

## PERSONAL INFORMATION

Name           **ATHANASSIOS MACHIAS**  
Position        Research Director – Fisheries ecology, hydroacoustics  
Contact info    ☎+30-2110065246, ✉amachias@hcmr.gr

Web sites       <https://imbriw.hcmr.gr/machias-athanassios/>,

### Education

- BSc in Biology, Faculty of Sciences, Department of Biology, University of Athens (1978-1982)
- MSc in Marine Biology, Biology Department of University of Crete(1987-1989)
- PhD in Marine Biology, Biology Department of University of Crete (1989-1993)

### Research Interests

Dr. Athanassios Machias has been working as a research scientist at HCMR since 1994, during which he has acquired a broad range of experience as a fisheries biologist. His present position is Director of Research of the Institute of Marine Biological Resources and Inland Waters (HCMR). He earned his doctoral and master's degrees in Marine Biology from the Biology Department, University of Crete, Greece.

He holds a bachelor's degree in Biology from the Kapodistrian University of Athens, Greece. He has completed his doctoral training in the Fisheries Biology group at the Biology Department of the University of Crete.

His thesis work focused on the anatomical and biological factors affecting the Target Strength of sardine. He has been involved in a wide range of fisheries projects. He has coordinated a series of European projects on the discards and the discarding procedure of professional trawlers of Eastern and Central Mediterranean Sea, publishing several papers on this issue for the specific area. In addition, he has investigated the interaction between fisheries and aquaculture with this work published in a series of scientific papers, and indicated the positive effect of aquaculture to the fish production in the oligotrophic waters, such as those of the Eastern Mediterranean Sea.

He is also responsible for the Greek Fisheries Data Collection in the framework of the Data Collection Framework. He has also coordinated or was involved in several projects for the estimation of small pelagic fish stocks biomass by means of acoustics. He is an active member of the stock assessment study groups in the Mediterranean region i.e. GFCM, FAO-EastMed, facilitator of MEDIAS (pan-Mediterranean Acoustic Surveys) in the framework of Data Collection Framework (2008-2011), providing Management plans and advice to the Greek government.

Up to now he has supervise(d)s 35 MSc and co-supervise(d)s 7 PhD theses. He has research interests mainly on the Fisheries Ecology scientific field, including physical/biological interactions in marine ecosystems, fish discards research, interaction between fisheries and aquaculture, fisheries acoustics, small pelagic fish behaviour and population dynamics, stock assessment modelling, essential fish habitat determination and ecosystem based modelling.

He intends to focus his future research on the assessment of climate and anthropogenic impacts on marine ecosystems and the essential fish habitat, focusing particularly on the interactions between small pelagic populations and climate change. He has participated in more than 50 national and international projects and coordinated 20 European Union (EU) and national projects.

### Scientific publications (Jan – 2022):

82 publications in peer-reviewed journals, Citations: 3425, h index: 36 (source: Google Scholar)

- <https://scholar.google.gr/citations?user=FezXOyYAAAAJ&hl=en>
- <https://www.scopus.com/authid/detail.uri?authorId=7006026887> (Jan 2022: 77 publications)

### Research projects

- 1987 - 1989. Assessment of pelagic fish resources in the Aegean and Ionian Sea by hydroacoustic survey methods (Phase I, North Aegean). FISHPOP. NATO Science For Stability
- 1987 - 1994. Demersal stocks of Crete. National project. Ministry of Agriculture.
- 1989 - 1990. Assessment of pelagic fish resources in the Aegean and Ionian sea by hydroacoustic survey

methods (Phase II, Central Aegean). EU project

- 1989 - 1991 Distribution of small pelagic fish in Aegean Sea. National project. Ministry of Agriculture. (αρ. 8687709).
- 1991-1993. "National management system of Marine Resources" STRIDE HELLAS 153. National project
- 1992 - 1994. "Improvement of measurement methods and techniques in hydroacoustic surveys for reliable biomass estimates of target species of small pelagic fish in Mediterranean". MA-3-768/I,GR/91. EU Project
- 1992 - 1995. "Evaluation of anchovy stocks in Aegean sea" XIV-1/MED/GR/91/011. EU Project
- 1992-1995: Πρόγραμμα AQUAQLX. EU Project LINGUA
- 1993 - 1994: "Seminaire de formation sur l' evaluation des stocks en Mer Egee et enMediterranie Orientale". No XIV-1/Med/93/024. EU Project.
- 2001. "Collection and management of data from commercial fisheries in Greece", National project
- Coordinator IMBC, partners NCMR, FRI.
- 2003-2007: IMAS-FISH F6 25 Development of an Integrated Management System to support the sustainability of Greek Fisheries resources. (2003-2006) Funded by Greek General Secretary for Research and Technology
- 2006-2008: Comparison of anchovy population in Aegean and Adriatic (MonteNegro) Sea. Intereg project 2005 ΣΕ 01330040 (Γ.Γ.Ε.Τ).
- 2007-2011 Fish Reproduction and Fisheries. European Cooperation in the field of Scientific and Technical Research - COST Action FA0601. EU project
- 2009-2011. PREVENT ESCAPE. Assessing the causes and developing measures to prevent the escape of fish from sea-cage aquaculture. EU project
- 2009-2011. REPROdUCE. Understanding recruitment processes using coupled biophysical models of the pelagic ecosystem.
- 2010-2012: "AcousMed: Harmonization of the acoustic data in the Mediterranean 2002-2006" EU funded- DG MARE
- 2011-2013: " Mediseh: Mediterranean Sensitive Habitats" EU funded-DG MARE
- 2018-2021."MESOBED". MESOpelagic fish: Biology, Ecological role and Distribution of a disregarded trophic link" Funded by Ministry of education Role: Participant
- 2020-2021. "HellasFish Project; Stage 1-Mapping". Marine Stewardship Council. Funded by MAVA Foundation, A.G. Leventis Foundation. Role: Participant
- 2020-2021. MedBLand: "Synthesis of the landing obligation measures and discard rates for the Mediterranean and the Black Sea". EASME/EMFF/2019/1.3.2.6/ SI2.835464. COISPA (Coordiantor: M.T. Spedicato), CIBM, HCMR, IOF, IO\_BAS, NIMRD, NISEA, University of Alicante, Role: Participant
- 2018-2021. Gyaros MPA fisheries knowledge survey: assessing a pristine Mediterranean biodiversity hotspot. MAVA CONTRACT 17114, Mediterranean Basin C7/2017 Role: Participant
- 2018-2021. "VIOAXIOPIO - Exploiting Fish By-Products», <http://www.vioaxiopoio.gr/en/> - National Project funded by the Ministry of Economy and Development Role: Participant
- 2017-2021: «ANATHALLOI – Development of management tools for marine and lake ecosystems», <https://hcmr-imbrw.wixsite.com/anathalloi> National Project funded by the Ministry of Economy and Development - Role: Participant
- 2020-2021. "National fisheries data collection program". HCMR and FRI (Kavala). Funded by the Greek Ministry of Agriculture and EC. Role: Participant.

### **Responsible, Coordinator**

- 1994- 1996: "Analysis of the trawls' discard operation in the Central and Eastern Mediterranean sea." Project n° MED 94/065, GR, I. Coordinator, EU Project
- 1996-1998: "Analysis of the trawls' discard operation in the Central and Eastern Mediterranean sea." Project 95-061, 95/C 76/15. GR, I. Coordinator, EU Project
- 1998-2000: "Analysis of the trawls' discard operation in the Central and Eastern Mediterranean sea." Project 97-0044. Coordinator, EU Project.
- 1998- 2000: "Evaluation of the Southern Greek anchovy stocks" Project 97-0048. Coordinator, EU Project.
- 1999- 2001: "Evaluation of the Southern Greek sardine stocks" Project 98-039 Coordinator EU Project.

- 1999- 2001: “State of the stocks of European wreckfish, *Polyprion Americanus*” Project 98-041. Coordinator, EU Project
- 2000- 2003: “AQCESS”: Aquaculture and Coastal Economic and Social Sustainability EU-DG XII (Quality of Life QLRT 99 - 31151)
- 2001 – 2003 “Patterns and propensities in Greek fishing effort and catches”. DG XIV, Project 00/018 67,422 EURO requested for IMBC. Coordinator, EU Project
- 2003-2007: National fisheries data collection program”. HCMR and FRI (Kavala). Funded by the Greek Ministry of Agriculture and EC. HCMR budget: 9800000 €. Role: Scientific responsible for HCMR together with Dr. K Papaconstantinou G. Tserpes.
- 2002-2006 INNOMAR: Innovative methods for the sustainable management of marine biological resources. Innovative Actions ERDF 2000-2006. INNOMAR
- 2004-2006 «Management of the Messara gulf” National project, Ministry of Agriculture 150.000 euros
- 2004-2006 «Management of the Paleochora gulf” National project, Ministry of Agriculture 150.000 euros
- 2007- 2010. SARDONE Improving assessment and management of small pelagic species in the Mediterranean. STREP project; SSP8; Contract No 044294, IMRIW Coordinator.
- 2012-2015 ECODISC, Ecosystem effects of fisheries discards; project no 4794, Operational Program "Education and Lifelong Learning". Coordinator
- 2015-2017. Anoxic layers in Amvrakikos gulf, Description, management, distribution and abundance of small pelagic fish
- 2017-2022. "REPHIL". Greek Research Fleet/ Reconstruction and Modernization of Research Vessel (RV) "PHILIA". Ενίσχυση των Υποδομών Έρευνας και Καινοτομίας" Greek National Roadmap for Research Infrastructures General Secretariat for Research & Technology (GSRT). Role: Coordinator (budget 3.133.006,4 €)
- 2014-2019. “National fisheries data collection program”. HCMR and FRI (Kavala). Funded by the Greek Ministry of Agriculture and EC. HCMR budget: 9800000 €. Role: Scientific responsible for HCMR together with Dr. G. Tserpes.

#### **Indicative publications in International, peer-reviewed journals:**

- M Barra, A Bonanno, T Hattab, C Sarau, M Iglesias, I Leonori, V Ticina, G Basilone, A DE Felice, R Ferreri, A Machias, A Ventero, I Costantini, T Juretic, M MPyrounaki, J-H Bourdeix, D Gasparevic, Z Kapelonis, G Canduci, M Giannoulaki. 2021. Effects of sampling intensity and biomass levels on the precision of acoustic surveys in the Mediterranean Sea. *Mediterranean Marine Science* 22 (4), 769-783
- T Hattab, A Gucu, A Ventero, A De Felice, A Machias, C Sarau, D Gasparevic, G Basilone, I Costantini, I Leonori, J-H Bourdeix, M Iglesias, M Barra, M Giannoulaki, R Ferreri, S El Ayoubi, S Malavitu, S Genovese, S Somarakis, T Juretic, V Ticina, G Certain. 2021. Temperature strongly correlates with regional patterns of body size variation in Mediterranean small pelagic fish species, *Mediterranean Marine Science* 22 (4), 800-811
- I Leonori, V Ticina, M Giannoulaki, T Hattab, M Iglesias, A Bonanno, I COSTANTINI, G Canduci, A Machias, A Ventero, S Somarakis, K Tsagarakis, D Bogner, M Barra, G Basilone, S Genovese, T Juretic, D Gasparevic, A DE Felice. 2021. The history of hydroacoustic surveys on small pelagic fishes in the European Mediterranean Sea, *Mediterranean Marine Science* 22(4), 751-768S
- Despoti, K I Stergiou, **A Machias**, V Vassilopoulou, K Tsagarakis, V Valavanis, A Adamidou, M Giannoulaki. 2021. Assessing the spatial distribution of five non-commercial fish species in the Aegean Sea (Greece, eastern Mediterranean Sea) based on discards data. *Regional Studies in Marine Science* 44, 101736 (1-9)
- K Tsagarakis, S Panigada, **A Machias**, M Giannoulaki, A Foutsis, N Pierantonio, G Paximadis. 2021. Trophic interactions in the " small pelagic fish-dolphins-fisheries" triangle: Outputs of a modelling approach in the North Aegean Sea (Eastern Mediterranean, Greece). *Ocean & Coastal Management* 204, 105474
- S Despoti, G Milisenda, A Ligas, L Bentes, F Maynou, S Vitale, G Garofalo, M Sbrana, K Erzini, G Tserpes, K Tsagarakis, I Maina, M-M Pyrounaki, N Papadopoulou, **A Machias**, F Colloca, F Fiorentino, K I Stergiou, M Giannoulaki. 2021. Marine spatial closures as a supplementary tool to reduce discards in bottom trawl fisheries: examples from southern European waters, *Fisheries Research* 232, 105714

- P Koulouri, M Giannoulaki, A Machias, C Dounas. 2019. Measures for the Protection and Sustainable Exploitation of Marine Biological Resources in an Oligotrophic Fishing Ground (Crete Island, Greece, E. Mediterranean). Euro-Mediterranean Conference for Environmental Integration, 2197-2201
- M Stithou, V Vassilopoulou, K Tsagarakis, A Edridge, A Machias, M Maniopoulou, A Dogrammatzi, JM Bellido, P Carbonara, A Carbonell, G Lembo. 2019. Discarding in Mediterranean trawl fisheries—a review of potential measures and stakeholder insights. *Maritime Studies* 18 (2), 225-238
- K Sofoulaki, I Kalantzi, A Machias, SA Pergantis, M Tsapakis. 2019. Metals in sardine and anchovy from Greek coastal areas: Public health risk and nutritional benefits assessment. *Food and chemical toxicology* 123, 113-124
- K. Sofoulaki, I. Kalantzi, A. Machias, M. Mastoraki, S. Chatzifotis, K. Mylona, S. A Pergantis, M. Tsapakis. 2019. Metals and elements in sardine and anchovy: species specific differences and correlations with proximate composition and size. *Science of the Total Environment* 645, 329-338
- G Karris, V Ketsilis-Rinis, A Kalogeropoulou, S Xirouchakis, A Machias, I Maina, S Kavadas. 2018. The use of demersal trawling discards as a food source for two scavenging seabird species: a case study of an eastern Mediterranean oligotrophic marine ecosystem. *Avian Research* 9 (1), 1-14
- DK Moutopoulos, K Tsagarakis, A Machias. 2018. Assessing ecological and fisheries implications of the EU landing obligation in Eastern Mediterranean. *Journal of Sea Research* 141, 99-111
- DK Moutopoulos, MT Stoumboudi, A Ramfos, K Tsagarakis, KC Gritzalis, O Petriki, A Patsia, R Barbieri, A Machias, KI Stergiou, DC Bobori. 2018. Food web modelling on the structure and functioning of a Mediterranean lentic system. *Hydrobiologia* 822 (1), 259-283
- I Maina, S Kavadas, A Machias, K Tsagarakis, M Giannoulaki. 2018. Modelling the spatiotemporal distribution of fisheries discards: a case study on eastern Ionian Sea trawl fishery. *Journal of Sea Research* 139, 10-23.
- K Tsagarakis, N Nikolioudakis, N Papandroulakis, V Vassilopoulou, A Machias. 2018. Preliminary assessment of discards survival in a multi-species Mediterranean bottom trawl fishery. *Journal of Applied Ichthyology* 34 (4), 842-849
- Giannoulaki, M., Pyrounaki, M.M., Bourdeix, J.-H., Abdallah, L.B., Bonanno, A., Basilone, G., Iglesias, M., Ventero, A., De Felice, A., Leonori, I., Valavanis, V.D., Machias, A., Saraux, C. 2017. Habitat suitability modeling to identify the potential nursery grounds of the Atlantic mackerel and its relation to oceanographic conditions in the Mediterranean Sea, *Frontiers in Marine Science*, 4(JUL), 230
- Tsagarakis, K., Carbonell, A., Brčić, J., Bellido, J.M., Carbonara, P., Casciaro, L., Edridge, A., García, T., González, M., Šifner, S.K., Machias, A., Notti, E., Papantoniou, G., Sala, A., Škeljo, F., Vitale, S., Vassilopoulou, V. 2017. Old info for a new Fisheries Policy: Discard ratios and lengths at discarding in EU Mediterranean bottom trawl fisheries, *Frontiers in Marine Science*, 4(APR), 99
- Koutsidi, M., Tzanatos, E., Machias, A., Vassilopoulou, V. 2016. Fishing for function: The use of biological traits to evaluate the effects of multispecies fisheries on the functioning of fisheries assemblages, *ICES Journal of Marine Science*, 73(4), 1091-1103
- Machias, A., Tsagarakis, K., Matsaganis, M. 2016. Greek fisheries and the economic crisis: Structural analogies, *Ethics in Science and Environmental Politics*, 16(1), 19-23
- Stergiou, K.I., Somarakis, S., Triantafyllou, G., Tsiaras, K.P., Giannoulaki, M., Petihakis, G., Machias, A., Tsikliras, A.C. 2016. Trends in productivity and biomass yields in the Mediterranean Sea Large Marine Ecosystem during climate change, *Environmental Development*, 17, 57-74
- Coll, M., Shannon, L.J., Kleisner, K.M., Juan-Jordá, M.J., Bundy, A., Akoglu, A.G., Banaru, D., Boldt, J.L., Borges, M.F., Cook, A., Diallo, I., Fu, C., Fox, C., Gascuel, D., Gurney, L.J., Hattab, T., Heymans, J.J., Jouffre, D., Knight, B.R., Kucukavsar, S., Large, S.I., Lynam, C., Machias, A., Marshall, K.N., Masski, H., Ojaveer, H., Piroddi, C., Tam, J., Thiao, D., Thiaw, M., Torres, M.A., Travers-Trolet, M., Tsagarakis, K., Tuck, I., Van Der Meeren, G.I., Yemane, D., Zador, S.G., Shin, Y.-J. 2016. Ecological indicators to capture the effects of fishing on biodiversity and conservation status of marine ecosystems, *Ecological Indicators*, 60, 947-962
- Politikos, D., Somarakis, S., Tsiaras, K.P., Giannoulaki, M., Petihakis, G., Machias, A., Triantafyllou, G. 2015. Simulating anchovy's full life cycle in the northern Aegean Sea (eastern Mediterranean): A coupled hydro-biogeochemical-IBM model, *Progress in Oceanography*, 138, 399-416
- Barra, M., Petitgas, P., Bonanno, A., Somarakis, S., Woillez, M., Machias, A., Mazzola, S., Basilone, G., Giannoulaki, M. 2015. Interannual changes in biomass affect the spatial aggregations of anchovy and sardine as evidenced by Geostatistical and spatial indicators, *PLoS ONE*, 10(8), e0135808

- Crise, A., Kaberi, H., Ruiz, J., Zatsepin, A., Arashkevich, E., Giani, M., Karageorgis, A.P., Prieto, L., Pantazi, M., Gonzalez-Fernandez, D., Ribera d'Alcalà, M., Tornero, V., Vassilopoulou, V., Durrieu de Madron, X., Guieu, C., Puig, P., Zenetos, A., Andral, B., Angel, D., Altukhov, D., Ayata, S.D., Aktan, Y., Balcioglu, E., Benedetti, F., Bouchoucha, M., Buia, M.-C., Cadiou, J.-F., Canals, M., Chakroun, M., Christou, E., Christidis, M.G., Civitarese, G., Coatu, V., Corsini-Foka, M., Cozzi, S., Deidun, A., Dell'Aquila, A., Dogrammatzi, A., Dumitrache, C., Edelist, D., Ettahiri, O., Fonda-Umani, S., Gana, S., Galgani, F., Gasparini, S., Giannakourou, A., Gomoiu, M.-T., Gubanova, A., Gücü, A.-C., Gürses, T., Hanke, G., Hatzianestis, I., Herut, B., Hone, R., Huertas, E., Irisson, J.-O., Işinibilir, M., Jimenez, J.A., Kalogirou, S., Kapiris, K., Karamfilov, V., Kavadas, S., Keskin, Ç., Kideys, A.E., Kocak, M., Kondylatos, G., Kontogiannis, C., Kosyan, R., Koubbi, P., Kušpilić, G., La Ferla, R., Langone, L., Laroche, S., Lazar, L., Lefkaditou, E., Lemeshko, I.E., Machias, A., Malej, A., Mazzocchi, M.-G., Medinets, V., Mihalopoulos, N., Misericocchi, S., Moncheva, S., Mukhanov, V., Oaie, G., Oros, A., Öztürk, A.A., Öztürk, B., Panayotova, M., Prospathopoulos, A., Radu, G., Raykov, V., Reglero, P., Reygondeau, G., Rougeron, N., Salihoglu, B., Sanchez-Vidal, A., Sannino, G., Santinelli, C., Secrieru, D., Shapiro, G., Simboura, N., Shiganova, T., Sprovieri, M., Stefanova, K., Streftaris, N., Tirelli, V., Tom, M., Topaloğlu, B., Topçu, N.E., Tsagarakis, K., Tsangaris, C., Tserpes, G., Tuğrul, S., Uysal, Z., Vasile, D., Violaki, K., Xu, J., Yüsek, A., Papathanassiou, E. 2015. A MSFD complementary approach for the assessment of pressures, knowledge and data gaps in Southern European Seas: The PERSEUS experience, *Marine Pollution Bulletin*, 95(1), 28-39
- Stergiou, K.I., Machias, A. 2015. Nailing down 'academic' freedom and tenure in Greek research institutions, *Ethics in Science and Environmental Politics*, 15(1), 59-62
- Tsagarakis, K., Başusta, N., Başusta, A., Biandolino, F., Bostanci, D., Buz, K., Djodjo, Z., Dulčić, J., Gökoğlu, M., Gücü, A.C., Machias, A., Maravelias, C.D., Özvarol, Y., Polat, N., Prato, E., Vasilakopoulos, P., Yedier, S. 2015. New Fisheries-related data from the Mediterranean Sea (October 2015), *Mediterranean Marine Science*, 16(3), 703-713
- Tsagarakis, K., Giannoulaki, Pyrounaki, M.M., Machias, A. 2015. Species identification of small pelagic fish schools by means of hydroacoustics in the Eastern Mediterranean Sea, *Mediterranean Marine Science*, 16(1), 151-161
- Bonanno, A., Giannoulaki, M., Barra, M., Basilone, G., Machias, A., Genovese, S., Goncharov, S., Popov, S., Rumolo, P., Bitetto, M.D., Aronica, S., Patti, B., Fontana, I., Giacalone, G., Ferreri, R., Buscaino, G., Somarakis, S., Pyrounaki, M.-M., Tsoukali, S., Mazzola, S. 2014. Habitat selection response of small pelagic fish in different environments. Two examples from the oligotrophic Mediterranean Sea, *PLoS ONE*, 9(7), e101498
- Karachle, P.K., Machias, A. 2014. First confirmed record of *Petromyzon marinus* Linnaeus, 1758 from west Greece, *Cahiers de Biologie Marine*, 55(3), 367-370
- Giannoulaki, M., Ibaibarriaga, L., Antonakakis, K., Uriarte, A., Machias, A., Somarakis, S., Sanchez, S., Roel, B.A. 2014. Applying a two-stage Bayesian dynamic model to a short-lived species, the anchovy, in the Aegean Sea (Eastern Mediterranean). comparison with an integrated catch at age stock assessment model, *Mediterranean Marine Science*, 15(2), 350-365
- Machias, A., Pyrounaki, M.M., Leonori, I., Basilone, G., Iglesias, M., de Felice, A., Bonanno, A., Giannoulaki, M. 2013. Catch of pelagic hauls in Mediterranean acoustic surveys: Is it the same between day and night?, *Scientia Marina*, 77(1), 69-79
- Giannoulaki, M., Iglesias, M., Tugores, M.P., Bonanno, A., Patti, B., De Felice, A., Leonori, I., Bigot, J.L., Tičina, V., Pyrounaki, M.M., Tsagarakis, K., Machias, A., Somarakis, S., Schismenou, E., Quinci, E., Basilone, G., Cuttitta, A., Campanella, F., Miquel, J., Oñate, D., Roos, D., Valavanis, V. 2013. Characterizing the potential habitat of European anchovy *Engraulis encrasicolus* in the Mediterranean Sea, at different life stages, *Fisheries Oceanography*, 22(2), 69-89
- Mytilineou, C., Tsagarakis, K., Bekas, P., Anastasopoulou, A., Kavadas, S., Machias, A., Haralabous, J., Smith, C.J., Petrakis, G., Dokos, J., Kapandagakis, A. 2013. Spatial distribution and life-history aspects of blackspot seabream *Pagellus bogaraveo* (Osteichthyes: Sparidae), *Journal of Fish Biology*, 83(6), 1551-1575
- Tsagarakis, K., Vassilopoulou, V., Kallianiotis, A., Machias, A. 2012. Discards of the purse seine fishery targeting small pelagic fish in the eastern Mediterranean Sea, *Scientia Marina*, 76(3), 561-572
- Tsagarakis, K., Pyrounaki, M.M., Giannoulaki, M., Somarakis, S., Machias, A. 2012. Ontogenetic shift in the schooling behaviour of sardines, *Sardina pilchardus*, *Animal Behaviour*, 84(2), 437-443
- Somarakis, S., Schismenou, E., Siapatis, A., Giannoulaki, M., Kallianiotis, A., Machias, A. 2012. High

variability in the Daily Egg Production Method parameters of an eastern Mediterranean anchovy stock: Influence of environmental factors, fish condition and population density, *Fisheries Research*, 117-118, 12-21

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- Tugores, P., Giannoulaki, M., Iglesias, M., Bonanno, A., Tičina, V., Leonori, I., Machias, A., Tsagarakis, K., Díaz, N., Giráldez, A., Patti, B., De Felice, A., Basilone, G., Valavanis, V. 2011. Habitat suitability modelling for sardine *Sardina pilchardus* in a highly diverse ecosystem: The Mediterranean Sea, *Marine Ecology Progress Series*, 443, 181-205
- Nikolioudakis, N., Palomera, I., Machias, A., Somarakis, S. 2011. Diel feeding intensity and daily ration of the sardine *Sardina pilchardus*, *Marine Ecology Progress Series*, 437, 215-228
- Giannoulaki, M., Pyrounaki, M.M., Liorzou, B., Leonori, I., Valavanis, V.D., Tsagarakis, K., Bigot, J.L., Roos, D., De Felice, A., Campanella, F., Somarakis, S., Arneri, E., Machias, A. 2011. Habitat suitability modelling for sardine juveniles (*Sardina pilchardus*) in the Mediterranean Sea, *Fisheries Oceanography*, 20(5), 367-382
- Somarakis, S., Isari, S., Machias, A. 2011. Larval fish assemblages in coastal waters of central Greece: Reflections of topographic and oceanographic heterogeneity, *Scientia Marina*, 75(3), 605-618
- Antonakakis, K., Giannoulaki, M., Machias, A., Somarakis, S., Sanchez, S., Ibaibarriaga, L., Uriarte, A. 2011. Assessment of the sardine (*Sardina pilchardus* Walbaum, 1792) fishery in the eastern Mediterranean basin (North Aegean Sea), *Mediterranean Marine Science*, 12(2), 333-357
- Tsagarakis, K., Coll, M., Giannoulaki, M., Somarakis, S., Papaconstantinou, C., Machias, A. 2010. Food-web traits of the North Aegean Sea ecosystem (Eastern Mediterranean) and comparison with other Mediterranean ecosystems, *Estuarine, Coastal and Shelf Science*, 88(2), 233-248
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- Siapatis, A., Giannoulaki, M., Valavanis, V.D., Palialexis, A., Schismenou, E., Machias, A., Somarakis, S. 2008. Modelling potential habitat of the invasive ctenophore *Mnemiopsis leidyi* in Aegean Sea, *Hydrobiologia*, 612(1), 281-295
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