Teresa Paula Fernandes Amaro

Curriculum Vitae

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1. Academic and professional qualifications

- . 2019 (May 2019 ?) **Researcher** at the Interdisciplinary Centre of Marine and Environmental Research (CIIMAR), Porto, Portugal. My research focused on the impact of mining in deep-sea ecosystems, using *in situ* experimentations and on developing a hyperbaric system for Deep-Sea Organisms.
- . 2018 (October 2018 December 2018) Invited **researcher** at the French Institute Search Pour L'exploitation De La Mer (IFREMER), Brest, France. My research focused on the impact of mining in deep-sea ecosystems, using *in situ* experimentations in hydrothermal vents.
- □ 2017 (March 2017 March 2018) **Researcher** at the Interdisciplinary Centre of Marine and Environmental Research (CIIMAR), Porto, Portugal. My research focused on the impact of mining in deep-sea ecosystems, using *in situ* experimentations and hyperbaric chambers.
- □ 2016 (June 2016 January 2017) **Researcher** at the Stazione Zoologica di Napoli (SZN), Naples, Italy. My research aimed to study the functioning of the Dohrn Canyon.
- □ 2015 (September 2013-September 2015) Post-Doctoral researcher at the Hellenic Center of Marine Research (HCMR) under a <u>Marie Curie Fellowship</u>. My research focused on the study of the impact of climate-driven changes in megafaunal communities (invertebrates) in the Pacific Ocean. In particular, studies of <u>how food supply influences key megafaunal organisms</u> has been approached to improve understanding of <u>how their presence influences the rates and pathways of OM degradation by the sedimentary community</u>.
- \Box 2013 (April 2012-July 2013) **Post-Doctoral researcher** at NIVA with the objective to determine a) the biological impacts and risks associated with CO₂ leakage by controlled exposure experiments or *in situ* observations at natural sites, and b) to identify appropriate methods to monitor the marine environment above a storage site.
- □ 2011 (January 2006 December 2011) **Post-Doctoral researcher** at Cesam & Biology Department at the University of Aveiro (UA-Portugal). My research included the study of the ecosystem functioning of some European Canyons (Nazaré, Setúbal, Cascais and Whittard canyon), seamounts and basins. The research was carried out within the framework of several national/international projects (sections 3 & 4).
- □ 2005 (September 2000- September 2005) **PhD in Environmental Sciences** at the University of Wageningen (WU) and The NIOZ (Netherlands Institute For Sea Research), under supervision of Professor Marten Scheffer (WU) and Dr Gerard Duineveld (NIOZ). Topic:

"The Benthic shift of the Frisian Front (southern North Sea) ecosystem [] Possible mechanisms".

- 2005 (September 2004 December 2005) Contract work at the Biological December 2004 December 2005) Contract work at the Biological December 2004 December 2005) Contract work at the Biological December 2004 December 2005) Contract work at the Biological December 2004 December 2005) Contract work at the Biological December 2004 December 2005) Contract work at the Biological December 2004 December 2005) Contract work at the Biological December 2004 December 2005) Contract work at the Biological December 2005 (September 2004 December 2005) Contract work at the Biological December 2004 December 2005) Contract work at the Biological December 2005 (September 2004 December 2005) Contract work at the Biological December 2005 (September 2005) Contract work at the Biological December 2005 (September 2004 December 2005) Contract work at the Biological December 2005 (September 2005) Contract work at the Biological December 2005 (September 2005) December 2005) Contract work at the Biological December 2005 (September 2005) December 2005) December 2005 (September 2005) December 2005 (September 2005) December 2005) December 2005 (September 2005) December 2005 (September 2005) December 2005 (September 2005) December 2005 (September 2005) December 2005) December 2005 (September 2005) December 2005 (S
- 2000 (August 1999 August 2000) Contract work in the Department of Marine Ecology, NIOZ, Netherlands. Taxonomy of the macrobenthos present in the Frisian Front with Dr Gerard Duineveld.
- □ 1999 (October 1998 June 1999) Internship at the Department of Marine Ecology at NIOZ, the Netherlands. Experimental work with some macrobenthic North Sea species to test temperature limits.
- □ 1998 (September 1993-September 1998) Licentiate degree in Biology at Porto University (Portugal) with specialization in Applied Animal Biology.

2. Participation in national/international projects

- . 2019-2021 HIPERSea
- . 2018-2022 MiningImpactII
- $\hfill\square$ 2016-2019 MERCES –Marine Ecosystem Restoration in Changing European Seas. Researcher.
- □ 2016-2018 CORAL- Sustainable Ocean Exploitation: Tools and sensors. Researcher.
- □ 2012-2014 ECO₂ ECO₂ Sub-seabed CO2 Storage: Impact on Marine Ecosystems. PI for NIVA.
- □ 2010 2013 Micromount "Microbial biodiversity and functional role in benthic food webs of the ocean Condor seamount (NE Atlantic)". PI for Aveiro University.
- □ 2009-2012 ReDEco "Regional Drivers of Ecosystem Change and its Influence on Deep-Sea Populations in the Mediterranean". Researcher.
- □ 2009-2012: HERMIONE Hotspot Ecosystem Research and Man's Impact on European seas (EC contract FP7-ENV-2008-1-226354). Researcher.
- □ 2006-2009: HERMES (EC contract GOCE-CT-2005-511234). Researcher.

3. Grants and Awards

- . IFREMER fellowship. Impact studies focusing on the consequences of mining plumes on benthic communities. (2018).
- . FCT project. "Mining Impact 2". Leading researcher for CIIMAR and co-leading WP3.
- □ Marie Curie Intra-European Fellowship. "Climate effects on the deep-sea ecosystem functioning of the mediterranean Sea". (2013-2015).
- □ FCT project. "Microbial biodiversity and functional role in benthic food webs of the ocean Condor seamount (NE Atlantic)". Co-leading researcher. (2010-2013).

- □ Portuguese National Science and Technology Foundation Postdoctoral fellowship. "The ecological importance of two Portuguese "Grand Canyons" in terms of structure and functioning of benthic communities and of key species" (2006 –2011).
- □ Best poster presentation, HERMES, 2nd Annual Meeting. 24-30 March 2007, Faro, Portugal.
- □ Portuguese National Science and Technology Foundation- PhD. "The benthic shift of the Frisian Front (Southern North Sea) ecosystem Possible mechanisms "(2000 2004).
- □ Grant for internship at the Netherlands Institute for Sea Research (NIOZ) through the European programme "Leonardo da Vinci". The effect of low winter seawater temperatures on the survival of some of the most abundant benthic invertebrates and demersal fish of the North Sea". (1998 1999).

4. Academic contributions

MsC thesis

- □ A. Alves, Porto University, 2015, supervisor.
- □ P. Parretti, Azores University, 2011, co-supervisor.
- □ S. Schulting, Wageningen University, 2004, supervisor.

Internship thesis (before the Bologna treat)

- □ S. Cleto, Porto University, 2004, supervisor
- □ I. Magalhães, Porto University, 2000, supervisor.
- □ Internal examiner for a Master thesis entitled "Isotopic signatures of Frenulata from cold seeps in the Gulf of Cadiz". Porto University, 2005.
- \Box Carried out <u>external reviews</u> for COST open calls in 2017.
- □ Carried out <u>external reviews</u> for peer-review journals, namely: Deep-sea research, Progress in oceanography, Marine Ecology, Journal of Sea Research.
- \Box Invited speaker at guest lectures and seminars in high schools.
- \Box <u>Co-organiser</u> of the 11th International Deep-Sea Biology Symposium, \Box NOCS, 9-14 July 2006. \Box

5. Communication and Outreach

- . Amaro, T., 2015. Seminar lectures about the deep sea in high schools in Portugal.
- . Pham et al., 2014. Grande quantidade de lixo no mar profundo da Europa. **DN Ciência**. Press release. Retrieved from: http://www.dn.pt/inicio/ciencia/interior.aspx?content_id=3838828&seccao=Biosfera

. Mora et al, 2013. Study in Nature Reveals Urgent New Time Frame for Climate Change. University of Hawai. **Press release**. Retrieved from: http://www.soc.hawaii.edu/mora/PublicationsCopyRighted/PressRelease.html

 \Box Daily diary contributions to the Classroom@sea website (UK-based) and

diary@Coralfish/hermione cruise, describing, for a broad audience, the Eresearch work and life at sea.

□ **Interviews** for the local press in Portugal (2007) about the deep-sea portuguese submarine canyons (Lisbon, Cascais, Setúbal and Nazaré Canyon).

6. Sea-going experience

I have participated in **over 50** international scientific cruises (each 1 to 7 weeks), mainly along the Pacific Ocean (with RV *Yokosuka*, RV *Sonne*), NE Atlantic margin (with RRS *James Cook*, RRS *Discovery*, RRS *Charles Darwin* and R/V *Pelagia*), but also including the North Sea (G.O Sars, R/V *Pelagia*, M/V *Arca*, R/V *Zirfaea*) and the Mediterranean sea (RV Aegaeo). In September 2014 I was the leading scientist on board of the man-submersible SHINKAI6500. In 2007 I was co-chief scientist on a cruise to the Nazaré canyon and the Whittard canyon on board the RRS *James Cook*. Other responsibilities at sea included: leading watches, operational planning and supervision, real time interpretation of ROV dives and sampling (e.g. coring). I acted repeatedly as the responsible scientist for coring. Through the work at sea I could develop both project management and people management skills.

7. Publications

I am first author of 11 and co-author of 15 peer-reviewed publications presented in more detail at https://www.researchgate.net/profile/Teresa_Amaro. My h-index is 13 and i10-index is 15 (Google scholar) with a total of 823 citations (google scholar). I have one paper in preparation and two under review. My publications are:

- *Amaro, T., Danovaro, R., Matsui, Y., Nomaki, H., Rastelli, E., Wolff, G. A. (in press). The physiological responses of key abyssal megafaunal organisms to a varying quality and quantity of food input. Deep-sea Research.
- *Gerovasileiou, V., Cerrano, C., **Amaro, T.**, et al. (2019) Habitat mapping in the European Seas is it fit for purpose in the marine restoration agenda. Marine Policy 106, 103521.
- *Amaro, T., Queiros, A.M., Rastelli, E., Borgersen, G., Brkljacic, M., Nunes, J., Bertocci, I., Sorensen, K. Danovaro, R., Widdicombe, S. (2018). Predicting the effects of sub-seabed acidic inputs: short and medium term responses of benthic macrofauna community to increasing CO2 concentration. Marine Pollution Bulletin 128, 519-526.
- *Smith, C., Dailianis, T., Papadopoulou, N., Gerovasileiou, V., Sevastou, K., Grehan, A., Billett, D., McOwen, C., Amaro, T., et al., (2017). Current marine pressures and mechanisms driving changes in marine habitats. Deliverable 1.2, MERCES Project. 102 pp, incl. 2 Annexes.
- *Bekkby, T., Gerovasileiou, V., Papadopoulou, K-N., Sevastou, K., Dailianis, T., Fiorentino, D., McOwen, C., Smith, C., **Amaro, T.**, et al., (2017) State of the knowledge on European marine habitat mapping and degraded habitats. Deliverable 1.1, MERCES Project. 137 pp, incl. 4 Annexes.
- *Rastelli, E⁻, Corinaldesi, C, Dell'Anno, A., Amaro, T, Greco S., Queirós, A.M., Widdicombe, S., Danovaro R., (2016). CO2 leakage from carbon dioxide capture and storage (CCS) systems affects organic matter cycling in surface marine sediments, Marine Environmental Research 122, 158-168.
- *Amaro, T., Huvenne, V.A.I., Allcock, A.L., Aslam, T., Davies, J.S., Danovaro, R., De Stigter, H.C., Duineveld, G.C.A., Gambi, C., Gooday, A.J., Gunton, L.M., Hall, R., Howell, K.L.,

Ingels, J., Kiriakoulakis, K., Kershaw, C.E., Lavaleye, M.S.S., Robert, K., Stewart, H., Van Rooij, D., White, M., Wilson, A.M. (2016). The Whittard Canyon – a key study example on canyon processes. Progress in Oceanography 146, 38-57.

- *Ceramicola S., Amaro T., Amblas D., Çağatay N., Carniel S., Chiocci F.L., Fabri M.C., Gamberi F., Harris P., Lo Iacono C., Jipa D., Kontoyiannis H., Krastel S., Mascle J., Puig P., Vázquez J.T. and F. Briand. 2015. Submarine canyon dynamics - Executive Summary. pp. 7 -20 In CIESM Monograph 47 [F. Briand ed.] Submarine canyon dynamics in the Mediterranean and tributary seas - An integrated geological, oceanographic and biological perspective, 232 p. CIESM. Publisher, Monaco.
- *Amaro, T., Kiriakoulakis, K., 2015. Organic matter transport and deposition in the Whittard canyon and its possible effects on megafauna. pp 97-101. In CIESM monograph 47 (F. Briand ed.) Submarine canyons dynamics in the Mediterranean and tributary seas - An integrated geological, oceanographic and biological perspective, 232 p. CIESM Publisher, Monaco.
- *Rastelli, E., Corinaldesi, C., Dell_Anno, A., Amaro, T., Queiros, A. M., Widdicombe, S. and Danovaro, R., 2015. Impact of CO2 leakage from sub-seabed carbon dioxide capture and storage (CCS) reservoirs on benthic virus-prokaryote interactions and functions. Frontiers in Microbiology 6: 935. doi:10.3389/fmicb.2015.00935.
- *Amaro, T., de Stigter, H., Lavaleye, M. & Duineveld, G., 2015. Organic matter enrichment in the Whittard Channel (northern Bay of Biscay margin, NE Atlantic); its origin and possible effects on benthic megafauna. Deep-Sea Research Part I 102:90-100.
- *Queirós, A., Norling, K., Amaro, T., et al. (2014). *Potential impact of CCS leakage on marine communities* ECO2 Deliverable, D4.1 . Plymouth Marine Laboratory.
- *Pham, C. K., Ramirez-Llodra, E. R., Alt, C., **Amaro, T.**, et al., 2014. Marine litter distribution and density in European seas, from the shelves to deep basins. PLoS ONE 9(4):e95839.
- *Mora, C., Wei, C.-L., Rollo, A., **Amaro, T.**, et al., 2013. Biotic and Human Vulnerability to Projected Changes in Ocean Biogeochemistry over the 21st Century. PLoS Biol 11(10): e1001682.
- *Bongiorni L., Ravara A., Parretti P., Santos R., Rodrigues C., **Amaro T**., et al., 2013. Organic matter composition and macrofaunal diversity in sediments of the Condor Seamount (Azores, NE Atlantic). Deep-sea research II 98: 75-86.
- *Amaro, T., Luna, G.M., Danovaro, R., Billett, D.S.M. and Cunha, M.R., 2012. High prokaryotic biodiversity associated with gut contents of the holothurian *Molpadia musculus* from the Nazaré Canyon (NE Atlantic). Deep-Sea Research I 63: 82-90.
- *Cunha, M.R., Paterson, G.L.J., Alves, D., **Amaro, T.,** et al., 2011. Biodiversity of macrofauna assemblages from three Portuguese submarine canyons (NE Atlantic). Deep-Sea Research II 58: 2433-2447.
- *Amaro, T., Bianchelli, S., Billett, D.S.M., Cunha, M.R., Pusceddu, A, and Danovaro, R., 2010. The trophic biology of the holothurian Molpadia musculus: implications for organic matter cycling and ecosystem functioning in a deep submarine canyon. Biogeosciences 7: 1-14.
- *Amaro, T., Witte, H., Herndl, G., Cunha, M.R. and Billett, D.S.M., 2009. Deep-sea bacterial communities in sediments and guts of deposit-feeding holothurians in Portuguese canyons (NE Atlantic). Deep-sea Research part I 56: 1834-1843.
- *Tyler, P., Amaro, T., Arzola, R., Cunha, M., et al., 2009. Europe's Nazaré Submarine Canyon Oceanography 22 (1): 46-57.

- *Amaro, T.P.F., Duineveld, G., Bergman, M., Witbaard, R. and Scheffer, M., 2007. The consequences of changes in abundance of *Callianassa subterranea* and *Amphiura filiformis* on sediment erosion at the Frisian Front (south-eastern North Sea) Hydrobiologia 589: 273–285.
- *De Nooijer, L., **Amaro, T.,** Duijntee, I., Duineveld, G & van der Zwaan, G., 2007. Foraminiferal stability after a benthic macrofaunal regime shift at the Frisian Front (southern North Sea) *in* Shallow-water benthic Foraminifera as a proxy for natural versus humaninduced environmental change (49-63 pp). PhD thesis. Geologica ultraiectina. Utrecht University. 151 pp.
- *van Nes, E., **Amaro, T.,** Scheffer, M. and Duineveld, G., 2007. Possible mechanisms for a marine benthic regime shift in the North Sea. Marine Ecology Progress Series 330: 39-47.
- *Witbaard, R.; Duineveld, G., Amaro, T., Bergman, M., 2005. Growth trends in three bivalve species indicate climate forcing on the benthic ecosystem in the southeastern North Sea. Climate Research 30:29-38.
- *Amaro, T., Duineveld, G., Tyler, P., 2005. Does the *Mya truncata* reproduce at it southern distribution limit? Preliminary information. Journal of Shellfish Research 24 (1): 25-28.
- *Amaro, T., Duineveld, G., Bergman, M. & Witbaard, R., 2003. Growth variations in the bivalve *Mya truncata* : a tool to trace changes in the Frisian Front macrofauna (southern North Sea)? Helgoland Marine Research 57 (2): 132-138.

Thesis

Amaro, T. 2005. The benthic shift of the Frisian Front (Southern North Sea) ecosystem – Possible mechanisms. PhD thesis. Wageningen University. The Netherlands.193 pp.

Conference proceedings

- *Amaro, T., Danovaro, R., Matsui, Y., Nomaki, H., Rastelli, E., Wolff, G. A., Nomaki, H. (2018) Potential relationships between organic matter (OM) quality and quantity on the nutritional ecology of abyssal holothurians inferred from stable isotopes and lipid compositions. Lipids in the Ocean. Brest, 20th-22nd November 2018. (Oral communication).
- *Amaro, T., Huvenne, V., et al. (2016). The Whittard Canyon a key study example on canyon processes. INCISE2016.25-27th July, Victoria, Canada. (Oral communication).
- *Amaro, T., Huvenne, V., et al. (2015). The Whittard Canyon a key study example on canyon processes. 14th DSBS. Aveiro, September 2015. (Oral communication).
- *Alves, A., Ramos, S. Nomaki, H., Ravara, A. and **Amaro, T**. (2015). Feeding preferences of abyssal macrofauna inferred from *in situ* pulse chase experiments in the West Pacific. 14th DSBS. Aveiro, September 2015. (poster communication).
- *Amaro T. De Stigter H., et al. (2015). Mechanisms of OM transport and deposition within the Whittard Channel and possible effects on the megafaunal communities. 47th CIESM meeting. Sorrento. April 2015. (Invited Speaker).
- * Amaro T., De Stigter H., et al. (2014). Mechanisms of OM transport and deposition within the Whittard Channel and possible effects on the megafaunal communities. INCISE2014. 29th-3rd October 2014, Edinburgh, Scotland. (Oral communication).
- *Amaro T., De Stigter H., et al. (2012). The response of deep-sea benthic megafauna to

sediment gravity flows in the Whittard channel. DSMBS, December 2012, Wellington, New Zealand. (Oral communication).

- *Amaro T., De Stigter H., et al. (2012). The response of deep-sea benthic megafauna to sediment gravity flows in the Whittard channel. Preliminary results. HERMIONE, September 2012, Faro, Portugal. (Oral communication).
- *Amaro, T., Ravaro, A. and Cunha, M.C. (2011). Biodiversity of macrofaunal assemblages from the Eastern Mediterranean. Redeco 2n Annual meeting. November 2011, Barcelona, Spain.
- *Cunha M.R., **Amaro, T.,** Aranda, A., van Oevelen, D. and Billett, DSM (2010) The Portuguese Submarine Canyons: biodiversity and trophic ecology. Ciência 2010, 4-7 Julho 2010, Centro de Congressos de Lisboa, Lisboa, Portugal. (Oral communication).
- *Amaro, T., Danovaro, R. Billett, D.S.M.and Cunha, M.C. (2010). Ecosystem functioning in the deep sea: the trophic biology of the holothurian Molpadia musculus at 3,500 m in the Nazaré Canyon, Portuguese Margin. DSMBS, June 2010, Reykjavik, Iceland. (Oral communication).
- *Cunha, M.R., Paterson, G.L.J., Amaro, T., de Stigter, H., Ferreira, C., Glover, A., Hilário, A., Kririakoulakis, K., Neal, L., Ravara, A., Rodrigues, C.F., Tiago, A. and Billett, D.S.M. (2010) Diversity of macrofauna assemblages from three Portuguese submarine canyons (NE Atlantic). 12th International Deep-Sea Biology Symposium, 7-11 June 2010, Reykjavik, Iceland. (Poster).
- *Amaro T., Danovaro, R., Cunha, M. R. and Billett, D.S.M. (2009).Biodiversity and functioning of the deep sea: How do deep-sea holothurians live at 3400m in the Nazaré Canyon? ICES International Symposium. April 2009, Horta, Portugal. (Oral communication).
- *Amaro, T., Billett, D.; Cunha, MC; Danovaro, R.; Guilini, K.; Heinz, P.; Hunter, W.; Jamieson, A.; Ross, L.; Soltwedel,T.;Vanreusel, A.; Witte, U. and Wolff, G. (2009). *In situ* experiments as an approach to understand ecosystem functioning. HERMIONE Kick-off Meeting, 6-9th April 2009, Sorrento, Italy. (Oral communication).
- *Amaro, T., Danovaro, R., Cunha, M.R., Billett, D. (2009). Ecosystem functioning of the deep sea: How do deep-sea holothurians live at 3400m? HERMES Final Meeting, 2-6 March 2009, Carvoeiro, Portugal. (Oral communication).
- *Amaro, T., Danovaro, R., Cunha, M., Billett, D (2008). Biodiversity and functioning of the deep sea: How do deep-sea holothurians live at 3400m in the Nazaré Canyon? III Congresso Brasileiro de oceanografia, May 2008, Fortaleza, Brazil. (Oral communication).
- *Amaro, T., Danovaro, R., Cunha, M., Billett, D (2008). Biodiversity and functioning of the deep sea: How do deep-sea holothurians live at 3400m in the Nazaré Canyon? In HERMES 3rd Annual Meeting, Conference programme and abstracts, April 2008, Faro, Portugal. (Oral communication).
- *Amaro, T., Witte, H., Billett, D., Cunha, M. (2007) Feeding strategies of deepsea[1] holothurians in the Portuguese Canyons. EMBS, September 2007, Kiel, Germany. (Oral communication).
- *Amaro, T., Witte, H., Billett, D., Cunha, M. (2007) Feeding strategies of deep- sea holothurians in the Portuguese Canyons based on bacterial community comparisons. HERMES, 2nd Annual Meeting. 24-30 March 2007, Faro, Portugal. (Poster).
- *Amaro, T., Billett, D.S.M, Gooday, A.J., Pattenden, A., de Stigter, H., Weaver, P.P.E. (2006) Deep-sea canyon fauna on the Portuguese margin. EGU. 2-7 April, Vienna, Austria. (Poster).

- *Amaro, T. (2005) Benthic organisms. NEBROC course. Texel, The Netherlands. (Invited speaker).
- *Amaro, T., Schulting, S., Bergman, M., Witbaard, R., Duineveld, G. (2004). What is happening to the Frisian Front macrofauna? BEM2004, Mobile, Alabama, USA (oral communication).
- *Amaro, T., Duineveld, G., Tyler, P. (2003). Is *Mya truncata* reproducing at the Frisian Front, Southern North Sea? EMBS 2003, Aveiro, Portugal (Poster).
- *Amaro, T., Duineveld, G., Bergman, M, Witbaard, R. (2003). Growth variations in the bivalve *Mya truncata:* a tool to trace changes in the Frisian Front macrofauna (southern North Sea)? BEM 2003 symposium, Connecticut University, USA (oral communication).
- *Amaro, T., Cardoso, J., Fonds, M. (2000). The effect of low winter seawater temperatures on the survival of some of the most abundant benthic invertebrates and demersal fish of the North Sea. North Sea 2000 Symposium, Germany, 8-12 May 2000. (Poster)
- *Amaro, T., Cardoso, J., Fonds, M. (2000). The effect of low winter seawater temperatures on the survival of some of the most abundant benthic invertebrates and demersal fish of the North Sea. 34th European Marine Biology Symposium - Açores, Portugal, 13-17 September 1999. (Poster).

Non peer-reviewed papers

Amaro, T. (2007). 3400 m down in the canyons of the Atlantic. HERMES newsletter, summer issue (9): 9.

7. Memberships

- 1) Member of the International Networking Group for Deep-Sea Ecology (INDEEP): I currently stand in Ecosystem functioning working groups within INDEEP.
- 2) Member of Deep Ocean Stewardship Initiative: Advancing science-based policy (DOSI).
- 3) Member of the Deep-Sea Biology Society: I have been in the committee of this society for 1 year, but currently I am a member.
- 3) Member of the International Network for Submarine Canyon Investigation and Scientific Exchange (INCISE).

8. Language skills

Portuguese (native speaker), English, Italian, Spanish, French, Dutch.

9. Computer skills

MS office, Ms Origin, SPSS, Systat, Primer, GeneScanne analysis, Xcalibur, Lotus Notes, Endnote, Papers, Adobe Photoshop.

10. Other skills

Certificated diver from CMAS – Instructor (M1) (2017)

Certificated diver from SSI – Instructor (2017)

Certified as a DAN instructor in 9 specialities courses (Basic Life Support, Automatic External Defibrillator, First Aid, Hazardous Marine Life Injuries, On Site Neurological Assessment, Oxygen First Aid, Oxygen First Aid for Aquatic Emergencies, Advanced Oxygen First Aid, Dive Medicine for Divers). From 2014 to current I have been teaching all these courses.

Certificated technical diver from TDI - DECO diver. (2011)

Certificated as Coastal skipper. (2013)