

Maria João Fernandes Martins

Curriculum Vitae

Interdisciplinary Center for Archaeology
and Evolution of Human Behaviour,
University of Algarve,
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EDUCATION

Ph.D. Biology (Ecology), Faculty of Sciences, University of Lisbon, 2010, PT
B.Sc. Biology, University of Évora, 2004, PT

RESEARCH EXPERIENCE

2019 – current **Research assistant**, Interdisciplinary Center for Archaeology and Evolution of Human Behaviour, University of Algarve, PT.
2018 **Research associate**, NMNH, Smithsonian Institution, Washington D.C., US.
2014 – 2018 **Post-Doctoral researcher**, NMNH, Smithsonian Institution, Washington D.C., US.
2010 – 2014 **Post-Doctoral researcher**, Centro Ciências do Mar, University of Algarve, PT.
2009 – 2010 **Technician**, Dept. of Geology, Faculty of Sciences, University of Lisbon, PT.
2005 – 2008 **Marie Curie Young Researcher**
Swiss Federal Institute of Aquatic Sciences and Technology, CZ.
Dept. of Environmental Sciences, University of Parma, IT.
Dept. of Biology, University of Gdańsk, PL.

GRANTS AND AWARDS

2017 **Smithsonian Institution Scholarly Studies Award**
Applicants: G Hunt, MJF Martins (\$40,954)
2016 **Travel grant**
Preparing for an academic career, Earth Educators' rendezvous 2016 (\$500)
2011–2014 **Post-Doctoral fellowship**
Portuguese Foundation for Science, 6-year grant (SFRH/BPD/69956/2010)
2010 **Dissertation Completion grant**
Portuguese Foundation for Science (275€)

TEACHING EXPERIENCE

Teaching

- 2015 **Co-Instructor**, Sexual selection. William & Mary University, Williamsburg, US.
Developed course syllabus and assignments, lectured and evaluated student performance (15h, Undergrads)
- 2007 **Guest Lecturer**. Laboratory of Limnology. University of Parma, Parma, IT (2h, Undergrads).

Advising/Mentoring

- 2014–2017 I have co-supervised three interns at the Hunt lab, NMNH, US.
- 2007 T. Major, University of Parma, IT. Supervision of laboratory work.
- 2006 K. Mrozińska, University of Gdansk, PL. Supervision of laboratory work.

PUBLICATIONS

- 2019 **Martins, M.J.F.** Adult sex-ratio in ostracods and its implications for sexual selection. *Invertebrate Reproduction & Development*. DOI:10.1080/07924259.2019.1592789
- 2018 **Martins M.J.F.***, T.M. Puckett, R. Lockwood, J.P. Swaddle, G. Hunt*. High male sexual investment as a driver of extinction in fossil ostracodes. *Nature*. 556: 366–369. Doi:10.1038/s41586-018-0020-7 * authors contributed equally
- 2017 **Martins M.J.F.**, G. Hunt, R. Lockwood, J.P. Swaddle, D.J. Horne. Correlation between investment in sexual traits and valve sexual dimorphism in *Cyprideis* spp. (Ostracoda). *Plos One*. 12: e 0177791.
Hunt G., **M.J.F. Martins**, T.M. Puckett, R. Lockwood, J.P. Swaddle, J Stedman. Sexual dimorphism and sexual selection in cytheroidean ostracodes from the Late Cretaceous of the US Coastal Plain. *Palaeobiology*. 43: 620-641.
- 2015 **Martins, M.J.F.**, A. Lago-Leston, A. Anjos, C.M. Duarte, S. Agusti, E.A. Serrão, G.A. Pearson. A transcriptome resource for Antarctic krill (*Euphausia superba* Dana) exposed to short-term stress. *Marine Genomics*. 23: 45-47.
- 2013 **Martins, M.J.F.**, C.F. Mota, G.A. Pearson. Sex-biased gene expression in the brown alga *Fucus vesiculosus*. *BMC Genomics*. 14: 294.
Schmit, O., N.S. Bode, A. Camacho, D.J. Horne, D.K. Lamatsch, K. Martens, **M.J.F. Martins**, T. Namiotko, G. Rossetti, J. Rueda-Sevilla, I. Schön, J. Vandekerkhove, F. Mesquita-Joanes. Linking present environment and the segregation of reproductive modes (geographical parthenogenesis) in *Eucypris virens* (Crustacea: Ostracoda). *Journal of Biogeography*. 40: 2396-2408.
- 2010 **Martins, M.J.F.**, J. Vandekerkhove, S. Adolfsson, G. Rossetti, T. Namiotko, J. Jokela. Effect of environmental stress on clonal structure of *Eucypris virens* (Crustacea, Ostracoda). *Evolutionary Ecology*. 24: 911–922.
Azerêdo A.C., M.C. Cabral, **M.J.F. Martins**, I.M. Loureiro, N. Inês. Estudo stratigráfico dum novo afloramento da Formação de Cabaços (Oxfordiano) na região da Serra do Bouro (Caldas da Rainha). *Comunicações Geológicas*. t. 97: 05-22.
Bode S., S. Adolfsson, D. Lamatsch, **M.J.F. Martins**, O. Schmit, J. Vandekerkhove, F. Mezquita, T. Namiotko, G. Rossetti, I. Schön, R. Butlin,

K. Martens. Exceptional cryptic diversity and multiple origins of parthenogenesis in a freshwater ostracod. *Molecular Phylogenetics and Evolution*. 54: 542-552.

Martins, M.J.F., T. Namiotko, M.C. Cabral, F. Fatela, M.J. Boavida. Contribution to the knowledge of the freshwater Ostracoda fauna in continental Portugal, with an updated checklist of Recent and Quaternary species. *Journal of Limnology*. 69: 160-173.

Adolfsson, S., Y. Michalakis, D. Paczesniak, S.N.S. Bode, R.K. Butlin, D.K. Lamatsch, **M.J.F. Martins**, O. Schmit, J. Vandekerkhove, J. Jokela. Evaluation of elevated ploidy and asexual reproduction as alternative explanations for geographic parthenogenesis in *Eucypris virens* ostracods. *Evolution*. 64: 986-997.

2009 **Martins, M.J.F.**, J. Vandekerkhove, F. Mezquita, O. Schmit, J. Rueda, G. Rossetti, T. Namiotko. Dynamics of sexual and parthenogenetic populations of *Eucypris virens* (Crustacea: Ostracoda) in three temporary ponds. *Hydrobiologia*. 636: 219–232.

2008 **Martins, M.J.F.**, J. Vandekerkhove, T. Namiotko. Environmental stability and the distribution of the sexes: insights from life history experiments with the geographic parthenogen *Eucypris virens* (Crustacea: Ostracoda). *Oikos*. 117: 829-836.

Namiotko T., **M.J.F. Martins**. Sex ratio of subfossil Ostracoda from deep lake habitats in Northern Poland. *Palaeogeography, Palaeoclimatology, Palaeoecology*. 264: 330–337.

In prep

Martins, M.J.F., G. Hunt, C. Thompson, R. Lockwood, J.P. Swaddle. Did sexual selection hinder survival of ostracode species through the K/Pg mass extinction? Targeted journal: Proceedings B.

Hunt, G, **M.J.F. Martins**, T.M. Puckett, R. Lockwood, J.P. Swaddle, J. Shaw. Sexual dimorphism is generally stable over the lifetime of fossil ostracode species. Targeted journal: Paleobiology.

CONFERENCE ACTIVITY (Last five years)

Invited speaker

2019 ‘Sexual selection as a determinant of species extinction in cytheroid ostracodes’. Solid Hearth Seminars, FCUL, Lisboa, PT, February.

Martins M.J.F., G. Hunt, T.M. Puckett, C. Thompson, R. Lockwood, J.P. Swaddle

2018 ‘Did sexual selection hinder survival of ostracode species through the K/Pg mass extinction?’ International Crustacean Congress, Washington, USA, May 22-25.

Martins M.J.F., G. Hunt, C. Thompson, R. Lockwood, J.P. Swaddle

Oral Presentations (*Denotes presenter)

2017 ‘Did sexual selection hinder survival of ostracode species through the K/Pg mass extinction?’. Geological Society of America, Seattle, USA, October 22-25.

Martins M.J.F.*, G. Hunt, C. Thompson, R. Lockwood, J.P. Swaddle

‘Sexual dimorphism is generally stable over the lifetime of fossil ostracode species’. Geological Society of America, Seattle, USA, October 22-25.

Hunt G*, **M.J.F. Martins**, T.M. Puckett, R. Lockwood, J.P. Swaddle, J. Shaw

‘Testing whether the strength of sexual selection influences species extinction and origination in late cretaceous Cytheroid ostracodes’. Evolution, Portland, USA, June 23-29.

Martins M.J.F.*, G. Hunt, T.M. Puckett, R. Lockwood, J.P. Swaddle.

‘Sexual dimorphism is generally stable over the lifetime of fossil ostracode species’. Evolution, Portland, USA, June 23-29.

Hunt G*, **Martins MJF**, Puckett TM, Lockwood R, Swaddle JP, J. Shaw

2016 ‘Testing whether the strength of sexual selection influences species extinction and origination in late cretaceous Cytheroid ostracodes’. Geological Society of America, Denver, USA, September 24-28.

Martins M.J.F.*, G. Hunt, T.M. Puckett, R. Lockwood, J.P. Swaddle.

2015 ‘Sexual dimorphism as a proxy for sexual selection in cretaceous ostracodes from the US Gulf Coastal Plain’. Geology Society of America meeting, Baltimore, USA, October 1-4.

Hunt G. *, T.M. Puckett, **M.J.F. Martins**, C. Hall, R. Lockwood, J.P. Swaddle

‘Correlation between soft and hard parts in *Cyprideis* (Ostracoda): Implications for the analysis inference of sexual selection in the fossil record’. Geology Society of America meeting, Baltimore, USA, October 1-4.

Martins M.J.F.*, G. Hunt, C.P. Sweeney, R. Lockwood, J.P. Swaddle

Poster Presentations (*Denotes presenter)

2017 ‘Hybridization between marine broadcast spawners: incomplete barriers to reproductive isolation’. XIII Encontro Nacional de Biologia Evolutiva, Faro, Portugal. December 20.

Monteiro C. *, C. Paulino, **M.J.F. Martins**, G. Pearson, E. Serrão

‘An ostracode fauna from the Clayton Formation (Paleocene, Alabama) with comparisons of rarefied diversity across the K/Pg boundary’. Geological Society of America, Seattle, USA, October 22-25.

Thompson C.M. *, **M.J.F. Martins**, G. Hunt

Departmental Talks

2014 ‘Ecological Speciation in *Fucus*’. William & Mary University, Williamsburg, USA, October 8.

Martins M.J.F.*, C. Monteiro, C. Paulino, G. Pearson, E. Serrão

SERVICE

Peer review

Plos One, Journal of Biogeography

OTHER RELATED WORK EXPERIENCE

2004 Technician, Centre of Applied Ecology, University of Évora.

Outreach

2018 “Tiny fossils tell many stories”. Expert is in, NMNH, April 26.

2017 “Tiny fossils tell many stories”. Expert is in, NMNH, August 8.

Assisted, “What Tiny Marine Fossils Reveal about Extinction”. Smithsonian Science How, Live Webcast, NMNH, February 9.

2016 Assisted, “A microscopic fossil hunt”, Citizen Science, NMNH, March 19 and 28.

RELATED PROFESSIONAL SKILLS

2016 “2016 Earth Educators' Rendezvous”. Wisconsin – Madison University, Madison, USA.

2012 “Gulbenkian training programme in bioinformatics: Automated, reproducible analysis of NGS data”. Instituto Gulbenkian de Ciência, Oeiras, Portugal.

2011 “Gulbenkian training programme in bioinformatics: Automatic functional annotation and data mining”. Instituto Gulbenkian de Ciência, Oeiras, Portugal.

2010 “Practical Course on Phylogeography”. January. Faculdade de Ciências, Universidade de Lisboa, Lisboa, Portugal

1997 “First Certificate in English” by the University of Cambridge.

LANGUAGES

Portuguese (native)

English (fluent)

Italian (conversational)

PROFESSIONAL ASSOCIATIONS

Member of Society for the Study of Evolution (2017-2018)

Member of Geological Society of America (2015-2017)

Member of European Society for Evolutionary Biology (2013-2014)

CONTACTS

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