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

Natalia de Souza Araujo

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My main research interests rely on combining molecular biology and bioinformatics to answer evolutionary questions. Recent studies 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*

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 – 2nd 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 – 3rd Place for Best Student Poster
2011 57º 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 and PRESENTATIONS

Araujo, N.S. and Arias M.C. (2019) Mitochondrial genome characterization of *Melipona bicolor*: Insights from the control region and gene expression data. Gene.

Araujo, N.S.; Wurm Y.; Schmitz B.; Arias M.C. (2018) Unveiling the expression dynamics of genes involved in bee sociality. IUSSI Symposium invited speaker – Talk.

Santos, P.K.F; **Araujo, N.S.;** Françoso, 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]. São Paulo: University of São Paulo, Instituto de Biociências

Araujo, N.S. and Arias, M. C. (2017) DNA methylation and the evolution of bee eusociality. Evolution 2017 – Talk.

Araujo, N.S.; Wurm Y.; Arias M.C. (2016) Worker Subcastes: What makes bees nurses? IUSSI-NAS Colloquium – Talk.

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.

Araujo, N.S. and Borges J.C.S. (2015) Rodlet cells changes in *Oreochromis niloticus* in response to organophosphate pesticide and their relevance as stress biomarker in teleost fishes. International Journal of Aquatic Biology.