

Activities of the Board



Siconbiol 2023 is upon us!

After a long wait, we will finally have the 17th edition of the Symposium on Biological Control (Siconbiol)! The event is being organized by Embrapa Semiárido and the Universidade Federal do Vale do São Francisco (UNIVASF). The center of biological control between July 23 and 27 will be Juazeiro, Bahia. This Bahian city is on the banks of the São Francisco River, across the bridge from Petrolina (PE), which has an airport and the largest hotel network in the region.

Siconbiol 2023 will also host the Second Latin American Symposium on Biological Control (Slacb). This symposium is promoted by IOBC-NTRS and occurred for the first time in Chillán, Chile in 2019.

For those who have followed Siconbiol since the first symposiums, Siconbiol 2023 will certainly be a historical landmark, as a reflection of the rise of biological control. The trade fair will include 18 companies in the area exhibiting their technologies in displays, a record number in our event. The Siconbiol audience has become more plural, with the presence not only of the academic area, but also of consultants, agronomists, biologists, and several professionals interested in adopting the technologies or investing in this sector.

To organize the scientific program for the event, the commission first called for proposals, receiving almost 80 suggestions for talks and round tables. The program of Siconbiol/Slacb will feature 125, including talks, mini-lectures, and round tables, which encompass the different areas of biological control. The scientific commission has been coordinated by Prof. Rita de Cássia Gervásio (UNIVASF) and has researchers/professors from nine institutions.

Our traditional student contest is another topic that is causing excitement. With Koppert's support, this event will have super attractive prizes. For undergraduate and graduate students, we will have macro and micro categories. The first-placed postgraduate will receive a trip to visit headquarters of Koppert in the Netherlands. Others will be awarded notebooks, cell phones, and kindles.

Siconbiol Startup is another new feature of the Symposium this year. Applications are available on our website for startups in the area of bio-inputs that want to participate. The applicants will have the opportunity to present their startup to a select audience of representatives from all the companies sponsoring Siconbiol and entrepreneurs from the agricultural sector.

Finally, our event is not only about work. After the prolonged social distancing, we need to socialize. The Siconbiol Sunset will be our get-together, by the Velho Chico River, with its unique and spectacular sunset!

Have you registered yet? Visit our website www.siconbiol.com.br and do not miss this great meeting on biological control!

Tiago Cardoso da Costa Lima
Chairman of the 17th Siconbiol and 2nd Slacb



SEB President's visit to Uberlândia

Prof. Angelo Pallini, President of SEB, was in Uberlândia on March 9 and 10 to deal with issues related to the organization of the XXIX Brazilian Congress (CBE) and XIII Latin American Congress of Entomology, scheduled for September 2024. During his stay in Uberlândia, Prof. Pallini visited the auditoriums (modular rooms), spaces for exhibitors and the hotel at the Complexo Convention Center /Mercure Plaza Shopping, the location indicated for the Congresses. The infrastructure offered by the Complex and other services can be viewed by accessing the site <https://centrconvention.com.br/>.

The President of SEB, together with the Vice President and Chairman of the next CBE, Prof. Solange Augusto, met with representatives of the Convention Center to discuss the proposals for renting the spaces offered by the Complex, with representatives of three event companies in Uberlândia – Versátil Produções e Eventos, Projeção e Imagem, and Gaia Eventos Cooperativos – as well as representatives of FB Eventos, the company responsible for organizing the last Brazilian Entomology Congress, in Fortaleza, CE.

Prof. Pallini and Prof. Solange also met with Prof. Carlos Henrique de Carvalho, Pro-Rector of Research and Post-Graduation of the Universidade Federal de Uberlândia, who reiterated the logistic and financial support of his office and the University for our event. The meeting took place at the Rectory of UFU, located on the Santa Monica Campus. Prof. Pallini also took the opportunity to visit the Umuarama Campus, where he met with some professors from the Institutes of Biology, Biotechnology, and Biomedical Sciences, who were invited to participate in the organization and to be on the scientific committee of the Congresses.

Finally, the professors also visited Crystal Palace in Uberlândia, a space designed mainly for different types of social events, as well as other cultural and leisure venues in the city.

As a result of the visit, by the end of March/beginning of April, we hope to define, together with the SEB Board of Directors, which company will be responsible for the organization of the XXIX Brazilian and XIII Latin American Congress of Entomology and also to send the Board of Directors the final budget proposal for the Convention Center for their analysis and approval. Get ready for a unique event in 2024!

Neotropical Entomology

Neotropical Entomology

In this first issue of ISEB in 2023, we would like to extend our heartfelt thanks to the Associate Editors and Editors, Reviewers, and Authors of Neotropical Entomology. Without these collaborators the journal would not have grown and improved throughout its 51 years. This year we can further help NENT to expand its influence as a mechanism to disseminate high quality entomological research developed here in the Neotropics.

We extend our special thanks to Dr. Juliano Marimoto for his outstanding work as Editor of the Forum Section. His performance in this role was marked by thought-provoking articles that attracted readers' notice. The one about the welfare of insects has been a real success, with more than 22,000 hits since January. This is extraordinary, even for an open access article. It ranks in the 97th percentile (8,502nd place) of the 409,814 articles of similar age range in all scientific journals worldwide. See:

When do We Start Caring about Insect Welfare?

Tina Klobučar and David N. Fisher

<https://link.springer.com/article/10.1007/s13744-022-01023-z>

Dr. Juliano continues to collaborate with the journal as Associate Editor. To replace him, we welcome the new editor of the Forum, Professor Khalid Haddi, from UFLA. Dr. Khalid is a professor in the Entomology Department of the Universidade Federal de Lavras. His professional training occurred in Morocco, Denmark, Italy, and in Brazil (Federal University of Viçosa), which provided him the opportunity to form a network of collaborators nationally and internationally. His vast experience is complemented by his membership on the Editorial Board of Entomologia Generalis and CABI Agriculture and Biosciences. This multi-institutional and international connection will expand the range of possibilities to secure thought-provoking topics and renowned authors for the Forum Section. We wish Professor Khalid success as part of the Editorial Committee of Neotropical Entomology and editorship of the Forum.

We would also like to remind you that Reviews sec-



tion was resumed last year, so we invite all interested authors to submit their manuscripts. When preparing them, please refer to the instructions for authors at https://www.springer.com/journal/13744/submission-guidelines#Instructions%20for%20Authors_Article%20Types.

Finally, the special issue on Biological Control in Latin America is ready and will be published in the April issue of *Neotropical Entomology*. The selection of Forum, Review, and Original Articles is exquisite. Our thanks for the excellent work of the Guest Editors Dr. Rogério Lopes, Dr. Yelitza Colmenarez, Dr. Marcos Faria, and Dr. Herman Vargas, Editors, who conceived, coordinated, and edited this special issue. All articles are now available in the Collection of Articles on Biological Control in Latin America, available at: <https://link.springer.com/collections/cacjdfeeb>.

Do not forget to follow us on our social media and give us a “like”, so that our journal becomes even better known.

Eliana Fontes and Raul Laumann, Editors-in-Chief



**ENTOMOLOGICAL
Communications**

Entomological Communications

Dear readers,

We begin 2023 with good news and great perspectives for the year. Our journal had an exemplary performance in 2022! with over 28 thousand accesses, 73 citations (Google Scholar), and 42 published articles.

In addition, two important items indicate that we are on the right track. The first was the release of our first h5 index, by Google Scholar (h5=4). This result took us by surprise as this index is based on the last five years of the journal. However, it was released two years in advance, accounting only for data between 2019 and 2021. In practice, we still have two more years to solidify our actual index h5 (2019-2023). The second news item has been expected for some time, which was our first QUALIS published by CAPES. As expected, it was QUALIS C, which is the entry level on QUALIS for most journals. The tendency is that QUALIS will increase in the next CAPES evaluation, considering that, according to the new CAPES classification, we will already have indexes to be qualified for at least B4. We are planning to apply for two more indexes in the first semester: Latindex and CABI. As for our editorial flow, we are working to update the 2023 norms. Then, we can start publishing volume 5, because it already has 15 articles in the copyedit phase, and they should be published according to the new norms. We hope that Entomological Communications continues to be your choice when it comes to disseminating your data in a brief, fast, open access, and quality way. Visit our website and follow our social networks on Instagram, Facebook and Twitter (you will find a link to the social networks under the “Follow” tab at the top of our page - <https://www.entomologicalcommunications.org/>).

Daniell Rodrigo Rodrigues Fernandes & Rafael Major Pitta

**Editors-in-Chief, Entomological Communications
Entomological Society of Brazil**

Entomology in Focus

New book on fruit flies (Diptera, Tephritidae) has been published

Fruit flies (Diptera, Tephritidae), especially the species *Anastrepha* and *Ceratitis capitata* (Mediterranean fruit fly), are the group of insects with the most studies conducted in practically all Brazilian states. In most states, local researchers are conducting studies with fruit flies, especially those related to surveying and identifying *Anastrepha* species. Thus, the research network in the Brazilian states has provided a good overview of fruit fly diversity in Brazil. However, due to vastness of Brazil, more studies are needed that associate them with host plants and parasitoids. Unfortunately, almost all of these surveys have been conducted in agricultural environments, due to the economic importance of some species. Consequently, undisturbed environments have been ignored.

Basic research with fruit flies has also advanced significantly in Brazil, including studies of molecular techniques, genetics, pheromones, etc. Research groups in several Brazilian states are doing important basic studies with direct implication on the applied aspects. For example, molecular studies to characterize cryptic species complexes, aimed at delimiting the species of these complexes, have a direct bearing on quarantine aspects.

Due to the accumulation of knowledge, the book “*Moscas-das-frutas no Brasil – conhecimento básico e aplicado*” (Fruit flies in Brazil - basic and applied knowledge) was published in Portuguese. With the collaboration of researchers, technicians, and post-graduate students from universities and research institutes, it was possible to organize the content of this book about the various lines of research conducted on fruit flies. The book contains 54 chapters and is divided into two volumes. Volume 1



- General Aspects and Control Methods - (27 chapters, 549p.) covers basic knowledge, from fruit fly collection to integrated pest management strategies, including taxonomy (morphology and molecular), morphology of eggs and larvae, biology, behavior, parasitoids, control techniques, monitoring, and phytosanitary treatments. Volume 2 - Distribution in Brazilian states - (27 chapters, 395p.) presents the applied knowledge related to the economic importance and records of *Anastrepha* species, their host plants, and parasitoids for the 26 Brazilian states.

The production of the book was made possible thanks to the contribution of 125 authors (researchers, technicians, post-doctoral, and post-graduate students, etc.) from 66 institutions (61 Brazilian and 5 from abroad). Because of the breadth of topics, this book is intended for anyone interested in basic and applied studies of fruit flies.

Title: *Moscas-das-frutas no Brasil – conhecimento básico e aplicado* (Fruit flies in Brazil - basic and applied knowledge).

Editor: Fealq (2023)

Editors: Roberto A. Zucchi, Aldo Malavasi, Ricardo Adaimé, and Dori Edson Nava

Roberto A. Zucchi (ESALQ/USP)

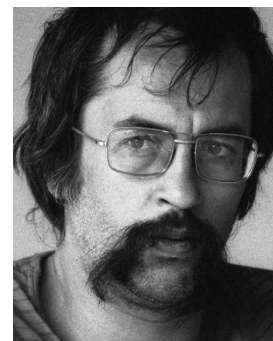
Royal Jelly

In the poem below, the author Paulo Leminski uses the terms insect (inseto) and circle to play with the meaning. While reading the text, the reader looks for the insect that would be on the paper surrounded by a circle. Since “only the circle exists,” the insect is trapped in the imagination. In the process of searching for the insect, the readers realize that they are only searching because of the written text, while the poem shows the reader that all that is fictitious, and the search only exists in the imagination. The reader, who is imagining, sticks to what exists – just the circle. The insect insists only as an imagined idea, while the circle is what remains. This antagonism causes the author to expose the deficiency in the meaning of conventional language compared to that received by the reader. Circles are also a form of non-verbal, aesthetic language outside of traditional speech. The insect, imaginary, is free. As Leminski uses the poem to talk about his own words, this is an example of metalanguage.



the insect on paper exists
draw a circle around it
only the circle exists

(Paulo Leminski, in “*Toda Poesia*”, 2013)



About the author:

Paulo Leminski Filho (1944–1989)

was a poet from Curitiba with a great representation among Brazilian writers. Leminski united plasticity with discourse to give the poem its meanings. Passionate about Japanese

culture, he used the Japanese poetry format known as “haikai” in several of his writings. This style stands out for being synthetic, written in few words, and divided into three verses that follow a strict metric. Therefore, he is one of the biggest promoters of haiku poetry in Brazil. He used many puns and popular Brazilian expressions in his work. He has also had musical partnerships with musicians such as Caetano Veloso, Moraes Moreira, and Arnaldo Antunes. The writer is often seen both as a concretist poet, using the graphic dimension of discourse, and as a member of the marginal generation, reacting against the dictatorship and publishing clandestinely.



Publicize Your Page

Extension Project: Insects at School

“Insetos na Escola” is an extension project involving teachers, Luciana Barboza Silva and Josenir Teixeira Câmara (coordinators), and students from the Universidade Federal do Piauí - Professor Cinobelina Elvas Campus (CPCE/Bom Jesus). The project aims to promote interdisciplinary activities about insects for the exchange and construction of knowledge about insects to commendation the benefits of the group for the environment and demystify the negative aspects (disgust, repulsion), in addition to bring the University and the Elementary Education school community closer.

The project activities began in mid-May 2018, with weekly meetings at public schools in the city of Bom Jesus, Piauí, in the morning and afternoon sessions, using diverse strategies that provided interaction among the participants. The activities included slide shows, videos, debates, dynamics, biological models, biological material, insect houses, and slides with different parts of insects for to view.

These activities were expected to allow participants to experience what many have only known from reports: bees producing honey, caterpillars producing silk thread, ants working in an organized system, termites recycling organic material, giant insects, insect that imitate nature to defend themselves from predators, insects as a source of food for animals and humans, as well as the ecological importance of insects.

In addition to the activities carried out in public and private elementary schools, the project focuses on bringing information about the importance of insects by providing informative materials on social networks, creating informative content, quizzes, games, among others that are published on Instagram “@insetosnaescola”.

During the project in the schools, it was possible to notice that some students could not distinguish insects from other arthropods, for example, they included ticks and scorpions in the class Insecta. However, after participating in practical activities about insects, the students understood and were able to distinguish each group presented, as well as the various aspects related to their way of life, behavior, and classification, which facilitated the compre-



sion and identification of the insects studied, providing significant learning for the students.

Although the Covid-19 pandemic impacted our activities, it was possible to promote contact in schools remotely. We are currently reinitiating the activities in the production of didactic material and planning of methodologies that awaken the curiosity about insects. Due to this new beginning, we decided to update our project starting with our logo and Instagram page in progress.

Matheus da Silva Bizerra
Biological Sciences - Education (UFPI)

Nomenclator entomologicus

117. *Ephestia kuehmiella* Zeller, 1879 is the valid name for the Mediterranean flour moth (Lepidoptera: Pyralidae: Phycitinae), whose larvae attack various stored products. In 1879, Zeller named this species *Ephestia kuehmiella*. Heinrich (1956) created the genus *Anagasta* to contain *E. kuehmiella* because some of the characteristics of its adults and immatures differed from other representatives of the genus *Ephestia* Guenée, 1845. Since then, some publications (e.g., Roesler 1973) and websites (e.g., CABI 2022) have considered *Anagasta* to be a subgenus of *Ephestia*. In the last Checklist of the group, Shaffer (1995) confirmed that *Anagasta* is a synonym of *Ephestia* and therefore the correct name is *Ephestia kuehmiella* Zeller, 1879.

References: CABI (2022) CABI Invasive Species Compendium, Datasheet *Ephestia kuehmiella* (Mediterranean flour moth). <https://www.cabi.org/isc/datasheet/21412>. Accessed in November 4th, 2022.

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Roesler RU (1973) Trifine Acrobasinae. In: Amsel HG, Gregor F, Reisser H (eds.) Microlepidoptera Palaearctica 4. Fromm, Vienna, Austria.

Shaffer JC (1995) Phycitinae. In: Heppner JB (ed) Atlas of Neotropical Lepidoptera, Vol. 3 - Checklist: Part 2 - Hyblaeoidea - Pyraloidea - Tortricoidea. Scientific Publishers, Association for Tropical Lepidoptera, Gainesville, pp. 93–105.

Alexandra Specht & Ranyse Barbosa Querino da Silva (Embrapa)

118. A-é-des or E-des, what is the correct pronunciation in Portuguese of the generic name for the nuisance mosquito?

The description and diagnosis of the genus *Aedes* Meigen, 1818, were in Latin, with the etymology (Greek) and meaning being given in the text written in Gothic German.

Therefore, the correct pronunciation is A-é-des, that is, with the “e” pronounced separately from the preceding “A” (A-é-dés), with the first and second “e” pronounced as long vowels (Gil-Santana et al. 2021). On the other hand, the pronunciation “E-des” is incorrect, because the generic name is not the Latin aedēs or aedis (is), f. 1. Temple. 2. Pl. House; dwelling; room (A.R. Monteiro, obs. pes.).

Reference: Gil-Santana HR, Brockmann E, Alencar J (2021) The correct pronunciation of the generic name *Aedes*, to which *Aedes aegypti* belongs. An Acad Bras Cienc 93: e20201012.

Ailton R. Monteiro e Roberto A. Zucchi (ESALQ/USP)

Entomology in the Press

Giant insect reappears in eastern North America

An insect that was collected on the facade of a supermarket was considered extinct about 50 years ago. Its rediscovery was considered a milestone in science. The giant insect was identified by scientists at Pennsylvania State University.

The insect was found on the facade of the Walmart in Arkansas in 2012 by the director of the university’s insect identification lab, Michael Skvarla, while he was still a doctoral student at the University of Arkansas. At the time, the insect was mistakenly identified as “antlion” in his personal collection.

At the end of 2020, during a Zoom class on biodiversity, the error was noticed by Skvarla and his students. The correct identification came to *Polystoechotes punctata* (Neuroptera, Ithonidae), a giant chrysopid (50 mm wingspan) that had been extinct since 1950 from eastern North America.

The rediscovery points to the possibility that there are entire populations of the insect hiding in the Ozark Mountains in the south-central United States. The researcher, who found the insect recently, authored a paper about the discovery in the Proceedings of the Entomological Society of Washington.

The causes of the species’ disappearance since 1950 may be linked to factors, including light pollution due to urbanization, forest fires, introduction of non-native species, and predators, such as beetles, but the cause is not yet determined and could be a number of factors.

Sources: <https://veja.abril.com.br/mundo/inseto-gigante-da-era-jurassica-e-redescoberto-em-um-walmart-nos-eua/>
<https://revistagalileu.globo.com/ciencia/biologia/noticia/2023/03/inseto-achado-em-2012-em-mercado-era-especie-que-sumiu-dos-eua-ha-50-anos.ghtml>



Michael J. Skvarla and J. Ray Fisher “Rediscovery of *Polystoechotes punctata* (Fabricius, 1793) (Neuroptera: Ithonidae) in Eastern North America,” Proceedings of the Entomological Society of Washington 124(2), 332-345, (30 November 2022). <https://doi.org/10.4289/0013-8797.124.2.332>



EntomoArt!

Pollination by beetles.

Artist: Vitória Zaghis Alonso

Student of Biological Sciences.

Universidade Estadual de Londrina



Comic Strip

Artist: Giulianne Simizu Calizotti

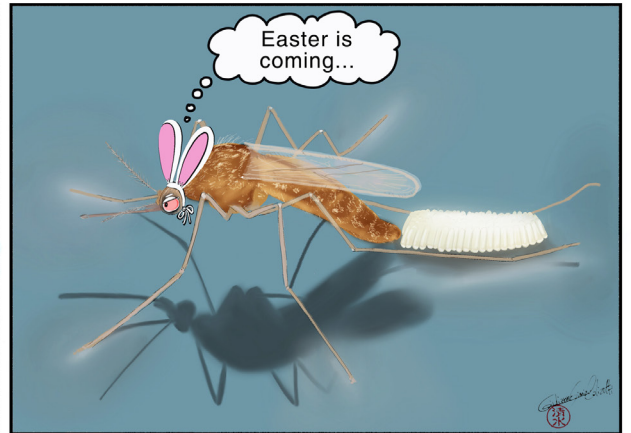
Biologist and illustrator - External Collaborator at the Universidade Estadual de Londrina, Center for Biological Sciences

Your Picture

Massartella sp. nov. (Ephemeroptera, Leptophlebiidae)

Photographer: Frederico Salles

Professor in the Entomology Department, Universidade Federal de Viçosa



Entomology Events

- XVII Biological Control Symposium (Siconbiol)/II Latin American Symposium on Biological Control, June 23–27, 2023, Juazeiro, BA & Petrolina, PE, Brazil
- VII International Entomology Symposium - September 17 to 22, 2023, Viçosa (MG)
- III Entomology Congress of Piauí - November 20 to 23, 2023, Floriano (PI).
- XXVII International Congress of Entomology - August 25-30, 2024, Kyoto, Japan.
- XXIX Brazilian Congress of Entomology - September 22 to 26, 2024, Uberlândia (MG)..

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Zucchi RA, Nava DE, Adaime R, Malavasi A (2023) Moscas-das-frutas no Brasil: conhecimento básico e aplicado. Fealq, Piracicaba.

Geisler, EF, Amaral, AP, Campos, LLE, Pinho, LC., Neckel-Oliveira, S. (2022). Pan Traps as an efficient and low cost method for sampling *Corethrella* Coquillett, 1902 (Diptera: Corethrellidae). Entomological Communications, 4;: ec04035. <https://doi.org/10.37486/2675-1305.ec04035>

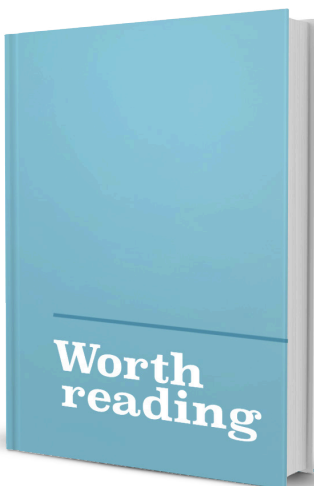
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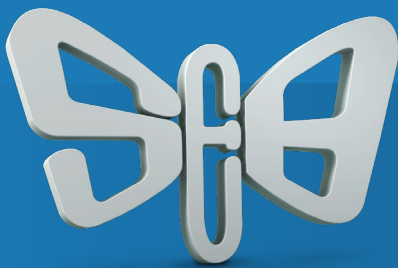
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Entomological Society of Brazil

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