Bruce Milne was the principal organizer of the four-day meeting, the first of its kind in western North America.

And last, but not least . . .

THE BIOLOGICAL SOCIETY OF NEW MEXICO

The Biological Society of New Mexico is a tax-exempt organization under the New Mexico Nonprofit Corporation Act and the United States Internal Revenue Code. The object of the Society is to establish and maintain endowments, trusts, and foundations, and to administer grants and other funds, all for the purposes of encouraging, fostering, and pursuing excellence in education in the Department of Biology at

the University of New Mexico. Such purposes shall be pursued directly through sponsorship of educational programs, support of education-related research, and any other activities or academic processes that benefit our primary goal of excellence.

The Society is authorized to receive grants, stipends, honoraria, property, or any other interests for educational purposes. Tax-exempt gifts may be given with designation to be used for specific purposes, e.g., student fellowships, research support, or whatever, as long as the purpose fits the objectives of pursuing excellence in biological education and research at UNM. Your gift can be earmarked for specific purposes! Donations and annual membership fees, unless otherwise specified, are placed in our Unrestricted Gift Account. These funds are used primarily to support graduate student recruitment, research, travel to meetings to present papers, and awards for teaching excellence. In addition, we have three other accounts that may be of interest to you.

L.D. Potter Endowed Chair in Plant Ecology.

For the last three years we have been building an endowment from private donations and other

sources to create the first Endowed Chair in Biology. The general area of plant ecology/field botany has been a strong tradition in our department since the first course with that title was taught in 1908. When Loren Potter retired in June, 1985, it seemed entirely appropriate to honor his teaching and research efforts in field plant ecology not only because of his personal contributions to the discipline and to our department over the years, but because we recognize the importance of plant ecological studies as they pertain to our natural resources. Thus, the idea of an Endowed Chair in his honor was conceived and a goal of generating funds to support that chair was set. To date we have about \$107,000 in our endowment and we hope, at least, to double that amount by the time the first Potter Chair is awarded on July 1st, 1991.

Melinda Bealmear Scholarship.

Melinda Bealmear was a dedicated and beloved staff member in our main office, who died in a tragic car accident in October 1986. Our graduate students, faculty and staff, along with help from her parents Dorothy and Dale, established a scholarship fund in her memory. The fund now has about \$1600. We would like to accrue

enough principal, say \$50,000, so that the annual interest could be used to support the program of a needy graduate student in Biology.

Museum of Southwestern Biology-Mammals.

The purpose of this Museum account is to support any and all aspects of mammalogical and field research conducted by faculty and graduate students in Biology at UNM.

Membership

Any person contributing an annual fee, on a calendar year basis, of \$15 or more becomes a member of the Society and will receive the Annual Newsletter.

Any person or organization contributing a lump sum of \$1000 or more is appointed a Patron of the Society. Patrons are entitled to membership benefits for life and will receive a Certificate of Patronage. Anyone contributing \$10,000 or more will be considered a "Patron Saint" of the Society.

All memberships and contributions are tax exempt.

Please mail memberships and contributions by check payable to "The Biological Society of New Mexico" to:

Secretary-Treasurer,
Biological Society of New Mexico
Biology Department
The University of New Mexico,
Albuquerque, New Mexico 87131

DETACH AND MAIL -- Even if you can't help financially, we'd really like to hear from you and learn about what you're doing. Thanks.

Name _____ UNM Degree _____ Year _____

Other Degrees _____

Current Mailing Address _____

Current Occupation _____

Other Activities:

Enclosed check \$ _____