

# Impacto de coleoptera cerambycidae em florestas de eucalyptus no brasil

## *Impact of coleoptera cerambycidae on eucalyptus forests in brazil*

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PALAVRAS-CHAVE: Coleoptera, Eucalyptus, Brasil

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### INTRODUCTION

The genus *Eucalyptus* is composed by 644 species, with a high number of varieties and hybrids (Pryor; Johnson, 1971).

It was introduced in Brazil, from Australia, between 1865 and 1870. According to (Andrade, 1961), excepting five species from New Guinea and Timor, and one species from the Molucan Islands, all the species of *Eucalyptus* were from Australia and Tasmania, forming the several forests distributed along the American Continent. The genus was described by L'Heritier and is divided into eight Sections, based on the anther morphology. The Section Macrantherae includes the majority of the species.

Forest research began in São Paulo, in 1904, with the introduction of 95 species of *Eucalyptus* from Australia, by Edmundo Navarro de Andrade who ran the plantings and made a selection of species to obtain trees which would produce the highest economic return by unity

area, of wood for poles, dormants, and fuel for steam locomotives. As time went by, the plantings covered large areas of a single species. This monoculture is an anomalous condition in the Tropics, where natural forests present a high diversity of species and small populations of individual species. In such a condition, the biological balance is precarious. Another important aspect is the fact that *Eucalyptus* is a Myrtaceae, a botanical family with a high number of species in the Tropics, mainly in Brazil. Therefore the complex of insects associated to the native Brazilian Myrtaceae would probably adapt to the species of *Eucalyptus*. And this adaptation did occur five years after its introduction for commercial purpose, when (Andrade, 1909) registered a number of insect species attacking *Eucalyptus* spp. Such reports have been published since then, increasing the list of insect species associated to *Eucalyptus* spp.



Table 1

Species of Coleoptera Cerambycidae registered attacking atems and twigs in *Eucalyptus* forests in Brazil.  
*Espécies de Coleoptera Cerambycidae com registro de ataque em galhos e ramos em florestas de Eucalyptus no Brasil.*

<i>Eurymerus eburioides</i> (Serville, 1813)	<i>Eucalyptus exserta</i> , <i>Eucalyptus</i> sp. <i>Eucalyptus</i>
<i>Oncideres</i> sp.	<i>obliqua</i> , <i>E. robusta</i> , <i>E. rostrata</i>
<i>Oxymerus nigricornis</i> (Dupont, 1838)	<i>Eucalyptus</i> sp., <i>E. tereticornis</i>
<i>Paramallocera hirta</i> (Kirby, 1818)	<i>Eucalyptus</i> sp.
<i>Psygomatocerus wagneri</i> (Perty, 1828)	<i>Eucalyptus</i> sp.
<i>Trachyderes thoracicus</i> (Oliver, 1790)	<i>Eucalyptus</i> sp., <i>E. saligna</i> , <i>E. tereticornis</i>

Table 2

Species of Coleoptera Cerambycidae registered attacking tree trunks in *Eucalyptus* forests in Brazil.  
*Espécies de Coleoptera Cerambycidae com registro de ataque em troncos de árvores em florestas de Eucalyptus no Brasil*

<i>Acanthoderes jaspidea</i> (Germar, 1824)	<i>Eucalyptus oranensis</i>
<i>Achryson surinamum</i> (Linné, 1767)	<i>Eucalyptus saligna</i> , <i>E. viminalis</i>
<i>Acrocinus longimanus</i> (Linné, 1758)	<i>Eucalyptus tereticornis</i>
<i>Brasilianus mexicans</i> (Thomson, 1860)	<i>Eucalyptus</i> sp.
<i>Callipogon luctuosum</i> (Schoenherr, 1817)	<i>Eucalyptus alba</i> , <i>E. saligna</i> , <i>Eucalyptus</i> sp.
<i>Compsibidium cleophile</i> (Thomas)	<i>Eucalyptus</i> sp.
<i>Compsocerus equestris</i> (Guérin, 1844)	<i>Eucalyptus</i> spp.
<i>Compsosoma chabrilaci</i> (Thomson, 1857)	<i>Eucalyptus</i> sp.
<i>Eburodacrys sexguttata</i> (Lameere, 1885)	<i>Eucalyptus tereticornis</i>
<i>Eburodacrys vittata</i> (Blanchard, 1846)	<i>Eucalyptus citriodora</i> , <i>E. grandis</i>
<i>Eurymerus eburioides</i> (Serville, 1833)	<i>Eucalyptus alba</i> , <i>E. citriodora</i> , <i>E. exserta</i> , <i>E. resinifera</i> , <i>E. tereticornis</i> , <i>E. viminalis</i>
<i>Hesychotypa</i> sp.	<i>Eucalyptus saligna</i>
<i>Neoclytus pusillus</i> (Laport & Gory, 1835)	<i>Eucalyptus pellita</i> , <i>E. tereticornis</i> , <i>E. urophylla</i>
<i>Oncideres amputator</i> (Fabricius, 1792)	<i>Eucalyptus</i> sp.
<i>Oncideres dejcani</i> (Thomson, 1868)	<i>Eucalyptus saligna</i> , <i>Eucalyptus</i> spp.
<i>Oncideres vermiculata</i> (Thomson, 1868)	<i>Eucalyptus trabutii</i>
<i>Oncideres</i> spp.	<i>Eucalyptus obliqua</i> , <i>E. robusta</i> , <i>E. rostrata</i>
<i>Oxymerus nigricornis</i> (Dupont, 1838)	<i>Eucalyptus tereticornis</i>
<i>Paramallocera hirta</i> (Kirby, 1818)	<i>Eucalyptus</i> sp.
<i>Periboeum latericum</i> (Gounelle, 1809)	<i>Eucalyptus</i> sp.
<i>Pheracantha semipunctata</i> (Fabricius, 1775)	<i>Eucalyptus</i> spp.
<i>Poeciloxestia travassoi</i> (Fragoso)	<i>Eucalyptus</i> sp.
<i>Probaticus ludicus</i> (Germar)	<i>Eucalyptus citriodora</i>
<i>Psygomatocerus wagneri</i> (Perty, 1828)	<i>Eucalyptus</i> sp.
<i>Sphallenum spadiceum</i> (Gahan, 1892)	<i>Eucalyptus citriodora</i> , <i>E. tereticornis</i>
<i>Steirastoma marmoratum</i> (Thunberg, 1822)	<i>Eucalyptus</i> sp.
<i>Steirastoma stellio</i> (Pascoe, 1866)	<i>Eucalyptus</i> sp.
<i>Stenodontes spinibarbis</i> (Linné, 1758)	<i>Eucalyptus tereticornis</i> , <i>Eucalyptus</i> spp.
<i>Stizocera armata</i> (Serville, 1834)	<i>Eucalyptus tereticornis</i> , <i>Eucalyptus</i> sp.
<i>Trachyderes dimidiatus</i> (Fabricius, 1787)	<i>Eucalyptus</i> sp.



*Trachyderes striatus* (Fabricius, 1787)  
*Trachyderes succintus* (Linné, 1758)  
*Trachyderes thoracicus* (Oliver, 1790)

*Eucalyptus* sp.  
*Eucalyptus alba*, *E. grandis*, *Eucalyptus* sp.  
*Eucalyptus citriodora*, *E. saligna*, *E. tereticornis*,  
*Euqalyptus* sp.

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## SPECIES OF CERAMBYCIDAE ON *EUCALYPTUS* SPP.

### Nursery

To this date no Cerambycidae species have been registered in *Eucalyptus* nursery.

### Field

- Flowers and fruits

Again no Cerambycidae species have been observed on flowers and fruits of *Eucalyptus*, although (Scriven; Reeves; Luck, 1986) have observed females of *Phoracantha semipunctata* (Fabricius) feeding on flowers of *Eucalyptus* and other plants in California, USA.

- Young plants

Adults of *Comptosoma chabrillici* Thomson were reported attacking young plants of *Eucalyptus grandis* in the State of São Paulo, in 1981, but since that date no other attacks have been observed.

- Shoots

No Cerambycidae species have been registered in *Eucalyptus* spp. shoots up to this date.

- Stem and twigs

Table 1 shows species that were registered.

- Leaves

Adults of *Callipogon luctuosum* (Schoenherr, 1817) were reported feeding on *Eucalyptus saligna* leaves by (Silva *et al.*, 1968).

- Trunk

Because Cerambycidae larvae are wood feeders, most of the species are reported in the trunk.(Table 2)

- Roots

*Migdolus fryanus* (Westwood, 1863) is the only Cerambycidae species reported in *Eucalyptus* sp. roots. This insects is an important pest of coffee, grapes and sugar cane in Brazil.

## CONCLUSION

*Eucalyptus* spp. is an exotic Myrtaceae introduced in Brazil in the beginning of this century. Several forests of *Eucalyptus* spp. are scattered in the country and the wood was used for lumber, poles, and fuel, but nowadays the main objective is for papel pulp production. The insects associated to *Eucalyptus* spp. are distributed in 8 Orders, with 60 families and more than 200 species. The Order Coleoptera is represented by 73 species, from which 36 are Cerambycidae. A severe outbreak of the cerambycidae *Neoclytus pusillus* on *Eucalyptus pellita* was observed in the State of Minas Gerais, in 1989, and the Australian cerambycidae *Phoracantha semi-punctata*, which was introduced in South Brazil in 1956 as Biezanko; Bosq, cited by (Silva *et al.*, 1968), was detected in the State of São Paulo, on *Eucalyptus citriodora*, in November 1994.



## AUTHOR

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