MESA COMMUNITY COLLEGE

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the Bulletin

MESA COMMUNITY COLLEGE'S EMPLOYEE NEWSLETTER

Pupfish vs. Crayfish

MCC's Life Science Department kicked off a new project last month with the arrival of about 60 desert pupfish to the MCC campus. These endangered and protected fish will play a key role in a research project to determine if the native pupfish could possibly play a part in reducing the population of non-native crayfish. The project is a joint collaboration between Arizona Game and Fish and MCC, under the direction of MCC's life science faculty members Andy Baldwin and Ron Dinchak, with assistance from MCC lab tech Vince Gorge.

MCC Lab Tech Vince Gorge captures pupfish with the help of Arizona Game and Fish representatives at the Nature Conservancy. The tiny fish were brought back to MCC for a project which will study the interaction between crayfish and pupfish.

Crayfish, introduced to Arizona waterways in the 1940s, have become a persistent problem to Arizona's natural habitats and native species. The non-native crayfish compete with native species for habitat and resources. Pupfish were once considered among the most abundant fish in the lower Colorado River Basin, but have suffered drastic declines in their populations.

The idea for the project came about when a wildfire threatened a pupfish population in California. As a last-ditch effort to save them, the pupfish were scooped out of their native environment and thrown into a pond with crayfish. Normally people avoid putting the tiny pupfish and the larger, invasive crayfish together because crayfish often demolish native species.

However, in this case, the results were surprising. "The opposite happened," Andy said. "The population of the crayfish diminished. This may be an isolated incident, but this could possibly be a native way to reduce a non-native species."

So last month, Vince traveled to the Nature Conservancy near Dudleyville with Arizona Game and Fish representatives Cori Carveth and Ross Timmons to collect the rare, two-inch pupfish from a breeding pond managed by the conservancy. Vince and his crew were assisted by Robert Burton, Charlie Allen and Kristy Uschyk of the conservancy to safely capture about 60 pupfish.

Vince transported the fish back to MCC and set them up in a secure area in a prep room in the life science building, dividing the fish among four aquarium tanks. In a few months, once the fish are fully established in the tanks, crayfish will be slowly introduced under the watchful eye of staff and students.

"After we put the pupfish and crayfish together, we'll study the interaction and see what produced the results (in California)," Andy said. "After the preliminary results we'll see how to proceed."

Arizona Game and Fish is conducting a parallel experiment by setting up ponds that will eventually be drained to determine the change in population of the pupfish and crayfish.

MCC's project has a different focus, which is to observe the actual one-on-one interaction between the fish within the same environment. The project will attempt to determine the mechanism that reduces the crayfish population. One of the theories to be explored is whether the pupfish perhaps eat or destroy crayfish eggs.

Pupfish are both federally and state protected. Andy has a wildlife holding permit through Arizona Game and Fish and is covered under the blanket of the Game and Fish Department for the federal wildlife holding permit.

The experiment is an important one for Arizona in regard to trying to find a solution to the crayfish problem.

"Native species are going extinct faster than we can study them," Andy said.

Interior Design student does makeover

When MCC student Dorothy Jackson arrived at the Gallarzo family home, it was clear that she could make a difference. Roberto and Kristina Gallarzo, who were selected by the National Association of Professional Organizers (NAPO) to receive a home makeover, slept on mattresses on the floor of their bedroom, with a sewing machine and heaps of sewing supplies at the foot of their bed. Their girls shared a tiny bedroom and the family room had no furniture.

The Gallarzo family had little time and resources to devote to home decorating. All their time and energy has been devoted to hosting 16 foster children over the past two years and an adopted toddler who is HIV-positive. The family was selected for opening their hearts and home to children and active involvement in the community.

Dorothy, who had a friend involved in the NAPO makeover contest, was asked if she wanted to design the makeover. When she heard the story of the family, she jumped at the chance.

"It was just an awesome experience," said Dorothy, who will graduate from MCC this fall with an AAS in Interior Design and an Advanced Certificate of Completion. "The family was so excited about what we did. We still email each other."

With a very limited budget of about $2,000 and only two weeks to do the design, Dorothy made the most of her budget by refurbishing furniture and took advantage of deep discounts and donations from local merchants.

Dorothy also took into account the sustainability aspect of the project, choosing paints that were not harmful to the environment and reusing material that would have gone into a landfill. Her education with Interior Design instructor Janice Jennings at MCC made her aware of options available to protect the environment. Dorothy had been part of an internship project with Janice to develop sustainability standards for MCC.

"It's exciting when we have the opportunity to reuse or refurbish furniture," Dorothy said. "(Sustainability) is becoming part of my goal and philosophy."

Dorothy and other volunteers worked diligently to complete the project in a day. They redid the bedroom, the family room, and created an organized sewing center for Kristina, complete with a brand new sewing machine. New paint, custom-built wall units and new storage containers organized the house and turned it into a beautiful home. Volunteers even landscaped the family's backyard. Channel 12 covered the story and shared the results with viewers.

"The project was just one of those things that make all the awful things in the world seem a little better," Dorothy said. "I'd like to participate in it again."

MCC Awarded NSF Alternative and Renewable Energy Grant

The MCC Electronics Program has announced that it will participate in a newly-awarded $900,000 National Science Foundation (NSF) grant to develop alternative energy courses. The grant will help establish an Arizona-Texas educational consortium to educate more and better prepared technicians, engineering technologists, and engineers to meet the workforce needs of national energy, transportation, and electronic industries.

"This is a very exciting grant that will benefit the entire community," said JD Neglia, program director of MCC's Electronics Technology Program. "There is a tremendous push these days … for alternative and renewable energy systems. We see the need for workers with this experience, and that, along with an aging utilities workforce nearing retirement age, creates a tremendous opportunity for graduates."

The effort is called the Arizona-Texas Consortium for Alternative and Renewable Energy Technologies Advanced Technological Education (ATE) Project and involves a partnership consisting of education, industry, and government organizations that include the following: Austin Community College, Mesa Community College, Pima Community College, Arizona State University's Polytechnic campus, the State of Arizona, Austin Energy, Arizona Public Service, BP Solar, Georgetown Utility Systems, Global Solar Energy, Tucson Electric Power, Salt River Project, Southwest Gas, and Trico Electric Cooperative, Inc.

The proposed strategy of the ATE project is to meet workforce needs by increasing the number of graduates, including underprivileged groups, who will complete AAS degrees, certificate programs, and BS degrees. The project will foster the development of a nationally recognized 2+2+2 bachelor's degree in Alternative and Renewable Energy Technologies. Students will be educated in world-class facilities such as ASU's Alternative Energy and Photovoltaic Lab. The ASU lab is one of only three accredited labs in the world and the only lab in the U.S. to test and certify photovoltaic modules for design qualification.

In addition, the ATE project will:

* Create industry internships
* Provide training to improve the skills of the existing workforce
* Offer professional development activities to teachers in grades 9-16
* Serve as a nationwide and statewide public awareness vehicle

MCC's established electronics and automation programs provide an existing core in support of the AAS degree in alternative and renewable energies upon which an alternative energies certificate can also be built.

"Very few community colleges offer this," Neglia said. "MCC will be one of the few in the country to offer this and our courses will articulate well with the ASU bachelor's degree."

40th Anniversary of Library Technician Program

From card catalogs to electronic databases, libraries around the country have seen vast technological changes in the past 40 years. The Mesa Community College Library Technician Program has kept in step with those changes and will celebrate the 40th anniversary of the program on April 20. The celebration will recognize the accomplishments of MCC alumni and how the program has influenced their careers and lives.

MCC Librarian and active retiree Marcia Melton, who has taught in the program since 1976, said the field has changed a great deal in some ways, but not in other ways.

"The joy is the same—connecting people with the information they need," Marcia said. "But the methods have changed. They are astoundingly different."

MCC's program began in 1967, in response to a nationwide movement to train library workers in the essential functions for library services: acquisition, organization, storage, retrieval, circulation, usage, and conservation. For the first 20 years of the program students could earn an Associate of Applied Science Degree at MCC.

Program Coordinator Chas Moore, who has been with the program since 1989, said dramatic changes took place in the 90s, due to automation and computerization in the library. Library workers as well as students needed new skills.

"The nature of the work changed and workers had to be more computer literate," Chas said. "Not only computer literate, but information literate—they had to know how to find and interpret information."

In 1999, along with the opening of the new Paul A. Elsner library, the program was revised, with basic and advanced levels of certificates added to the existing AAS degree. MCC modularized the program, making it more flexible to fit the needs of the increasingly diverse student body. More

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recareering adults and school teachers seeking library skills entered the program.

In the past decade, the number of student graduates has more than doubled. About 10 percent of the program's graduates go on to graduate school. MCC's current library director, Jane Mente, is a 1981 graduate of the program.

"A neat aspect of the program is seeing the graduates become our peers and bosses," Chas said.

The library program at MCC continues to respond to workforce needs in our community. This fall the program is adding two more certificates. A school library aide certificate will be offered in response to the No Child Left Behind Act, and a library practitioner certificate will be offered to train students to manage small libraries in rural communities.

The program is also moving toward more distance learning to better serve the needs of students in outlying regions of the state.

Attendees from the 30th Reunion
Top L to R: Dean of Information Technology, Gilbert Gonzales; Director of the Librar, Kaye Sugiyana; Founder of MCC Library Technician Program, Dr. Jenette DePriest.

Bottom L to R: Library Technician Alumnae, Dixie Smith; Millie Frei; Terest Reil; Gail Rennels; Lily Rice; Jennifer Nelson

Chas said the 40th anniversary celebration is timely as the City of Mesa reduces library services due to budget constraints. There are currently fewer library branches in Mesa than in all comparable-sized cities in the U.S.

"Library technicians are often taken for granted," Chas said. "We have to step up and affirm that it's still an important part of the library world."

Marcia said the variety of places graduates of the program work is astounding—from state libraries to university libraries to hospital libraries.

"Graduates of this program are a significant presence in all types of libraries in Arizona," Marcia said.

On Friday, April 20, MCC celebrates the 40th anniversary of the Library Technician Program. If you know of any former students of the program, please ask them to contact either Chas Moore at 461-7686 or Megan McGuire at 461-7236.

New Facility for Mesa Life Options

For Arizona baby boomers who seek information on opportunities and resources available as they transition into their "bonus years," Mesa Life Options now has a new facility packed with possibilities.

The 2,500-square-foot Mesa Life Options Center at 165 N. Centennial Way in downtown Mesa contains a large classroom, a central gathering room with computers and Internet access, a mentoring room, office space, and a snack area. MCC's interior design instructor Janice Jennings and her students assisted with the décor. The multicolor carpet, purple chairs and sleek lighting fixtures echo the design choices used in MCC's Kirk Student Center. The project also uses MCC sustainability standards throughout the center.

Program director Barbara Thelander said the facility is in an ideal Mesa location, in the midst of the city's redevelopment effort that will include the MCC Downtown Campus. She invites anyone who is curious about the center to drop by.

"Our gathering room is a place where people can feel comfortable to meet others, to talk, and to have access to the Web," Barbara said. "We hope it appears to be warm and welcoming to people."

Barbara said one of their first events was a recent information session on social security, held in the center's classroom and attended by nearly 20 participants. Before the center opened, the organization held classes and lectures in various locations all over the community. This spring, Mesa Life Options hosts several brown bag lunchtime discussions at the center and offers mentoring opportunities for boomers.

In the future, MCC is planning to integrate the facility into other MCC student service areas as well.

Mesa Life Options is a Next Chapter Initiative funded by the Virginia G. Piper Charitable Trust and supported by Civic Ventures, a national nonprofit organization. Mesa Life Options partners with Mesa Community College, the City of Mesa, and East Valley Senior Services Inc.

For more information on Mesa Life Options, call 480-461-6252.

Note: As MCC transitions into new leadership, "The Bulletin" will recognize faculty and staff accomplishments formerly found in the President s Weekly Communique. Please send your suggestions to Marcy Snitzer at marcy.snitzer@mcmail.maricopa.edu.

Recognition to...

MCC student winners in the American Mathematical Society of Two-Year Colleges Annual Student Math League Competition. MCC Math Club Advisor Adam Avilez said 58 MCC students and 23 local high school students participated in round two of the national contest. (Round one of the competition took place in November.) Winners received $70 for first place and $30 for second place.

Calculus Level:

1st place, **Earl Guenthner**

2nd place, **Ryan Moriarty**

Precalculus Level:

1st place, **Dawon Shin**

2nd place, **Rumyana Jensen**

MAT 082/092/120 Level

1st place, **Rafael Chavez**

2nd Place, **Chad Barker and Logan Daly** (tie)

The MCC Dragon Boat Team that participated in the annual Dragon Boat Race at Tempe Town Lake. Wendera Phung, Program Advisor of Multicultural Services, said the diverse MCC team had 10 ethnicities represented in one boat. The team won two awards: 3rd place in the Collegiate Division and 3rd place in the C division. The winners received a trophy and medals.

The MCC Faculty and Professional Learning Communities Program, winner of the MCC 2006-7 Innovation of the Year Award. The FPLC connects and engages faculty and staff to improve teaching and learning through interdisciplinary groups. This program has engendered an unprecedented level of engagement by over 70 participants that has reinvigorated members and bridged disciplinary boundaries.