Genetics and Evolution
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Natalia de Souza Araujo

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My major interests are in the field of evolutionary biology. Recently I have been focused in the study of the evolution of social behaviour in Hymenoptera and the genetics mechanism beneath the animal societies.

EDUCATION

2012 – Ph.D. in Genetics and Evolutive Biology - University of São Paulo
Expression of Genes Involved in Social Behavior in Bees with Different Levels of Eusociality Advisor: Maria Cristina Arias

2010 – 2012 M.Sc. in Genetics and Evolutive 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 - University Paulista

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

LANGUAGE SKILLS

Portuguese (native); English (IELTS 7.0); Spanish (basic)

AWARDS and FUNDINGS

2014 – 2015 FAPESP – BEPE Ph.D. Fellowship Abroad
2014 IUSSI 2014 – 3rd Place for Best Student Poster
2013 – 2016 FAPESP – Regular Ph.D. Fellowship
2011 57 Brazilian Congress of Genetics – Honorable mention for Participation in Graduate Oral Award
2010 – 2012 CNPQ – Regular M.Sc. Fellowship
2009 Instituto Biológico – Scientific Merit for Oral Presentation
2009 – 2010 CNPQ/ UNIP – PIBIC Fellowship for undergraduate students
2008 – 2009 CNPQ/ UNIP – PIBIC Fellowship for undergraduate students
2006 – 2010 PROUNI – Scholarship for graduating costs

RESEARCH EXPERIENCE

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

- Field collection of bees in specific conditions for expression studies
- Extraction and preparation of bee DNA/RNA for sequencing
- Data analyses of DNA/RNA sequences including: phylogenetic inferences; transcriptome assembly; differential expression analyses and annotation

2014-2015: Bioinformatics internship at Ants, evolution & genomics lab, Queen Mary University of London (research advisor: Dr. Yannick Wurm)

- Engaged in the improvement of bioinformatics protocols to assembly and analyze transcriptomic data from model and non-model insects.

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

- Field collection of true flies in different areas of the country
- Maintenance of true fruit flies colonies under lab controlled conditions
- Extraction and preparation of flies DNA for sequencing
- Phylogenetic analyses based on DNA fragments

2008-2010: Laboratory of Evolutive Histophysioloy, University of São Paulo (research advisor: Dr. João Carlos Shimada Borges - UNIP)

- Responsible for conducting toxicological experiments in fishes
- Gills extraction and preparation of histological slides for optical and electronic microscopy
- Histological and statistical analyses of samples

TEACHING EXPERIENCES

2010 English teacher at SKILL idiomas

2009 Educational assistant at Dinosfera - Aventura Paleontológica

2009 Educational assistant at the Insect Planet exposition - Instituto Biológico

2011 Teaching assistant in the undergraduate course of Genetics at University of São Paulo

2008/2009 Teaching assistant in the undergraduate courses of Geology/ Palaeontology and Genetics/Citogenetics

PUBLICATIONS and PRESENTATIONS

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.

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 as stress biomarkers in teleost fishes. Toxicology Mechanisms and Methods.

Araujo, N.S. and Arias, M. C. (2015) Gene expression analyses of bivoltine behavior in the solitary bee *Tetrapedia diversipes* and its implication in eusociality. Evolution 2015 – Oral and Poster Presentation.

Araujo, N.S.; Wurm Y.; Arias M.C. (2014) Highly Eusocial and Solitary Bees: what about their gene expression? NW European IUSSI Winter Meeting – Oral Presentation

Araujo, N.S. and Arias M.C. (2014) Transcriptome assembly for non-model Apinae bees: reference or de novo approach? IUSSI – Published abstract; Poster Presentation

Araujo, N.S.; Perondini A.L.P.; Selivon D. (2012) Limitações do Uso de DNA mitocondrial em Estudos Filogenéticos de Moscas-das-frutas. – Oral Presentation at University Paulista

Araujo, N.S.; (2012) Analyses of the *Anastrepha fraterculus* complex (Diptera: Tephritidae) in Brazil based on mitochondrial cytochrome oxidase I sequences.[dissertation]. São Paulo: University of São Paulo, Instituto de Biociências