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Academic Bowl

ASU will kick off the 2008 Academic Bowl with two nights of opening round matches Oct. 14-15 in the Memorial Union's Pima Room. The academic event features 15 teams of undergraduate students competing for college pride and scholarship money in a quick-paced format on a wide range of subjects.

The competition both evenings will begin at 7 p.m. The matchups feature:

Oct. 14

- Walter Cronkite School of Journalism and Mass Communication Gold versus College of Liberal Arts and Sciences.
- Fulton School of Engineering Maroon versus W. P. Carey School of Business.
- College of Design versus College of Human Services.

• Through a random selection, the Mary Lou Fulton College of Education received a bye and automatically will move to the second round.

Oct. 15

- College of Teacher Education and Leadership versus Herberger College of the Arts.
- University College versus Cronkite School Maroon.
- New College of Interdisciplinary Arts and Sciences versus Fulton School of Engineering Gold.
- College of Nursing & Healthcare Innovation versus the Morrison School of Management and Agribusiness.

The second round of the event will be held Oct. 22 in the Memorial Union's Pima Room, with the semifinals and finals planned for Oct. 30 in the Eight/KAET-TV studios. For more information on the Academic Bowl, visit the Web site www.asu.edu/academicbowl.

Eight's Emmys

Eight/KAET-TV, a part of ASU, received Emmys in four award categories for television excellence at the Oct. 4 awards ceremony for the National Academy of Television Arts & Sciences Rocky Mountain Southwest Chapter.

The four categories ranged from program production to interactivity on the Web.

"Arizona Stories," a chronicle of the history of the Grand Canyon state, earned the Emmy in the Historic/Cultural-Program Feature/Segment or Program/Special category (Beth Vershure, John Booth, Suzanne Guery, Melody Cavanary, and David Majure).

"Arizona Stories" also was honored with an Emmy in the Magazine Program - Feature/Segment category (David Majure) for "The Great Escape of '44," and in the Editor - Program (non-news) category (Scot Olson) for "Arizona Highways Magazine."

Eight's Media Player, a customized online delivery system for video content, won an Emmy in the New Media - Interactivity category (Adam Draper).

For more information, visit the Web site www.azpbs.org.

ASU experts enhance NASA's search for life

By Nikki Staab

Humans have long pondered the possibility that life exists beyond Earth.

The quest for habitable worlds has focused on searching for water, but "following the water" turns out to be too general a criterion. The list of planets and satellites that possess liquid water is growing faster than can be explored.

As one of the new NASA Astrobiology Institute teams, ASU researchers intend to boost extraterrestrial exploration to the next stage by refining the criteria that guide

the search for life.

The multidisciplinary field of astrobiology explores the origin, evolution, distribution and future of life on Earth and in the universe. The need for experts in areas as diverse as Earth and planetary science, astrophysics, microbiology, cosmochemistry and evolutionary biology gave rise to the NASA Astrobiology Institute (NAI).

The institute, established as part of NASA's Astrobiology Program, developed as a partnership between NASA and teams located at academic institutions, research labo-

ratories and NASA centers across the United States. More than 700 scientists and educators are associated with the NAI.

NASA announced Oct. 2 that ASU's School of Earth and Space Exploration is one of 10 research teams from across the country to be awarded five-year grants, averaging \$7 million each. ASU previously operated as an NAI team and was a charter member of the NAI when the program was founded in 1998.

The team is centered in the School of Earth and Space Exploration, an academic unit in ASU's College of

Liberal Arts and Sciences, but also involves several faculty members from other college units, including the School of Life Sciences, the Department of Chemistry and Biochemistry and the Beyond Center.

The ASU team, under the direction of principal investigator Ariel Anbar, a professor in the School of Earth and Space Exploration and the department of chemistry and biochemistry, attributes much of its recent success to the original ASU NAI team for the precedent that it created.

(See NASA on page 6)



The ASU cheerleaders' outfits from 1968 differ quite a bit from today's styles.

Alumni Association reprises role as Homecoming tradition-keeper

By Liz Massey

In every organization, someone is tasked with taking care of the group's collective memories. At ASU, the Alumni Association has performed this role for many years, and nowhere will this work be on greater display than at the 2008 Homecoming, which also will celebrate ASU's 50th anniversary as a university.

The Alumni Association will kick off its celebration of ASU pride Nov. 14 by conducting reunions for the classes of 1958, 1968, 1978, 1988 and 1998. Reunion attendees will tour Tempe campus facilities such as the Biodesign Institute and the Mars Space Flight Facility, enjoy social hours at Mill Avenue eateries, and participate in the Block Party and Homecoming Parade on Nov. 15.



The 50th anniversary class will have a special tent at the Block Party, where visitors can ask alumni from the ASU name-change initiative era questions about their involvement in the campaign.

The association will also celebrate Sun Devil (See ALUMNI on page 7)

Researchers sound alarm on mammals worldwide

By Skip Derra

From majestic African elephants to tiny and often unappreciated rodents, mammals on Earth are in a state of crisis. One in four mammal species on Earth is being pushed to extinction, according to the Global Mammal Assessment, the most comprehensive assessment of the world's mammals.

Writing in the Oct. 10 issue of *Science*, ("The Status of the World's Land and Marine Mammals: Diversity, Threat and Knowledge") and unveiling a "Red List" of endangered mammal species (at the International Union for Conservation of Nature World Conservation Congress in Barcelona, Spain), the researchers who worked on the exhaustive study say that from 25 percent to 36 percent of species may be in danger of extinction.

"It is frightening that, after millions and millions of years of evolution that have given rise to the biodiversity of mammals, we are perched on a crisis where 25 percent of species are threatened with being lost forever," says Andrew Smith, an ASU professor who played a key role in the mammalian assessment. Smith and his research assistant, Charlotte Johnson, are two of the 103 authors of the *Science* paper.

The Global Mammal Assessment was conducted by more than 1,800 scientists from more than 130 countries working under the auspices of the International Union for Conservation of Nature. It was made possible by the volunteer help of IUCN Species Survival Commission's specialist groups, and by collaborations between top institutions and universities, including ASU, Texas A&M University, the University of Virginia, Conservation International, Sapienza Università (See RESEARCHERS' on page 7)

25 YEARS OF SUCCESS

Hispanic Mother-Daughter Program empowers thousands

By Sarah Auffret

One of the most successful, long-standing outreach programs at ASU builds on a key family dynamic: strengthening the bond between a teenage girl and her parent.

The ASU Hispanic Mother-Daughter Program is celebrating its 25th anniversary this year, having helped thousands of young women finish high school and attend college. All participants, who are first-generation students, make a 10-year commitment in the eighth grade to attend ASU workshops with their mothers and learn the skills needed to

succeed.

Eileana Felix remembers those 30-minute bus rides with her mother from Creighton School in Phoenix to ASU as a highlight of the program. Her mother encouraged her, and her ASU mentors believed in her when she didn't believe in herself.

Felix graduated from ASU in 2006, and today she works with the Osborn School District as the preschool family advocate. Just as ASU helped her mother become active in her education, Felix helps parents of young children get (See HISPANIC on page 7)



Jessica Martinez, right, a recent ASU graduate from the Hispanic Mother-Daughter Program at ASU who now is a program adviser, chats with Cynthia Cornejo, a freshman Spanish major. The program is one of the most successful, longstanding outreach programs at the university.

Picraux earns top award for innovative fusion of materials

By Joe Kullman

An advance in nanotechnology that promises to improve the integration of nanoscale materials into the manufacture of microelectronics has earned a top research award for an Ira A. Fulton School of Engineering faculty member and three former ASU students.

A 2008 Nano 50 award will be shared by Tom Picraux, a research professor in the School of Materials and chief scientist at the Center for Integrated Nanotechnologies at Los Alamos National Laboratory, former materials science and engineering graduate students Sarang Ingole and Pavan Aella, and Sean Hearne at Sandia National Laboratories, who earned a doctorate in physics at ASU.

The award recognizes “the top 50 technologies, products, and innovators that have significantly influenced, or will influence, the development of nanotechnology.”

The Nano 50 honors are given by *Nanotech Briefs*, a monthly digital newsletter produced by the Tech Briefs Media Group, a leading publisher in the engineering and technology field.

The awards winners are the “best of

the best,” the innovators who are making the engineering advances that will move nanotechnology into mainstream markets, according to the publishing group.

Picraux, Ingole, Aella and Hearne collaborated on work to find a more efficient method of fusing charge-carrying electrical contacts to tiny “nanowires” made of silicon. That accomplishment will help improve electronics technology, particularly chemical and biosensing devices and energy-collection systems.

Fusing such metal-silicon connections has been difficult and costly, hindering the fabrication methods necessary for more advanced applications of nanoscale materials.

The quality of these fusions can boost the effectiveness of solar energy systems because photovoltaic cells rely on the connections to carry energy generated from sunlight into homes, business and industrial operations.

Current nano-manufacturing relies on ultra-high-resolution patterns, or “masks,” to accurately engineer good electrical contact between metals and semiconductors – for example, nickel and silicon. The technique calls for electron-beam lithography to separately connect the metal contacts

to each nanowire. This process, in which the wire pattern is “written” with a beam of electrons to one nanowire at a time, has proven too slow for practical application.

“From the microelectronics manufacturing approach, anything that takes a long time is just not cost-effective,” says Tom Picraux, who works in the Los Alamos lab’s Center for Integrated Nanotechnologies, which formerly was based at ASU.

The research team designed a method that eliminates the final lithography step by first creating a set of planar gold electrodes. They then took advantage of an alternating electric field in a technique called dielectrophoresis. This pulls the silicon nanowires from a solution and places them between the electrodes.

Again using an electric field, along with a mild acid bath, the researchers selectively electro-deposited the nickel only where the underlying gold electrodes were located until the ends of silicon nanowires were buried, and then heated them to several hundred degrees Celsius to establish good electrical contacts.

Through the use of this “directed assembly” guided by the electric field to create the contacts, the process did not require li-

thography to connect the individual nanowires, and all the connections are made at once in the parallel electrodeposition process. The result is an increased potential for use in cost-effective nanotechnology manufacturing of existing technology, such as electronic switches.

It also could increase the feasibility of larger-scale applications, including biological and chemical sensor networks to detect potential threats from dangerous substances, as well as the fabrication of nanowire solar cells for providing a greatly expanded source of clean solar energy.

The team will receive its Nano 50 award at the NASA Tech Briefs National Nano Engineering Conference Nov. 12-13 in Boston.

More information on the Nano 50 Awards and the conference is available online at www.techbriefs.com/nano.

Aella is working as an engineer in the Advanced CVD Group of Micron Technology Inc. Ingole is a post-doctoral research associate in the School of Chemical Engineering at Purdue University.

Kullman, with the Ira A. Fulton School of Engineering, can be reached at (480) 965-8122 or joe.kullman@asu.edu.

International guest chef pays visit to ASU eateries

By Sarah Auffret

A guest chef from Mexico City will prepare a special meal for diners at ASU Oct. 12 at Hassayampa Dining Center, Oct. 13 at Pitchforks Restaurant in the Memorial Union and Oct. 14 at Manzy Square.

Chef Jose Cardenas Elizarraras will prepare lunch from 11 a.m. to 2 p.m. and dinner from 4:30 p.m. to 6 p.m. at each location. All three restaurants are open to the public. Lunch will be \$6.50 and dinner \$7.50.

Elizarraras, executive chef with ARAMARK Business Dining in Mexico City, is coming as part of the company’s international guest chef exchange. This prestigious program, which is designed to honor the company’s finest chefs from North America, South America, Europe and Asia, offers them the opportunity to work at other ARAMARK international accounts and share their talents, tips and tastes. Just 25 chefs were selected to participate in the 14th Annual International Guest Chef Exchange.

“To me, cooking is a universal language which allows me to communicate with others, regardless of ethnicity, nationality or culture,” Elizarraras says. “I look forward to visiting the Southwest to learn from and contribute to the college dining environment.”

Elizarraras is a 2000 graduate of Conalep Tlalpan, where he earned his “Young Mexican Chef” diploma. He prides himself on his creative combinations of fruits, legumes and vegetables, and specializes in “Mar y Tierra” entrée creations (surf and turf). He enjoys experimenting with marinades and combining unconventional ingredients to create innovative flavors and fusion sauces. When he is not preparing fine cuisine, he can be found volunteering at the Integral Development for Families, where he teaches and cooks for children battling cancer.

Auffret, with Media Relations, can be reached at (480) 965-6991 or sauffret@asu.edu.



CHRIS LAMBRAKIS PHOTO

The art of knowledge

Sherrie Zeitlin, right, from the Art Resource Center in Phoenix, shows student-teacher Soon-Jung Fong how children can make a mask with the corner of a box at the ASU Education Fair Oct. 4. More than 350 educators from throughout the state participated in the annual fair, which

was organized and conducted by the School of Educational Innovation and Teacher Preparation at the Polytechnic campus in Mesa. ASU partnered with more than 65 presenters and 90 vendors to offer educators ideas and resources throughout the day.

Nash earns Distinguished Primatologist Award

By Rebecca Howe and Jodi Guyot

Professor Leanne Nash of ASU’s School of Human Evolution and Social Change has been selected by the American Society of Primatologists to receive the 2008 Distinguished Primatologist Award.

According to Suzette Tardif, the society’s president, Nash is “a woman who has steadfastly and with understatement held strong to the principles of conducting rigorous and diverse scientific research.”

Tardif adds that Nash is an academician who forges strong collegial relationships and offers her “sound mentorship to students altruistically.”

As a pioneer in the field of nocturnal primate research, Nash was one of the first primatologists to study exudates, or plant gum, which some primates eat and ferment in their guts. She has researched a broad range of primates but is perhaps best known for her work with galagos – popularly known as bushbabies – small nocturnal primates from continental Africa.

In fact, in the 1970s, Nash instituted a galagos colony on ASU’s Tempe campus and oversaw the group until 1994, when the remaining animals were transferred to the Phoenix Zoo and Duke University. The colony was a success on many levels, providing great insight into a species that previously had been studied on a relatively limited basis while providing unique research opportunities for students.

Nash is not one to be pigeonholed. Her legacy is far-reaching and includes notable integrative research on captive and wild animals, including mother-infant interactions, and extensive work regarding the psychological welfare of captive animals. She has been associated with the Primate Foundation of Arizona since her 1971 arrival at ASU.

Nash is a natural mentor who enjoys working with students, especially in

smaller settings where she can offer more personal attention. When asked what advice she has for students, she answers: “The most important thing is to find the best questions to ask and not be species specific. Be prepared to learn about what’s thrown in your path and take advantage of the situation.”

Also, on a more practical note, she says, “Don’t expect glamour in the field. You will spend less than a tenth of your time observing animals and may spend a year in a tent living off rice and beans, so make sure this work is really something you want to do.”

Nash has done fieldwork in such exotic locales as Madagascar, Makapansgat and Gombe, where Jane Goodall asked her to direct a long-term baboon field project. Unfortunately, that plan was derailed by a kidnapping that put a halt to foreigners’ fieldwork at Gombe for several years. But that didn’t stop Nash from traveling to other African locales to initiate her field research on wild nocturnal primates.

Nash, a member of the American Association of Physical Anthropologists and former executive board member, teaches undergraduate and graduate courses while continuing her research. She also edits and writes an impressive number of publications each year.

Tardif calls Nash’s collective written works “the bible” for nocturnal primate specialists.

Howe, with the School of Human Evolution and Social Change, can be reached at (480) 727-6577 or rebecca.howe@asu.edu. Guyot, with the School of Human Evolution and Social Change, can be reached at (480) 727-8739 or jodi.guyot@asu.edu.

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Deadlines: Submit all articles, notices and calendar items as early as possible. **Deadline is Friday before noon for the following Friday’s paper.**

Assistant Vice President: **Terri Shafer**
Communications Manager:

Gary Campbell

Editor/Publisher: **John Jarvis**

Associate Editors: **Lisa Campbell,**

Britt Engle

Photographer: **Tom Story**

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National media rubs elbows with higher ed leaders

By Steve Des Georges

The 21st annual national higher education media dinner, conducted by ASU and moderated by ASU President Michael Crow, took place at the Penn Club in New York Oct. 2 and featured nearly 30 members of the national media, who joined a discussion with a dozen college and university presidents from across the country.

"This was once again an important opportunity to exchange views on the current state of higher education and the challenges our colleges and universities face," Crow says. "It's important to maintain a dialogue with our peers and keep our style of education out front."

The two-hour discussion featured questions about higher education from some of the country's top news outlets, including the New York Times, U.S. News and World Report, Newsweek, Time, the Los Angeles Times, the Chronicle of Higher Education, Nature and more.

Much of the conversation, at times spirited and covering a variety of topics, centered on the country's economic woes and how higher education is dealing with the challenges.

"What the media is interested in is how this country's colleges and universities are dealing with finances – short term and long term – access, design and if there is real logic to our system," Crow says. "This is a format that provides for the sharing of experiences in a larger group discussion that facilitates a real diversity of constructive



DIANE BONDAREFF PHOTO

ASU President Michael Crow, left leads the discussion at the National Higher Education Media Dinner conducted by ASU at the Penn Club in New York Oct. 2.

ideas and collaboration."

University presidents who joined Crow in answering questions and sharing ideas and programs were David Skorton (Cornell University), John Casteen III (University of Virginia), Mark Emmert (University of Washington), William Powers Jr. (University of Texas), Debora Spar (Barnard College/Columbia University), Alice Gast (Lehigh University), John Bassett (Clark

University), Daniel Curran (Dayton University), Robert Holub (Chancellor, University of Massachusetts-Amherst), Shirley Kenney (State University of New York-Stony Brook), Jolene Koester (California State University-Northridge) and Joel Seligman (University of Rochester).

Des Georges, with *Public Affairs at the West campus*, can be reached at (602) 543-5220 or stephen.desgeorges@asu.edu.

Name change begets University Staff Council

By Judith Smith

Just as ASU is "one university in many places," so is the new University Staff Council – which replaces the Classified Staff Council.

The name change reflects the council's new scope, says Andrew Hamilton, business manager senior with the Office of Human Resources, who is past president.

In addition to representing classified staff, the new council includes service professionals.

In a proposal for the new council that Hamilton submitted of data from fall 2001 to fall 2006, he found that "the number of classified staff had been decreasing moderately, while the number of service professionals increased significantly, nearly doubling in size in five years."

At the urging of ASU President Michael Crow, the Classified Staff Council – which has been in existence since the 1970s – voted to change its orientation to include service professionals.

"The Classified Staff Council had been talking about bringing service professionals 'into the fold' for many years," Hamilton says. "We always had an unofficial line of communication for them, but they never had official voting rights until now."

The transition from CSC to USC is under way. An interim board is in place to make the transition, and a new Web site is under development: usc.asu.edu.

Hamilton says the goal of the new group will be the same as that of CSC: To advise Crow on several issues, and to seek to improve the employment environment for all staff.

Crow's tradition of conducting a barbecue for CSC will continue with USC, and the new group will have a float in the Homecoming Parade. Volunteers will be welcomed to help plan those events and more.

USC will be led by four presidents. The first slate includes Penny Wall, Tempe campus; Bert Valenzuela, Polytechnic campus; Larry Carlson, West campus; and Cherie Hudson, Downtown Phoenix campus.

The presidents from the four campuses will meet periodically. An administrative associate will be the council's liaison to Matt McElrath, ASU associate vice president and chief human resources officer, who in turn will communicate council issues to Crow.

Smith, with *Media Relations*, can be reached at (480) 965-4821 or jps@asu.edu.

Professional Development Conference offers enhanced learning opportunities for staffers

By Judith Smith

Attending a large professional conference in a distant city is but a dream for many ASU employees.

But now, thanks to the efforts of the ASU Commission on the Status of Women and the University Staff Council, staff members will have a chance to go to a small conference right at home – and for free.

In fact, all ASU students, faculty and staff members are invited to attend the CSW/USC Professional Development Conference. They can register for just one of the workshops, or spend the entire day at the conference.

The first-ever Professional Development Conference will take place Oct. 22 at all four campuses, from 9 a.m. to 2:30 p.m. or 3:45 p.m., depending on the campus.

The conference will have sessions on a variety of topics, including:

- "Business Writing: Strategies for Effective Written Communication."
- "Dealing With Difficult People."
- "Career Agility: Strategies for Successful Career Building."
- "Dealing With Workplace Stress Through Laughter."

Presenters will include ASU faculty and staff, and several outside speakers such as Kitty Wiemelt (who recently was featured on CNN) and Valley financial guru Buck Bandura. There also will be presentations by the Faculty Women's Association and Intergroup Relations Center.

"The goal of the conference is to provide readily accessible information, resources and strategies to employees to help them succeed in their current positions, as well as in their long-term careers at ASU," says Karen Engler, CSW coordinator. "Additionally, our aim is to provide workshops on issues and needs that are timely to ASU's evolution as the New American University."

Why a professional development conference?

"Over the past two years, the CSW has focused much of its attention to the

professional development needs for staff," Engler says. "Our research indicated that while many staff are interested in attending professional development opportunities, they have faced a variety of barriers. These barriers include problems securing release time from supervisors, difficulties in attending opportunities away from campus, limited professional development offerings at ASU in general, and lack of unit or personal funds to attend opportunities outside of ASU."

"In response to these issues, the CSW not only advocated for revision to the SPP 601 policy, but we also came up with the idea to bring professional development opportunities to the ASU community that would be easy to attend and free."

Planning for the conference began in January. Engler says the goal is to offer a similar event each year.

The partnership with the University Staff Council came later in the planning stages but is right in line with mission and goals of the council, says Penny Wall, the new interim president for the USC at the Tempe campus.

The conference is free to all ASU employees and students, but registration is required for each workshop. For more information, and to register, visit the Web site www.asu.edu/csw.

Additional sponsors are Barrett, the Honors College at ASU; the College of Liberal Arts and Sciences; the Campus Environment Team at the Tempe, West, and Polytechnic campuses; Human Resources; University College; Student Affairs at West campus; College of Design; College of Education; College of Nursing & Healthcare Innovation; College of Public Programs; Morrison School of Management; Student Affairs at Tempe; Student Affairs at Polytechnic campus; Student Affairs at the Downtown Phoenix campus; ASU Online and Extended Campus; University Career Women; University Libraries; the Intergroup Relations Center; and the Faculty Women's Association.

Smith, with *Media Relations*, can be reached at (480) 965-4821 or jps@asu.edu.

In THE NEWS

ASU experts frequently are called upon by the local and national news media to provide insight and opinion on current events and issues of public interest. Following are excerpts of recent news articles featuring ASU representatives.

A new \$350 million Sheraton Phoenix Downtown Hotel is hoping to be star player in Phoenix's push to snag lucrative conventions. However, flagging tourism and tight credit markets could shelve many of these plans, warns ASU expert **Anthony Sanders**. "We must be careful not to start multiple hotel construction projects," says Sanders, a finance and real estate professor. "The Sheraton is seemingly a great success for the moment, but multiple competitors can result in none of the hotels having sufficient traffic, particularly if the economy continues to slow." *Tucson Citizen*, Sept. 29.

Because of financial cutbacks, the title sponsor at the 2009 FBR Open will tone down corporate entertaining. But the economic meltdown could put a damper on entertaining by those other sponsors as well, says **Ray Artigue**, executive director of ASU's sports-business master's program. "Companies are less likely to throw a big party in the face of employee layoffs and want to be careful how they conduct themselves," Artigue says. "And that goes double for public entities." *Arizona Republic*, Sept. 30.

Donna Winham, an assistant professor of nutrition at ASU, says eating a half-cup of beans every day has its benefits. "Beans have more protein and fiber than any other vegetable," says Winham, who also points out that while beans officially are a vegetable, they are now specifically listed on the USDA's food pyramid. "Some beans are also high in folate," she says. "Folate is a naturally occurring B vitamin involved with cellular growth and cell turnover. Just a half-cup of beans each day can supply as much as a third of the recommended amount of folate in the diet." *Physorg.com*, Oct. 3.

To the average viewer, the frenzied media coverage of financial highs and lows can erase much sense of meaning, says **Andrew Leckey**, director of ASU's Donald W. Reynolds National Center for Business Journalism. "The events of the last week were so fast-moving that just keeping up with what was happening was enough for television," Leckey says. "It tended to be a little bit like being embedded. When you're riding in a tank taking over Iraq, it's a different feeling than if you're thinking about it a week later." *Boston Globe*, Oct. 5.

According to a worldwide assessment overseen by the International Union for the Conservation of Nature, an estimated one out of four mammals is threatened with extinction. "Mammals are important because they play key roles in ecosystems and provide important benefits to humans," says **Andrew Smith**, an ASU biology professor and one of the co-authors of the study. "If you lose a mammal, you often are in danger of losing many other species." *Time*, Oct. 6.

When it comes to child bullying, peer victimization is a "low base-rate behavior," says **Gary Ladd**, a School of Social and Family Dynamics professor at ASU. "You'd have to follow kids all day long to see a little bit of it," he says. "Some kids react to harassment by turning inward, blaming themselves, suffering in silence. Others get very angry and start fantasizing about how to get revenge." *Newsweek*, Oct. 7.



Events are free, unless otherwise noted. Items in the "Exhibitions" section run at exhibit opening and on the first of each month only. Building abbreviations are listed according to the official ASU phone directory. Send information to Judith Smith at jps@asu.edu or fax (480) 965-2159. For information about ASU events, visit the Web at <http://events.asu.edu>.

Meetings

■ Tuesday, Oct. 21

Public Art and Design Review Council, 8-10 a.m., University Services Building (USB) conference room 2105. (480) 965-1855.

Lectures

■ Friday, Oct. 10

"The Combined Application Of 2D NMR Techniques and Fourier Transform Ion Cyclotron Mass Spectrometry for Unraveling the Chemical Composition of Natural Organic Matter: A New Analytical Approach," noon, Bateman Physical Sciences Center (PS) F-151. Speaker: Patrick Hatcher, Department of Chemistry & Biochemistry, Old Dominion University. Sponsored by Department of Chemistry and Biochemistry. Information: (480) 965-2093.

"Creating a Scientific Discipline: Konrad Lorenz, Niko Tinbergen, and the Founding of Ethology," 2-3 p.m., Life Sciences Center (LS) E-104. Speaker: Richard Burkhardt, professor of history emeritus, University of Illinois. Sponsored by School of Life Sciences. Information: (480) 965-2705.

"Zero-Power Locomotion Models," 2-3 p.m., PS H-153. Speaker: Mario Gomes, ASU. Sponsored by Mechanical and Aerospace Engineering Department. Information: (480) 727-0476.

"Eco-Policies and Generative Programs for Sustainable Cities (part of the Late Lessons in Early History initiative)," 3:30 p.m., College of Design North, room 60. Speaker: Besim S. Hakim, FAICP, AIA, a consultant in urban design, an independent scholar and a former professor of architecture and urban planning who has been researching and writing about traditional cities from the Mediterranean region since 1975. Sponsored by School of Geographical Sciences, and School of Human Evolution and Change. Information: bpompei@asu.edu or (814) 591-6421. http://geography.asu.edu/colloquium08_hakim.

"Murakami's Monsters: The Japanese Contemporary Art Explosion," 7 p.m., Neeb Hall. Speaker: Dick Hebdige, cultural critic and author of books, including "Subculture: The Meaning of Style," and "Cut n' Mix: Culture, Identity and Caribbean Music." Sponsored by F.A.R. (Future Arts Research). Information: sarah.munter@asu.edu.

■ Monday, Oct. 13

"Mars Direct: Humans to the Red Planet within a Decade," 2 p.m., Global Institute of Sustainability (GIOS) room 101. Speaker: Robert Zubrin, principal author of the Mars Direct Plan and founder of the Mars Society. Sponsored by the School of Earth and Space Exploration and East-West Exchange Chandler. Information: (480) 965-2490.

■ Tuesday, Oct. 14

"The Manuscript as Monument: Illuminating Alexander the Great in the Fourteenth Century," 3 p.m., Memorial Union (MU) Yuma Room (225). Speaker: Markus Cruse, ASU. Sponsored by Arizona Center for Medieval and Renaissance Studies. Information: (480) 965-9323.

■ Wednesday, Oct. 15

"Wind Down, Sleep Well," 12:15-12:45 p.m., University Center Building, second floor, 411 N. Central Ave., Phoenix. Speaker: Ken Wysocki MS, FNP-C, professor, ASU College of Nursing and Healthcare Innovation. R.S.V.P.: (602) 496-0600 or ASUlectures@asu.edu.

"Energy Policy: The European Perspective," 3 p.m., GIOS room 481. Speaker: Barbara Buchner, energy and environment analyst with the International Energy Agency. Sponsored by Arizona Public Service, GIOS and the W. P. Carey School of Business. Information: rod.groff@asu.edu.

"Investigating Artwork: Scientific Techniques, Authentication and Research," 3:30-4:30 p.m., School of Human Evolution and Social Change (SHESC) room 340. Speaker: Mark Rasmussen, Rare Collections. Sponsored by SHESC. Information: <http://shesc.asu.edu/colloquia>.

"Molecular Dynamics at Biological Cell Surfaces," 3:40 p.m., Barry M. Goldwater Center (GWC) room 487. Speaker: Nancy Thompson, University of North Carolina at Chapel Hill. Refreshments at 3:30 p.m. Sponsored by Center for Biological Physics. Information: (480) 965-4073.

"Does 'Getting Tough' on Crime by Increasing Adult Prosecution of Juvenile Offenders Create Criminals and Discriminate Against Minority Youth?" 4:30-6 p.m., University Club South Room. Speaker: John Foreman, attorney in the Arizona Attorney General's office, former Maricopa County Superior Court and Juvenile Court Judge. Part of the Seeking Justice in Arizona lecture series sponsored by the School of Justice and Social Inquiry. Information: (480) 965-7682.

■ Thursday, Oct. 16

Physics Colloquium, 4 p.m., PS F-123. Speaker: Dmitry Matyushov, ASU. Sponsored by Department of Physics. Information: (480) 965-9075.

Bioethics Film Series, 5:40-8:30 p.m., LS E-104. The film "Minority Report" will be shown. Based on a Philip K. Dick short story, "Minority Report" is about a cop in the future working in a division of the police department that arrests killers before they commit the crimes courtesy of some future viewing technology. MPAA rating: PG-13. Discussion follows film. Information: (480) 965-8927.

"Notes From the Field: Cyprus," 6 p.m., LS A-191. Speakers: Steve Falconer, School of Human Evolution and Social Change, and Nancy Serwint, School of Art. Sponsored by the Archaeological Institute of America, Central Arizona Chapter. Information: (602) 738-5784 or almira.poudrier@asu.edu.

Flinn Foundation Centennial Lecture, 7:30 p.m., Paul C. Galvin Playhouse. Speaker: Leonard Downie Jr., executive editor of the *Washington Post*. Sponsored by Barrett, the Honors College. Information: (480) 965-0161.

"Presidential Politics 2008: Religion, Race, and the Media," 7:30 p.m., Tempe Center for the Arts, 700 W. Rio Salado Parkway, Tempe. Participants are Linell Cady, Diane Winston and Eddie Glaude. Part of the "Religion and Conflict: Alternative Visions" lecture series sponsored by the Center for the Study of Religion and Conflict. Information: (480) 727-6736 or csrc.asu.edu.

■ Friday, Oct. 17

"Make the Most of Your Vote," 10-11:30 a.m., Center Building, Library (lower level), Polytechnic campus.

Speaker: Ellen Welty, ASU librarian. Sponsored by Osher Lifelong Learning Institute. R.S.V.P.: (480) 727-1153 or lois.lorenz@asu.edu.

"Energetics of Oxide Nanomaterials," noon, PS H-151. Speaker: Alexandra Navrotsky, Department of Chemistry, University of California at Davis. Sponsored by Department of Chemistry and Biochemistry. Information: (480) 965-2093.

Life Sciences Lecture, 2-3 p.m., LS E-104. Speaker: Nancy Fossett, University of Maryland, School of Medicine, Center for Vascular and Inflammatory Diseases Department of Pathology. Sponsored by School of Life Sciences. Information: (480) 965-2705.

"Direct Engineering Analysis via Distance Sampling," 2-3 p.m., PS H-153. Speaker: Vadim Shapiro, University of Wisconsin-Madison. Sponsored by Mechanical and Aerospace Engineering Department. Information: (480) 727-0476.

Anthropology lecture, 3:30-4:30 p.m., School of Human Evolution and Social Change (SHESC) room 340. Speaker: Peter Ungar, Department of Anthropology, University of Arkansas. Sponsored by SHESC. Information: <http://shesc.asu.edu/colloquia>.

"Sex, Gender and the Journey to Wholeness," 7 p.m., Neeb Hall. Speaker: Actress Jane Fonda. Sponsored by the Women and Gender Studies Program. Information: (480) 965-2358.

■ Saturday, Oct. 18

"The Care of Paper Documents and Photographs," 2-3 p.m., Deer Valley Rock Art Center, 3711 W. Deer Valley Road, Phoenix (about two miles north of Highway 101 and two miles west of I-17). Speaker: Steve Hoza, archivist, Hoo-hookam Ki Museum, Salt River Pima-Maricopa Indian Community. Reception follows lecture. Information: (623) 582-8007 or www.asu.edu/cls/shesc/dvrc.

■ Tuesday, Oct. 21

"Green Independence: A Green Solar Strategy to End Oil Imports and Use of Fossil Fuels," 12:10-1 p.m., Armstrong Hall (LAW) Great Hall. Speaker: Mark Edwards, Morrison School of Management and Agribusiness. Sponsored by Center for Bioenergy & Photosynthesis. Information: (480) 965-2490

"Meso Scale Discovery: Quantitative Multiplexed Immunoassays," 2 p.m., Biodesign Institute Auditorium. Speaker: Joe Barco, applications scientist, Meso Scale Discovery. Sponsored by Biodesign Institute. Information: (480) 727-9386.

"Men and Money: Negotiating Masculinity in Early Modern Italy," 3-4:30 p.m., Durham Language and Literature Building (LL) room 165. Speaker: Juliann Vitullo, associate professor of Italian, School of International Letters and Cultures. Part of the SILC Work-in-Progress Lecture Series. Information: silc@asu.edu or (480) 965-6281.

■ Wednesday, Oct. 22

Faculty Seminar Series, "Race Ethnicity, and the Humanities," noon-1:30 p.m., Social Sciences Building (SS) room 109. Presenters: Daniel Bernardi (film and media studies): "The Aesthetics of Whiteness in Film and Television: Historical Patterns of Representation"; and Keith Miller (English): "Understanding Race in America Through Martin Luther King's Final and Greatest Speech." R.S.V.P. required: (480) 965-300 or ihr@asu.edu.

"Convincing Yourself You can Be Physically Active," 1:30-3 p.m., Student Union Cooley Ballroom A, Polytechnic campus. Presented by Teresa Abraham, a doctoral candidate in the ASU physical activity, nutrition and wellness program. Sponsored by Osher Lifelong Learning Institute. R.S.V.P.: (480) 727-1153 or lois.lorenz@asu.edu.

"Discovering Complexity in the Early Stages of Protein Folding," 3:40 p.m., GWC room 487. Speaker:

'Arizona Stories' kicks off new season with historical series

By Susan Soto

"Arizona Stories," the latest Eight/KAET-TV production, chronicles the remarkable history of the Grand Canyon state. Each week, "Arizona Stories" showcases inspiring biographies of the trailblazers, travels back to pivotal dates in time, and locates the landmarks that have become cornerstones to the state's heritage.

With archival photographs, film, poignant firsthand accounts and commentary from historians and scholars, "Arizona Stories" delves into the people, places and events that define Arizona's legacy. State-of-the-art graphics and dramatic high-definition videography capture the legends and the history as never before.

"Arizona Stories" airs Tuesdays at 7:30 p.m. beginning Oct. 14 on Eight.

Each program also will feature two short elements: "Then and Now" and "Arizona Milestones." The first displays early 20th century images before moving into the contemporary photography of Allen Dutton, Paul Scharbach and Jim Todd. Each photograph is captured from the exact location illustrating how much – or little – the state has changed. "Arizona Milestones" tells the stories behind historical markers on highways throughout the state. For example, viewers learn that Arizona was home to the very last battle fought between the Apaches and the Army, and that the state served as home base to the government's "camel experiment" in the desert.

"This isn't just history," says executive producer John Booth. "This is a rich, breathtaking look at the stories that define our state. This is history told with the latest in high-definition technology."

The companion Web site www.azpbs.org/arizonastories will give visitors an opportunity to dig deeper into the subjects with complete program transcripts, audio files of characters pivotal to the stories, Google map interactivity with exact directions to historical locations, and extra "learn more" sections with lists of books, articles and additional research.

The online component will also provide access to resources for educators. "Arizona Stories" will be accompanied

by a comprehensive educational component. ASSET, Eight's teacher-training initiative, will provide direct, hands-on training to more than 1,000 K-12 educators, guiding them in the use of the broadcast program, Web site and print materials in Arizona standards-based classroom instruction.

The series is the latest addition to the "Arizona Collection," Eight's award-winning video anthology, and the station's latest presentation in the countdown to Arizona's Centennial in 2012. The "Arizona Collection" is a compilation of locally inspired programs that celebrate the people, places and history of Arizona.

Soto, with Eight/KAET-TV, can be reached at (480) 965-3506.

Lisa Lapidus, Michigan State University. Refreshments at 3:30 p.m. Sponsored by Center for Biological Physics. Information: (480) 965-4073.

■ Tuesday, Oct. 23

"The Voice of the People in the Middle Ages: Studies in the Medieval Notion of Public Opinion," 3 p.m., Coor Hall room 4403. Speaker: Charles Connell, Northern Arizona University. Sponsored by Arizona Center for Medieval and Renaissance Studies. Information: (480) 965-9323.

■ Friday, Oct. 24

"Insights into the Molecular Mechanisms of Insulin Resistance: Lessons from Proteomics," noon, PS H-151. Speaker: Zhengping Yi, Center for Metabolic Biology, ASU. Sponsored by Department of Chemistry and Biochemistry. Information: (480) 965-2093.

Life Sciences Lecture, 2-3 p.m., LS E-104. Speaker: Hannah Landecker, Rice University. Sponsored by School of Life Sciences. Information: (480) 965-2705.

"Strategic Global Significance of China's Coke and Steel Supply Chains," 3 p.m., College of Design North (CDN) room 60. Speaker: Karen R. Polenske, professor of regional political economy and planning, Department of Urban Studies and Planning, and director, multiregional planning research team, Massachusetts Institute of Technology. Part of the Wrigley Lecture Series sponsored by Global Institute of Sustainability. Information: (480) 965-2975 or <http://sustainability.asu.edu>.

"A Tribute to America," 7:30 p.m., ASU Gammage. The ASU Symphony Orchestra and Choral Union perform works by Copland, Gershwin, Hanson and Sousa.

Conferences

■ Saturday, Oct. 18

"Until I Fail in Old Age: Performance and Ritual in Celtic History," 9 a.m.-4 p.m., Scottsdale Civic Center Library Lower Auditorium. Panelists: Joseph Nagy (UCLA); Karen Overbey (Tufts); Morgan Davies (Colgate); Ron Newcomer (ASU). Sponsored by Arizona Center for Medieval and Renaissance Studies and Scottsdale Public Library. The annual ACMRS Symposium. Information: (480) 965-9323.

Miscellaneous

■ Saturday, Oct. 11

Helping Hands for Hunger, 9 a.m.-2 p.m., St. Vincent de Paul, Phoenix. Volunteers will work at St. Vincent DePaul from 10 a.m. to noon, then attend the Oxfam Hunger Banquet. Sponsored by Downtown Student Engagement and ASU Community Service Program. Information or request for special accommodations: (480) 965-0305 or volunteer@asu.edu. Registration: www.asu.edu/mu/community.

■ Monday, Oct. 13

"Selling Your Skills: Résumés and Cover Letters That Get Results," 3-4:30 p.m., Student Services building (SSV) room 329. Sponsored by Career Services. Information: (480) 965-2350 or www.asu.edu/career.

"STAR in the Employment Interview," 5-6:30 p.m., SSV room 329. Sponsored by Career Services. Information: (480) 965-2350 or www.asu.edu/career.

Superstition Review reading, 7:30 p.m., Student Union Cooley Ballroom B, Polytechnic campus. The *Superstition Review* is a national literary magazine published by undergraduate students at the Polytechnic campus. Information: (480) 727-1537.

■ Tuesday, Oct. 14

University Club Colloquium, noon-1:30 p.m., University Club. Speaker: Lisa Love, ASU vice president and athletic director. Chef's choice buffet, \$15. Reservations: (480) 965-0701. Non-members welcome.

Short-Talks Luncheon, 1 p.m., Karsten Golf Course Clubhouse, 1125 E. Rio Salado Parkway, Tempe. Presenters: Bruce Mason, professor emeritus of political science, and Jim Schoenwetter, professor emeritus of anthropology. No-host luncheon. Sponsored by Emeritus College. Information: (480) 965-0002.

High Tea, 2-4 p.m., University Club. Limited seating. Members and their guests welcome. Fee: \$10. R.S.V.P.: (480) 965-0701.

■ Wednesday, Oct. 15

"Rick Steves Smart Travel II," 7 p.m., Orpheum Theater, 200 W. Washington St., Phoenix. A travel seminar sponsored by Eight/KAET-TV. Admission: (480) 965-2877. www.azpbs.org/eightboxoffice.

■ Thursday, Oct. 16

"Selling Your Skills: Résumés and Cover Letters That Get Results," 10:30-11:30 a.m., SSV room 329.

Sponsored by Career Services. Information: (480) 965-2350 or www.asu.edu/career.

■ Friday, Oct. 17

Decision Theater tour, 3-4 p.m., Decision Theater, 21 E. Sixth St., suite 126A, Tempe. Information: Michele.nobles@asu.edu.

Science Café, 5:30-6:30 p.m., Arizona Science Center, 600 E. Washington St., Phoenix. The topic: "Will Genetic Discrimination Replace Racial Discrimination?" Sponsored by the Center for Nanotechnology in Society at ASU. (602) 716-2000.

Reading by playwright Luis Valdez, 7:30 p.m., Paul V. Galvin Playhouse. Sponsored by Virginia G. Piper Center for Creative Writing. Information: (480) 965-6018.

■ Saturday, Oct. 18

African Festival '08, 10 a.m.-6 p.m., Delph Courtyard, West campus. There will be music, dance, vendors and food. Presented by the African Association of Arizona. Information: (623) 247-4869.

ASU on the Lake, 10 a.m.-1 p.m., Tempe Town Marina. The ASU Hawaii and Pacific Islander Club partners with Tempe Town Dragon Boat and Outrigger Canoe Clubs to bring ASU out onto Tempe Town Lake. Experienced coaches will teach attendees to paddle in Chinese dragon boats and Polynesian outrigger canoes. Free and open to the public. Equipment provided. Information: margaret.coulombe@asu.edu; 480 727-8934.

■ Tuesday, Oct. 21

Adoption and Foster Care Information Session, noon-1 p.m., West Hall (WHALL) room 120. Sponsored by ASU School of Social Work Child Welfare Training Project and Arizona Adoption and Foster Care. Information: Katie Reck, (480) 345-9555.

■ Wednesday, Oct. 22

"How to Find an Internship," 4-5 p.m., SSV room 329. Sponsored by Career Services. Information: (480) 965-2350 or www.asu.edu/career.

■ Friday, Oct. 24

Ollie's Storybook Adventures, 10-11 a.m., Deer Valley Rock Art Center, 3711 W. Deer Valley Road, Phoenix. "Spiders" is the theme. Admission: \$2.50 per child; \$2 older siblings; \$2 additional adults; no charge for accompanying adults. Reservations required: (623) 582-8007.

Events and Performances

*Indicates tickets are available at Herberger College of Fine Arts Box Office, Nelson Fine Arts Center, (480) 965-6447.

**Indicates tickets are available at ASU Gammage, Mill Avenue and Apache Boulevard, (480) 965-3434; ASU Kerr Cultural Center, 6110 N. Scottsdale Road, Scottsdale, (480) 596-2660.

■ Friday, Oct. 10

"Nonsense II: The Second Coming," 7:30 p.m., Evelyn Smith Music Theatre. The sisters work their comic magic around the set dressing of "The Mikado." Also at 7:30 p.m., Oct. 11; 2 p.m., Oct. 12.*

Arizona Contemporary Music Ensemble, 7:30 p.m., Katzin Concert Hall.

■ Saturday, Oct. 11

"Cloudless," 7 p.m., ASU Gammage. Artistic director and modern-dance choreographer Susan Marshall celebrates the 20th anniversary of Susan Marshall & Co. through the humorous and moving work "Cloudless."**

David Friesen and Uwe Kropinski, 8 p.m., ASU Kerr Cultural Center, Scottsdale. Friesen plays Shakuhachi flute and bass, and Kropinski plays percussion and guitar – sometimes at the same time.**

■ Sunday, Oct. 12

"La Toccata Italiana," 2:30 p.m., Organ Hall. Italian organist Francesco Cera, traces the history of the organ toccata with works by Frescobaldi, Rossi, Muffat and J.S. Bach.*

"Face to Face in a Frenzy," 3 p.m., ASU Kerr Cultural Center, Scottsdale. A one-man play by artist and mask-maker Zarco Guerrero.*

■ Tuesday, Oct. 14

Tuesday Moring Music Concert, 10:30 a.m., ASU Kerr Cultural Center, Scottsdale. Enjoy a performance by ASU Wind Ensembles. Free, but R.S.V.P. required: (480) 596-2660. Bring a can of food or sealed personal item for Vista del Camino food bank.

"The Rat Pack – Live at the Sands," 7:30 p.m., ASU Gammage. The musical recreates a legendary evening at

the Sands Hotel with the most famous performers of our time: Frank Sinatra, Sammy Davis Jr. and Dean Martin. Also at 7:30 p.m., Oct. 15-17; 2 and 7:30 p.m., Oct. 18; 2 and 7 p.m., Oct. 19.**

■ Wednesday, Oct. 15

ASU Jazz Combos, 7:30 p.m., Recital Hall.

■ Thursday, Oct. 16

"Big Band Blast Off!" 7:30 p.m., Evelyn Smith Music Theatre. Performing: drummer Dom Moio and the ASU Concert Jazz Band.*

■ Saturday, Oct. 18

ASU Chamber Singers and Symphonic Chorale, 7:30 p.m., La Casa de Cristo Lutheran Church, 6300 E. Bell Road, Scottsdale.

■ Sunday, Oct. 19

Horn player John Ericson, 2:30 p.m., Katzin Concert Hall. Ericson performs the works of Bozza, Rheinberger, Bach and others.*

■ Monday, Oct. 20

Latin Jazz Band, 7:30 p.m., Evelyn Smith Music Theatre.

■ Wednesday, Oct. 22

Jazz Repertory Band, directed by Sam Pilafian, 7:30 p.m., ASU Kerr Cultural Center, Scottsdale.**

■ Friday, Oct. 24

Friday Conversations in the Gallery, noon-1 p.m., ASU Art Museum. Collector Mikki Weithorn is the special guest. Information: (480) 965-2787.

Emerging Artists Series, 5 p.m., Dance Studio Theatre. Performing: Sara Malan-McDonald and Holly Woodridge. Also at 7:30 p.m., Oct. 25; 2 p.m., Oct. 26.*

ASU Choral Union and Symphony Orchestra, 7:30 p.m., ASU Gammage. A program of American music, including Howard Hanson's "Song of Democracy."

"Don Coyote," 7:30 p.m., Lyceum Theatre. Daniel S. Frey's story about an American Mexican "coyote" who runs a successful human-smuggling business at the Arizona-Mexico border. But one day, a car accident, a brutal killing and a beautiful young woman named Rosa threaten to unravel the fabric of their partnership. Contains violence and strong language. Part of the Festival of New Work. Also at 2 p.m., Oct. 26; 7:30 p.m., Oct. 30 and Nov. 1. Contains violence and strong language.*

Exhibitions

Gallery 100—1-5 p.m., Monday-Thursday; 1-3 p.m., Friday. Tempe Center, suite 199. Information: (480) 965-2380.

Through Oct. 17, Third Annual Intercollegiate Metals Exhibition. Opening reception: Oct. 6, 7-9 p.m.

Harry Wood Gallery—9 a.m.-5 p.m., Monday-Thursday; 9 a.m.-3 p.m., Friday, Art Building, first floor. Information: (480) 965-3468.

Opens Oct. 13, New graduates exhibition. Opening reception: Oct. 13, 7-9 p.m.

Interdisciplinary Arts and Performance Gallery—11 a.m.-2 p.m., Monday-Thursday, University Center Building, room 228, West campus. Information: (602) 543-ARTS. Tours: (602) 543-8152.

Through Oct. 17, "Twenty Irish Printmakers Respond to the Schwemberger Photographs." The Schwemberger Photographs is a collection of more than 100 compelling images of American Indian peoples, homes and landscapes dating back to 1902. The images were taken by Brother Simeon Schwemberger while he lived at St. Michaels Mission near Window Rock, Ariz., in the early 1900s.

Step Gallery—noon-5 p.m., Monday-Thursday; noon-3 p.m., Friday, Tempe Center, 10th Street and Mill Avenue. Information: (480) 965-3468.

Through Oct. 17, "Trigger Items: illusions in discount shopping," by Karen Hernandez. Opening reception: Oct. 6, 7-9 p.m.

Defenses

Nicholas Warner, PhD, Geol. Sci., 1:00p.m., Oct. 14, PSF 566

NASA calls upon ASU experts to assist in search for life outside of Earth

(Continued from page 1)

"Our proposal was built on the legacy of the 1999-2004 ASU NAI team, led by professor Jack Farmer," Anbar says. "ASU developed a strong reputation in the astrobiology community during those years, in large measure because of the activities of that team. That reputation helped attract some of us to ASU. It certainly attracted me."

"Few scientific questions capture the imagination like studies of the origin of life," says Kip Hodges, director of the school. "Such research is central to the mission of the School of Earth and Space Exploration. Many of our faculty members have been involved in these efforts for years, and it is gratifying to see their contributions recognized through this award."

The ASU team is joined by researchers from partner institutions and centers, including the University of California-Riverside; the University of California-Merced; Rice University; the University of Illinois-Chicago; NASA's Goddard

Space Flight Center; the Australian Centre for Astrobiology at the University of New South Wales; and the National Autonomous University of Mexico.

Under the direction of Anbar, the team plans to refine the criteria to guide the search for life by characterizing life's elemental requirements.

Astrobiologists assume that life can develop and survive on any planet that has water and energy. But in the search for extraterrestrial life, these criteria are too vague.

Within the solar system, there is abundant evidence of water-rich environments:

- Focused exploration on Mars has identified many ancient aqueous environments.
- Galileo spacecraft data indicate that the icy crust of Europa conceals a salty ocean.
- The Cassini mission discovered water jets on Enceladus.

Beyond the solar system, there are probably many Earth-like planets. Theories suggest that many of these planets are "waterworlds," with

oceans so deep that they have no exposed continents. All of these environments have sufficient energy to support microbial life.

"Water and energy are necessary, but not sufficient," Anbar says. "Look at Earth. Nearly half the planet's surface is covered by ocean regions in which life is scarce. The reason is that these regions don't have high enough concentrations of the chemical elements necessary for life. So the next step in the search for life is to 'follow the elements.'"

The team will pursue a three-pronged research initiative to explore the relationship between the elemental composition of organisms and their environments, the impact of planetary processes on the abundance of bioessential elements, and the effects of astrophysical processes on the abundance of life-supporting elements.

Planetary missions within the solar system are expensive and rare, and investigations outside the solar system are not feasible for all of the hundreds of anticipated Earth-like planets with

liquid water. The resources available for astrobiology exploration are limited, so narrowing down the search criteria will be beneficial.

But impacts of this research extend beyond aiding in the targeting and interpretation of data from space missions. In line with the School of Earth and Space Exploration's mission of improving science literacy both on and off campus, the ASU team has plans to engage students and teachers in the discovery process through virtual field trips and educator workshops, and an innovative approach to training secondary school science teachers.

"The opportunities this provides for us to raise the profile of astrobiology in our graduate and undergraduate educational programs are especially exciting," Hodges says.

Staab, with the School of Earth and Space Exploration, can be reached at (480) 727-9329 or nstaab@asu.edu.

In BRIEF

Retired Faculty Wives/Women's Club to meet

Americans soon could be dining on delicious dishes of green algae and driving cars powered in part by a biofuel refined from algae, according to professor Mark Edwards of the Morrison School of Agribusiness on ASU's Polytechnic Campus.

Edwards claims that a growing shortage of the world's traditional food products will inspire an appetite for algae, often seen as the green gunk contaminating Arizona's swimming pools. At the same time, scientists will begin reconstituting that same algae — one of the tiniest and oldest plants on earth — into a variety of high-energy liquid fuels for transportation.

Edwards will discuss these and other aspects of algae cultivation at noon, Oct. 13, at the first fall meeting of the ASU Retired Faculty Wives/Faculty Women's Club. All ASU retired women faculty, as well as the wives or widows of retired ASU faculty members, are invited to attend this and future luncheon-talks at Tempe's Shalimar Country Club, 2032 E. Golf Ave., the second Monday of each month through May.

Topics scheduled will touch on science and religion, classical music versus rock and roll, an illustrated tour of the world's great deserts, and an exploration of "Who Are You Really?"

For reservations to hear Edwards, or to attend other luncheon talks, call (480) 967-5228 or send an e-mail to annpatterson@cox.net.

Moot court competition to take place at ASU

Practicing lawyers, judges, community volunteers and ASU undergrads will judge a moot court competition between law students Oct. 13-16 at the Sandra Day O'Connor College of Law. The free event will take place from 6 p.m. to 9 p.m. each night in the Armstrong Hall's Steptoe & Johnson Rotunda on ASU's Tempe campus. The event is sponsored by the college's executive moot court board.

For more information, contact Nicole Hartley at (510) 610-2672 or nhart@asu.edu.

Law student association welcomes Pochoda

The Chicano/Latino Law Student Association will play host to Dan Pochoda, legal director of the American Civil Liberties Union, from 12:15 p.m. to 1:15 p.m., Oct. 14.

This free event will be held at the Sandra Day O'Connor College of Law, in room 118 of Armstrong Hall on the Tempe campus.

For more information, e-mail Javier Grajeda at javier.grajeda@asu.edu.

Symposium studies gaming act's impact

A balanced 20-year retrospective of the successes, failures and impact of the Indian Gaming Regulatory Act (IGRA) of 1988 will be examined at the "Indian Country's Winning Hand: 20 Years of IGRA" symposium.

The symposium will take Oct. 16-17, at Radisson Fort McDowell Resort & Casino, located at 10438 N. Fort McDowell Road in Scottsdale. Sign-in begins at 7 a.m., Oct. 16, with symposium lectures and discussion beginning at 8 a.m. and ending at 5 p.m. each day.

A Pathbreakers Banquet will also take place Oct. 16 at the Radisson Fort McDowell Resort & Casino to honor six individuals for their contributions to gaming in Indian Country. Early registrants wishing to attend the conference receive price breaks.

For more information, and to register, contact Darlene Lester at (480) 965-7715 or darlene.lester@asu.edu.

Sessions detail ASU's doctorate in education

Individuals interested in pursuing the doctoral degree in leadership and innovation offered by ASU's College of Teacher

Education and Leadership (CTEL) can meet with faculty and current students at one of three upcoming information sessions: Oct. 23, Nov. 13 and Dec. 4.

All three sessions will take place from 5:30 p.m. to 7 p.m. in the Faculty/Staff Lounge, room 201, of the University Center Building on ASU's West campus. Light refreshments will be served.

The sessions are identical, so there is no need to attend more than one.

R.S.V.P.s are requested at (602) 543-6358 or ctelquestions@asu.edu.

CTEL's doctorate in leadership and innovation is designed for working professional educators. The next group of students admitted to the three-year program, which holds its classes on ASU's West campus, will begin their studies in the summer of 2009. The application deadline is Jan. 31.

Geriatric conference attracts full house

ASU's College of Nursing & Healthcare Innovation attracted a full house to its inaugural Invitational Geriatric Conference titled Healthy Outcomes in Aging held recently at ASU's West campus.

More than 100 geriatric clinical nurses, nursing educators and other health care professionals attended the program.

According to Colleen Keller, ASU Foundation Professor in Women's Health, the conference achieved its goal of stimulating discussion in the interdisciplinary aspects of promoting healthy aging in the Southwest, especially the Phoenix metropolitan area.

Karen Marek, a noted national expert on health care for older adults and professor and director of the Self-Management Science Center at the College of Nursing at the University of Wisconsin-Milwaukee, served as keynote speaker for the conference. She spoke on "Enhancing Self-Management in Chronically Older Adults."

Lodestar Center probes charitable behavior

The ASU Lodestar Center for Philanthropy and Nonprofit Innovation has released the "2008 Arizona Giving and Volunteering Report," a summary of data from a random-digit-dialing telephone survey of 1,100 Arizona resident households conducted in the summer of 2007.

The report offers detailed results of the charitable behavior of Arizona residents and also discloses specific charitable behaviors for Arizona's Hispanic population.

"An analysis of community quality of life indicators is incomplete without studying philanthropy: the giving of time, money and know-how to causes people care about," says Robert Ashcraft, director of the ASU Lodestar Center and a professor of nonprofit studies in ASU's School of Community Resources and Development. "This timely study of household level philanthropy can assist nonprofits to refine their development efforts, raise money more efficiently, and use volunteers more effectively, thereby enabling a vibrant social sector that improves the quality of life in communities."

This is the second Arizona Giving and Volunteering Report the ASU Lodestar Center has produced and distributed. The first report was released in 2003.

The free publication can be downloaded in .pdf form at <http://nonprofit.asu.edu> or by calling the center at (602) 496-0500.

Participants sought for focus groups

A group of ASU graduate students in the Hugh Downs School of Human Communication is conducting a study of issues of work life, family life, and political perceptions of professional men and women.

The students are looking for professional men and women

older than 18 to participate in focus groups and complete a short survey in regard to their opinions of political figures such as Sarah Palin and Hillary Clinton, and their personal experiences of work, family and politics.

The focus groups will take place in ASU's Stauffer Hall from 7:30 p.m. to 8:45 p.m., Oct. 16, 23 and 30.

Those who are interested in participating, or who need more information, can send an e-mail to asucampaignstudy@gmail.com. Contact information and the date of the focus group that the person would like to attend should be included in the e-mail.

Schriro, staff earn prison-reform award

Dora Schriro, an adjunct professor at ASU's Sandra Day O'Connor College of Law and director of the Arizona Department of Corrections, recently accepted an award from Harvard University's Ash Institute for Democratic Governance and Innovation.

Schriro and her staff received a 2008 Innovations in American Government Award for its "Getting Ready: Keeping Communities Safe in 2004" initiative.

The statewide program exposes inmates to a structured environment similar to the outside world, with real-world workdays, leisure activities, progressive decision-making and earned opportunities.

The goal of the program, which provides incentives and earned privileges for good behavior, is to empower inmates to take control of their lives, according to the department.

Wosinski earns outstanding educator award

The Society for Community Research and Action's Council of Education Programs (CEP) recently honored ASU psychology faculty member Marek P. Wosinski as the second recipient of the CEP's Outstanding Educator Award.

The purpose of the Outstanding Educator Award is to recognize an SCRA member who has made exemplary and innovative contributions to the education of students about community psychology and community research and action.

Engineering professor earns \$320,000 grant

Cun-Zheng Ning, a professor in ASU's Department of Electrical Engineering, has been awarded a three-year, \$320,000 grant from the Army Research Office to develop nanophotonics materials and devices. His team will work on developing spatially composition graded nanowire materials, as well as develop devices using such materials.

Nanowire materials have a wide range of applications, from full spectrum photovoltaic devices, solid-state lighting and spectrometer-on-a-chip, to tunable nanolasers.

The photovoltaic devices based on the nanowire materials will potentially lead to ultra-high-efficiency solar energy conversion. Spectrometer-on-a-chip technology will enable development of an extremely compact integrated system to replace bulky spectrometers for detection and sensing.

The ability to engineer alloy composition of nanowires will lead to color-by-design (or arbitrary color synthesis) for lighting and displays. Tunable lasers can be used for chip-based telecommunication systems for high-bandwidth communication that drives Internet traffic, or for multiple-agent detections and multicolor displays.

This is the latest major support for Ning's nanophotonics research team, which now totals \$1.3 million and includes funding from the National Aeronautics and Space Administration, the Defense Advanced Research Projects Agency and Science Foundation Arizona.

Alumni Association reprises role as ASU Homecoming tradition-keeper

(Continued from page 1)

sports traditions by presenting a special "Legends of Football" Homecoming luncheon Nov. 14 that will feature former head coach Frank Kush, as well as legendary former players such as Danny White, Ron Pritchard and others. Tickets are \$40 for Alumni Association members and \$45 for non-members.

SAA, the student alumni association at ASU, is heavily involved in one of the university's old-

est Homecoming traditions, the Lantern Walk up "A" Mountain. The walk, first performed in 1917, symbolizes the passing of the proverbial torch from the senior class to the junior class. SAA activities are conducted with assistance by the Alumni Association.

The Nov. 14 Homecoming events schedule will close with a tradition now in its fifth year, the Homecoming Gala, which the association co-conducts with the Tempe Chamber of Commerce. Festivities will include dinner, dancing, a

live band, a silent auction, and more.

According to Alissa Pierson, the association's associate executive director for programs and constituencies, the organization's work as university tradition-keeper is closely related to its mission of keeping Sun Devil alumni connected to ASU after they graduate.

"The Alumni Association exists in part to enhance the alumni experience, and one of the ways we connect graduates to ASU is through observing university traditions," she says. "Re-

membering where we've been as a university builds Sun Devil pride and complements our focus on communicating to alumni where ASU is headed."

For more information on the ASU Alumni Association's Homecoming activities, visit the Web site www.asu.edu/alumni/homecoming/index.shtml.

Massey, with the Alumni Association, can be reached at (480) 965-3701 or elizabeth.massey@asu.edu.

Hispanic Mother-Daughter program celebrates 25 years of success at ASU

(Continued from page 1)

involved in their child's education from the start.

Bridget Valenzuela, who entered the program in 1985 and graduated from ASU in 1995, says the time alone with her mother was a rare opportunity in a family of six. Her three younger sisters clamored to join the program when they reached eighth grade.

"The program has given my family a perspective on higher education that not many families from Guadalupe are exposed to," says Valenzuela, who is now a middle school science teacher in the Salt River Pima Maricopa Indian Community.

"I remember meeting an ASU student that was studying math, when I visited the campus during my eighth-grade year. It was the first time I had ever met a Hispanic female that enjoyed math, and in my world in 1986 that was unheard of. And I realized what my mom had been telling me was true, how good grades are important and how confidence can make a difference in achievement."

ASU partners with 14 school districts in Phoenix and the East Valley to mentor students, raise their aspirations and teach skills for them to succeed. The Hispanic Mother-Daughter program has promoted higher education to more than 6,000 young women and their mothers over the years.

The outreach program will celebrate its 25th anniversary at a luncheon at 11 a.m., Oct. 24, at the Phoenix Convention Center, located at 100 N. Third St. in Phoenix. The celebration event is

sponsored primarily by the Helios Education Foundation, assisted in part by Blue Cross Blue Shield of Arizona.

The program serves more than 550 mother-daughter teams from the eighth grade through the university level. The teams attend regular evening workshops at ASU, and the girls receive one-on-one academic advising and peer mentoring. For participants who make a commitment and stay in the program, 100 percent of them graduate from high school and go on to attend a community college or a university.

Three-quarters of the eighth-graders and high school participants maintain grade-point averages of 3.0 or better. Hundreds have gone on to graduate from college and pursue careers in education, law, journalism, medicine and business.

Two recent examples are Iris Hermosillo and Mayra Chavez. Hermosillo, who got her degree from ASU in journalism in 2007, is a weather anchor and reporter for KSN 16 television in Missouri. Chavez, a 2006 engineering graduate, is a software engineer for Boeing.

"I believe that, without the program, I would definitely not be where I am now," Chavez says. "Having the workshops on campus, and meeting other girls with the same hopes and dreams, encouraged me to keep going to school. I was able to enter ASU on the first day with confidence that I was going to realize my dreams."

In some cases, the mothers have been inspired to attend college themselves. Zoriana Hidalgo's mother, Consuelo, decided to go

to college after they joined the program in 1991, and today she has a bachelor's and master's degree from ASU. Zoriana, who also earned her bachelor's and master's from ASU, is a fourth-grade teacher at Seoul American Elementary School at a U.S. military base in South Korea.

When Michelle Morales entered the program in 1996, her mother, Lucy, was inspired to earn a bachelor's degree from the University of Phoenix and a master's from ASU. Lucy is a certified public manager for the city of Tempe. Michelle, who graduated from ASU in 2005 and went on to DePaul University for a master's, is a professional cellist and also a public relations representative in Chicago.

"My daughter and I became a team," Lucy says. "We encouraged and supported each other. The program made such a difference in our lives by providing us with a support system and the tools to succeed in college. The academic success that we achieved is a result of the preparation and commitment that we received from the Hispanic Mother-Daughter Program staff."

The program is open to all female students in participating school districts who meet academic requirements and will be the first generation in their family to attend college. For more information about the program, visit the Web site www.asu.edu/hmdp or call Maria Moreno at (480) 965-5838.

Auffret, with Media Relations, can be reached at (480) 965-6991 or sauffret@asu.edu.

Researchers' assessment sounds alarm on population of mammals worldwide

(Continued from page 1)

di Roma and the Zoological Society of London.

The mammal assessment is the first comprehensive look at the health of terrestrial and marine mammals across the globe. It is a companion assessment to similar documentation of the world's amphibians, released four years ago by IUCN.

"Mammals are important because they play key roles in ecosystems and provide important benefits to humans," Smith explained. "If you lose a mammal, you often are in danger of losing many other species."

The assessment shows that at least 1,141 of the 5,487 mammals on Earth are known to be threatened with extinction. At least 76 mammals have become extinct since A.D. 1500. The real situation could be much worse, as 836 mammals are listed as "data deficient."

The culprits driving this precarious position include habitat loss and over exploitation for terrestrial mammals, and pollution, global warming and over exploitation for marine mammals, Smith says.

"Within our lifetime, hundreds of species could be lost as a result of our own actions – a frightening sign of what is happening to the ecosystems where they live," says Julia Marton-Lefevre, IUCN director general in announcing the Red List. "We must now set clear targets for the future to reverse this trend to ensure that our enduring legacy is not to wipe out many of our closest relatives."

In the *Science* article, which includes the contributions of more than 1,700 scientists, the researchers say 188 mammals are in the highest threat category of "critically endangered," including the Iberian lynx (*Lynx pardinus*), which has a population of just 84 to 143 adults and has continued to decline because of a shortage of its primary prey, the European rabbit (*Oryctolagus cuniculus*).

China's Père David's Deer (*Elaphurus davidianus*), is listed as "extinct in the wild." However, the captive and semi-captive populations have increased in recent years, and it is possible that truly wild populations could be re-established soon. It may be too late, however, to save the additional 29 species that have been flagged as "critically endangered, possibly extinct," including Cuba's Little Earth Hutia (*Mesocapromys sanfelipensis*), which has not been seen in nearly 40 years.

Nearly 450 mammals have been listed as "endangered," including the Tasmanian devil (*Sarcophilus harrisii*), after its global population declined by more than 60 percent in the last 10 years due to a fatal infectious facial cancer. The Fishing Cat (*Prionailurus viverrinus*), found in Southeast Asia, was listed as endangered due to habitat loss in wetlands. Similarly, status of the Caspian seal (*Pusa caspica*) was moved to endangered. Its population has declined by 90 percent in the last 100 years due to unsustainable hunting and habitat degradation.

Habitat loss and degradation affect 40 percent of the world's mammals. It is most extreme

in Central and South America, west, east and central Africa, Madagascar, and in southern and southeastern Asia. Over harvesting is wiping out larger mammals, especially in Southeast Asia, but also in parts of Africa and South America.

The Grey-faced Sengi or Elephant-shrew (*Rhynchocyon udzungwensis*) is only known from two forests in the Udzungwa Mountains of Tanzania, both of which are protected but vulnerable to fires. The species was first described this year and has been placed in the vulnerable category.

To improve the current state of these mammals, Smith suggests a few actions that could help immediately.

"Curtail the trade of endangered species," he says. "It would do an amazing amount of good for stabilizing the situation in Southeast Asia, which is a biodiversity hot spot. There also is so much needless habitat loss. Trees from too many lush tropical forests end up as coffee tables or in high-end furniture."

Conservation's role

"Our results paint a bleak picture of the global status of mammals worldwide," the authors of the *Science* article write. "Yet, more than simply reporting on the depressing status of the world's mammals, these Red List data can and should be used to inform strategies for addressing this crisis, for example, to identify priority species and areas for conservation."

"Further, these data can be used to indicate

trends in conservation status over time," they add. "Despite the general deterioration in the status of mammals, our data also show that species recoveries are possible through targeted conservation efforts."

For example, the black-footed ferret (*Mustela nigripes*) moved from extinct in the wild to endangered after a successful reintroduction by the U.S. Fish and Wildlife Service into eight western states and Mexico from 1991 to 2008. Similarly, the Wild Horse (*Equus ferus*) moved from extinct in the wild in 1996 to critically endangered this year after successful reintroductions started in Mongolia in the early 1990s.

The African elephant (*Loxodonta africana*) moved from vulnerable to near threatened, although its status varies considerably across its range. The move reflects the recent and ongoing population increases in major populations in southern and eastern Africa. These increases are big enough to outweigh any decreases that may be taking place elsewhere.

"This work sets a benchmark for us to understand what is happening with biodiversity of mammals worldwide and provides a platform from which all future conservation efforts can be measured," says Smith, who initiated the database that was used to inventory the world's mammals. "This effort hopefully will spur greater attention on the conservation of mammals and the habitats they occupy, for the benefit of all biodiversity."

Derra, with Media Relations, can be reached at (480) 965-4823 or skip.derra@asu.edu.

EMPLOYMENT

The following positions are available as of Oct. 10 and are subject to change. All positions will be advertised in *Insight* only once. The staff requisition or job order number for each position is indicated by the (#) sign. ASU is an equal opportunity-affirmative action employer.

ASU POSITIONS

A complete job announcement for classified, administrative and service professional positions at the Downtown Phoenix, Polytechnic, Tempe and West campuses is available on the Human Resources Web page at www.asu.edu/asujobs, or the Telecommunication Device for the Deaf at (480) 965-3002.

For complete position descriptions and application requirements for academic positions, contact the appropriate department listed below. Faculty, academic professional and graduate assistant positions are also listed on the Human Resources Web sites and details must be obtained from the hiring department. Application deadlines are listed.

Dates listed are application deadlines, and application material is due by 11:59 p.m. on that date. Positions are 100 percent, full-time employment (FTE) unless otherwise noted. Code below is: (O) – position is open to the public.

STAFF POSITIONS

TEMPE CAMPUS

Professional

CSPO Communication Specialist (O) #21255 – College of Liberal Arts and Sciences-Consortium for Science, Policy and Outcomes (Oct. 31).
Disability Access Consultant (O) #21261 – VP University Student Initiatives (Oct. 31).
Graphic Design Specialist (O) #21225 – VP Research and Economic Affairs (Oct. 15).
Instructional Designer (O) #21085 – ASU Online and Extended Campus (Oct. 20).

Management Intern (part time) (O) #21222 – Undergraduate Admissions (Oct. 17).
Management Research Analyst (O) #21242 – Department of University Evaluation (Oct. 24).
Program Manager (O) #21247 – Mary Lou Fulton College of Education-Educational Leadership and Policy Studies (Oct. 17).
Research Technician (O) #21253 – Biodesign Institute (Oct. 31).

Administrative support

Administrative Assistant (O) #21183 – W. P. Carey School of Business/MBA Admissions (Oct. 15).
Administrative Associate (O) #21190 – Ira A. Fulton School of Engineering (Oct. 24).

Service/field craft/maintenance

Electrician (Facilities Management) (O) #21186 – University Services (Oct. 17).
General Maintenance Mechanic, Enhanced Building Maintenance (Facilities Management) (O) #21202 – University Services (Oct. 17).

DOWNTOWN PHOENIX CAMPUS

Professional

Clinical Laboratory Nurse, CON (part time) (O) #21214 – College of Nursing & Healthcare Innovation (Oct. 15).
Nurse Practitioner (part time) (O) #21230 – College of Nursing & Healthcare Innovation (Oct. 22).

Nurse Practitioner (part time) (O) #21228 – College of Nursing & Healthcare Innovation (Oct. 22).
Research Technician (part time) (O) #21219 – College of Nursing & Healthcare Innovation (Oct. 15).

ACADEMIC POSITIONS

TEMPE CAMPUS

Assistant Professor #9232 – College of Liberal Arts and Sciences – History (Dec. 1; every two weeks thereafter until search is closed).
Assistant Professor #9233 – College of Liberal Arts and Sciences – History (Nov. 15).
Assistant/Associate Professor #9192 – Liberal Arts and Sciences – History (Oct. 10; every two weeks thereafter until search is closed).
Faculty Associate P#5050 – W. P. Carey School of Business (Nov. 3; every two weeks thereafter until search is closed).

POLYTECHNIC CAMPUS

Assistant Professor #9197 – School of Educational Innovation and Teacher Preparation (Oct. 15; every two weeks thereafter until search is closed).

DOWNTOWN PHOENIX CAMPUS

Chair #9231 – College of Nursing & Healthcare Innovation (Oct. 1; every week thereafter until search is closed).

Students tap into Israeli expertise during summer abroad program

By Chakris Kussalanant

Thirty ASU students traveled to Jerusalem this summer to learn about the logistics and challenges of security in Israel – a place where three major world religions intersect, ideological tensions are increasing, and where counterterrorism research and response is at the forefront of the country.

Internationally recognized experts taught the ASU delegation about daily security concerns in Israel, history of countermeasures for suicide bombers, counterterrorism, infrastructure security, emergency management, mass casualty response and international politics.

The 10-day trip was organized by Charles Loftus, a veteran member of ASU's police department and a faculty associate in the School of Applied Arts and Science's social and behavioral sciences area based at ASU's Polytechnic campus. Loftus, who instructs

the "National Security, Intelligence, and International Terrorism" class, teaches courses in national security, intelligence, terrorism and homeland security.

When considering how to best exemplify and train his students on the realities of counterterrorism, Loftus did not reach out to U.S. agencies, but felt instead that Israel was an obvious – and ideal – choice for his class.

"Israeli agencies have been 'battle tested,' unlike many of their American counterparts," Loftus says. "Not that we haven't experienced terror attacks in the United States, just not at the same frequency, particularly lone suicide attacks. The Israelis have learned how to do certain things very well to protect their citizens – things we are still learning."

The study-abroad Israel counterterrorism program is the first of its kind at ASU, and a joint project between the university and the

Institute of Terrorism Research and Response, a U.S. and Israeli counterterrorism organization.

The ASU delegation was greeted by the Israeli Minister of Tourism Raphael Ben-Hur and subsequently visited various Israeli cities, including Jerusalem, Tel Aviv, Haifa and Galilee.

Students also were introduced to Israeli culture, cuisine and history.

The program will be offered again next summer and is geared toward students who are seeking careers in the military, law enforcement, counterterrorism, Middle-Eastern politics, private security and emergency response management.

For more information, or to enroll, visit the ASU Travel Abroad Web site at <http://studyabroad.asu.edu/home>.

Kussalanant, with Media Relations, can be reached at (480) 727-9181 or chakris.kussalanant@asu.edu.

Young students develop bright ideas through STEM initiative

By Verina Palmer Martin

Tatyana Emamali, Kosiba Oshodi-Glover and Renzo Callejas meticulously lined the inside of a cardboard pizza box with black construction paper as they chatted excitedly about testing out their creation. The Mesa middle school students fashioned a reflective aluminum foil panel to the box top and wondered aloud if the solar ovens they were building really could melt the cheese on nachos.

"Basically, we're trying to cook food by using the sun," said Oshodi-Glover, an eighth-grader at Powell Junior High School.

The solar oven experiment was part of a Salt River Project-sponsored summer internship held in July to teach students about sustainable energy. The SRP Renewable Energy Summer Internship was part of ASU's program titled "Learning through Engineering Design and Practice: Using our Human Capital for an Equitable Future."

Last fall, 48 students from Mesa's Powell and Carson junior high schools participated in the informal after-school program. Students in the program make a commitment to participate in the year-round program for two years.

During the summer, they attended a youth docentship with the Arizona Science Center, and internships with companies like Boeing, Intel, SRP, Motorola and Microchip.

The project is funded by the National Science Foundation's Division of Research on Learning in Formal and Informal Settings program titled Information Technology Experiences for Students and Teachers. This NSF program responds to concerns and projections about shortages of science, technology, engineering and mathematics (STEM) professionals and information technology workers in the United States, and seeks solutions to help ensure the breadth and depth of the STEM work force.

SRP Community Outreach Representative Tina Skjerpjng says SRP is collaborating with ASU to help children learn about alternative energy sources in the hopes of inspiring them to pursue science and engineering careers.

"These are our future scientists, our future engineers at SRP," she says. "At the same time, we are shaping future consumers who will have a better understanding of renewable energy and its potential."

Led by Tirupalavanam Ganesh, assistant dean for information systems with ASU's Mary Lou



Renzo Callejas, left, of Powell Junior High School, and Jared Seaman, center, a Westwood High School science teacher, watch Tatyana Emamali attach material to her solar cooker.

Fulton College of Education, the project is funded by a \$1 million grant from the National Science Foundation and community partnerships.

The goal is to expose under-represented youth to STEM concepts, and to encourage, support and nurture their academic pursuits within the STEM disciplines as they develop their career interests and prepare for high school and college.

During the SRP summer internship, in addition to constructing a solar cooker, students built arrays of photovoltaic cells to power a light bulb. Along this process of exploring how to use the sun's energy to cook food and to power a light bulb, students pondered questions related to harnessing energy from natural resources, such as: "How could we use pinwheel (windmill) technology to produce electric energy?"

"This internship has challenged our youth to think about ways they can harness renewable resources to power our future, with attention to our habitats, lifestyles and anticipated growth in population," Ganesh says.

The SRP summer internship, the first of two summer experiences for students in the program, was boosted by SRP's community outreach, SRP scientists and engineers, and staff members from the Arizona Foundation for Resource Education.

"SRP is proud to be a part of this exemplary program, which gives students hands-on experience with math, science and technology," says Karen Fisch, SRP's manager of community outreach. "The experiences they gained this summer will certainly last a lifetime."

Adds Larry McBiles, executive director of the Arizona Foundation for Resource Education: "This program encourages students to think critically as they apply their new learning to real-world challenges."

Emamali, a petite seventh-grader, says she thrives on taking things apart and reconstructing them. Her early aptitude in the sciences may be more than a child's normal curiosity to understand how things are made.

Emamali says she enjoys the program because the teachers don't just answer students' questions.

"They ask us, 'What do you think will be most effective?' and 'Why?'" she says.

ASU graduate research associate Johnny Thielen says students learn better from discovery rather than rote explanations. As a doctoral student and a high school math teacher, Thielen says he has noticed that girls outnumber boys in his high school pre-calculus classes, but the female population in math and science studies dwindles in college.

"I'm curious what happens from a junior in high school to a freshman in college," he says. "We really need these activities to be less like school. Kids get bored."

For more information about this program, go to itest.asu.edu or read related articles about this and other STEM programs at ASU in the Community or log onto www.srpnet.com/education.

Palmer Martin, with the Mary Lou Fulton College of Education, can be reached at verina.martin@asu.edu.

Program helps law students understand human behavior

By Jane Magruder

A flexible new program at the Sandra O'Connor College of Law is helping students learn more about what makes criminals, jurors, judges, witnesses and lawyers tick.

The two-year law and psychology specialization is part of the law, science and technology certificate offered by the college's Center for the Study of Law, Science & Technology. It was developed by professor Linda Demaine, director of ASU's law and psychology graduate program, for law students who seek training at the intersection of law and behavioral science.

Students are able to choose among more than a dozen courses to enhance their knowledge of law and psychology.

The program dovetails with Paul Schiff Berman's mission to build a new model of 21st century public legal education at the College of Law.

"We are increasingly emphasizing a wide variety of academic concentrations, so that students can have a greater role in designing their own curriculum," says Berman, the college's dean. "This concentration in law and psychology will help us draw strong students from around the country who are attracted by the extraordinary wealth of opportunities we provide in this important interdisciplinary area."

Demaine, an affiliated professor of psychology, says the specialization is intended to enhance students' understanding of the law and give them a competitive edge in the marketplace.

"Receiving training in the science of human behavior, including how to present your case to a jury, persuade a judge to rule a certain way, engage in effective negotiations, or distinguish between persuasion and coercion in different social contexts, is very important," she says. "Within a broad spectrum, students may select psychology topics that interest them and are applicable to legal practice or other positions they may pursue."

"Aside from the law school's specific offerings in law and psychology, students can count any law school class toward the certificate as long as they can demonstrate there's a significant behavioral sciences component to the class. It could be constitutional law, a criminal law course or a torts seminar, for example, as long as there's a paper or other component that allows students to pursue a behavioral science topic within that seminar."

Further information about the certificate program and other law and psychology offerings at ASU is available online at www.law.asu.edu/lawpsych.

Magruder, with the College of Law, can be reached at (480) 727-9052 or jane.magruder@asu.edu.

Budding scientist to compete for national recognition

By Chris Lambrakis

One of Kyrene School District's very own is heading to Washington, D.C., this month as one of 30 young scientists named by the Society for Science & the Public as a finalist of its 2008 SSP Middle School Program – America's premiere science competition for middle school students.

Rebecca Smouse from Tempe, Ariz., was selected as a finalist with her project, "The Ants Are Marching One by One." Smouse participated in the Arizona Science and Engineering Fair in spring 2008, conducted by ASU's American Indian Programs Office, qualifying her for this competition.

Smouse is an eighth-grader in Kyrene Prep located on the campus of Kyrene Middle School in Tempe.

The American Indian Program Office has been organizing science fairs for nearly 10 years and works with teachers throughout Arizona to encour-

age students to get excited about science, technology, engineering and math through participation in science fairs.

The 2008 finalists were selected from more than 75,000 students who entered local science fairs nationwide in 2007-2008. From this pool, more than 1,900 students submitted written entries and were narrowed down in early September to 300 semifinalists, representing 42 states and Puerto Rico.

Smouse, along with other finalists, will compete for \$40,000 in scholarships and awards, with the top winner receiving a \$20,000 award from the Society for Science & the Public. Each finalist will receive at least \$500 in awards.

Lambrakis, with Public Affairs at the Polytechnic campus, can be reached at (480) 727-1173 or lambrakis@asu.edu.