

CPHST NEWS

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WELCOME CPHST'S NEW ASSISTANT LAB DIRECTORS

As CPHST continues to grow and develop, the need for additional leadership in our labs has become a requisite. To enhance the CPHST staff, we welcome three new assistant lab directors, Barney Caton, Matt Ciomperlik, and Dave Prokrym. Each of these talented individuals brings a wealth of knowledge and experience to provide greater productivity and guidance to their labs. The new assistant lab directors shared their insight on their vision, goals, and challenges to their new positions.

Barney Caton is a proud native of New Mexico, but received most of his education in California. He earned a B.S. in biochemistry (1989) from Pepperdine University, in Malibu, and a Ph.D. in ecology (1998) from the University of California, Davis. At UC Davis he researched simulation of rice and weed growth and competition. Between attending those two schools, Barney served in the U.S. Peace Corps in



Nepal from 1989 to 1991, where he taught in a village school, helped train teachers in three remote districts, and trekked as high as 18,500 feet elevation, near Mt. Everest. After graduating from UC Davis, Barney became a crop and weed ecologist at the International Rice Research Institute (IRRI) in Los Banos, Philippines, leading weed research projects on management and competitiveness of rice in India, Thailand, and the Philippines. Barney joined CPHST in 2002 as an ecologist/pest risk analyst in the Plant Epidemiology and Risk Assessment Laboratory in Raleigh, NC. His expertise is in plant and weed ecology, modeling, and risk assessment.

Barney's wife, Dr. Julie Reynolds, teaches biology and technical writing at

Duke University. They have two sons, Caleb, 10, and Ryan, 5, three dogs, and a cat. The family enjoys hiking, camping, and karaoke. Barney also enjoys volleyball, skiing, basketball, and fantasy football.

Matt Ciomperlik graduated from Texas A&M University with a doctorate in entomology/biological control science. He received both his B.S. and M.S. in biology from the University of Texas-Pan American. He started working for the CPHST Mission Lab in 1986 as a biological science technician mass rearing Colorado potato beetle and its natural enemies. Matt has been involved in a number of PPQ domestic and emergency pest management programs, including Colorado potato beetle, alfalfa weevil, sweet potato whitefly, glassywinged sharpshooter and others. During the last few years, he has been involved in offshore pest initiatives to identify and

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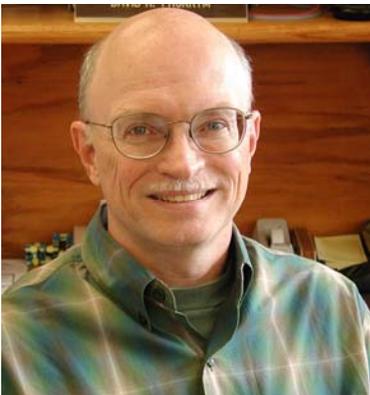


ASSISTANT LAB DIRECTORS (CONTINUED)

develop control methods for key pests of economic importance to the United States. Those efforts include developing collaborative research programs with foreign ministries of agriculture to control the pests prior to them reaching the U.S. mainland.

Matt and his wife Valerie have two children, Kaitlyn, 12, and Daena, 9. Matt enjoys hunting and fishing and sharing those “wild” experiences with the family.

A native of Watervliet, NY (pop. 10,207), **Dave Prokrym** received a B.S. in wildlife management from the State University of New York, College of Environmental Science and Forestry



Dave Prokrym, PERAL

in 1975. Attending Georgetown University in 1978, he completed a special master’s program that combined a Russian language major with a biology minor. Dave finished a doctorate in entomology at Michigan State University in May 1988, specializing in biological control and integrated pest management. In 1991, Dave started with PPQ at the CPHST Lab in Niles, MI, and served as a project leader (1991-2004) and later as a laboratory director (1998-2004). Over the years, Dave has employed his extensive experience as a PPQ project leader to plan and coordinate multi-state biological control projects for pest

species of national interest (e.g., Russian wheat aphid, pine shoot beetle, cereal leaf beetle, European corn borer, soybean aphid and purple loosestrife).

Dave enjoys outdoor activities (hiking, camping, and hunting), being the father for two awesome sons (one in college and the other in high school), reading science fiction, and playing soccer.

As an assistant lab director, what are your responsibilities?

Caton: Lab-wide activities are jointly planned and assigned by the leadership team. I specifically supervise risk assessments done for Q-56 and Q-37 commodities. This means I work with headquarters and CPHST staff to determine priorities and set deadlines. Within the lab, I work with analysts to identify objectives, create teams, monitor progress, and deliver risk assessments and other products. I also lead and contribute to projects myself, but that has quickly taken a back seat to my other responsibilities.

Ciomperlik: I currently manage activities in the insect quarantine facility. I supervise five scientists involved in diverse field research activities and seven technicians assigned to work with the scientists. I share a number of responsibilities with the laboratory director, such as assigning projects, identifying objectives, tracking project progress, and meeting deadlines associated with project delivery. I am also the lead scientist on two projects on economically important insect pests that are currently in the United States and lead two offshore pest initiatives in the Caribbean.

Prokrym: I work closely with Lab Director Bob Griffin and Assistant Director Barney Caton to manage the unit’s daily work flow and specifically focus on risk assessment tasks for three

areas: organisms, pathways and exports. I supervise 15 staff, about a third of the lab’s employees, but interact with all staff members when handling requests for information and making assignments.

What are your goals and objectives for the position?

Caton: Some major objectives I am interested in include: 1) updating the pest risk assessment (PRA) guidelines for both commodity and weed PRAs; 2) optimizing tracking and reporting of PRA activities; 3) increasing PRA productivity and reducing miscommunications about PRAs; 4) helping produce a PERAL style guide for reports; and 5) improving relationships with the regions, headquarters, and other stakeholders.

Ciomperlik: The overarching goal is to strengthen ties to the PPQ regions by 1) increasing customer support of domestic programs, 2) assuring effective programs meet the regions’ needs, and 3) timely delivery of pest management tools that drive programs to a successful conclusion. Currently, I oversee the majority of the field research components at the Mission Lab, which enables me to closely focus on how we deliver methods development and new technologies in support of PPQ programs.



Matt Ciomperlik, Mission Lab

ASSISTANT LAB DIRECTORS (CONTINUED)

Prokrym: As a recent arrival to PERAL, my immediate goal is to understand how the lab provides risk analysis information and scientific support to its many clients so that I can better assist the staff and directors. Once I am more acquainted with the PERAL staff and our various client groups, I will seek opportunities to enhance how we provide risk assessment information and to strengthen existing linkages with the clients so that our complicated work can be done to everyone's mutual satisfaction. In general terms, I hope to remove barriers (to getting the work done) without becoming one.

How would you like to see your position develop?

Caton: There always have been people available to monitor risk assessment activities, so I'm not breaking much new ground there. I think the big differences going forward will be the chance for closer collaboration between directors and analysts on both technical aspects of projects, and career planning and skills development. I hope to provide more help and direction to analysts, and help ensure that they are both developing to their capacity and satisfied with their work assignments and opportunities.

Ciomperlik: Currently, I think this position will help relieve some of the burden placed on the Mission laboratory director by spreading those responsibilities across two positions. At the same time, I believe it built an effective management team that will allow us to closely focus on the products we deliver, further the development of our scientific expertise, and open the door to closer interactions with the PPQ regions.

Prokrym: Barney, Bob and I are quickly coming together as a

management team. I hope that our close interactions will allow improved coordination of and communication with the staff analysts as they meet the ever changing deadlines and time tables for product delivery. Over time, I would like to work more with the staff and management to shape PERAL's future by refining our identity and place in PPQ and CPHST.

What challenges do you face and how do you overcome them?

Caton: Perhaps the biggest challenge we face in PERAL is the volume of work asked of us, in combination with frequent changes in priority of tasks. We have to stay very flexible in our approach, and our analysts need a fair amount of resiliency to deal with the shuffling that can take place. On a recent day, for example, headquarters needed some revisions to a PRA that was about to be published in the Federal Register, while the lead for that project was working on a tight deadline to respond to public comments about another, highly contentious PRA. Meanwhile, I had two other time-sensitive revised PRAs to clear and send to headquarters, on top of some of my project work that was overdue and a seminar to prepare for the next week. Besides asking for resiliency and flexibility from our analysts, I personally have found that the single best thing I can do to

facilitate the work getting done is to ensure that work requests go directly to the relevant person. At first, I was the middleman for a lot of communications, just shuttling them along to the person who needed the information, which was highly inefficient.

Ciomperlik: Over the last 15 years, I have worked almost exclusively as a scientist, developing the best possible solutions to a single pest issue. This new position will require me to develop, expand on, and use a completely new set of skills to help manage scientific expertise to solve multiple pest problems across the United States. Undoubtedly, PPQ will continually be challenged with new emerging pest issues that will require all of us to adapt to meet those challenges. I see this position as a challenge as well as an opportunity to help manage changes to meet future program needs.

Prokrym: My personal challenge is task management. It is difficult to track and prioritize the numerous requests for information and scientific support. I am still working on a solution, but my approach will probably involve some combination of "low-tech" list making and frequent discussions with the ever-patient staff. Another challenge has a "public relations" element - to explain how PERAL serves PPQ and its clients. For my part, I plan to build viable communication channels one conversation at a time.



Barney Caton, PERAL



Submitted by Barney Caton, Matt Ciomperlik, & Dave Prokrym

PANICLE RICE MITE

In July 2007, **Eric McDonald**, Houston Plant Inspection Station identifier, identified the quarantine insect, *Steneotarsonemus spinki*, commonly known as the panicle rice mite, from a specimen submitted by a Texas rice breeding research facility. Later, **Dr. Ron Ochoa** of the Agricultural Research Services Systematic Entomology Laboratory in Beltsville, MD, positively confirmed the specimen. The mite can have severe impacts on yield in rice producing areas of the world where it currently occurs. Yield is most greatly affected when the mite occurs in combination with fungal and bacterial pathogens.

The source of the panicle rice mite infestation in the greenhouses and the fields at the facility in Texas has not been conclusively determined. Although, it is speculated that the mite may have come in on imported rice seed. Limited surveys were conducted in Texas and at other rice facilities during the summer of 2007. The mite was confirmed at a second location in

Texas, as well as at sites in Louisiana, Arkansas, Puerto Rico, and New York. A technical working group was formed to develop recommendations on panicle rice mite eradication methods in greenhouses and fields and quarantine treatments for rice seed. Researchers in the affected states have collected information regarding the biology of the mite, management in rice production, and treatments.

Due to the short intervals associated with rice seed harvest and movement between U.S. rice research facilities and Puerto Rico and the possibility of mite movement with rice seed, it was necessary to test and validate quarantine treatments. In collaboration with the rice research facility in Texas and researchers from Louisiana State University, the CPHST Treatment Quality Assurance Unit validated several treatment methods for both small and large quantities of rice seed.

CPHST developed a proposed survey strategy to determine the presence and



Panicle rice mite, *Steneotarsonemus spinki*

extent of the panicle rice mite. CPHST shared the survey strategy with the rice producing states for them to consider while planning their surveys. Based on the results of the survey and the information collected during the winter and early spring, the status of this pest will be determined. There is no data on the panicle rice mite under U.S. rice production systems and environments; therefore, the information collected during the winter and early spring could provide important details on the reproduction and survival of this mite in the United States.



Submitted by Greg Parra

BIOCONTROL OF GIANT REED

Giant reed (*Arundo donax*) has formed dense thickets along the Rio Grande River and throughout the southwestern United States. Over 170 miles of the river between Laredo and Del Rio, TX, are severely infested with giant reed. This invasive weed is quickly spreading and consuming large quantities of an already limited water supply. Biological control initiatives for this non-native invasive weed are being investigated by a team of scientists led by **Dr. John Goolsby**, research entomologist, with the USDA-ARS at Weslaco, TX.

Giant reed threatens agro-ecosystems and riparian areas by choking river

banks and irrigation canals, consuming excessive amounts of water, displacing native plants, and reducing wildlife habitats. The weed does not have closely related species in North or South America, which makes it a good target for biological control. The plant feeding biocontrol agents are native to Mediterranean Europe and are known to be specialists, feeding only on giant reed.

Three European beneficial insects are being evaluated at the Insect Arthropod Quarantine Facility of the CPHST Mission Laboratory. The prospective agents for the potential biological control of the weed include: *Tetramesa*



Giant reed growing along the Rio Grande River

romana, the arundo wasp; *Cryptonevra* sp., the arundo fly; and *Rhizaspidiotus donacis*, the arundo scale. CPHST scientists plan to release the insect throughout the southwestern United States and in a pilot study on the Rio

INSIDE THE MISSION LAB

The CPHST Mission Lab consists of a diverse group of entomologist, plant pathologists, molecular biologists and supporting technicians (fig 1). The Mission Lab is located at the Moorefield Air Base in Edinburg, TX. Early projects at the laboratory included the biological control of citrus whitefly and an endemic weed, silverleaf nightshade. Numerous other insect and weed biocontrol projects followed during the 1980's and 1990's, including leafy spurge, diffuse and spotted knapweed, Russian wheat aphid, Colorado potato beetle, purple loosestrife, boll weevil, and silverleaf whitefly. Historically, the Mission Lab served as a facility to mass-rear beneficial insects for biological control of arthropod and weed plant pests. The laboratory supported a number of large-scale nationwide biocontrol programs as well as regional programs.

Within the past six years, the Mission Lab has transitioned away from large mass-rearing projects for biocontrol towards other control strategies for domestic and emergency programs, including offshore pest safeguarding initiatives. The lab also has increased emphasis on the development molecular diagnostic tools for arthropods and invertebrate pests utilizing state-of-the-art molecular biology technology. Other important roles at the Mission Lab include remote sensing/global information systems, epidemiology of certain plant diseases such as citrus canker, fruit fly trapping, sterile insect technique (SIT) support, and integrated pest management of offshore pest problems. We have a very experienced cadre of biological control scientists with extensive expertise and accomplishments in weed and arthropod biological control. The



Figure 1: CPHST Mission Lab Staff

addition of new staff members focused on molecular biology has expanded new horizons for the laboratory.

The molecular diagnostics unit specifically focuses on the development of molecular diagnostic tools for pest arthropods including fruit flies and other invertebrate pests such as gastropods. Our genetics facility is equipped with basic and advanced instrumentation for performing various standard and developmental techniques, including Smart Cyclers® for real-time PCR, high throughput real-time PCR, and DNA sequencing. Recent molecular diagnostic projects have included a DNA-based method to identify immature light brown apple moth, species of *Arion* slugs, and chilli



Figure 2: Giant African snail field team in Barbados—Left to right: Anna Maloney, Wendy MCQuilkin, and Ian Gibbs Barbados Ministry of Agriculture (BMA), Matt Ciomperlik PPQ CPHST, David Robinson PPQ BTS NTS and Edwina Kirton BMA.

thrips and an ISSR-PCR to assess the genetic variation in geographic populations of the Mexican fruit fly. The recent addition of a new, fully equipped molecular diagnostics laboratory nearly doubled available wet bench space to the laboratory's infrastructure. Offshore initiatives also are a new direction for Mission. Recent completion of evaluations of molluscicide formulations against the Cuban slug (*Veronicella cubensis*) in Rota (Commonwealth of the Northern Marianas Islands) and giant African snail molluscicide trials in Barbados provided management techniques for these invasive and destructive pests (fig. 2).

We are working collaboratively with the USDA Agricultural Research Services (ARS) in Weslaco, TX, on a new biocontrol program against *Arundo* (*Arundo donax* L). *Arundo*, commonly known as giant reed, is an exotic and invasive plant of riparian habitats and irrigation canals in the Rio Grande River Basin. The Mission Lab is working with our ARS collaborators to provide natural enemies for the control and management of this exotic weed (fig. 3). (For more information about giant reed go to page 4.)

Our staff at the Mission Lab includes

Continued on page 9

MANAGERS MANAGE THINGS, LEADERS LEAD PEOPLE

In 2005, the APHIS Marketing and Regulatory Programs Business Services (MRPBS) endorsed a directive that established an APHIS training policy for supervisors, managers, and executives. The directive identified that well skilled supervisory and management positions are critical to an effective organization. MRPBS and the PPQ Professional Development Center (PDC) develop and train leadership skills to those who are supervisors and others who show a desire and ability to move up in leadership positions. MRPBS offers the APHIS Leadership Development Program-Track II and the APHIS Advancing Leaders Program-Track I, and the PDC offers the Leading in the 21st Century (L-21) Program.

The programs are based on 28 core leadership competencies identified by the Office of Personnel Management. Competency is defined as a cluster of related knowledge, skills, and abilities that are necessary to produce required outcomes and that directly correlate with performance on the job. Some examples of the competencies addressed in these programs are conflict management, external awareness, interpersonal skills, written and oral communication, and team building.

The programs target different levels of experience; therefore, the programs are divided by GS level. Moreover, various teaching and learning tools are used,



because learning new skills is hard, and different people learn differently. The APHIS Leadership Development Program is offered to APHIS employees at the GS-12 - 13 grade levels, the APHIS Advancing Leaders Program is designed to identify high potential APHIS employees at the GS-7 - 11 grade levels, and the L-21 Program is open to all PPQ full-time, permanent employees GS-11 - 13 with, at least, three years of PPQ experience. The programs run between 15 and 12 months and consist of tools, such as individual 360° assessments; classroom training; working with a personal coach and mentor; group projects; developmental and shadowing assignments; and, of course, a bit of homework.

You may be thinking to yourself that the programs seem very similar. These programs are comparable in the fact that they are designed to achieve the same strategic goal. The primary differences are the represented units of the Agency and the programs' coordinators and workshop presenters. The APHIS programs are open to all APHIS employees, and the L-21 Program is only open to PPQ employees. Because the programs follow analogous principles, PPQ staff cannot attend both the Track II Leadership Development Program and the L-21 Program.

CPHST staff have and continue to participate in the APHIS and PPQ leadership programs. **Barney Caton**, an assistant lab director for the CPHST Plant Epidemiology and Risk Analysis Laboratory, graduated from the L-21 Program in 2007. Barney thinks a strength of the program is that it is "built around the leadership competencies defined for different roles in PPQ and the organizational needs of the Agency." He also appreciated the



opportunity to "network with PPQ staff from all over the country, in a variety of programs." He not only enjoyed learning about other PPQ programs, but also "found that being a CPHST representative was beneficial because many people in PPQ don't come into contact with [CPHST staff]."

Russell Sheetz, a biological science technician at the CPHST Mission Lab, currently is enrolled in the Advancing Leaders Program-Track I and is slated to graduate in April 2008. Russell tagged the program with the motto, "Managers manage things, leaders lead people." He states, "All of the workshops that we attend are challenging and extremely informative. The workshops are not your listening and note-taking 'school' type of settings; rather they involve a lot of participation and challenging work." Russell has gained self-awareness and can apply these skills at work and at home. He also appreciated the networking opportunity, which allowed him to learn more about the Agency as a whole and see how his work relates to other APHIS programs.

Both participants highly recommend these programs for those who are willing to dedicate time and hard work to complete the programs' requirements. Russell states, "My acceptance, participation, and upcoming graduation with this program have given me a great feeling of accomplishment. I am proud to represent CPHST on this journey."

CPHST & PDC: PARTNERS IN TRAINING DEVELOPMENT



The main PDC campus in Frederick, Maryland

As the training unit for Plant Protection and Quarantine (PPQ), the Professional Development Center (PDC) is an important organizational link. Most PPQ employees attend a PDC training event at sometime in their career, whether it is technical, non-technical, or leadership training. PDC is comprised of physical facilities across PPQ. The main campus is located in Frederick, Maryland; two satellite units are located in Orlando, Florida, and Glynco, Georgia; and a training contact is in both regional offices. The main campus is organized into three training units. The Plant Health Safeguarding unit and the Leadership Development and Organizational Support unit provide training for PPQ, while the Agricultural Quarantine Inspection unit provides training for Customs and Border Protection Agriculture Specialists (CBPAS).

A question often asked is how does

PDC develop training? PDC utilizes an Instructional Systems Design (ISD) model to design, develop, and deliver training. ISD is a task-oriented method of developing training that uses input from subject matter experts and field personnel to capture processes and verify instruction. PDC strives to collaborate with stakeholders at all levels to create accurate, targeted, performance based training.

Since 2005, when collaboration began with CPHST, PDC has incorporated CPHST databases into training. In 2005, PDC included demonstrations of the Q56 Fruits and Vegetables Reference Database into both PPQ's Basic Agricultural Safeguarding Training and CBPAS Academy. PDC introduced the Lucid key, Federal Noxious Weed Disseminules of the United States, into the CBPAS Academy in 2006. In 2007, PDC incorporated 429 treatment database applications into the Fumigation Workshop. Also in 2007, staff members from CPHST's Plant Epidemiology and Risk Assessment Laboratory assisted PDC in delivering aspects of pathway analysis and data research as part of Pest Survey Specialist Training.

The most significant collaboration to date began in 2006 with the objective to increase the cadre of PPQ field employees available for foreign temporary duty assignments by

providing technical training for specialized treatments. At the request of PPQ's Plant Health Programs (PHP), and in collaboration with CPHST's Treatment Quality Assurance Unit (TQAU), PHP's Quarantine Policy Analysis and Support (QPAS), and PPQ field offices, PDC delivered specialized treatment training for Forced Hot Air in 2007 and will deliver training in Hot Water Immersion, Cold Treatment, and Irradiation in 2008.



Hot Water Immersion Treatment of Mangoes in Puerto Rico

The PDC looks forward to increasing collaboration with CPHST to provide technical training for PPQ. You may visit us at: <http://inside.aphis.usda.gov/ppq/pdc> to learn more about PDC and PPQ training.



Submitted by Andrea Simao

MANAGER MANAGE THINGS, LEADERS LEAD PEOPLE (CONTINUED FROM PAGE 6)

For more information on the APHIS programs (Tracks I and II), contact **Dave Foley** or **Nicole Jablonski**.

For more information on the PPQ L-21 Program, contact **Craig Montgomery**.

You can find schedules and additional

program details at the MRPBS Employee Services Division and the PPQ Professional and Development Center internal websites.

http://inside.aphis.usda.gov/mrpbs/training/training_catalog.shtml

<http://inside.aphis.usda.gov/ppq/pdc/nontech/L-21.shtml>



Submitted by Barney Caton, Russell Sheetz, & Christina Lohs

CPHST CIVIL RIGHTS EEO ADVISORY COMMITTEE UP & COMING

The CPHST EEO Advisory Committee (EEOAC) was reactivated under the leadership of committee chair **Feridoon Mehdizadegan** and acting CPHST directors **Vic Harabin** and **Phil Berger**. The first activities of the Committee were the development of a mission and charter. Phil Berger recently approved the new charter.

The mission of the CPHST EEOAC is to advise the CPHST director on ways to protect the civil rights of both employees and stakeholders and to promote a diverse workforce. The EEOAC's mission supporting goals are to:

- Provide leadership in outreach activities
- Review and provide advice on recruitment practices
- Increase awareness of cultural differences and disability issues
- Promote reasonable accommodation in the workplace
- Help secure fairness in hiring, training, and the issuance of performance recognition and developmental opportunities
- Promote balanced representation of targeted groups in the agency

workforce. The Committee is composed of Feridoon Mehdizadegan, chair; **Mary Collins**, secretary; **Jennifer Durlam**, the management representative; and six Special Emphasis Program managers, who are listed below. The Committee members, especially the Special Emphasis Program managers, are a resource for you.

Special Emphasis Programs are an integral part of the overall civil rights, human resource, and program delivery functions. The purpose of the Special Emphasis Programs is to provide oversight, guidance, direction, and assistance to enhance opportunities for women, minorities, and people with disabilities in all employment activities. The six programs and the manager for each are listed below.

- African American Program - **Kayimbi Tubajika**, Raleigh, NC
- American Indian/Alaska Native Program – **John Gallagher**, Gulfport, MS
- Asian American/Pacific Islander Program – **Nic Liquido**, Honolulu, HI
- Disability Employment Program* - **Gary Bernon**, Otis Air National Guard Base, MA

- Federal Women's Program* - **Betsy Randall-Schadel**, Raleigh, NC
 - Hispanic Employment Program* - **Marsha Lowe**, Gulfport, MS
- *Programs mandated by Executive Order*

John Gallagher retired on February 29, 2008. The Committee would like to thank John for his hard work and dedication as the American Indian/Alaska Native Program manager and to wish him the best upon his retirement.

If you are interested in managing the American Indian/Alaska Native Program, participating in the committee, or sharing your outreach activities and ideas, please contact Feridoon Mehdizadegan.

Although EEO is in the title of the committee, it does NOT handle EEO complaints. If you have any EEO issues, please call (301) 734-6317 or visit the USDA EEO website http://www.ascr.usda.gov/complaint_filing_file.html.

 Submitted by the CPHST Civil Rights EEO Advisory Committee



First row (left to right): Feridoon Mehdizadegan, Mary Collins, Nic Liquido, and Gary Bernon
 Second row (left to right): Betsy Randall-Schadel, Marsha Lowe, Jennifer Durlam, and Kayimbi Tubajika

BIOCONTROL OF GIANT REED (CONTINUED FROM PAGE 4)



Cut shoot method for mass propagation of giant reed.

Grande River near Laredo, TX. Currently, the scientists need the information and data obtained from this research to receive approval for release of the biological control agents by the Technical Advisory Group.

CPHST scientists and staff are presently collaborating with Agricultural Research Services to develop mass rearing methods. A cut shoot method for giant reed is being tested for mass propagation of host-plant material. Three-inch reed stems are placed under various treatments to see which method

can produce roots and shoots on the cut stems to support and enhance mass production of the beneficial insects. The scientist are also testing beneficial insects through an aerial release machine that the PPQ Aircraft and Equipment Operations developed to determine survival rate and dispersion patters.

We anticipate that the agents will be permitted for release in the fall 2008 or early spring 2009. Following the release of the agents from quarantine and development of large-scale colonies, an inundatory field release will be conducted near Laredo, TX, using aerial mass release methods. These biological control efforts will help reduce and manage giant reed along the Rio Grande River as well as protect our limited water.

(Parts of text abstracted from: **John Goolsby, P. Moran, A Kirk, W. Jones, J. Everitt, C. Yang, P. Parker, D. Flores, D. Spencer, A. Pepper, J. Manhart, D. Tarin, G.**

Moore, D. Watts, R. Lacewell, B. Contreras Arquieta, & F. Nibling. 2007. *Arundo donax* - giant reed; an invasive weed of the Rio Grande Basin. Joint Rio Grande Basin Initiatives 2007 Annual Conference. South Padre Island, Texas. May 14 -17, 2007.)



Tetramesa romana adult wasp laying eggs in giant reed stem.



Submitted by Dan Flores

INSIDE THE MISSION LAB (CONTINUED FROM PAGE 5)

thirteen scientists, eighteen technicians, and two administrative support staff members. The Mission Lab is comprised seven permanent buildings, including the main laboratory with environmental growth chambers, molecular genetics lab and seven permanent greenhouses attached to the main building. The arthropod quarantine facility includes a quarantine greenhouse space, a fruit fly quarantine building in support of fruit fly SIT activities, an entomology field laboratory, a new molecular biology laboratory and an SIT support

laboratory. Other supporting structures include poly greenhouses, a shade house and a field insectary. Additionally, the Mission Lab supports the administrative functions of the fruit fly laboratories in Waimanalo, HI; Gainesville, FL; and Guatemala City, Guatemala. The lab received Quality Management Systems ISO 9000 certification for molecular diagnostics and spatial technology in June 2007.



Submitted by Paul Parker



Figure 3: CPHST *Arundo* team – Left to right: Veronica Hernandez, Jose Renteria, Marilyn Casas, Eustorjio Rivas, Frank Acosta, and Daniel Flores

**GET TO KNOW
THE NEW
CPHST TEAM
MEMBERS!**

CPHST SPOTLIGHT: SHARON TALLEY

Sharon M. Talley is a new science fellow for CPHST Fort Collins Lab. She is developing an ecologically based model for the safe importation of exotic plants. She received her B.S. in 1993 from the University of Alabama in Huntsville where she studied the distribution of poison ivy in Southern deciduous hardwood forest. From 1993-1994, Sharon traveled abroad in South America and Australia to study allelochemical interactions and medicinal properties of tropical plants. In 1995, she developed BAC

and YAC libraries for the human genome project at Research Genetics, Inc. In 1997, she won a genetics training grant for National Institute of Health to study the genetics of pathogen-mediated changes in plant secondary metabolites, and in 2000, she earned a Ph.D. degree in biology at the University of Utah. Sharon awarded a post-doctoral fellowship in mechanical engineering from the Center of Turbulence Research at Stanford University and NASA/Ames to study flows around the shapes of

biological organisms. She discovered a novel shape that both decreases drag and fluctuating lift and enhances gas and heat exchange in some desert plants. Sharon used this information to explain the distribution of plants in extreme environments. In 2004, Sharon moved to Colorado and became a freelance consultant for wildland fire management, invasive weed control, and wetlands ecology. In her spare time, Sharon enjoys rock climbing, creating artwork, rescuing feral cats, and beading.



CPHST SPOTLIGHT: IGNACIO BAEZ

Ignacio Baez joined CPHST in October 2007 as a staff scientist with the Risk and Pathway Analysis Program in Raleigh, NC. Ignacio was born in Mexico City, Mexico. He received a licenciatura degree in biology with an emphasis in biodiversity and entomology from the Universidad de Guadalajara, Mexico, in 1996. During this time, he conducted an inventory of butterflies on an extinct volcano in Jalisco, Mexico. In 1997, he worked for the ARS Center for

Medical, Agricultural and Veterinary Entomology in Gainesville, FL, in various fields of biological control.

In 2002, Ignacio completed a master's degree in entomology-biological control from Florida A&M University (FAMU). He was the first graduate of the master's program at the Center for Biological Control at FAMU. After graduating, he became part of the USDA-ARS workforce at the Center for Biological Control in

Tallahassee. There he was involved in many projects, including work on habitat manipulation to promote the presence and action of biological control agents, laboratory and field predator-prey interaction studies, and monitoring and control of invasive species.

Ignacio is married to Sofia; both enjoy activities such as hiking, camping, biking, and canoeing. In addition, Ignacio likes photography, gardening and woodworking.



CPHST PUBLICATIONS

Simmons, G. S., L. S. Alphey, T. Vasquez, N. I. Morrison, M. J. Epton, E. Miller, T. A. Miller and R. T. Staten. 2007. Potential Use of a Conditional Lethal Transgenic Pink Bollworm, *Pectinophora gossypiella*, in Area-Wide Eradication or Suppression Programmes. In Area-Wide Control of Insect Pests, ed. M. J. B. Vreysen, A. S. Robinson and J. Hendrichs, 119-123. Springer Netherlands.



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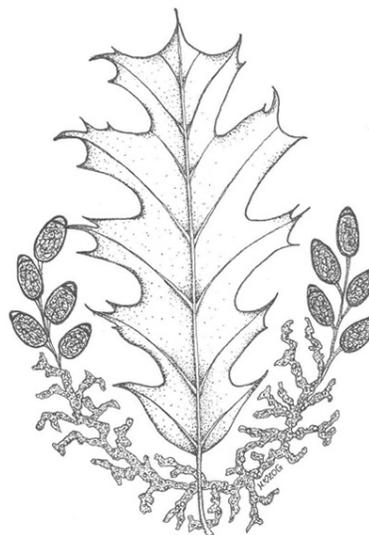
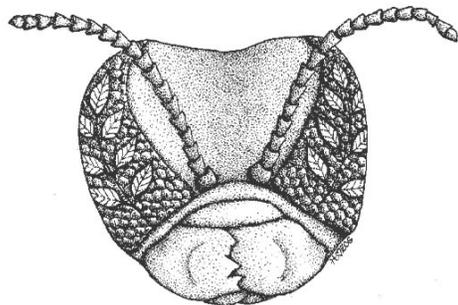
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FEATURED ART BY HEATHER HARTZOG

Heather Hartzog, PERAL risk analyst, drew these illustrations for the North American Plant Protection Organization's Phytosanitary Alert System.

Left: Titled: Emerald Ash Borer with Tree In Sight

Right: Titled: Phytophthora ramorum Seal





USDA APHIS PPQ CPHST

Director's Office-Suite 400
1730 Varsity Drive
Raleigh, North Carolina 27606

Phone: 919-855-7400
Fax: 919-855-7480

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APHIS-PPQ safeguards agriculture and natural resources from the risks associated with the entry, establishment, or spread of animal and plant pests and noxious weeds. Fulfillment of its safeguarding role ensures an abundant, high quality, and varied food supply, strengthens the marketability of U.S. agriculture in domestic and international commerce, and contributes to the preservation of the global environment.

CPHST Mission

The Center for Plant Health Science and Technology supports PPQ regulatory decisions and operations through methods development work, scientific investigation, analyses and technology.