



SOVE Newsletter

47th Annual Conference

The 47th Annual Conference of SOVE was held September 11 – 15, 2016 in Anchorage, Alaska. Except for the field - day trip, all conference activities were held at the Sheraton Anchorage Hotel. The conference attendees (138) mostly from different parts of the U.S. were joined by colleagues from Australia (1), Brazil (3), Burkina Faso (1), Germany (5), Greece (4), India (1), New Zealand (1), and Switzerland (1), all sharing the same interest in vector ecology and control. The conference offered a variety of opportunities to learn and share new research findings and new approaches/methods used in the ecology and control of disease vectors.

The conference program had 8 symposia (including one on student oral presentations), one poster session (26 posters), and an ecological field trip. On Monday morning, September 12, the conference was announced open with a welcome and award presentations by vice president Lal Mian (see pictures on page 6), followed by SOVE award presentations with Ken Linthicum receiving the distinguished achievement award and Rui-De Xue accepting (for Tong-yan Zhao) the outstanding service award. Next followed announcements by secretary/treasurer Major Dhillon and presidential address by president Daniel Kline. The keynote address, “Mendel, Mosquitoes and Malaria: Applying Modern Genetics to Control an Ancient Disease” was graciously delivered by Greg Lanzaro. Last but not least, overseas regional reports for Asian SOVE by Rui-De Xue (for Qiyong Liu), Brazilian SOVE by Paulo Pimenta and Euro SOVE by Eva Veronesi followed before the coffee break.

The conference symposia in the order presented were as follows:

- 1: Mosquito-borne arbovirus infectious diseases
- 2: Ecology of zoonotic disease vectors
- 3: Innovations in vector control (student presentations)
- 4: Vector ecology across borders
- 5: Novel methods for vector surveillance and control
- 6: Development of novel insecticides uses and resistance
- 7: Arthropod vector repellents
8. Integrated vector management

Besides symposia and poster session all offered indoors, on September 13, there was a full day of an ecological field excursion by bus with stop over to watch sea life at the Cook inlet, on the way to the 7 glaciers by Whittier,. At Whittier, the group boarded a catamaran, and had lunch served before launching on some 4 hour



excursion to appreciate the various glacier formations and emanating waterfalls. After a busy day at observing nature’s beauty along the entire stretch of the trip, it was soon time to head back to Whittier and boarded on buses to return to Anchorage for a hosted dinner at the Sheraton. (see conference pictures on pages 6-8)

Conference sponsors:

Mir Mulla, Central Life Sciences, Clarke Mosquito Control, Valent BioScience Corp., ADAPCO, Inc., AMVAC, Bayer Environmental Sciences, FMC, MGK Company, Culinex, and Dhillon Land Co.

In this issue

Annual conference	1
Outgoing president's message	2
Incoming president's message	3
Regional reports: European, US-NE, SE	4,5
Conference and field day pictures	6-8
XXV ICE report, Students page, in memorium	9, 10, 11-12
Calendar, jobs, resources, About SOVE	13,14

Outgoing President's Message



My Dear Colleagues,

It has been my great privilege to serve as president of SOVE from mid-September 2015 to mid-September 2016. As Major frequently reminds us, SOVE is a family. It is a strong family thanks to the participation of all its members. Thanks to Major's efforts it has become a financially strong family. Thanks to Major's Board of Trustees SOVE is a vibrant society because they allow Major and his staff to invest so much time in SOVE. To me the meeting in Anchorage, Alaska was amazing. Many thanks go to Major, Valerie and Super Bill for doing all the organizational work to make this meeting a success. The field trip is always a favorite part of the annual meeting, and this year's trip to the glaciers is something I will always remember. Even the weather cooperated. Thanks go to Lal Mian for an excellent scientific program. And thanks to all the Board members for their continued and sincere support to make student participation in these meetings a high priority.

SOVE has a great journal with high quality papers thanks to the efforts of Marc and Anne Klowden. We appreciate your efforts. The Newsletter is very informative, well written and timely released thanks to the persistent efforts of Lal. Members help Lal in this effort by sending news in your areas through your Regional Director to Lal.

During my time on the Board I have seen SOVE expand its presence into Brazil and into Asia. I have had the opportunity to participate in several of the Asia meetings and have witnessed their strong activity. I would like to see the Brazil Branch expand to include other countries in Central and South America. I was glad to learn that we are going to have a new branch in India. As you know from my messages in the Newsletter I would very much like to see a branch establish in Africa. A colleague has suggested that a Middle East Branch be established. This would be a good thing.

I look forward to the International SOVE Conference in Mallorca, Spain, October 1-6, 2017. Miguel assures me it is going to be a great meeting. He has worked hard to secure us a great venue to hold the meeting. Now we need your help. Send Bulent Alten your ideas for the scientific program. Send ideas for symposia and be willing to organize a symposium and invite speakers.

Finally, at this meeting in Alaska it gave me great pleasure to turn the gavel over to Mike Kaufman, our new president. He will do a great job. Best wishes Mike!

Dan



Incoming President's Message



Dear colleagues and friends:

Greetings to all and hopefully you had uneventful journeys back home from Alaska. Although I look for any opportunity to visit the state, the 47th annual SOVE gathering in Anchorage made this trip truly outstanding. Many thanks to all involved and to whoever was responsible for the gorgeous weather on our field excursion. Special thanks go to president-elect Lal Mian and symposium organizers and presenters for putting together an excellent program.

As your new acting president, I'd first like to thank everyone for the opportunity to serve SOVE in some capacity beyond paying dues and participating as a presenter. SOVE meetings have always been special to me because of the close-knit atmosphere (no competing/concurrent sessions!), the many opportunities to actually speak in depth with other researchers, and of course, the great field trips and social events. Having gotten so much out of these venues personally, I only hope that I can give something meaningful in return.

That being said, I see my role as president as one that primarily seeks to maintain the high standards set by my predecessors. I will certainly try to emulate the steady hand of outgoing president Dan Kline and am very grateful for his thoughtful advice. However, I'm sure that Dan will agree when I say that the president's role is made almost ceremonial because of the hard work constantly being put in by the backbone of the SOVE organization including Major Dhillon, Mir

Mulla, Marc and Anne Klowden, Valerie Montigny, Bill Van Dyke, and all the board members from US and International regions. I fully intend to rely on this support throughout my short tenure.

Thus, I have no strong agenda other than attempting to make sure we continue on the same successful track. One can argue that we should try to grow our membership and we are cultivating growth in international venues such as China, South America, and Africa. Yet we should also be seeking a balance between size and the characters that make SOVE what it is. If I can be said to have any strong feelings about SOVE membership, it's that we need to continue to emphasize student participation and perhaps look into bolstering recruitment efforts. Ongoing support for students in the form of travel assistance needs to be maintained or perhaps enhanced. The field of Vector Ecology continues to rise in prominence and we should take advantage of this increased interest to ensure our future membership. Another item that I'll try to emphasize is that although SOVE is historically and necessarily mosquito-centric, the emergence and re-emergence of tick-borne pathogens, Chagas, Leishmaniasis, EHD, and other non-mosquito vector-borne diseases of wildlife, livestock, and humans deserve our attention and can serve to increase the size and diversity of our membership as well.

I'll end by noting that the 20th European SOVE conference and associated workshops will be held October 1 – 7 this year in Lisbon, Portugal and I'm sure it will be another great success. I also hope to see most of you next year on the Island of Mallorca, Spain for the International SOVE conference during the first week of October. I urge you to contact Dr. Bulent Alten, program chair at kaynas@hacettepe.edu.tr if you have suggestions regarding the program symposia.

Finally, on behalf of the board and membership, I'd like to congratulate Uli Bernier on his election as vice-president of SOVE. Uli's task of organizing the program for our annual meeting is deferred until 2021, but he's been so active in organizing symposia and presenting at SOVE over the past years that I think he deserves the break.

Best wishes to all.

Michael Kaufman

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Regional Reports



NORTHEASTERN USA

ISIK UNLU, regional director

One hundred eighty three travel related Zika virus cases have been reported in our region including New York (811), New Jersey (133), Pennsylvania (129), Massachusetts (76), Maryland (101), Rhode Island (32), New Hampshire (9), Vermont (7), and Delaware (13), based on the CDC website. Our peak Asian tiger mosquito season is typically August and first week of September, therefore we are coming to an end to BGS trap surveillance. Typically we set up over 100 traps weekly throughout the season.

If you have any issues or concerns that you would like the SOVE Board of Directors to discuss, please contact me (iunlu@mercercounty.org).

Center for Vector Biology, Rutgers University

Recent publication from Center for Vector Biology is “The Eye of the Tiger, the Thrill of the Fight: Effective Larval and Adult Control Measures Against the Asian Tiger Mosquito, *Aedes albopictus* (Diptera: Culicidae), in North America”. Authors described many strategies that could be employed to minimize the impact of this and other container species. Read more of Ary Faraji and Isik Unlu’s paper in the *Journal of Medical Entomology* describing the pros and cons of the various control techniques for this invasive species.

Mosquito Control Coordination, NJ—Scott Crans

The threat of potential Zika transmission in the USA has once again placed mosquito control front and center drawing attention to our mosquito control activities here in New Jersey. While we are all preparing to manage for what we hope doesn’t come in any significant manner, the media is hungry for any piece of Zika related news to run in the headlines. What we do and say carries very real importance for those that travel, for those here at home and especially for those in high risk groups. What we are now learning about this particular pathogen has us re-thinking how we deliver our services across many disciplines. Zika is behaving a bit differently than our typical arboviruses and our main task is to adjust accordingly in an effort to continue to deliver services that address the many challenges exotic

invasive container inhabiting mosquitoes present.

Our DEP Commissioner working closely with the Acting Commissioner of Health took bold action and invested state funds in the form of mini-grants at the county level to immediately bolster Zika prevention efforts for this mosquito control season. The idea was to provide both resources and funding on the front lines where the battle against the mosquito foe is being fought. These funds were largely reserve monies within the department and carried forward from the New Jersey State Mosquito Control Commission annual funding resources. Specific items included: new BG traps ordered for all the counties to increase *Ae. albopictus* surveillance \$16,000.00; mosquito dunks to be used in public awareness campaigns; increased access to the biocontrol program; and \$500,000.00 in direct funding. The State Commission passed a motion in support of these Zika prevention and control initiatives during their July meeting. All of the county programs have participated in the state aid mini-grant initiatives. The state support is designed to raise awareness and aid mosquito abatement efforts with specific goals to suppress container inhabiting mosquitoes transmitting pathogens of public health importance. Our biocontrol program (mosquito fish) was also the recipient of additional state funds to increase capacity, improve convenience and raise awareness. A new vehicle was purchased for the hatchery to deliver fish, additional distribution tanks purchased for the county programs use, and bulk storage holding tanks made available to local programs participating in the state mosquito fish stocking program to increase flexibility with regard to the use of fish. We are on pace to set a record for fish distribution this year. In addition, weekly press events are being organized in cooperation with local agencies to keep consistent public health messaging in the news and illicit help from state residents in the fight to prevent Zika virus transmission here in New Jersey. There is much the public can do for themselves to significantly reduce the risk of contracting and spreading the Zika virus. Getting this message out and maintaining it in the media during the mosquito control season is in everyone’s interest.

Regional Reports



There are more than 1,000 Zika cases in the southeastern region. So far, only Florida reported 85 local transmissions. As of September 19, 2016, Florida had 842 cases (including 661 travel-related and 85 non-travel-related infections), 86 pregnant women with infection, and 10 non-Florida residents. Local transmission of Zika presented in Miami-Dade, Palm Beach, and Pinellas counties. Florida Governor Rick Scott announced the area of active transmission in Miami Beach expanded to approximately 4.5 square miles from 8th street to 63rd street as four new non-travel related cases were identified. Also, the Governor announced that the entire Wynwood zone, which was originally about one square mile has been lifted due to 45 days with no evidence of active Zika transmission. In past months, Florida Department of Agriculture and Consumer Service (DACS) / Bronson Animal Disease Diagnostic Laboratory identified Zika virus in *Aedes aegypti* pools collected on Miami Beach, which the Florida Department of Health has identified as the location of active transmission of Zika. DACS Commissioner Adam Putnam has extended the mosquito declaration for an additional 45 days.

Governor Scott (in the photo right) and Surgeon General Dr. Celeste Philip, Florida Department of Health (DOH) held local roundtable meetings with local Directors of Department of Health, Mosquito Control Districts /Programs, and other related local governmental agencies about prevention and control of Zika virus in different areas. The Governor funded \$26 million for Zika virus mosquito control. All the above agencies collaborate and continue

SOUTHEASTERN USA

Rui-De Xue, regional director

door-to-door outreach, inspection, and control of Zika mosquitoes. Aerial applications of larviciding and adulticiding have been conducted in Miami and Miami Beach which presented local transmission of Zika virus.

The XXV International Congress of Entomology was held in Orlando, Florida, September 25-30, 2016. and Zika virus prevention and control will be one of the hot topics. Also, Florida colleagues will prepare for hosting some visitors from other countries and other states.

Among other topics is the story of *Ae. aegypti*, yellow fever mosquito and a major vector of Zika, dengue, and chikungunya-viruses, which disappeared from North Florida in the early 1990's after the invasion of *Aedes albopictus* in the late 1980's. However, the species has come back to the northern area in the past couple of years. In February 2016, we found *Ae. aegypti* in downtown St. Augustine, Florida,. We launched an eradication campaign and after several months of efforts, we still collected the species in a few spots. This poses a great challenge and can take longer to eradicate the species after the re-invasion. =====



Governor Scott with Director Xue

Pictures from the Conference

WELCOME

by Vice President
Lal Mian



Ken Linthicum receiving
Achievement Award
from President Dan Kline



Rui-De Xue accepting (for Tong-
Yan Zhao) the Service Award



President Kline receiving a fly
swatter award from Jerry Hogsette



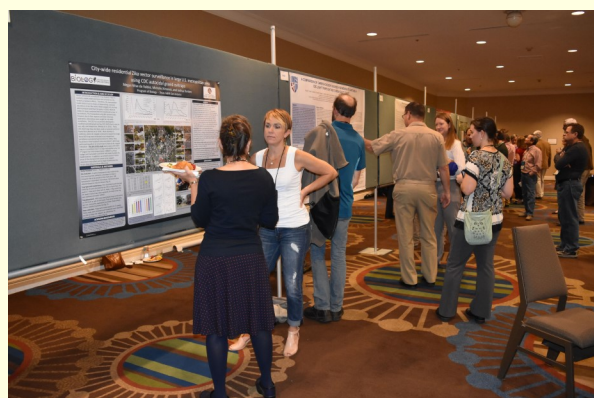
Secretary-Treasurer Major Dhillon
making announcements



Presidential address by Dan Kline



Keynote address by Greg Lanzaro



Poster Session in progress



Students with their mentors

Pictures from the conference reception



More picture from Filed Day activities



Note: If you don't see your picture here, you may find it in the photo gallery at the SOVE website: www.sove.org.

Vector Ecology at the International Congress of Entomology

Nancy C. Hinkle, University of Georgia

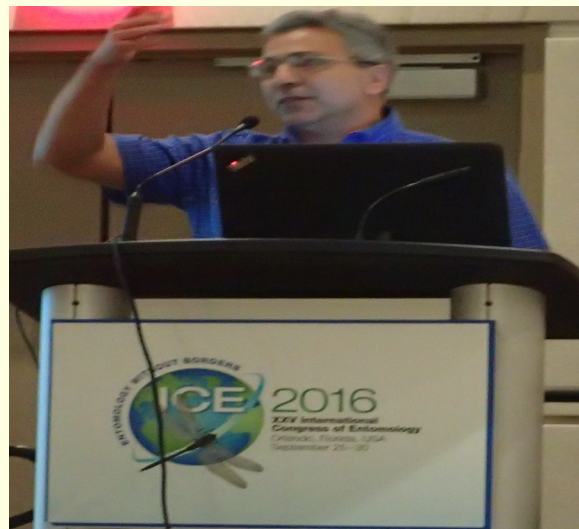
The theme of the XXV International Congress of Entomology was “Entomology Without Borders,” a motif appropriate for a gathering of 6,682 entomologists from 102 countries. Even if you weren’t there, you’ve probably already heard that the 2016 ICE, which was held in Orlando, Florida, September 25-30, 2016, was well-attended. Official records indicate that 102 countries were represented by 6,682 delegates, the largest concentration of entomologists in history. Attendees were able to choose from 4,696 oral presentations and 3,966 poster displays.

Vector ecologists had a surfeit of opportunities, including over 130 presentations on ticks and more than 500 presentations on mosquitoes. Other topics of interest to SOVE members included fleas, lice, mites, black flies, kissing bugs, sand flies, biting midges, tsetse flies, and other haematophagous arthropods, accounting for at least another 125 presentations. In other words, attendees were kept busy throughout the week catching the talks they particularly wanted to hear and, not surprisingly, often there was more than one talk of interest scheduled at the same time. I think there was one afternoon when three tick symposia were running concurrently.

Over 41% of attendees at this International Congress were from outside the United States. The 2020 ICE is scheduled to be held in Helsinki, Finland. Start planning to attend!



L to R: Nancy Hinkle, Harold Harlan and Jerome Goddard at the XXV ICE, Orlando, Florida



Mustapha Debboun on “the role of an entomologist in Public

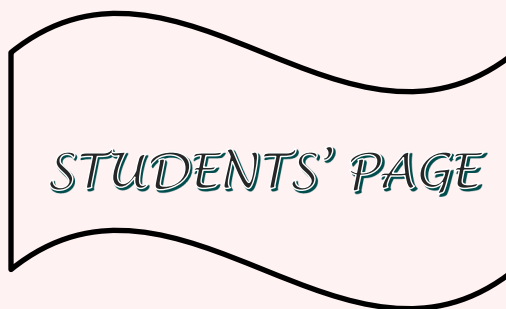


University of Florida Research on a Novel Lethal Ovitrap

Aedes aegypti (L.), the yellow fever mosquito, has been of major concern to vector management professionals for some time now. Their anthropophilic nature, oviposition, and feeding behavior make them a particularly hard species to control. Casey Parker, a graduate student at the University of Florida, worked with her advisors, Drs. Phil Koehler and Roberto Pereira, to develop a new control method for these unique mosquitoes.

The device is called the durable dual-action lethal ovitrap (DDALO), is black and red, and pyramid shaped. The lethal ovitrap incorporates a larvicide, an adulticide, and a slow-release polymer, making it unique from other designs for lethal ovitraps. The incorporation of the polymer increases the longevity of the insecticides in the trap.

For her MS research, Casey carried out laboratory testing of this trap. These studies evaluated the efficacy and longevity of the trap, the ovipositional preference of female *Ae. aegypti* when presented with various containers, and the effects of the DDALO on multiple generations of mosquitoes. Use of the DDALO resulted in high adult mosquito mortality (~95-100%) in laboratory cage studies



Casey Parker University of Florida

targeting gravid females and successfully prevented all deposited eggs from hatching. Aging of the trap caused some loss in activity over time, but traps still caused some adult mortality (~50%) and continued to prevent the successful hatching of eggs for 6 months. When presented with multiple containers for oviposition, including the DDALO, female mosquitoes laid more eggs in the DDALO in comparison to other containers. Small cage multi-generational studies resulted in significantly lower populations of adult mosquitoes in cages containing treated DDALOs after 4 weeks.

Based on successful lab studies, the DDALO could be used as an effective tool for controlling wild vector populations of *Ae. aegypti* and *Ae. albopictus* in combination with other mosquito control practices. Field studies are currently being done to evaluate the efficacy of this trap in a natural population of *Ae. aegypti*.

On a different note, I would like to remind everybody that we do have a SOVE facebook page, so feel free to check it out at the link provided :

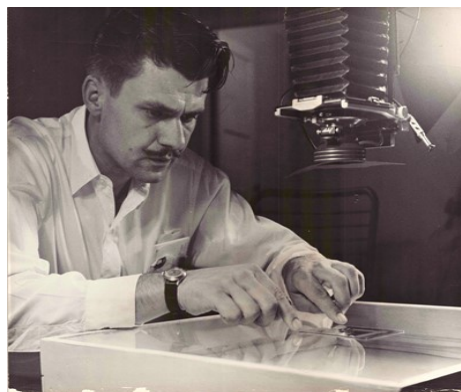
https://www.facebook.com/SocietyForVectorEcology/?ref=aymt_homepage_panel

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IN MEMORIAM

Raymond Edward Ryckman

June 19, 1917 — July 18, 2016



Raymond Edward Ryckman, PhD, medical entomologist whose studies of triatomine bugs, *Trypanosoma cruzi*, and Chagas disease resulted in a treasury of information for generations of researchers, passed away July 18, 2016. Ryckman was born on June 19, 1917 and grew up on a southern Wisconsin farm; fascinated at an early age by insects, he built an observation beehive in the barn and was always eager to show the colony to visitors. He attended the Adventist Academy in Iowa, and was drafted into the army during World War II. He served 4 years at the hospital at the Presidio Army Base in San Francisco, California. It was during this time that he met and married his wife, Evelyn Larson. He matriculated at San Francisco City College in February of 1946. He obtained an Associate of Arts degree, and afterward applied to University of California, Berkeley, where he obtained a B.S. in zoology in 1950.

Upon the completion of his degree at UC Berkeley, Ryckman was immediately recruited to a faculty position at the School of Tropical Medicine at Loma Linda University in Loma Linda, California. Shortly after arriving, he was approached by the Army Surgeon General's office with a request for research on the dynamics of plague transmission, in relation to the Army's interest in troop health and safety in southeast Asia. Ryckman used the naturally existing plague system in southern California to study squirrel/flea population dynamics and potential insecticides. Innovative methods he employed included: electric-fence enclosures, trained ferrets to aid in placing humidity and temperature detectors within squirrel burrows, and crucible tongs to gently handle otherwise unmanageable squirrels. His research played a major role in the understanding of the dynamics of plague transmission and control.

After the plague grant ended in 1955, Ryckman returned to UC Berkeley, where he completed his Master's thesis on Cimicidae (bed bugs) in 1957 under Dr. Robert Usinger. He forged ahead with Ph.D. studies, also under the tutelage of Dr. Usinger. His research explored the systematics, hybridization, and reproduction of *Triatoma protracta*—vector of *Trypanosoma cruzi*, the agent of Chagas disease. In 1960, he completed his dissertation "Biosystematics of the *Triatoma protracta* complex in North America (Hemiptera: Reduviidae)" and graduated with a PhD. His dissertation was later published in 1962. His PhD research accomplishments are especially admirable considering that after his 2 years of coursework at Berkeley, he returned to Loma Linda to conduct his research while also fulfilling teaching requirements. In 1960, he joined the School of Medicine, Department of Medical Microbiology at Loma Linda University, where he taught until his retirement in 1987. He educated hundreds of medical and graduate students, and for a period of time, Dr. Ryckman also served as Chair of the Department.

Ryckman cont'd on p. 12

Ryckman cont'd from p. 11

Along with his experimental research interests in triatomines, he was a naturalist eager to investigate organisms and topics that captured his interest, generally incidental to his focus on triatomines. His career included publications about cactiphilic flies and lizard mites. Even after his retirement, he continued to write. In 1998, he co-authored a book detailing the life of Edmund C. Jaeger, a biologist well-known for his studies of the ecology of the desert of southwestern US (*Son of the Living Desert*, by Raymond E. Ryckman and James L. Zackrisson).

Ryckman was honored with a patronym in 1972: *Triatoma ryckmani*, a rare species from Central America. In 2007, Ryckman was presented the Distinguished Achievement Award from the Society for Vector Ecology.

Ryckman's travels took him throughout Central and South America, where, whenever possible, he returned with field-collected triatomines with which to start new colonies. By the time his colony-rearing days were over, he had dozens of actively managed triatomine colonies. His wife and three children frequently travelled with him for field work, across the U.S. and into Mexico; he published several articles with his sons as coauthors. Ryckman credits his wife with carefully and patiently reviewing and editing his manuscripts before submission. Approximately 115 publications were authored or co-authored by Ryckman, an impressive output for such field work. In contrast to the current trend of increasing numbers of coauthors on publications, the majority of Ryckman's publications were single or two author publications. His papers are a rich library of information about every aspect of vectors and mammalian hosts of *T. cruzi*.

Later in Ryckman's publishing career, the Bulletin of the Society for Vector Ecology encouraged the publication of bibliographies. In a time before internet and electronic searching, bibliographies were valuable sources of information for researchers, and their collation is an impressive, though perhaps routinely underappreciated, achievement. As a service to the scientific research community, Ryckman regularly contributed bibliographies, stating "A bibliographic monograph is the summation of our historical, cultural, and scientific heritage in a given field of endeavor". His career capstone was publication of three bibliographies "concerned with the world literature to the Triatominae and Triatominae-borne pathogens and clinical Chagas' disease" (see Bulletin of the Society of Vector Ecologists, volumes 6, 9, and 12). Careful curation was achieved with assistants, requests via by-gone 'reprint request cards', a shopping cart to transport loads of journals from university library to the copy shop, and a system of punch cards to organize by article-specific details. Compiled over 16 years, with over 23,000 publications, these bibliographies are a unique contribution to the field of Chagas disease research. The hard-copy collection now resides at the Centers for Disease Control in Atlanta, Georgia, U.S.

In addition to a legacy of bibliographies and research publications, Ryckman's collection of over 25,000 insects is available for study at the Bohart Museum of Entomology, at the University of California, Davis. This collection includes the results of Ryckman's many colonies of triatomines, particularly *T. protracta*, as well as tsetse flies and other insects. The collection of triatomines is unrivaled by any other collections, except perhaps the Wygodzinsky collection at the American Museum of Natural History and the collection at Oswaldo Cruz Institute in Brazil.

Authority on the ecology of triatomines and Chagas disease, patient teacher and mentor, international scholar, and family man—Raymond E. Ryckman was well-rounded scientist, to be admired by all.

Rachel Curtis-Robles
College of Veterinary Medicine
Texas A & M University
College Station, TX 77841

Charles Ben Beard
CDC—Division of Vector-borne Diseases
Fort Collin, CO 80521

For Your Calendar

The 6th International Forum for Sustainable Management of Disease Vectors will be held in Chongqing, China, November 8-12, 2016. For more information, go to : www.asiansvcmc.org

International workshop on “Insecticide resistance in vectors of emerging arboviruses: challenge and prospects for vector control” will be held in Rio de Janeiro, Brazil, December 5-7, 2016. For more information go to: <http://win-network.ird.fr>

American Mosquito Control Association, annual meeting will be held February 13-17, 2017, San Diego, CA

The 5th International Forum for Surveillance and Control of Mosquitoes and mosquito-borne Diseases will be held in Nanjing, China, May 22-26, 2017. For more information, please visit the meeting website at www.mosquitoforum.net or www.asiansvcmc.org

The 14th Arbovirus Surveillance and Mosquito Control Workshop in conjunction with the NE 1443 Regional Project Annual Meeting will be held in St. Augustine, FL. For more information, visit the website at www.amcdsjc.org

International Congress of SOVE will be held in Palma, Mallorca Island, Spain, October 1—6, 2017. More details will be available on the SOVE website: www.sove.org—reporting Major Dhillon.

Jobs

No advertisements

On the Move

No reports

Resources

FREE Resources for Investigators are available!

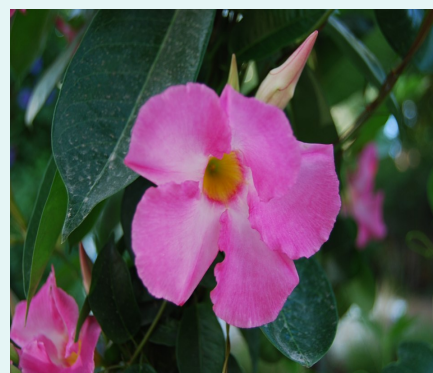
Please visit:

<http://www.niaid.nih.gov/labsandresources/resources/dmid/Pages/default.aspx> to see the full range of available services that provide access to research tools and technologies and preclinical and clinical services to facilitate product development.

Visit [Vector Biology Resources for Studying Vectors](#) for a listing of available resources. Key among the resources for studying vectors is provision of LIVE vectors and reagents and genomic materials offered through the [BEI Resources Repository](#). (See Vector Resources in the BEI [online catalog](#).) These resources are available free of charge to REGISTERED users in domestic and foreign institutions and NIH grant funding is not required. For information on all resources for researchers provided by DMID, visit the [DMID Resources for Researchers website](#).

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We are on the Web!
www.sove.org

About SOVE

The Society for Vector Ecology is a professional organization formed in 1968 by a group of individuals involved in vector biology and control programs in California. The membership has since grown to represent an amalgamation of diverse research and operational and extension personnel from all over the world. The Society is committed to solving many complex problems encountered in the field of vector biology and control. Among these are the suppression of nuisance organisms and disease vectors through integration of control elements, such as environmental management, biological control, public education, and appropriate chemical control technology.

The Society publishes the biannual Journal of Vector Ecology that contains research and operational papers covering many phases of vector biology, ecology, and control. The Society also distributes a periodic newsletter and holds an annual conference in the months of

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