

CV Summary

Maria Clara Correia de Freitas Pessoa de Amorim

Date of birth: 23 June 1967

Work address: MARE, Departamento de Biologia Animal, Faculdade de Ciências, Universidade de Lisboa, Bloco C2, Campo Grande, 1749-016 Lisboa, Portugal, Tel: +351 217500000

Email: mcamorim@fc.ul.pt;

Orcid ID 0000-0002-2453-6999

ResearcherID: K-1889-2012

Scopus Author ID: 7005454896

Research gate: https://www.researchgate.net/profile/M_Clara_Amorim

Website: <https://www.fishbioacoustics.pt/>

1 - ACADEMIC DEGREES

1997 - Doctor of Philosophy (PhD) in Zoology - University of Aberdeen, (Scotland); **1994** - Master of Philosophy (MPhil) in Zoology - University of Leicester (England); **1991** - Licenciatura in Zoology - University of Lisbon (Portugal).

2 - PREVIOUS AND CURRENT SCIENTIFIC AND/OR PROFESSIONAL ACTIVITIES

Present position

2018 / present: Assistant Professor, DBA, Faculty of Science, Lisbon University.

Previous academic positions

1997/1999 and 2000/2014: Assistant Professor at Lusófona University (Lisbon)

Previous Scientific positions

2014/2018 Principal Investigator at ISPA-Instituto Universitário. This research position is equivalent to the ERC Consolidator Grant at the European level and equivalent to Associate professor in the academic carrier. It includes 42h of lecturing per semester.

2011/2014: Post-Doc - ISPA; 2010/2011: Scientific Career Development Grant - ISPA; 2008/2010: Post-Doc - ISPA;

2004/2007: Post-Doc – ISPA; 1997/2001: Post-Doc - ISPA / Biology Department, Virginia Commonwealth University, (USA).

1992: Researcher, SOAEFD Marine Laboratory of Aberdeen, Scotland, U.K.

3 - RESEARCH INTERESTS

Conservation Biology: the impact of anthropogenic noise in the marine soundscape and in fish vocal communication. Acoustic communication in fish: species- specific and individual discrimination, the role of acoustic signals in reproductive isolation, mate choice, competition between males, transfer of information in dense social aggregations and chorusing behaviour. Multi-modal and cross-modal communication. Animal Physiology: metabolic costs of sound production in fish, hearing and sound production (central and peripheral) mechanisms. Ontogeny of hearing and sound production.

4 – SUPERVISING EXPERIENCE

Summary

Supervision of 5 post-docs; 6 PhD students, (1 ongoing); 28 Master students (5 ongoing); 14 undergraduate thesis.

Post-doc: Shay Tal (2022/2023), Thibaut Marin-Cudraz (2020-2021), Marta Bolgan (2019-2020), Paulo Alexandre Esteves Jorge (2014-2016), Joana Jordão (2008-2012); PhD: Co/supervision Noélia Rios (ISPA-University Institute, 2021-2025), Manuel Alexander Guerreiro Vieira, (University of Lisbon, Portugal, 2017-2022), Rita Carriço (University of Açores, Portugal, 2017-2021), Laura Chabrolles (University Jean Monnet, France, 2014-2019), Eva-Lotta Blom (Gothenburg University, Sweden; 2013-2017); Raquel de Ornelas e Vasconcelos (University of Lisbon, Portugal; 2008-2012); MSc: Robin Albouy (IMBRSea, University of Ghent, 2022/present), Jodanne Pereira (IMBRSea, University of Ghent, 2022/present), Sebastian Muñoz Duque (IMBRSea, University of Ghent, 2022/present), Sara Oliveira (University of Lisbon, Portugal, 2022/present), Leonor Novais (University of Lisbon, Portugal, 2022/present), Dana Nolte (IMBRSea, University of Ghent, 2022) Mariana Sottomayor (University of Lisbon, Portugal, 2021), Rita Trabulo (ISPA-University Institute, 2021), Joan Wanjala (IMBRSea, University of Ghent, 2021), Marina Moreva (IMBRSea, University of Ghent, 2020), Mariana Bray Viegas (University of Lisbon, Portugal, 2020), André Matos (University of Lisbon, Portugal, 2020), Beatriz Pereira (Algarve University, Portugal, 2019), Rafaela Garcia Gameiro (Algarve University, Portugal, 2018), Maud Petrisinec (University of Liege, Belgium, 2016), Patricia Chaves (ISPA-Instituto Universitário, Portugal, 2015), Andreas Visentin (Padova University, Italy, 2015), Manuel Vieira (University of Lisbon, Portugal, 2013), Joana Vicente (Algarve University, Portugal, 2013), Ricardo Pereira (University of Lisbon, Portugal, 2012); Carlotta Conti (Trieste University, Italy, 2012), Stefania Rismondo (Trieste University, Italy, 2012), Ana Ricou Nunes da Ponte (Biomedical Science Institute of Abel Salazar, Portugal, 2011), Marta Bolgan (Trieste University, Italy, 2011), Rita Carriço (Algarve University, Portugal, 2011), Andreia Ramos (Biomedical Science Institute of Abel Salazar, Portugal, 2010), José Miguel Simões (University of Lisbon, Portugal, 2007), Raquel de Ornelas e Vasconcelos (University of Lisbon, Portugal, 2006).

5 - GRANT FUNDING

Grants:

2021-2022 – Participation in the project FBR_OC1_054_ISPA entitled FishNet: Network-building for global change research on Fish. Bilateral Funds|EEA Grants. PI Ana Faria (ISPA).

2022 – Participation in the project entitled ‘CETASEE Tejo – Occurrence and spatiotemporal distribution of cetaceans in the Tagus region’. 12 months duration (Jan2022-Dec2022). Minigrant awarded by Mare - Marine and Environmental Sciences Centre.

2021-2022 – Participation in the project entitled ‘Monitoring underwater noise in Madeira MPAs: a first approach to expand the coverage of the CoastNet research infrastructure in this archipelago’. 12 months duration (Nov2020-Oct2021). Minigrant awarded by Mare - Marine and Environmental Sciences Centre.

2019-2023 – Participation in the Fundo Azul project FA/06/2017/098 entitled (jUMP) - Joint Action: a stepping-stone for underwater noise monitoring in Portuguese waters.

2018-2021 - Participation in the project nº 280512 financed by the Norwegian Institute of Nature Research, under Cooperation Programme in Science and Technology between Norway and Portugal, entitled: SoundWell - Development of an acoustic status indicator for soundscape monitoring in aquaculture: active and passive sound making in Atlantic salmon (Forprosjekt - HAVBRUK2). PI Carolyn Rosten

2018-2021 - Participation in the project nº 15338 financed by the Institute of Marine Research of Norway, under Cooperation Programme in Science and Technology between Norway and Portugal, entitled: SpawningSeis - Effects of seismic sound on spawning behaviour and reproductive success of cod (Forskerprosjekt - MARINFORSK). PI Lise Doksester Sivle

2018-2020 – Participation in the FCT project PTDC/BIA-BMA/30517/2017 entitled: Integrated approach to study the movement dynamics of the meagre *Argyrosomus regius* (MIGRACORV). PI Bernardo Quintella

2018-2020 – Co-coordinator in the FCT project PTDC/CTA-AMB/28782/17 entitled: Sound Invasion - Detecting Invasive Fish in Freshwaters Ecosystems with Passive Acoustics (SONICINVADERS). PI Filipe Ribeiro

2018-2021 - Coordinator of the FCT project PTDC/BIA-BMA/29662/2017 entitled: FishNoise: Impact of anthropogenic noise on fish fitness.

2017 – Co-coordinator of the project: impact of anthropogenic noise on toadfish reproduction, funded by FCT strategic project UID/MAR/04292/2013 granted to MARE

2012-2015 - Coordinator of the FCT project PTDC/MAR/118767/2010 entitled: 'Role of acoustic signals in mate choice and male-male assessment in a strongly-vocal fish, *Halobatrachus didactylus*'

2008-2012 - Coordinator of the FCT project PTDC/MAR/68868/2006 entitled 'Sound production in gobies of the genus *Pomatoschistus*: inter- and intraspecific communication'

2006-2009 - Coordinator of the FCT project PDCT/MAR/58071/2004 entitled 'Acoustic communication in the Lusitanian toadfish, *Halobatrachus didactylus*'

Short term funding:

2012-2016 – Funding for short-term research visits (4 x 1 month) to Jean Monnet University, Saint-Étienne, France (funding body: Jean Monnet University). Project title: ‘The role of frequency and amplitude of agonistic sounds in the modulation of males’ aggressiveness in *Metriaclima zebra*’.

2005-2007 – Treaty of Windsor (Anglo-Portuguese Joint Research Programme nº B-8/05; British Council/FCT between university of Lisbon, ISPA-Instituto Universitário and University of Hull, England. Project title: ‘Role of acoustic communication in mate choice and speciation of Lake Malawi cichlid fishes’.

6 - OTHER ACTIVITIES

Organization of the SPE XIV Congress of the Portuguese Ethological Society July 2017, Lisbon; SPE XII Congress of the Portuguese Ethological Society October 2015, Lisbon; XXII meeting of the International Bioacoustics Council (IBAC 2009):

http://www.ibac.info/xxii_lisboa/index.html; participation in the scientific committees of national and international conferences namely IBAC meetings and Congresses of the Portuguese Ethological Society. Member of the Portuguese Ethological Society Executive Committee for the period 2013-2022, being vice-president from 2016-2022. Committee member; member of the International Bioacoustics Council (IBAC). Associate editor in Acta Ethologica since 2015. Member of the editorial board of Bioacoustics since 2018. Referee of several international journals. Evaluator of international projects (e.g. NSF). Experience as external examiner of several PhD and MSc thesis.

7 – PUBLICATIONS AND COMMUNICATIONS

Summary

Five chapters in books; 77 papers in international scientific periodicals with referees; 24 papers in conference proceedings; 19 oral communications by invitation; 81 oral and 78 poster communications in international and national conferences.

CHAPTERS IN BOOKS

5 - Amorim MCP, RO Vasconcelos & PJ Fonseca (2015) – Fish sounds and mate choice. In: Sound communication in fishes. Animal Signals and Communication, Vol. 4. Ladich, F. (ed.). Springer-Verlag, Wien, pp 1-33.

4 - Pedroso SS, M Bolgan, JM Jordão, PJ Fonseca & MCP Amorim (2012). Acoustic Communication in Pomatoschistus spp.: a comparison between closely related species. In AN Popper & AD Hawkins (eds), The Effects of Noise on Aquatic Life. Adv Exp Med Biol 730: 113-115. Springer Science+Business Media. DOI 10.1007/978-1-4419-7311-5_25.

3 - Bolgan M, SS Pedroso, RO Vasconcelos, JM Jordão, MCP Amorim & PJ Fonseca (2012). Hearing sensitivity of the painted goby, *Pomatoschistus pictus*. In AN Popper & A Hawkins (eds), The Effects of Noise on Aquatic Life. Adv Exp Med Biol 730: 109-111. Springer Science+Business Media. DOI 10.1007/978-1-4419-7311-5_24.

2 - Ramos A, MCP Amorim & PJ Fonseca (2012). Propagation of Lusitanian Toadfish Sounds in Estuarine Shallow Waters. In AN Popper & A Hawkins (eds), The Effects of Noise on Aquatic Life. Adv Exp Med Biol 730: 173-175. Springer Science+Business Media. DOI 10.1007/978-1-4419-7311-5_39.

1 - Amorim, M.C.P. (2006). Diversity of sound production in fish. In: Communication in fishes. Vol. 1 F. Ladich, S.P. Collin, P. Moller & B.G. Kapoor (eds.). Science Publishers, Enfield. pp. 71-104.

PAPERS IN INTERNATIONAL SCIENTIFIC PERIODICALS WITH REFEREES

77 - Rita Trabulo, MCP Amorim, PJ Fonseca, M Vieira, AB Matos, T Marin-Cudraz, MFL Lemos, AB Moutinho, SC Novais, P Pousão-Ferreira, A Candeias-Mendes, AM Faria (2023). Impact of anthropogenic noise on the survival and development of meagre (*Argyrosomus regius*) early life stages. Mar. Environ. Res. 185: 105894. <https://doi.org/10.1016/j.marenvres.2023.105894>

76 - Blom E-V, J Wilson, C Kvarnemo, MCP Amorim* & O Svensson* (2022). Male acoustic display in the sand goby – Essential cue in female choice, but unaffected by supplemental feeding. J. Exp. Mar. Biol. Ecol. 556: 151791. *Equal contributors <https://doi.org/10.1016/j.jembe.2022.151791>

75 - Vieira M, MCP Amorim, TA Marques, PJ Fonseca (2022). Temperature mediates chorusing behaviour associated with spawning in the sciaenid *Argyrosomus regius*. Mar. Ecol. Prog. Ser. 697: 109–124 <https://doi.org/10.3354/meps14128>

74 - Amorim MCP, M Vieira, G Meireles, SC Novais, MFL Lemos, T Modesto, D Alves, A Zuazu, AF Lopes, AB Matos & PJ Fonseca (2022). Boat noise impacts Lusitanian toadfish breeding males and reproductive outcome. Sci. Total Environ. 830: 154735. <https://doi.org/10.1016/j.scitotenv.2022.154735>

73 - Faria A, PJ Fonseca, M Vieira, LMF Alves, MFL Lemos, SC Novais, AB Matos, D Vieira, MCP Amorim (2022). Boat noise impacts early life stages in the Lusitanian toadfish: A field experiment. Sci. Total Environ. 811: 151367. <https://doi.org/10.1016/j.scitotenv.2021.151367>

72 - Vieira M, PJ Fonseca & MCP Amorim (2021). Fish sounds and boat noise are prominent soundscape contributors in an urban European estuary. Marine Pollution Bulletin 172, 112845. <https://doi.org/10.1016/j.marpolbul.2021.112845>

71 - Vieira M, M Beauchaud, MCP Amorim, PJ Fonseca (2021). Boat noise affects meagre (*Argyrosomus regius*) hearing and vocal behaviour. Marine Pollution Bulletin, 172, 112824. <https://doi.org/10.1016/j.marpolbul.2021.112824>

70 - Alves D, MCP Amorim, PJ Fonseca (2021). Boat noise interferes with Lusitanian toadfish acoustic communication. J Exp. Biol. 224 (11): jeb234849. <https://doi.org/10.1242/jeb.234849>

69 - Vieira M, M Beauchaud, MCP Amorim, PJ Fonseca (2021). Vocal rhythms in nesting Lusitanian toadfish, *Halobatrachus didactylus*. Ecological Informatics <https://doi.org/10.1016/j.ecoinf.2021.101281>

68 - Bolgan M, BP Pereira, A Crucianelli, CC Mylonas, P Pousão-Ferreira, E Parmentier, PJ Fonseca & Amorim MCP (2020). Vocal repertoire and consistency of call features in the meagre *Argyrosomus regius* (Asso, 1801). PLoS ONE 15(11): e0241792. <https://doi.org/10.1371/journal.pone.0241792>

67 - Carriço R, MA Silva, G Menezes, M Vieira, M Bolgan, PJ Fonseca, MCP Amorim (2020). Temporal and diversity patterns of fish sound production in Condor seamount (Azores, NE Atlantic). Deep-Sea Research Part I 164,103357. <https://doi.org/10.1016/j.dsr.2020.103357>

66 - Carriço R, MA Silva, M Vieira, P Afonso, G Menezes, PJ Fonseca, MCP Amorim (2020). The use of soundscapes to monitor fish communities: meaningful graphical representations differ with acoustic environment. Acoustics 2, 382–398; doi:10.3390/acoustics2020022

65 - de Jong K, TN Forland, MCP Amorim, G Rieucau, H Slabbekoorn & LD Sivle (2020) Predicting the effects of noise on fish reproduction from available data: the importance of types of noise and stages of reproduction. Rev. Fish Biol. Fisheries 30, 245–268 <https://doi.org/10.1007/s11160-020-09598-9>

64 - Pereira BP, Vieira M, Fonseca PJ, Pousão-Ferreira P, A Candeias-Mendes, M Barata, MCP Amorim (2020) Sound production in the Meagre, *Argyrosomus regius* (Asso 1801): Intraspecific variability associated with size, gender and context. PeerJ 8:e8559 <https://doi.org/10.7717/peerj.8559>

63 - Amorim MCP, PJ Fonseca, N Mathevon, M Beauchaud (2019). Prevalence of the safest cue during multimodal sensory integration in fighting fish. Biology Open 8, bio043356. doi:10.1242/bio.043356

62 - Carriço R, MA Silva, G Menezes, PJ Fonseca, MCP Amorim (2019). Characterization of the acoustic community of vocal fishes in the Azores. PeerJ 7:e7772 <http://doi.org/10.7717/peerj.7772>

61 - Vieira M, Amorim MCP, Sundelöf A, Prista N, Fonseca PJ (2019). Underwater noise recognition of marine vessels: two case studies using Hidden Markov Models. ICES Journal of Marine Science. fsz194, Doi: 10.1093/icesjms/fsz19460 - Vieira M, Pereira BP, Pousão-

- Ferreira P, Fonseca PJ, Amorim MCP (2019). Seasonal variation of captive meagre acoustic signalling: a manual and automatic recognition approach. *Fishes* 4, 28; doi:10.3390/fishes4020028
- 59 - Blom E-L, C Kvarnemo, S Schöld, MH Andersson, O Svensson*, MCP Amorim* (2019) Continuous and intermittent noise has a negative impact on reproductive success in a marine fish with paternal care. *Scient. Rep.* 9: 5494 <https://doi.org/10.1038/s41598-019-41786-x> * equal contributors
- 58 - Amorim MCP, RO Vasconcelos, M Bolgan, SS Pedroso & PJ Fonseca (2018). Acoustic communication in marine shallow waters: testing the acoustic adaptive hypothesis in sand gobies. *Journal of Experimental Biology* 221, jeb183681. doi:10.1242/jeb.183681
- 57 - Jesus J, Teixeira A., RMV Cortes, S Natário, MCP Amorim, PJ Fonseca, J Carrola, D Costa, S Varandas & L Torres Pereira (2018). Acoustic barriers as a guidance system for native potamodromous migratory fish species of Iberia. *J. Fish Biol.* <https://doi.org/10.1111/jfb.13769>
- 56 - de Jong K, MCP Amorim, PJ Fonseca & KU Heubel (2018). Noise affects multimodal communication during courtship in a marine fish. *Front. Ecol. Evol.* 6:113. doi: 10.3389/fevo.2018.00113
- 55 - Bolgan M, MCP Amorim, PJ Fonseca, L Di Iorio & E Parmentier (2018). Acoustic Complexity of fish vocal communities: a field and controlled validation. *Scientific Reports.* 8:10559 | DOI:10.1038/s41598-018-28771-6
- 54 - de Jong K, MCP Amorim, PJ Fonseca, A Klein, C Fox & KU Heubel (2018). Noise can affect acoustic communication and subsequent spawning success in fish. *Environmental Pollution.* 237: 814-823. <https://doi.org/10.1016/j.envpol.2017.11.003>
- 53 -Parmentier E, M Petrinisec, PJ Fonseca, MCP Amorim (2017). Sound production mechanism in *Pomatoschistus pictus*. *Journal of Experimental Biology* 220: 4374-4376. doi: 10.1242/jeb.164863
- 52 - Chabrolles L, I Ben Ammar, MSA Fernandez, N Boyer, J Attia, PJ Fonseca, MCP Amorim, M Beauchaud (2017). Appraisal of unimodal cues during agonistic interactions in Maylandia zebra. *PeerJ*5:e3643 <https://doi.org/10.7717/peerj.3643>
- 51 - Chaves P.P., C.M.Valdoria, M.C.P. Amorim & R.O. Vasconcelos (2017). Ontogenetic development of the inner ear saccule in the Lusitanian toadfish: potential implications for auditory sensitivity. *Hearing Research.* 353:112-121. doi: 10.1016/j.heares.2017.06.008.
- 50 - Castro JM, MCP Amorim, AP Oliveira, EJ Gonçalves, PL Munday, SD Simpson, AM Faria (2017). Painted goby larvae under high-CO₂ fail to recognize reef sounds. *PloS One* DOI:10.1371/journal.pone.0170838
- 49 - Wackermannova MA; P Horky, MCP Amorim & PJ Fonseca (2017). Computer manipulated stimuli as a research tool in Mozambique tilapia *Oreochromis mossambicus*. *Acta Ethologica.* 20: 85-94. doi:10.1007/s10211-017-0252-9
- 48 - Felix, PM, A Gonçalves, J Vicente, PJ Fonseca, MCP Amorim, JL Costa, GG Martins (2016). Optical uTomography and OPenT allow the study of large toadfish *Halobatrachus didactylus* embryos and larvae. *Mechanisms of Development* 140:19-24.
- 47 – Alves D, MCP Amorim, PJ Fonseca (2016). Assessing acoustic communication active space in the Lusitanian toadfish. *J. Exp. Biol.* 219: 1122-1129. doi: 10.1242/jeb.134981
- 46 - Amorim MCP, C Conti, C Sousa-Santos, B Novais, MD Gouveia, JR Vicente, T Modesto, A Gonçalves, PJ Fonseca (2016). Reproductive success in the Lusitanian toadfish: influence of calling activity, male quality and experimental design. *Physiology and Behaviour.*155:17-24.
- 45 - Félix P.M., T.J. Pereira, P.J. Fonseca, M.C.P. Amorim & J.L. Costa (2016) Feeding ecology and life-history strategy of nesting males in a fish with long parental care, *Halobatrachus didactylus* (Bloch & Schneider, 1801). *Journal of Marine Biological Association of the UK.* 96: 657-665. DOI:10.1017/S0025315415001022
- 44 - Vieira M, PJ Fonseca. MCP Amorim & CJC Teixeira (2015). Call recognition and individual identification of fish vocalizations based on automatic speech recognition methods. *J. Acoust. Soc. Am.* 138(6):3941-3950.
- 43 - Vasconcelos RO, PW Alderks, A Ramos, PJ Fonseca, MCP Amorim, JA Sisneros (2015). Vocal differentiation parallels development of auditory saccular sensitivity in a highly soniferous fish. *J. Exp. Biol.* 218: 2864-2872.
- 42 – Vicente JR, PJ Fonseca, MCP Amorim (2015). Effects of temperature on sound production in the painted goby *Pomatoschistus pictus*. *J Exp Mar Biol Ecol.* 473:1-6. 10.1016/j.jembe.2015.08.003
- 41 - Amorim MCP, C Conti, T Modesto, A Gonçalves, PJ Fonseca (2015). Agonistic sounds signal male quality in the Lusitanian toadfish. *Physiology and Behaviour* 149: 192–198.
- 40 - Conti C, PJ Fonseca, M Picciulin & MCP Amorim (2015). How effective are acoustic signals in territorial defence in the Lusitanian toadfish? *J. Exp. Biol.* 218: 893-898 doi:10.1242/jeb.116673
- 39 - Sousa-Santos C, PJ Fonseca & MCP Amorim (2015). Development and characterization of novel microsatellite loci for Lusitanian toadfish, *Halobatrachus didactylus*. *PeerJ*3:e731; DOI 10.7717/peerj.731

- 38 - Carriço R, MCP Amorim, PJ Fonseca (2014). Reproductive success in the Lusitanian toadfish *Halobatrachus didactylus*: Influence of male and nest sizes. *Journal of Experimental Marine Biology and Ecology*. 456:65-69.
- 37 - Pereira, R., S. Rismondo, M. Caiano, S.S. Pedroso, P.J. Fonseca & M.C.P. Amorim (2014). The role of agonistic sounds in male nest defence in the painted goby *Pomatoschistus pictus*. *Ethology*. 120: 53-63. doi: 10.1111/eth.12180
- 36 - Amorim, M.C.P., A. Nunes da Ponte; M. Caiano, S. S. Pedroso, R. Pereira & P. J. Fonseca (2013). Mate preference in the painted goby: the influence of visual and acoustic courtship. *J. Exp. Biol.* 216: 3996-4004. doi:10.1242/jeb.088682
- 35 - Pedroso, S.S., I. Barber, O. Svensson, P.J. Fonseca, M.C.P. Amorim (2013). Courtship sounds advertise species identity and male quality in sympatric *Pomatoschistus* spp. *Gobies*. *PloS One* 8: e64620.
- 34 - Robalo, J.I., Crespo A.M., Castilho R., Francisco S. M., Amorim, M.C.P., V.C. Almada (2013). Are local extinctions and recolonizations continuing at the colder limits of marine fish distributions? *Halobatrachus didactylus* (Bloch & Schneider, 1801) a possible candidate. *Marine Biology* 160: 2461-2467. DOI 10.1007/s00227-013-2241-5
- 33 - Bolgan, M., S.S. Pedroso, M. Picciulin, P.J. Fonseca & M.C.P. Amorim (2013). Differential investment in acoustic communication during social interactions in two closely related sand goby species. *Behaviour* 150: 133–152. doi:10.1163/1568539X-00003041.
- 32 - Amorim, M.C.P., S.S. Pedroso, M. Bolgan, J. M. Jordão, M. Caiano & P.J. Fonseca (2013). Painted gobies sing their quality out loud: acoustic rather than visual signals advertise male quality and contribute to mating success. *Functional Ecology*. 27: 289-298. doi: 10.1111/1365-2435.12032
- 31 - Ramos, A., P.J. Fonseca, T. Modesto, V.C. Almada & M.C.P. Amorim (2012). Alloparental behaviour in the highly vocal Lusitanian toadfish. *Journal of Experimental Marine Biology and Ecology* 434–435: 58-62.
- 30 - Jordão J. J., P. J. Fonseca & M. C. P. Amorim (2012) - Chorusing behaviour in the Lusitanian toadfish: should I match my neighbours' calling rate? *Ethology* 118: 885-895. doi: 10.1111/j.1439-0310.2012.02078.x
- 29 - Vasconcelos R. O., R. Carriço, A. Ramos, T. Modesto, P. J. Fonseca & M. C. P. Amorim (2012) - Vocal behavior predicts reproductive success in a teleost fish. *Behavioral Ecology*. 23:375-383. Doi10.1093/beheco/arr199
- 28 - Vasconcelos, R.O.; J.A. Sisneros; M.C.P. Amorim & P.J. Fonseca (2011) – Auditory saccular sensitivity of the vocal Lusitanian toadfish: low frequency tuning allows acoustic communication throughout the year. *Journal of Comparative Physiology A*. 197:903–913. DOI 10.1007/s00359-011-0651-8
- 27 - van der Sluijs*, I., S. M. Gray, M.C.P. Amorim , I. Barber , U. Candolin, A. P. Hendry, R. Krahe, M. E. Maan, A. C. Utne-Palm, H.-J. Wagner, B. B.M. Wong (2011). Communication in troubled waters: Responses of fish communication systems to changing environments. *Evolutionary Ecology* 25: 623-640. DOI 10.1007/s10682-010-9450-x (*equal contributors).
- 26 - Amorim, M.C.P., J.M. Simões, V.C. Almada & P.J. Fonseca (2011) - Stereotypy and variation of the mating call in the Lusitanian toadfish, *Halobatrachus didactylus*. *Behav. Ecol. Sociobiol.* 65:707–716. DOI 10.1007/s00265-010-1072-3
- 25 - Vasconcelos, R.O., P.J. Fonseca, M.C.P. Amorim & F. Ladich (2011). Representation of complex vocalizations in the Lusitanian toadfish auditory system: evidence of fine temporal, frequency and amplitude discrimination. *Proc. R. Soc. B* **278**, 826-834. doi:10.1098/rspb.2010.1376
- 24 - Amorim, M.C.P., J.M. Simões, N. Mendonça, N.M. Bandarra, V.C. Almada & P. J. Fonseca (2010) - Lusitanian toadfish song reflects male quality. *J. Exp. Biol.* 213: 2997-3004.
- 23 - Amorim, M.C.P., J.M. Simões, P.J. Fonseca & V.C. Almada (2010) - Patterns of shelter usage and social aggregation by the vocal Lusitanian toadfish. *Marine Biology* 157:495–503. DOI **10.1007/s00227-009-1335-6**
- 22 - Vasconcelos, R.O., J.M. Simões, V.C. Almada, P.J. Fonseca & M.C.P. Amorim (2010) - Vocal behaviour during territorial intrusions in the Lusitanian toadfish: boatwhistles also function as territorial ‘keep-out’ signals. *Ethology*. 116: 155-165.
- 21 - Amorim, M.C.P., R.O. Vasconcelos & B. Parreira (2009) - Variability in the sonic muscles of the Lusitanian toadfish (*Halobatrachus didactylus*): acoustic signals may reflect individual quality. *Can. J. Zool.* 87: 718-725.
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Maria Clara Amorim