Department of Biology Newsletter

December 2008

CASTETTER HALL BUILDING ADDITION UPDATE

From an old, dark basement to a shiny, well-lit facility, the renovation of the UNM Biology Department's Castetter Hall has produced a remarkable result. The basement now boasts a state-of-the-art teaching complex for introductory-level biology classes. And it's just the beginning for the 55-year-old building, constructed in 1952 and expanded in 1967 to its present size of 126,871 square feet. With the $7M basement project now completed, the department has turned its attention to the $5.6M Addition Project Phase 1—a two-floor, 15,000-sq.-ft. addition to Castetter for faculty research labs, P.I. offices, numerous support rooms, and a new shipping/receiving room. Phase 1 began construction in February, 2008, and is expected to be substantially completed in early 2009. Phase 2 is set to begin in June, 2009. It will be a 21,000-sq.-ft. structure with three floors and a new research greenhouse on the roof of the Phase 1 building. Passage of the 2008 General Obligations bond issue will provide $5M for Phase II, to go along with $2.78M from the legislature and another $2.65M from UNM already in hand, that will go most of the way towards completion of Phase 2. "We will end up with a 36,000-sq.-ft. structure that will be given over to biology research activities," says the Biology Dept. Chair, Dr. Eric Loker. "With the completion of the basement renovation and both phases of the addition, we will have several new teaching and research labs, and we will have solved many of the more immediate problems of antiquated facilities in the Biology Department." Loker adds, "Our ability to excel in research has significant impacts on the state economy and brings academic prestige to UNM. Research is critical for generating jobs and creating high levels of training that students don't necessarily receive at non-research colleges. It's great training for students. For every research dollar generated, there's a $3.30 return in the local economy."

With the basement project completed, the department has turned its attention to Phase I of the Addition Project.

Phase I addition, one early view and one later view, looking west.

IN THIS ISSUE

THE UNIVERSITY of NEW MEXICO

For more information, please visit http://biology.unm.edu

FROM THE CHAIRMAN

Holiday Greetings, Alumni and Friends of the Biology Department!

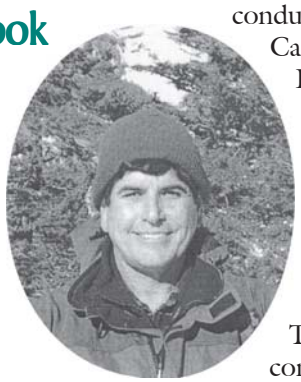
In many respects, the past year has been challenging. The global economy has slipped into a recession with attendant effects on our prospects for securing grant funding from federal agencies such as NSF and NIH. Our state and university budgets have suffered, jeopardizing our ability to recruit new faculty and creating concerns about retaining our many excellent faculty members.

In early 2008, we undertook our decadal external program review (I thank Dr. Diane Marshall for her assistance in preparing our self-study for the review process). In general, our external reviewers found a great deal about which to be positive, but also noted some concerns, including the need to move forward with faculty hires in the cell/molecular area, and to initiate replacements of our three Distinguished Professors (Drs. James H. Brown, Eric L. Charnov, and Randy Thornhill) before their planned retirements, so as not to lose the momentum they have generated. The need to make these hires poses a major challenge to our drive to retain and sustain excellence, at a time when university budgets are flat or losing ground.

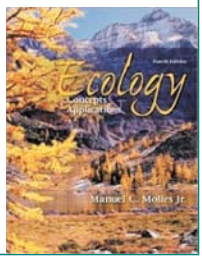
Yet, there is also much to be optimistic about. We now have fully occupied our new basement teaching complex, we have the first phase of our addition to Castetter Hall well underway and set to be concluded in early 2009, and, happily, with the passage of the General Obligations Bond Issue—thanks to all of you New Mexico voters for your support of the bond!—the Biology Department has secured another $5M in funding to proceed with Phase II of the addition, which will commence in mid-2009 and conclude a year later. Both Phases I and II are devoted to faculty research labs and spaces and should increase dramatically our capacity to engage in new research projects and initiatives. The addition also will afford some spectacular new views of the UNM campus, so come by and see for yourself! We also have secured some significant new gifts, including a very generous donation from Ms. Mollie Hayes to honor Professor Edward Castetter. We have made some important new hires, including Ms. Heather Paulsen as our Department Administrator, who also will help us to move forward. The new year holds the prospect of many exciting changes, from national to departmental levels. Early in the year, we will elect a new Biology Department chair, who will take over the reins on July 1. After six fascinating and rewarding years on the job as a chair, I am looking forward to returning full-time to my scholarly pursuits—teaching, thinking more about my research in tropical parasitology and comparative immunology, and becoming more involved in museum matters.

Biology Department chair, Dr. Eric Loker, amid the Castetter Hall constructon.

Manuel Molles' Ecology Textbook in Its Fifth Edition



Manuel C. Molles, Jr. is an Emeritus Professor of Biology at UNM, where he was a long-time member of the faculty and the curator of the Division of Arthropods in the Museum of Southwestern Biology. He received his B.S. from Humboldt State University and his Ph.D. from the Dept. of Ecology & Evolutionary Biology at the University of Arizona. Originally trained as a marine ecologist and fisheries biologist, Manuel has worked mainly on river and riparian ecology. His research has covered the areas of behavioral ecology, population biology, community ecology, ecosystem ecology, biogeography of stream insects, and the influence of a large-scale climate system (El Niño) on the dynamics of southwestern rivers and riparian ecosystems. Seeking to broaden his geographic perspective, he has taught and conducted ecological research in Latin America, the Caribbean and Europe. He was awarded a Fulbright Reseach Fellowship to conduct research on river ecology in Portugal and has held visiting professor appointments in the Department of Zoology at the University of Coimbra, Portugal, in the Laboratory of Hydrology at the Polytechnic University of Madrid, Spain, and at the University of Montana's Flathead Lake Biological Station. Throughout his career, Manuel has attempted to combine research, teaching and service and sought to involve undergraduates as well as graduate students in his ongoing projects. He was named Teacher of the Year by UNM for 1995–96 the Potter Chair in Plant Ecology in 2000. The fifth edition of Manuel's highly regarded textbook, *Ecology: Concepts & Applications*, has just been published by McGraw-Hill.



A MINOR DEGREE IN SUSTAINABILITY STUDIES

Sustainability Studies addresses problems associated with climate change, carbon emissions, acid rain, nuclearism (defined as how positively or negatively nuclear weapons and power plants affects our lives), energy dependency, resource depletion, poverty, ecosystem collapse, and war with solutions that are equally accessible to all. In Sustainability Studies, we research and develop technologies *and* decision-making processes that not only meet our needs in this wide range of issues, but also include the interests of all communities, all the while protecting our environment and fostering economic vitality for everyone.

A new minor degree in sustainability gives students the tools—in the form of experiential learning, research, and service activities—to shape a sustainable society in which we meet our present needs without compromising the lives of future generations. Meeting these demands requires a certain amount of self-reflection and critical analysis of the human role in our current planetary crisis. It also requires the immediate implementation of solutions so that our work within the university has relevance for the community at large.

UNM's Minor in Sustainability Studies is a multidisciplinary degree that integrates knowledge and methodologies from the sciences, humanities, and arts to train students in the critical areas of:

- **Clean Energy**
- **Non-polluting Transportation**
- **Local Pure Food Production**
- **Green Building & Design**
- **Systems Thinking**

Sustainability's team (left to right): Bruce Milne, Maggie Seeley, Gael Whettnall, Miguel Santistevan & Terry Horger

Every student will benefit with a minor in Sustainability Studies! They can choose from a menu of electives that focus a major within the sustainability paradigm, and they work together with other Sustainability Studies students in a set of three core courses in which they explore the integrity and productivity of the themes, paradigms, concepts and practical applications of sustainability.

For more information, please visit http://sust.unm.edu

UNDERGRADS ATTEND THE 2008 SACNAS NATIONAL MEETING

This year, 39 students from UNM (29 IMSD [Initiatives to Maximize Student Diversity] scholars and three mentors/staff and 10 MARC [Minority Access to Research Careers] scholars) attended the Society for the Advancement of Chicanos/Latinos and Native Americans in the Sciences (SACNAS) national meeting in Salt Lake City, Utah with more than 2,500 other students and attendees from around the country. The theme of this year's conference was the International Polar Year and each keynote speech related to this topic—from videos of research teams crossing the Antarctic on huge vehicles to satellite images of the polar ice caps, and, perhaps most inspiring, a panel discussion with elders from many Alaskan tribes. The panel's topic, "Why Is Indigenous, Local and Traditional Ecological Knowledge Important to Western Science?" allowed the elders to speak about the relationship between culture and education and their changing environment, which they have noticed since the 1960s, and its effect on their traditional ways. For example, the Gwichin tribe can no longer herd reindeer because the ice is too thin. One important statement from all of them—Aleut, Yupik, Inupiat, Gwichin and Athabascan—was that they have a right to be cold!

Seventeen IMSD scholars presented posters or gave oral presentations. Poster topics ranged from mathematical models of virus infection to DNA repair, heart muscle development, bioinformatics, evolution, and functional genomics.

SACNAS provides for many of our students their first experience of a scientific meeting and gives them many contacts for graduate schools all over the U.S. Students also meet people working in government, industry and academia as well as many influential faculty and administrators, both minorities and non-minorities, who have highly successful careers in science and academia.

Front row: Antonio Abeyta, Phillip Tapia & Charles Sanchez; back row: Nick Santestevan, Billy Edelman, Thai Lee & Alex Washburne.

UNM STUDENTS TOOK HOME SEVEN AWARDS FOR OUTSTANDING POSTERS. Winners included (see photo above): Antonio Abeyta (Jac Nickoloff, MARC), Billy Edelman (Kelly B. Miller, IMSD), Thai Lee (Richard M. Cripps, IMSD), Charles Sanchez (Mary Anne Nelson, IMSD), Nick Santistevan (Xinyu Zhao, MARC), Phillip Tapia (Margaret Werner-Washburne, IMSD), and Alex Washburne (Helen Wearing & Eric Toolson, MARC).

A NEW PROGRAM: UNO (UNDERGRADUATE OPPORTUNITIES)

Undergraduate Opportunities (UNO) is enabled by a $1 million grant funded through the National Science Foundation's Undergraduate Research Mentoring Program that is aimed at increasing the participation of traditionally under-represented groups in the sciences. **Drs. Joseph Cook** (Director) and **William Gannon** (co-Director) and a host of Biology faculty are helping to engage UNM's undergraduate students in research. In addition to faculty mentors, the program includes a Graduate Mentor, Peer Mentors from the Honors Program, and each student is assigned a Graduate Mentor to help them navigate course work and research demands.

Dr. Joseph Cook

A multi-level mentoring approach is used so UNO participants can more easily identify and choose successful paths to graduate school. UNO immerses undergraduate biology majors in an integrated set of long-term environmental research projects throughout the West:

- regional climatological patterns and large-scale landscape studies;
- ecosystem processes and nutrient cycles;
- community and population dynamics of animals, plants, and microbes;
- investigations in systematics, molecular ecology, conservation genetics and morphological evolution of a variety of species.

Already UNO has strengthened UNM's partnerships for future recruitment and programs with the Southwestern Indian Polytechnic Institute and Central New Mexico Community College. The funding for UNO was received after the start of the Fall 2007 semester, and the program is off to a solid start: all six students made excellent progress in establishing research projects in the first year, and three presented their work at the Biology Dept.'s Annual Research Day in April, 2008. Our second cohort of students have enrolled, and we now have a total of 15 students engaged in hands-on research.

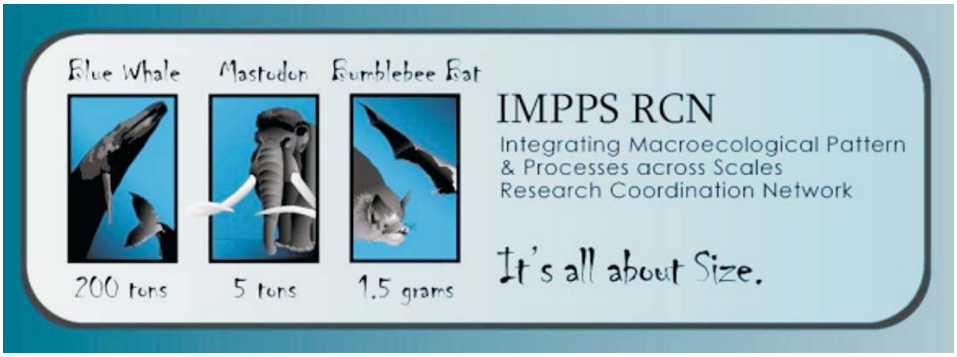
Monica typifies the kinds of hands-on learning experiences the students are having.

Monica Tellez, one of the UNO students, presented her project at the North American Benthological Society (NABS) meeting held in late May 2008 in Salt Lake City. She is involved in a stream ecology project in Dr. Thomas Turner's laboratory. "The NABS meeting was fun and very intense," Monica reports. "It was great to see what other people are working on, as well as getting feedback on my project. It's good to see that all the names on the articles I've been reading for so long are real people. At first, it was a little overwhelming, but later I felt like I was part of the community. I also thought it was good to see what graduate students were doing. The difference between 'work from my master's thesis' and 'a chapter in my dissertation' was interesting. I also liked hearing what other labs are doing at different universities and trying to imagine myself doing *my* grad work at different places. Overall, it was a very valuable experience, and I look forward to future meetings."

Monica Tellez wading through muddy water in the wetlands at Bosque del Apache for food-web surveys.

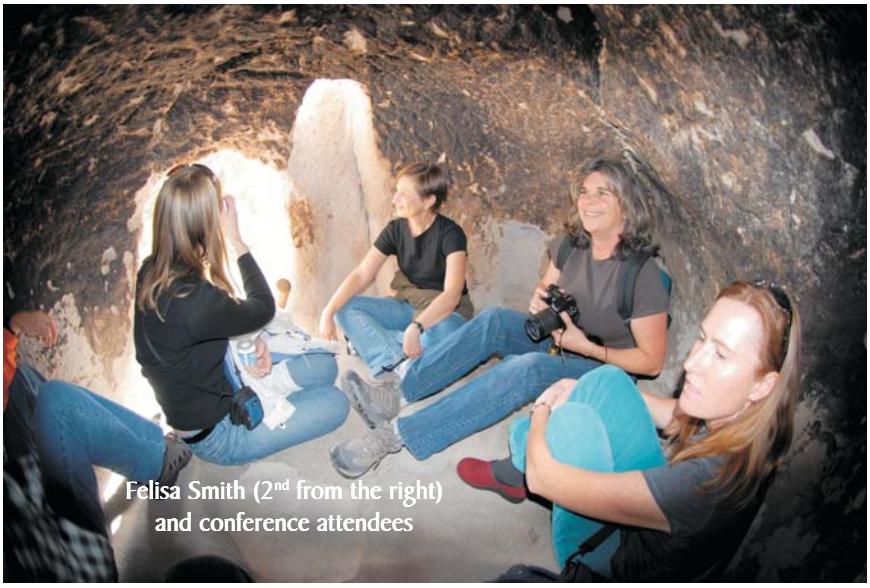
Monica and Dr. Tom Turner collecting an invertebrate sample from the Rio Grande.

NSF–RCN CONFERENCE SPOTLIGHT



The Department of Biology hosted its biannual National Science Foundation–Research Coordination Network (NSF–RCN) Conference in Santa Fe on October 23-27, 2008. This year's meeting was entitled, "Integrating Macroecologial Pattern and Processes Across Scales" (IMPPS). This meeting brought together ecologists from around the world to address scientific questions of importance to mammalian macroecology. This conference has been very successful due to the endeavors and participation of several internationally renowned scientists. UNM Biology Associate Professor **Felisa Smith** is responsible for organizing this scientific collaboration.

The IMPPS Working Group examined the macroecological patterns of mammals across multiple scales. The body size of an organism reflects complex trade-offs among numerous processes. Nevertheless, certain size-dependent relationships are observed repeatedly for mammals and other taxa. For example, the distribution of mammalian body sizes (i.e., minimum, maximum and modal size) is remarkably similar across continents, despite little species overlap. Moreover, distributions appear to have been similar for the past 50 million years. Do patterns arise because of common ancestry, because organisms exist in similar environments, or because they face similar design or life history constraints? The project assembles an international and distinguished team of scientists with expertise spanning the full spectrum of time and space and various disciplines (e.g., paleontology, marine and terrestrial ecology, evolutionary biology, genetics). Anticipated results include the development of a comprehensive global database on life history, body size, geography, and phylogenetic relatedness for mammals, as well as the development of novel analytical and statistical tools.


Felisa Smith (2nd from the right) and conference attendees

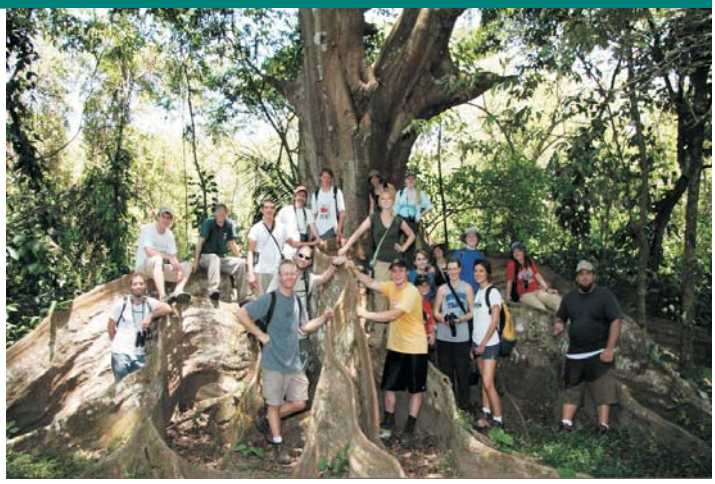
The broad goal of IMPPS is to assess the generality of body-size patterns and investigate general, underlying processes.

COSTA RICA: INTRODUCTION TO TROPICAL BIOLOGY

There is a growing consensus that we are in the midst of a sixth mass extinction in the Earth's history, with various lines of evidence suggesting that this event is due to anthropogenic factors. Yet, at the same time, there are new species being recognized and added to the annals of science, and new ecological and evolutionary discoveries that are broadening our understanding of life on Earth. Tropical forests form a belt around the Earth and are home to most of the estimated 10–100 million plant and animal species. The loss of species will be most evident and exemplified in this region. UNM lies just 1,500 km from this imperiled ecosystem and bastion of discovery and evolution. Because we have this cathedral of evolution in our background and strong ties to Latin America, UNM has a long tradition of immersing students in the wilds of the species-rich countries of Central America, like Costa Rica.

Costa Rica is about the size of Virginia, but within its borders one can find more than 800 birds species, 400 amphibian and reptiles, 240 mammals, and more than 9,000 plants! The country is topographically diverse from beaches to peaks greater than 3,800 m, and has been one of the most conservation-oriented countries in the New World tropics with almost a third of the country's land area in some form of conservation protection. Thus, this small country is ideal for introducing students to what is being done to protect and study tropical life. In March 2008, Drs. Joe Cook and Blair Wolf and graduate student Mason Ryan led 21 UNM students enrolled in our Tropical Biology course to Costa Rica for nine days to get a taste of this very diverse country. We were fortunate to have two mammal specialists from the University of Costa Rica travel with us as we caught bats and looked for frogs and lizards during the tropical nights. During the days, we looked for birds and were awed by the diversity of flowers and fruits, and tied together observed ecological interactions. The students were astute and aspiring biologists and, as a group, we observed more than 120 bird species, 45 mammal species, 23 amphibian species and 30 reptile species. Our best night was at a mid-elevation cloud forest on the Pacific coast. We arrived at this site at dusk and were greeted by the primeval calls of Howler Monkeys in the distance. As we meandered down the trail in the dark, we followed a small group of Kinkajous, medium-sized arboreal mammals that bear a strong resemblance to large, cute teddy bears. As the night was coming to end, we headed back to our vans and made three exciting discoveries that are significant to conservation efforts in the area. First, we found two species of frog that have not been seen in this region in 45 years. A student located a leopard robber frog—a jet black frog with large white spots on the groin and legs—and Dr. Cook found a gliding frog—a large green bodied from with bright red eyes and fringes in its arms and limbs that allow it to glide when chased by predators. Both are rather gaudy species that elicited oohs and awes from the group! After we thought the night couldn't get any better, near the trail head, Dr. Wolf spotted a small, black-faced, snail-eating snake, a rare and secretive species that is only known from this region of Costa Rica! Eventually, that evening came to end with more discoveries to come as we traveled north to hike into the Children's Preserve near Monte Verde.

The tropical biology c1ass provides students at UNM with a unique opportunity to appreciate, see, touch, hear and feel (e.g., mosquito bites) the diversity of tropical life, to learn about on-the-ground conservation efforts. As instructors, there is no better classroom or lab to introduce students to biology and allow them to follow their own curiosity in pursuit of knowledge. The complexity and wonder of tropical forests allows students the first-hand opportunity of new discoveries and a small understanding of what is happening elsewhere in the world.



> ***"Never to have seen anything but the temperate zone is to have lived on the fringe of the world."***
>
> ***—Dr. David Fairchild***

A Gliding Leaf Frog *(Agalychnis spurrelli)*, a species of frog not seen in this region in 45 years, was discovered!

WHAT'S NEW WITH THE UNDERGRADUATE & GRADUATE STAFF?

Cheryl Martin & Company

There have been many changes in the Biology Dept.'s Main Office. **Cheryl Martin** joined Biology in December, 2007 as our Student Program Specialist to coordinate our Graduate Program. Cheryl's duties include graduate students, graduate assistantships, class schedules, scholarships and admissions, along with supervising the Front Desk area. **Paul Brault** joined Biology as an Administrative Assistant II in May 2008. Paul has been at UNM for about eight years as a staff member and/or as a student. In the afternoons, Paul assists Cheryl with graduate student needs, course schedules, textbook orders and admissions. Paul is always lending a helping hand with a smile and a solution. **Patricia Baca**, our receptionist, began her career in the Biology Department in July, 2006. She is responsible for managing the Front Desk, which includes greeting and directing guests, students, faculty and staff, answering the telephone, sorting the mail, and dealing with the fax and copiers. We also have excellent work-study students Amanda, Jackie, Natalia and Scott who help us in this area.

Paul, Patricia & Cheryl

Cheryl worked in at UNM's Community & Regional Planning for almost 14 years. She looks forward to another long career in Biology, and would like to take this opportunity to thank everyone in the department for helping her in her first year in the Biology Department.

Shannon McCoy-Hayes

SHANNON is our newest Program Advisement Coordinator (undergraduate student advisor), taking the place of Maria Ruby. Shannon began working in the Biology Dept. five years ago as an assistant to Distinguished Professor James H. Brown. She joined the Program in Interdisciplinary Biological and Biomedical Sciences (PiBBs) in 2005. "PiBBs is such an exciting program. It enables us to offer some of the best support on campus to our graduate students, who are absolutely amazing. It has been an honor working with them and with Professors Brown and [Felisa] Smith. I've learned so much." It was in PiBBs that Shannon realized she wanted to do student advising full-time.

Shannon's B.A. is in Anthropology, and this semester she finishes her M.A. in American Studies, where her focus has been on Culture Studies. "I love to find ways to help people make their backgrounds work for them! I am excited about working with the Biology undergraduate students, helping them to achieve their goals. UNM Biology is a great place to get an education. Our staff and faculty are talented, brilliant people. We're doing some really cutting-edge research here. I hope to get the undergraduate population connected to that energy and build an unprecedented sense of community for them."


Shannon

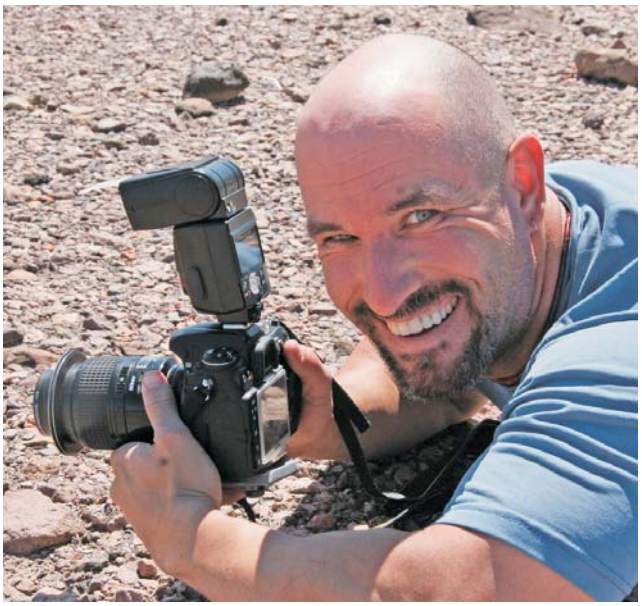
THE FIGHT AGAINST SCHISTOSOMIASIS

Infectious diseases cause more than half of the roughly 50 million human deaths per year. These diseases are usually caused by viruses, bacteria and macroparasites, including worms or helminths, which live in intimate, long-term contact with and at the expense of the host. Roughly 207 million people, mostly in developing countries, are infected with the parasitic disease schistosomiasis, which causes fever, chills, cough and muscle aches and, if left untreated, anemia, malnutrition and learning difficulties. Schistosomiasis is caused by a trematode transmitted to humans by snails that shed the parasite into water, thus people are infected by contact with water.


Ben Hanelt, Research Asst. Professor, in Kenya

As part of an ongoing UNM program to study the biology and epidemiology of schistosomiasis, **Dr. Ben Hanelt** recently visited Kisumu, Kenya, working around Lake Victoria, one of the world's great endemic schisto areas. Ben has discovered a new schistosome species from the area, and has developed some innovative new techniques that blend classical and modern molecular methods for quantifying the burden of schistosome infections in people, often including children like the lively characters pictured here with Ben.

Thomas Kennedy



Thomas Kennedy began his Ph.D. in the Biology Department in 2004. His dissertation has focused on the effects of disturbances such as drought, flooding and river regulation on aquatic and terrestrial invertebrate communities in the middle Rio Grande. Tom's interest in freshwater communities began in the late 1990s when he witnessed the devastation that invasive plants can have on native communities. As a result of this experience, he began graduate school at the University of Virginia to study the effects of biological invasions on freshwater communities. After the completion of his Master's degree, Tom came to UNM to study with Dr. Thomas Turner to broaden his experiences with freshwater ecosystems.

Tom conducts his research in the middle Rio Grande in New Mexico, a region that has been modified heavily and is subject to episodes of drought and flooding that can occur in the same year. For the past five years Tom has sampled regularly the invertebrates in the Rio Grande to test how differences in the river's flow affect the diversity and abundances of aquatic invertebrates. One of the most interesting findings has been that an immense amount of variability has occurred over the past five years in the invertebrate community. Tom also has found that channelization reduces arthropod diversity in the bosque near the river and currently is investigating the underlying reason. To help conduct this research, **Tom was an IGERT Fellow and was awarded funding from the Cliff Crawford Scholarship in 2007 and 2008.**

Since the beginning of his Ph.D., Tom has enjoyed his collaborations with the Turner lab. He also interacts with Dr. Blair Wolf's lab and others, including Daniella Swenton-Olson, Robin Warne and Hagit Salamon. When not collecting invertebrates, Tom is usually found behind his camera taking great wildlife photos.

Jennifer Rodriguez

Jennifer Rodriguez grew up in Albuquerque, where she graduated from St. Pius X High School. She grew up knowing the importance of a good education, and recognizes it is an essential part of her life. She is now a senior majoring in biology with a minor in psychology. Her initial interest in biology began in her first year of college, and has grown with each class she has taken.

Outside of school, Jennifer enjoys volunteering in her community and helping others, which includes working with the City of Albuquerque Animal Shelter and the Janet Vargas Memorial Cancer Fund.

Jennifer has worked as a student intern at Sandia National Laboratories for the last four years. The internship and her biology course work keeps her very busy.

Upon graduating from UNM, Jennifer's goal is to pursue a career in Veterinary Medicine as she is very interested in the health and well-being of animals, and hopes to start her own small-animal practice. To further her future plans to be a veterinarian, she is networking with others with the same interest by interning at a veterinarian clinic and by participating in the UNM Pre-Vet Club. As a member, she takes part in planning future volunteer events to connect with the community and to gain further experience. Her many activities have broadened her experiences as she continues to work hard to achieve her goal of becoming a veterinarian.

Jennifer is one of our 2008–09 Cocalina Memorial Scholarship winners!

STAFF RETIREMENT: MARLA WONN


Marla

It is with mixed emotions that we announce the retirement of **Marla F. Wonn**, our Department Administrator III. It's sad to say "goodbye" to Marla, knowing that this organization will be a much emptier place without her, but at the same time, we know that she leaves us in excellent shape.

Indeed, Marla became part of the lifeblood of this university as she was employed at UNM for more than 20 years! She began her career as a contract employee performing routine office management, data collection, and publication research. Quickly, however, she was promoted to the Office of Research Administration, where, as a Contracts and Grant Coordinator, she was responsible for approving proposals and certifications. As an institutional representative of the university, she assisted with and processed funding proposals, including budget, documentation and correspondence preparation. Marla's success did not end there, though. She was promoted again to a new position—Department Administrator III for the Department of Physics and Astronomy. There Marla was responsible for fiscal and budget management, personnel administration and supervision, coordination of contract and grant efforts, and development and implementation of operational procedures and policies. While pursuing her career, Marla also earned her M.A. in Training and Learning Technologies from UNM. In 2001, Marla joined the Department of Biology as the Department Administrator III. Successful at developing and implementing numerous innovative cost-saving strategies, Marla helped Biology finance new equipment for student labs. She was instrumental in re-engineering staff positions to provide improved department-wide service.

The Department of Biology recognized Marla at a retirement reception held in her honor on June 27, 2008. We applaud Marla's numerous contributions to our department and the university. Although we miss Marla, she has worked her entire career and has earned the opportunity to spend more time with her family and grandchildren. We wish Marla all the best as she enjoys her well-deserved retirement.

FACULTY PROFILE: MARIEKEN SHANER


Marieken

Marieken Shaner is almost a New Mexico native, having moved to northern New Mexico from San Francisco more years ago than she cares to count. During her time in Los Alamos as a young person, she was surrounded by two things that shaped her later career in academics: nature and science. Winters in Los Alamos were spent observing organisms in high elevations (sometimes on the ski slopes), while summers were spent either in the mountain streams or in the Rio Grande canyon. Also, since Marieken's father was a physicist at Los Alamos Labs, she was exposed constantly to science and the scientific process. One of the most valuable lessons she learned was to ask questions about the various observations made in northern New Mexico's natural habitats.

Marieken attended UNM first as an undergraduate, graduating from the Biology Department with the honors of *magna cum laude*. She was fortunate enough to continue her graduate work at UNM under the direction of biologist Dr. Diane Marshall. Marieken's primary research interests are the evolutionary ecology of plant mating systems, which has resulted in five publications, most recently in the journal *Evolution*. Along with the Marshall lab group, she also has another manuscript submitted and is working on a review of how plant age affects mating. And, just to keep busy, there are a few data sets that are waiting in the wings for some attention.

After graduating with her master's degree in 2003, Marieken taught Biology at CNM. She taught introductory biology for pre-health students, anatomy & physiology, microbiology, and introductory courses for biology majors. At UNM, Marieken has taught microbiology and the introductory biology course for pre-health majors. These very high-volume courses, in turn, have taught Marieken to budget her time between research and teaching 250 students a semester! Additionally, because of her extensive teaching experiences, both as a student and as a teacher, Marieken has a unique understanding of the many challenges faced by the department's students, which she has put to good use in her two years of undergraduate academic advising.

LEARNING FROM OTHER INVESTIGATORS

For years, the Biology Department has sponsored a weekly seminar speaker series that provides opportunities for faculty, staff, students and guests across scientific disciplines from the University of New Mexico and local, state and world academic and research institutions to present their research. The seminar series lets faculty, staff, students and guests take a break from their routine and their research to listen to a new perspective. Each week a new guest arrives to speak on topics ranging from conservation of the red squirrel to the analysis of ecosystems to microbial ecology. This year's seminar series kicked off on September 11th with speaker Dr. John Marshall, University of Idaho, who has very broad interests in plant physiological ecology; he spoke about "Scaling Carbon–Water Exchange Ratios: Leaf to Watershed." Often, our speakers provide an international perspective. For example, Dr. Gui Oliviera recently visited from Brazil and talked about his ongoing efforts to make genome information about the human pathogen *Schistosoma mansoni* available to scientists around the world.

Please come join us at the seminars to mingle with faculty, staff and students, and to broaden yur biological horizons. You can **see the schedule of seminar speakers at http://biology.unm.edu**

A HEARTFELT *"THANK YOU!"*

The Biology Department would like to thank Associate Chairs Stephen Stricker and Richard Cripps for four years of outstanding service to the department.

We invite you to attend a seminar! Seminars are held onThursdays at 3:30 p.m. in Castetter Hall Room 100. Light refreshments are served in the courtyard at 3:15 p.m. prior to every seminar.

THE MOLLIE E. HAYES BIOLOGY ENDOWMENT

The Department of Biology is pleased and excited to announce a new endowment, "Mollie E. Hayes Biology Endowment in Honor of Dr. Edward Castetter." The fund has been established to support the teaching and research of faculty and students of the Biology Department, as well as to enhance the educational mission and physical environment of UNM's Biology Department.

Ms. Hayes completed her undergraduate degree in Biology in 1938. She then continued her studies and received her master's degree in 1939. Mollie was one of the first women to complete her master's degree in Biology from the University of New Mexico. Her research focused on plant biology, specifically studying plants from the Pacific Northwest. While a graduate student at UNM, Mollie worked as a research assistant for Dr. Edward F. Castetter (1928–78, UNM Professor of Biology; 1928–57, UNM Biology Dept. Chair; 1956-57, UNM Vice-President). The endowment that Mollie established is in honor and recognition of Dr. Castetter's work and encouragement.

As with all gifts, we want to thank all of our donors for their generosity.

We most sincerely thank our donors for their generous gifts in 2007–08. Your continued support of the Department of Biology allows us to provide resources needed to sustain students & faculty through scholarships, research funding, capital project improvements, & other general needs. Much of your donations & contributions of this past year supported the newly renovated teaching facilities for our students.

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The UNM Department of Biology Newsletter is published by the Department of Biology, MSC03 2020, 1 University of New Mexico, Albuquerque, NM 87131-0001.
Coordinator: Heather L. Paulsen; Production Assistant: Lorenzo Garcia; Technical Editor: Anne E. Rice; Masthead Designer: Mark Fleharty.

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Department of Biology
MSC03 2020
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You can be part of the success of the UNM Biology Department by supporting the Biology Department Chair's Fund. This fund, through the generous support of alumni and friends, provides the resources needed to sustain students and faculty through scholarships, research funding, and other general needs. To find out more information on funds that are of interest to you, please visit our website at **http://biology.unm.edu**, where you also can make an online donation; or contact ***Bill Uher, Senior Development Officer, MSC03 2120, 1 University of New Mexico, Albuquerque, NM 87131-0001,*** tel. ***(505) 277-3841,*** e-mail: ***uher@unm.edu***.

Congratulations to This Year's Scholarship Winners!

Undergraduate Scholarship Winners

The Cocalina Memorial Scholarship assists women students in their pursuit of science. This year's recipients are ***Jaime Raines*** and ***Jennifer Rodriguez***.

Graduate Scholarships

The Melinda Bealmer Memorial Scholarhip is awarded to attend and present at conferences. The award winners for this year are ***Casey Gilman*** and ***Estuko Nonaka***.

The Crawford Rio Grande Scholarship assists those conducting research related to the Rio Grande Bosque. The award winner this year is ***Thomas Kennedy***.

The Dr. Lynn A. Hertel Graduate Research Award was established to support the research program of those completing their thesis or dissertation. The recipient of this year's award is ***Yaheeh Sawyer***.

The Dr. Harry Wayne Springfield Scholarship provides funds to conduct research in plant ecology. The year's winners are ***Alejandra Carvajal*** and ***Jessica Snider***.

The Alvin and Caroline Grove Scholarship awards those who show scholastic and academic achievement in their primary research field. This year's award recipient for the Doctoral scholarship is ***David Van Horn***. The award winners for the Summer scholarship are ***Andrew Hope*** and ***Wenyon Zuo***. The Grove Research scholarship winners are ***Brittany Barker, Christopher Bickford, Alison Boyer, John DeLong, Sally Koerner*** and ***Rhiannan West***.

Undergraduate/Graduate Scholarships

Joseph Gaudin Scholarship is awarded to students studying mammals, in particular members of the cat family (Felidae). The scholarship winners are ***Andrew Edelman*** and ***Yadeeh Sawyer***.

The Thelma Evans Trust Scholarship provides support for those pursuing a career in Veterinary medicine. The recipients this year are ***Jennifer Rodriquez*** and ***Hagit Salamon***.