In this column, I’d like to discuss some ideas and challenges related to supporting and promoting young and diverse scientists within ISCE. Every Society must focus on securing its future for generations to come. The ISCE needs to address this in two important contexts.

First, ISCE must retain, if not grow, its membership. The proliferation of meetings, workshops, and conferences, coupled with ease of travel, have made the competition for professional association members and meeting participants tougher than ever. The annual meeting is ISCE’s premier membership service. To strengthen our membership and member participation, we must continue to be innovative in meeting programming. Gone are the days of symposia consisting of a handful of buddies that recount their last 20 years of research (though it might be quite impressive!). Members want to engage in science that is not yet online, in cutting edge techniques, and in innovative integration of disciplines. We owe it to our membership to deliver! And to do so consistently, I think it is imperative to engage all members in the annual meeting, not just as participants, but as symposium organizers, in governance, and in making ISCE their primary scientific home.

The second driver is the changing demographic landscape of global science. Science and scientists are much more diverse than ever. And within “diversity” I include not only gender and ethnicity, but also place of origin, disciplinary expertise, technical approaches, and level of biological organization, to name just a few. I’m heartened to see the gender balance shift in our annual
Message from the President, continued

conference. Indeed, almost all our student award winners in 2018 were women, and many of the travel awards went to young women and students from less affluent countries. But podium speakers, and especially keynote and society award lecturers, are still largely men. What can we do? Social scientists have recognized a set of biases that hinder change. Within scientific communities, as in politics, people tend to promote friends and colleagues, and these are more often males among more senior people who are engaged in governance and organizing meetings. I urge all members to become engaged by (a) proposing and organizing symposia; (b) volunteering to serve as Councillors; (c) standing for election to ISCE office; (d) engaging in ISCE policy discussions; and (e) being active in nomination of the next generation of award winners. The last point is especially critical. Although the ISCE gets a strong pool of nominees every year, you’ll be surprised to learn how few nominators do the heavy lifting, and some do it year after year. ISCE is obviously thankful to these conscientious and generous members. But we’d like to increase the pool of nominators and thus the diversity of nominees. After all is said and done, it is incumbent on individual members to voice their preferences, and for meeting organizers to solicit diverse views and develop strategies to implement some innovative and more inclusive approaches.

There is a diverse community of chemical ecologists in less affluent nations, who cannot afford to attend our meetings. The recent trend toward international financial embargoes and economical wars does not bode well for a better future. Future ISCE meetings in Cape Town South Africa (2020), Putrajaya Malaysia (2021), and Bangalore India (2022) will address this problem, in part. Partnerships with ALAEQ, APACE, CACE, and related societies can also challenge this issue. But we also need to reduce the escalating costs of ISCE meetings and support early-career scientists from developing nations. The student travel awards—12 in 2018 totaling US$12,000—effectively address this challenging issue. But, in addition, the ISCE Executive Committee has begun deliberations on formally extending student travel awards to winners of regional society meetings. Stay tuned!

Diversity can be extended also to the types of science we do. Communication is increasing across disciplinary lines between chemical ecologists and engineers, systematists, climate change scientists, social scientists, technologists (industry), and many more disciplines. We’ve seen some of this exciting integration at some of our recent ISCE meetings. But not enough! In recent years, funding for chemical ecology research has shifted to very exciting and highly reductionist approaches, powered largely by the power of molecular biology. We celebrate these changes. But at the same time, funding for less “sexy” research on behavior and ecology has diminished. If this trend continues, I wonder how long the term “chemical ecology” will remain an appropriate representation of the Society. I think ISCE should engage more behaviorists, ecologists and evolutionary biologists as invited and keynote speakers to maintain our broad perspectives and anchor our approaches in real-world problems, observations, and discoveries. Likewise, ISCE could do more to communicate with people that extend our science to the public. When was the last time we’ve had a science journalist, or documentary filmmaker speak at our conference?

It is with tremendous gratitude to previous and current officers of the ISCE that I have assumed the role of President of the Society. I would like to extend my utmost appreciation to all members of the ISCE, but especially to our past President Anne-Geneviève Bagnères. There is a cadre of volunteers who make the job of elected officers easier, including Gary Felton (Editor, Journal of Chemical Ecology), webmaster Robert Mitchell, and Vice-President Junwei Zhu. A special thank you goes to ISCE Secretary Irena Valterová, who keeps us all on track and makes sure we do what we’re supposed to do on time. The ISCE has seen a major transition this year: Our long-term treasurer has “retired” from the office after 7 years of excellent service. Please welcome our new Treasurer, Kerry Mauck. Jeremy Allison has left the finances of the Society in great shape, and Kerry has not missed a bit—she’s highly engaged as a member of the Executive Committee. Finally, I want to acknowledge the Councillors of the ISCE. In addition to their involvement in Society governance, Councillors who attend the annual meeting also serve as judges of the student paper and poster competition. This year 11 Councillors judged 44 presentations, 21 posters, and 10 papers in the Syntech electrophysiology competition. This was about 22 papers per judge. Kudos!

Joining the ISCE decades ago stands out as one of the best professional decision I have ever made. The ISCE stands out for me as an opportunity to engage students and established scientists one-on-one, over a drink or in the hallway between talks, line up collaborations, learn new techniques, recruit students and postdocs to my lab, and enjoy some of the most fascinating places on earth! I love being a chemical ecologist and I’m privileged and humbled to serve as the ISCE’s President. I look forward to working with you to shape the future of the ISCE.

Sincerely, and ever optimistically,
Coby Schal, ISCE President

Summary of the ISCE meeting in Budapest

The 34th ISCE Annual Meeting in Budapest, Hungary is over. We had 370+ registered participants from 41 countries representing all continents (except Antarctica...).

Specific symposia organized by ISCE members formed the backbone of the conference (the original idea came from Christer Löfstedt). Altogether 15 symposia were presented on the conference. Topics ranged from (just to mention a few) “Omics in Chemical Ecology” (Aleš Svatoš and Emmanuel Gacquerel) through “Insect Microbe Interactions” (Almuth Hammerbacher) and “Chemical Ecology of Click
Beetles” (Jacqueline Serrano, József Vuts) to “Natural products for integrated pest management” (Junwei Zhu), and many others. From the Hungarian viewpoint we are most obliged to Anurag Agrawal for having organized the symposium “Tibor Jermy’s Legacy in Insect-plant Evolution”, since Tibor Jermy was one of the founders of experimental entomology in Hungary and the initiator of chemical ecology research in this country. Many thanks Anurag!

Of course there were several highlights among “independent” presentations (not belonging to any of the symposia) as well, for example the presentations of Sandra Steiger, Renata Bažok, Ivan Sivčev and Wittko Francke (to name only a few).

After sessions participants could get a taste of musical culture in Hungary on the concert, and of Hungarian folk music and dancing on the banquette, and could enjoy superb views of the Parliament on the Pest side, and the Royal Palace on the Buda site, while cruising on the Danube in the middle.

We are very proud of being able to host this conference and we strongly hope that all of you will take nice memories of Budapest and the meeting back home. For the time being: see you in Atlanta!

Zoltán Imrei and Miklós Tóth

### ISCE Business Meeting

**ISCE Treasurer’s Report (as of 27 July 2018)**

**J. D. Allison, Treasurer**

The current market value of all ISCE assets is $326,122.75, an increase of $18,440.09 from the year-end value in 2017 ($307,682.66). Society assets are distributed in cash ($0.87), money accounts ($45,615) and priced investments ($280,506.75). To maximize the prospects of a modest appreciation of our portfolio (mostly to keep pace with inflation), our spending should be limited to 4% of the portfolio value not including new revenue from membership fees and sponsors’ gifts.

The society received two corporate gifts in 2017. Trécé Incorporated sponsored the Student travel awards ($2,500) and Syntech sponsored the Early Career Award ($2,500). Of note, we did not receive corporate gifts from Delwart Biotec ($5,000 for the Silver Medal Award) or Springer Publishing Co. ($2,000 for the Silverstein-Simeone Award) as anticipated. Both organizations have been contacted to inquire about this support. Thanks are due to these corporations. The meeting organizers of the 2017 meeting in Kyoto realized a profit of $31,351.76, $15,675.88 was sent to the ISCE and the other half to APACE. The ISCE acknowledges this generous donation. ISCE reimbursed our Silver Medal, Silverstein-Simeone and Early Career Award winners for 2017 for their travel expenses (Silverstein-Simeone winner Dr. Rob Raguso $3,065.85; Silver Medal winner Dr. Gary Blomquist - $2,503.24; Early Career Award Winner Dr. Kerry Mauck - $1518.09). We paid the 2017 webmaster (Dr. Rob Mitchell) $1,129.85 in fees to maintain the website. The ISCE contributed $14,150 for Student Travel Awards, presentation awards and invited speakers at the 2017 ISCE annual meeting. In 2017 commemorative plaques were given to Drs. Kenji Mori and John Romeo ($171.20). Travel expenses for our Silver Medal Award winner, Silverstein-Simeone Award and Early Career Award winners for 2018 are pending. We have 464 active members.

As a tax-exempt, non-profit organization, the ISCE does not pay U.S. taxes. However, new rules require us to file an annual income statement to maintain our tax-exempt status. The process is very simple unless annual revenues exceed $50,000.

My impression is that the new online ISCE member database is working well for most members.

Respectfully submitted,

Jeremy Allison, Treasurer

The 2017 treasurer’s report was approved by the ISCE members present at the business meeting.

### Election of the new ISCE Treasurer

Last year, Junwei Zhu was elected as ISCE treasurer. Unfortunately, his employer (USDA) did not allow him to take this position. Therefore, Jeremy Allison served one more year and the society sought a new candidate. At the Executive committee meeting in Budapest, Jeremy Allison suggested Dr. Kerry Mauck for the position of the treasurer. Kerry received her PhD from Penn State University, did a postdoc at ETH Zurich and is now an Assistant Professor at UC Riverside. In addition to being highly talented and 2017 winner of the Early Career Award, Kerry Mauck is a young rising star in our community.

The nomination of Kerry Mauck was supported unanimously at the Executive Committee meeting. The candidate was then introduced to the membership at the business meeting.

The ISCE members present at the business meeting unanimously elected Dr. Kerry Mauck as the ISCE treasurer. Congratulations, Kerry!
Impressions of Budapest 2018

Courtesy Miklós Tóth and Zoltán Imrei. Additional photographs are available on the website: https://drive.google.com/drive/folders/1w85FXOj_XmtMjYBWqbGXv0Kux5rcd5Na
Upcoming Meeting: ISCE 2019 in Atlanta

The 35th annual meeting of the International Society of Chemical Ecology will be held in Atlanta, Georgia, USA, and organized by the Georgia Institute of Technology’s School of Biological and Aquatic Chemical Ecology Center. The meeting occurs from 2-7 June 2019 and is hosted by Mark Hay and Julia Kubanek, with a Local Organizing Committee composed of: Charles Derby (Georgia State University), Nicole Gerardo (Emory University), Vinayak Agarwal, Brian Hammer, Mark Hay, Julia Kubanek, Frank Stewart, and Marc Weissburg (Georgia Institute of Technology).

The theme of the conference, “Chemistry as the Language of Life”, emphasizes that most of Earth’s organisms lack eyes and ears, and so sense and communicate with co-occurring organisms via chemical cues and signals. In this sense, chemically mediated interactions constitute an “instruction manual” for biotic interactions and for understanding and managing populations, communities, and ecosystems. The scientific program will offer sessions focused on emerging topics concerning inter- and intraspecific interactions, as well molecular structures, applications, and member-submitted symposia.

The conference will take place at the Georgia Tech Hotel and Conference adjacent to the Georgia Institute of Technology near the center of Atlanta with its numerous entertainment and educational institutions (including the Georgia Aquarium, Atlanta Botanical Gardens, Zoo Atlanta, Fernbank Natural History Museum, Center for Human and Civil Rights, Martin Luther King Memorial and National Historic Site, CNN, High Museum of Art, Atlanta History Center, and many more).

Call for section topics

We are writing to request proposals for special sessions or session topics at this meeting. We are hoping to emphasize topics that focus on broad, emerging questions and generalities that cut across methodologies, taxonomic groups, and habitats, but all suggestions will be considered by the planning committee (listed below).

To propose a session, provide the following:
1) A title,
2) One paragraph of text explaining the rationale and importance of the topic,
3) A session chair, or co-chairs (having co-chairs that represent different systems, habitats, etc. is desirable). Are you willing to serve? If not, can you suggest someone,
4) A list of 5-10 possible speakers (speakers need not have been approached or agreed to speak yet, we just need to know that filling a session with exciting speakers is possible on that topic).
5) Email this to mark.hay@biosci.gatech.edu AND Julia.kubanek@biosci.gatech.edu by November 14, 2018. These will be evaluated by the organizing committee and the selected topics announced by 1 December 2018.

As a guide for some possibilities, the topics below were suggested informally by participants at the 2018 meeting in Budapest. If one of these appeals to you, feel free to propose it formally.

- Chemical ecology as the language of microbiomes
- Anthropogenic impacts on chemical cues and signals
- Impacts of global change on chemical ecology
- Community-level impacts of chemically mediated interactions
- The chemistry of fear
- Among-species communication (mutualisms, antagonisms, deception)
- Complex interactions (predators, competitors and pathogens as mutualists)
- Habitat, host, and mate selection
- Applied chemical ecology (agriculture, pest control...)

For up-to-date information about the conference, scientific program, and registration dates, please visit http://isce2019.biosci.gatech.edu.

Mark Hay and Julia Kubanek, Organizers
Student Travel Award Winners
Franziska Eberl, Germany
Yewande Olabimpe Olaide, Kenya/South Africa
Teresiah Njihia, Kenya
Jaqueline Marie Serrano, USA
Alyssa Weinstein, Australia
Dilani Hettiarachchi, New Zealand
Dineshkumar Kandasamy, Germany
Kristina Melnik, Germany
Olabimpe Olayemi Okosun, South Africa
Markus Menke, Germany
Kadis Mujiono, Japan

Best Student Presentations

Best oral presentations
Corinne Hertaeg, Switzerland
Victoria Moris, Germany

Best posters
Lea Böttinger, Germany
Paulina Kowalski, Germany
Kristina Melnik, Germany
Audrey Duhin, Switzerland

Syntech Electrophysiology Award
Björn Bohman, Australia

ISCE Silver Medal Award, 2017
Tetsu Ando presented this year’s ISCE Silver Medal Award Lecture, sponsored by the Delwart Foundation. The title of his lecture was “Lepidopteran sex pheromones: wonderland for a natural product chemist.”

Dr. Tetsu Ando, Professor of Tokyo University of Technology, received the ISCE Medal 2018 “for his wide-ranging investigations into the chemistry and biochemistry of lepidopteran pheromones and their systematic classification”. Professor Ando is one of the few true blue, genuine organic chemists among the chemical ecologists. He studied Agricultural Chemistry at the Graduate School of The University of Tokyo and received his Ph.D. in 1978 with Professor Nobutaka Takahashi on a subject of gibberellins. In 1981 he became an Assistant Professor and Associate Professor in the Department of Plant Protection of his University, and in 1995 he accepted the position of “Professor of Chemical Ecology” in the Graduate School of Bio-applications and Systems Engineering. Since more than 40 years, he published over 160 papers in renowned, peer reviewed journals. His research activities cover a broad spectrum of organic chemistry, including methodological aspects (NMR, mass spectrometry, enantioemic separation) as well as structure elucidation, synthesis and biosynthesis of natural products, especially pheromones of Lepidoptera. In his classical review (Curr. Org. Chem. 2004, 239: 51-95) he grouped lepidopteran pheromones into type I (unbranched, even numbered skeleton with terminal functional group) and type II (unbranched, polynes and their epoxides). However, extending his field to a broader spectrum of moth species, he identified numerous new pheromones, which do not fit to either type – and we are all very curious about the next exciting structure he will come up with.

ISCE Silverstein-Simeone Award, 2017
Anurag Agrawal presented the Silverstein-Simeone lecture of the ISCE, sponsored by Springer, at the 2018 meeting in Hungary. The title of his lecture was “Evolution of two systems of plant defense: milkweed’s latex and cardenolides”.

The recipient of the Silverstein-Simeone Award is Dr. Anurag Agrawal, James A. Perkins Professor of Environmental Science at Cornell University in New York. Anurag received his Bachelor of Arts degree in Biology and a Master of Arts degree in Conservation Biology, both from the University of Pennsylvania (1994). In 1999, he received a Ph.D. in Population Biology at the University California - Davis (1999). A short postdoctoral fellowship at the University of Amsterdam followed and Anurag quickly rose through the ranks at Cornell to full Professor. His integrative approaches are exemplified in being a member of several departments and programs at Cornell, including entomology, ecology, and evolutionary biology. Anurag has beautifully bridged the fields of community and evolutionary ecology with the chemical ecology of antagonistic interactions of plants and animals. He has concentrated on plant defenses, particularly immersing himself in the antagonistic interactions of herbivores with cardenolide-producing milkweed. As an avid naturalist, Anurag simultaneously studied several dozen milkweed species and assessed variation in the composition and abundance of secondary metabolites. This
approach allowed him to investigate phylogenetic patterns in the evolution of plant defense against herbivores.

His achievements are represented by 192 high-impact research, review and opinion papers in top journals, including *Science, Nature, New Phytologist, Functional Ecology, Ecology, PNAS, Annual Review of Ecology and Systematics*. Anurag has published 10 papers in JCE, including a highly cited paper on isothiocyanates, monarch-milkweed interactions, and phenolics in different plant species. Going by the numbers, Anurag is one of the most cited chemical ecologists around: 13,686 citations, H-index of 64, 40 papers with more than 100 citations. Anurag also edited 16 books and journal special features: a total of 1,779 pages! He published a recent book: “Monarchs and Milkweed: A migrating butterfly, a poisonous plant, and their remarkable story of coevolution” that has received excellent reviews.

Anurag is highly deserving of Silverstein-Simeone award. He is not only at the forefront of plant-herbivore community and chemical ecology, but he has been exceptionally supportive and has committed his time to the chemical ecology community, and training and mentoring of students, postdocs and junior professors. He has a strong commitment to teaching, and teaches an Introductory Biology course: “Ecology and the Environment” as well as a “Plant-Insect Interactions Seminar”, “Field Ecology”, and “Chemical Ecology”. A testament to the strength of the Cornell chemical ecology group is that last year’s Silverstein-Simeone Award winner was Robert Raguso, also from Cornell.

**ISCE Early Career Award, 2018**

At the 2018 meeting in Budapest, Martin N. Andersson presented a lecture entitled “Insect olfaction: receptors, neurons and behavior”.

**Martin N. Andersson** studied biology/ecology at the Lund University and obtained his PhD in Biology/Plant Protection Ecology from the Swedish Univ. Agricultural Sciences (SLU), Alnarp, Sweden. Martin’s career to date has focused on insect olfaction where he is characterizing the olfactory repertoire of a number of insect species including beetles and the hessian fly. He draws on his expertise in classical chemical ecology, electrophysiology, genomics and functional genomics to isolate and characterise the peripheral olfactory systems of insects. With these skills and those of students and collaborators he has contributed to identifying the first classical pheromone receptor in a diptaran and elucidating the likely origins of pheromone receptors in moths, to name just a few of his achievements. He has also contributed to reviewing the latest developments in the field, utilizing his clarity of thought, ability to critically review the literature of a particular part of the field and synthesize information to provide novel insights on important aspects of chemically ecology.

Martin is a highly talented chemical ecologist with a great future ahead of him. He is certainly passionate about chemical ecology and is a worthy winner of the 2018 ISCE early career award.

**2018 ISCE Award winners**

The ISCE Executive Committee and the Councilors considered nominations for the ISCE Silver Medal and Silverstein-Simeone Award 2018. **Valerie Paul** (Smithsonian Marine Station at Fort Pierce, Florida, USA) won the ISCE Silver Medal for her achievements in the field of marine chemical ecology. **Monika Hilker** (Institute of Biology, Applied Zoology/Animal Ecology, Freie Universität Berlin, Germany) for her outstanding work on the chemoecology of plant responses to insect eggs. Both winners will give talks at the 2019 ISCE Annual Meeting in Atlanta. Their detailed introduction will be included in the next ISCE newsletter.

**Congratulations to all award winners!**
ISCE Silver Medal, Silverstein-Simeone Award, and Early Career Award

The ISCE Silver Medal Award recognizes career achievement by an outstanding scientist working in the field of Chemical Ecology. The Silverstein-Simeone Award, established in 1995, to honor Milt Silverstein and John Simeone, is made on the basis of recent or current work of an outstanding nature at the “cutting edge” of Chemical Ecology. The recipient must deliver a plenary lecture at the annual ISCE meeting and publish a paper on the same topic in the Journal of Chemical Ecology. The Silverstein-Simeone Awards, respectively. Nominators should be ISCE members in good standing. Nominations will be reviewed by the President and Vice President for relevance to the appropriate award, before forwarding them to the full ISCE Executive Committee and Councilors. Should a nomination for one award be considered more relevant for the other award, the President will contact the nominator(s) regarding reconsideration. Current ISCE officers or councilors are not eligible for the awards because of a conflict of interest. Note that previous, unsuccessful nominations must be re-nominated to be considered for an award and the nomination packets for an individual resubmitted.

The Early Career Award in Chemical Ecology recognizes an emerging leader in chemical ecology and honor cutting-edge research that will influence the future direction of the field of Chemical Ecology. It will be awarded annually by the ISCE, and started in 2014. The award is limited to persons who graduated from their Ph.D. studies no longer than 8 years previously (deadline = end of nomination period). The recipient must deliver a plenary lecture at the annual ISCE meeting in the year of the application. The conference fee, reasonable economy travel, and hotel expenses of the recipient of the Award will be paid for by the society. The nominations will be reviewed by the ISCE Executive Committee and Councilors. Note that previous, unsuccessful nominations must be re-nominated to be considered for the award. An applicant can nominate him/herself or be nominated by an ISCE member.

Nominations for each of three awards require the following documents:

A nomination letter explaining why the nominee should be recognized for the award, stressing either their current cutting-edge research (for the Silverstein-Simeone Award and the Early Career Award) or their career achievements (for the Silver Medal award). For the Early-Career Award, this letter should be supported by one to three letters from current ISCE members. Curriculum vitae, including a list of publications pertinent to the research on which the award is based (for the Silverstein-Simeone Award), or a full list of publications (for the Silver Medal award). Supporting letters from other colleagues may be included. For the Early-Career Award, a Curriculum Vitae providing the current position, year of receipt of Ph.D. and a full list of publications is required. Reprints of the three most important papers in PDF must be included. The nominee must be a member of the ISCE for at least one year prior to nomination.

Please include all parts of the packet (including supporting letters) in one pdf file and submit in electronic format to ISCE President:

Coby Schal, Ph.D
Blanton J. Whitmire Distinguished Professor
Department of Entomology & Plant Pathology
North Carolina State University, Raleigh, USA
E-mail: president@chemecol.org

Vice-President and Four Councilors

The Vice-President is a voting member of the Executive Committee. The Vice-President becomes the Society President in the year following tenure as Vice-President. Past President in the next year, and remains as councilor for three years after that. ISCE Councilors are elected for a term of three years. It is important that councilors contribute to the running of the society and attend at least two ISCE Executive meetings during their three-year tenure. Principal responsibilities include participation in the selection of the Silver Medal and Silverstein-Simeone Awards, providing general guidance, advice and assistance to the Executive Committee, and judging student competitions at the annual meeting. It is recommended that a person nominated for the above positions should have a strong record of participation in the Society’s activities and meetings.

Please send names, contact addresses, phone numbers, and e-mail addresses of candidates along with a short description of why you think the candidate(s) would be suitable for office to Anne-Geneviève Bagnères. Please ensure that the person agrees to being nominated before you nominate them.

Professor Anne-Geneviève Bagnères
CEFE UMR 5175, CNRS
Universités de Montpellier – EPHE
Montpellier, FRANCE
E-mail: ag.bagneres@cefe.cnrs.fr

The deadline for all nominations is January 31, 2019.

Related Meeting of Interest

The Joint Meeting of the IOBC/WPRS Working Groups “Pheromones and other semiochemicals in Integrated Production” & “Integrated Protection of Fruit Crops” will be held in Lisbon, January 20-25, 2019. The ISCE and the IOBC pheromone group have had always close contacts in the past.
The meeting has a strong impact on Applied Chemical Ecology and is entitled “Merging Pheromones and other Semiochemicals with Integrated Fruit Production: Current approaches and applications from research to field implementation in a changing environment”. Please have a look at the website: https://www.isa.ulisboa.pt/cong/IOBC2019/

The deadline for submission of abstracts was September 30th, 2018, but registrations are possible until the day before the meeting will start. For more information, please contact the organizer below:

Dr. Jürgen Gross
Convenor of the Expert Group "Pheromones" (IOBC)
Head of Applied Chemical Ecology Lab
Julius Kühn-Institut (JKI)
Federal Research Centre for Cultivated Plants
Institute for Plant Protection in Fruit Crops and Viticulture
Schwabenheimer Str. 101, 69221 Dossenheim, Germany
E-mail: juergen.gross@julius-kuehn.de

Society News: Lincoln Brower, Champion of the Monarch Butterfly, Dies at 86

Lincoln Brower, who spent six decades studying the remarkable migratory life cycle of the monarch butterfly and urging action to protect it, died on July 17 at his home in Roseland, Va. He was 86. His wife, Linda S. Fink, said the cause was complications of Parkinson’s disease.

In countless scholarly papers, articles and interviews, Dr. Brower illuminated the story of the monarch, which can fly several thousand miles from places like Maine and the Dakotas to a winter home in the mountains of central Mexico. What makes the trip particularly astonishing is that the butterflies arriving in Mexico have never been to the wintering grounds; they are the descendants of monarchs that migrated from Mexico in a previous cycle. (The butterflies breed as they go north and then die.)

“If you’ve ever looked inside the brain of a butterfly, it’s about the size of a pinhead,” Dr. Brower said in a 1990 interview with The New York Times, “and yet the minicomputer inside that pinhead has all the necessary information to get them to Mexico without having been there before.” Dr. Brower worked with groups in Mexico and with the Mexican government in the 1980s to establish sanctuaries to protect crucial fir forests, where the butterflies mass, from logging, although in later years he said illegal cutting continued. He also expressed alarm about the effects that herbicides and genetically engineered crops in the United States could have on the butterflies, which depend on the milkweed plant in the northern part of their life cycle. “New visitors to the Mexican butterfly sites are awe-struck by the butterflies floating against the sky,” Dr. Fink, a professor of ecology at Sweet Briar College in Virginia, said by email, “but Lincoln was heartsick because of the dramatic diminishment of their numbers since his expeditions in the 1970s and ‘80s.”

Lincoln Pierson Brower was born on Sept. 10, 1931, in Madison, N.J., to Bailey and Helen Pierson Brower. He grew up in Chatham, N.J., and was fascinated by butterflies and moths from a young age. He received a bachelor’s degree in biology from Princeton University in 1953. He first began studying monarchs while in graduate school at Yale, where he received a Ph.D. in zoology in 1957. Dr. Brower taught at Amherst College from 1958 to 1980 and at the University of Florida from 1980 to 1997. Since 1997 he had been a research professor of biology at Sweet Briar College.

May he rest in peace.
Neil Genzlinger, July 24, 2018

Most downloaded articles from May — August 2018:

◊ The Scent of the Fly.
Paul G. Becher, Sebastien Lebreton, Erika A. Wallin, Erik Hedenström, Felipe Borrero, Marie Bengtsson, Volker Joerger, and Peter Witzgall. [link]

◊ Acylated Quinic Acids Are the Main Salicortin Metabolites in the Lepidopteran Specialist Herbivore Cerura vinula.
Felix Feistel, Christian Paetz, Riya C. Menezes, Daniel Veit, and Bernd Schneider. [link]

◊ Is the Salivary Gland Associated with Honey Bee Recognition Compounds in Worker Honey Bees (Apis mellifera)?
Stephen J. Martin, Maria E. Correia-Oliveira, Sue Shemilt, and Falko P. Drijfhout. [link]

◊ Biocommunication between Plants and Pollinating Insects through Fluorescence of Pollen and Anthers.
Shinnosuke Mori, Hiroshi Fukui, Masanori Oishi, Masayuki Sakuma, Mari Kawakami, Junko Tsukioka, Katsumi Goto, and Nobuhiro Hirai. [link]

◊ Gut-Associated Bacteria of Helicoverpa zea Indirectly Trigger Plant Defenses in Maize.
Jie Wang, Mingyu Yang, Yuanyuan Song, Flor E. Acevedo, Kelli Hoover, Rensen Zeng, and Gary W. Felton. [link]