Entomological Society of Brazil

NEWSLETTER

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Activities of the Board

SICONBIOL
18° Simpósio de Controle Biológico
Expo Gramado | Gramado-RS

Rap up of the 18th SICONBIOL

The 18th Symposium on Biological Control (SICONBIOL) held September 14 to 18 in Gramado, RS, was an event about science and innovation that offered participants a diverse and thought-provoking program. The event was hosted by Embrapa, the Fundação de Apoio à Pesquisa e Desenvolvimento Agropecuário Edmundo Gastal (FAPEG), and the Universidade Federal de Santa Maria (UFSM), with support from the Universidade Federal de Pelotas (UFPel) and the Universidade do Vale do Taquari (UNIVATES). One of the differentials of SICONBIOL in Gramado was the greater integration of entomology, phytopathology, nematology, and herbology, expanding the programming focused on plant health. The significant participation of representatives from the areas of animal health and control of vectors of human diseases strengthened the approach of the Unified Public Health concept and highlighted the role of biological control in public and veterinary health. With the theme "The Future of Biological Control is Made through Science and Innovation," the program consisted of talks, roundtables, and forums, which addressed the advances and challenges of the sector. Innovation received special attention, with unprecedented activities that brought science, market, and society closer together. These include the premiere of My Thesis in 3 Minutes (3MT), adapted from the international model of the University of Queensland (Australia), established in several countries. The initiative approach emphasized the importance of scientific communication for society, challenging young researchers to present the essence of their research in a clear and accessible way – a fundamental exercise that helps the population appreciate science. In the axis of scientific entrepreneurship, the program included three novelties: the Startup Fair and StartBIO – Pitch of Startups, which gave visibility to technology-based companies; BioMatch – Reverse Pitch, a space in which companies, cooperatives, and institutions presented the demands and challenges of the sector; and development agencies presented opportunities for innovation and co-development. This environment promoted real connections between market needs and solutions from research, entrepreneurship, and industry. Another novelty was SICONBIOL Talks – Discussion of the Day, featuring wide audience participation. In this space, strategic topics for the future of biological control in Brazil were addressed, including: 1) the use of biological control in IPM; 2) prospective biological control – frontiers of knowledge and the paths of science in a broad concept; 3) the training and qualification of human resources; and 4) the science that generates business and opportunities in biological control. Field Days featured on-farm activities in Ecological Strawberry Production Systems in Nova Petrópolis and in Macieira in Vacaria. In the evening, inspired by the Pint of Science model, SICONBIOL Pub brought participants together in a relaxed atmosphere to discuss thought-provoking topics related to biological control. The diversity and scope of SICONBIOL 2025 were reflected in more than 1,200 participants. Approximately 45% were professionals and 55% were undergraduate and graduate students. Half of the registrants are between 20 and 30 years old, demonstrating the strong presence of young researchers and future professionals. Academic and professional training was also varied: 31% of doctors, 25% of undergraduate students, 13% of doctoral students, 11% of master's students, 9% of graduates, and 5% high school students. About 60% were affiliated with universities and other scientific and technological institutions (STIs), 32% with companies, and 8% with other sectors. The scientific program featured approximately 242 panelists in roundtables, forums, lectures, and panels, in addition to the presentation of 837 abstracts in poster or oral format. The 70 oral presentations included scientific papers, the 3MT contest, StartBIO, and BioMatch. More than a symposium, SICONBIOL reaffirms its role as a space for meeting, cooperation, and innovation, where science, entrepreneurship, and different sectors of society connect to build and propose sustainable solutions to the challenges of agriculture, animal health, and vector control of human diseases. By bringing together science and innovation as central axes, the event helps shape the future of biological control, aligned with the principles of bioeconomy and sustainability.

Dori Edson Nava, President of the 18th Siconbiol

Student Contest

The traditional SICONBIOL Student Contest recognized the best oral presentations by young researchers.

1st place: Rafael Stempniak Iasczczaki (UFV)
Title: Honeydew-producing pest enhances density and predation behavior of ants in erva-mate agroecosystems

2nd place: Mariane Possignolo Gomes (USP/ESALQ)
Title: Molecular interactions between *Myzus persicae* and *Diaeretiella rapae*: Metatranscriptional insights into host resilience to parasitization

3rd place: Patrícia Perina de Oliveira (UNICAMP)
Title: Bioprospecting of honey microorganisms with potential for biological control of phytopathogens

Three Minute Thesis (3MT)
First edition at SICONBIOL, the activity encouraged doctoral students and recent doctors to present their research in a clear, objective, and accessible way, promoting scientific communication and the social impact of science.
1st place: Salorrane Miranda do Nascimento Pinto (UFG)
Title: Gene expression of *Rhipicephalus sanguineus* ticks infected with entomopathogenic fungi
2nd place: Ianne Caroline da Silva Nobre (UFRPE)
Title: Ladybugs under pressure: the complex resistance to insecticides
3rd place: Felipe Marinho Coutinho de Souza (UFRPE)
Title: Silencing pests: promising genes for more sustainable agriculture

StartBIO drives entrepreneurship and innovation in biological control at SICONBIOL 2025.
StartBIO – Pitch for Startups was the space dedicated to entrepreneurship and innovation within SICONBIOL, bringing together startups and spin-offs that presented technological solutions capable of transforming the biological control sector in the country.
More than a showcase of ideas, StartBIO has become an environment of connection between science, market, and socio-environmental impact, reinforcing the importance of entrepreneurship as a driver of innovation in Brazilian agribusiness.The presentations were evaluated in three recognition categories, highlighting initiatives that represent different dimensions of innovation:

Emphasizing Innovation: Regenera Moléculas do Mar (Porto Alegre, RS) and Santa Bacteria (Pelotas, RS)

Emphasizing Connection and Presentation: Ag-Control (Lajeado, RS) and BioCerr (Monte Carmelo, MG)

Emphasizing Impact and Contribution: Connect-BIO (Santa Cruz do Sul, RS) and Decoy Smart Control (Ribeirão Preto, SP).

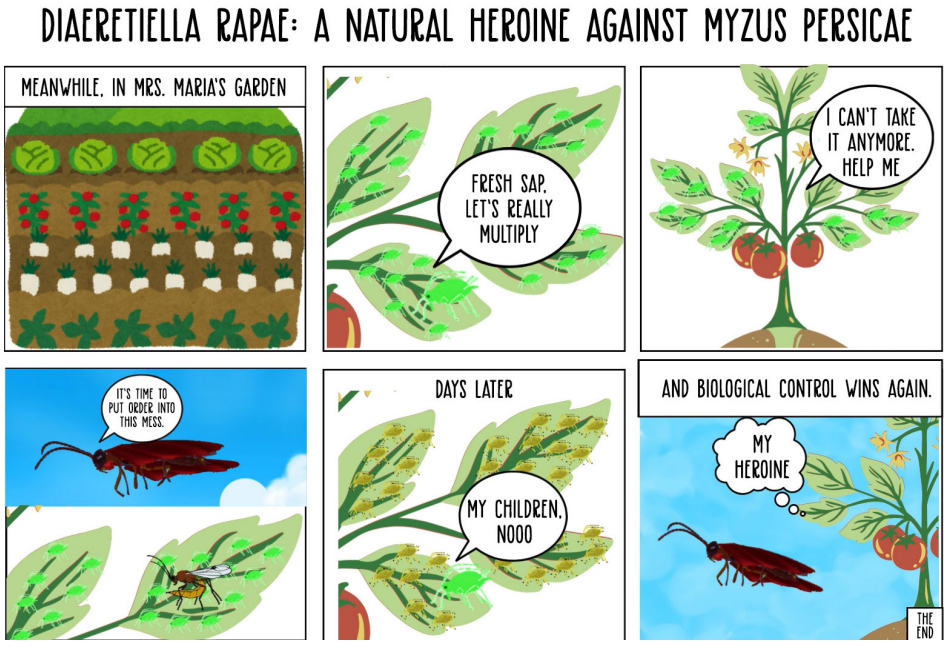
StartBIO highlighted the role of startups and spin-offs in transforming scientific knowledge into innovation, boosting biological control as a competitive and sustainable advantage in Brazil.

Audiovisual Competition at the 18th Siconbiol

1st place - Conventional Photography
"Reduviidae Mission: Pest Control Protocol"
Rosana Matos de Morais

1st place - Microscopic Photography
"The Power of Natural Enemies"
Tânia Rejane Ferro Carvalho Silva

1st place - Video
"An unexpected attack: the force is in the larval phase"
Tânia Rejane Ferro Carvalho Silva



1st place - Comic Strip
Mariane Possignolo Gomes

The next SICONBIOL will be in João Pessoa (PB) in September. Get ready for more science, innovation, and connections!

Publicize Your Page

Elfa dos Insetos – Page dedicated to the dissemination of insects in general and focused on environmental education
Instagram: @elfadosinsetoss

Insetos do Sertão – Page by scientist Tiago Costa Lima, from Embrapa in Petrolina, dedicated to the dissemination of subjects related to entomology and insects in general.
Instagram: @insetosdosertao

Semiochemical Laboratory – EMBRAPA – is dedicated to the study of chemical ecology applied to agriculture from Embrapa Genetic Resources and Biotechnology.
Instagram: @labsemioquimicos.embrapa

LECOI - UnB – Laboratório de Ecologia de Insetos do Instituto de Ciências Biológicas da Universidade de Brasília.
Instagram: @lecoinb

Letter from the Entomological Society of Brazil
The Entomological Society of Brazil (SEB) expresses its full support and endorsement of the open letter published by the Brazilian Society for the Progress of Science (SBPC) and the Brazilian Academy of Sciences (ABC), which warns of the imminent risk of a scientific blackout in the country and proposes the emergency restoration of CNPq fellowships.
SEB recognizes the seriousness of the situation described and reinforces that the weakening of policies for the promotion and retention of young researchers directly threatens the continuity of research in biodiversity, sustainable agriculture, and biological control — areas in which Brazilian entomology plays a strategic role for national scientific and technological development.
Therefore, we reiterate the urgency of effective actions to ensure the maintenance and expansion of investments in science, ensuring decent working conditions and permanence for our researchers.

Sociedade Entomológica do Brasil (SEB)
In support of the joint message from the SBPC and ABC
October 2025

Entomology in the Press

Mosquitoes Against Avian Malaria: Genetic Technology Protects Threatened Birds in Hawaii

To combat the extinction of native birds caused by avian malaria, scientists have turned to genetically modified mosquitoes in Hawaiian forests. According to a report by CNN Brasil (2025), the method consists of releasing male mosquitoes infected with the *Wolbachia* bacterium, which prevents the reproduction of disease transmitters. The initiative is already underway on the islands of Maui and Kauai, using drones and helicopters for aerial dispersal of the insects. The technique, which has already been successfully applied in urban contexts for dengue control, now seeks to preserve critically endangered Hawaiian meliphagic species such as ʻakikiki and ʻakekeʻe. For entomologists and conservationists, the strategy exemplifies how biological control can be an effective tool for conserving biodiversity in the face of climate change and emerging diseases.

Link to the report: https://www.cnnbrasil.com.br/tecnologia/havai-usa-mosquitos-modificados-para-salvar-passaros-em-extincao/

Mosquito Factory: Brazil bets on biotechnology to curb dengue and other arboviruses

Brazil inaugurated in Curitiba (PR) **the largest mosquito biofactory in the world**, with the capacity to produce up to 100 million eggs per week of *Aedes aegypti* containing the *Wolbachia* bacterium. Led by the Instituto de Biologia Molecular do Paraná (IBMP) in partnership with Fiocruz and the World Mosquito Program, the initiative seeks to reduce the transmission of dengue, Zika, and chikungunya. *Wolbachia* prevents viruses from developing inside the mosquito, rendering it harmless. The expectation is to benefit up to 140 million people in 40 Brazilian municipalities. For entomologists and sanitary engineers, the factory is a milestone in the application of large-scale biological control as a public health tool.

Link to the report: https://www.correiobraziliense.com.br/cbradar/brasil-inaugura-maior-biofabrica-de-mosquitos-do-mundo-para-combater-dengue/

"Cyborg" beetles with electronic backpacks: agile insects to save lives in disasters

Researchers at the University of Queensland have developed beetles equipped with microchips that allow them to control their movements remotely. These "cyborg" insects can access narrow and unstable areas in debris, assisting in locating victims in natural disasters. The technology uses electrical pulses to direct the animal, with future potential to incorporate cameras and sensors. For entomologists and robotics experts, the innovation combines the biological efficiency of insects with technological precision, offering a new tool for rescue operations.

Link to the report: https://g1.globo.com/meio-ambiente/noticia/2025/07/08/como-insetos-com-mochilas-podem-ajudar-a-encontrar-vitimas-de-desastres.ghtml

Protection against burning: fire-resistant galls serve as a refuge for larvae during fires in the Cerrado

Research from the Universidade Federal de Sergipe found that insect larvae in the Cerrado survive fires within thicker galls. They function as true "natural shelters against fire." Of the galls collected after a fire in Minas Gerais, about 66% kept larvae alive, and some had a 100% survival rate. For ecologists and entomologists, the study highlights a possible evolutionary adaptation: insects that generate more heat-resistant galls as an emerging strategy due to the intensification of fires in the biome. This finding reinforces the importance of understanding plant-insect relationships in frequent fire scenarios and may offer valuable insights for ecosystem conservation and restoration in an increasingly adverse climate.

Link to the report: https://g1.globo.com/meio-ambiente/noticia/2025/05/27/pesquisa-descobre-que-insetos-estao-se-refugiando-em-abrigos-para-sobreviver-aos-incendios.ghtml

Royal Jelly

Metamorphosis on stage: the butterfly that is born from music

When Marina sent live caterpillars to fans for her new song, she planted a (literally live) metaphor of transformation. The fascination with butterflies is already ancestral as a symbol of rebirth, ephemerality, and freedom. But here, the insect is not only in the song's lyrics; it is close to those who receive it, an extension of the art that makes up the world.

The song "Butterfly," released in February 2025, came with a sensory experience: taking care of a caterpillar until you see it fly. This poetic choice alters the classical dynamics of the passive spectator. The insect ceases to be an abstract idea and becomes present, a metamorphosing companion, intermediate between the human and the natural.

In the Royal Jelly section, where entomological poetry is sought, this artistic gesture invites reflection on language and presence. If the imaginary insect only exists within the fictitious circle in Leminski's poem (see informative No. 63 of 2023), here the butterfly emerges from the action. The reader (or listener) no longer searches for the insect; he already has it.

Poetic language expands: it is not limited to printed discourse, but fertilizes itself in care, time, and transformation. The butterfly is a metaphor and a real creature, coexisting at a threshold where art and nature intertwine. It is not a drawn circle but rather a living and sensitive cycle.

The experience proposes a living metalanguage: music that talks about metamorphosis becomes part of a biological cycle. The poetic gesture reflects on how we create meaning and how this meaning can give literal life to the symbolic. The caterpillar is born, grows, makes a chrysalis (pupa), and flies. The listener becomes the guardian of an entomological phenomenon, as present as the musical note that accompanies the exact moment of the first fluttering of wings.

And then: where is the insect? It is in the lyrics, the sensitive dealings with the natural world, and the incarnated metaphor. The butterfly exists because we made it (or Marina made it) exist. This fusion of language, gesture, and living form is exactly the kind of plot that makes entomology moving poetry.

Marina Diamandis. Butterfly. Single from the album Princess of Power (2025). Released independently by Queenie Records on February 21, 2025, distributed by BMG Rights Management. Marina wrote the song herself and co-produced it with CJ Baran. The music video, directed by Aerin Moreno, premiered the same day.

Associated articles:

MARINA Sends Caterpillars to Fans Ahead of New Album Launch

https://www.hypefresh.com/marina-sends-caterpillars-to-fans-ahead-of-new-album-launch/

Entomology in Focus

Maruim: meet the insect that transmits the oropouche fever virus and learn how to protect yourself

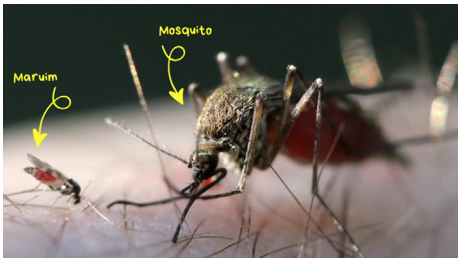
Oropouche fever is an arbovirus emerging in South America. It is caused by the oropouche virus (OROV), which belongs to the genus *Orthobunyavirus* and the family Peribunyaviridae. OROV infection can result in epidemic outbreaks, characterized by acute fever, headache, myalgia, arthralgia, and occasionally neurological manifestations such as viral meningitis and encephalitis. Although the disease is self-limited, the literature includes clinical reports of patients who died from OROV.

Although not a new arbovirus in Brazil, gaps remain in knowledge about the epidemiological and environmental aspects that allow the circulation of this arbovirus among hosts. To give you an idea, the first OROV isolate in Brazil was in 1960, from a blood sample of a sloth (*Bradypus tridactylus*), during the construction of the Belém-Brasília highway. Since then, isolated cases and outbreaks have occurred in northern Brazil and other countries in Central and South America. Last year, outbreaks happened in other Brazilian states, considered non-endemic regions, including Bahia, Ceará, Pernambuco, Piauí, Espírito Santo, Minas Gerais, Rio de Janeiro, Mato Grosso, Mato Grosso do Sul, and Santa Catarina.

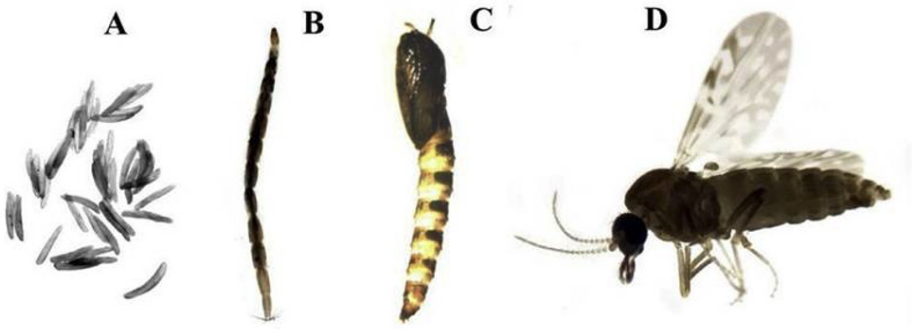
The epidemiological cycle of oropouche fever occurs in both wild and urban environments. In the wild, OROV circulates between non-human mammals, such as sloths and rodents, which act as natural reservoirs of the virus, and insect vectors (*Culicoides paraensis* and possibly *Coquillettidia venezuelensis* and *Aedes serratus*). In the urban environment, the virus circulates between humans and urban insect vectors (*C. paraensis* and possibly *Culex quinquefasciatus*).

OROV transmission occurs when hematophagous females ingest blood from an infected vertebrate host and, after an extrinsic incubation period, disseminate the virus to new hosts. The main vector in Brazil is *Culicoides paraensis*, a dipteran belonging to the Ceratopogonidae family, also known as maruim, meruim, mosquito-pólvora, and mangrove mosquito.

They are holometabolous insects that develop in an egg and have four larval phases, a pupal stage, and an adult stage, male and female. Females lay eggs in moist places, such as decomposing organic matter, riverbanks, and mangroves. The larvae hatch within a few days. These develop in humid environments, feeding on organic matter. This stage lasts about 3 weeks, with the larvae passing through different growth phases. The larvae transform into pupae, a transitional phase that lasts a few days. Pupae are found in moist or semi-aquatic locations and turn into adult mosquitoes, which emerge to reproduce. Adult females feed on blood to produce eggs, while males feed on plant nectar and sap. The total lifecycle of *Culicoides paraensis* ranges from 10 to 14 days, which contributes to its rapid proliferation.



Maruim and mosquito females performing hematophagy. Comparison of the size of the two species. Source: Illustration adapted from the CDC website.



Evolutionary forms of Culicoides sp.*: A. Eggs; B. Larva; C. Pupa; D. Adult female of* Culicoides insignis*. Source: De Sousa Farias, 2021.*

Oropouche fever is considered an arbovirus, and for this reason, people commonly confuse the OROV vector insect, attributing transmission to the *Aedes aegypti* mosquito. This confusion can lead to erroneous decisions when choosing an insect vector control strategy. The vectors of oropouche fever virus and dengue fever show significant morphological, biological, and behavioral differences. *C. paraensis*, unlike *A. aegypti*, is a small insect with a dark body and spotted wings and has predominantly crepuscular and nocturnal habits. Its reproduction occurs in environments rich in humid organic matter, such as riverbanks, streams, mangroves, flooded areas, and plant decomposition, while *A. aegypti* deposits its eggs in artificial breeding grounds with clean water, such as domestic containers.

From a behavioral point of view, *A. aegypti* has diurnal and anthropophilic habits, i.e., it prefers to feed on human blood in urban environments. On the other hand, *C. paraensis* has a broader food spectrum, being able to feed on several vertebrates, also presenting a short flight and a tendency to remain close to the breeding site. These characteristics make controlling maruim more challenging than *A. aegypti*, as their larvae develop in places that are difficult to access and eliminate.

Characteristics	Maruins (*Culicoides paraensis*)	*Aedes aegypti*
Size	Small (1–3 mm)	Medium (4–7 mm)
Color	Dark body, mottled wings	Black body with white stripes
Sting	Painful, causes intense itching	Usually painless
Feeding time	Twilight and night	Daytime
Breeding habitat	Wetlands, decomposing organic matter	Clean and still water
Medical importance	Oropouche fever	Dengue, Zika, Chikungunya, Yellow Fever

Main differences between *Culicoides paraensis* e *Aedes aegypti*

The control of oropouche fever involves measures aimed at reducing vector populations and individual protection against bites. For *A. aegypti*, well-established strategies include eliminating breeding sites, using larvicides, and awareness campaigns. For *C. paraensis*, the approach is more complex, involving drainage of wetlands, specific insecticides, and physical barriers, such as thin screens on windows and insecticide-impregnated mosquito nets.

Another promising strategy for controlling oropouche fever is integrated epidemiological surveillance, which involves monitoring viral circulation in wild vectors and reservoirs. In addition, studies on possible vaccines and antivirals against OROV can help minimize the impact of the disease in endemic areas.

Oropouche fever is an emerging disease with significant epidemic potential. Understanding the vectors and hosts involved in the OROV cycle is essential to developing effective control strategies. Strengthening epidemiological surveillance and investing in research on the ecology of the virus and its vectors are fundamental to mitigate the impacts of this arbovirus on public health.

Source:

Carvalho, L. P. C. Fauna de Culicoides (Diptera: Ceratopogonidae) do estado de Rondônia, Brasil / Luis Paulo Costa de Carvalho. --- Dissertation (Master's Degree) --- INPA, Manaus, 2016.

De Sousa Farias, E. Diversidade de maruins (Diptera: Ceratopogonidae) na Amazônia Brasileira e o uso da taxonomia integrada / Emanuelle de Sousa Farias Thesis, IOC, Rio de Janeiro, 2021.

Tilston-Lunel, N.L. Oropouche Virus: An Emerging Orthobunyavirus. *Journal of General Virology*, 105:002027, 2024. DOI 10.1099/jgv.0.002027

Photo: Oropouche outbreak in 2024 | Oropouche | CDC, seen on 14/02/2025

Prof. Dr. Veruska Cavalcanti Barros
Laboratory of Parasitology and Sanitary Entomology (LAPES) - Department of Parasitology and Microbiology – CCS – UFPI

Events in Entomology

IV Entomology Congress of Piauí
Dates: November 25-28, 2025
Location: Campus Professor Cinobelina Elvas, Bom Jesus, PI, Brazil
Description: The event will discuss the role of insect research in the sustainable development of the agricultural frontier, combining the states of Maranhão, Tocantins, Piauí, and Bahia, in line with the Sustainable Development Goals.

Popularization of Science

BioInsecta/BioDossel: Megaprojects that reveal the unknown world of insects living in the Central Amazon

What does the survey show?

The study is guided by two major questions: how many insect species are impacted when an area of about 10 hectares of the Amazon Forest is destroyed or degraded? And how are insect groups with different ecological roles (guilds) distributed in the vertical structure of the forest?

Insects represent almost 60% of the planet's known species, including plants, fungi, and animals. However, science does not know much about the insects in the Amazon Rainforest, particularly those that live more than two meters above the ground.

Despite major advances in the study of biodiversity in recent decades, estimates of the number of insect species living in any area of tropical forest are still very inaccurate. Unknown species account for probably between 90% and 98% of the Amazon's insect diversity.

BioInsecta/BioDossel seeks to provide the first reliable estimate of the number of species that exist in an area of 10 hectares of the Central Amazon, to reveal the identity of these species, and how this diversity is distributed three-dimensionally in the forest, from the ground to the canopy, about 30 meters high.

How is the study conducted?

The research has three central components:

• the use of an integrated system of traps arranged vertically in the forest, in a cascade, hoisted up to the treetops, which remained mounted for the massive collection of insects for 14 months of sampling in five forest strata;

• employing innovative DNA sequencing technologies (barcoding) combined with morphological data for the rapid and accurate identification of species, on a large scale, and at low cost;

• and the participation of a huge network of more than 200 experts, who will use morphological data to validate species identification and the recognition of new species.

The study is being done at three sites in the Central Amazon – the INPA ZF2 Biological Reserve, 80 km north of Manaus, AM; a site west of the Rio Negro (Iranduba/AM); and another south of the Rio Solimões (Careiro Castanho, AM).

BioInsecta (Biomonitoring of Insects in Tropical Forests) is supported by FAPESP and is headquartered at USP in Ribeirão Preto (FFCLRP). The project is developed in partnership with BioDossel, a National Institute of Science and Technology of INPA.

What the study found and key points

Sampling with cascade traps in the three study areas was completed in September 2025. Of the projected more than 6.0 million insects collected, about 600 thousand specimens will have their DNA barcode sequenced by BioInsecta and BioDossel (Rafael et al. 2025).

After analyzing the sequencing of 54 thousand insects, the preliminary estimate is that more than 50 thousand species will be recognized just in the ZF2 Biological Reserve alone. More than 95% of this total corresponds to new species!

Conclusions and Implications

Currently, 91 species of insects have been described in Brazil. Even with results from only about 10% of all material to be sequenced by the two projects, the data obtained already allows us to announce a significant increase in new species that will be discovered concerning the country's known diversity. In the second Bulletin of the Taxonomic Catalog of Brazilian Fauna (September 2025), the significance of some of the taxonomic results was briefly discussed (Amorim, Rafael, 2025).

The projects are expected to lead to changes in biodiversity study protocols due to new solutions for canopy collection and the use of molecular biology for large-scale biodiversity studies. The data generated should also allow the design of new solutions for the conservation and restoration of the Amazon.

Among the legacies of the projects are the training of

qualified human resources in taxonomy to strengthen strategic research in biodiversity in the country; the creation of the largest collection of insects in the Central Amazon – a "megacollection" that will be divided between INPA and other institutions; the deposit of the largest number of DNA sequences (barcoding) for insects from tropical forests in large databases (*GenBank*); and the largest digital collection of high-resolution images of the Amazonian insect fauna.

References

More information can be found at:

• BioInsecta: Dalton de Souza Amorim, Biblioteca Virtual da Fapesp. https://bv.fapesp.br/pt/auxilios/113041/biodiversidade-de-insetos-em-uma-floresta-tropical-amazonica-riqueza-de-especies-estrutura-vertical-/

• BioDossel: José Albertino Rafael. https://www.gov.br/inpa/pt-br/sites/incts/biodossel

• Magrini, Leandro. Mundo desconhecido de insetos na copa das árvores começa a ser revelado. ((o))eco, agosto de 2025. https://oeco.org.br/reportagens/mundo-desconhecido-de-insetos-na-copa-das-arvores-comeca-a-ser-revelado/

• Magrini, Leandro. Amazônias desconhecidas: o desafio de estudar os insetos muito acima do solo. Jornal da USP, abril de 2025. https://jornal.usp.br/ciencias/amazonias-desconhecidas-o-desafio-de-estudar-os-insetos-muito-a-cima-do-solo/

• Amorim, D. S.; Rafael, J. A. O CTFB como suporte para análises de projetos em andamento. Fauna do Brasil nr. 02 setembro, 2025. https://drive.google.com/file/d/1hNGIrJYrf8hdig_sUdFZ4tvYBRGjdaqH/view

• Rafael, J. A. *et al.* 2025. Cascade of flight interception traps for large scale exploration of the otherwise unreachable canopy insect fauna. Scientific Reports 15, 36029. https://doi.org/10.1038/s41598-025-19981-w

• Redes sociais: @bio_insecta e @inct_biodossel

By Leandro Magrini, FAPESP Science Media Fellow (JC-IV, postdoctoral level) affiliated with the BioInsecta project

Nomenclator entomologicus

126. *Eulia dimorpha* Clarke, 1949, has been the name used for a citrus pest whose caterpillars attack fruits. However, in the 1980s, the subgenus *Clarkeulia Razowski*, 1982, was created, based on some species of the genus *Deltinae* Pastrana, 1961. Subsequently, *Clarkeulia* was elevated to genus status (Razowski, 2016), and *Eulia dimorpha* was transferred to this genus. Therefore, the pest of citrus fruits should be called *Clarkeulia dimorpha* (Clarke, 1949). A color photograph of the (female) holotype of *C. dimorpha* is illustrated in the online catalog of Gilligan et al. (2018).

References

Clarke, J.F.G. (1949) Notes on South American "Tortricidae" (Lepidoptera) and descriptions of new species. Acta Zool. Lilloana 7: 579–588.

Gilligan, T.M.; Baixeras, J.; Brown. J.W. (2018) T@RTS: Online World Catalogue of the Tortricidae (Ver. 4.0). http://www.tortricid.net/catalogue.asp.

Razowski, J. (1982). Redescription of *Deltinae* Pastrana with descriptions of new species (Lepidoptera: Tortricidae). Bull. Acad. pol. Sci Sér. Sci. biol., Warszawa, (2) 30 (1–12): 37–45.

Razowski, J. (2016) Diagnoses and remarks on the genera of Tortricidae (Lepidoptera). Part 4. Cnephasiini, Ceracini, Atteriini, Sparganothini and Euliini. Acta Zool. Cracov. 59(2): 89–51.

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Editors

José Wagner da Silva Melo (coordinator)
Universidade Federal Rural de Pernambuco (UFPE)

Gabriel Silva Dias
Escola Superior de Agricultura Luiz de Queiroz (ESALQ/USP)

Mércia Elias Duarte
Universidade Federal de Alagoas (UFAL)

Wendel J. Teles Pontes
Universidade Federal Rural de Pernambuco (UFPE)

Av. Peter Henry Rolfs, s/n,
Campus Universitário, Viçosa - MG.
CEP: 36570-900

www.seb.org.br
informativo@seb.org.br

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