



Word from the President



Dear Entomologists,

Greetings to everyone at this time of great changes in the society due to the Covid-19 pandemic. This newsletter provides information about another tremendous achievement for SEB, the increase in the Impact factor of *Neotropical Entomology* from 1.090 to 1.330! We congratulate the Editor-in-Chief, Eliana Fontes, all members of the Editorial Board, and the reviewers for their brilliant work. Our new Entomological Communications journal, only six months old, already has an ISSN (2675-1305). Congratulations to the editors-in-chief Daniell Fernandes and Rafael Pitta! Another important achievement

was the digitization of the 29 issues (volumes) of the *Anais da Sociedade Entomológica do Brasil* (which in 2001 became *Neotropical Entomology*). The digitized articles are available to members on the new SEB website. Our new website is more interactive, dynamic and with a lot of new information, including the SEB Jovem. SEB Jovem is active on social networks on Instagram (@seb.entomologia) and Twitter (@EntoBrasil), always providing quality content in an accessible language. We thank and congratulate the coordinator Aline Guidolin and all the members of SEB Jovem. The Entomology in the Press section addresses an important subject about the extinction of insects and, Entomology in Focus discusses curiosities about the Asian giant hornet, subjects that are widely commented about on social networks. The Nomenclator Entomologicus has information about the revision of the family Myrmeleontidae. In Promote Your Page, @mundo_dos_in-

setos on Instagram has more than 35 thousand followers, a success due to daily posts and laid-bank weekly interviews with entomologists from different areas of activity. Congratulations Lídia and Ávylla for being initiative and successful! In addition, be sure to check out in this newsletter Worth Reading, Events in Entomology, Your Picture, Entomoarte, and the Comic strip.

It is with great surprise and regret that we say goodbye to our dear colleague Luiz Alexandre Nogueira de Sá. Alexandre actively participated in SEB events, sharing his knowledge and his joy of living.

God bless us!
Fraternal hugs,

Eliane D. Quintela
SEB President

Activities of the Board

Change of CBE and Siconbiol dates

Due to the coronavirus pandemic (COVID-19), the board of SEB decided to postpone the XXVIII Brazilian Congress of Entomology (CBE) and the XVII Symposium on Biological Control (SICONBIOL) after consulting the event organizers and the Advisory Board. This measure was necessary to prevent the spread of the virus and to maintain the health and safety of everyone.

Thus, the CBE and Siconbiol will occur in the same programmed period, but a year later than originally planned. The XXVIII Brazilian Congress of Entomology (CBE) will be held from August 30 to September 3, 2021, in Fortaleza (CE). The XVII Symposium on Biological Control/II Latin American Symposium on Biological Control will take place from July 31 to August 4, 2022, in Juazeiro, BA and Petrolina PE. The deadlines for submitting papers, registration, contests, and awards were also extended.

Current board extended to 2021

According to the SEB Statute, elections for the Board must be held at each Brazilian Entomology Congress. Due to the postponement of the Congress, the elections will also be held in

September 2021. The Advisory Board of SEB suggested holding a Special Virtual Assembly to extend the terms of the current board. The call notice will be sent to the members according to the Bylaws. The meeting will be held via videoconference, as soon as the date is set, all members will be notified.

SEB President participated in Live on Instagram
SEB President Eliane Quintela participated in a live broadcast via Instagram on @mundo_dos_insetos on 06/24/2020. The president was interviewed and had the opportunity to talk about her career and how she became the president the Entomological Society of Brazil; the importance

of the Society, its objectives and the main activities developed; and how SEB Jovem is important to encourage the participation of young entomologists, who are the future of the Society! SEB thanks Lídia and Ávylla for the opportunity and congratulates them for the creation of this important channel for the dissemination of Entomology to society.

New classification of *Neotropical Entomology*

We are pleased to share with you the new citation metrics for *Neotropical Entomology*. The Impact factor 2019 of *Neotropical Entomology* has risen from 1,090 to 1,330!

Proseando com o Mundo dos Insetos
Tema: Sociedade Entomológica do Brasil
"Divulgando e popularizando a Entomologia"

CONVIDADA: Dr^a. Eliane Dias Quintela
Presidente da SEB e pesquisadora da Embrapa Arroz e Feijão

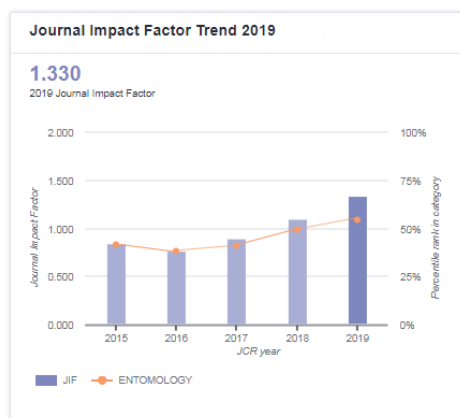
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COM
Lídia Almeida & Ávylla Barros



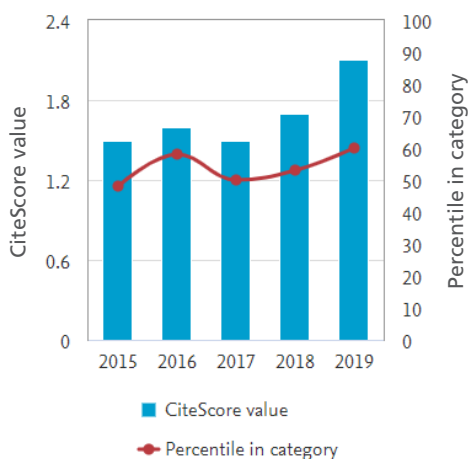
In addition, the journal now belongs to the second quartile in the JCR Entomology category, with a 54.9 percentile, which means that the Neotropical Entomology Impact Factor is now higher than over half of the journals in its category.

This is a tremendous achievement!



A similar trend can be seen in the CiteScore 2019, which rose from 1.7 (2018) to 2.1 (2019). In the CiteScore ranking, Neotropical Entomology rose from the 53rd percentile (2018) to the 60th percentile (2019).

CiteScore trend



We congratulate and thank all the members of the Editorial Board, the authors who chose Neotropical Entomology to publish their work and the reviewers who dedicate precious and anonymous time in the reviews.

This would not be possible without the effort and dedication of all, as well as the support of the Entomological Society of Brazil.

Eliana Fontes - Chief Editor

Raul Alberto Laumann - Deputy Editor

Luciana Christante de Mello - Springer Nature Publishing Editor

Entomological Communications

Entomological Communications has just completed six months since its first article was published (December 1, 2019). Despite the short time, we have already achieved some goals before we expected to. In January, our ISSN (2675-1305) was approved. With

this record, we asked for our DOI with CrossRef through ABEC (the Brazilian Association of Scientific Editors). Thus, we retroactively assign a DOI to articles published in 2019. On April 13, 2020, we launched our first article in volume 2, already with ISSN and DOI. From now on, all published articles will be linked to the personal pages of authors who have ORCID via CrossRef. We have also achieved indexing on three databases (Google Scholar, DOAJ, and BASE). In addition, our articles (26 by the submission of this article) have received more than 4,500 downloads and at least five citations according to the Google Scholar database. By the end of this year, we expect to double the number of articles that were published in 2019 (16 articles). For this, in addition to the 10 articles already published in 2020, we have eight more in the design phase, and several are being processed. We still have a long way to go, but the first steps have already been taken. None of this would be possible without our editors, reviewers, authors, and members of SEB. Thank you all very much! We hope that *Entomological Communications* will be your next choice for disseminating your data in a short, fast, free, and quality publication. And let's see what will come in the next six months.

Access our website and follow our social networks on Instagram, Facebook, and Twitter (you will find a link to social networks in the "Follow" tab at the beginning of our page - <https://www.entomological-communications.org/>).

Daniell Rodrigo Rodrigues Fernandes & Rafael Major Pitta

Chief Editors

Annals of the Entomological Society of Brazil available on the website

The publication of the *Anais da Sociedade Entomológica do Brasil* (Annals of the Entomological Society of Brazil) began in 1972, the year that SEB was founded. In total, 29 issues (volumes) were published up to the year 2000. Then in 2001 the name was changed to Neotropical Entomology with a new format. The Annals collection was only available in the printed version, with only the last four volumes were available on the Scielo platform. The current board started the project to digitize the Anais to make them available to the whole Society. Most articles can now be accessed on the SEB website (<https://www.seb.org.br/anais>).

SEB Jovem: promoting entomology and its young researchers on social networks

EScientific events bring names experienced in Entomology to give brilliant presentations, which leads many event organizers and participants to think that giving a presentation requires years of experience and a certain notoriety. However, there are many qualified researchers who have been in the job market for a short time or are still studying in a postgraduate program. With this thought in mind, SEB took the initiative to expand the participation of young entomologists in congresses and decision-making, in addition to improving the dissemination of job opportunities.

Thus, SEB Jovem was born, composed of 5 members, including master's, doctoral, and post-doc students that represent the different regions of the country. The multidisciplinary nature of the group has been reflected in publications made on social media networks, such as Instagram (@seb.entomologia) and Twitter (@EntoBrasil). Due to social isolation as a preventive measure against Covid-19, SEB Jovem is more active on social networks, always bringing quality content, and in accessible language. These dissemination actions on social networks provide greater visibility of entomology with the lay public, which helps society to appreciate all entomologists.

Check out the full news at: <https://www.entomologista.com/post/sebjovem>

Aline Guidolin - SEB Jovem Coordinator

New SEB website

We developed a new website with a more dynamic and user-friendly platform to better meet the needs and requests of members:

- In the members only area, active members have free access to articles from the journal *Neotropical Entomology* and *Entomological Communications*.
- Information about Entomology events, news and announcements can be sent directly from the internal area.
- We created the SEB members card that is available in this location for active members.
- The *Anais da Sociedade Entomológica do Brasil* have been digitized and most of the articles can now be accessed.
- The SEB Jovem website is integrated with the SEB website, containing an exclusive and interactive menu for the involvement of young entomologists.
- The payment slip for your membership dues can be generated by entering only your CPF or registered e-mail. Foreigners can also pay their annual membership dues with ease. Take the opportunity to update your registration details and pay your annual membership for 2020, if you have not already done so.

Check out: www.seb.org.br

The screenshot shows the homepage of the Sociedade Entomológica do Brasil website. At the top, there is a navigation bar with contact information (+55 (62) 3533-2208, secretaria@seb.org.br) and social media icons. The main header features the organization's logo (a green butterfly) and the name "SOCIEDADE ENTOMOLÓGICA DO BRASIL" with the tagline "Promovendo e Popularizando a Entomologia Desde 1972". Below the header is a menu with options: Principal, Sobre a SEB, Cadastro, SEB Jovem, Publicações, Arquivo SEB, and Contato. The main content area has a large banner with a green background and a close-up image of a green grasshopper. The banner text reads "Seja bem vindo! Sociedade Entomológica do Brasil". At the bottom, there is a footer with four icons and dates: a trophy for "31/03/2021 Indicação de Prêmios", a calendar for "13/04/2021 Inscrições com desconto", a document for "29/05/2021 Submissão de trabalhos", and a star for "30/08/2021 CBE 2020".



Our Members

It is with great sadness that we say goodbye to our colleague and partner Luiz Alexandre Nogueira de Sá, who died on July 6, 2020. He was married to Maria José and had two daughters, Maria Livia and Maria Clara. Luiz Alexandre will always be remembered by colleagues as a very cheerful person and committed professional, with a striking personality and witty and captivating smile.

Luiz Alexandre served as a researcher at the Brazilian Agricultural Research Corporation, Embrapa, for 41 years, retiring in June of this year. He obtained a undergraduate degree in Agronomy in 1975 from UNESP in Jaboticabal, SP, master's degree in Biological Sciences in 1981 at UNICAMP, and doctorate in Entomology in 1991 at ESALQ/USP, and did a post-doctoral study in 2001/2002 at the Polytechnic University of Cartagena in Spain.

In addition to being a researcher, he was vice-supervisor of the QUARENTENA LABORATORY "COSTA LIMA", from EMBRAPA MEIO AMBIENTE, in Jaguariúna-SP. He participated as Professor in charge of the discipline "Ecological Management of Pests and Diseases", in the Course of Agroecology and Rural Development at the Federal University of São Carlos/UFSCar Campus at Araras. He coordinated Research Projects in Biological Pest Control in Citrus and Forests at Embrapa, CNPq/ MAPA, and PROTEF/IPEF/ESALQ/USP; He participated as a member of the Plant Health Research Network: ANALYSIS AND MITIGATION OF RISKS IN THE IMPORT AND EXPORT OF AGRICULTURAL PRODUCTS-MAPA. Luiz Alexandre was a delegate from Brazil and a member of the Technical Group for Biological Control of the Committee on Plant Health in the Southern Cone (COSAVE-GTCB) with the member countries Argentina, Bolivia, Brazil, Chile, Uruguay, and Peru. In addition, he was Vice President of COSAVE-GTCB based in Brazil from 2015-2019.

Luiz Alexandre worked in the classic biological pest control area, with research related to the phytosanitary defense area, in the prevention, introduction, and quarantine of exotic natural enemies in the biological control of exotic pests (from outside the country). He actively participated in the events of the Entomological Society of Brazil, such as the Brazilian Congress of Entomology and the Biological Control Symposium.

Luiz Alexandre will be forever missed, with fond memories, and for his great contributions to Entomology. We extend our most sincere condolences to family and friends for this great loss.



Focus Entomology

Not a killer and not intentionally introduced: the Asian giant hornet is just another invasive alien species in the world

Species from the most diverse groups of insects can become invasive and assume the status of "Invasive Exotic Species" as defined in the Convention on Biological Diversity (CBD). In recent months, a species of hornet has become a concern in the Americas. Reports of the presence of a giant hornet have multiplied on social networks and in the news, in some cases, carried with incorrect information. The inadequate designation of "killer hornet" and a hypothesis of possible intentional introduction are not supported by a careful evaluation of the reports by experts to date.

The species in question is commonly known as the Asian giant hornet. The *Vespa mandarinia* Smith, 1852 (Order: Hymenoptera, Family: Vespidae) is native to Japan and has been recorded in Russia, China, South Korea, North Korea, and Taiwan. It is the largest species of hornet in the world, reaching 5 cm in length, and its orange-colored head is its most striking feature, where the robust, darker jaws stand out. The chest is black, and the abdomen has interspersed stripes in black and orange. The Asian giant hornet is a risk for beekeeping, as it attacks hives, tearing worker bees, which are usually beheaded. Other insects are also preyed on, and these hornets use parts of their prey to feed their larvae in their nests. Three subspecies of this hornet are known, with morphological variations that allow the distinction. It should also be mentioned that they pose a risk to human health, with the potential for fatal stings, which although rare have been reported in Asia.

The Asian giant hornet was first observed in North America in August 2019, in a location on Vancouver Island, British Columbia Province, Canada, where a



The Asian giant hornet (*V. mandarinia*) - Head detail
Photos: <https://pt.wikipedia.org/wiki/Vespa-mandarinia>

nest was eradicated. In late 2019, the hornet was spotted in Whatcom County, Washington State, United States, near the Canadian border. In the United States, also in Whatcom County, a dead specimen and decimated hives were found with typical signs of the hornet attack, although no hornet specimens were found there. From

the reports so far, we can say that the invasion is still at an early stage. The definitive establishment and dispersion of the species to other regions of the United States and Canada will depend on the viability of eradicating nests and adapting the species to new environments. The Asian giant hornet is not the only notable example of invasive hornets. An ancient example of invasion is the European hornet (*Vespa crabro* Linnaeus, 1758), which has a wide geographical distribution, occurring from Europe to Asia and was first reported in the United States in the 19th century. Another well-studied example is the Asian hornet (*Vespa velutina* Lepeletier), which was introduced in France in 2004 from a shipment of ceramics from Asia. The Asian hornet has spread to Portugal, Spain, Italy, and the United Kingdom and is continually expanding across Europe despite eradication efforts. This species, like the Asian giant hornet, also attacks and destroys hives. Thus, both the Asian giant hornet and the Asian hornet (*V. mandarinia* and *V. velutina*) are harmful species to beekeeping and a potential threat to native bees.

Like any other invasive species, the introduction of the Asian giant hornet in South America cannot be ruled out. There is, for example, evidence that certain types of goods can serve as a shelter for hornets to be transported via cargo ships between continents. Queens, of this and other species of hornets from temperate climate, naturally go through a process of hibernation and look for protected places to spend the winter. However, especially in Brazil, the

climate should be a limiting factor for a remote occupation of this insect. According to Prof. Gard Otis of the University of Guelph, Canada: "*Vespa mandarinia* is adapted to cold climates. For example, there was only one record of this hornet in a mountainous area in far northern Vietnam (which is tropical and warm). Therefore, I do not believe that Brazil has the right climatic conditions for the species." In fact, this statement is largely justified, as there are already cases of invasion in South America by other species closely related to the Asian giant hornet. *Vespula germanica* and *Vespula vulgaris*, belong to the same subfamily (Vespinae) as the Asian hornet and were introduced in South America at least twelve years ago. However, its distribution is restricted to Argentina and Chile in areas with a very cold climate, as in the Patagonia region in Argentina. As mentioned above, hornets in the subfamily Vespinae are adapted to a period of harsh winter. With the arrival of the next spring, the colony produces new queens and males. Mating occurs and inseminated queens seek refuge to survive the winter, with the mother colony dying. In the spring, the new queens start new colonies. This life cycle is quite different from most neotropical social hornets that do not have this climatic limitation and the life cycle of their colonies is quite variable.

The communication of alerts on invasive species to the general public is essential to confront a biological invasion. The sooner an invasive alien species is detected, the greater the chances of eradication or, realistically, providing the time to develop and apply a management plan for the established invasive species. Thus, according to each case, a reduction in the damage to economic activities, ecosystems, and public health is ensured.

Marcelo Lopes-da-Silva (Embrapa Genetic Resources and Biotechnology, Brasília - DF)

Fernando B. Noll (UNESP, Campus at S. J. Rio Preto - SP)

Norton P. Benito (Embrapa Genetic Resources and Biotechnology, Brasília - DF)

Denise Návia (Embrapa Genetic Resources and Biotechnology, Brasília - DF)



Entomology on the Press

Endangered insects!

The great diversity of insects is essential for the maintenance of ecological niches and their balance. Studies conducted at the University of Helsinki (Finland) and Stellenbosch (South Africa) found that over half a million insects are in the process of extinction due to human actions. Among them are pollinators, such as bees, which guarantee the diversity of foods. The causes for extinction are diverse: loss of habitat, pollution, use of non-selective insecticides in agriculture, invasive species, climate change, among other factors. Recent studies indicate that insects provide free services that benefit humans around 350 billion dollars a year. We still know very little about the pollination interactions and the biology of insects in the most intact environments, nor do we understand the self-maintenance of the local systemic balance provided by this coevolutionary process. According to Erica McAlister, senior curator at the Natural History Museum in London, there are about 17 pollinators for cocoa

plantations, where about 15 of them are tiny chewers including an ant and a maxillary sucker (micromariposa). These interactions are closely related to cocoa production.

With about half a million insects in rapid decline, problems will occur in decomposition processes of organic matter that aid in the recycling of nutrients in the soil, and there could be a lack of food for a huge range of aquatic and terrestrial vertebrates that may also go into decline, since about 60% of vertebrates depend on insects.

With an estimated 2 to 30 million insect species, many of them are becoming extinct even before they are discovered and classified due to habitat loss. Lepidoptera, Hymenoptera, and Coleoptera are the most affected in the terrestrial environment; already Odonata, Plecoptera, Trichoptera, and Ephemeroptera, in which many are bioindicators of environmental quality, have significant species loss according to an article published in *Biological Conservation*, in 2019, which results from a review of 73 reports.

The great abundance, but low diversity of agricultural pests or insect vectors of pathogens, has a determining factor for population explosion. This unbalances the natural environments and

favors the insect populations that have efficient and/or physiological reproductive strategies in this new environment without predators.

Insects are more than just agricultural and synanthropic pests. Most are harmless, and their great diversity is being extinguished mainly by habitat loss. With their absence, we also lose ecological niches and quality of life, or this may even collapse food production and end many essential services.

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Nomenclator entomologicus

106. Traditionally, Myrmeleontidae and Ascalaphidae have been grouped as distinct families in Myrmeleontoidea (Insecta: Neuroptera). Even with apparent differences in the biology, behavior, and morphology of larvae and adults in species derived from both groups, some species considered to be more basal have morphological characteristics and intermediate behavioral factors that hindered their classification. Phylogenetic studies focused on solving the complex evolutionary history of these two traditional groups have constantly shown that Myrmeleontidae and Ascalaphidae are paraphyletic groups related to each other (Wang et al. 2017; Winterton et al. 2010;2018). Recently, work based on phylogenetic data proved that ascalaphids are actually a subfamily derived from Myrmeleontidae.

Thus, Myrmeleontidae is currently divided into four subfamilies: Ascalaphinae, Dendroleontinae, Myrmeleontinae, and Nemoleontinae (Machado et. 2019).

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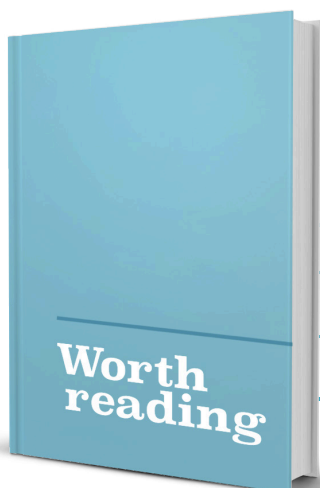
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Renato Jose Pires Machado

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Publish Your Page

O MUNDO DOS INSETOS (world of insects) in the network of 1 billion users: from the laboratory to INSTAGRAM.

The page @mundo_dos_insetos started in August 2017. The idea of creating the IG emerged at the end of the undergraduate course in Biological Sciences (Licenciatura) at the Federal University of Alagoas - UFAL, when we observed that there was no page with the informational profile on Entomology and we decided to do something to address the subject in a simple and accessible way to reach as large an audience as possible with the objective of disseminating the area of knowledge.

The growth of the page has happened gradually, and today, after almost three years of creation, we have reached the mark of more than 35 thousand followers, which we consider a very high number for an area of science that is still minimally popularized. We attribute this result to the posts, which are done daily, and to the interaction with the followers, who are mainly responsible for the success of the page. We try to maintain this pace of posts with the understanding that the project is a way of disseminating science and mainly Entomology, as well as because we believe that education and science are the best way to raise awareness of the issues that are cultivated day by day, fostering a holistic view through shared knowledge.

In addition to the activities developed on the page, we also develop extension work at scientific events, bringing the world of insects closer to the public. In July 2018, we were present at the largest scientific event in Latin America (SBPC), in the tent of the young SBPC with the entomological exhibition @mundo_dos_insetos, in Maceió,

AL. In April 2019, a workshop on Entomology was offered to scouts in Alagoas, taking the work to children and adolescents in partnership with IPMA - Institute for the Preservation of the Atlantic Forest, Rio Largo, AL. In addition, we work in partnership to coordinate the Winter Course in Entomology, which is offered annually by UNESP/FCAV Jaboticabal, SP, where we have already participated in two editions (2018 and 2019). In these events, we presented the work of the page and current knowledge in a playful way through an interactive entomological quiz, ideal for bringing our audience even closer.

Thus, as administrators of the page, we believe in the strength of social networks as a tool for disseminating science. The world is connected through these networks and science must look for an opportunity to popularize it.

So, come to our world and discover the incredible life of insects!

Administrators:

Lídia Rafaela Almeida da Silva, Biologist graduated from the Federal University of Alagoas - UFAL, Master's in Plant Protection from the Campus of Engineering and Agricultural Sciences, Federal University of Alagoas - CECA/UFAL. Doctoral student in Agricultural Entomology at the Federal Rural University of Pernambuco - UFRPE.

Ávylla Régia de Albuquerque Barros, Biologist graduated from the Federal University of Alagoas - UFAL, Master's in Agronomy (Agricultural Entomology) from the Faculty of Agricultural and Veterinary Sciences - Sao Paulo State University FCAV/UNESP, Campus de Jaboticabal, SP, PhD student at the same institution.



Entomology Events

- I Brazilian Symposium of Thysanoptera – August 17 and 21, 2020 (online - <http://nhn.ufpi.br/thysanoptera>)
- International Hemipteran-Plant Interactions Symposium (HPIS) – December 2 to 4, 2020, Melbourne, Australia
- 56th Annual Congress of the Brazilian Society of Tropical Medicine (MEDTROP) – June 6 to 9, 2021, Belém, PA, Brazil
- Second International Congress of Biological Control (ICB2) – April 26 to 30, 2021, Davos, Switzerland
- IX Symposium of the European Association of Acarologists – July 12 to 16, 2021, Bari, Italy
- XXVI International Congress of Entomology – July 8 to 23, 2021, Helsinki, Finland
- Symposium on Insect-Plant Interactions (SIP) – July 25 to 29, 2021, Leiden, Holland.
- XXVIII Brazilian Congress of Entomology – August 31 to September 3, 2021, Fortaleza, CE, Brazil
- XVII Biological Control Symposium (Siconbiol)/II Latin-American Symposium on Biological Control – July 31 to August 4, 2022, Juazeiro, BA & Petrolina, PE, Brazil

EntomoArte!

Caligo brasiliensis brasiliensis (C. Felder, 1862)

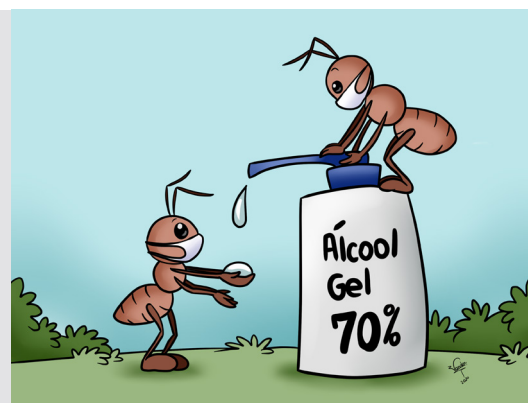
Artist: **Giulianne Simizu Calizotti**

Biologist – External collaborator of the Universidade Estadual de Londrina, Center for Biological Sciences



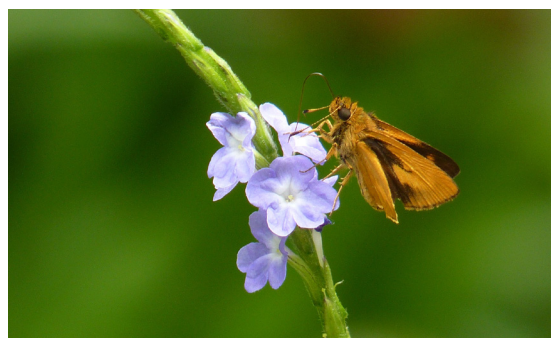
Comic Strip

Author: **Vanderlane B. Lima**
Undergraduate student in
Visual Arts, IFCE



Your Picture

Hesperiidae: Lepidoptera
Common Name: Diabinho
Scientific Name: *Anthoptusepitectus*
Location: Tijucas, Santa Catarina
Date: 17/03/2017
Photo: **Fernando Dias**
Professor at the Center of Biological Sciences
- Universidade Estadual de Londrina





SEB MEMBERSHIP 2020

Professional

Online Journal
R\$ 150,00

Student

Online Journal
R\$ 75,00

Foreigners

Online Journal
US\$ 75,00

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



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