

Phd, Post doctoral  
Bioinformatics - Evolutionary  
Biology & Ecology  
University of Brussels

## Natalia de Souza Araujo

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My main interests rely on combining molecular biology and data analyses to answer evolutionary questions. Recent research projects include: molecular mechanisms of heat adaptation in ants; gene conversion events in complete genomes of bovines cohorts; genetics mechanism involved in the evolution of social behaviour; and identification of genes involved in bee parasitic interactions.

### EDUCATION

**2012-2017** *Ph.D. in Genetics and Evolutionary Biology - University of São Paulo*

Expression of Genes Involved in Social Behaviour in Bees with Different Levels of Eusociality. Advisor: Maria Cristina Arias

**2010-2012** *M.Sc. in Genetics and Evolutionary Biology - University of São Paulo*

Analyses of the *Anastrepha fraterculus* complex (Diptera: Tephritidae) in Brazil based on mitochondrial cytochrome oxidase I sequences. Advisor: Andre Luiz Paranhos Perondini

**2006-2010** *B.Sc. in Biological Science - Universidade Paulista*

**2004-2007** *Technician in Chemistry - Escola Técnica Estadual Getúlio Vargas*

### LANGUAGE and PROGRAMMING SKILLS

- Portuguese (native); English (IELTS 7.0); Spanish (basic); French (intermediary)
- Python; R and Unix Environment

### RESEARCH EXPERIENCE

**2019-current** Bioinformatics // Evolutionary Biology & Ecology - ULB, University of Brussels (research supervisors: Dr. Serge Aron and Dr. Matthiew Defrance)

**2017-2019** Unit of Animal Genomics - GIGA, University of Liège (research supervisors: Dr. Michel Georges and Dr. Carole Charlier)

**2012-2017** Laboratory of Genetics and Evolution of Bees, University of São Paulo (research advisor: Dr. Maria Cristina Arias)

**2014-2015** Laboratory of Ants, evolution & genomics, Queen Mary University of London (research advisor: Dr. Yannick Wurm)

**2010-2012** Laboratory of Evolution and Genetics of True Fruit Flies, University of São Paulo (research advisor: Dr. Andre Luiz Paranhos Perondini)

**2008-2010** Laboratory of Evolution and Histophysiology, University of São Paulo (research advisor: Dr. João Carlos Shimada Borges - UNIP)

### ADVISING

**2018-current** Paulo Cseri Ricardo Expression of Genes Related to Parasitic Behaviour in Bees. *Co-advisor in PhD Research*

**2015-2018** Larissa Logullo Piconi Gene Expression Analyses of Behavioural Candidate Genes in Native Bees. *Co-advisor in undergraduate Research*

## **TEACHING EXPERIENCES**

- 2016** Teaching assistant in the discipline of Biological Diversity and Phylogeny at University of São Paulo
- 2011** Teaching assistant in the discipline of Genetics at University of São Paulo
- 2010** English teacher at SKILL idiomas
- 2009** Educational assistant at Dinosfera - Aventura Paleontológica
- 2009** Educational assistant at the Insect Planet exposition - Instituto Biológico
- 2008-2009** Teaching assistant in the discipline of Geology/ Palaeontology and Genetics/ Citogenetics

## **FUNDINGS**

- 2019** PACBIO, SMRT Leiden – Travel Grant [International]
- 2016** Society for the Study of Evolution – Travel Grant [International]
- 2013-2017** FAPESP – Regular Ph.D. Fellowship [National]
- 2014-2015** FAPESP – BEPE Ph.D. Fellowship Abroad [National]
- 2010-2012** CNPQ – Regular M.Sc. Fellowship [National]
- 2008-2010** CNPQ/ UNIP – PIBIC Fellowship for undergraduate students [National]
- 2006-2010** PROUNI – Scholarship for graduation costs [National]

## **AWARDS**

- 2016** ICE – 2<sup>nd</sup> Place for Best Student Poster. Session: Genetics and Evolutionary Entomology
- 2016** Brazilian Congress of Genetics – Honourable Mention for Participation in the Francisco Mauro Salzano Graduate Student Award of Evolution
- 2014** IUSSI – 3<sup>rd</sup> Place for Best Student Poster
- 2011** 57<sup>o</sup> Brazilian Congress of Genetics – Honourable Mention for Participation in the Graduate Student Oral Award of Animal Genetics
- 2009** Instituto Biológico – Scientific Merit for Oral Presentation

## **SELECTED PUBLICATIONS**

- Araujo, N.S.** and Arias M.C. (2019) Mitochondrial genome characterization of *Melipona bicolor*: Insights from the control region and gene expression data. Gene.
- Santos, P.K.F.; **Araujo, N.S.**; Franoso, E.; Zuntini, A.R.; Arias, M.C. (2018) Diapause in a tropical oil-collecting bee: molecular basis unveiled by RNA-Seq. BMC Genomics.
- Araujo, N.S.**; Santos P.K.F.; Arias M.C. (2018) RNA-Seq reveals that mitochondrial genes and long noncoding RNAs may play important roles in the bivoltine generations of the non-social Neotropical bee *Tetrapedia diversipes*. Apidologie.
- Araujo, N.S.**; (2017) Expression of genes involved in the social behaviour of bees with different levels of eusociality. [PhD thesis]. So Paulo: University of So Paulo, Instituto de Biocincias
- Araujo, N.S.**; Zuntini A.R.; Arias M.C. (2016) Getting Useful Information from RNA-Seq Contaminants: A Case of Study in the Oil-Collecting Bee *Tetrapedia diversipes* Transcriptome. OMICS: A Journal of Integrative Biology. 20(8), 491-192.
- Arias, M.C. **et al.** (2016) Microsatellite records for volume 8, issue 1. Conservation Genetics Resources. 1(8), 43-81.