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BIOGRAPHY AND RESEARCH INTERESTS

Degree in Marine Biology (5-years course with undergraduate thesis), PhD in Geophysical Sciences-Physical Oceanography, and DSc (Habilitation/"Agregação") in Marine Sciences. More than 30 years of research experience on the relationships between the environment and marine organisms. Since 2000, is a Senior Scientist in IPMA (the Portuguese Institute for the Ocean and Atmosphere) and, since 2015, is also a member of the Group of Oceanography and Climate Changes (OC2) of the Centre of Marine Sciences of the University of Algarve (CCMAR). Presently, he is the Portuguese (National) Focal Point for IOC-UNESCO Argo Programme, Co-chair of the EuroGOOS/Euro-Argo Task Team, a member of the Joint PICES Study Group/ICES Council Strategic Initiative to plan participation in the UN Decade of Ocean Science (IPOD-ICES/PICES Ocean Decade), and the Presidente of the Portuguese Oceanography Society (APOCEAN). He was one of the Coordinators of the "Agenda do Mar" (Sea Agenda) for the Portuguese Science and Technology Foundation (FCT), the President of IPMA's Scientific Council (2012-2017), the President (2015-2016) and Vice-President (2014) of the Forum of State Laboratories Scientific Councils, IPMA's representative in EuroGOOS, a member of the Portuguese IGBP/Global Change Committee, and the National Representative for GLOBEC core project. He has been involved, as coordinator and PI, in more than 40 national and international projects (12 as a coordinator or PI). In the last years, his research has focused on the physical-biological interactions in the ocean throughout an end-to-end approach, on the impact of global change in the ocean, and on the development of ocean observing systems. This is reflected in more than 100 publications (56 as Scopus documents) with more than 2830 citations (3 publications with more than 200 citations, 5 with more than 150, and 10 with more than 100) and an h-index of 28 (Scopus). Other areas of interest/expertise are fisheries oceanography, fish ecology, mainly of pelagic species, and the applications of remote sensing to marine fisheries and oceanography.

Profile authenticators: Scopus ID: 25926746100 / ISI Web of Science ID:

Bibliographic search names: Santos, A. Miguel P. • Piecho-Santos, Antonio Miguel • Santos, A. M.P. • Santos, António Miguel • P. Santos, A. Miguel • Miguel Santos, A. • Santos, A. Miguel • Miguel P Santos, A. • Santos, A. Miguel P. • Piecho-Santos, A. Miguel • Santos, A. M. • Piecho-Santos, A. M.P.

PERSONAL INFORMATION

Place of birth: Lisboa, Portugal,
Date of birth: 07 September 1962
Nationality: Portuguese

EDUCATION

2021	D.Sc. (Habilitation/"Agregação") in Marine Sciences, University of Algarve
1995	Ph.D. in Physics-Geophysical Sciences-Physical Oceanography, University of Lisbon
1987	Degree ('Licenciatura', 5 years course with undergraduate thesis) in Biology (Marine Biology), Faculty of Sciences of the University of Lisbon

COMPLEMENTARY EDUCATION AND COURSES

2017	Workshop "Application of population genomics to fisheries management", Advanced Technologies and Training (ATT), Foresight Workshop - Horizon scanning, CCMAR University of Algarve, Faro, Portugal, 8-10 May
2003	Introduction to ArcGIS - Level I and Introduction to ArcGIS - Level II, ESRI Portugal, Lisboa, Portugal, 1 and 4 April

- 1991 Eurocourse/Workshop on “Ocean Color: Theory and Applications in a Decade of CZCS Experience”, Joint Research Centre, Commission of the European Communities, Ispra, Italy, 21-25 October
- 1991 Visit to several institutions and companies in the USA between May 26th and June 6th: (1) NOAA-National Marine Fisheries Service (NMFS) Southwest Fisheries Science Center (La Jolla, CA); (2) NOAA-National Ocean Service (La Jolla, CA); (3) Scripps Institution of Oceanography (San Diego, CA); (4) SeaSpace Co. (San Diego, CA); (5) Ocean Imaging Co. (San Diego, CA); (5) NOAA-NMFS Southeast Fisheries Science Center, Mississippi Laboratories (John Stennis Space Center, MS); and (6) Navy Naval Oceanographic and Atmospheric Research Laboratory (John Stennis Space Center, MS).
- 1990 NATO Advance Study Institute on “Operational Research and Management in Fishing”, Póvoa do Varzim, Portugal, 25 March-7 April
- 1989-1990 Modules of “Oceanography I” and “Oceanography II” of the 3rd year of the course of Geophysical Sciences of the Faculty of Sciences of the University of Lisbon
- 1988 Short course on “New Methods for Spawning Biomass Estimates of Fish”, Alfred Wegener Institute für Polar und Meeresforschung, Bremerhaven, Germany, 4-16 December

MAIN SCIENTIFIC AREAS

Physical and Biological Oceanography
 Fisheries Oceanography
 Marine Biology
 Physical-biological interactions in the ocean throughout an end-to-end approach
 Development of ocean observing systems
 Fish ecology (mainly of pelagic species)
 Applications of remote sensing to marine fisheries and oceanography
 Impact of global change in the ocean, especially in upwelling systems

PROFESSIONAL APPOINTMENTS

- 2021- present Assistant Researcher with Habilitation (“Investigador Auxiliar com Agregação”), IPMA (Portugal)
- 2000 - 2020 Assistant Researcher (“Investigador Auxiliar”), IPMA (Portugal)
- 2015 - present Member of the Centre of Marine Sciences (CCMAR) of the University of Algarve (Portugal) - Group of Oceanography and Climate Changes (OC2)
- 2004-2005 Member of the Working Group for the preparation of the “IBI-ROOS Plan: Iberia Biscay Ireland Regional Operational Oceanographic System 2006–2010”, EuroGOOS (Belgium)
- 2001-2003 Member of the SPACC/IOC Study Group on the “Use of environmental indices in the management of pelagic fish populations”, IOC-UNESCO (France)
- 2001-2002 Member of GLOBEC Study Group on “Paleoceanography”, GLOBEC (UK)

AWARDS/HONOURS/GRANTS/FELLOWSHIPS

- 2017 Elsevier: Deep-Sea Research, Exceptional reviewer
- 2012 Elsevier: Most Cited Progress in Oceanography Articles (2007-2011), Relvas et al. (2007)
- 2010 Elsevier: Second most cited Deep-Sea Research I paper in the last 5 years (2005-2009), Peliz et al. (2005)
- 2008 Elsevier: Continental Shelf Research Most Cited Paper 2003-2007 Award, Santos et al. (2004)
- 1997 FCT PRAXIS XXI Programme: Post-Doctoral Grant, 1997-1998

1997-2010 NASA SeaWiFS Project: Authorized PI Research User
1996 NATO: Post-Doctoral Grant
1990 JNICT CIENCIA Programme: Ph.D. Grant, 1990-1993

INTERNAL COMPETITION CRITERIA (ACCORDING TO ITEM 14 OF THE COMPETITION)

Scientific area of the call: Oceanografia, Ambiente Marinho e Biogeoquímica

A) PUBLICATIONS (in last 10 years) ¹

SUBMITTED OR IN PREPARATION (1)

1. Le Jeune, M., K. Balem, G. Maze, A.M. **Piecho-Santos** (2023). Monitoring the Gulf of Cadiz with Argo floats. In preparation.

UNDER REVISION OR ACCEPTED (1)

2. **Piecho-Santos**, A.M., A.J. Carvalho, T.L. Rosa (2023). Ocean observing systems on board fishing and cargo vessels. Accepted to be published in *Advances in Science, Technology and Innovation*.

PUBLISHED OR IN PRESS (24)

3. Van Vranken, C., J. Jakoboski, J.W. Carroll, C. Cusack, P. Gorringer, N. Hirose, J.P. Manning, M. Martinelli, P. Penna, M. Pickering, A.M. **Piecho-Santos**, M. Roughan, J. A. De Souza, H.A. Moustahfid (2023). Towards a global Fishing Vessel Ocean Observing Network (FVON): State of the art and future directions. *Frontiers in Marine Sciences*, 10. (doi:10.3389/fmars.2023.1176814), in press.
4. Lima, A. R., Baltazar-Soares, M., Garrido, S., Riveiro, I., Carrera, P., **Piecho-Santos**, A. M., Peck, M. A., Silva, G. (2022). Forecasting shifts in habitat suitability across the distribution range of a temperate small pelagic fish under different scenarios of climate change. *Science of the Total Environment*, **804**: 150167. (doi: 10.1016/j.scitotenv.2021.150167). (IF =1.946; Citations = 11 ; Environmental Science Q1).
5. Garrido, S., Ferreira, S., Soares, C., Meneses, I., Baylina, N., Batista, H., Teodósio, M.A., **Piecho-Santos**, A.M., Ré, P. (2021). Effect of food availability on the growth and age determination of European sardine (*Sardina pilchardus* Walbaum, 1792) larvae. *Journal of the Marine Biological Association of the United Kingdom*, **101**(3), 609-619. (doi: 10.1017/S0025315421 000497). (IF = 0.436; Citations = 0 ; Aquatic Science Q3).
6. **Piecho-Santos**, A.M., M. Hinostroza, T. Rosa, C. Guedes Soares (2021). Autonomous Observing Systems in Fishing Vessels. pp. 805-808. In: C. Guedes Soares and T.A. Santos (eds). *Developments in Maritime Technology and Engineering*. CRC Press, 846 pp. (doi: 10.1201/9781003216599-87). (Citations = 0)
7. **Piecho-Santos**, A.M., Rosa, T.L., Guedes Soares, C., Vettor, R., Hinostroza, M., Carvalho, A.J., Sousa Pinto, I., Oliveira, A.C. (2021). Autonomous Observing Systems on Board Fishing and Cargo Vessels. pp. 492-499. In: 9th EuroGOOS International Conference, EuroGOOS AISBL, Brest, France. (<https://hal.science/hal-03329172v2>).
8. Rosa, T.L., **Piecho-Santos**, A.M., Vettor, R., Guedes Soares, C. (2021). Review and Prospects for Autonomous Observing Systems in Vessels of Opportunity. *Journal of Marine Science and Engineering*, **9**: 366. (doi: 10.3390/jmse9040366) (Feature paper). (IF = 0.542; Citations = 1; Ocean Engineering Q2).
9. Cruz, J., Teodosio, M.A., Garrido, S., Ben-Hamadou, R., Chicharo, L., Re, P., **Santos**, A.M.P. (2020). Plankton community and copepod production in a temperate coastal lagoon: what is changing in a short temporal scale? *Journal of Sea Research*, **157**: 101858. (doi: 10.1016/j.seares.2020.101858) (IF =2.108; Citations = 7; Marine & Freshwater Biology Q2).
10. Relvas, P., A.M. **Piecho-Santos** (2020). Física dos Oceanos: da escala global à escala da sardinha [Physics of the oceans: from the global scale to the scale of the sardine]. *Gazeta da Física*, 43(1): 3-10.
11. Pires, R., Pan, M., Catalán, I., Prieto, L., **Santos**, M., Faria, C., Ferreira, S., Santos, A. (2018). The Atlantic–Mediterranean ecological connection: a study on decapod larval communities.

¹ See all publications record in Annex 1.

- Mediterranean Marine Science*, **19**(3): 477-490. (doi: 10.12681/mms.2006) (IF =4.51; Citations = 5; Aquatic Sciences and Oceanography Q1).
12. **Santos**, A. M. P., Nieblas, A.-E., Verley, P., Teles-Machado, A., Bonhommeau, S., Lett, C., Garrido, S., Peliz, A. (2018). Sardine (*Sardina pilchardus*) larval dispersal in the Iberian Upwelling System, using coupled biophysical techniques. *Progress in Oceanography*, **162**: 83-97. (doi: 10.1016/j.pocean.2018.02.011) (IF = 3.245; Citations = 18; Aquatic Sciences Q1).
 13. Garrido, S., Silva, A., Marques, V., Figueiredo, I., Bryère, P., Mangin, A., & **Santos**, A. M. P. (2017). Temperature and food-mediated variability of European Atlantic sardine recruitment. *Progress in Oceanography*, **159**: 267-275. (doi: 10.1016/j.pocean.2017.10.006) (IF = 4.270; Citations = 36; Aquatic Sciences Q1).
 14. Dominguez, R., Garrido, S., **Santos**, A. M. P., & dos Santos, A. (2017). Spatial patterns of mesozooplankton communities in the Northwestern Iberian shelf during autumn shaped by key environmental factors. *Estuarine, Coastal and Shelf Science*, **198**: 257-268. (doi: 10.1016/j.ecss.2017.09.008) (IF = 2.413; Citations = 7; Aquatic Sciences and Oceanography Q1).
 15. Cruz, J., Teodósio, M. A., Ben-Hamadou, R., Chicharo, L., Garrido, S., Ré, P., & **Santos**, A. M. P. (2017). RNA: DNA ratios as a proxy of egg production rates of *Acartia*. *Estuarine, Coastal and Shelf Science*, **187**: 96–109. (doi: 10.1016/j.ecss.2016.12.028) (IF = 2.413; Citations = 4; Aquatic Sciences and Oceanography Q1).
 16. Teodósio, M.A., S. Garrido, J. Peters, F. Leitão, P. Ré, A. Peliz, A. M. P. **Santos** (2017). Assessing the impact of environmental forcing on the condition of anchovy larvae in the Cadiz Gulf using nucleic acid and fatty acid-derived indices. *Estuarine, Coastal and Shelf Science*, **185**: 94-106. (doi: 10.1016/j.ecss.2016.10.023) (IF = 2.413; Citations = 17; Aquatic Sciences and Oceanography Q1).
 17. Pochelon, P. N., Pires, R. F., Dubert, J., Nolasco, R., **Santos**, A. M. P., Queiroga, H., & dos Santos, A. (2017). Decapod larvae distribution and species composition off the southern Portuguese coast. *Continental Shelf Research*, **151**: 53-61. (doi: 10.1016/j.csr.2017.10.009) (IF = 1.942; Citations = 7; Aquatic Sciences and Oceanography Q1).
 18. Vincent, C., Mangin, A., Bryère, P., Lesne, O., Scarrott, R., Dunne, D., ... & Morales, J. (2017). Making use of the latest earth observation datasets from copernicus programme-The Safi EU-FP7 project. *European Space Agency*, **SP-740**: 9-13. (Citations = 1).
 19. Garrido S., A. Cristóvão, C. Caldeira, R. Ben-Hamadou, N. Baylina, H. Batista, E. Saiz, M.A. Peck, P. Ré, A.M.P. **Santos** (2016). Effect of temperature on the growth, survival and foraging behaviour of *Sardina pilchardus* larvae. *Marine Ecology Progress Series*, **559**: 131-145. (doi: 10.3354/meps11881) (IF=2.292; Citations = 17; Aquatic Sciences Q1).
 20. Malta, T., P.T. **Santos**, A.M.P. Santos, M. Rufino, A. Silva (2016). Long-term variations in Ibero-Atlantic sardine (*Sardina pilchardus*) population dynamics: Relation to environmental conditions and exploitation history. *Fisheries Research*, **179**: 47-56. (doi: 10.1016/j.fishres.2016.02.009) (IF=2.185; Citations = 18; Aquatic Sciences Q1).
 21. Garrido, S., R. Ben-Hamadou, A.M.P. **Santos**, S. Ferreira, M. A. Teodósio, U. Cotano, X. Irigoien, M. Peck, E. Saiz, P. Ré (2015). Born small, die young: Intrinsic, size selective mortality in marine larval fish. *Nature Scientific Reports*, **5**: 17065. (doi: 10.1038/srep17065) (IF=5.228; Citations = 68; Multidisciplinary Q1).
 22. Garrido, S., A. Silva, J. Pastor, R. Dominguez, A.V. Silva, A.M.P. **Santos** (2015). Trophic ecology of pelagic fish species off the Iberian coast: diet overlap, cannibalism and intraguild predation. *Marine Ecology Progress Series*, **539**: 271–286. (doi: 10.3354/meps11506) (IF=2.361; Citations = 40; Aquatic Sciences Q1).
 23. Caldeira, C., A.M.P. **Santos**, P. Ré, M.A. Peck, E. Saiz, S. Garrido (2014). Effects of prey concentration on ingestion rates of European sardine (*Sardina pilchardus*) larvae in the laboratory. *Marine Ecology Progress Series*, **517**: 217-228. (doi: 10.3354/meps11010) (IF=2.619; Citations = 17; Aquatic Sciences and Ecology Q1).
 24. Bartilotti, C., A. dos Santos, M. Castro, A. Peliz, A.M.P. **Santos** (2014). Decapod larval retention within distributional bands in a coastal upwelling ecosystem. *Marine Ecology Progress Series*, **507**: 233–247. (doi: 10.3354/meps10817) (IF=2.619; Citations = 11; Aquatic Sciences and Ecology Q1).
 25. Pochelon, P.N., A. dos Santos, A.M.P. **Santos**, H. Queiroga (2014). Vertical and horizontal larval distribution of an offshore brachyuran crab, *Monodaeus couchii*, off the south coast of Portugal.

- Scientia Marina*, **78**(2): 249-256. (doi: 10.3989/scimar.03944.30F) (IF=1.247; Citations = 5; Aquatic Sciences and Oceanography Q2).
26. Moreno, A., S. Lourenço, J. Pereira, M.B. Gaspar, H.N. Cabral, G.J. Pierce, A.M.P. **Santos** (2014). Essential habitats for pre-recruit *Octopus vulgaris* along the Portuguese coast. *Fisheries Research*, **152**: 74-85. (doi: 10.1016/j.fishres.2013.08.005) (IF=1.843; Citations = 30; Aquatic Sciences and Q1).

B) FUNDING/PROJECTS (in last 10 years) ²

COORDINATION/PI/CO-PI (4)

- 2019-2023 OBSERVA.PT - Observations on board Portuguese commercial ships to support the conservation of marine biodiversity in the Portuguese Seas (Mar2020 16-01-04-FMP-002), Mar2020, € 755,000.00.
- 2018-2022 OBSERVA.FISH - Autonomous Observing Systems in Fishing Vessels for the Support of Marine Ecosystem Management (PTDC/CTA-AMB/31141/2017), FCT/Portugal2020, € 223,704.98.
- 2010-2016 Assinalamento - Desenvolvimento sustentável da aquicultura pela promoção da sanidade do bem estar animal [Sustainable development of aquaculture for the promotion of animal welfare] (PROMAR 31-03-01-FEP-12), FEDER, € 787,300.00.
- 2010-2014 MODELA - Modelling larval fish dynamics and related ocean processes (PTDC/MAR/098643/2008), FCT, € 185,589.00.

PARTICIPATION (12)

- 2021-2024 *NextOcean: Next Generation Fishing and Aquaculture Services* (EU H2020-SPACE-2020 Grant agreement No. 101004362), EU H2020, € 2,999,788.75. Responsible for IPMA's and CCMAR's teams.
- 2020-2024 A-Fish-DNA-Scan - Cutting-edge DNA-based approaches for improved monitoring and management of fisheries resources along Magellan-Elcano's Atlantic route, (CIRCNA/BRB/0156/2019), FCT, € 288,853.57. Responsible for IPMA's and CCMAR's teams.
- 2018-2022 *Euro-Argo-RISE - Euro-Argo Research Infrastructure Sustainability and Enhancement* (EU H2020-INFRADEV-2018-1 Grant agreement No 824131), , EU H2020, € 3,994,067.50. Responsible for Case Study and IPMA's team.
- 2018-2022 *SARDITEMP - Impact of climate change on the ecology and dynamics of small pelagic fish* (02/SAICT/2017 n° 32209), FCT/Portugal2020, € 239,869.87.
- 2018-2020 *STORM - Atmosphere-Ocean-Solid Earth Coupling: Seismic Tools to Explore and Monitor the Oceans* (UTAP-EXPL/EAC/0056/2017), FCT-Univ. of Texas Austin, € 99,984.00. Responsible for IPMA's team.
- 2016-2019 *JELLYFISHERIES - Towards an integrated approach to enhance predictive accuracy of jellyfish impact on coastal marine ecosystems* (P2020-PTDC/MAR-BIO/0440/2014), FCT, € 135,954.00.
- 2015-2019 *MarRISK - Adaptación costera ante el Cambio Climático: conocer los riesgos y aumentar la resiliencia* (0262_MarRISK_1_E), , INTERREG V-A España Portugal (POCTEP), € 2,957,049.88. Responsible for IPMA's team.
- 2015-2017 BIOMETOR - Biodiversity in seamounts: the Madeira-Tore and Great Meteor (EEA Grants PT02_Aviso2_0001), EEA Grants, € 2,779,636.00.
- 2015-2017 MarinEye – A prototype for multitrophic oceanic monitoring” (EEA Grants PT02_Aviso4_0017), EEA Grants, € 257,500.00.
- 2015-2017 SeaBioData - Portuguese Seamounts Biodiversity Data Management (EEA Grants PT02_Aviso5_002), EEA Grants, € 194,650.00.
- 2013-2016 SAFI-Support to Aquaculture and Fishery Industry (FP7-SPACE-2013-1-607155), EU FP7, € 731,157.00.

² See all projects record in Annex 2.

2011-2014 IMPROVE - Inner shelf hydrographic and biological processes controlling invertebrate population in the Portuguese coast, using decapods as models (PTDC/MAR/110796/2009), FCT, € 180,000.00.

C) PARTICIPATION IN ORGANIZATIONS OF A TECHNICAL-SCIENTIFIC NATURE (19)

2022- present Member of the Steering Committee of the Fishing Vessel Ocean Observing Network (FVON)

2022-present Presidente of the Portuguese Oceanography Society (APOCEAN)

2022 - present Co-chair of the EuroGOOS Argo Task Team

2022 - present Member of the EuroGOOS Ferrybox Task Team

2020-2021 National Focal Point and Member of the European Ocean Observing System (EOOS) Operations Committee

2017 - present Argo Program National Focal Point, IOC-UNESCO (France)

2017 - present Alternate Global Ocean Observing Systems National Contact Point (GOOS), IOC-UNESCO (France)

2017 - present Alternate Global Sea Level Observing System (GLOSS) National Contact Point, IOC-UNESCO (France)

2017 - present Alternate Data Buoy Cooperation Panel (DBCP) National Contact Point, IOC-UNESCO (France)

2015 - present Member of the Centre of Marine Sciences (CCMAR) of the University of Algarve (Portugal) - Group of Oceanography and Climate Changes (OC2)

2014 - present Alternate Portuguese Member of ICES Science Committee (SICOM), ICES (Denmark)

2014-2017 IPMA's Representative in EuroGOOS (Belgium)

2010-2015 IMBER core project National focal point, Lisbon Academy of Sciences (Portugal)

2010-2015 LOICZ core project National focal point, Lisbon Academy of Sciences (Portugal)

2006 - present Member of the IBI-ROOS (Iberia Biscay Ireland Regional Operational Oceanographic System), EuroGOOS (Belgium)

2005-2015 Member of the Portuguese IGBP/Global Change Committee, Lisbon Academy of Sciences (Portugal)

2005-2010 GLOBEC core project National Representative, Lisbon Academy of Sciences (Portugal)

2003-2010 Member of the Scientific Council of FLAD's Lectures on Marine Sciences, FLAD (Portugal)

2001-2007 Representative of former-IPIMAR in the Portuguese Committee of IOC-IODE (Intergovernmental Oceanographic Commission-International Oceanographic Data and Information Exchange) (Portugal)

D) MANAGEMENT/COORDINATION POSITIONS AT IPMA (7)

2022-present Co-Coordination of the Programme VMEs of IPMA related to their occurrence and status within the EU closed fishing areas referred as EMVII-x.

2021-present Member of IPMA's Coordination Group for the MSFD.

2012-2017 President of the Scientific Council of IPMA (Portugal)

2015-2016 President of the Forum of the Scientific Councils of State Laboratories (Portugal)

2014 Vice-President of the Forum of the Scientific Councils of State Laboratories (Portugal)

1998-present Chief Scientist in several oceanographic surveys since 1998 ³

1998-2003 Coordinator of the Oceanology Unit at the Portuguese Institute for Sea and Fisheries Research (former IPIMAR)

³ See list in Annex 3

E) TECHNICAL COMMITTEES, PROVISION OF RELEVANT SERVICES TO THE COMMUNITY OR TRAINING ACTIONS (in the last 10 years)

TECHNICAL COMMITTEES

- 2021-2022 Member of OSPAR Climate Change Expert Group
- 2020 - present Member of the Joint PICES Study Group/ICES Council Strategic Initiative to plan participation in the UN Decade of Ocean Science (IPOD-ICES/PICES Ocean Decade), ICES (Denmark)
- 2014 - present Member of the Working Group on Integrative, Physical-biological, and Ecosystem Modelling (WGIPEM), ICES (Denmark)
- 2011 - 2018 Member of the Working Group on Small Pelagic Fishes, their Ecosystems and Climate Impact (WGSPEC), ICES (Denmark)

COMMITTEES OF SCIENTIFIC EVENTS⁴

1. Co-Chair of Session “OT008: Democratizing Ocean Observation via Cost-Effective Fishing Vessel-Based Integrated and Other Approaches to Ocean Data Collection” in the Ocean Sciences Meeting 2024, which will take place on 18-23 February 2024 in New Orleans, Louisiana, USA. (<https://agu.confex.com/agu/OSM24/prelim.cgi/Session/198149>)
2. Lead Session Chair of “SSO42 Fishing4Data: Fishing Gear as an Oceanographic Data Collection Platform” in ASLO 2023 Aquatic Sciences Meeting, Palma de Mallorca, Spain, 4-9 June 2023. (<https://www.aslo.org/palma-2023/scientific-sessions-list/>).
3. Scientific Committee of the “IX Congresso sobre Planeamento e Gestão das Zonas Costeiras dos Países de Expressão Portuguesa” [9th Congress on Coastal Zones Planning and Management of the Portuguese Speaking Countries], Lisboa, 14-19 May 2019.
4. Scientific Committee of the “IX Simpósio sobre a Margem Ibérica Atlântica (MIA2018)” [9th Symposium on the Iberian Atlantic Margin (MIA 2018)], Coimbra, 4-7 September 2018.
5. Scientific Committee of the “5as Jornadas de Engenharia Hidrográfica” [5th Symposium on Hydrographic Engineer], Lisboa, 19-21 June 2018.
6. Scientific Committee of the “VIII Simpósio sobre a Margem Ibérica Atlântica (MIA 2015)” [8th Symposium about the Iberian Atlantic Margin (MIA 2015)], Malaga, 21-23 September 2015

RELEVANT SERVICES TO THE COMMUNITY

- 2023 Invited participation in the round table “Do Rio ao Oceano: estratégias para a valorização da biodiversidade no Minho” in the frame of the final Workshop of the project “River2Ocean-Do Rio ao Oceano: Biodiversidade, Bioeconomia e Sustentabilidade”, University of Minho, 30 June 2023.
- 2016-2018 Coordinator of the “Agenda do Mar” (Sea Agenda) for the Ministry of Science, Technology and Higher Education (MCTES), MCTES (Portugal)

Reviewer

- 2022-present Member of the Editorial Board of the “Aquaculture Journal” (<https://www.mdpi.com/journal/aquacj/editors>)
- 2020-present Member of the Editorial Board of the journal “Oceans” (Accepted for Coverage in Scopus) (<https://www.mdpi.com/journal/oceans/editors>)
- 2006-2007 Guest Editor in Progress in Oceanography Special Issue on the “Ecological functioning of the Iberian seas” (<https://www.sciencedirect.com/journal/progress-in-oceanography/vol/74/issue/2>).
- 2008-2015 Member of the Editorial Board of “Mudança Global Noticias” [Global Change News], the bulletin of the National Committee for IGBP/Global Change.
- 2007-2015 Member of the Editorial Board of “The Open Oceanography Journal” (Discontinued).

⁴ See the complete list in Annex 4.

- 2007-2013 Member of the Editorial Board of “ISRN Oceanography” (Discontinued)
 2006 Guest Editor of the section “GLOBEC-PORTUGAL” in GLOBEC International Newsletter, 12(1): 7-31 (2006)

Journal reviews (at least since 2006)

1. Fisheries Oceanography (9)
2. Progress in Oceanography (6)
3. Continental Shelf Research (4)
4. Deep-Sea Research I and II (3)
5. International Journal of Remote Sensing (3)
6. Canadian Journal of Fisheries and Aquatic Sciences (2)
7. Limnology and Oceanography (2)
8. Remote Sensing of Environment (at least 1 or more before 2006)
9. Western Indian Ocean Journal of Marine Sciences (1)
10. Climate Research (1)
11. Journal of the Marine Biological Association UK (1)
12. ICES Journal of Marine Science (1)
13. The Scientific World Journal (1)
14. Ocean Science (1)
15. Thalassas (1)

Proposal reviews

1. Internal evaluator for MSFD monitoring plan report produced by IPMA
2. Chapter 9 - Deep sea and offshore/pelagic habitats of the United Nations Environmental Programme (UNEP) / Nairobi Convention / Western Indian Ocean Marine Science Association Regional State of the Coast Report (RSOCR) for the Western Indian Ocean.
3. Research Proposals for the Cyprus Research Promotion Foundation under Programme “DIDAKTOR”.
4. Research Proposals for the Czech Science Foundation (GACR).
5. Strategic Projects for the Portuguese Science and Technology Foundation (FCT)
6. Alentejo2020 Projects for the Portuguese Science and Technology Foundation (FCT)
7. EC Projects (former-DGXIV).

Scientific and Professional Societies

1. Portuguese Order of Biologists (“Ordem dos Biólogos-OBio”)
2. Portuguese Oceanography Society (“Associação Portuguesa de Oceanografia-APOCEAN”)
3. American Geophysical Union (AGU)
4. The Oceanography Society (TOS)
5. Association for the Sciences of Limnology and Oceanography (ASLO)
6. European Geophysical Union (EGU)
7. American Association for the Advancement of Science (AAAS)

Outreach, dissemination and scientific communication

1. Relvas, P., A.M. Piecho-Santos (2020). Física dos Oceanos: da escala global à escala da sardinha [Physics of the oceans: from the global scale to the scale of the sardine]. *Gazeta da Física*, 43(1): 3-10.
2. News for IPMA internet site on “Onde está o flutuador Argo WMO-3901909 ?” [Where is Argo WMO-3901909?], 2018
3. Presentation about IPMA and its research to the Schmidt Ocean Institute, LSTS, FEUP, 2017
4. Participation in the programme “60 minutos de Ciência” [60 minutes of Science], MUHNAC-FCUL, 2017.
5. News for IPMA internet site on “Lançamento de flutuador Argo: uma contribuição de Portugal para o Euro-Argo” [Deployment of an Argo float: Portuguese contribution to Euro-Argo], 2017.
6. Participation in SIC reportage with reporter Maria Miguel Cabo about the RV “Mar Portugal” and the research activities of IPMA, 2016.

7. Representative of IPMA in the Working Group “Escola Azul PT” [Blue School PT], 2015-2016
8. Invited presentation of the project SAFI - “Support to Aquaculture and Fishery Industry” (FP7-SPACE-2013-1) in the Workshop H2020: Oportunidades e Desafios nos programas Europeus de Observação da Terra [Workshop H2020: Opportunities and challenges of the European programmes on Earth Observation], Gabinete de Promoção do Programa Quadro ID&I da FCT, Lisboa, 2015.
9. Participation on the Researchers European Night, 2015
10. Participation on the Blue Business Forum, 2015
11. Support to the filming of Episode 11 (Fishing) from SIC series “Mar, a Terra Prometida” [Sea, the Promise Land], 2015.
12. Interview with reporter Yasuko Takeda to Japanese public TV NHK about sardine and climate changes, 2015.
13. Article for the magazine “Marés” of “Mútua dos Pescadores para o Mar e Economia Social” about sardine fisheries, 2015.
14. Interview with reporter Ricardo Garcia (Newspaper Público) about sardine, 2015.
15. Article for the section “Saberás tu...” of Newspaper “I” about “A sardinha está a desaparecer?” [Is sardine disappearing?], 2015.
16. Participation on SIC reportage by reporter Carla Castelo about the abundance of sardine, 2014.
17. Participation on the 5th Portugal Space Forum, 2014
18. Participation on the Researchers European Night, 2014

TRAINING ACTIONS

- 2021 Advanced Course "Plankton in a changing world. Plankton and productivity. Ecology, processes and new methodologies in support of marine management" (35 hours) - Lecturer and course Co-organizer. Dept. of Biology of the Univ. of Aveiro.

POST-GRADUATE AND UNDERGRADUATE SUPERVISION

Completed ⁵

- 2022 Meadow Hall: University of Harvard, USA; Summer Internship, *Marine Biology sampling and analysis*. Harvard Fellowship. IPMA, Portugal
- 2022 Arianna Caneva: Università Ca' Foscari Venezia, Italy; Summer Internship, *Oceanography of the Northeast Atlantic ocean*. Erasmus+ Programme. CCMAR, Portugal.
- 2021 Mathieu Le Jeune: IMT Atlantique, Réseaux et télécommunications, France; Internship Argo, *Monitoring the Gulf of Cadiz with Argo floats*. IPMA, Portugal.
- 2020 Joana Cruz: PhD Marine Sciences, *Copepod communities and secondary production in Portuguese coastal waters*. University of Lisboa, Portugal.
- 2018 Gonçalo Ferreira: Undergraduate project (Physical Oceanography), *Estimation of currents from drifting buoys and computation of TS vertical profiles based on CTD data*. Faculty of Sciences of the University of Porto, Portugal.
- 2015 - 2016 Susana Garrido: Post-Doctoral supervisor, *Oceanographic processes relevant to the life cycle of the European sardine, *Sardina pilchardus**. FCT Fellowship SFRH/BPD/105419/2014, IPMA, Portugal.

Ongoing

- 2021 Ana Catarina Moura: PhD in Marine, Earth and Environmental Sciences, *Development and application of modelling methods to assess the population dynamics of small pelagic fish resources*. University of Algarve, Portugal.
- 2021 Teresa Leal Rosa: PhD in Marine, Earth and Environmental Sciences, *Modelling the variability of oceanographic processes and their impact in small pelagic fish larval dynamics*. University of Algarve, Portugal.
- 2020 André Ferreira: PhD in Environmental and Molecular Biology, *DNA-based monitoring of ichthyoplankton for application to fish biodiversity conservation and*

⁵ See complete list in Annex 5

fisheries management. FCT Fellowship DFA/BD/6653/2020. University of Minho, Portugal.

ANNEX 1

PUBLICATIONS AND SELECT CONFERENCE PRESENTATIONS

(IF - Impact Factor at the time of publication; Scopus Citations; Q Quartile at the time of publication)

1. Le Jeune, M., K. Balem, G. Maze, A.M. **Piecho-Santos** (2023). Monitoring the Gulf of Cadiz with Argo floats. In preparation.
2. **Piecho-Santos**, A.M., A.J. Carvalho, T.L. Rosa (2023). Ocean observing systems on board fishing and cargo vessels. Accepted to be published in *Advances in Science, Technology and Innovation*.
3. Van Vranken, C., J. Jakoboski, J.W. Carroll, C. Cusack, P. Gorringer, N. Hirose, J.P. Manning, M. Martinelli, P. Penna, M. Pickering, A.M. **Piecho-Santos**, M. Roughan, J. A. De Souza, H.A. Moustahfid (2023). Towards a global Fishing Vessel Ocean Observing Network (FVON): State of the art and future directions. *Frontiers in Marine Sciences*, 10. (doi:10.3389/fmars.2023.1176814), in press.
4. Lima, A. R., Baltazar-Soares, M., Garrido, S., Riveiro, I., Carrera, P., **Piecho-Santos**, A. M., Peck, M. A., Silva, G. (2022). Forecasting shifts in habitat suitability across the distribution range of a temperate small pelagic fish under different scenarios of climate change. *Science of the Total Environment*, **804**: 150167. (doi: 10.1016/j.scitotenv.2021.150167). (IF =1.946; Citations = 11 ; Environmental Science Q1).
5. Garrido, S., Ferreira, S., Soares, C., Meneses, I., Baylina, N., Batista, H., Teodósio, M.A., **Piecho-Santos**, A.M., Ré, P. (2021). Effect of food availability on the growth and age determination of European sardine (*Sardina pilchardus* Walbaum, 1792) larvae. *Journal of the Marine Biological Association of the United Kingdom*, **101**(3), 609-619. (doi: 10.1017/S0025315421 000497). (IF = 0.436; Citations = 0 ; Aquatic Science Q3).
6. **Piecho-Santos**, A.M., M. Hinojosa, T. Rosa, C. Guedes Soares (2021). Autonomous Observing Systems in Fishing Vessels. pp. 805-808. In: C. Guedes Soares and T.A. Santos (eds). *Developments in Maritime Technology and Engineering*. CRC Press, 846 pp. (doi: 10.1201/9781003216599-87). (Citations = 0)
7. **Piecho-Santos**, A.M., Rosa, T.L., Guedes Soares, C., Vettor, R., Hinojosa, M., Carvalho, A.J., Sousa Pinto, I., Oliveira, A.C. (2021). Autonomous Observing Systems on Board Fishing and Cargo Vessels. pp. 492-499. In: 9th EuroGOOS International Conference, EuroGOOS AISBL, Brest, France. (<https://hal.science/hal-03329172v2>).
8. Rosa, T.L., **Piecho-Santos**, A.M., Vettor, R., Guedes Soares, C. (2021). Review and Prospects for Autonomous Observing Systems in Vessels of Opportunity. *Journal of Marine Science and Engineering*, **9**: 366. (doi: 10.3390/jmse9040366) (Feature paper). (IF = 0.542; Citations = 1; Ocean Engineering Q2).
9. Cruz, J., Teodosio, M.A., Garrido, S., Ben-Hamadou, R., Chicharo, L., Re, P., **Santos**, A.M.P. (2020). Plankton community and copepod production in a temperate coastal lagoon: what is changing in a short temporal scale? *Journal of Sea Research*, **157**: 101858. (doi: 10.1016/j.seares.2020.101858) (IF =2.108; Citations = 7; Marine & Freshwater Biology Q2).
10. Relvas, P., A.M. **Piecho-Santos** (2020). Física dos Oceanos: da escala global à escala da sardinha [Physics of the oceans: from the global scale to the scale of the sardine]. *Gazeta da Física*, 43(1): 3-10.
11. Pires, R., Pan, M., Catalán, I., Prieto, L., **Santos**, M., Faria, C., Ferreira, S., Santos, A. (2018). The Atlantic–Mediterranean ecological connection: a study on decapod larval communities. *Mediterranean Marine Science*, **19**(3): 477-490. (doi: 10.12681/mms.2006) (IF =4.51; Citations = 5; Aquatic Sciences and Oceanography Q1).
12. **Santos**, A. M. P., Nieblas, A.-E., Verley, P., Teles-Machado, A., Bonhommeau, S., Lett, C., Garrido, S., Peliz, A. (2018). Sardine (*Sardina pilchardus*) larval dispersal in the Iberian Upwelling System, using coupled biophysical techniques. *Progress in Oceanography*, **162**: 83-97. (doi: 10.1016/j.pocean.2018.02.011) (IF = 3.245; Citations = 18; Aquatic Sciences Q1).
13. Garrido, S., Silva, A., Marques, V., Figueiredo, I., Bryère, P., Mangin, A., & **Santos**, A. M. P. (2017). Temperature and food-mediated variability of European Atlantic sardine recruitment. *Progress in Oceanography*, **159**: 267-275. (doi: 10.1016/j.pocean.2017.10.006) (IF = 4.270; Citations = 36; Aquatic Sciences Q1).

14. Dominguez, R., Garrido, S., **Santos**, A. M. P., & dos Santos, A. (2017). Spatial patterns of mesozooplankton communities in the Northwestern Iberian shelf during autumn shaped by key environmental factors. *Estuarine, Coastal and Shelf Science*, **198**: 257-268. (doi: 10.1016/j.ecss.2017.09.008) (IF = 2.413; Citations = 7; Aquatic Sciences and Oceanography Q1).
15. Cruz, J., Teodósio, M. A., Ben-Hamadou, R., Chícharo, L., Garrido, S., Ré, P., & **Santos**, A. M. P. (2017). RNA: DNA ratios as a proxy of egg production rates of *Acartia*. *Estuarine, Coastal and Shelf Science*, **187**: 96-109. (doi: 10.1016/j.ecss.2016.12.028) (IF = 2.413; Citations = 4; Aquatic Sciences and Oceanography Q1).
16. Teodósio, M.A., S. Garrido, J. Peters, F. Leitão, P. Ré, A. Peliz, A. M. P. **Santos** (2017). Assessing the impact of environmental forcing on the condition of anchovy larvae in the Cadiz Gulf using nucleic acid and fatty acid-derived indices. *Estuarine, Coastal and Shelf Science*, **185**: 94-106. (doi: 10.1016/j.ecss.2016.10.023) (IF = 2.413; Citations = 17; Aquatic Sciences and Oceanography Q1).
17. Pochelon, P. N., Pires, R. F., Dubert, J., Nolasco, R., **Santos**, A. M. P., Queiroga, H., & dos Santos, A. (2017). Decapod larvae distribution and species composition off the southern Portuguese coast. *Continental Shelf Research*, **151**: 53-61. (doi: 10.1016/j.csr.2017.10.009) (IF = 1.942; Citations = 7; Aquatic Sciences and Oceanography Q1).
18. Vincent, C., Mangin, A., Bryère, P., Lesne, O., Scarrott, R., Dunne, D., ... & Morales, J. (2017). Making use of the latest earth observation datasets from copernicus programme-The Safi EU-FP7 project. *European Space Agency*, **SP-740**: 9-13. (Citations = 1).
19. Garrido S., A. Cristóvão, C. Caldeira, R. Ben-Hamadou, N. Baylina, H. Batista, E. Saiz, M.A. Peck, P. Ré, A.M.P. **Santos** (2016). Effect of temperature on the growth, survival and foraging behaviour of *Sardina pilchardus* larvae. *Marine Ecology Progress Series*, **559**: 131-145. (doi: 10.3354/meps11881) (IF=2.292; Citations = 17; Aquatic Sciences Q1).
20. Malta, T., P.T. **Santos**, A.M.P. Santos, M. Rufino, A. Silva (2016). Long-term variations in Ibero-Atlantic sardine (*Sardina pilchardus*) population dynamics: Relation to environmental conditions and exploitation history. *Fisheries Research*, **179**: 47-56. (doi: 10.1016/j.fishres.2016.02.009) (IF=2.185; Citations = 18; Aquatic Sciences Q1).
21. Garrido, S., R. Ben-Hamadou, A.M.P. **Santos**, S. Ferreira, M. A. Teodósio, U. Cotano, X. Irigoien, M. Peck, E. Saiz, P. Ré (2015). Born small, die young: Intrinsic, size selective mortality in marine larval fish. *Nature Scientific Reports*, **5**: 17065. (doi: 10.1038/srep17065) (IF=5.228; Citations = 68; Multidisciplinary Q1).
22. Garrido, S., A. Silva, J. Pastor, R. Dominguez, A.V. Silva, A.M.P. **Santos** (2015). Trophic ecology of pelagic fish species off the Iberian coast: diet overlap, cannibalism and intraguild predation. *Marine Ecology Progress Series*, **539**: 271-286. (doi: 10.3354/meps11506) (IF=2.361; Citations = 40; Aquatic Sciences Q1).
23. Caldeira, C., A.M.P. **Santos**, P. Ré, M.A. Peck, E. Saiz, S. Garrido (2014). Effects of prey concentration on ingestion rates of European sardine (*Sardina pilchardus*) larvae in the laboratory. *Marine Ecology Progress Series*, **517**: 217-228. (doi: 10.3354/meps11010) (IF=2.619; Citations = 17; Aquatic Sciences and Ecology Q1).
24. Bartilotti, C., A. dos Santos, M. Castro, A. Peliz, A.M.P. **Santos** (2014). Decapod larval retention within distributional bands in a coastal upwelling ecosystem. *Marine Ecology Progress Series*, **507**: 233-247. (doi: 10.3354/meps10817) (IF=2.619; Citations = 11; Aquatic Sciences and Ecology Q1).
25. Pochelon, P.N., A. dos Santos, A.M.P. **Santos**, H. Queiroga (2014). Vertical and horizontal larval distribution of an offshore brachyuran crab, *Monodaeus couchii*, off the south coast of Portugal. *Scientia Marina*, **78**(2): 249-256. (doi: 10.3989/scimar.03944.30F) (IF=1.247; Citations = 5; Aquatic Sciences and Oceanography Q2).
26. Moreno, A., S. Lourenço, J. Pereira, M.B. Gaspar, H.N. Cabral, G.J. Pierce, A.M.P. **Santos** (2014). Essential habitats for pre-recruit *Octopus vulgaris* along the Portuguese coast. *Fisheries Research*, **152**: 74-85. (doi: 10.1016/j.fishres.2013.08.005) (IF=1.843; Citations = 30; Aquatic Sciences and Q1).
27. Pires, R.F.T., M. Pan, A.M.P. **Santos**, A. Peliz, D. Boutov, A. dos Santos (2013). Modelling the variation in larval dispersal of estuarine and coastal ghost shrimp: Upogebia congeners in the Gulf of Cadiz. *Marine Ecology Progress Series*, **492**: 153-168. (doi:10.3354/meps10488). (IF = 2.640; Citations = 15; Aquatic Sciences and Ecology Q1)

28. Cruz, J., S. Garrido, M.S. Pimentel, R. Rosa, A.M.P. **Santos** & P. Ré (2013). Reproduction and respiration of a climate change indicator species: effect of temperature and variable food in the copepod *Centropages chierchiae*. *Journal of Plankton Research*, **35**(5): 1046-1058. (doi:10.1093/plankt/fbt057) (IF = 2.263; Citations = 16; Aquatic Sciences and Ecology Q1)
29. Garrido, S., J. Cruz, A.M.P. **Santos**, P. Ré & E. Saiz (2013). Effects of temperature, food type and food concentration on the grazing of the calanoid copepod *Centropages chierchiae*. *Journal of Plankton Research*, **35**(4): 843-854. (doi:10.1093/plankt/fbt037) (IF = 2.263; Citations = 17; Aquatic Sciences and Ecology Q1)
30. Moreno A., G.J. Pierce, M. Azevedo, J. Pereira & A.M.P. **Santos** (2012). The effect of temperature on growth of early life stages of the common squid *Loligo vulgaris*. *Journal of the Marine Biology Association U.K.*, **92**(7): 1619-1628. (doi: 10.1017/S0025315411002141). (IF = 1.023; Citations = 14; Aquatic Sciences Q2)
31. Borges, M.F., H. Mendes, A.M.P. **Santos** (2012). Sardine (*Sardina pilchardus*) recruitment is strongly affected by climate even at high spawning biomass in West Iberia/Canary upwelling system. *FAO Fisheries and Aquaculture Proceedings*, 18: 237-244.
32. Solari, A.P., M.T.G. Santamaría, M.F. Borges, A.M.P. **Santos**, H. Mendes, E. Balguerías, J.A. Díaz Cordero, J.J. Castro & C. Bas (2010). On the dynamics of *Sardina pilchardus*: orbits of stability and environmental forcing. *ICES Journal of Marine Science*, **67**(8): 1565-1573. (doi:10.1093/icesjms/fsq107) (IF = 1.808; Citations = 5; Aquatic Sciences and Ecology and Oceanography Q1)
33. Rosa, R, L. Gonzalez, B.R. Broitman, S. Garrido, A.M.P. **Santos** & M-L. Nunes (2010). Bioenergetics of small pelagics in upwelling systems: relationship between fish condition, coastal ecosystem dynamics and fisheries. *Marine Ecology Progress Series*, **410**: 205-210. (doi: 10.3354/meps08635). (IF = 2.483; Citations = 30; Aquatic Sciences and Ecology Q1)
34. Relvas, P., J. Luis & A.M.P. **Santos** (2009). Importance of the mesoscale in the decadal changes observed in the Northern Canary upwelling system. *Geophysical Research Letters*, **36**, L22601. (doi:10.1029/2009GL040504) (IF = 3.204; Citations = 55; Earth and Planetary Sciences (miscellaneous) and Geophysics Q1)
35. Aristegui, J., E.D. Barton, X.A. Álvarez-Salgado, A.M.P. **Santos**, F. Figueiras, S. Kifani, S. Hernández-León, E. Mason, E. Machu & H. Demarcq (2009). Sub-regional ecosystem variability in the Canary Current upwelling. *Progress in Oceanography*, **83**: 33-48. (doi: 10.1016/j.pocean.2009.07.031) (IF = 3.582; Citations = **286**; Aquatic Sciences Q1)
36. Garrido, S., A.M.P. **Santos**, A. dos Santos & P. Ré (2009). Spatial distribution and vertical migrations of fish larvae communities off Northwestern Iberia sampled with LHPR and Bongo nets. *Estuarine, Coastal and Shelf Science*, **84**: 463-475. (doi: 10.1016/j.ecss.2009.07.018) (IF = 1.978; Citations = 32; Aquatic Sciences and Oceanography Q1)
37. Peliz, A., P. Marchesiello, A.M.P. **Santos**, J. Dubert, A. Teles-Machado, M. Marta-Almeida & B. Le Cann (2009). Surface circulation in the Gulf of Cadiz: 2: Inflow-Outflow coupling and the Gulf of Cadiz slope current. *Journal of Geophysical Research*, **114**, C03011. (doi:10.1029/2008JC004771) (IF = 2.953; Citations = 66; Aquatic Sciences and Oceanography and Ecology and Earth and Planetary Sciences (miscellaneous) and Geophysics Q1)
38. Moreno; A., A. dos Santos, U. Piatkowski, A.M.P. **Santos** & H. Cabral (2009). Distribution of cephalopod paralarvae in relation to the regional oceanography of the western Iberia. *Journal of Plankton Research*, **31**: 73-91. (doi: 10.1093/plankt/fbn103) (IF = 1.897; Citations = 70; Aquatic Sciences and Ecology Q1)
39. Drago, T., V. Ferreira-Bartrina, A.M.P. **Santos** & J. Pinheiro (2009). The use of fish remains in sediments for the reconstruction of paleoproductivity. *IOP Conference Series: Earth and Environmental Science*, **5**, 012012. (doi:10.1088/1755-1307/5/1/012012) (Citations Google Scholar = 7)
40. **Santos**, A.M.P., P.B. Machado & P. Relvas (2009). Applications of satellite remote sensing and GIS to oceanography and fisheries: Case studies in the Western Iberia. Chapter 4, pp. 67-110 In: *Geoinformatics for Natural Resource Management*, P.K. Joshi, P. Pani, S.N. Mohapartra & T.P. Singh, eds, Nova Science Publisher, New York, USA., 634 pp.
41. dos Santos, A., A. M. P. **Santos**, D. V. P. Conway, C. Bartilotti, P. Lourenço & H. Queiroga (2008). Diel vertical migration of decapod larvae in the Portuguese coastal upwelling ecosystem:

- implications for offshore transport. *Marine Ecology Progress Series*, **359**: 171-183. (doi: 10.3354/meps07341) (IF = 2.286; Citations = 76; Aquatic Sciences and Ecology Q1)
42. Santos, A. M. P., A. Chícharo, A. Dos Santos, T. Moita, P. B. Oliveira, A. Peliz & P. Ré (2007). Physical-biological interactions in the life history of small pelagic fish in the Western Iberia Upwelling Ecosystem. *Progress in Oceanography*, **74**(2-3): 192-209. (doi:10.1016/j.pocean.2007.04.008) (IF = 2.264; Citations = **111**; Aquatic Sciences Q1)
 43. Relvas, P., E.D. Barton, J. Dubert, P. B. Oliveira, A. Peliz, J.C.B. da Silva & A.M.P. Santos (2007). Physical Oceanography of the Western Iberia Ecosystem: latest views and challenges. *Progress in Oceanography*, **74**(2-3): 149-173. (doi:10.1016/j.pocean.2007.04.021) (IF = 2.264; Citations = **259**; Aquatic Sciences Q1)
 44. Queiroga, H., T. Cruz, A. Dos Santos, J. Dubert, J. L. González-Gordillo J. Paula, A. Peliz & A. M. P. Santos (2007). Oceanographic and behavioural processes affecting invertebrate larval dispersal and supply in the Western Iberia Upwelling Ecosystem. *Progress in Oceanography*, **74**(2-3): 174-191. (doi:10.1016/j.pocean.2007.04.007) (IF = 2.264; Citations = 81; Aquatic Sciences Q1)
 45. Echevarría, F., J. L. Acuña, S. Hernández-León, E. S., A. M. P. Santos & M. Barange (2007). Ecological functioning of the Iberian seas: A synthesis of GLOBEC research in Spain and Portugal. *Progress in Oceanography*, **74**(2-3): 95-97. (doi:10.1016/j.pocean.2007.04.002) (IF = 2.264; Citations = 0; Aquatic Sciences Q1)
 46. dos Santos, A., A. M. P. Santos & D. V. P. Conway (2007). Horizontal and vertical distribution of cirripede cyprid larvae in an upwelling system off the Portuguese coast. *Marine Ecology Progress Series*, **329**: 145-155. (doi:10.3354/meps329145) (IF = 2.286; Citations = 36; Aquatic Sciences and Ecology Q1)
 47. Zuo, J., L. Du, A. Peliz, A. M. P. Santos & Y. Yu (2007). The characteristics of near-surface velocity during the upwelling season on the northern Portugal shelf. *Journal of Ocean University of China (Oceanic and Coastal Sea Research)*, **6**(3): 213-225. (doi:10.1007/s11802-007-0213-4) (IF = 0.601; Citations = 6; Ocean Engineering Q2 and Oceanography Q3)
 48. Santos, A. M. P., A. F. G. Fiúza & R. M. Laurs (2006). Influence of SST on catches of swordfish and tuna in the Portuguese domestic longline fishery. *International Journal of Remote Sensing*, **27**(15): 3131-3152. (doi:10.1080/01431160600567811) (IF = 0.925; Citations = 16; Earth and Planetary Sciences (miscellaneous) Q1)
 49. Santos, A. M. P., P. Ré, A. dos Santos & A. Peliz (2006). Vertical distribution of the European sardine (*Sardina pilchardus*) larvae and its implications for their survival. *Journal of Plankton Research*, **28**(5): 523-532. (doi:10.1093/plankt/fbi137) (IF = 1.189; Citations = 45; Aquatic Sciences and Ecology Q1)
 50. Aristegui, J., X. A. Álvarez-Salgado, E. D. Barton, F. G. Figueiras, S. Hernández-León, C. Roy & A. M. P. Santos (2006). Oceanography and Fisheries of the Canary Current/Iberian Region of the Eastern North Atlantic (18a.E), Chapter 23 In: The Sea. The Global Coastal Ocean: Interdisciplinary Regional Studies and Syntheses, Vol. 14 (Part B), A. R. Robinson and K. H. Brink, eds, Harvard University Press, Cambridge, MS, USA., pp. 879-933 (Citations Google Scholar = 173).
 51. Lázaro, C., M. Fernandes, A.M.P. Santos & P. B. Oliveira (2005). Seasonal and interannual variability of surface circulation in the Cape Verde region from 8 years of merged T/P and ERS-2 altimeter data. *Remote Sensing of Environment*, **98**: 45-62. (doi:10.1016/j.rse.2005.06.005) (IF = 2.833; Citations = 38; Computers in Earth Science Q1)
 52. Peliz, A., J. Dubert, A.M.P. Santos, P. B. Oliveira & B. Le Cann (2005). Winter upper ocean circulation in the Western Iberia Basin - Fronts, Eddies and Poleward Flows: an overview. *Deep-Sea Research I*, **52**: 621-646. (doi:10.1016/j.dsr.2004.11.005) (IF = 2.025; Citations = **234**; Aquatic Sciences and Oceanography Q1)
 53. Santos, A. M. P., A. Kazmin & A. Peliz (2005). Decadal changes in the Canary upwelling system as revealed by satellite observations: Their impact in the productivity. *Journal of Marine Research*, **63**(2): 359-379. (doi: 10.1357/0022240053693671) (IF = 1.562; Citations = **129**; Oceanography Q1)
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57. Peliz, A., A. M. P. **Santos**, P. B. Oliveira & J. Dubert (2004). Extreme cross-shelf transport induced by eddy interactions southwest of Iberia in winter 2001. *Geophysical Research Letters*, **31**, L08301. (doi:10.1029/2004GL019618) (IF = 2.378; Citations = 43; Earth and Planetary Sciences (miscellaneous) and Geophysics Q1)
58. **Santos**, A. M. P., A. Peliz, J. Dubert, P.B. Oliveira, M.M. Angélico & P. Ré (2004). Impact of a Winter Upwelling Event on the Distribution and Transport of Sardine Eggs and Larvae off Western Iberia: A Retention Mechanism. *Continental Shelf Research*, **24**: 149-165. (doi:10.1016/j.csr.2003.10.004) (IF = 1.431; Citations = **156**; Aquatic Sciences and Oceanography Q1)
59. Oliveira, P. B., A. Peliz, J. Dubert, T. L. Rosa & A. M. P. **Santos** (2004). Winter geostrophic currents and eddies in the western Iberia coastal transition zone. *Deep-Sea Research I*, **51**(3): 367-381. (doi:10.1016/j.dsr.2003.10.016) (IF = 1.975; Citations = 21; Aquatic Sciences and Oceanography Q1)
60. Borges, M. F., A. M. P. **Santos**, N. Crato, H. Mendes & B. Mota (2003). Sardine regime shifts off Portugal: a time series analysis of catches and wind conditions. *Scientia Marina*, **67**(Suppl.1): 235-244. (doi:10.3989/scimar.2003.67s1235) (IF = 0.635; Citations = **129**; Aquatic Sciences Q3 and Oceanography Q2)
61. Chicharro, M.A., E. Esteves, A.M.P. **Santos**, A. dos Santos, A. Peliz & P. Ré (2003). Are sardine larvae caught off northern Portugal in winter starving? An approach examining nutritional conditions. *Marine Ecology Progress Series*, **257**: 303-309. (doi:10.3354/meps257303) (IF = 2.135; Citations = 38; Aquatic Sciences and Ecology Q1)
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63. Brander, K., G. Blom, M.F. Borges, K. Erzini, G. Henderson, B. MacKenzie, E. Magnussen, H. Mendes, A.M.P. **Santos** & R. Toresen (2003). Changes in fish distribution in the eastern North Atlantic; are we seeing a coherent response to changing temperature? *ICES Marine Science Symposia*, **219**: 261-270. (doi:10.17895/ices.pub.19271819) (Citations Google Scholar = **213**).
64. Peliz, A., T. Rosa, A. M. P. **Santos** & J. L. Pissarra (2002). Fronts, jets, and counter-flows in the Western Iberian upwelling system. *Journal of Marine Systems*, **35**(1-2): 61-77. (doi:10.1016/S0924-7963(02)00076-3) (IF = 1.624; Citations = **183**; Aquatic Sciences and Oceanography Q1)
65. **Santos**, A. M. P., M. F. Borges & S. Groom (2001). Sardine and horse mackerel recruitment and upwelling off Portugal. *ICES Journal of Marine Science*, **58**(3): 589-596. (doi:10.1006/jmsc.2001.1060) (IF = 1.079; Citations = **125**; Aquatic Sciences, Ecology and Oceanography Q1)
66. **Santos**, A. M. P. (2000). Fisheries oceanography using satellite and airborne remote sensing methods: a review. *Fisheries Research*, **49**(1): 1-20. (doi: 10.1016/S0165-7836(00)00201-0) (IF = 0.650; Citations = **112**; Aquatic Sciences Q2)
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70. **Santos**, A. M. P. (1991). Morfogénese dos estados larvares de *Solea senegalensis* KAUP e *Dicentrarchus labrax* L. *Rev. Biol. U. Aveiro*, **4**: 301-311. (Citations Google Scholar= 2)

SELECT CONFERENCE PRESENTATIONS (within the last 10 years)

1. **Piecho-Santos**, A.M., Rosa, T, Guedes Soares, C., Vettor, R., Hinostroza, M, Carvalho, A.J., Sousa Pinto, I., Oliveira, A.C. (2021). Autonomous observing systems on board fishing and cargo vessels. Proceedings of the *9th EuroGOOS International Conference on Advances in Operational Oceanography: Expanding Europe's Observing and Forecasting Capacity*, 3-5 May 2021, pp. 492-499 doi: 10.13155/83160. **Oral presentation.**
2. **Piecho-Santos**, A. M. (2021). Study the Mediterranean outflow with BGC Argo floats. *GO-BGC Science Workshop*, 28-30 June 2021, online event. **Oral presentation.**
3. **Piecho-Santos**, A.M., Carvalho, A.J., Hinostroza, M, Rosa, T, Vettor, R., Sousa Pinto, I., Oliveira, A.C., Guedes Soares, C. (2020). Autonomous Observing Systems in Fishing and Cargo Vessels to Support a Healthy Ocean. *International Symposium Human Health and the Ocean in a Changing World*, Monaco, 2-3 Dec 2020. **Oral presentation.**
4. **Piecho-Santos**, A.M., Hinostroza, M., Rosa, T., Guedes Soares, C. (2020). Autonomous Observing Systems in Fishing Vessels. *MARTECH 2020*, 5th International Conference on Maritime Technology and Engineering, Lisbon, Portugal, 16-19 Nov 2020. **Oral presentation.**
5. **Santos**, A.M.P. (2019). Physical-biological interactions in the ocean: case studies from the northern Canary Current Upwelling Ecosystem. *20th Iberian Symposium on Marine Biology Studies*, Braga, Portugal, 9-12 September 2019. **Invited talk.**
6. **Santos**, A. M. P., C. Guedes Soares, A. Campos, A. D. Silva, S. Garrido, T. Drago (2018). OBSERVA.FISH: Autonomous Observing Systems in Fishing Vessels for the Support of Marine Ecosystem Management. *FAO Fish Forum 2018*, 10-14 September, Roma, Italy. **Oral presentation.**
7. **Santos**, A. M. P., A. Carvalho, N. Lourenço, I. Sousa Pinto, A. Oliveira (2018). OBSERVA.PT - Observations on board national commercial ships to support the conservation of marine biodiversity in the Portuguese Seas. *4th International Symposium on the Effects of Climate Change on the World's Oceans (ECCWO)*, 02-08 June 2018, Washington DC, USA, p. 309. **Poster presentation.**
8. **Santos**, A. M. P., Nieblas, A.-E., Verley, P., Teles-Machado, A., Bonhommeau, S., Lett, C., Garrido, S., Peliz, A. (2017). Sardine (*Sardina pilchardus*) larval dispersal in the Iberian Upwelling System, using coupled biophysical techniques. *2017 AGU Fall Meeting*, 11-15 December 2017, New Orleans, USA. **Poster presentation.**
9. **Santos**, AMP, S. Garrido, A. Peliz, A. Dos Santos, T. Moita, A. Teodósio, R. Dominguez, J. Pastor, P. Ré (2015). Physical–biological interactions in the life history of small pelagic fish in the northern Canary Current upwelling ecosystem. *ASLO 2015 Aquatic Sciences Meeting*, 22-27 February 2015, Granada, Spain, p. 136. **Oral presentation.**
10. **Santos**, AMP, C Bartilotti, S Garrido, A Moreno, A Peliz, RFT Pires, P Ré, A. dos Santos (2014). Integrating oceanographic and biological observations to study marine populations and their connectivity. *2nd International Conference on Maritime Technology and Engineering – MARTECH2014*, 15-17 October 2014, Lisboa, Portugal. **Oral presentation.**
11. **Santos**. A.M.P., C. Bartilotti, S. Garrido, A. Moreno, A. Peliz, P. Ré, A. dos Santos (2014). Larval transport and retention in the northern Canary current upwelling system. *2014 Ocean Sciences Meeting*, 23-28-February 2014, Honolulu, USA, p. 48. **Oral presentation.**
12. Pires, R.F.T., A.M.P. **Santos**, A. Peliz, M. Pan, D. Boutov, A. dos Santos (2014). Modelling the variation in larval dispersal of estuarine and coastal ghost shrimp: *Upogebia* congeners in the Gulf of Cadiz. *2014 Ocean Sciences Meeting*, 23-28-February 2014, Honolulu, USA, p. 59. **Poster presentation.**
13. Garrido, S., C. Caldeira, A.M.P. **Santos**, P. Ré (2014). Trophic ecology of small pelagic fish species: laboratory-derived feeding experiments bring new light on early life history dynamics. *2014 Ocean Sciences Meeting*, 23-28-February 2014, Honolulu, USA, p. 149. **Poster presentation.**
14. **Santos**, A.M.P., J. Luís, P. Relvas (2013). Decadal changes in the Canary Current Upwelling Ecosystem. *2013 AGU Fall Meeting*, 9-13 December 2013, San Francisco, USA. **Poster presentation.**

ANNEX 2

FUNDING/PROJECTS

COORDINATION/PI/CO-PI (12)

- 2019-2023 OBSERVA.PT - Observations on board Portuguese commercial ships to support the conservation of marine biodiversity in the Portuguese Seas (Mar2020 16-01-04-FMP-002), Mar2020, € 755,000.00.
- 2018-2022 OBSERVA.FISH - Autonomous Observing Systems in Fishing Vessels for the Support of Marine Ecosystem Management (PTDC/CTA-AMB/31141/2017), FCT/Portugal2020, € 223,704.98.
- 2010-2016 Assinalamento - Desenvolvimento sustentável da aquicultura pela promoção da sanidade do bem estar animal [Sustainable development of aquaculture for the promotion of animal welfare] (PROMAR 31-03-01-FEP-12), FEDER, € 787,300.00.
- 2010-2014 MODELA - Modelling larval fish dynamics and related ocean processes (PTDC/MAR/098643/2008), FCT, € 185,589.00.
- 2005-2009 EUR-OCEANS - European Network of Excellence for Ocean Ecosystems Analysis (EC FP6 NoE 511106), EU, € 10,000,000.00. PI.
- 2000-2007 SIGAP-Sistema de Informação Geográfica Aplicada às Pescas [GIS applied to fisheries] (22-05-01-FDR-00013), FEDER-Mare, € 448,920.00.
- 1999-2002 SURVIVAL - Assessing the impact of hydrodynamical forcing on the survival of small pelagic fish early life stages of western Iberia (PRAXIS/P/CTE/11282/1998), FCT, € 175,000.00.
- 1999-2002 PO-SPACC - Portuguese small pelagic fishes and climate change program: a comparative retrospective analysis (PRAXIS/P/CTE/11281/1998), FCT, € 31,500.00.
- 1999-2002 Remote sensing applied to fisheries monitoring in the Cabo Verde region (ESA-AO3-265), ESA, € ?. PI.
- 1998-2000 BASBLACK - Environment and biology of deep-water species *Aphanopus carbo* in NE Atlantic: basis for its management (EC DG-XIV/97/0084), EU, € 515,707.00.
- 1997-1999 Multisensor imaging of ocean organic films and sea surface slicks (ESA-AO3-177), ESA € 57,636.00. PI.
- 1997-2010 PICOLOR - Phytoplankton dynamics along Iberian Peninsula shelf and offshore Atlantic waters using SeaWiFS and in situ data (NASA SeaWiFS Programme).

PARTICIPATION (30)

- 2021-2024 *NextOcean: Next Generation Fishing and Aquaculture Services* (EU H2020-SPACE-2020 Grant agreement No. 101004362), EU H2020, € 2,999,788.75. Responsible for IPMA's and CCMAR's teams.
- 2020-2024 A-Fish-DNA-Scan - Cutting-edge DNA-based approaches for improved monitoring and management of fisheries resources along Magellan-Elcano's Atlantic route, (CIRCNA/BRB/0156/2019), FCT, € 288,853.57. Responsible for IPMA's and CCMAR's teams.
- 2018-2022 *Euro-Argo-RISE - Euro-Argo Research Infrastructure Sustainability and Enhancement* (EU H2020-INFRADEV-2018-1 Grant agreement No 824131), EU H2020, € 3,994,067.50. Responsible for Case Study and IPMA's team.
- 2018-2022 *SARDITEMP - Impact of climate change on the ecology and dynamics of small pelagic fish* (02/SAICT/2017 n° 32209), FCT/Portugal2020, € 239,869.87.
- 2018-2020 *STORM - Atmosphere-Ocean-Solid Earth Coupling: Seismic Tools to Explore and Monitor the Oceans* (UTAP-EXPL/EAC/0056/2017), FCT-Univ. of Texas Austin, € 99,984.00. Responsible for IPMA's team.
- 2016-2019 *JELLYFISHERIES - Towards an integrated approach to enhance predictive accuracy of jellyfish impact on coastal marine ecosystems* (P2020-PTDC/MAR-BIO/0440/2014), FCT, € 135,954.00.

- 2015-2019 *MarRISK - Adaptación costera ante el Cambio Climático: conocer los riesgos y aumentar la resiliencia* (0262_MarRISK_1_E), , INTERREG V-A España Portugal (POCTEP), € 2,957,049.88. Responsible for IPMA's team.
- 2015-2017 BIOMETOR - Biodiversity in seamounts: the Madeira-Tore and Great Meteor (EEA Grants PT02_Aviso2_0001), EEA Grants, € 2,779,636.00.
- 2015-2017 MarinEye – A prototype for multitrophic oceanic monitoring” (EEA Grants PT02_Aviso4_0017), EEA Grants, € 257,500.00.
- 2015-2017 SeaBioData - Portuguese Seamounts Biodiversity Data Management (EEA Grants PT02_Aviso5_002), EEA Grants, € 194,650.00.
- 2013-2016 SAFI-Support to Aquaculture and Fishery Industry (FP7-SPACE-2013-1-607155), EU FP7, € 731,157.00.
- 2011-2014 IMPROVE - Inner shelf hydrographic and biological processes controlling invertebrate population in the Portuguese coast, using decapods as models (PTDC/MAR/110796/2009), FCT, € 180,000.00.
- 2010-2013 LongUp - Long Term Variability of the Canary Current Upwelling System (PTDC/AAC-CLI/105296/2008), FCT, € 81,454.00. Responsible for IPMA's team.
- 2010-2013 Sflux - The Mediterranean Outflow influence on the Eastern North Atlantic Central Water (PTDC/MAR/100677/2008), FCT, € 180,701.00. Responsible for IPMA's team.
- 2009-2012 MedEX - Inter-basin exchange in the changing Mediterranean Sea: Impact on the ecosystems in the vicinity of the Straits connecting the Mediterranean Sea with the adjacent Basins (MarinERA-189561 / FCT MARIN-ERA/MAR/0002/2008), EU-FCT, € 811,356.00. Responsible for IPMA's team.
- 2006-2009 POPEI - High-resolution oceanic paleoproductivity and environmental changes. Correlation with fish populations (POCI/MAR/55618/2004), FCT, € 99,990.00.
- 2006-2009 CLIBECO - Climate changes in the Iberian Upwelling Ecosystem (POCI/CLI/57752/2004), FCT, € 39,040.00. Responsible for IPMA's team.
- 2005-2009 LOBASSESS - Norway lobster stocks in Portugal: Basis for assessment using information on larval production and ecology (FEDER-POCI/BIA-BDE/59426/2004), FCT, € 80,952.00.
- 2004-2007 ProFit - Interdisciplinary study of oceanographic processes underlying the phytoplankton dynamics in the Portuguese upwelling system (ESA-FCT PDCTE/CTA/50386/2003), ESA-FCT, € 60,000.00.
- 2002-2005 SARDYN - SARdine DYNamics and stock structure in the North-east Atlantic (EC QSRS-2002-818), EU, € 1,209,726.00.
- 2001-2205 PELAGICOS - Reforço das capacidades de investigação no domínio da oceanografia e biologia das pescas aplicada à gestão dos recursos marinhos pelágicos [Strengthening of the research capacities in the field of oceanography and fisheries biology applied to the management of pelagic marine resources], (FCT-PL/13/00), FCT, € ?.
- 2001-2004 ProRecruit - Shelf processes controlling recruitment to littoral populations in an eastern oceanic boundary: using barnacles and crabs as models (POCTI/36663/BSE/1999), FCT, € ?. Responsible for IPMA's team.
- 1999-2002 SATFISH - Remote sensing applied to fisheries monitoring in the Cabo Verde region (POCTI/36095/CTA/2000), FCT, € 74,819.00. Responsible for IPMA's team.
- 1998-2001 ENVIFISH - Environmental conditions and fluctuations in recruitment and distribution of small pelagic fish stocks (EC DG-XII INCO-DC Programme), EU, € 1,898,0329. Responsible for IPMA's team.
- 1998-2000 JUVESU - Experimental surveys for the assessment of juveniles (EC DG-XIV FAIR Programme), UE, € 940,000.00. Responsible for IPMA's team.
- 1995 MORENA - Multidisciplinary Oceanographic Research in the Eastern Boundary of the North Atlantic (EC DG-XII MAST II Programme), UE, € ?.
- 1989-1994 SATOCEAN - Development of satellite oceanography in Portugal (NATO Science for Stability Programme), NATO, € ?. Responsible for WP Support to Fisheries.
- 1988-1989 Basis for the study of sardine recruitment variability off Portugal, JNICT, € ?.
- 1988 Basis for the estimation of sardine spawning biomass from Egg Production Method in Divisions VIIIc and XIa of ICES, UE, € ?.

ANNEX 3

PARTICIPATION IN OCEANOGRAPHIC SURVEYS

1. Chief Scientist in BIOMETORE2 (02030915), 7-20 September 2015
2. Chief Scientist in MedEX'2010 (02060810) cruise, 10-20 de August 2010
3. Chief Scientist in ProRecruit'2002 (02050502) cruise, 9-22 May 2002
4. Chief Scientist in SURVIVAL'2000 (02040200) cruise, 14 February - 1 March 2000
5. Chief Scientist in JUVESU'99 (03050999) cruise, 1-7 September 1999
6. Chief Scientist in JUVESU'98 (02120998) cruise, 5-7 September 1998
7. Responsible for the deployment of currentmeter and thermomister moorings for the project SFlux (PTDC/MAR/100677/2008), 17 June 2011
8. Responsible for the equipment testing (microstructure profiler) cruise for the project SFlux (PTDC/MAR/100677/2008), 23 de February 2011
9. Responsible for the recovery of the mooring deployed during Lobassess'2005 (02010106) cruise
10. Responsible for the monitoring programme CascaisWatch (2005-2010), monthly oceanographic sampling in Cascais Bay
11. Responsible for the deployment of two currentmeter and thermomister moorings in cruise 01050402 cruise, 16-18 April 2001
12. Participation in IMPROVE/MODELA (02020513) cruise (NI Noruega), 17-27 May 2013
13. Participation in POPEI'2008 cruise, 15-24 de Janeiro de 2008
14. Participation in Lobassess'2007 (02010107) cruise, 23-31 January 2007
15. Participation in Lobassess'2005 (02010106) cruise, 30 January - 04 February 2006
16. Participation in a cruise in the Pacific subtropical zone on board NOAA's RV Thompson Cromwell, 4-24 May 1996
17. Participation in MEDPOR/2 cruise, 29 November - 4 December 1983

ANNEX 4

COMMITTEES OF SCIENTIFIC EVENTS

1. Co-Chair of Session “OT008: Democratizing Ocean Observation via Cost-Effective Fishing Vessel-Based Integrated and Other Approaches to Ocean Data Collection” in the Ocean Sciences Meeting 2024, which will take place on 18-23 February 2024 in New Orleans, Louisiana, USA. (<https://agu.confex.com/agu/OSM24/prelim.cgi/Session/198149>)
2. Lead Session Chair of “SSO42 Fishing4Data: Fishing Gear as an Oceanographic Data Collection Platform” in ASLO 2023 Aquatic Sciences Meeting, Palma de Mallorca, Spain, 4-9 June 2023. (<https://www.aslo.org/palma-2023/scientific-sessions-list/>).
3. Scientific Committee of the “IX Congresso sobre Planeamento e Gestão das Zonas Costeiras dos Países de Expressão Portuguesa” [9th Congress on Coastal Zones Planning and Management of the Portuguese Speaking Countries], Lisboa, 14-19 May 2019.
4. Scientific Committee of the “IX Simpósio sobre a Margem Ibérica Atlântica (MIA2018)” [9th Symposium on the Iberian Atlantic Margin (MIA 2018)], Coimbra, 4-7 September 2018.
5. Scientific Committee of the “5as Jornadas de Engenharia Hidrográfica” [5th Symposium on Hydrographic Engineer], Lisboa, 19-21 June 2018.
6. Scientific Committee of the “VIII Simpósio sobre a Margem Ibérica Atlântica (MIA 2015)” [8th Symposium about the Iberian Atlantic Margin (MIA 2015)], Malaga, 21-23 September 2015
7. Coordination Committee of the “VII Simpósio sobre a Margem Ibérica Atlântica (MIA 2012)” [7th Symposium about the Iberian Atlantic Margin (MIA 2012)], Lisboa, 16-20 December 2012
8. Organization and Scientific Committee of the “II Seminário Ibérico sobre Mudança Global na Península Ibérica. Uma Visão Integrada” [2nd Iberian Seminar on Global Change in the Iberian Peninsula. An integrated view], Lisboa, 4-5 November 2010
9. Organization and Scientific Committee of the “10th FLAD Lecture on Marine Sciences” on “The New Ocean Environment - A Decade of Progress” by David Halpern (NASA Headquarters, Washington DC, USA) sobre o tema, Lisboa, Portugal, 9 April 2008
10. Organization and Scientific Committee of the “9th FLAD Lecture on Marine Sciences” on “Climate Change and Polar Research” by Sabit Abyzov (Winogradsky Institute of Microbiology, Russian Sciences Academy, Moscow) and Donald Perovich (Cold region Research and Engineering Laboratory, Hanover, NH, USA), Lisboa, Portugal, 14 March 2007
11. Organization and Scientific Committee of the “8th Larval Biology Symposium”, Lisboa, Portugal, 6-11 July 2008
12. Organization and Scientific Committee of the “1a. Conferência Lusófona sobre o Sistema Terra-CLuSTer” [First Conference Portuguese Speaking Countries on Earth System - CLuSTer], Lisboa, Portugal, 22-24 March 2006
13. Organization and Scientific Committee of the “8th FLAD Lecture on Marine Sciences” on “Beyond the edge of the sea: volcanoes and life in the deep ocean” by Cindy Lee Van Dover (The College of William and Mary, USA), Lisboa, Portugal, 15 March 2006.
14. Organization and Scientific Committee of the “7th FLAD Lecture on Marine Sciences” on “Global ocean seismology observatory” by John Orcutt (Scripps Institution of Oceanography, USA), Lisboa, Portugal, 16 March 2005.
15. Organization and Scientific Committee of the “6th FLAD Lecture on Marine Sciences” on “Exploring the deep-sea with robots” by Marcia McNutt (Monterey Bay Aquarium Research Institute, USA), Lisboa, Portugal, 17 March 2004.
16. Organization of the 2nd “Workshop on the Cooperation between IPMA and IMR in the scope of the EEA Grants”, Lisboa, 11-12 December 2014.
17. Organization of the 1st “Workshop on the Cooperation between IPMA and IMR in the scope of the EEA Grants”, Estoril, 29 October 2014.
18. Organization of the “Launch Meeting of the Alliance of European Global Change Research Committees”, Lisboa, Portugal, 13-14 November 2008
19. Organization of the Seminar “Estabilidade do Sistema Atlântico Norte, Mediterrâneo e Saara” [Stability of the North Atlantic, Mediterranean and Sahara System], Lisboa, Portugal, 21 June 2007
20. Member of the panel and commentator of the “5th FLAD Lectures on Marine Sciences” on “Ocean circulation and climate” by Carl Wunsch (MIT, USA), Lisboa, 26 March 2003

21. Chair of the session on "Near shore and estuarine processes related to EBUS", Symposium "Eastern boundary upwelling ecosystems: integrative and comparative approaches", Las Palmas de Gran Canaria, Spain, 2-6 June 2008.

ANNEX 5POST-GRADUATE AND UNDERGRADUATE SUPERVISIONCOMPLETED

- 2022 Meadow Hall: University of Harvard, USA; Summer Internship, *Marine Biology sampling and analysis*. Harvard Fellowship. IPMA, Portugal
- 2022 Arianna Caneva: Università Ca' Foscari Venezia, Italy; Summer Internship, *Oceanography of the Northeast Atlantic ocean*. Erasmus+ Programme. CCMAR, Portugal.
- 2021 Mathieu Le Jeune: IMT Atlantique, Réseaux et télécommunications, France; Internship Argo, *Monitoring the Gulf of Cadiz with Argo floats*. IPMA, Portugal.
- 2020 Joana Cruz: PhD Marine Sciences, *Copepod communities and secondary production in Portuguese coastal waters*. University of Lisboa, Portugal.
- 2018 Gonçalo Ferreira: Undergraduate project (Physical Oceanography), *Estimation of currents from drifting buoys and computation of TS vertical profiles based on CTD data*. Faculty of Sciences of the University of Porto, Portugal.
- 2012 Ana Moreno: PhD Marine Biology and Aquaculture, Environmental drivers on the life cycle strategies and distribution of cephalopods in the Portuguese coast, University of Lisboa, Portugal
- 2015 - 2016 Susana Garrido: Post-Doctoral supervisor, *Oceanographic processes relevant to the life cycle of the European sardine, *Sardina pilchardus**. FCT Fellowship SFRH/BPD/105419/2014, IPMA, Portugal.
- 2013 Tiago Malta: MSc Biological Aquatic Resources, *Longterm variability of sardine dynamics and its relationships with oceanographic conditions*. Faculty of Sciences of the University of Porto, Portugal.
- 2010 Joana Roma: Undergraduate project (Biology), *Maintenance of copepod species culture using several food regimes to be used in fish larvae experiments*. Agronomy Institute (ISA) of Lisboa Technical University, Portugal.
- 2008 Ana Moreno: Supervisor of public examination for Assistant Researcher, *Geographic variation in cephalopod life history traits*. IPMA, Portugal.
- 2005 Patricia Amorim: MSc in Geographical Information Systems, *Modelling the spatial structure of the tuna fishery in the NE Atlantic*. Engineer Institute (IST) of Lisboa Technical University, Portugal.
- 2005 Israel Ribeiro: Undergraduate thesis, Applications of satellite remote sensing to the fisheries in Cabo Verde islands region. University of Algarve, Portugal.
- 2003 Alexander Kazmin: P.P. Shirshov Institute of Oceanology, Russia; Post-Doctoral supervisor, *Satellite oceanography and small pelagic fish*. NATO Science Fellowships-OUTREACH Programme, IPMA, Portugal.
- 2002 Zuo Juncheng: Ocean University of China; Post-Doctoral supervisor, *Physical oceanography*. SATFISH Project Fellowship, IPMA, Portugal.
- 2002 Ana Cristina Ribeiro: Undergraduate thesis (Biology), *The response of chlorophyll-a biomass to favourable upwelling winds event during winter off northwestern Iberian Peninsula*. Faculty of Sciences of the University of Lisboa, Portugal.
- 2002 Nuno Vaz: Undergraduate thesis (Oceanography), *Estimation of ocean currents using an ADCP*. University of Aveiro, Portugal.
- 2001 Bernardo Mota: Undergraduate thesis (Meteorology), *Small pelagic fish and climate changes: a comparative retrospective analysis*. Faculty of Sciences of the University of Lisboa, Portugal.

ONGOING

- 2021 Ana Catarina Moura: PhD in Marine, Earth and Environmental Sciences, *Development and application of modelling methods to assess the population dynamics of small pelagic fish resources*. University of Algarve, Portugal.

- 2021 Teresa Leal Rosa: PhD in Marine, Earth and Environmental Sciences, *Modelling the variability of oceanographic processes and their impact in small pelagic fish larval dynamics*. University of Algarve, Portugal.
- 2020 André Ferreira: PhD in Environmental and Molecular Biology, *DNA-based monitoring of ichthyoplankton for application to fish biodiversity conservation and fisheries management*. FCT Fellowship DFA/BD/6653/2020. University of Minho, Portugal.