

BIOLUMINESCENCE ATTRACTIONS IN BRAZIL

Needless to say, Brazil hosts the largest diversity of bioluminescent insects and fungi in the world. So, here there are some interesting attractions to consider visiting Brazil. Unfortunately, June is not the best season for watching these wonderful displays in the Southern region. Anyway, there are some attractions worth to see whenever you have the opportunity, along the year, and below we mention some of them:

Luminous termite mounds at the National Emas Park (PNE). During humid evenings from September through January, hundreds of termite mounds full of click beetle larvae light up inside the National Emas Park, looking like illuminated buildings of a city at night. This is one of the seven wonders of bioluminescence and, if you are a true lover of bioluminescence, can not miss it. Besides the luminous termite mounds, the park is a hotspot of biodiversity and one of the very last resorts of original Cerrado (savannas) ecosystem in Brazil, hosting animals like deers, pumas, jaguars, tapirs and hundreds of birds, including the emas (emu) which gave the name to the park. The park is located in the municipality of Mineiros, in Goiás state, but the closest and more easily accessible city is Costa Rica, a small but well structured city about 30 km away from the park main entrance. Make sure you visit the park between October-December, the best season for watching luminous termite mounds.

Please visit: <https://www.parquenacionaldasemasturismo.com/>



Luminous termite mounds at Emas Nat. Park (by V.Viviani)

Synchronous fireflies. They can be observed mainly from January through April at Intervales state Park about 200 km (2h) from Sorocaba city and 300 from São Paulo city. Easily accessible by car. The park has several *inns* with a very good infrastructure, which is visited by hundreds of nature watchers, being a hotspot for birdwatching. Additional attractions include trails in the Atlantic forest, falls and caves.

More information at: <https://intervales.ingressosparquespaulistas.com.br/>

Diversity of Bioluminescent fungi and bugs. There are at least a couple of places which are more popular for watching a diversity of luminous organisms, including fireflies, click beetles and fungi, PETAR in São Paulo State, and Serra dos Orgãos in Rio de Janeiro state. PETAR state park is located 400 km from São Paulo city. You may need to hire a guide.

Luminous mushrooms at PETAR

"Discover the hidden enchantment of the Atlantic Rainforest, a lesser-known gem waiting just a short drive away from São Paulo city. Nestled along Brazil's southeastern coastline, this biodiverse haven, often overshadowed by the Amazon, holds a distinct allure. Recognized as one of the world's eight "hottest hot spots" for biodiversity, the Atlantic Forest safeguards a plethora of unique plant and animal species found nowhere else on Earth. While climate change and human activities have taken a toll, with over 80 percent of its tree cover lost, a glimmer of hope emerges. Recent research indicates that the forest offers an exceptional chance for restoration, safeguarding endangered species and precious water resources. By revitalizing this ecosystem, we not only shield it from climate changes but also fortify our planet's resilience. Enter the realm of emerging ecotourism, where the forest's wonders beckon. Among the lush greenery lie bioluminescent mushrooms that light up the night, casting a magical glow. Hundreds of caves punctuate the landscape, adding to the mystique. Beyond preserving nature's marvels, these ecotourism endeavors uplift the rural economy and enhance the lives of the 145 million Brazilians, including Indigenous communities, who call this biome home. Venture to the Ribeira Valley, the largest remnant of the forest, to relish biodiversity rivaling the Amazon. Here, an awe-inspiring spectacle awaits - the world's densest congregation of luminous mushrooms, a testament to nature's astonishing artistry. Immerse yourself in the remnants of this ancient forest, and join the movement to rekindle its splendor for generations to come."

Take a look at: <https://www.nationalgeographic.com/travel/article/brazil-rain-forest-most-glowing-mushrooms>



Luminous mushrooms (by Cassius Stevani)

Museum of Zoology of São Paulo University (MZUSP). Located near Ipiranga's National museum in São Paulo downtown, this is one of the best zoological museums in Brazil, displaying many animals of Neotropical fauna, including insects. The museum is usually open all over the year.

Museum of Science and Technologies of Luminescence. A small university museum of Fed. University of São Carlos located in Sorocaba city downtown, which displays equipment, luminescence demonstrations, posters and a collection of luminescent organisms from Brazil and the world. It is open upon request.

Link: <https://biota-biolum.wixsite.com/museu-luminescencia/home>

Want to see the ongoing research programs on bioluminescence in Brazil?

Please visit our labs at:

Laboratory of Luminous Fungi (USP) (Prof. Cassius Stevani)

<https://www.stevanilab.com/>

Laboratory of Biochemistry and Technology of Bioluminescent Systems (UFSCar) (Prof. Vadim Viviani)

<https://cptbl.com.br/site/en>