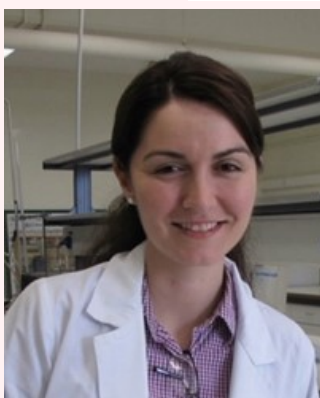


SOVE

Society for Vector Ecology

SOVE Newsletter

President's Message



Alexandra Chaskopoulou

Dear colleagues and friends,

We are almost halfway through 2023, and our colleagues in the USA and internationally have been working tirelessly to prepare for and host conferences of the highest standards. Dr. Denise Bonilla, our Vice President, is working together with Michelle Brown, our Executive Director, and a diverse team of researchers to build an informative and innovative scientific program for the upcoming USA-based Society for Vector Ecology (SOVE) conference scheduled to be held at beautiful and historic Charleston, in South Carolina, September 17-21, 2023. At the same time, across the globe the Asian Society for Vector Ecology in collaboration with the Entomological Society of China have been preparing for the 8th International Forum for Surveillance and Control of Mosquitoes and Vector-borne Diseases, in Beijing, China, October 23-27, 2023. Claire Garros, with her colleagues from the

French agricultural research and cooperation organization (CIRAD) – the official local organizers for Euro-SOVE 2024, are way ahead of time as they have already finalized the dates and venue for the upcoming European conference at Le Corum in Montpellier, France, October 14-17, 2024.

While for some of our colleagues, conference preparations are in full swing, others have been enjoying, and quite rightfully, the immense satisfaction that comes from having organized and successfully completed an international congress. I speak for none other than our Indian Regional Director, Dr. Ashwani Kumar and his team at the Indian Council of Medical Research – Vector Control Research Center (ICMR-VCRC), who earlier this year led the organization of the 2nd International Congress of

President's message cont'd on p. 2.

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SOVE (iSOVE) Indian Chapter at the colorful and spiritual city of Puducherry. The conference accommodated an impressively large team of delegates primarily from academia, and public health with significant international participation, and I had the pleasure and honor to find myself among them. SOVE conferences are known for their high scientific standards and the iSOVE India Region was certainly no exception. The theme of the conference was dedicated on integrating conventional and novel tools and technologies for the management of vector populations and vector-borne diseases (VBDs), with a focus on the Indian sub-continent. The scientific agenda consisted of multiple, quick-paced, high-quality presentations, engaging and insightful panel discussions, all together showcasing the progressive research conducted locally towards combating VBDs, but also the challenges that need to be addressed for quality implementation and wide adoption of best VBD management practices at a regional and national scale. What made this conference truly unique is the high participation and active involvement of students and early career researchers (Figure 1), who were the absolute protagonists, taking over the front stage with well-prepared, intelligent presentations, while also working tirelessly on the backstage supporting the needs of a highly demanding organization and they managed so wonderfully and effortlessly. A notable event was the SOVE Young Scientist award presented during the conference to two exceptional early career scientists. In this newsletter Dr. Komalpreet Kaur Sandhu – one of the award recipients for 2023 and newcomer to SOVE – is sharing her perspective on the iSOVE congress. Please, do not miss her article! *Figure 1: ICMR student group photo during the iSOVE conference, Puducherry, India—see page 8.*

Returning from Puducherry, I was deeply thankful for all the new knowledge and different perspectives I had gained, but most importantly for all the wonderful people I had met, and their profound stories. It was inspiring to witness the importance of art, philosophy, and the cultivation of one's inner self in Indian culture & science, and, to have the opportunity to engage in conversations outside of the conventional reality of a scientific conference. I would like to share with you a couple of quotes on what it means to be a scientist in India from colleagues Dr. Sajal Bhattacharya (University of Calcutta) *"In my understanding, science is also a form of art. If we accept science as a form of art, both of which begins with Philosophy, then every scientist can be seen as an artist in their own right. My love for literature and passion for poetry writing has helped me to stimulate my imaginative and ideating prowess, both of which are prerequisites for any scientific work, review, or translational research"* and Dr. Rajnikant Dixit (National Institute of Malaria Research, ICMR, New Delhi) *"For me the scientist is an intellectual and selfless person engaged in decoding and understanding the knowledge of the biological/non-biological world mysteries to serve society and humanity"*. I will certainly return to beautiful India, and I encourage all of you not to miss the opportunity to attend the next iSOVE conference!

SOVE Student Community and Upcoming Survey

I have been working closely with Brown and our international directors (Gunay - Europe, McCarthy – Latin America, Kumar – India, and Hong-liang - Asia) to update our list of the SOVE student community (graduate students or recent alumni active at our conferences during the last two years) from across the SOVE national and international regions and I am proud to announce that we have identified at least 330 community members, of which >80% come from SOVE international regions. In the following months a survey will be sent out to the student community focusing primarily on identifying the current challenges in navigating the professional world during the early stages of one's career, and how these challenges differ across the different regions. Most importantly we would like to hear from you – students and early career professionals – understand your perspectives, your hurdles, and needs. Results of this survey will be used to determine how SOVE can better serve you by creating the right type of opportunities for you to advance in your career. Please, stay tuned for the survey and we hope to hear from all of you!

I wish a productive and creative summer season for everyone! Alex



Northwestern Region, USA

Ben Beard

Regional Director

Greetings colleagues and friends,

With summer kicking into gear, many of us are spending significant time outdoors. Although May's *Lyme Disease Awareness Month* is in the rearview mirror, the risk for tick and mosquito-borne diseases is just beginning. There are increasing opportunities for exposure to the bites of potentially infected arthropod vectors. One of the qualities of SOVE, which I have always valued highly, is that most of us are in this scientific society and working in this field because we are passionate about public health entomology and the prevention of vector-borne diseases. So, I would remind you that casual conversations with friends and family at cookouts, outdoor concerts, and other activities are timely opportunities to share your Environmental Protection Agency (EPA)-registered insect repellent and pass along a prevention message.

Prevention messages are simple and can be shared in way less than the typical elevator speech. For example, wearing repellents and covering your skin with long-sleeved shirts and long pants can help stop ticks and mosquitoes from biting. Most of you know where to find these resources, and CDC offers a one-stop shop website with prevention messages at our Fight the Bite site: <https://www.cdc.gov/fight-the-bite/index.html>. For those who are active on social media, you may find CDC's Instagram post in Wes Anderson style (<https://www.instagram.com/p/CsrO9klg5fy/>) both entertaining and informative. I was told by our CDC/

DVBD communications team that it received over 141,000 views and 2,100 likes in less than a day!

Also, in the world of vector-borne disease prevention education, for those of you who are particularly interested in concerns related to climate change and health equity, I would like to call your attention to a very interesting and informative resource from the Department of Health and Human Services' Office of Climate Change and Health Equity (OCCHE)—their monthly Climate and Health Outlook newsletter (<https://www.hhs.gov/climate-change-health-equity-environmental-justice/climate-change-health-equity/climate-health-outlook/index.html>). The newsletter highlights broad health issues influenced by weather and climate, including information on draughts, extreme heat events, flooding, wildfires, air quality, and environmentally associated infectious diseases. The content generally focuses on seasonal forecasts and outlooks, when possible, and critical information on awareness and personal protection. This summer, the reports will highlight various vector-borne disease topics. You can subscribe to their newsletter (<https://cloud.connect.hhs.gov/oash-ocche>) to receive updates directly from OCCHE.

A final CDC resource to share with you is CDC's updated web-based clinician training module (<https://www.cdc.gov/rmsf/resources/module.html>) on the diagnosis and treatment of Rocky Mountain spotted fever (RMSF) in the United States. Developed for healthcare providers, epidemiologists, and public health practitioners, the updated training includes opportunities for continuing education in seven professional categories. RMSF is a potentially fatal disease and early treatment saves lives. Please share with your colleagues and public health partners as appropriate.

.....**Beard** cont'd on p. 10



Latin American SOVE Region

Christina B. McCarthy

Regional Director

Dear friends and colleagues,

It is with pleasure that I share what we have been doing in our emerging Latin American SOVE (LA SOVE) since the March newsletter.

1) We have established a working group to carry out the multiple tasks inherent to a blossoming

LA SOVE:

President:: Christina B. McCarthy

Vice President: Ima Braga

Executive Secretary: María José Villalobos Sambucaro

Treasurer: Mahia M. Ayala

Social Media:

Instagram: María Eugenia Cano (Coordinator)

Twitter: María Laura Genchi García (Coordinator)

Facebook: María José Villalobos Sambucaro (Coordinator)

Publicity: María Eugenia Cano (Coordinator), Paula Vaschalde

Web Page: Pablo A. Ambros (Designer and Administrator)

Audiovisuals: Santiago Marotta (Coordinator)

Gender Perspective: Melina V. Brivodoro (Coordinator)

2) Santiago Marotta (Audiovisuals Coordinator) is uploading the LA SOVE 2022 videos and presentations to the Institutional Repository of the National University of La Plata (<http://sedici.unlp.edu.ar/>), a work still in progress.

3) Pablo Ambros (Web Page Designer and Administrator) is designing and making our LA SOVE web page, a job still in progress.

4) We have launched a 2023 Virtual Discussion Panel Series. The first one, "Brote 2023 Argentina. La complejidad del

DENGUE: Desde el virus al vector" (2023

Outbreak in Argentina. The complexity of Dengue: From the virus to the vector), took place on of May 17. Two researchers from Argentina, Cintia Fabbri and María Victoria Micieli, shared their presentations on the virus and the vector, respectively, and this was followed by an

interactive time of discussion with the audience. It was a success, with 70 people connected from all over Latin America, and all those who participated are now looking forward to our next release.

We have organized our next Virtual Discussion Panel, "Enfermedades Transmitidas por Vectores

(ETVs): Estado actual en Latinoamérica" (Vector Borne Diseases (VBDs): Current status in Latin America), together with the Argentine Association of Zoonoses. It will take place on June 1 at 10 hrs (UTC-03:00 Buenos Aires), and representatives from 8 Latin American countries (Ecuador, Colombia, Peru, Brazil, Uruguay, Paraguay, Bolivia and Argentina) will share what the current status of VBDs is in their countries, focusing on arboviruses.

The third release in this Series will be on Gender Perspective, so if you don't want to miss out on this and other relevant and state of the art topics, please join our social media channels to receive all the latest news:

Facebook: @la sove, <https://www.facebook.com/LatinAmericanSOVE>

Instagram: lasove__, https://www.instagram.com/lasove__/

Twitter: @LASOVE_: https://twitter.com/LASOVE_ or write to us at: lasove2022@gmail.com

Keep well and healthy!

Christina



SOVE–Indian Chapter

Ashwani Kumar

Regional Director

In all 109 abstracts were received, which comprised of 44 turbo talks, 20 oral presentations and 40 posters. There were 10, 28 and 11 plenary talk and invited lectures on day 1, 2, and 4 respectively. The participants were from different parts of the country. There were 3 panel discussions and 4 presentations by the industry showcasing their vector control products. The Conference brought together a group of diverse luminaries and experts who shared a common interest on emerging health threats due to VBDs and provided a platform for intellectual exchanges and debates to find lasting solutions for VBD control/elimination. Putting together all these elements, the conference program was rich and diverse in addressing most of the vector borne diseases of the tropics.

The deliberations during the conference focused on broad thematic areas including COVID and impact on VBDs; Biosecurity: Vector Surveillance and Control at Points of Entry (PoE); Cutting edge approaches to address VBDs threats- now and in the future; arboviral diseases: fastest emerging and re-emerging threats to Public Health; scrub and tick typhus: a stitch in time will save nine; Ccpacity strengthening and vector control; A WHO GVCR Approach for entomological capacity building and strengthening; lymphatic filariasis, visceral leishmaniasis and malaria elimination: Thinking right, fast and beyond and socio-economics of VBDs-financing and equity issues.

The SOVE (Indian Chapter) awards to recognize and promote quality contributions to academic research were given away at the conference. The awards were presented to the most outstanding researchers under the categories- 1. 'Padmabhushan' Dr. V. P. Sharma Oration Award for outstanding research in vector bio-ecology and control (Recipients were S. L. Hoti, Emeritus Scientist, A. M. Manonmani, Scientist "G" (Retired), and Late K. Balaraman, Scientist "G" (Retired), ICMR - Vector Control Research Centre, Puducherry), 2. Prof. Mir Mulla Award for Excellence in Vector Biology and Control (Recipient was Prof. Bulent Alten, Professor of Ecology, Hacettepe University, Turkey), 3. Dr. T. R. Ramachandra Rao Award for outstanding research in medical entomology (Recipient was Raman Velayudhan, Head Veterinary Public Health, Vector Control and Environment unit (VVE), Department of Control of Neglected Tropical Diseases (UCN/NTD), World Health Organization, Geneva), 4. Shri P. B. Deobhankar Award for distinguished work in Public Health especially in municipal bodies and State Government programs (recipient was B. Dhanraj, Chief Vector Control Officer (Retd.), Greater Chennai among others (See Photo).

Corporation), 5. Dr. A. R. Rajavel Memorial SOVE (Indian Region) Award for a renowned researcher working on Taxonomy of Vectors in India or Overseas (recipient was Prof. Jagbir Singh Kirti, Department of Zoology, Punjabi University, Patiala), 6. SOVE (Indian Region)

..... **Kumar cont'd on p. 6**

Since its inception in 2017, the Society for Vector Ecology-SOVE (Indian Chapter) is in pursuit to promote research and control of vectors and vector-borne diseases with emphasis on vector / disease ecology, epidemiology and management on a local, regional and national basis. To achieve these objectives, our endeavor is to convene meetings and conducted workshops, special lectures/ meetings and international congresses with the aim to exchange information relevant to vectors, vector-borne diseases and vectors management, highlight the results of the scientific research in the newsletters and provide information on the potential risks of vector-borne diseases to the public, promote the use of scientific information in conjunction with inter-agency cooperation in the development of vector management strategies and programs at the local, state, regional, national and international levels, provide a forum for continuing education in vector ecology, vector-borne diseases and vector / disease management using principles of applied ecology and promote collaborations with other related organizations and stakeholders.

The SECOND INTERNATIONAL CONFERENCE (iSOVECON2023) with the theme "Vector Borne Diseases: Galvanizing & harmonizing old and new tools & technologies for containment of vectors and sustained control/elimination of VBDs" was organized by the Society for Vector Ecology (SOVE), Indian chapter between 13th -16th March, 2023 at the Dr. A P J Abdul Kalam Auditorium, Jawaharlal Institute of Post Graduate Medical Education and Research (JIPMER), Puducherry, India. Incidentally, this was the latest milestone besides the conference held earlier 2019 in Goa with the theme "Lab to public health setting: Control of vectors for elimination of vector borne diseases". The conference was attended by over 170 delegates including students, scholars, researchers, program officials, international delegates, industry, funding agencies and policy makers.

A total of 170 registrations were received at the Conference portal. Of these many registrations 15 participated virtually, 155 attended physically. There were four key note addresses by Raman Velayudhan, WHO, R. S. Yadav, WHO, Peter Gething, Curtin University, Perth Australia, and Alexandra Chaskapoulou, Scientist, European Biological Control Laboratory (EBCL), Greece and President, SOVE. The participants were scientists, technical personnel, research scholars and post graduate students.

Kumar cont'd. from p. 5 : Young Scientist Award (Woman) below 35 years of age for outstanding research and innovation in the field of vector bio-ecology/vector borne diseases (recipient was Komalpreet Kaur Sandhu, Assistant Professor (Zoology), Akal University, Talwandi Sabo, Punjab), 7. SOVE (Indian Region) Young Scientist Award (man) below 35 years of age for outstanding research and innovation in the field of vector bio-ecology/vector borne diseases (recipient was Irrusappan Hari, Entomologist (National Level), Centre for Health Research & Innovation, New Delhi), 8. SOVE Journalism Award (recipient was Bosco Dominique, Assistant Editor, Times of India), 9. SOVE Sushil Kumar Das Gupta AWARD (recipient was N. Nilamani, General Physician, Pondicherry), SOVE "Lieutenant Colonel Rishabh Sharma" AWARD (Recipient was Col Rakhi Dhanwan, Col Health & Sr. Advisor (community medicine), Armed Forces Medical College (AFMC), Jaipur, 10. SOVE President's Appreciation Award were conferred on eminent scientists for outstanding research and innovation in different fields of vector bio-ecology/vector-borne diseases (Recipients were Roop Kumari, Prakash Dhillon, R. Natarajan, S. Gopalakrishnan, Vijesh Sreedhar Kuttiatt, Manju Rahi, Nisha Mathew, A. N. Shriram and K. H. K. Raju).

Three pre-conference workshops were organized on ticks, mites and xenomonitoring of vector-borne diseases prior to the iSOVECON2023 on 9-10 March, 2023 to immerse the interested participants through dissemination of information, approaches and hands-on proven techniques. On March 9, 2023, a total of 11 participants from different states of India were imparted training. Participants were taught taxonomic identification of nymph and adult stages of ixodid ticks. On March 10, 2023, two workshops i.e. workshop on medically important mites and identification and survey methods and molecular xenomonitoring of lymphatic filariasis were conducted. A total of nine and eight participants attended these workshops, respectively. We thank Alexandra Chaskopoulou, Norbert Becker, Major S. Dhillon and Prakash Dhillon for attending this conference in person. We also thank Raman Velayudhan and Rajpal Yadav from WHO Geneva for attending the SOVE Conference.

March 9, 2023: Glimpses of workshop on Ticks : Identification, classification and survey methods

March 9, 2023: Workshop inaugural address by Ashwani Kumar, Director, SOVE, Indian Chapter

March 9, 2023: Workshop participants interacting with the resource person, A. Elango, Principal Technical Officer

March 9, 2023: Director, Organizing Secretary and resource person along with the participants

March 10, 2023: Glimpses of workshop on Mites : Identification, classification and survey methods and molecular xenomonitoring of vector-borne diseases

March 10, 2023: Inaugural address by Ashwani Kumar, Director, SOVE, Indian Chapter

March 10, 2023: Participants interacting with the resource persons Phillip Samuel, Scientist (L-Mites) and A.

Balasubramaniam, Technical Officer (R-molecular xenomonitoring)

March 10, 2023: Director, resource persons along with the participants

This in-person conference was possible due to COVID free environment. Fortunately, as of today (May 28, 2023), the COVID-19 pandemic had shown only a small spurt in some parts of India. With the total active cases of 4,72 as on 28 May 2023, the COVID-19 case load in India is disappearing. With only 4,972 active cases, 44,452,908 cured/discharged. COVID-19 Vaccination stands at 2,20,670,791 as on date. The Ministry of Health & Family Welfare, Govt. of India, has empowered the citizens by providing for COVID-19 vaccination of children between 12-14 years of age, travel advisories, behavioral health-psycho social guidelines, clinical guidance for management of adult COVID-19 patients, advisories and precautions to be taken to prevent the spread of the virus.

In India, we envision to "create a critical mass of public health entomologists" and strengthen Public Health Entomological capacity in the Country at the District, State and National level for the effective management of vector-borne diseases. We laud the efforts of the Indian Council of Medical Research-Vector Control Research Centre (VCRC) for their stewardship in this direction. The VCRC has launched the prestigious National Public Health Entomology (NPHE) program wherein admissions for M.Sc. PHE have been completed at five sister Institutes of ICMR viz., VCRC Puducherry, Regional Medical Research Centre, Dibrugarh, Assam, Regional Medical Research Centre, Gorakhpur, Uttar Pradesh, ICMR-National Institute for Research in Tribal Health, Jabalpur, Madhya Pradesh and ICMR- Rajendra Memorial Research Institute of Medical Sciences, Patna, Bihar. Through NPHE, we expect that a large force of about 100 trained and skilled entomologists will be produced annually in the country in the coming years. The M.Sc. course is successfully implemented in all the designated Institutes and these students will complete their first semester by the end of March, 2023. They are being given a stipend of Indian Rupees of 20,000/month for the entire duration of the course which is unique in the world.

The membership of SOVE Indian Chapter, in the recent times, has swelled to 148. Currently, there are 92 regular, 12 retired, 43 students and 1 sustaining member. Efforts, are underway to increase the membership further to cover the length and breadth of the country, with an ultimate aim of PAN India presence. Following which efforts shall be made to enroll members from the neighboring countries of the region.

I'd like to express my genuine gratitude to the parent SOVE, WHO, National and International delegates for taking the time to attend this international event at Puducherry. Your participation at the event was appreciated and contributed to its success. I hope everybody had as much fun at the conference as we went about planning the event. Looking forward to hosting such events in the future.

Ashwani Kumar,

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A newcomer's view of the 2nd International Conference of SOVE-Indian Chapter, Puducherry, India
Komalpreet K. Sandhu, Akal University, Talwandi Sabo, Punjab, India.

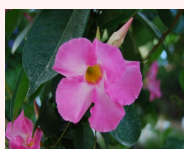


I first heard about the Society for Vector Ecology (SOVE), Indian Chapter through my professor Devinder K. Kocher, who motivated me to participate in their international congress scheduled for March 2023, in Puducherry. After reading about the mission of SOVE and the society's long history of promoting the science of vector ecology across the world, I became really excited and decided to apply for the SOVE Young Scientist Award to be presented during the conference, an opportunity that would allow me to attend and participate in the conference. I had only recently graduated with my Ph.D. from Punjab Agricultural University, Ludhiana on Eucalyptus oil-based hybrid nanoemulsions as larvicides against *Aedes aegypti* (L.), so it was the perfect timing for me to apply and get myself introduced to this new group of scientists.

On February 28th, 2023 I received an email from SOVE-Indian Chapter and Indian Council of Malaria Research-Vector Control Research Centre that I was unanimously selected for the SOVE (Indian Chapter) Young Scientist Award (Woman). For this reason, and many more, this Conference was a special meeting for me. It was an incredible opportunity to attend such an event, and I feel honored to have been recognized for my work in the field of vector ecology and vector-borne disease (VBD) management. The inaugural program and award ceremony took place at JIPMER Campus Puducherry and the event was presided by Tamilisai Soundararajan, Lieutenant Governor of Puducherry. Receiving this award from the Governor of state and renowned scientists from India, USA, and Europe was an incredible feeling, that comes along with a strong sense of responsibility to continue to strive to pursue excellence in science and contribute meaningfully to the field of vector control research.

The conference included many informative sessions led by a wide variety of experts from across the world. Some of the main points discussed at the conference were the importance of surveillance, mapping and elimination of vector-borne pathogens and the role of climate change in the spread of vector-borne diseases. As temperatures rise and weather patterns change globally, the habitats of vectors also shift, making it easier for pathogens to spread and establish in new areas. There were so many interesting and novel views in the panel discussion on emerging arboviral threats globally, while one of the most interesting lectures lighted upon exploiting mosquitoes by transforming them into a sustainable animal feed -an entirely new and unconventional concept to me. The conference, also, showcased some of the latest technologies being developed to combat vector-borne disease, such as new insecticides, insecticide application technologies (such as drones), AI and digital technology for VBD surveillance, control and remote sensing technologies to track disease outbreaks. Last but not least, there was a new and exciting format of talks - turbo talks - where scientists found creative ways to present their research in less than 4 minutes.

I enjoyed so many cultural and historic sites at Puducherry during the field-ecology day as well as cherished tasty foods and ample opportunities to discuss with peers in a more relaxed setting. Overall, attending the iSOVE conference was a highly valuable experience for me, allowed me to build strong professional contacts and friendships with scientists from across India and Europe. I am very thankful to all the organizers for providing me with such an opportunity and for their wonderful hospitality and I already look forward to attending another SOVE meeting in India and other regions, such as Europe and the USA.



Students' Corner

Hello all!

I hope everyone's summer is getting well underway, whether it's in the field, lab, taking classes or taking a much-deserved break. We are gearing up for another wonderful SOVE meeting in Charleston, SC. As such, we are accepting submissions for the annual student symposium. This year's Dan Strickman Memorial Student Award is valued at \$1000.00 and is sponsored by the Bill & Melinda Gates Foundation. Abstracts are due June 9th and can be submitted via the following link (<https://app.oxfordabstracts.com/stages/5500/submitter>). The student symposium is a great way to share your research and get feedback from experts in the field.

Last year Kristina Lopez, presented on one of dissertation chapters. Her presentation "Insecticide resistance status of West Nile virus vectors in the Chicago suburbs," won first place in the student competition. Please find below a statement from Kristina on her experience competing in the student symposium.

"The work I presented at SOVE in 2022 was part of

Bianca Rendon Student Director

one of the chapters in my dissertation, and is now in the final stages of edits before being submitted for publication. After presenting my work, the questions I received were very helpful while I was writing the manuscript and anticipating reviewer comments, and guided me to think more deeply about the results. The feedback also contextualized the impact my work has – other people think my research is as cool as I think it is?! Student presentations are a fantastic way to hone your presentation skills and get really valuable feedback and perspectives that cannot be always attained by your advisor or lab mates. It is a safe place to figure it all out – you are student and still learning how to communicate science effectively, so everyone is very kind and forgiving. Although giving presentations is very nerve-wracking, it is a critical skill to have and is part of being a scientist now." – Kristina Lopez

I just cannot wait to hear all the great presentations this year and see everyone in person in Charleston! If you are interested in sporting any SOVE gear, please visit the following website for a wide range of merchandise (<https://www.cafepress.com/societyforvectorecology>)

Bianca



Figure 1: ICMR student group photo during the iSOVE conference, Puducherry, India

Invisible Bugs Still Vexing Vector Control

Nancy Hinkle, Matt Bertone, and Karen Vail

Department of Entomology, Univ. of Georgia, Athens; Plant Disease and Insect Clinic, Department of Entomology and Plant Pathology, NC State Univ.; and Department of Entomology & Plant Pathology, Univ. of Tennessee, Knoxville

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At the 23rd Society for Vector Ecology Conference in Sparks, Nevada, a symposium organized by President Jim Webb was convened on “Delusions of Parasitosis.” Among the speakers were a vector control specialist, a public health entomologist, and two psychologists. Five papers resulting from this symposium were published in 1993 [Bull. SOVE 18(1)] and serve as a touchstone for virtually every paper published on the subject since.

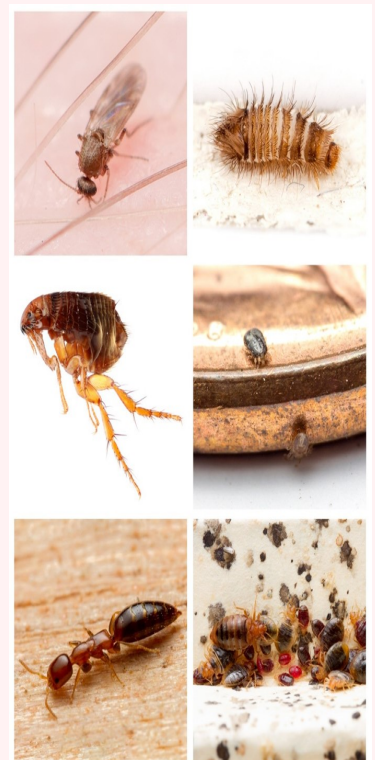
Thirty years later, the Southern IPM Center-funded Delusional Infestation Working Group continues to seek ways to assist people suffering from Delusional Infestation (DI), the current term for the condition. Because vector control personnel, Extension agents, entomologists, public health staff, pest management professionals, and a wide range of other professions deal with DI sufferers, there is ongoing need for support and assistance.

Thus, in September at the 2023 SOVE meeting in Charleston, South Carolina, working group members will: summarize the history of DI and the progress made toward resolving cases, especially as it relates to those involved in vector management; discuss arthropods that irritate skin and the myths surrounding others, including implications of these on DI situations; and present the needs assessment results of Extension and pest management professionals that provided the impetus to form this working group. Overall, the symposium will introduce the group’s efforts to develop and deliver educational materials to prepare professionals to better assist DP sufferers in resolving their condition.

For anyone unfamiliar with the condition, and fortunate enough not yet to have been confronted by someone afflicted with Delusional Infestation, this is a psychological condition where the individual is convinced that their body is infested with invisible “bugs”. When DI is considered a primary condition, psychoactive medications may be the suggested therapy; however, sufferers often refuse to take these medications because they are adamant that they are dealing with “bugs”, so require a parasiticide. DI may be secondary to other psychological conditions, many medical conditions, drug use and exposure to environmental irritants. In these cases, addressing the primary cause may alleviate the DI symptoms.

Vector control personnel frequently are contacted by these individuals who assume that anything biting or infesting them must be within the purview of vector control experts. It is estimated that approximately a quarter million people suffer from this affliction, costing time and money, and diverting resources from valid pest problems. Both sufferers and those from whom they seek help deal with the frustration of a condition that seldom gets resolved. Join us at the “30th Anniversary of the First SOVE Delusional Infestations Symposium” at the Charleston meeting on Thursday, September 21st.

Figure 1. Example arthropods that may bite or sting humans, or are suspected by DI sufferers to be infesting their body and/or home. Clockwise from top left: biting midge (*Ceratopogonidae: Culicoides sp.*), carpet beetle larva (*Dermeestidae: Anthrenus sp.*), bird mites on a US penny (*Macronyssidae: Ornithonyssus sp.*), bed bugs (*Cimicidae: Cimex lectularius*), bethylid wasp (*Bethylidae: Sclerodermus sp.*), and cat flea (*Pulicidae: Ctenocephalides felis*). All images by Matt Bertone.



In other news from the region, Edward Horvath from Three Rivers Mosquito & Vector Control in Klamath Falls, OR reports that they have been receiving more mosquito complaints from Oregon, Washington, California, and Idaho than ever before, suggesting broad regional surges largely due to the higher melt off from larger snowpack of recent times.

Also, in news from the Pacific Northwest, Angela Beehler provided the following update regarding the American Mosquito Control Association's Legislative and Regulatory Conference, known as AMCA Washington Day... On May 17th, ninety members of the mosquito control community traveled to Washington, D.C., to advocate for federal funding to enhance vector control capacity nationwide. The American Mosquito Control Association (AMCA), Central Life Sciences, and the Northwest Mosquito and Vector Association provided travel assistance to interested individuals. Thank you to those organizations for supporting the AMCA Washington Conference.

Public servants often spend personal time and money going to D.C. to educate members of Congress on the importance of mosquito control and research. It was evident that the efforts of the [Vector Borne Disease Network](#), led by Erin Cadwalader at the Entomological Society of America, are paying off. Working collaboratively with other public health organizations has helped to strengthen our message and increase our success on a federal level.

The AMCA had three calls to action; first, to reauthorize the Strengthening Mosquito Abatement for Safety and Health (SMASH) Act ([Public Law No. 116-22, Sect. 607](#)). The second was funding to support a nationwide database for vector surveillance and pesticide usage. Lastly, we asked for funding to validate the model used by the EPA to estimate the risks from Ultra-low volume pesticide applications. All these requests are pieces of a puzzle that will help inform regulatory and operational decisions in the future. Each step in the direction of data sharing, using resources wisely, and building sustainable programs is a "win" and we are gaining traction. For more information, check out [AMCA's new advocacy action center](#).



Seated L-R: Ashwani Kumar, Alexandra Chaskapolou, Major Dhillon, Tamilsai Soundararajan, Rakesh Aggarwal, Raman Velayudhan, T. R. Ramachandra Rao, A. N. Shriram, **Standing L-R,** Dhanraj, Irusappan, Jagbir Singh Kirti, A. R. Rajavel, Rakhi Dhawan, S L Hoti,, N. Nilamani, Komalpreet Kaur Sandhu,,K. Balaraman, A. M. Manonmani, Bosco Dominique.
iSOVE Con2023

NIAID Virtual Workshop June 22-23, 2023**Vector-Borne Diseases Systems Ecology in the Context of Climate Change:****Understanding the Transmission of Arthropod-borne Pathogens Across Biological & Ecological Scales**

Zoom registration link: https://nih.zoomgov.com/meeting/register/vJlsce-qri4uH-4_GT--psO63nl4x9a0YGU

Background: Systems biology tools and methods provide a unique perspective on the complexity of molecular interactions at the cellular, organ, and organism levels. These tools and methods can be applied at larger 'scales' to better understand the complexity of vector-borne diseases within the ecosystems and environment in which they exist. The relationships among pathogens, arthropod vectors, vertebrate hosts, and environmental factors (humidity, temperature, climate) strongly influence transmission as well as the effectiveness of preventative applications. Therefore, understanding these complex interactions is essential to prevent and control vector-borne diseases.

Purpose: To provide a multidisciplinary environment for information sharing among vector-borne disease and data science experts to identify gaps, challenges, and opportunities to better understand ecological systems and environmental factors that influence the transmission of vector-borne pathogens; and to develop a road map to address these challenges and improve vector-borne disease prevention and control.

Day 1 Session/Topic Speaker Institution

10:00-10:10 AM	Welcome, Introduction	Adriana Costero-Saint Denis	NIAID
10:10- 10:35 AM	Keynote	Shannon LaDeau	Cary Institute of Ecosystem Studies
10:35-10:45 AM	Questions/Discussion	Moderator TBD	

Example 1: Arboviruses Moderator: TBD

10:45-11:00 AM	Within-to-between host scaling: "Omics" of the pathogen & vector (systems biology)	Priya Shah	UC Davis
11:00-11:15 AM	Ecological scaling: Climate change & VBD transmission	Rachel Lowe	LHSTM, UK
11:15-11:45 AM	Linking data across scales (systems ecology & multi-scale modeling)	Courtney Murdock, Cornell University, and panel	

Example 2: Malaria Moderator: TBD

11:45 AM-12:00 PM	Within-to-between host scaling: "Omics" of the pathogen & vector (systems biology)	Shirley Luckhart	University of Idaho
12:00-12:15 PM	Ecological scaling: Climate change & VBD transmission	Erin Mordecai	Stanford University
12:15-12:45 PM	Linking data across scales (systems ecology & multi-scale modeling)	Luis Chaves, Indiana Univ., Bloomington, and panel	
12:45-1:00 PM	BREAK		

Example 3: Tick-borne pathogens Moderator: TBD

1:00-1:15PM	Within-to-between host scaling: "Omics" of the pathogen & vector (systems biol.)	Joao Pedra	Univ of Maryland, Baltimore
1:15-1:30 PM	Ecological scaling: Climate change & VBD transmission	Carrie Manore	
	Holly Gaff	Los Alamos Labs.	Old Dominion Univ.
1:30-2:00 PM	Linking data across scales (systems ecology & multi-scale modeling)	Maria Diuk-Wasser, Columbia University, and panel	
2:00 – 2:15 PM	Questions/Discussion	Reed Shabman	NIAID
2:15 PM	Adjourn	Reed Shabman	NIAID

Day 2 Session/Topic Speaker Institution

10:00-10:10 AM	Welcome back	Meghan Hartwick	NIAID
10:10-10:30 AM	Tools and Technologies	Wilbert Van Panhuis	NIAID/Office of Data Science
10:30-11:30AM			
Breakout 1	Data Integration Priorities (within and across scales)	1 moderator & 1 note taker	ODS staff
Breakout 2	Algorithms, Software and Reproducibility	1 moderator & 1 note taker	ODS staff

11:30 AM-1:00 PM Discuss possible approaches to address the challenges and accelerate progress leading to multidisciplinary/integrative studies
Wilbert Panhuis NIAID

1:00-1:30PM Report out and wrap up Meghan Hartwick NIAID

1:30 PM Adjourn

RESOURCES

BEI Resources for Vector Biology Research (www.beiresources.org)

The NIAID's BEI Resources program provides Vector Biology resources for free to registered, approved researchers in domestic and foreign institutions with appropriate facilities and containment procedures for vector research. Our widely requested holdings include LIVE arthropod vectors of human disease, including anopheline and culicine mosquitoes, reduviids, ticks and sand flies, associated reagents and genomic materials for entomological research, along with insectary protocols. For the cost of nothing, recipients are only required to acknowledge the use of the individual resources in publications and presentations of the research in which the materials are used.

BEI Resources arthropod colonies are made available by the deposit contributions of investigators throughout the world. Deposited materials undergo review by NIAID prior to acceptance. Please notify BEI Resources through the Suggest A Reagent Form if you have a request for inclusion or the Deposit Inquiry Contact Form if you have a unique strain for consideration.

Vector Biology resources available through BEI Resources will remain available throughout the current coronavirus pandemic. Orders and/or shipping of certain live vectors may be delayed or temporarily on hold depending on the current operating status of individual insectaries for mosquitoes, ticks, reduviids and sand flies. BEI Resources is pleased to announce the upcoming availability of black fly life stages through a partnership with the University of Georgia Black Fly Rearing and Bioassay Laboratory, which has operated the only known colony of black flies (Diptera: Simuliidae) for over 20 years. Since its establishment, the *Simulium vittatum* colony has been used for a variety of research projects, including vector transmission studies, environmental monitoring, vector control and larval feeding studies. For more information contact:

Adriana Costero-Saint Denis, PhD

Vector Biology Program, NIH,

Phone: 240-292-4284

Email: acostero@niaid.nih.gov

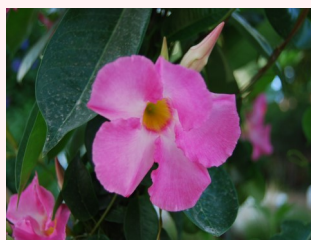
<https://www.niaid.nih.gov/research/vector-bio>

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Annual Meetings

Society For Vector Ecology: September 17-21, 2023, Charleston, South Carolina

American Mosquito Control Association: March 4—8, 2024, Dallas, Texas





Society for Vector Ecology

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About SOVE

The Society for Vector Ecology is a nonprofit 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, 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 the integration of various control options, such as environmental management, biological control, public education, and appropriate chemical or non-chemical control strategy.

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 issues a quarterly newsletter and holds an annual conference in September/October.

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