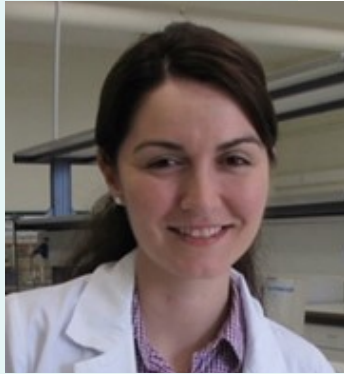


SOVE

Society for Vector Ecology

SOVE Newsletter



Alexandra Chaskopoulou

President’s Message

Dear colleagues and friends,

I have been contemplating for quite a while about what should be included in my first news-letter article in my new role as the President of our society. As I was putting together a list of research highlights, SOVE members’ achievements, and oth-er vector-related stories (and there are many!), I came across a photo (Fig. 1) taken last fall during the European conference of SOVE in Bulgaria. It

was in that moment, that I stopped worrying about content and decided to write from the heart.

It was October 12, 2022. A group of us were walking in downtown Plovdiv, enjoying the incredible historical and cultural landmarks of one of the oldest cities of Europe. I will remember this day as one of the best field ecology days organized by SOVE for many reasons; the beautiful scenery, the excellent Mediterranean dishes, the charismatic tour guide (endless source of information and wit!) but getting together with colleagues after such a long period of distancing was by far the best aspect! As our group crossed the central pedestrian street of the city, what caught our attention was a colorful display of the word “TOGETHER”. In no time,

.....*President’s Message cont’d on p 2.*



Fig. 1. Together” (Euro-SOVE Field Day, October 2022)

In this issue

President’s message,; A. Chaskopoulou	1-2
Southwest: L. Mian, Southcentral: S. Presley	3, 4
ESOVE: F. Gunay; SOVE India: A. Kumar	5, 6-7
LASOVE: C. McCarthy; Student: B. Rendon	8, 9
<i>Inclusive: Pharr, In Memoriam—M. Mulla</i>	10-11, 12-13
Resources, Announcements,	14, 15
About SOVE, Board, Staff, Editors	16

we surrounded the monument and took a photo that I believe powerfully captures the very spirit of our society – a society that has thrived for decades, by sharing scientific knowledge across continents and across cultures, relying on the teamwork, volunteerism, dedication, and kindness of each member. It is this spirit of togetherness that has inspired me to serve SOVE since my early career steps as a student member, more recently as a Board member representing the European Region, and now as the President.

It is such an exciting time to serve on the SOVE Board primarily because of its diverse culture. The Board currently consists of a balanced combination of early-, mid-, and late-career professionals: members with a long history of serving the society as well as new members with entirely fresh perspectives. The Board has equal representation of male and female scientists of various nationalities and backgrounds, all working together to support our members and our mission. The Board has - despite the challenges imposed by the COVID-pandemic- accomplished so much during the last 3 years: (1) revised the bylaws for clarity and accuracy, (2) developed and implemented a Code of Ethics and Conduct of the highest standards, (3) created a Student Director position with full voting Board privileges, (4) performed surveys that gave new insights into our membership needs, (5) raised funding to support students and early career researchers, (6) brought together experts from across the world to share experiences on VBD control challenges via a webinar series, (7) conducted a fully virtual conference while (8) supporting the organization of one international congress and three regional conferences. I would like to thank my fellow Board officers and members (current and past) for their tremendous work during these difficult times. It is my hope to continue to work with them to build on the significant progress already made – such as finalizing the adaptation of the annual conference format to allow for greater inclusion (echoing our members' needs), as well as strengthening the role of early career members in our society by better understanding their needs, fears and hopes.

Early career researchers (ECRs) – graduate students, postdoctoral researchers, and faculty who do not yet have tenure - make up a large portion of the academic workforce and provide a constant source of new talent, skills, and new perspectives. However, their roles in decision making at many levels - universities, publishers, funding agencies, scientific societies – have been limited. In fact, a recent review article investigating scientific societies from the US and the UK showed that fewer than 2% of the leadership positions available at these societies were held by ECRs, with an even smaller percentage having Board voting privileges. Knowing that SOVE is among the few pioneering societies actively creating leadership opportunities for our early career members (SOVE Student Director- voting Board member since 2019) is my biggest source of pride and I look forward to work with Bianca Rendon, (current Student Director, PhD student Texas Tech University), and the entire student body, to further strengthen their involvement in SOVE and expand their professional and leadership experience. Please, don't miss the exceptional articles provided by our students in this Newsletter!

A message for the earthquake affected regions in Turkey and Syria:

It was February 6, 2023, that a catastrophic earthquake hit Turkey and Syria resulting in more than 20,000 casualties. It was later that day when I received the devastating news, and I immediately reached out to our colleagues and friends near the affected region to ensure that they and theirs were safe. Thankfully, no members of our community were directly affected but the loss and pain of their fellow citizens will undoubtedly overshadow many aspects of their lives for many years to come. Our thoughts are with the victims and their families during these difficult times, and I know some of us have already reached out and provided humanitarian aid. In fact, dozens of countries and international organizations rushed to support the earthquake victims and their families, attesting to our immense capacity as a society to be compassionate and work together to support those in need – setting aside our differences and disagreements. And it is because of this unique superpower to come together and work in large teams that we have overcome and will continue to overcome all kinds of crises, from global pandemics to natural disasters. Stay safe and healthy,

Alex



Southwestern Region, USA

Lal S. Mian

Regional Director

Dear Colleagues and Friends,

The good news this year is that in-person workforce activities have reached to almost pre-pandemic levels, at least on our campus. This could also be reflected in the vector-borne disease surveillance data in 2023, notwithstanding the El-Nino type wet winter in some if not all parts of our region. The drought-ridden California is seeing a lot of rain and snow in our high-lying areas. Whereas a good amount of rain is welcome in the region; however, very high, above normal precipitation could lead to heavy vegetation and more arthropod and wild rodent vector populations and disease, like we experienced back in El-Nino year 1996 in southern California. Nonetheless, we have to be cautious and see what our spring will bring to the region.

Mosquito and Vector Control activities at most state and local agencies in the region are limited to equipment maintenance and training. We all saw the 8th International Congress of SOVE that was held Sep 19-23, 2022 in Honolulu, Hawaii. The Mosquito and Vector Control Association of California had their Annual Conference held January 29– February 1, 2023 in Anaheim, CA. And very recently, the American Mosquito Control Association had their Annual Meeting held March 27-31 in Reno, NV. These conferences provide ample opportunities for vector control agency personnel to score up on their needed continuing education units.

Using the CDC and state sources, a report on VBD surveillance in Southwest Region is presented here.

Arizona (www.Azdhs.gov). As of August 31, 2022, the Arizona Department of Health Services reported 385 vector-borne and zoonotic diseases (VBZDs) in 2022. Mosquito-borne diseases caused by West Nile virus (WNV), dengue, and malaria accounted for 115 with 4 deaths; 3 other VBZDs reported on December 15, 2022, included Rocky Mountain spotted fever 11, Lyme disease 17, brucellosis 2, babesiosis 2, anaplasmosis 3, tu-

laremia 1, Chagas disease 3, Colorado tick fever 1, hantavirus 2, and typhus 1. The WNV cases of 73 (5 deaths) in 2022 were much lower than 2021 ([1,433 with 96 deaths](#)), but higher than 2020 (10). There were 6 human cases and 252 mosquito samples positive for Saint Louis encephalitis virus (SLE) in 2021.

California (www.cdph.ca.gov). As of January 10, 2023, California updated the 2022 distribution of two invasive mosquito species, *Aedes aegypti* and *Ae. albopictus* — the former species was found in 25 counties from San Diego and Imperial counties in the south to Shasta County in the north; the latter species maintained its presence in 5 counties—Orange, Los Angeles, San Bernardino, Sacramento and Shasta. Regarding other vector-borne diseases in the state, as of February 16, 2023, WNV activity in 2022, continued with 206 human cases with 13 deaths, 189 dead birds, 3,165 positive mosquito pools, 145 sentinel chickens and 16 horse cases. Also, there were 11 cases of SLE from six counties. The virus activity was reported from 30 out of 58 California counties with 12 reporting human cases. The 206 human cases reported in 2022 were lower than 2021(192) and were well below the state 5-year average (425). Since its arrival in California in 2003, WNV has resulted in >7K cases with 309 deaths.

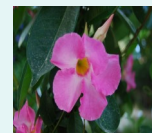
Hawaii (www.Agriculture.hawaii.org), **Nevada** (<https://dhhs.nv.org>) and **New Mexico** (nmhealth.org) did not report any new cases of vector-borne diseases.

In closing, I would like to remind our regional members to please send me (lmian@csusb.edu) any news about your employment, recognition, or any significant accomplishment that you would like to see published in the newsletter. Thanks!

Stay healthy and safe!

Cordially,

Lal





Greetings colleagues and friends,

Transitioning into springtime and preparing for fieldwork is a particularly busy season, whether preparing for vector-related academic research or public health operations. Looking back over a few decades of my professional involvement in applied and basic research as well as public health aspects of vector-borne diseases, I am reminded that there is definitely “job security” in our chosen field of science. I am also pleased to recognize that since the mid-1980’s when I began my professional journey, the number of women in the fields of medical and veterinary entomology, arthropod vector ecology, and epidemiology has significantly increased. March is *Women’s History Month*, and it is my pleasure to acknowledge and salute the many past and present contributions of women to our professional society and the greater scientific and public health communities. As we face a future with increasing arthropod-borne disease challenges, it is imperative to embrace the contributions of currently under-represented individuals and their unique background, perspective, and expertise.

As we prepare for the coming mosquito season and the research and public health opportunities, the following is a summary of West Nile virus (WNV) and St. Louis encephalitis virus (SLEV) activity in the Southcentral Region during the 2021 and 2022 seasons. Based on data from ArboNET (https://wwwn.cdc.gov/arboNET/Maps/ADB_Diseases_Map/index.html), the reported number of WNV human infections decreased more than two-fold from 2021 to 2022 across the region (216 to 105 cases), as well as in the overall number of counties/parishes reporting cases within the region (79 to 46 counties/parishes). Arkansas realized a 38% decrease in the number of WNV reported cases from 2021 to 2022, while the number of cases in Kansas decreased slightly, and the number of cases in Oklahoma and Texas decreased sig-

SOUTHCENTRAL REGION, USA

Steve Presley

Regional Director

nificantly (eleven-fold and four-fold, respectively). However, Louisiana reported more than a two-fold increase (20 to 47 cases) in the number of WNV human infections from 2021 to 2022. Whether the decreased number of reported WNV cases from 2021 to 2022 can be attributed to increased vector surveillance and control measures resulting from the lessening of COVID-19 pandemic restrictions, greater vigilance by people to ‘avoid the bite’, weather-related issues, or other factors, it is noteworthy. Texas is the only state in the region to report a human infected with SLEV during 2021 and 2022. Both Louisiana and Texas reported mosquito pools testing positive for SLEV during both years. Louisiana had four parishes reporting SLEV-positive mosquito pools in 2021 and five SLEV-positive pools in 2022. Texas had three counties reporting SLEV-positive mosquito pools in 2021 and only one SLEV-positive pool in 2022. Interestingly, the one human SLEV case in Texas during 2022 was in the Houston area, while the one SLEV-positive mosquito pool reported was in El Paso, Texas 750 miles away.

Relative to tick-vectored diseases in the United States, spotted fever group rickettsiosis (SFGR) including *Rickettsia rickettsii* and *Rickettsia parkeri* continue to be a significant and increasing public health threat, especially along the U.S. southern border with Mexico. Nationwide during the past 80 years the lowest incidence rate of Rocky Mountain spotted fever (RMSF) reported was during 1963 with 1.2 cases/million, and the highest was during 2012 with 14.2 cases/million. During that same period the lowest RMSF case fatality rate was 0.1% during 2015, and the highest was 28% during 1944; this dramatic reduction in case fatality rates over time can likely be attributed to earlier diagnosis and antibiotic therapy. The incidence rate of reported cases of RMSF in the Southcentral Region during the five-year period from 2015 to 2019 have ranged from a low of 71.6 cases/million during 2016 to a high of 115.4 cases/million in 2017, and during 2019 the incidence rate was 109.1 cases/million. Arkansas has consistently reported the highest incidence rate during the five-year period (2015-2019) with an average of 338.1 RMSF cases/million.

.....**Presley cont’d. on p. 7.**



Filiz Gunay

Dear friends and colleagues,

Last October, the 22nd ESOVE Conference held in Sofia, Bulgaria, was a great success. Welcoming many newcomers to our Society, we've been happy to meet again after the restrictive period of the pandemic. Many benefited from the Conference and shared each other's feedback, thoughts, ideas and laughter. More than 120 attendees from 30 countries were enlightened by around 60 oral presentations and 30 brilliant posters. I strongly suggest you check out the abstract book online for the people involved and the exciting research within. I want to thank again everyone who took part in the making and all the participants for being there.

The Conference started with a face-to-face training on the *Aedes* Invasive Mosquitoes COST Action organized on "Finding, using and interpreting maps and models of invasive mosquitoes". Many of the attendees stayed for the meeting and united with the Society. Nowadays, AIMCOST Action is ending, but a new one is beginning on ticks, called PRAGMATICK: Prevention, anticipation, and mitigation of tick-borne disease risk applying the DAMA protocol. Those interested in the subject can learn more about this COST Action at the end of the newsletter.

The new year began with some formidable work done by Claire Garros, Didier Fontenille and the Local Organizing Committee to plan the next ESOVE Conference that will take place on *October 14-17, 2024*, at Montpellier, France. *Please save the date for the 23rd ESOVE Conference in advance!* I'm sure many of you will share my enthusiasm and agree that it will be spectacular. We are grateful to them for their efforts. In Europe, towards the end of 2022, the unusual number of dengue cases in France caught the attention

European SOVE Region

Filiz Gunay

Regional Director

(Cochet et al. 2022). Many await next summer to see if the trend will persist. The yellow fever mosquito *Aedes aegypti* was reported in Cyprus, creating a considerable risk in the region and its surroundings. Many were already wondering why the species isn't already more widespread, it seems like we have the answer (ECDC report 2-8 Oct. 2022, Wint et al. 2022). The *Culicoides*-borne Epizootic Haemorrhagic Disease virus was detected in Italy for the first time (Lorusso et al. 2022). So far, 25 outbreaks have been recorded in Spain and Italy (Sardinia, Sicily). Inevitably, the changing climate is bringing shifts and intensity in weather conditions. The lack of snowfall and precipitation in some parts of Europe is remarkable, and the favorable conditions will affect many vector species.

I'll finish with another crucial issue that concerns all of us because I want to urge upon the value of this side of our work. Many of us study vectors in territories with crises; inner conflict, war, famine, and drought... We all know and reflect that vector ecology studies are essential in post-disastrous situations. The earthquakes we experienced in Turkey recently is a good example. For us, now is the time that scientific expertise will aid decision-makers, especially when they are in dire need. I just wanted to remind the young ESOVE members that every country has a different potential for various catastrophes. I want to encourage them to contribute to creating or possessing more knowledge about their regions. Be aware of such risks and related available guidelines, and perhaps work on updating post-disastrous ones or if necessary, create them from scratch! Please enhance communication between decision-makers, workers in the field and public health officials in advance. We're experiencing the value of the links and reciprocal trust already built-in with some of them. It does make a difference. I want to thank everyone who asked how we were and offered a helping hand. I heard that many of you have already sent aid via your institutions to the South of Turkey and Northern Syria; I want to thank you personally from the bottom of my heart. Feeling togetherness is the beginning of healing.....**ESOVE** continued on p. 15.



SOVE–Indian Chapter

Ashwani Kumar

Regional Director

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 levels. To achieve these objectives, our endeavor is to convene meetings and conduct 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 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 upcoming SECOND INTERNATIONAL CONFERENCE (iSOVECON2023) scheduled from 13th - March 13-16, 2023 at the Dr A P J Abdul Kalam Auditorium, Jawaharlal Institute of Post Graduate Medical Education and Research (JIPMER), Puducherry, India will be the latest milestone besides the conference held earlier in 2019 in Goa

with the theme “Lab to public health setting: Control of vectors for elimination of vector-borne diseases”. The theme of this conference is “Vector Borne Diseases: Galvanizing & harmonizing old and new tools & technologies for containment of vectors and sustained control/elimination of VBDs”. The conference will be attended by over 200 delegates including students, scholars, researchers, program officials, international delegates, industry, funding agencies and policy makers.

A total of 150+ registrations have been received at the Conference portal besides 60 invitees. The conference program is rich and diverse with 4 key note addresses, 46 plenaries, 25 oral talks (invited and requested), 42 turbo talks and 40 posters. There will be 3 panel discussions and 10 presentations by the industry personnel, showcasing their products. They bring together a group of diverse luminaries and experts who share a common interest on emerging health threats due to VBDs and would provide a platform for intellectual discussion and debate to find lasting solutions for their control/elimination. Three pre-conference workshops have been scheduled on ticks, mites and xenomonitoring of vector-borne diseases prior to iSOVECON2023 to immerse the interested participants through dissemination of information, approaches and hands-on proven techniques.

The deliberations during the conference will focus on broad thematic areas including COVID and impact on VBDs, biosecurity; Biosecurity: Vector Surveillance and Control at Points of Entry (PoE) is a must; Cutting edge approaches to address VBDs threats- now and the future; Arboviral diseases: Fastest emerging and re-emerging threats to Public Health; Scrub and Tick typhus: A stitch in time will*Kumar cont'd. on p. 7*

Kumar continued from p. 6: will save nine; Capacity 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.

This in-person conference has become possible due to COVID free environment. Fortunately, as of today (March 02, 2023), the COVID-19 pandemic has completely receded in India. With the total active cases of 2,439 as of March 2, 2023, the COVID-19 case load in India is disappearing. With only 2,439 active cases, 44,153,668 cured/discharged and no deaths, the COVID story is almost over. COVID-19 Vaccination stands at 2,206,401,760 as of this 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, guidelines for international arrivals, clinical guidance for management of adult COVID-19 patients, advisories and precautions to be taken for preventing 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 Programme (NPHE) programme 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 20000/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 143. Currently, there are 88 regular, 12 retired, 42 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 enrol members from the neighbouring countries of the region.

We are looking forward to meeting our friends from India and abroad during the forthcoming 2nd International Conference of the Society for Vector Ecology (Indian Chapter) from March 13-15, 2023.

Ashwani Kumar,

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Presley cont'd. from p. 4: consistently reported the highest incidence rate during the five-year period (2015-2019) with an average of 338.1 RMSF cases/million. The state with the lowest RMSF five-year average incidence rate in the Southcentral Region was Texas with 2.5 cases/million (<https://www.cdc.gov/rmsf/stats/index.html>).

Historically the five states that compose the Southcentral Region have been on the western edge of the geographic range of the American dog tick (*Dermacentor variabilis*), Black-legged tick (*Ixodes scapularis*), Gulf Coast tick (*Amblyomma maculatum*), and Lone Star tick (*Amblyomma americanum*). Several recently published papers report the western expansion of all these species, as well as several of the disease-causing pathogens they vector (see <https://www.cdc.gov/ticks/surveillance/index.html> for more details).

Undoubtedly, as professionals in the scientific field of vector ecology and vector-borne disease public health we have always and will likely continue to face challenges resulting from emerging and re-emerging pathogens, the emergence/invasion of new arthropod vector species, and the expansion of the geographic range of arthropod vectors due to climate change, land use and anthropogenic factors. Steve Presley



Latin American SOVE Region Christina B. McCarthy Regional Director

Dear colleagues,

It is with pleasure that I share the results of a very great challenge for our emerging Latin American SOVE, the II Latin American Society for Vector Ecology Congress (LA SOVE 2022), an event that brought us together after an unprecedented global health crisis.

On behalf of the Organizing Committee of which I was Chair, I have only gratitude for all those who joined us and made this Congress a true gathering of professionals from all over Latin America and from other parts of the world. We totalled 278 participants from 17 countries, of which 70% attended in person!

When we took on the responsibility of organizing LA SOVE 2022, one of our first objectives was to achieve true Latin American (LA) representation. Thanks to the commitment and effort of the scientific committee members and speakers (almost 50% from other LA countries), and participants in general (almost 40% from other countries), we are proud to say that this goal was amply achieved!

From the beginning we also worked for this meeting to embody the vision of the Latin American Society for Vector Ecology (LA SOVE): to promote a close liaison between the different parties that are involved in the neglected diseases scenario - academia, healthcare professionals and policy makers - to achieve their reduction and sustaina-

ble vector control management in LA. For this reason, the LA SOVE 2022 scientific program encompassed very diverse perspectives and stimulated debate and discussion. The program covered topics of particular relevance for LA, including diseases in humans, animals and plants, which especially affect the health of our LA people and the economy of our countries (Extended Program).

Likewise, we incorporated a gender vision committed to equality, and we are very proud to say that we exceeded our initial goal by far, since the participation of women surpassed 50% in all activities associated with the congress (scientific committee 53%, coordinators 57%, conference lecturers 80%, speakers 59%, participants 64%). This vision was also integrated to the scientific program, where two of the daily conferences (one of them the Opening Lecture) addressed gender perspective in neglected diseases.

LA SOVE 2022 was a meeting designed to consolidate associations between LA health professionals, policy managers, technicians, scientists, and students, because there is a great need for initiating dialogues conducive to forging collaborations and sharpening the focus for reducing the burden of neglected diseases; and during this congress collaboration initiatives were materialized among participants from all over LA.

.....*McCarthy continued on p. 15*

Students' Corner



A newcomer's view of the 8th International Congress of SOVE

Androniki Christaki, PhD Student, Greece

Ever since I decided to join the field of entomological research, like all students, I have been incessantly reading manuscripts on vector biology and ecology, molecular diagnostics of vector-borne diseases and their applications on surveillance and vector control to understand the scientific background, design experimental procedures, and write papers. So you can probably imagine my reaction when I found myself in a room surrounded by the authors whose work has filled my days for the last three years and has guided me in my academic and professional career so far.

For this reason, and many more, the 8th International Congress of SOVE was a special meeting for me. Not only was it my first time attending a scientific conference, but also my first time presenting my research findings at one. Presenting for the first time, in front of an audience of acclaimed and experienced researchers in the field of medical entomology and doing so in less than four minutes, can be quite stressful as one would imagine, but this meeting was the best first-time experience I could have asked for.

The conference was highly informative, full on

interesting talks, novel ideas, and different perspectives of scientists relaying the unique vector-related issues and primary foci from different corners of the world. From novel automated imaging-based technologies for mosquito surveillance in Korea, to tick distribution expansion models from Europe, and incompatible insect technique (IIT) approaches for mosquito control in Hawaii, this really was a Congress of international scale and content. And while the intriguing talks of the conference should be enough to make this an unforgettable introduction to the world of vector biology and control, the welcoming and constructive atmosphere created by the organizers and the participants was even more notable for me. From the oldest, most decorated members of the society to the newest attendees and students, everyone was respectful, smiling, and accepting, ready to engage in productive conversations and provide constructive feedback to each other's work.

One of my initial thoughts that stuck with me throughout the Congress was that this is how research is supposed to be. A room full of scientists, from ranging seniority, experience, and overlapping fields, exchanging ideas, supporting, and helping each other. So far, this had only been an ideal in my mind, but now it is something that I saw with my own eyes at SOVE.

I am particularly grateful for Lyric Bartholomay, currently President-Elect and Program Chair of the Congress, and Michelle Brown, Executive Director, who as moderators of the Turbo talk session I participated in were so organized and helpful that shaped what could be a stressful and chaotic rapid sequence of 4-minute talks, into an engaging, quick-paced succession of elevator pitch-style presentations on diverse topics. As an audience member, I found that I retained more information from this session about each project that was presented, specifically because of the quick pace of the presentations and the quick change between speakers, which captured my attention and kept me engrossed.

.....**Rendon** continued on p. 8

North Carolina State Scientists Work to Raise Awareness for a More Inclusive Outdoors

Lauren D. Pharr
fieldinclusive@gmail.com

A new initiative is supporting marginalized and historically excluded biologists and researchers who professionally work in the outdoors.

[Field Inclusive](#), a nonprofit co-founded by [Lauren D. Pharr](#) and [Murry Burgess](#), two Black Ph.D. students at North Carolina State University, strives to offer tangible and actionable improvements nationally on issues related to justice, equity, diversity, and inclusion for researchers who are targeted based on their race/ethnicity, sexual orientation, disability, gender identity and/or religion while working in or enjoying the outdoors.

Working in nature can be one of the most rewarding aspects of doing field work for individuals. From wildlife biologists to foresters, we all essentially have a similar goal in mind: to protect what we love. However, the duty of conserving and protecting our home isn't always as easy as it may be for others. In fact, some individuals experience less than welcoming encounters while out in the field, where they should be feeling safe, secure and at peace.

Being Black researchers who participate in field work as part of the Fisheries, Wildlife, and Conservation program at NCSU, both Pharr and Burgess have experienced social field safety issues and knew that something needed to be done.

“As a first-year graduate student, I waited in my college’s safety seminar for the topic of confrontations with others to come up,” Burgess recalls in an article with [WALTER](#) magazine. “We discussed basic first aid and venomous snake identification. We were taught how to safely remove ticks and monitor bites for disease. All the example photos showed the symptoms on white skin. “What do we do if we work in urban neighborhoods and men start harassing us?” asked one of my Black female colleagues.”

Historically, minority groups (racial, religious, gender, etc.) have been marginalized and excluded from the simple pleasures that the natural world has to offer. This marginalization and exclusion is specifically evident in the workplace. More than 33% of black workers have reported being treated unfairly in their work field in the past year because of their race or ethnicity. In another study, 10% of individuals who identified with the LGBTQ community in the U.S. reported experiencing discrimination in the workplace at least once. Although these statistics encompass other careers outside of outdoor field work, these statistics are still relevant in the experiences of minority field workers. When individuals from minority backgrounds enter unfamiliar communities in the course of fieldwork, they may be placed in an uncomfortable and potentially unsafe ‘othered’ position, and prejudice may manifest against them.

“From our own experiences, as well as hearing from others, we both decided that there needs to be an organization who amplifies this aspect of minorities and historically excluded individuals’ safety in the outdoors,” says Pharr. We feel like social field safety should be put on the same level and given the same attention because obviously you’re talking about someone’s health, someone’s well-being.”

“I think institutions are still largely blind to [the need for additional field safety measures], in part because there are so few students of color doing field work,” says [Drew Lanham](#), 2022 MacArthur Foundation Fellow and alumni distinguished professor of wildlife ecology at Clemson University, in an interview with

Pharr continued on p. 11

[WUNC Radio](#). “For Black students, there are so few that the questions are hardly ever asked.”

As a professional organization, *Field Inclusive* has received many testimonials from racial minority workers who have told us about numerous encounters they’ve had while doing field work. One of those sources, who identifies as a Latina woman, said that she experienced first-hand discrimination while she was collecting soil samples from loblolly pine stands to compare the pH of naturally occurring stands to planted stands for her research as a graduate student. While collecting these samples on public property in Raleigh, North Carolina, an individual called the police and reported her. The individual told the authorities that “she looked like she was casing a nearby house, to potentially break in”.

Raising awareness when it comes to these experiences is another goal of *Field Inclusive*. This past January, the organization held its first [Field Inclusive Week](#). The week included giveaways, fun social media hashtags, and speakers who covered topics including *Disability in the Field*, *Mental Health in Nature*, and a Field Safety panel.

“As a black woman working in forestry, I have noticed some particular nuances that are hard to ignore, especially when these nuances stem from my physical appearance,” says [Kayla Stukes](#), *Field Inclusive*’s Intern. “From not-so-flattering comments about my hair to strange looks at my cultural tattoos, I have noticed that the experiences of minority field workers are not equivalent to the standard experiences of non-minority field workers. I am so glad that students like Pharr and Burgess launched this nonprofit organization in 2022, to highlight these common discriminatory encounters in our practice as well as make efforts to combat them.”

In line with the goals of the organization, *Field Inclusive* also seeks to provide research scholarships and other financial assistance for marginalized and historically excluded field researchers through donations and through sponsorships from organizations.

“*Field Inclusive* has come a long way in less than a year,” says Pharr. “I am truly excited to continue to build our team and work with institutions and organizations who are committed and wanting to promote a more inclusive outdoors, and safe field work experiences for all.”

As of August 2022, [The Nature Conservancy-NC](#), [North Carolina Sea Grant](#), [Cape Fear Bird Observatory](#), and [Wilson Ornithological Society](#) have all been proud sponsors and partners of *Field Inclusive*.

#

Learn More about ways to donate and sponsorship opportunities [here](#).

Rendon continued from p. 9: As a presenter, it was invigorating and fun trying to condense a year-long project into four minutes under the watchful eyes and timer of Bartholomay. These talks challenge the researcher to convey the key findings and the importance of their research project short summary, to inform any audience member interested in the same topic and facilitate one-on-one conversations with them during the breaks. The Turbo talk sessions were my favorite because they foster more personal professional connections that can continue post-conference.

Leaving the conference I took with me more Hawaiian-themed souvenirs than I could carry back home but more importantly, loads of new ideas inspired from the talks, thought-provoking knowledge, and emails from new friends and potential collaborators. I am very thankful that SOVE became my introduction into the research community, and I am very appreciative for the opportunity to share my research and for the constructive feedback I received from the attendees. I am already looking forward to the next meeting!

In Memory



MIR SUBHAN MULLA

February 15, 1925 - January 29, 2023

Dr. Mir S. Mulla was born on February 15, 1925, in village Zangawat, Kandahar Province, Afghanistan. He passed away peacefully on January 29, 2023, at the age of 97; he was laid to rest on February 4, 2023 in Riverside, California.

Dr. Mulla came to the United States in 1948 via New York on a scholarship to Cornell University. After obtaining a BS degree in Entomology/Parasitology in 1952, he moved on to the University of California at Berkeley for his graduate studies. He earned his Ph. D. degree in Entomology from UC Berkeley in 1956, and he joined the Entomology Department at UC Riverside (UCR) in 1956 where he first embarked on tackling the eye gnat problem in the Coachella Valley of Riverside County. He expanded his research on desert mosquitoes at a field station he established in Thermal, where his graduate students carried out their field studies on local mosquito species. As a faculty member at UCR, Dr. Mulla moved up the ladder to become a distinguished professor; he also served as the division head of Economic Entomology. During his 50 years of service at UCR (1956-2006), he authored over 500 scientific publications; he also advised 30 graduates, including 25 PhDs. His research lab not only provided research opportunities for students, but it also attracted post-doctoral fellows and other visiting for training.



Dr. Mulla in the early days of his career.

Mulla continued on p. 13

Dr. Mulla was not only a leading medical entomologist nationally, but also an acclaimed international scholar recognized of his expertise in vector-borne disease control. He headed collaborative research projects on mosquitoes in Thailand and house dust mites in Columbia. Moreover, he acted as a consultant and science advisor to the United States Agency for International Development, United Nations Development Program, and World Health Organization. Serving on expert committees on pesticides and disease vector control, he led symposia and other training sessions on different topics in medical entomology in many countries, including Brazil, China, Columbia, India, Malaysia, Mexico, Pakistan, Taiwan, and Thailand.

Dr. Mulla received many awards and peer recognition for his professional work including election as Fellow of the American Association for the Advancement of Science and Fellow of the Entomological Society of America. He received the American Mosquito Control Association Presidential Medal of Honor and Memorial Lecturer Award. The Society for Vector Ecology awarded him the Distinguished Achievement Award and first-ever Lifetime Achievement Award. Mir served as Editor of the SOVE Newsletter and Journal of Vector Ecology (Editorial Board Chair). The SOVE Annual Conference (2018) was dedicated to Dr. Mulla and the 8th International Congress of SOVE (2022) featured the first Dr. Mir S. Mulla Memorial Lecture with an honorary keynote address.



Dr. Mulla with conference dedication award plaque with Major Dhillon (r) and Lal Mian (L), in 2018.

Dr. Mulla's love and affection for students went way beyond the classroom. He not only established the "Dr. Mir S. Mulla and Lelia L. Mulla Endowed Scholarship Fund" supporting undergraduate and graduate students in the College of Natural and Agricultural Sciences (UC Riverside Foundation), but he also graciously contributed to Dr. Mulla Memorial Lecture Fund. Donations in Mir's memory can be made to the "Dr. Mir S. Mulla and Lelia L. Mulla Endowed Scholarship Fund" (UC Riverside Foundation <https://myadv.ucr.edu/> and search for "Mulla") or to SOVE for the "Dr. Mir S. Mulla Memorial Lecture Fund".



Dr. Mulla presents a check (50k) to SOVE ex.dir. Michell Brown towards Dr. Mulla Memorial Lecture Fund in the presence of Dr. Shireen Mulla Mooers and Lal Mian.

Besides his professional engagements, Dr. Mulla also contributed time and resources to the development of the Islamic Society of Riverside and the building of the Islamic Center of Riverside. The mosque serves hundreds of students, faculty, community members and their families near the UC Riverside campus.

On a family level, Dr. Mulla was preceded in death by his beloved wife, Lelia in 2019. He is survived by their children, David, Shireen, Dean, Janet and five grandchildren. While he is not physically with us, his legacy will continue to inspire us from UC Riverside to the community and beyond!

Shireen Mulla Mooers, MD
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Dr. Mulla with a group of students at the conference in 2018.

ESOVE continued from p. 5:

And finally, thank you all for studying vector ecology. All of you, from much loved and respected Prof. Mir Mulla whom sadly we've lost recently, to the youngest master students who just started.

Stay safe.

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A new COST Action on ticks and tick-borne diseases

(reporting F. Gunay)

On February 16 or 17, 2023, the first face-to-face meeting of the new COST Action CA21170: PRAGMATICK Prevention, anticipation and mitigation of tick-borne disease risk applying the DAMA protocol will be held. The PRAGMATICK COST Action aims to disseminate knowledge and promote the application of the Stockholm paradigm in order to anticipate and mitigate disease risk associated with the presence and spread of ticks and tick-borne pathogens under anthropogenic pressure and changing climate. This research network will apply the comprehensive and highly focused DAMA (Document, Assess, Monitor, Act) protocol that allows to “anticipate to mitigate” emerging diseases.

The Action is coordinated by Gábor Földvári from Hungary. The activities will be organized within four Working Groups, as follows:

- Non-typical and elusive tick-borne pathogens
- Urban tick and tick-borne disease hotspots, effect of anthropogenic pressure
- Spread and establishment of ticks and tick-borne pathogens under changing climate
- Citizen science involvement in the DAMA protocol

Please visit their website: <https://pragmatick-action.eu/>

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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 mor 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>

McCarthy cont'd from p 8:

During LA SOVE 2022 we held our General Assembly, presided by our Past LA SOVE President Dr Paulo Pimenta. Scientists, students, health professionals, and policy managers from various LA countries (Brazil, Peru, Uruguay, Colombia, Panama, Paraguay, Argentina, among others) participated with great interest during the assembly. Various topics were discussed and unanimously decided upon, the most relevant of which are mentioned below:

1) Board conformation for this next period, beginning November 2022:

President: Christina B. McCarthy

Vice President: Ima Braga (member of LA SOVE 2022 Scientific Committee)

Past President: Paulo Pimenta, Executive Secretary: María José Villalobos Sambucaro (LA SOVE 2022 treasurer)

2) Sites for the next LA SOVE congresses (LA SOVE 2024 and 2026): LA SOVE 2024: Will be held in the Paraguay-Brazil-Argentina border area and organized by Antonieta Rojas de Arias from Paraguay (member of LA SOVE 2022 Scientific Committee), with support from Brazil and Argentina.

LA SOVE 2026: Will be held in Panama and organized by Dr Anayansi Valderrama (member of LA SOVE 2022 Scientific Committee).

3) The success of the inclusion of different topics of particular relevance for LA in LA SOVE 2022, including diseases of humans, animals and plants, confirmed the importance of incorporating them permanently.

4) In order to encourage people to join LA SOVE, a Membership Application Form will be sent to all the LA SOVE 2022 list of contacts, together with the final (ISBN) version of the Abstract Book.

If you're interested in perusing the great LA SOVE 2022 scientific presentations, don't hesitate to contact me and I will send you the LA SOVE 2022 Abstract Book and the link/s to the video/s

of any presentation you might be interested in watching (for which we have permission to reproduce).

Keep well and healthy!

Christina B. McCarthy
LA SOVE President

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ANNOUNCEMENTS

There are a couple of RFIs (requests for information) that would be great to share with the SOVE membership to get their input. I hope the Newsletter goes out to members before the deadlines to submit feedback! 😊

NIAID: Request for Information (RFI): Seeking Stakeholder Input on Enhancing Diversity, Equity, Inclusion, and Accessibility Across NIAID Extramural Activities

<https://grants.nih.gov/grants/guide/notice-files/NOT-AI-23-017.html> [grants.nih.gov]

Deadline: March 31, 2023

NIH: Request for Information (RFI): Re-envisioning U.S. Postdoctoral Research Training and Career Progression within the Biomedical Research Enterprise

<https://grants.nih.gov/grants/guide/notice-files/NOT-OD-23-084.html> [grants.nih.gov]

Deadline: April 14, 2023

Thanks!

Adriana Costero-Saint Denis, PhD

Vector Biology Program, NIH,

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Email: acostero@niaid.nih.gov

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www.sove.org

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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