CURRICULUM VITAE

Name: Sergio Stefanni Nationality: Italian

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Education, Degree and Qualifications:

•Since 2018: national scientific qualification as Full Professor in Zoology (BIO/05), as Associate Professor in Genetics (BIO/18) and as Associate Professor in Ecology (BIO/07).

•Since 2014: national scientific qualification as Associate Professor in Zoology (BIO/05)

•2001: PhD at the School of Biological Sciences, University of Bristol (UK), under the supervision of Prof. P.J. Miller

•1992: Master Degree (Marine studies), University of Genoa (Italy)

Present position and competences: since 2016 I am full-time researcher in the area of evolutionary biology and ecology contributing with studies of population genetics and phylogeny of marine organisms. My research activity is focused on the study of the evolutionary adaptations of marine organisms both of coastal and deep environments, diversity and distribution of by means of metabarcoding methods (eDNA and mesozooplankton), identification of cryptic species, development of innovative molecular methodologies that can contribute to sustainable management of marine resources and the conservation of endangered species. I also use high-throughput sequencing platforms for seascape genetics studies (to compare oceanographic data with allele frequency variations on a spatial and temporal scale); for genomics (to deepen the knowledge of the processes associated with speciation); and transcriptomics (for the study of genes related to adaptations to extreme environments: deep sea and hydrothermal sources). I also collaborate with colleagues from the Biorobotics Institute of the Sant'Anna School of Advanced Studies in Pisa to develop innovative platforms for the collection and processing of samples at sea as well as development of bioinspired vehicles.

Social and Organisational skills and competences: personally, I consider myself as a motivated and enthusiastic professional. I enjoy being part of a team as well as working on my own initiative. I have demonstrated high level of competence in project management and execution, dedication to meeting tight deadlines, proven ability to work under pressure and perform effectively in a variety of situations. Since I have lived abroad for almost 20 years, I easily adapt to new working and living environments. I am accustomed and appreciative of interacting with multi-cultural communities where I easily establish good friendships.

Summary of past professional experience:

- •2016: Associate professor in Zoology (5 months 48 hours) at the University of Trieste, Department of Life Sciences.
- •2013-2015: Marie Curie Research Fellow funded by the "Cofunded by the European Union under FP7-People Co-funding of Regional, National and International Programmes, GA n. 600407" under the RITMARE project. During this period SS in involved in the molecular screening of marine zooplankton using mass parallel sequencing technology as well as contributing to the development of an autonomous biosampler.
- •2001-2013: research fellow at IMAR/DOP, University of the Azores, Dept of Oceanography and Fisheries. I was hired by IMAR/DOP to set up the molecular laboratory facilities and start a new line of research on phylogeny, phylogeography and population structure of marine organisms. During this period I carried out studies on marine organisms, mainly fish and sharks from coastal to the deep-sea. The focus of my research was addressed to understanding speciation processes, contribute to the knowledge of biodiversity and conservation, and provide molecular tools for fishery management. My research was carried out thanks to several high profile European projects granted for funding during these years.
 - My teaching experience included lecturing "evolution and phylogeny" and "population genetics" classes with a compendium of practical laboratory classes on DNA extraction, PCR amplification and sequence alignment. I was also involved in supervision of undergrads, PhD students and postdoctoral fellows.
- •February-March 2006: spent a period of 6 weeks in the molecular lab at the Marine Science Research Centre, SUNY Stony Brook University collaborating with Dr B. Allam with the objective of detecting genetic variability among Quahog Parasite Unknown (QPX) strains.
- •2001-2007: postdoctoral researcher for the position of "molecular phylogeny and population genetics" at the University of the Azores, Dept of Oceanography and Fisheries under the supervision of Dr. R.S. Santos.

- •1999-2001: contracted by Brown Partworks Ltd, London, for revising and updating articles on fish for the new edition of the Marshall Cavendish International Wildlife Encyclopedia, published in the USA. For the same company I was also involved in writing the fish section for the 10 volumes series "Aquatic Life" that was published in the USA.
- •1997-2000: demonstrator for the practical laboratories for undergraduates in their 1 st year: "taxonomy and classification of the chordate" and "fish dissection"; and for the ones in their 2nd year: "evolutionary biology" and "aquatic ecology" at the University of Bristol (UK).
- •29 May 1998: invited to a private meeting with His Majesty Akihito Emperor of Japan, expert in systematics of Japanese gobies, organised by the Linnean Society of London.
- •From November 1995 to March 1996: granted with a fellowship from the University of Venice (Italy) to spend at the University of Bristol under the supervision of Prof. P.J. Miller
- •From June 23 to July 22, 1995: participated in the comparative study of fish populations between "Parc National de l'Archipelago de Cabrera" (Mallorca) and the "Isla de el Toro" (Mallorca) in collaboration with Josep Coll from the University of the Balearic Islands (Spain).
- •1994-1997: collaborated on a three years project funded by the *Ministero delle Risorse Agricole, Alimentari, Forestali* and directed by Prof. P. Torricelli from the University of Venice, to estimate fish eggs and larvae in the south part of Venetian lagoon and neighbour sea area.
- •1993-1996: collaborated on projects on fish population structure in the Venetian lagoon's fishes using fishery data and visual census techniques for marine protected areas under the supervision of Dr. A. Marconato from the University of Padova.
- •1993-1996: collaborated with AQUAPROGRAM srl (Vicenza) for the study of applied ecology in fresh water and joining several field work expeditions.

Cruises experience:

- •February 20–26, 2018: organised and coordinated the EarthCruisers scientific campaign onboard of the R/V "Explora" for sampling on Palinuro and Marsili Seamounts.
- •2001-2013: taking part to yearly cruises onboard of the R/V "Arquipelago" for demersal and deep sea fishery campaigns.
- •May 29–June 15, 2009: took part to the BIOFun Trans-Med cruise on board of the R/V "Sarmiento de Gamboa" sampling for deep sea fishes and sharks.
- •July 3-13, 2008: organised and coordinated the DEECON cruise 2008, a fishing campaign on board of the oceanographic ship "R/V Arquipelago" and funded by FCT (Foundation for Science and Technology) aiming to deep-sea fishery on four seamounts located west of the Azores: Voador, Cavala, Monte Alto and Gigante.
- •July 3-13, 2007: organised and coordinated the DEECON cruise 2007, a fishing campaign on board of the oceanographic ship R/V "Arquipelago" and funded by FCT (Foundation for Science and Technology) aiming to deep-sea fishery on four seamounts located south of the Azores: Atlantis, Plato, Irving and Great Meteor.
- •October 1999: took part to the D243/99 campaign organised by Dr. J.C. Partridge (University of Bristol) on board of the R/V "Discovery" with the project of collecting deep sea organisms offshore western Africa.

Involvement in funded National Projects (not competitive):

•2016-2019: EarthCruisers "EARTH's CRUst Imagery for investigating Seismicity, volcanism and marine natural Resources in the Sicilian offshore". *Funding source:* the Italian Ministry of Education (MIUR) under the "bando premiale FOE 2015" (nota prot. N. 850, dd. 27 ottobre 2017). *Duration:* 3 years. *Overall budget:* 1,273,375 Euro. Project leader is Franco Coren, OGS (Istituto Nazionale di Oceanografia e di Geofisica Sperimentale). I am the representative leader for Stazione Zoologica Anton Dohrn and this project also sees the involvement of the INGV (Istituto Nazionale di Geofisica e Vulcanologia). (ongoing)

Involvement in funded National and International Projects (competitive):

- •2021: CONAN (Cabled Observatory Network for the Advanced monitoring of ecosystems and their Natural resources) Funding source: Transnational Access JERICO-S3 to access SMARTBAY infrastructure (Ireland). Duration: 1 year. Overall budget: 3,000 Euros. Project leader is Jacopo Agussi (ICM-CSIC Barcelona, Spain). I am the representative leader for Stazione Zoologica Anton Dohrn and the other partners are: CNR-CREA of Rome, CNR-IAS of Torrata Granitola, Sant'Anna School of Advanced Studies of Pisa, University of Zagreb and the Ruđer Bošković Institute of Šibenik (Croatia) e University of Montenegro, Kotor (Montenegro).
- •2021: ATLAS (Advanced ecosysTem monitoring in ecoLogicAl obServatory, ref. 21/1001604) *Funding source:* Transnational Access JERICO-S3 to access OBSEA infrastructure (Spain). *Duration:* 1 year. *Overall budget:* 3,000 Euros. I am the PI of this project and the partners are: GMIT e MI (Galway, Irlanda), University of

- Pola and Universit of Zagreb (Croatia), IMR of Kotor (Montenegro), NIB of Piran (Slovenia) and University of Pisa (Italy).
- •2019-2020: PO FEAMP Campania 2014-2020, aiming at characterising marine protected species inhabiting the coast of the region of Campania. The project is coordinated by Dr Franco Andaloro, SZN, and my involvement is in the activities of action 2 in the WP3.
- •2016-2019: DEMBAI "Diversity and Evolution of marine Microbial assemblages associated with Benthic Antarctic Invertebrates". Funding source: the Italian Ministry of Education (MIUR) under the National Antarctic Programme (PNRA16_00173). Duration: 3 years. Overall budget: 64,700 Euro. Project leader is Cinzia Corinaldesi, Polytechnic University of Marche (Italy). My contribution is represented by the coevolutionary study between different Antarctic species of and their microbiomes. (ongoing)
- •2014: LIFEWATCH "Detection of alien species from gut contents of two commercially important fish in the Adriatic Sea and how food chain is affected". Funding provided by *Bio4IU multidisciplinary infrastructure* for study and enhancement of marine and terrestrial Biodiversity in the perspective of the "Innovation Union" aiming to cover up to 20K € costs for Illumina MiSeq sequencing at the IBBE-CNR of Bari (Italy) (ongoing)
- •2009-2012: METAFISHCODE "Fish genetic diversity and meta-species phylogeography at global and regional scales: implications for fisheries management". *Funding source:* FCT, Portugal, (PTDC/MAR/101795/2008). *Duration:* 3 years. *Overall budget:* 109,854 Euros. Project leader was Filipe Costa, University of Minho, and I represented the partnership with the Azores (completed)
- •2009-2012: ReDEco "Regional Drivers of Ecosystem Change and its Influence on Deep-Sea Populations in the Mediterranean". *Scope*: Understand effects of climate change on deep-sea ecosystems in relation to regional key factors including impact of large-scale episodic events and other anthropogenic impacts. *Funding source*: Under the MarinERA programme funded by the EU FP6 ERA-NET Scheme (2004-2008) (ref. MARIN-ERA/MAR/0003/2008). *Duration*: 3 years. *Overall budget*: 924,753 Euros (Portugal: 207,720 Euros). Project Leader was Dr Nikolaos Lampadariou from Greece. I was the representative leader for Portugal and this project also involved Spain and France (completed)
- •2008-2011: HERMIONE "Hotspot Ecosystem Research and Man's Impact On European Seas". *Scope:* Designed to make a major advance in the knowledge of the functioning of deep-sea ecosystems and their contribution to the production of goods and services. *Funding source:* Under the European Commission's Framework (FP7-ENV-2008-1 Contract No. 226354). *Duration:* 3 years. *Overall budget:* 10,884,787 Euros. Represented by a consortium of 38 partners and coordinated by Phil Weaver, University of Southampton, UK. My contribution to the project was the cross-cutting theme 4 (CCT4: Biogeography and Demographic history of the Portuguese dogfish *Centroscymnus coelolepis*) (completed)
- •2008-2011: CONDOR "Observatory for long-term study and monitoring of Azorean seamount ecosystems". *Scope:* Improving our understanding and the quality of advice for the management of seamounts, through the case study of the Condor seamount, in the Azores. *Funding source:* Co-financed by the EEA Grants Financial Mechanism, Iceland, Liechtenstein and Norway (proposal No. PT0040). *Duration:* 3 years. *Overall budget:* 716,198 Euros. Principal investigator is Dr Gui Menezes (IMAR/DOP, Azores) and I was responsible for the tasks involving genetic components (completed)
- •2007-2010: DEECON "Unravelling population connectivity for sustainable fisheries in the Deep Sea". *Source:* Multidisciplinary approach to unravel population structure and population connectivity in economically important deep-sea fish species. *Funding source:* approved by the European Science Foundation (ESF) under the EUROCORES programme (proposal No 06-EuroDEEP-FP-008 & SFRHEuroDEEP/0002/2007) *Duration:* 3 years. *Overall budget:* 835,000 Euros (Portugal: 166,012 Euros). Project Leader was Sir Nils Christen Stenseth from Norway. I was the representative leader for Portugal and this project also involved the collaboration with Ireland and UK (completed)
- •2006-2007: BIODEF "Biodiversity of defence molecules in marine invertebrates: looking for new biological factors with biomedical applications". *Scope:* Characterizing novel molecules participating in innate immune reactions against microorganisms. *Funding source:* Luso-American Foundation (FLAD). *Duration:* 1 year. *Overall budget:* 50,000 Euros. Project coordinated by Dr. R. Bettencourt (IMAR/DOP, Azores) and the project sees the involvement of myself and Dr. B. Allam from the Marine Science Research Centre, SUNY Stony Brook University, NY (USA). My contribution to the project was represented by the implementation of molecular tools for screening molecules (completed)
- •2004-2009: MarBEF, a network of excellence "Marine Biodiversity and Ecosystem Functioning" funded by the European Union (contract No GOCE-CT-2003-505446) within the *Sustainable development, global change and ecosystems* RTD Programme and consisting of 83 European marine institutes, is a platform to integrate and disseminate knowledge and expertise on marine biodiversity, with links to researchers, industry, stakeholders and the general public (completed)

- •2002-2005: OASIS "Oceanic Seamounts: An Integrated Study". *Scope:* An holistic approach to yield an advanced understanding of the processes characterizing seamount ecosystems. *Funding source:* European Commission, under the fifth Frame Programme (contract No EVK3-CT-2002-00073-OASIS). *Duration:* 3 years. *Overall budget:* 2,813,849 Euros. Project coordinated by Bernd Christiansen (University of Hamburg, Germany) and my contribution was included in the work package aiming to explore genetic diversity of marine organisms from Atlantic seamounts (completed)
- •2002-2012: MAR-ECO "Mid-Atlantic Ecosystem Project, patterns and processes of the ecosystems of the northern mid-Atlantic" coordinated by the University of Bergen (Norway) and part of the The Census of Marine Life pilot program (CoML) funded by Alfred P. Sloan Foundation. My contribution to the project was included in the work package aiming to explore population structure of fish and sharks from Atlantic seamounts (completed)

Scientific responsibilities for SZN:

- •since 2021: nominated Head Manager of the Project (RUP) for the execution phase of the contract stipulated with the AQ Aq Srl Cantieri Navali Cilentani Srl Cantieri Schiavone Srl for the supply of a two ship units (35 m and 17 m LOA, respectively) for scientific and oceanographic research.
- •2022: nominated RUP for the purchasing of the auxiliary hybrid propulsion for the oceanographic research vessel of the Stazione Zoologica A. Dohrn and referred to the call PON Ricerca e Innovazione 2014-2020 "Upgrading for Marine Research and Infrastructures (EMBRC IT) PRIMA" (CCI: 2014IT16M2OP005).
- •2021: member of the technical tender committee for the supply of an underwater robotic vehicle complete with dedicated winch, umbilical cable and TMS, for the Stazione Zoologica A. Dohrn for the call PON Ricerca e Innovazione 2014-2020 "Upgrading for Marine Research and Infrastructures (EMBRC IT) PRIMA" (CCI: 2014IT16M2OP005).
- •2021: member of the technical tender committee for the supply of a naval unit for scientific and oceanographic research for the Stazione Zoologica A. Dohrn for the call PON Ricerca e Innovazione 2014-2020 "Upgrading for Marine Research and Infrastructures (EMBRC IT) PRIMA" (CCI: 2014IT16M2OP005).
- •2018-2021: PI for the three years third party contract between SZN and ENI "Attività di monitoraggio Ambientale Offshore per la società ENI S.p.A" (ENI2 contract n. 2500032813).
- •2018–2020: support to the Head Manager of the Project (RUP), and then member of the technical tender committee for the operative unit "Upgrading the naval park and land vehicles" (OR3) for the call PON Ricerca e Innovazione 2014-2020 "Upgrading for Marine Research and Infrastructures (EMBRC IT) PRIMA" (CCI: 2014IT16M2OP005).
- •since 2018: representative for the bilateral Research Agreement (delibera n. 16 del 19/07/2018) with the Department of Life Sciences (DISVA) of the University of Trieste for the project "development and implementation of innovative molecular technologies to be applied on sutdies of marine biodiversity".
- •since 2018 representative for the bilateral Research Agreement (delibera n. 9 del 09/05/2018) with the Institute for Marine Sciences (ISMAR) of the National Research Council (CNR) of Venice for the project: "Implementation and integration of molecular tools for studies of marine biodiversity".

Memberships:

- Italian Society of Evolutionary Biology (SIBE)
- Italian Society of Ecology (SItE).

Membership of Boards and Committees:

- •since 2018: SZN alternate the General Assembly JRU "EMSO-Italy".
- •2018: SZN representative at the Board for the coordination of the Italian contribution to the International Seabed Autorities (ISA). Meeting organised by the Ministry of Foreign Affairs and Italian Cooperation together with the Ministry of Economy (18 April)

Editorial activities:

- •2020: associate editor for Frontiers in Marine Science Deep-Sea Environments and Ecology (IF 3.661)
- •2020: editor (together with Dr Aguzzi J, Costa C, Mirimin L, Funari V and Calisti M) of the special issue "Robotic and Sensor Technologies in Environmental Exploration and Monitoring" for *Sensors* (IF 3.275)
- •2020: editor (together with Dr Tirelli V) of the special issue "Biodiversity in Mediterranean Sea Ecosystem" for *Diversity* (IF 2.047)
- •since 2019: Editorial Board member for *Scientific Reports* (nature publishing group IF 4.011).
- •2019: editor (together with Prof. Pallavicini A) of the special issue "Molecular Biodiversity Assessment in the Deep-Sea" for *Diversity* (IF 2.047)
- •2004: editor (together with Dr Bried J and Dr Bettencourt R) of the special issue of the Acta of the 1st International Workshop in Marine Molecular Phylogenetics "Use of Molecular Markers for the study of

Marine Biodiversity" for Arquipélago - Life and Marine Sciences.

Grants and Fellowships:

- •2020: beneficiary (first user) of the AssemblePlus project "Validation of mussels as natural environmental DNA repositories SmartMyt" (application n. 13192) to be carried out at the National Institute of Biology of Piran (Slovenia).
- •2020: beneficiary (second user) of the AssemblePlus project "Comparative study of the evolution of brain anatomy and adult neurogenesis in the central nervous system in deep water Chondrichthyes (BrainDeep)" (application n. 11298) to be carried out at IMAR, Azores (Portugal).
- •2019: beneficiary (second user) of the AssemblePlus project "DiveRsity and host co-Evolution of mArine Microbial assemblages associated with the endemic MEDiterranean reef-builder coral Cladocora caespitosa (DREAM MED)" (ref.: 385_DREAM MED_Bongiorni_AssemblePlus_20190215) carried out at the National Institute of Biology of Piran (Slovenia).
- •2014: awarded of an ESF Short Visit Grant within the framework of the ESF Activity 'Conservation Genomics: Amalgamation of Conservation Genetics and Ecological and Evolutionary Genomics' to collaborate with Prof. V. Savolainen at the Imperial College of London (UK).
- •2013: awarded of a grant within the RITMARE Flagship Project call "BANDIERA Best Action for National Development of International Expert Research Activities" Co-funded by FP7 Marie Curie Actions "People" specific programme (EC Contract n. 600407)
- •2013: successful with application project "TALENTS UP for an International House (TALENTS UP)", cofunded by AREA, by the European Commission in the framework of the 7th Framework Programme for the period 2007-2013 "People" specific programme FP7 Marie Curie Actions Co-Funding of Regional, National and International Programmes (G.A. n. 600204) and with a financial contribution of the Regional Authority of Friuli Venezia Giulia.
- •2007: awarded of a grant from FCT (<u>Portuguese Foundation for Science and Technology</u>) to support part of the cost for attending the Evolution2007 meeting held in Christchurch, NZ, in June 16-20.
- •2007: awarded of a grant from DRCT (Ministry for Science and Technology, Azores, Portugal) to support part of the cost for attending the Evolution 2007 meeting held in Christchurch, NZ, in June 16-20.
- •2006: awarded of a grant from FLAD (<u>Luso-American Foundation</u>) to support part of the cost for attending the Evolution 2006 meeting held at Stony Brook University, New York (USA) in June 23-27.
- •2006: awarded of a grant from FCT (<u>Portuguese Foundation for Science and Technology</u>) to support part of the cost for attending the Evolution 2006 meeting held at Stony Brook University, New York (USA) in June 23-27
- •2004: awarded of a three years post-doctorate grant on "molecular population genetics" (ref SFRH/BPD/14981/2004) offered by the <u>Portuguese Foundation for Science and Technology (MCT/FCT)</u> and the centre of IMAR (Institute of Marine Research) at the University of the Azores, to be spent at the Dept. of Oceanography and Fisheries-UAc, IMAR, based in Horta, Azores.
- •2003: awarded of a grant for access to the facilities at Kristineberg Marine Station, Fiskebäckskil, Sweden, under the EU "Transnational Access to Reseach Infrastructures" (ARI) scheme.
- •2001: awarded of a three years post-doctorate grant on "molecular population genetics" (ref IMAR/FCT PDOC 002/2001 MoleGen) offered by the <u>Portuguese Foundation for Science and Technology (MCT/FCT)</u> and the centre of IMAR (Institute of Marine Research) at the University of the Azores, to be spent at the Dept. of Oceanography and Fisheries-UAc, IMAR, based in Horta, Azores.
- •1998: awarded of a grant from the <u>Systematic Association</u> to support part of my project on the study of intraspecific variation of the control region in the mt-DNA in *Pomatoschistus minutus*.
- •1998: awarded of a grant to cover travelling expenses from the <u>Alumni Foundation</u>, and funds for accommodation from the <u>S.I.C.B.</u> (Society for Integrative and Comparative Biology), to present my preliminary results of my PhD project at the annual conference organised by the S.I.C.B., in Boston (USA).
- •1996: awarded of a grant from the <u>University of Padova</u> to support my first year of PhD.
- •1995: awarded of a three months grant offered by the <u>University of Venice</u> to work at the University of Bristol with Prof. P.J. Miller. I have been undertaken a comparative study by electrophoretic analysis, morphometrics, and meristics of two different populations of *Pomatoschistus minutus* (Gobiidae, Teleostei), from the Adriatic Sea (Venezia) and Atlantic (Plymouth).

Supervision undergraduate students:

- •Carolina Ricci "L'integrazione del DNA ambientale nelle indagini sui mammiferi marini: approfondimento sul caso di studio del tursiope (*Tursiops truncatus*) nel Mar Mediterraneo" MSc co-tutored with Francesca Raffini and Prof. Daniela Silvia Pace University "La Sapienza" of Rome (*in progress*).
- •Martina La Torre "Deep-Sea Biodiversity Assessment in the Canyon Dohrn using Environmental DNA (eDNA)"

- MSc co-tutored with Prof. Alessia Cariani University of Bologna (completed 28/03/2022).
- •Sara Verni "The integration of environmental DNA in marine mammals surveys: a case study on bottlenose dolphin (*Tursiops truncatus*) in the Mediterranean Sea" MSc co-tutored with Maria Vittoria Modica and Prof. Daniela Silvia Pace University "La Sapienza" of Rome. (completed 23/07/2021)
- •Sara Verni "Trophic ecology of abyssal fish in the Strait of Messina an overview of the methods of investigation" BSc co-tutored with Dr. Maria Vittoria Modica and Prof . Pierfilippo Cerretti University "La Sapienza" of Rome. (completed 18/10/2018)

Supervision PhD students:

- •Maddalena Tibone "Marine Biodiversity Augumented Assessment Coupling Imaging Technologies with Environmental DNA (eDNA)" in cofunded grant between Stazione Zoologica A. Dohrn (Italy) and Atlantic Technological University (ATU Galway, Ireland) and co-tutored with Dr. Luca Mirimin (*in progress*, started 21/01/2022).
- •Sara Verni "Integrative Taxonomy and Biogeography of Mediterranean Deep-Sea Polychaetes" in cofunded grant between Stazione Zoologica A. Dohrn (Italy) and University of Pisa (Italy) and co-tutored with Prof. Alberto Castelli (*in progress*, started 01/11/2021).
- •Angela Mazzeo "Key Enabling Technologies for Anthropomorphic Robotic Hands" in cofunded grant between Stazione Zoologica A. Dohrn (Italy) and Scuola Superiore Sant'Anna (Italy) and co-tutored with Prof. Ing. Christian Cipriani (*in progress*, started 01/11/2019).
- •Mrudul Chellapurat "Soft Robotic Sampler for Screening Biodiversity at Sea" in cofunded grant between Stazione Zoologica A. Dohrn (Italy) and Scuola Superiore Sant'Anna (Italy) and co-tutored with Prof. Ing. Cecilia Laschi (completed in 2021)
- •Emanuela Buschi "Diversity and evolution of microbial assemblages associated with invertebrates inhabiting benthic deep-sea ecosystems" in cofunded grant between Stazione Zoologica A. Dohrn (Italy) and Polytechnic University of Marche (Italy) and co-tutored with Prof. Antonio Dell'Anno (completed in 2020)
- •Diana Sofia de Oliveira Catarino (ref: SFRH/BD/65730/2009) "How does climate change affect deep-sea organisms? A multidisciplinary study using key model species from two contrasting climatic regions, Atlantic vs Mediterranean", University of the Azores and IMR (Norway) within the frame of the ReDEco project. (completed in 2016)
- •Patrícia Gomes Antunes Madeira (ref: SFRH/BD/61146/2009) "Echinoderm phylogeography in oceanic islands: three edible sea urchin species of the Azores as a case study", University of the Azores. (completed in 2019)
- •Ricardo Jorge Paiva Cordeiro (ref: SFRH/BD/60366/2009) "Phylogeography of marine gastropods in oceanic islands: patterns and processes", University of the Azores. (completed)
- •June-Sept, 2009: hosted the PhD student Isabel Calderon Moreno from the University of Barcelona (Spain) to perform a training period at the IMAR/DOP genetic laboratory under my supervision. (completed 2009)

Supervision postdoctoral fellows:

- •Pedro Miguel de Azevedo Ribeiro, within the frame of the project DEECON proposal No 06-EuroDEEP-FP-008 & SFRH-EuroDEEP/0002/2007) (completed)
- •Luciana de Melo Santos Génio, within the frame of the project REDECO (ref. Marin-ERA/MAR/0003/2008) (completed)

Guest Scientists under my supervision:

- •2019 March-April: Diana Sofia de Oliveira Catarino, visited SZN under AssemblePlus (contract 20180928) with theproject "environmenTal DNA as a moNitoring tool for deep-sea fish and sharks: ConDor sEaMount as a case study TANDEM". (completed)
- •2018 June-July: Diana Sofia de Oliveira Catarino, visited SZN under AssemblePlus (contract SR2022018101c6) with the project "Ichthyoplankton Biodiversity on the Atlantic seamount Condor using DNA metabarcoding". (completed)
- •2018 January-February: Íris Sampaio da Costa, visited SZN with a STSM grant (ref. 38491) within the EU-COST with the project "Bridging Lab Science with Policy: Molecular taxonomy and evolutionary relationships of deep-sea octocorals of the NE Atlantic Ocean". (completed)
- •2009 June-September: Isabel Calderon visited my lab at IMAR-DOP as PhD student of the University of Barcelona (Spain) and under the supervision of Prof Xavier Turon.

External/Internal examiner for PhD:

•Oct. 23, 2013: PhD defence "Population distribution and reproductive biology of the deep-sea fish community of the northwestern Mediterranean Sea" by Ulla Carolina Fernadez de Arcaya Redondo at the University of the Barcelona, (Spain).

- •Sept. 16, 2011: PhD defence "Molecular genetic diversity and shell shape variation in *Patella* limpets Mollusca: Patellogasteropoda): Evolutionary inferences and tools for species conservation in the North East Atlantic Ocean Archipelagos" by Gilberto Manuel Pinto Carreira at the University of the Azores, Horta (Portugal).
- •Oct. 2, 2009: PhD defence "Spatio-Temporal Genetic Structure and Reproductive Barriers in the Genus *Paracentrotus* (Echinodermata: Echinoidea)" by Isabel Calderón Moreno at the University of the Barcelona, (Spain).
- •Jan. 29, 2009: PhD defence "Social and genetic mating system in a fish with male parental care, the redlip blenny (Ophioblennius atlanticus atlanticus, Valenciennes 1836)" by Mirko De Girolamo at the University of the Azores, Horta (Portugal).
- •Jan. 17, 2007: PhD defence "Adaptaciones, exaptaciones y el estudio de la forma" by Marta Linde Medina at the University of the Balearic Islands, Palma de Mallorca (Spain).

Courses/Workshops (organised):

- •November, 2020: co-organiser of the First Italian Conference on Marine Evolution (EVOLMAR 2020), organized by the Stazione Zoologica Anton Dohrn, Naples (SZN) and the Italian Society for Evolutionary Biology (SIBE-ISEB), and will take place in an entirely virtual format during November 23–25, 2020.
- •July, 2019: co-organiser of the Summer school "Protein Evolution: from Environmental Adaptations to Biotechnological Applications" held at Stazione Zoologica A. Dohrn, Naples, Italy.
- •December, 2016: "Comparative methods in evolutionary biology" held at Stazione Zoologica A. Dohrn, Naples, Italy.
- •July, 2016: "Next Challenges in Nucleic Acid Sequencing" held at Stazione Zoologica A. Dohrn, Naples, Italy
- •November, 2015: "introductory course on comparative methods in evolutionary biology" held at the Dept of Life Sciences, University of Trieste, Italy.
- •September, 2004: I° Workshop in Marine Molecular Phylogenetics: "Use of Molecular Markers for the Study of Marine Biodiversity" held at the "Centro do Mar", Azores.

Referee for International Journals and evaluation project committee:

- •Molecular Phylogenetics and Evolution
- Molecular Ecology
- •Gene
- •Journal of Fish Biology
- Journal of Biogeography
- •Journal of the Marine Biology Association of the UK
- •Journal of Experimental Marine Biology and Ecology
- •Marine Biology
- •Deep-Sea Research Part I
- •Conservation Genetics
- •European Science Foundation
- •National Geographic Society

International Meetings:

- •2020: "POGO's International Virtual Conference on the use of Environmental DNA (eDNA) in Marine Environments: Opportunities and Challenges" online, Nov. 30 Dec. 4.
- •2019: SCOR MetaZooGene Symposium "Rediscovering pelagic biodiversity: Progress, promise, and challenges of metabarcoding of microbes to mammals" Gothenburg, Sweeden, Sept. 13-14.
- •2017: 52nd European Marine Biology Symposium (EMBS), Piran, Slovenia, Sept. 25-29.
- •2015: 13th European Ecological Federation (EEF) conference (joint with the 25th Italian Society of Ecology, SItE) held in Rome, Italy, 21-25 September.
- •2012. European Elasmobranch Association, Annual meeting held in Milan, Italy, 22-25 November.
- •2012. Hermione final project meeting, held in Carvoeiro, Portugal, 11-14 September.
- •2011. World Conference on Marine Biodiversity, Aberdeen, United Kingdom, 26-30 September.
- •2010. ESF/Hermione workshop "Challenges in the study of deep-sea ecosystems' interconnectivity",held in Aveiro, Portugal, 8-10 September.
- •2010. Deep-Sea Symposium held in Reykjavik, Iceland, 7-11 June.
- •2010. ESF EuroDeep workshop final meeting held in Reykjavik, Iceland, 6 June.
- •2009. MAR-ECO synthesis workshop held in Kristiansand, Norway, 20-22 October.
- •2009. ESF EuroDeep workshop/meeting held in Venice, Italy, 22-23 September.
- •2009. ICES meeting held in Horta, Azores, Portugal, 27-30 April.
- •2009. Hermione Kick-Off Meeting held in Sorrento, Italy, 6-9 April.

- •2008. ESF EuroDeep workshop/meeting held in Valencia, Spain, 10-11 November.
- •2007. ESF EuroDeep workshop/meeting held in Taormina, Italy, 26-29 November.
- •2007. MAR-ECO synthesis workshop held in Reykjavik, Iceland, 29-30 September
- •2007. "Evolution 2007" Meeting held at Christchurch Convention Centre, Christchurch (NZ), 16-20 June.
- •2006. "Evolution 2006" Meeting held at Stony Brook University, New York (USA), 23-27 June.
- •2005. OASIS Final Scientific Meeting held at DOP, University of the Azores, Horta, Portugal, 12-13 Oct.
- •2005. MAR-ECO field phase workshop held at IPIMAR, Lisbon, Portugal, 2-5 June.
- •2002. BIOMARE meeting held at IMAR/DOP, University of the Azores, Horta, Portugal, 18-20 April.
- •1998 "Morphometrics and Shape Analysis" meeting organised by The Systematics Association, in Glasgow, UK.

Contributions to scientific meetings:

- •Favali P., et al. 2019. Joint Research Unit EMSO-Italia: boosting the national marine science community contribution to the EMSO European Research Infrastructure for ocean observation. AGU Fall Meeting 2019.
- •Stefanni S., Catarino D., Loureiro C., Martins A., Stankovič D., 2019. "A "cold case" of metabarcoding analysis unravel hidden mesozooplankton diversity at two Azorean seamounts and neighboring island slopes (NE Atlantic)". SCOR MetaZooGene Symposium "Rediscovering pelagic biodiversity: Progress, promise, and challenges of metabarcoding of microbes to mammals" Gothenburg, Sweeden, Sept. 13 (oral presentation)
- •Stanković D., Borme D., Tirelli V., Pallavicini A., Stefanni S., 2019. A DNA metabarcoding approach to diet comparison in two sympatric pelagic fish in the Adriatic Sea European sardine (Sardina pilchardus) and European anchovy (Engraulis encrasicolus). SCOR MetaZooGene Symposium "Rediscovering pelagic biodiversity: Progress, promise, and challenges of metabarcoding of microbes to mammals" Gothenburg, Sweeden, Sept. 13 (oral presentation)
- •Stefanni S. 2018. Filling the blank spaces: species traceability using eDNA as complementary approach to imaging for the study of marine biodiversity. Workshop "Marine cabled observatories: moving towards applied monitoring for fisheries management, ecosystem functioning and biodiversity" organised by the Ocean Networks Canada and held at ICM-CSIC, Barcelona, Spain, Oct. 4-5 (oral presentation)
- •Stefanni S., Stanković D., Camatti E., Cantoni C., Pansera M., Schroeder K., Pallavicini A., Chiggiato J. 2017. Large scale metabarcoding analysis of zooplankton in the western Mediterranean Sea. 52nd European Marine Biology Symposium (EMBS), Piran, Slovenia, Sept. 25-29 (oral presentation)
- •Stefanni S., Tirelli V., Borme D., De Olazabal A., Juretić T., Del Negro P., Pallavicini A. 2016. Use of metagenetic analysis to monitor mesozooplankton biodiversity: the Adriatic Sea as a case study. Workshop on "application of genomic tools for biomonitoring of marine environment: from technology to legal and socio-economic aspects", held at the Univervity of Gineve (Switzerland), April 4-5 (oral presentation)
- •Stefanni S., Tirelli V., Borme D., De Olazabal A., Juretić T., Del Negro P., Pallavicini A. 2015. Metagenetic analysis of zooplankton at large spatial scale. International workshop "Biodiversity in the Mediterranean Basin", Koper, Slovenia, 11-13 March (oral presentation)
- •Francisco S.M., Robalo J.I., Stefanni S., Levy A., Almada V.C. 2014. *Gaidropsarus* (Gadidae, Teleostei) of the North Atlantic: a brief phylogenetic review. V Jornadas Ibéricas de Ictiologia, Museu Nacional de História Natural e da Ciência, Lisbon, Portugal, 24-27 June (oral presentation).
- •Stefanni S., Catarino D., Veríssimo A., Menezes G., Company J.B., Danovaro R., Dell'Anno A., Knutsen H. 2012. Postglacial isolation of the Mediterranenan Centroscymnus coelolepis reveals the importance of the Pillars of Hercules as geographical barrier for deep sea sharks. European Elasmobranch Association, Annual meeting, Milan, Italy, 22-25 November (oral presentation).
- •Stefanni S., Bettencourt R., Pinheiro M., Egas C. 2011. *Transcriptome of the Deep-Sea Black Scabbardfish, Aphanopus carbo (Perciformes: Trachiuridae): Tissue-Specific Expression Patterns.* World Conference on Marine Biodiversity, Aberdeen, United Kingdom, 26-30 Sept. (oral presentation)
- •Monteiro, J.G. Stefanni, S., Kaufmann, M., Santos, R.S., Lajeunesse, T. 2011. Ecological and biogeographical implications of Siderastrea symbiotic relation with Symbiodinium sp. C46 in Sal Island (Cabo Verde, East Atlantic Ocean). World Conference on Marine Biodiversity, Aberdeen, United Kingdom, 26-30 Sept. (oral presentation)
- •Stefanni S 2010. *Molecular tools to study larval recruitment*. ESF/Hermione workshop "Challenges in the study of deep-sea ecosystems' interconnectivity", held in Aveiro, Portugal, 8-10 September. (oral presentation)
- •Stefanni S., Bettencourt R., Pinheiro M., Egas C. 2010. Sequencing and analysis of a multiple tissue-specific transcriptome from the black scabbardfish, Aphanopus carbo (Perciformes: Trachiuridae) using 454 technology. Deep-Sea Symposium, Reykjavik, Iceland, 7-11 June. (oral presentation)
- •Catarino D., Menezes G., Stefanni S. 2010. Fishing Deep: Longline in Mid-Atlantic Seamounts. Deep-Sea Symposium, Reykjavik, Iceland, 7-11 June. (oral presentation)

- •Ribeiro P., Menezes G., Neat F., Stefanni S., 2010. Preliminary results on molecular phylogeny for genus Deania (Elasmobranchii: Centrophoridae) from the NE Atlantic with implications on the taxonomy of the group. Deep-Sea Symposium, Reykjavik, Iceland, 7-11 June. (poster)
- •Catarino D., Stefanni S., Menezes G. 2010. Genetic diversity and length distribution of the Offshore Rockfish (Pontinus kuhlii) from three Atlantic Archipelagos. Deep-Sea Symposium, Reykjavik, Iceland, 7-11 June. (poster)
- •Stefanni S. Knutsen H., Mariani S., Neat F., Stenseth N.C. 2009. *DEECON Unravelling population connectivity* for sustainable fisheries in the Deep Sea (2007-2010). ESF EuroDEEP workshop, Reykjavik, Iceland, 6 June. (oral presentation)
- •Stefanni S. Knutsen H., Mariani S., Neat F., Stenseth N.C. 2009. *DEECON Unravelling population connectivity* for sustainable fisheries in the Deep Sea (2007-2010). ESF EuroDEEP workshop, Venice, Italy, 23 September. (oral presentation)
- •Catarino D., Stefanni S. and Menezes G. 2009. *DEECON Deep-Sea Fishing Surveys on Eight Seamounts in the North East Atlantic*. ICES meeting held in Horta, Azores, Portugal, 27-30 April. (oral presentation)
- •Stefanni S., Catarino D. and Machete M. 2009. Northern distribution limit of the intermediate scabbardfish, Aphanopus intermedius (Parin, 1983), based on PCR RFLP's screening. ICES meeting held in Horta, Azores, Portugal, 27-30 April. (oral presentation)
- •Stefanni S. and Santos R.S. 2009. *The Interconnection of Seamount Ecosystems with Adjacent Areas*. Hermione Kick-Off Meeting held in Sorrento, Italy, 6-9 April. (oral presentation)
- •Stefanni S. Knutsen H., Mariani S., Neat F., Stenseth N.C. 2008. *DEECON Unravelling population connectivity* for sustainable fisheries in the Deep Sea "One Year Completed. ESF EuroDEEP Day, Valencia, Spain, 10 November. (oral presentation)
- •Catarino D., Stefanni S. and Menezes G. 2008. *Deep-sea fishing on four Atlantic seamounts located south of the Azores*. ICES, Halifax, Canada, Sept 22-26. (poster)
- •Stefanni S. Knutsen H., Mariani S., Neat F., Stenseth N.C. 2007. *DEECON Unravelling population connectivity* for sustainable fisheries in the Deep Sea (2007-2010). MAR-ECO synthesis workshop held in Reykjavik, Iceland, Sept29-30 (oral presentation)
- •Stefanni S., Porteiro F.M., Bettencourt R., Gavaia P.J. and Santos R.S. 2007. Molecular insights indicate that the bathybenthic genus Pachycara (Perciformes: Zoarcidae) is represented by a single species in the North Atlantic hydrothermal vent fields. Evolution 2007 meeting, Christchurch (NZ), 16-20 June. (oral presentation)
- •Stefanni S. 2006. Phylogeography of the black scabbardfish in the NE Atlantic reveals the presence of two sympatric species in Azorean waters. Evolution 2006 meeting, Stony Brook University, USA, 23-27 June. (oral presentation)
- •Stefanni S. & Rosa A. 2005. Notes on captures and population structure of the deep-sea shark Centrophorus squamosus from the Azores and neighbouring seamounts. Annual Meeting of IMAR, Madeira, 5-7 December. (poster)
- •Stefanni S. 2005. Preliminary results on population history for two deep-water marine fishes from the Azores and neighbouring seamounts. MAR-ECO field phase workshop, IPIMAR, Lisbon, Portugal, 2-5 June. (oral presentation)
- •Stefanni S. & Menezes G. 2004. *Preliminary results on population history for two deep-water marine fishes from the Azores and neighbouring seamounts*. Annual Meeting of IMAR, University of Algarve, 2-4 December. (poster)
- •IMAR Team 2003. *Oceanic Seamounts: An Integrated Study*. Invited presentation, Annual Meeting of IMAR, Centro do Mar & Teatro Fayalense, Horta Faial Azores, 4-6 December.
- •IMAR Team 2003. *O Projecto OASIS Montes Submarinos Oceânicos: Um estudo Integrado*. ExpoPescas 2003, September 2003, Teatro Faialense, Horta, Faial, Azores.
- •Stefanni S., 1998. Variation between population of sand gobies, *Pomatoschistus minutus* (Teleostei: Gobiidae). Annual Meeting of Society for Integrative and Comparative Biology, Boston, 3-7 January. (poster)
- •Stefanni S., Miller P.J. & Torricelli P., 1996. Comparative study of two populations of *Pomatoschistus minutus* (Teleostei: Gobiidae) from Venice lagoon and Plymouth. Annual meeting organised by A.I.I.A.D., Vicenza (Italy). (poster)

Courses/Workshops (attended):

•December 2020: Virtual event "POGO's International Virtual Conference on the use of Environmental DNA (eDNA) in Marine Environments: Opportunities and Challenges" (from November 30 to December 4).

- •October, 2018: Workshop "Marine cabled observatories: moving towards applied monitoring for fisheries management, ecosystem functioning and biodiversity" organised by the Ocean Networks Canada and held at ICM-CSIC, Barcelona, Spain.
- •May-June, 2018: Course "Una bussola per navigare, Il management strategico, La scienza e l'arte della pianificazione" total duration of 10 hours and organised at Stazione Zoologica A. Dohrn, Naples, Italy.
- •November, 2017: Workshop: bilateral exchange between researchers of Italy and Korea (National Research Foundation) held at *The World Fisheries University* a Busan, Korea.
- •May, 2017: EMBO practical course "Population Genomics: background and tools" held at CNR-IGB, Naples, Italy
- •June, 2015: Workshop: "RADseq data analyses", held in Edolo, Italy
- •May, 2015: Workshop: Population Structure Inference in R, held in Faro, Portugal
- •March, 2015: Workshop: Biodiversity in the Mediterranean Basin, held in Koper, Slovenia.
- •November, 2014: Workshop: bilateral exchange between researchers of Italy (National Research Council) and Korea (National Research Foundation) held at KIOST (Korean Institute of Ocean Science & Technology) in Geoie, Korea.
- •May, 2013: Workshop on population biology and population genetics, UZI Spring School, Venice, Italy.
- •March, 2012: Introductory course on bioinformatics held at the Gulbenkian Institute of Science, Oeiras, Portugal
- •November, 2011: Workshop on Biogeography and Phylogeny of Atlantic Fish organised by ISPA and CCMAR and held in Lisbon, Portugal.
- •March, 2010: course PopABC "Approximate Bayesian Computation" organised CCMAR (University of the Algarve, Portugal) and held by João Sollari Lopes.
- •May, 2007: International advance course "Practical approaches to Ecotoxicogenomics" organised by the University of Aveiro, Portugal.
- •May, 2005: II Molecular Evolution workshop organised by CCMAR (University of the Algarve, Portugal) and held by David Swofford, Gavin Naylor and Mark Holder.

Bibliometric indicators:

Total number of ISI papers with IF: 54

Scientific productivity (only ISI papers):

since first paper (1997): 2.4/year

since my PhD (08/03/02001): 2.4/year

last 8 years (since 2014): 3.6/year

last 3 years (since 2019): 5.3/year

Total number of citations: 1284 in Google Scholar (28/11/2022)

H-index: 20 in Google Scholar (28/11/2022)

IF total: 209,813 (22/02/2022), IF average: 3,885 (22/02/2022)

- **List of publications** (underlined authors refer to <u>students I have supervised</u>; * indicates the authors that equally contributed to the manuscript):
- •Aguzzi J., Chatzievangelou D., Robinson N.J., Bahamon N., Berry A., Carreras M., Company J.B., Costa C., del Rio Fernandez J., Falahzadeh A., Fifas S., Flögel S., Grinyó J., Jónasson J.P., Jonsson P., Lordan C., Lundy M., Marini S., Martinelli M., Masmitja I., Mirimin L., Naseer A., Navarro J., Palomeras N., Picardi G., Silva C., **Stefanni S.**, Vigo M., Vila Y., Weetman A., Doyle J. 2022. Advancing fishery-independent stock assessments for the Norway lobster (*Nephrops norvegicus*) with new monitoring technologies. *Front. Mar. Sci.* 9: 969071. doi: 10.3389/fmars.2022.969071
- •Aguzzi J., Picardi G., **Stefanni S.**, Flögel S. 2022. DEEP-SEA ROBOTICS AND ICY MOONS The Synergies of Exploring Deep-sea Ecosystems and Icy Moons. *Hydro International* **20** (1): 19-21.
- •<u>Mazzeo A.</u>, Aguzzi J., Calisti M., Canese S., Angiolillo M., Allcock A.L., Vecchi F., **Stefanni S.***, Controzzi M.* (2022). Marine Robotics for Deep-sea Specimen Collection: a Taxonomy of Underwater Manipulative Actions. *Sensors* **22**(4): 1471.
- •<u>Mazzeo A.</u>, Aguzzi J., Calisti M., Canese S., Vecchi F., **Stefanni S.***, Controzzi M.* 2022. Marine Robotics for Deep-sea Specimens Collection: a Systematic Review of Underwater Grippers. *Sensors* **22**(2): 648.
- •Stefanni S., Mirimin L., Stanković D., Chatzievangelou D., Bongiorni L., Marini S., Modica M.V., Manea E., Bonofiglio F., del Rio J., Cukrov N., Gavrilović A., De Leo F.C., Aguzzi J. 2022. Framing cutting-edge integrative deep-sea biodiversity monitoring via eDNA and optoacoustic augmented infrastructures. Frontiers of Marine Sciences 8: 797140.
- •Aguzzi J., Flögel S., Marini S., Thomsen L., Albiez J., Weiss P., Picardi G., Calisti M., **Stefanni S.**, Mirimin L., Vecchi F., Laschi C., Branch A., Clark E.B., Foing B., Wedler A., Chatzievangelou D., Tangherlini M.,

- Purser A., Dartnell L., Danovaro R. 2022. Developing technological synergies between deep-sea and space research. *Elem Sci Anth*, **10**: 1.
- •Chellapurath M., Walker K.L., Donato E., Picardi G., Stefanni S., Laschi C., Giorgio-Serchi F., Calisti M. 2021. Analysis on Station Keeping Performance of an Underwater Legged Robot. *IEEE/ASME Transactions on Mechatronics* 1-12. doi: 10.1109/TMECH.2021.3132779
- •Aguzzi J., Costa C., Calisti M., Funari V., **Stefanni S.**, Danovaro R. Gomes H.I., Vecchi F., Dartnell L.R., Weiss P., Nowak K., Chatzievangelou D., Marini S. 2021. Research Trends and Future Perspectives in Marine Biomimicking Robotics. *Sensors* **21**(11): 3778. https://doi.org/10.3390/s21113778
- •Catarino D., **Stefanni S.**, Porteiro F.M., Rosa A., Giacomello E. 2021. First record of the pencil cardinal *Epigonus denticulatus* (Perciformes: Epigonidae) in the Azores archipelago. *Journal of Fish Biology* **99**(1): 253-257
- •Mirimin L., Desmet S., López Romero D., Fernandez Fernandez S., Miller D., Mynott S., Gonzalez Brincau A., Stefanni S., Berry A., Gaughan P., Aguzzi J. 2021. Don't catch me if you can Using cabled observatories as multidisciplinary platforms for marine fish community monitoring: a case study combining Underwater Video and environmental DNA (eDNA) data. Science of the Total Environment 773: 145351.
- •Stefanni S., Catarino D., Ribeiro P., Freitas M., Menezes G., Neat F., Stanković D. 2021 Molecular systematics of the long-snouted deepwater dogfish (Centrophoridae, Deania) with implication to taxonomy and conservation. *Frontiers in Marine Science* 7: 588192.
- •Catarino D., Jakobsen K., Jakobsen J., Giacomello E., Menezes G.M., Diogo H., Canha A., Porteiro F.M., Melo O., **Stefanni S.** 2020. First record of the opal chimaera *Chimaera opalescens* (Holocephali: Chimaeridae) and revision of the occurrence of *Chimaera monstrosa* in the Azores waters. *Journal of Fish Biology* 97: 763-775.
- •Aguzzi J., López-Romero D., Marini S., Costa C., Berry A., Chumbinho R., Ciuffardi T., Fanelli E., Pieretti N., Del Río J., Stefanni S., Mirimin L., Doyle J., Lordan C., Gaughan P. 2020. Multiparametric monitoring of fish activity rhythms in an Atlantic coastal cabled observatory. *Journal of Marine Systems* 212: 103424.
- •Fanelli E., Aguzzi J., Marini S., del Rio J., Nogueras M., Canese S., **Stefanni S.**, Danovaro R., Conversano F. 2020. Towards Naples Ecological REsearch for Augmented Observatories (NEREA): the NEREA-fix module, a stand-alone platform for long-term deep-sea ecosystem monitoring. *Sensors* 20: 2911.
- •Chellapurath M., **Stefanni S.**, Fiorito G., Sabatini A., Laschi C., Calisti M. 2020. Locomotory Behaviour of the Intertidal Marble Crab (*Pachygrapsus marmoratus*) supports the Underwater Spring Loaded Inverted Pendulum as Fundamental Model for Punting in Animals. *Bioinspiration and Biomimetics* **15**: 055004
- •Picardi G., Chellapurath M., Iacoponi S., **Stefanni S.**, Laschi C., Calisti M. 2020. Bioinspired underwater legged robot for seabed exploration with low environmental disturbance. *Science Robotics* **5**: eaaz1012
- •Aguzzi J., Flexas M.M., Flögel S., Lo Iacono C., Tangherlini M., Costa C., Marini S., Bahamon N., Martini S., Fanelli E., Danovaro R., **Stefanni S.**, Thomsen L., Riccobene G., Hildebrandt M., Masmitja I., Del Rio J., Clark F.B., Branch A., Weiss P., Klesh A.T., Schodlok M.P. 2020. Exo-ocean exploration with deep-sea sensor and platform technologies. *Astrobiology* **20**(7): 897-915. doi.org/10.1089/ast.2019.2129
- •Aguzzi J., Damianos Chatzievangelou D., Marini S., Fanelli E., Danovaro R., Flögel S., Lebris N., Juanes F., De Leo F.C., Del Rio J., Thomsen L., Costa C., Riccobene G., Tamburini C., Lefevre D., Gojak C., Poulain P.-M., Favali P., Griffa A., Purser A., Cline D., Edgington D., Navarro J., Stefanni S., D'Hondt S., Priede I.G., Rountree R., Company J.B. 2019. New high-tech flexible networks for the future monitoring of deep-sea ecosystems. Critical Reviews in Environmental Science and Technology 53: 6616-6631
- •Stefanni S., Stanković D., Borme D., de Olazabal A., Juretić T., Pallavicini A., Tirelli V. 2018. Multi-marker metabarcoding approach to study mesozooplankton at basin scale. *Scientific Reports* 8: 12085
- •<u>Madeira P.</u>, **Stefanni S.**, Ávila S.P. 2018. Non-destructive tissue sampling and the use of PCR-RFLP's in two edible sea cucumbers from the Northeastern Atlantic, *Holothuria mammata* Grube, 1840 and *H. sanctori* Delle Chiaje, 1823 (Echinodermata: Holothuroidea). *European Zoological Journal* **85**: 89-94
- •Coscia I., Castilho R., Massa-Gallucci A., Sacchi C., Cunha R.L., **Stefanni S.**, Helyar S., Knutsen H., Mariani S. 2018. Genetic homogeneity in the deep-sea grenadier *Macrourus berglax* across the North Atlantic Ocean. *Deep-Sea Research Part I* **132**: 60-67
- •Gomes-Pereira J.N., Carmo V., <u>Catarino D.</u>, Jacobsen J., Alvarez H., Aguilar R., Hart J., Giacomello E., **Stefanni S.**, Colaço A., Morato T., Santos R.S., Tempera F., Porteiro F. 2017. Cold-water corals and large hydrozoans provide Essential Fish Habitat for *Lappanella fasciata* and *Benthocometes robustus*. *Deep Sea Research Part II* **145**: 33-48
- •Catarino D., Stanković D., Menezes G., **Stefanni S.** 2017. Insights into the genetic structure of the rabbitfish *Chimaera monstrosa* (Holocephali) across the Atlantic- and Mediterranean transition zone. *Journal of Fish Biology* **91**: 1109–1122

- •Catarino D., Stefanni S., Jorde P.E., Olsen E., Menezes G., Neat F., Knutsen H. 2017. The Role of the Strait of Gibraltar in Shaping the Genetic Structure of the Mediterranean Grenadier, *Coryphaenoides mediterraneus*, Between the Atlantic and Mediterranean Sea. *PLoS ONE* 12(5): e0174988
- •Carreiro-Silva M., Ocaña O., Braga Henriques A., Matos V., Sampaio I., Porteiro F.M., **Stefanni S.** 2017. Zoantharians (Hexacorallia: Zoantharia) Associated with Cold-Water Corals in the Azores Region: New Species and Associations in the Deep Sea. *Frontiers in Marine Sciences* 4: 88
- •Ciezarek A.G., Dunning L.T., Jones C.S., Noble L.R., Humble E., **Stefanni S.**, Savolainen V. 2016. Substitutions in the glycogenin-1 gene are associated with the evolution of endothermy in sharks and tunas. *Genome Biology and Evolution* **8**: 3011-3021
- •Catarino D., Knutsen H., Veríssimo A., Olsen E.M., Jorde P.E., Menezes G., Sannæs H., Company J.B., Neat F., Danovaro R., Dell'Anno A., Rochowski B., Stefanni S. 2015. The Pillars of Hercules as a bathymetric barrier to gene-flow promoting isolation in a global deep-sea shark (*Centroscymnus coelolepis*). *Molecular Ecology* 24: 6061-79
- •Stefanni S., Castilho R., Sala-Bozano M., Robalo J.I., Francisco S.M., Santos R. S., Marques N., Brito A., Almada V.C., Mariani S. 2015. Establishment of a coastal fish in the Azores: recent colonisation or sudden expansion of a relict population? *Heredity* 115: 527-37
- •Stefanni S., Bettencourt R., Pinheiro M., De Moro G., Bongiorni L., Pallavicini A. 2014. Transcriptome of the Deep-Sea Black Scabbardfish, *Aphanopus carbo* (Perciformes: Trachiuridae): Tissue-Specific Expression Patterns and characterization of depth-related functional genes. *International Journal of Genomics* 2014: Article ID 267482, 1-21
- •Francisco S.M., Robalo J.I., **Stefanni S.**, Almada V.C. 2014. Phylogeny of the genus *Gaidropsarus* (Gadidae, Teleostei). *Journal of Fish Biology* **85**: 473-487
- •Longmore C., Trueman C.N., Neat F., Jorde P.E., Knutsen H., **Stefanni S.**, <u>Catarino D.</u>, Milton J.A., Mariani S. 2014. Oceanic scale connectivity and life cycle reconstruction in a deep-sea fish; *Aphanopus carbo*. *Canadian Journal of Fisheries and Aquatic Sciences* 71: 1-12
- •Monteiro J.G., Costa C.F., Gorlach-Lira K., Fitt W.K., **Stefanni S.**, Sassi R., Santos R.S., LaJeunesse T.C. 2013. Ecological and biogeographic implications of *Siderastrea* symbiotic relation with *Symbiodinium* sp. C46 in Sal Island (Cape Verde, East Atlantic Ocean). *Marine Biodiversity* **43**: 261-271
- •<u>Catarino D.</u>, **Stefanni S.**, Menezes G. 2013. Size distribution and genetic diversity of the offshore Rockfish (*Pontinus kuhlii*) from three Atlantic archipelagos and seamounts. *Deep-Sea Research Part II* **98**: 160-169
- •Cunha R.L., Madeira C., Coscia I., Mariani S., **Stefanni S.**, Castilho R. 2012. Ancient mitochondrial DNA divergence in the trans-oceanic deep-sea shark *Centroselachus crepidater*. *PLoS ONE* 7: e49196.
- •Psomadakis P.N., **Stefanni S.**, Merella P., Ferrando S., Amato A., Vacchi M. 2012. Additional records of *Beryx splendens* (Osteichthyes: Berycidae) from the Mediterranean Sea, with notes on molecular phylogeny and parasites. *Italian Journal of Zoology* **79**: 111-119
- •Biscoito M., Delgado J., González J.A., **Stefanni S.**, Tuset V.M., Isidro E., García-Mederos A. and Carvalho D. 2011. Morphological identification of two sympatric species of Trichiuridae, *Aphanopus carbo* and *A. intermedius*, in NE Atlantic. *Cybium* **35**: 19-32
- •Knutsen H., <u>Catarino D.</u>, Sannæs H., **Stefanni S.** 2009. Development of eleven microsatellite loci in the deep-sea black scabbardfish (*Aphanopus carbo*). *Conservation Genetics Resources* 1: 89
- •Knutsen H., Jorde P.E., Sannæs H., Hoelzel A.R., Bergstad O.A., **Stefanni S.**, Johansen T. and Stenseth N.C. 2009. Bathymetric barriers promoting genetic structure in the deepwater demersal fish tusk (*Brosme brosme*). *Molecular Ecology* **18**: 3151-3162
- •White T.A., **Stefanni S.**, Stamford J. and Hoelzel A.R. 2009. Unexpected panmixia in a long-lived, deep-sea fish with well-defined spawning habitat and relatively low fecundity. *Molecular Ecology* **18**: 2563-2573
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deep-sea vent animals: Profiling the mussel *Bathymodiolus azoricus*. In: "Organismal and Molecular Malacology" (editor Ray S), InTech - open science, Rijeka (Croatia), ISBN 978-953-51-3305-6. DOI: 10.5772/68034

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Stefanni S., 2001. Book review of "Artificial reefs in European Seas" (Eds by A.C. Jensen, K.J. Collins and A.P.M. Lockwood). Published by Kluwer Academic Publishers, 2000. *Journal of Fish Biology* **60**: 275-276.

Stefanni S., 2000. Book review of "An illustrated dictionary of fish and shellfish" (by Claus Fridmondt; issued by Scandinavian Fishing Year Book on CD, Hedehusena, Denmark, 1999). *Journal of Fish Biology* 57: 1089-1090.

Software's and Informatics:

- •familiarity with Ubuntu, Windows and Apple environments and most popular software's packages
- •basic knowledge of Unix commands
- •familiarity with R to analyse molecular data (Adegenet, diveRsity, Ape, Vegan, Geneland, etc.)
- •familiarity with several packages to analyse molecular data for phylogeny (MEGA, METAPIGA, PAUP, etc.), population genetics (STRUCTURE, ARLEQUIN, DIY-ABC, etc.) and genomics (MEGAN, MALT, QIIME, etc.)

Languages: English (fluent, C2), Italian (mother tongue), Portuguese (fluent, C2) and Spanish (intermediate level, B2).

Additional skills:

- •"Allievo Capitano di Lungo Corso", equivalent of certification of qualification as a ship's master for merchant navy and skilled sailor.
- •Radio operator (VHF-HF-MF) for maritime communications.
- •Skilled sailor with 3 Atlantic crossing (Azores-Europe)
- •1995 Yacht Master (sail and motor).
- •2009 Certified Advanced e Rescue PADI
- •2008 first aid and CPR Certificate, PADI.
- •1992 Certified diver, 1 star C.M.A.S.
- •2001 first DAN Ki-Aikido
- •UK license for Categories: A and B

I solemnly declare that all the information furnished in this document is free of errors to the best of my knowledge. I hereby declare that all the information contained in this resume is in accordance with facts or truths to my knowledge. I take full responsibility for the correctness of the said information.

Date: 28/11/2022 Signed: Sergio Stefa