Name	Stavroula Tsoukali
Date & Place of Birth:	18/05/1985, Greece
Contact information:	E-mail: tsoukali@hcmr.gr ,
	st.tsoukali@gmail.com
	Tel: mobile: +30 6985120174,
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Education	
Level	Postdoc
Date	June 2016 - Present
Subject	Fisheries biology - small pelagic fish ecology, reproduction and recruitment
Place	Institute of Marine Biological Resources and Inland Waters (IMBRIW), Hellenic Center
	for Marine Research (HCMR). Heraklion, Greece.
Level	PhD
Date	January 2012 - October 2015
Subject	Fisheries oceanography of northern pelagic fish species
Place	Denmark Technical University, Institute of Aquatic Resources (DTU Aqua), Section for
Tidee	Ocean Ecology and Climate, and Center for Macroecology, Evolution and Climate
	(CMEC), University of Copenhagen. Copenhagen, Denmark
	(Civile), Oniversity of Copenhagen, Copenhagen, Definition
Level	Master of Science
Date	September 2009 - November 2011
Subject	Environmental Biology - Management of Terrestrial and Marine Biological Resources
Subject	Department of Biology, University of Crete and Hellenic Center for Marine Research
Place	
Trace	(HCMR). Heraklion, Greece.
Level	Bachelor of Science
Date	September 2003- July 2009
Subject	Degree in Biology. Field of specialization "Environmental Biology — Management of
DI	Biological Resources
Place	Department of Biology, University of Crete. Heraklion, Greece
<u>Publications</u>	Somarakis S, Tsoukali S, Giannoulaki M, Schismenou E, Nikolioudakis
	N (2019) Spawning stock, egg production and larval survival in relation to small
	pelagic fish recruitment. Marine Ecology Progress Series, 617-618:113-136. doi:
	https://doi.org/10.3354/meps12642
	Tsoukali S, Giannoulaki M, Siapatis A, Schismenou E, Somarakis S (2019) Using spatial
	indicators to investigate fish spawning strategies from ichthyoplankton surveys: A
	case study on co-occurring pelagic species in the NE Aegean Sea. Mediterranean
	Marine Science, 20 (1): 106-119. doi: http://dx.doi.org/10.12681/mms.15310
	Schismenou E, Tsoukali S, Giannoulaki M, Somarakis S (2016) Modelling small pelagic
	fish potential spawning habitats: eggs vs spawners and in situ vs satellite data
	Hydrobiologia 788 (1): 17-32 . doi: 10.1007/s10750-016-2983-4
	Tsoukali S, Olsson KH, Visser AW, MacKenzie BR (2016) Adult lifetime reproductive
	value in fish depends on size and fecundity type. Canadian Journal of Fisheries and
	y yr

	Aquatic Sciences. 73(9): 1405-1412. doi: 10.1139/cjfas-2015-0378
	Tsoukali S, Visser AW, MacKenzie BR (2016) Functional responses of North Atlantic fish eggs to increasing temperatures. Marine Ecology Progress Series, 555:151-165. doi: 10.3354/meps11758
	Bonanno A, Giannoulaki M, Barra M, Basilone G, Machias A, Genovese S, Goncharov S, Popov S, Rumolo P, Di Bitetto M, Aronica S, Patti B, Fontana I, Giacalone G, Ferreri R, Buscaino G, Somarakis S, Pyrounaki MM, Tsoukali S, Mazzola S (2014). Habitat Selection Response of Small Pelagic Fish in Different Environments. Two Examples from the Oligotrophic Mediterranean Sea. PLoS ONE vol. 9 (7) p. e101498. doi:10.1371/journal.pone.0101498
<u>Thesis</u>	
Level Title	PhD thesis "Fisheries oceanography of northern pelagic fish species"
Place Supervisors	DTU Aqua, CMEC, Denmark. Prof. Dr. B. R. MacKenzie and Prof. Dr. A. W. Visser
Level Title	Master thesis "Characterization of the spawning grounds of the small pelagic fish Engraulis encrasicolus in the North Aegean Sea, using GAM models"
Place	Department of Biology, University of Crete and Hellenic Center for Marine Research (HCMR). Heraklion, Greece.
Supervisors	Dr S. Somarakis, Dr. M. Giannoulaki and Prof. Dr. I. Karakassis
Level Title	Bachelor diploma thesis "Modelling the effects of environmental parameters influencing the spatial distribution of the European anchovy ([Engraulis enrasicolus) in the North Aegean Sea, using GAM models"
Place	Department of Biology, University of Crete and Hellenic Center for Marine Research (HCMR). Heraklion, Greece.
Supervisors	Dr. M. Giannoulaki and Prof. Dr. I. Karakassis
Foreign Languages	
Greek English	Mother tongue Proficiency of Michigan - ECPE.
English	Excellent understanding of written and spoken English, very good writing and speaking skills.
Spanish	PRINCIPIANTE A1. Basic knowledge level (A1, basic user). Good understanding of written Spanish
Danish	Danish Course 3, module 3. Basic knowledge level (A2, basic user).
Computors Skills	

$\underline{Computers\ Skills}$

Scientific software

Excellent knowledge of software for mapping Golden Software Surfer and Ocean Data View (ODV), acoustic data analysis Myriax Echoview. Very good knowledge of the statistical programs: SPSS, Brodgar, S-plus.

Programming and Statistical

Good knowledge of **R**. I have extensively used R for statistical analysis and modeling techniques (e.g., species distribution models), as well as producing figures and maps,

Languages

during my bachelor, master and PhD thesis. Further, I have attended an international summer school (EcoDaR, 2013) on applied methods of environmental data analysis using R.

Good knowledge of MATLAB. I used this programming language while I attended 3 courses as part of my PhD diploma: Differential equations in biology (DTU code 25304; attended), Mathematical Biology (DTU code 25303; completed), Computational Marine Ecological Modelling (DTU code 25314; completed). The subject of the courses included mathematical modeling using differential equations, focusing on operational skills and individual based models using Matlab.

Basic knowledge of HTML.

Research Experience

Research level

Postdoc

Date Subject June 2016-Present

My research interests focus on different aspects of the reproduction of small pelagic fish species, their spawning ecology and recruitment. One of my research interests is how early life stages are distributed in space and time and studying their relation with the spawning environment, using various tool such as spatial indicators, modeling (e.g. GAMs). I also investigate the spawning stock biomass-recruitment relationship in a comparative approach among different stocks and species of small pelagic fish, looking for similar or contrasting patterns related to spawning strategies or the ecosystem. Further, I am interested in studying life history traits related to fish reproduction and how these shape spawning strategies of fish in various environments.

Another area in which I am involved is the implementation of stock assessment models for small pelagic fish in the Ionian and Aegean Seas.

Research level

PhD thesis

Date Subject January 2012-October 2015

The objective of my PhD was on the ecology of pelagic fish species. Using life history theory, I investigated how life history traits of the early life stages as well as spawning strategies have been shaped in different marine ecosystems and environmental conditions. The focus was on North Atlantic and Mediterranean marine pelagic fish species that have high commercial value for the fishing industry in Europe and which have been the research subject of population and reproductive biology studies for many decades. A significant part of my research focused on potential effects of changing environmental conditions (climate change) could affect early life stages and the spawning strategies of different fish species.

Research level

Master thesis

Date Subject October 2010 - November 2011

The project included habitat modelling based on data of ichthyoplankton, i.e. eggs and larvae of a small pelagic fish (Engraulis encrasicolus), and acoustic sampling. Generalized Additive Models (GAM's) were used to model fish habitat. Institute of Marine Biological Resources of the Hellenic Centre for Marine Research (HCMR, http://www.hcmr.gr/).

Other research experience

October 3-25th **2019:** Participation in the MEDIAS research survey for fisheries and biological data sampling in the Ionian Sea, with R/V Philia.

June-July 2019: Participation in the MEDIAS research survey for fisheries and biological data sampling in NE Aegean Sea, with R/V Philia.

November 8th – **December 5**th **2018:** Participation in the MEDIAS research survey for fisheries and biological data sampling in the Ionian Sea, with R/V Philia.

October 16-31st 2017: Participation in the MEDIAS research survey for fisheries and biological data sampling in the Ionian Sea, with R/V Philia.

August - September 2010: MSc student training program. Institute of Marine Biological Resources, Hellenic Centre for Marine Research.

June - July 2010: MSc student training program. Laboratory of Vertebrates and Laboratory of Palaeontology, Natural History Museum of Crete (NHMC, http://www.nhmc.uoc.gr/en).

April - May 2010: MSc student training program. Plankton Laboratory, Institute of Oceanography, Hellenic Centre for Marine Research.

September 2008 - February 2009: Bachelor Diploma thesis, conducted at the Institute of Marine Biological Resources of the Hellenic Centre for Marine Research.

June - July 2008: Bachelor student training program. University of Crete and Institute of Marine Biological Resources, Hellenic Centre for Marine Research.

September 2007- February 2008: Erasmus Exchange Programme. Department of Biology, University of Valencia, Valencia, Spain.

August - October 2006: Bachelor student training program. University of Crete, *Cretaquarium*, Institute of Aquaculture, Hellenic Centre for Marine Research.

Other training and education activities

The following list refers to courses, summer schools and seminars that I have participated in during my studies and helped me extend my skills on programming, modeling techniques for marine ecosystems. Further I had the opportunity to get some experience on basic principles of management of marine ecosystems (e.g., IMBER ClimECO₃ Summer School) and on university level teaching and scientific writing.

- August 28th September 1st 2017: International Summer School EarthBiAS Big Data Analysis in Earth Sciences. School of Environment, University of the Aegean. Rhodes, Greece.
- January, 21-24th, 2014: Teaching and Learning course (module I). LearningLab, Technical University of Denmark (DTU), Copenhagen, Denmark.
- **July, 1-6**th, **2013**: EcoDaR International Summer School in Ecological Data Analysis. School of Environment, University of the Aegean. Lesvos, Greece.
- October-November, 2012: Writing Workshops: Scientific Writing in English. University of Copenhagen, Denmark.
- **September-November 2012:** Computational Marine Ecological Modelling. Course attended at the Technical University of Denmark (DTU), Copenhagen, Denmark

- August, 27th September, 2nd, 2012: Oceanography at sea: An introduction to practical aspects of biological, chemical and physical oceanography. Marine field course on R/V Dana. North Sea.
- July, 23-28th, 2012: IMBER ClimECO₃ Summer School. Middle East Technical University. Ankara, Turkey.
- **February-May 2012:** Mathematical Biology. Course attended at the Technical University of Denmark (DTU), Copenhagen, Denmark.

Conferences and workshops

- **September, 21-25**th, **2015**: ICES Annual Conference. Oral and poster presentation. Copenhagen, Denmark.
- **November, 3-7th, 2014:** Annual retreat of the Center for Macroecology, Evolution and Climate. Solsones, Catalonia, Spain.
- April, 7-9th, 2014: ESSAS Meeting .Oral presentation. Copenhagen, Denmark
- **November, 4-8**th, **2013:** Annual retreat of the Center for Macroecology, Evolution and Climate. Monfrague National Park, Caceres, Spain.
- **September, 23-27th, 2013:** ICES Annual Conference. Poster presentation. Reykjavik, Iceland.
- **August, 26-28**th, **2013:** Alumni Week of the Center for Macroecology, Evolution and Climate. University of Copenhagen, Denmark.
- **September**, **12-13**th, **2013**: PhD course Aquatic Sciences and Resources. Oral presentation. Technical University of Denmark. Silkeborg, Denmark.
- **November**, **5-9**th, **2012**: Annual retreat of the Center for Macroecology, Evolution and Climate. Livadaki Forestal Village, Evrytania, Greece.
- **July 2011.** Annual Meeting of M.Sc. students of the Department of Biology, Aghia Sofia, Greece. Presentation on "Studying anchovy's eggs and larvae distribution in two different periods of spawning and relations with biotic (chlorophyll abundance) and abiotic factors (T, S)", with Dr. S. Somarakis.
- **June 2011.** Conference on Fisheries and Hydrobiology, Volos, Greece. Poster participation "Studying anchovy's eggs and larvae distribution in two different periods of spawning and relations with biotic (chlorophyll abundance) and abiotic factors (T, S)", with Dr. S. Somarakis.
- June 2010. Annual Meeting of M.Sc. students of the Department of Biology, Aghia Sofia, Greece. Presentation on "Primary production dynamics and its relation to abiotic (Γ, S, nutrients) and biotic (chlorophyll a, community structure of larger phytoplanakton size classes) factors during the middle and the end of the thermal stratification period in the N.E. Aegean Sea", with Dr. S.Psarra.
- April 2006. Biosciences during the 21st century Greek Biosciences Society, Athens, Greece. Participation

<u>Organizational</u>	Good organizational skills. I have been part of committees responsible for planning
<u>experience</u>	and organizing annual meetings as well as sports events. Some of my responsibilities included preparation of presentation time table, side activities, contact with participants and guests, financial management of the event.
	Annual retreat of the Center for Macroecology, Evolution and Climate. Monfrague National Park, Caceres, Spain. November, 4-8th, 2013.
	• PhD course Aquatic Sciences and Living Resources - Research communication course. Technical University of Denmark. Hirtshals, Denmark. January, 28-29th, 2013.
	• Participation in the organization of the 5 th World University Match Racing Championship in Heraklion, Crete. January - June 2010.
Other Work Experience	February 2009- August 2010: Computer Centre, University of Crete. I worked on the
	Content Management System of Portals regarding e-Government and Web Services and the training of the Public Service Agencies on the Content Management System of their portals. Managing Director G. Vitsakis, Scientific Advisor D. Plexousakis. Winter semester 2010: Laboratory assistant at the Laboratory of Zoology, Department of Biology. Spring semester 2011: Laboratory assistant at the Laboratory of Plant anatomy, Department of Biology.
Other Activities and	Sailing
<u>Interests</u>	Hiking
	Travelling