

ANAIS DO X ENCONTRO SOBRE ABELHAS  
RIBEIRÃO PRETO



**FUNPEC-Editora**

**Dados Internacionais de Catalogação na Publicação (CIP)**  
**(Câmara Brasileira do Livro, SP, Brasil)**

---

Encontro sobre Abelhas (10. : 2012 : Ribeirão Preto, SP)  
Anais do X Encontro sobre Abelhas. -- Ribeirão Preto, SP :  
FUNPEC Editora, 2012.  
Vários organizadores.

1. Abelhas - Congressos.

12-08896

CDD-595.79906

---

**Índices para catálogo sistemático:**

1. Congressos : Abelhas : Zoologia 595.79906

Anais do X Encontro sobre Abelhas. Ribeirão Preto. 2012  
Simões, Z.L.P.; Bitondi, M.M.G.; Bomtorin, A.D.; Nascimento, F.S.

Número de páginas.  
533



**FUNPEC-Editora**

R. Floriano Peixoto, 2444 - Alto da Boa Vista - 14025-220 Ribeirão Preto, SP

Tel.: (16) 3620-1251 · Fax: (16) 3621-1991

[www.livrariafunpecrp.com.br](http://www.livrariafunpecrp.com.br) - [livros@funpecrp.com.br](mailto:livros@funpecrp.com.br)

# The role of useful microorganisms for stingless bees and stingless bee keeping

***Menezes Cristiano<sup>1\*</sup>, Vollet Neto Ayrton<sup>2</sup>, León Contrera Felipe Andrés<sup>3</sup>, Venturieri Giorgio Cristiano<sup>1</sup>, Imperatriz-Fonseca Vera Lucia<sup>2,4</sup>***

<sup>1</sup> *Embrapa Amazônia Oriental, Belém, PA, Brasil*

<sup>2</sup> *Universidade de São Paulo, Ribeirão Preto, SP, Brasil*

<sup>3</sup> *Universidade Federal do Pará, Belém, PA, Brasil*

<sup>4</sup> *Universidade Federal Rural do Semi-árido, Mossoró, RN, Brasil*

Bacteria, molds and yeasts associated with bees have been studied for a long period. Although they seem to play an important role for bee nutrition and protection against harmful microorganisms, few studies have focused on their function and this subject is still very controversial. Although stingless bees (Apidae: Meliponini) share many similarities with *Apis mellifera*, this diverse group still conceals many particularities that have not been explored at all. Here we discuss the role of non-pathogenic microorganisms from stingless bee colonies and we focus on their applicability to stingless bee keeping. Our aim is to stimulate studies on functional aspects of microorganisms from stingless bees and their products where upon microorganisms are involved.