



Word from the President



Dear Colleagues,
We are overjoyed to report the new classification of Neotropical Entomology as CAPES/Qualis A2 in Agrarian Sciences, which is a great achievement for our Society. Congratulations to the editor-in-chief, Eliana Fontes, and the entire group of editors and reviewers. This newsletter also contains details

about the initial arrangements for the next congress in Fortaleza in 2020. The “Entomology in the Press” section is “mouthwatering”, check it out! There is information on the recently updated lists of Absent Quarantined Pests (PQA) and Present Quarantined Pests (PQP) in Brazil as well as perspectives and trends in Entomophagy. Other traditional sections are also included in this newsletter, such as the Nomenclator Entomologicus, Information from Members, and Worth Reading. The new sections include

Your Image, Entomoart, and a comic strip. The Organizing Committee of Siconbiol, the largest Biological Control event in Latin America, reports on incentives for colleagues to participate and on the schedule, which is now available on the SEB homepage! We are counting on your presence!

We thank everyone for their contributions to SEB!
Good reading! Sincerely,
Eliane D. Quintela

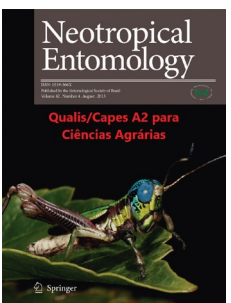
Activities of the Board

Neotropical Entomology – The Key Metrics for 2018 and Programming for 2019

In 2018, *Neotropical Entomology* (NE) maintained its good performance and continues to improve. NE is classified by CAPES/Qualis as A2 in Agricultural Sciences, and B1 in other areas, NE:

- Had 37897 SpringerLink downloads (this metric is much larger when downloads on other platforms are also considered);
- Received 394 submissions;
- Accepted 80 articles;
- Took, on average, 150 days between submission until manuscript acceptance;
- Received articles from 81 countries across five continents.

One of the goals for 2019 is to continue reducing the time between the publication “On-line First” and the publication of the article in one of the six volumes per year. To achieve this, we published denser volumes in 2018 each with more articles.



Other ongoing initiatives to make *Neotropical Entomology* more accessible to authors and readers, highlighting topics of great interest to worldwide entomology include: “*Neotropical Entomology Symposium*”: April 30, 2019 is the due date to submit original articles for a special section on Biological Control to be published in 2019. Five of the articles received will be selected by an Editorial Committee for presentation during the 16th Siconbiol. The authors presenting the articles classified in the first three places will receive their airplane ticket

to participate in the Symposium. More information at <https://siconbiol.com.br/regras/simposio-neotropi-cal-entomology.html>

“Insect Pollinators” – This Special Edition: This Special Edition will include topics related to insect pollinators and pollination service. The authors are invited to submit, by July 30, 2019, original or opinion articles on aspects of biology and ecology; conservation status, major threats, mitigation measures, and public protection policies for insect pollinators. The journal focuses on the Neotropical region; however, as pollination services are of global concern, in this volume the topics should ideally be addressed more broadly. If you wish to submit an article, please preregister with carmen.pires@embrapa.br to verify its suitability. For more information consult: <https://www.springer.com/life+sciences/entomology/journal/13744>
Eliana Fontes - Editor-in-Chief
Raul Laumann - Editor-in-Chief

Organization of CBE 2020

On February 4 to 6, Eliane Quintela (SEB President), Flavia Barbosa (SEB Treasurer), and Nivia Dias (President of the Congress) were involved in various activities to correct details of the 28th Brazilian Congress of Entomology, which will be held by Embrapa and the Universidade Federal do Ceará, in 2020, in Fortaleza. A meeting was held with Gustavo Saavedra Pinto (Head of Research and Development at Embrapa Tropical Agroindustry) and a visit to the Events Center together with the FB Eventos team, Emanuel Mota (Crea - CE president), and Assis Bezerra (Director of the Union of Engineers



From left to right: Maria Goretti Lima, Flávia Barbosa, Fernanda Anastácio, Nivia Dias, Daina Bisognin, and Eliane Quintela



From left to right: Flávia Barbosa, Gustavo S. Pinto, Eliane Quintela, Maria Goretti Lima, and Nivia Dias

part as well as in the business and connection between the different sectors.



From left to right: Emanuel Mota, Eliane Quintela, Nivia Dias, and Assis Bezerra

Siconbiol 2019

Dear Members,
It is just a few months until the next Biological Control Symposium (Siconbiol), which will be held this year, in Londrina/PR, from August 11 to 15. The Organizing Committee is working intensively on the Scientific and Social Programs of the event. Preliminary Programming is now available on the site and promises to be comprehensive, with basic and applied themes. We will also have, for the first time, the Cobquiz competition about knowledge related to Biological Control in the mold of Entomoquiz, which has been a success at the Brazilian Congress of Entomology. We remind everyone about the discounted registration fees available for groups of undergraduate and graduate students (five registrations receive one registration fee, and ten registrations receive three registrations free). The news is already being released on the site www.siconbiol.com.br and our social media pages on Facebook and Instagram. We hope to have your participation in the upcoming Siconbiol in Londrina.



Organizing committee



Entomology in the Press

Prospects and Trends of Entomophagy

Entomophagy or human consumption of insects is a custom that has existed in many countries since antiquity. However, the majority of the population have marginalized or forgotten this practice over the years, mainly because insects are considered as food only during wars or for the poor, due to the negative image of the insect in modern society. Nevertheless, there is currently a resurgence or restoration of the insect as a viable and nutritious food for humans.

Entomophagic cooking is practiced daily by 2 billion people, but it remains unknown, or rather neglected, by the vast majority of the world's population, especially in developed countries. However, on the central question of how to feed the growing human population, few would disagree with the fact that entomophagy has the potential to supply a significant proportion of the nutritional requirements of humans either as a direct food source or indirectly as animal feed (currently the primary destination of insect breeding). FAO-UN studies indicate that insects will be mandatory food for the entire world population, starting in 2050.

With that in mind, perhaps the biggest challenge today is to overcome the bane of prejudice and squeamishness about insect as food. While we consume "normal meats," we also fail to take advantage of the benefits that insects can bring in terms of proteins (the main benefit of insects as food), amino acids, fats, vitamins, minerals, and energy. Edible insects have a high nutritional value compared to conventional foods, especially those of vegetable origin. They are very versatile and can be used in savory or sweet dishes. Insects can also be made into flour or

used as an ingredient in processed foods. Another great advantage of insects is that they pollute less (250 grams of greenhouse gases per kilogram pro-



Tartlet with chocolate ganache and fly larvae and Madagascar cockroach.



Fresh Vietnamese roll with giant mealworms.



Shrimp breaded with cinerea flour and mango chutney with cockroaches.

duced), require fewer natural resources for their creation (less than 2.5 m² in area, 1.7 kg of feed, and 23 liters of water for each kilo produced) and have 80% digestible body mass.

Following this trend, there is a growing movement in the world, especially in Europe and the US, for legalization and inclusion of products/foods from insects. The EU published in

2018 the new "Regulation 2015/2283", which regulates insects (among other foods) as "novel food". In France, the two largest supermarket

chains already dedicate exclusive sections to products made with insects, and in the US, the market for protein bars with crickets is increasing. The startup Aspire Food Group as a notable example of this segment. Insects can be an alternative source of protein in nutrient deficient areas. Estimates indicate that the insect protein market is expected to triple by 2023 and reach US\$ 1.18 billion worldwide. However, Brazil still

has many barriers that must be overcome, especially regarding the laws and the release by Brazilian Ministry of Agriculture, Livestock, and Food Supply (MAPA) and state health agency for sale and consumption of insects by humans. With few commercial bio-factories, the cost of these animals is still high, which hampers the dissemination and popularization of this practice in our country. Ten years after of the first Symposium dedicated exclusively to the theme, this year we will have the second edition together with the 1st INSETEC Congress, to be held in Montes Claros - MG from November 6 to 8, 2019.

Whether as new foods, supplements, or hoping to meet food shortages, insects are the food of the future, and demonstrate great versatility in their use and applications, with diverse opportunities for breeders, industrialized food producers, chefs and cooks, researchers, and consumers.

Rossano Linassi

Professor of Gastronomy

Instituto Federal Catarinense – Campus Camboriú



Mushroom entomopizza, Blaberus cockroaches and leeks.

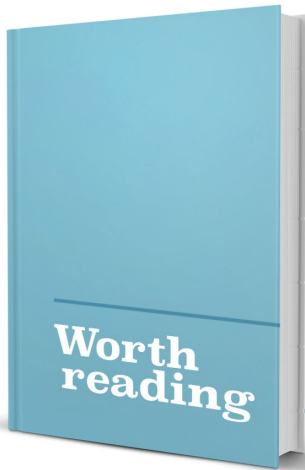


Nomenclator entomologicus

102. *Toxotrypana* Gerstaecker, 1860 was placed in synonymy with *Anastrepha* Schiner, 1868, based on phylogenetic analysis. *Toxotrypana* is the senior name, but *Anastrepha* is recognized as valid because of the many pest species in this genus, and changing the names of these pests would cause nomenclatural instability and confusion in

the applied entomology. A proposal on this case was submitted to the International Commission on Zoological Nomenclature. The name for the papaya fruit fly is *Anastrepha curvicauda* (Gerstaecker, 1860), which with others seven species formerly in *Toxotrypana*, belong to *curvicauda* group of *Anastrepha*.

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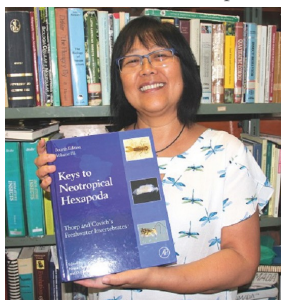
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Members

Honorable mention

Dr. Neusa Hamada (Inpa) received the highest honor conferred by the National Institute of Amazonian Research (Inpa/MCTIC), the Warwick Estevam Kerr Honorable Mention. In addition to this, two other professionals, who contributed to the development and advancement of science, scientific and technological research, and innovation in the post-graduate programs, were honored: Mario Cesar Cardoso de Pinna (USP) and Rita Mesquita (Inpa). These researchers also share the commitment to combine the role of scientist with that of scientific disseminator, by using simple language to make science accessible to the general population. To our colleagues, congratulations from SEB! Source: <http://portal.inpa.gov.br/portal/index.php/ultimas-noticias/3349-inpa-homenageia-pesquisadores-com-mencao-honrosa-warwick-kerr-e-faz-entrega-de-diplomas>



International Women's Day

In commemoration of International Women's Day, Dr. Flávia R. Barbosa was invited by the Regional Council of Engineering and Agronomy of Goiás (Crea-GO) to join the event "Chat with them - Women Engineers and their trajectories", and to share her choice about her technological area, experiences, challenges, achievements in the labor market and compatibility of professional success with personal life. The board of SEB honors all women who, with determination and sensitivity, contribute to Entomology.



Flávia R. Barbosa and Francisco Almeida (President of Crea-GO)

Dr. Paulo Nogueira Neto - On February 25, at age 96, we lost a professor, who was responsible for initiating the pillars of Brazilian environmental policy. Prof. Dr. Paulo Nogueira Neto was born on April 18, 1922, in the city of São Paulo. He received his bachelor's degree in Juridical and Social Sciences from the Faculty of Law of the University of São Paulo (1945) and in Natural History at USP (1959). He was one of the pioneers working in Brazil with the behavior of native stingless bees (Meliponinae). In his university career, from which

he retired in 1992 as a full professor of Ecology, he taught courses on behavior of social animals and on climate change and terrestrial ecosystems. He was also one of the founders of the Department of General Ecology at the USP Institute of Biosciences; president of one of the Association of Defense of the Environment of São Paulo (ADEMA-SP); directed and organized the Special Secretariat for the Environment (SEMA); created and implemented the Environmental Protection Area of Cafuringa, in the Federal District; and was a member of the United Nations Brundtland Committee on Environment and Development, where he was one of the representatives of Latin America. He was also president of the Federal Council of Biology, a member of the São Paulo Academy of Letters, and received the Paul Getty Awards, an international award from the Nature Conservation and Duke of Edinburgh Prizes of the International WWF. He has published several books on indigenous bees, breeding of native vertebrates, and animal behavior.



Dr. Paulo Nogueira Neto

Please send any honors received by entomologists to the editors (informativoseb@gmail.com) or secretariat of SEB (secretaria@seb.org.br).

Entomology Events in 2019

- AntiVectorial – March 19 to 21, Foz do Iguaçu, PR.
- XVIII Iberian Congress of Entomology – July 10 to 13, Madrid.
- MedTrop – July 28 to 31, Belo Horizonte, MG.
- 16th Biological Control Symposium (Siconbiol)– August 11 to 15, Londrina, PR.
- II Congress of Entomology in Piauí - August 18 to 21, Teresina, PI.
- UFV Entomology Symposium - September 2019, Viçosa, MG.
- V Termitology Symposium (V Sym Termes) - September 1 to 5, Federal University of ABC, São Bernardo do Campo, SP, Universidade Federal do ABC, São Bernardo do Campo, SP.
- XIth International Symposium on Thrips and Tospoviruses – September 21 to 25, Kunming, China.
- XXIV Symposium on Mirmecology - September 30 to October 4, Belo Horizonte, MG.
- I Latin American Symposium on Biological Control - October 8 to 11, Chillán, Chile.
- I Brazilian Congress on Insects as Food for Humans and Animals - November 6 to 8, Montes Claros, MG.
- XII International Pollination Course – November 17 to 29, Ilha do Cardoso, SP.

Comic Strip

Art: Renan Geovani Mansano
Graphic Design - Universidade Estadual de Londrina - PR



Your Image

Rhinostomus barbirostris (Fabricius, 1775)
Location: Céu Azul, PR
Photo: Marcelo Tiago Jardim
Undergraduate student in Biological Sciences of the Universidade Estadual de Londrina

>> Send to the editors (informativoseb@gmail.com) your best insect photograph, in digital format, to be selected and published here! It should contain the following information: author's name, academic background, title, and place where it was taken.



EntomoArt!

Chorinea amazon on leaf of *Protium heptaphyllum*
Art: Patrícia de Oliveira Santos
PhD student in the Post-graduate Program in Biological Sciences of the Universidade Estadual de Londrina

>> Send to editors (informativoseb@gmail.com) your best art containing insects, in digital format, to be selected and published here! It should contain the following information: author's name, academic background, and title.



Updated Lists of Quarantined Pests

The lists were recently updated of Absent Quarantined Pests (PQA) and Present Quarantined Pests (PQP), published in the second half of 2018, through the Normative Instructions SDA/MAPA n 39 and 38/2018, respectively. This announcement is intended to draw the attention of the entomology community to the importance of defining quarantine pests for the country. The establishment and publication of lists with regulated pests (quarantine) is one of the obligations of the member countries of the International Plant Protection Convention (IPPC), under the responsibility of the National Plant Protection Organizations (NPPO), which in Brazil is the

Department of Plant Health and Agricultural Inputs (in the current structure of the Ministry), of the Department of Agricultural Defense (DDIA/SDA/MAPA). The publication of lists is important so that other stakeholders (countries, individuals, and organizations linked to international trade) know that the presence of such pests associated with shipments of plant products or other regulated articles may lead to measures (such as refusal to ship) by the importing country. In addition, the availability of regulated pest lists assists Contracting Parties in the correct issuance of Phytosanitary Certificates. The recent update was supported by several researchers from Embrapa

and other institutions that were consulted to comment on the status of the pests in Brazil. To all those involved, we would like to thank you for the support and attention dedicated to this update. Difficulties and uncertainties about nomenclature and possible reports of pests in the country are frequent, and the support and opinion of experts are essential for this work. We are open to comments on the relation of quarantine pests, whose status is dynamic and can be altered on a technical basis.

Tiago Rodrigo Lohmann
Federal Tax Attorney
Head of the Plant Quarantine Division





SEB MEMBERSHIP 2019

Professional	Student*	Foreigners
Online Journal R\$ 150,00	Online Journal R\$ 75,00	Online Journal US\$ 75,00
Online and Printed Journal R\$ 200,00	Online and Printed Journal R\$ 100,00	Online and Printed Journal US\$ 120,00

To join or renew SEB membership, visit www.seg.org.br or contact us by mail secretaria@seb.org.br

Entomological Society of Brazil

NEWSLETTER



Editors

Élison Fabrício Bezerra Lima

UFPI - Universidade Federal do Piauí
elisonfabricio@hotmail.com

João Antonio Cyrino Zequi

UEL - Universidade Estadual de Londrina
joaozequi@gmail.com

Wanessa Scopel

UNEMAT - Universidade do Estado de Mato Grosso
scopelw@hotmail.com

Rodovia GO-462, Km 12
Santo Antônio de Goiás - GO
Caixa Postal: 179 CEP: 75375-000
Fone: (62) 3533-2206

www.seb.org.br

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