



# II Congreso de Jóvenes Investigadores del Mar



Málaga, Spain, 1-4 October 2019

## Congress Programme



UNIVERSIDAD  
DE MÁLAGA





Research, development and generation of knowledge in the marine-maritime field are one of the great strengths for our natural and geographical environment. Proof of this is the existence of different public research organisations specialising in such singular areas as the marine science, the nautical sciences, naval engineering and underwater archaeology among others.

Given the diversity of research organisations in this area that support the training of Young Researchers (JIs), the organisation of a scientific congress dedicated to JIs was considered in order to create a meeting space where they can present their research that is being developed in different organisations and R+D+i marine centers.

The main objective of the II Congress of Young Marine Researchers, framed in the International Campus of Excellence in Marine Science (CEI·MAR), is the meeting between JIs that are developing their research work in the marine field. The objectives set by the II Congress of Young Marine Researchers are:

- To promote and dynamize the presentation of scientific works carried out by the new generations of researchers in the marine field.
- To promote interdisciplinarity among JIs who carry out their work in different public and private research centers.
- To establish cooperation's between JIs: to know and to boost synergies in marine research.

## Why attend?

Although an open forum is proposed where any kind of public that is interested in this topic can attend, the event will be dedicated to JIs who carry out their research work in the CEI·MAR field. This is a congress organized by and for the JIs, where the participation of them will allow answering questions like: Who can be interested in my work? What I do, what it is for? What comes after PhD?

In this way, a point of connection between the different research groups of these centers is intended to be created, where the JIs themselves expose their areas of work, as well as their concerns and difficulties at this stage. With this meeting of JIs, the diffusion and communication of information between the different lines of research carried out in our territory will be increased, promoting future collaborations and projects with a high multidisciplinary value



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Instituto Español de Oceanografía (IEO)

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**Dr. Miguel Ángel Moriñigo Gutiérrez**

Dept. Microbiology. University of Málaga





The **II International Congress of Young Marine Researchers (IJs)** will take place in the Faculty of Economic and Business Sciences of the University of Málaga, being one of the oldest Faculties in Spain. It is in the heart of the city and was created the first in Andalusia and, from its beginning, has contributed decisively to the integral development of the region. Its teaching offer covers all relevant areas in the fields of Economics and Business and provides its students, who are around 4000, a complete academic training. In addition, its close connection with companies and institutions, public and private, of the environment has traditionally facilitated the labour insertion of its graduates.

It is framed in the El Ejido Campus, where are also integrated the University Government Pavilion, the University Auditorium, the Canovas Theater, the Faculty of Fine Arts and the School of Architecture. In this way, the complete Campus composes an important space of knowledge and culture in the urban center of the city.





## Tuesday, October 01

## Wednesday, October 02

 II Congreso de Jóvenes Investigadoras del Mar Del 1 al 4 de octubre de 2019 - Málaga		Lynn Margulis Room	M <sup>a</sup> Ángeles Alvariño Room
		<b>Registration (Hall of Economics Science School)</b>	
		<b>Plenary Lecture 1 (Lynn Margulis Room)</b>	
		<b>S1. Flash-talk (Lynn Margulis Room)</b>	
		<b>Coffee break (Hall of Economics Science School)</b>	
		<b>S2. Flash-talk</b>	<b>S3. Flash-talk</b>
		<b>Lunch</b>	
		<b>S4. Flash-talk</b>	<b>S5. Flash-talk</b>
		<b>Posters / Coffee break (Hall of School of Economics science)</b>	
		<b>Transversal Session: A sea of Women (Lynn Margulis Room)</b>	
		<b>Welcome Reception (Gardens of Economics Science School)</b>	
16:00-18:00	<b>Registration (Hall of Economics Sciences School)</b>		
18:00-20:00	<b>Opening Ceremony II International Congress of Young Marine Researchers (Lynn Margulis Room)</b>		
20:00			





Thursday, October 03			Friday, October 04	
	Lynn Margulis Room	M <sup>a</sup> Ángeles Alvariño Room		Lynn Margulis Room
8:00-8:45	Registration (Hall of Economics Science School)		10:30-11:30	Transversal Session: Jis Projects
9:00-10:00	Plenary Lecture 2 (Lynn Margulis Room)		11:30-12:00	Coffee break (Hall of School of Economics Science)
10:00-11:30	S6. Flash-talk	S7. Flash-talk	12:00	Closing Ceremony & Awards
11:30-12:00	Coffee break (Hall of Economics Science School)		Extra activities in collaboration with:  SOCIEDAD ESPAÑOLA DE FICOLOGÍA	
12:00-14:00	S8. Flash-talk	S9. Flash-talk	*11:00–12:30h. Introductory workshop to the scientific illustration of algae with watercolour by <i>Vanessa González Ortíz</i> . Place: School of Economics Science. Capacity: 20 persons. Registration: <a href="http://www.sefalgas.org/">http://www.sefalgas.org/</a>	
14:00-16:00	Lunch		* 13:00 - 14:00h. Show cooking. Cooking with algae with the chef and teacher <i>Lucas Pérez Llorens</i> . Place: School of Economics Science. Unlimited capacity.	
16:00-18:00	S10. Flash-talk	S11. Flash-talk		
18:00-19:00	Posters / Coffee break (Hall of School of Economics science)			
19:00-20:00	Transversal Session: JIs network (Lynn Margulis Room)			
21:00	Gala Dinner (Balneario de los Baños del Carmen)			



Sessions	Place	Topic
Opening Ceremony	Lynn Margulis Room	Presentation by Jaime Rodríguez (University of Málaga): <b>“Biodiversity Conservation and Sustainable Development: The necessary Utopia”</b>
Plenary Lecture	Lynn Margulis Room	Presentation by Javier García Sanabria (University of Cádiz): <b>“Managing our seas: marine spatial planning in Spain. The role of the science”</b>
S1. Flash-talk	Lynn Margulis Room	<b>The Sea Knowledge.</b> Global Change Session moderated by Enrique Moreno and Simone Sammartino
S2. Flash-talk	Lynn Margulis Room	<b>The Sea as a Resources Source.</b> Fishing Resources Session moderated by Ángel Mateo and Nerea Valcárcel
S3. Flash-talk	M <sup>a</sup> Ángeles Alvariño Room	<b>The Integrated Sea Management.</b> Marine Contamination Session moderated by Concepción Íñiguez and Belén González
S4. Flash-talk	Lynn Margulis Room	<b>The Sea Knowledge.</b> Physical Oceanography and Marine Geology Session moderated by Olga Sánchez and Simone Sammartino
S5. Flash-talk	M <sup>a</sup> Ángeles Alvariño Room	<b>The Sea Knowledge.</b> Marine Wildlife Session moderated by Ángel Mateo and Concepción Íñiguez
Transversal Session: A sea of women	Lynn Margulis Room	Transversal Session moderated by Olga Sánchez Guillamón (IEO – C. O. Málaga) <ul style="list-style-type: none"> <li>- María Carmen García (IEO)</li> <li>- María Macías González (Divingmar)</li> <li>- Isabel Jiménez Lucena (Delegate of the Rector for Equality and Social Action)</li> <li>- Sofía Tristancho Ruiz (Futuralga)</li> </ul>
Plenary Lecture	Lynn Margulis Room	Presentation by José Carlos Sánchez Garrido (University of Málaga): <b>“Environmental control of fish population cycles in climate-to-fish ocean models”</b>
S6. Flash-talk	Lynn Margulis Room	<b>The Sea as a Resources Source.</b> Aquaculture Session moderated by Jorge García and Julia Vega
S7. Flash-talk	M <sup>a</sup> Ángeles Alvariño Room	<b>The Sea Knowledge.</b> Biogeochemistry and Microbial Biodiversity Session moderated by Teresa Conejo and Jorge Juan Montes





Sessions	Place	Topic
S8. Flash-talk	Lynn Margulis Room	<b>Health and the Sea</b> Session moderated by Candela García and María López
S9. Flash-talk	M <sup>a</sup> Ángeles Alvariño Room	<b>Engineering and the Sea Cultural Value</b> Session moderated by Simone Sammartino and Jorge López
S10. Flash-talk	Lynn Margulis Room	<b>The Sea Knowledge Ecology</b> Session moderated by Raquel Sánchez and Andrea Fernández
S11. Flash-talk	M <sup>a</sup> Ángeles Alvariño Room	<b>The Integrated Sea Management</b> Session moderated by Manuel Macías and Remedios Zamora
<b>Transversal session: JIS network</b>	Lynn Margulis Room	Transversal Session moderated by Raquel Sánchez de Pedro (University of Málaga) <ul style="list-style-type: none"> <li>• Asensio Navarro Ortega (Young Water Professional, YWP)</li> <li>• Ivana Buselic Garber (OYSTER)</li> <li>• Andrea Piehl (IEO)</li> <li>• Alba González Vega (European Marine Board)</li> </ul>
<b>Transversal Session: Jis Projects</b>	Lynn Margulis Room	Transversal Session moderated by María López Parages (University of Málaga) <ul style="list-style-type: none"> <li>• María Isabel Sáez Casado (University of Almería)</li> <li>• Silvana Teresa Tapia-Paniagua (University of Málaga)</li> <li>• Marta Sendra Vega (Institute of Marine Sciences of Andalusia, CSIC)</li> <li>• Laura Cabeza Montilla (University of Málaga)</li> <li>• Pedro Sánchez Castillo (CEI·MAR Coordinator, University of Granada)</li> </ul>
<b>Closing Ceremony and Awards</b>	Lynn Margulis Room	



## Opening Ceremony

### **BIODIVERSITY CONSERVATION AND SUSTAINABLE DEVELOPMENT: THE NECESSARY UTOPIA**

Human activities have led the Earth to a new state, the Anthropocene, but the biosphere is finite in relation to both resource supply and waste assimilation. One of the more relevant planetary limits already surpassed is the loss of biodiversity (genes, species, ecosystems), the natural capital that contributes in an essential way to the human wellbeing. Also, in addition to causing environmental degradation, the dominant model of economic growth favours social inequality. All this represents a challenge to reaching sustainable development, which can be reduced to a utopian concept in spite of practical initiatives like United Nations Sustainable Development Goals.

The close relation between biodiversity conservation and sustainable development was in the origin of the Convention on Biological Diversity (CBD). It acknowledges that biodiversity is a resource for humans that should be used in a sustainable and equitable way. On one side, this anthropocentric approach to biodiversity conservation seems to be opposed to an ethical approach (the so called “deep ecology”) that defend biodiversity “preservation” and the intrinsic value of species simply because they exist. On the other side, the consideration of an instrumental value to biodiversity within the CBD requires the identification of sustainability criteria. This would be consistent with the proposals of “ecological economics” but not with the strictly monetary approach of “environmental economy”.

In the context of a limiting biosphere, “sustainable development” has been considered as an oxymoron derived from simply replacing the term “growth” by the term “development”. From a less pessimistic point of view, “development” goes beyond the simple economic growth and “sustainable development” is identified as the three-dimensional space where the axes “economic growth”, “environment” and “human wellbeing” have positive values. At this moment and at the global scale, this space remains a necessary utopia.



**Jaime Rodríguez**  
University of Málaga

*Graduated in Biology at the University of Granada and holds a doctorate in Biology from the University of Málaga with a Thesis on marine zooplankton.*





## MANAGING OUR SEAS: MARINE SPATIAL PLANNING IN SPAIN. THE ROLE OF THE SCIENCE

The relatively slow progress in the management of the marine territory contrasts with the extraordinary and worrying increase in the capacity of the human being to put pressure on marine ecosystems. It is worth remembering that more than a third of the world's population lives in coastal areas and small islands, and with it most of the uses and activities. Indeed, some of the most dynamic and consolidated economic activities (tourism, aquaculture, maritime trade), or emerging (marine renewable energies, offshore oil extraction), have in these areas their most recurrent action scenario. In this sense, Marine spatial planning, implemented in the European marine areas according to the Directive 2014/89/EU, will allow to develop uses and activities in a sustainable way, including not only economic but also environmental terms. In the case of Spain, the "Marine Spatial Planning" Directive has been transposed to national level by the Royal Decree 363/2017, establishing a general framework for the management of maritime territory. According to this, the Spanish marine plans must be finished and published by march, 2021. However, the planning process is still at a very beginning stage in Spain, and there are still many questions to be resolved: what is the ultimate goal to achieve in the management of the Spanish marine environment? What activities are intended to enhance? What is the desired scenario that we want to pursue?

How will the different actors participate in marine management? In what way will the scientific institutions, which raise the information, coordinate with the institutions responsible for making decisions in marine management? In this talk, the MSP process in Spain will be introduced, highlighting the opportunities and threats that can arise, but also highlighting the role that (in the opinion of the author) the science should play in the marine planning process.



**Dr. Javier García Sanabria**  
University of Cádiz

*Environmental Scientist, with a Ph.D. He is an expert in the disciplines of integrated management of coastal areas and marine spatial planning, and author of several books and articles on the subject in national and international scientific journals.*



## ENVIRONMENTAL CONTROL OF FISH POPULATION CYCLES IN CLIMATE-TO-FISH OCEAN MODELS

Small pelagic fish represent up to 50% of the total landing of marine species (Freón et al. 2005) and provide the forage for multiple predators, which include a broad variety of larger fish, sea birds and mammals. Situated near the base of the food web, small pelagic fish represent a major linkage between the lower and upper trophic levels and thereby play a key role in sustaining the whole ecosystem. These facts, along with their great commercial value (e.g., sardine and anchovy) and strong sensitivity to environmental changes, as reflected in landing records, make it particularly important and necessary to better understand their population dynamics, especially in response to the present scenario of climate change and overfishing.

End-to-end ecosystem models, combining models of ocean circulation and physics, lower trophic level (nutrient-phytoplankton-zooplankton) and an upper trophic level including fish (usually based on individuals; chain also referred to as climate-to-fish model), are comprehensive numerical tools designed to address these questions. Harvest is sometimes represented in these modes too as a dynamic component of the ecosystem. As computing power is ever increasing, end-to-end models are gaining in complexity and realism. Among other features, state-of-the-art models and modern parallel computing techniques now allow for feedback between all components of the ecosystem (fully coupled models), run over the same three-dimensional computational grid. And afford multidecadal-scale eddy-resolving simulations of large marine ecosystem (Rose et al. 2015).

In this talk, I will show how a climate-to-fish model can be used to gain insights into the population dynamics of anchovy (*Engraulis encrasicolus*) and sardine (*Sardina pilchardus*) in the Canary Current upwelling ecosystem. I will present analysis techniques to unravel the link between climate, environmental (i.e., biochemistry and physical) and the simulated biological variability. I will also compare the results with previous modelling efforts made in the California Current (Fiechter et al. 2015), highlighting the physical and biological processes giving rise to qualitatively different variability of anchovy and sardine in these two major eastern boundary upwelling ecosystems.



*José Carlos Sánchez Garrido*

*Physical Oceanographic Group University of Málaga*

*Mathematician and Ph.D. in environmental fluids dynamics from the University of Granada. His main research activity has focused on the application of advanced modelling tools to investigate how the local dynamics of Strait of Gibraltar ultimately impact the circulation, climate, and ecology of the neighbouring basins.*





II Congreso de Jóvenes Investigador\*<sup>s</sup> del Mar

## FLASH-TALKS



10:00-10:10h. S01.1. [Seasonal shifts in thermal resilience of multi-celled early-developmental stages of \*Fucus quiryj\*: Maternal acclimation vs. chronic stress.](#)

*Raquel Sánchez de Pedro, Departamento de Botánica y Fisiología Vegetal, Facultad de Ciencias, Universidad de Málaga, Málaga, Spain*

10:10-10:20h. S01.2. [Temporal patterns of bleaching in anemones from temperate seas: Effect of ocean warming.](#)

*Ana M<sup>a</sup> Meléndez Pérez, Universidad de Cádiz, Spain*

10:20-10:30h. S01.3. [How ocean acidification and global warming affect Mediterranean jellyfish populations?](#)

*Angélica Enrique-Navarro, Instituto de Ciencias Marinas de Andalucía (ICMAN-CSIC)*

10:30-10:40h. S01.4. [El Niño as a predictor of Round sardinella abundance in northwest Africa.](#)

*Jorge López-Parages, CERFACS/CNRS, Climate Modeling and Global Change Team, Toulouse, France*

10:40-10:50h. S01.5. [Response of N<sub>2</sub>-fixing bacteria associated with \*Posidonia oceanica\* to ocean acidification.](#)

*Víctor Fernández-Juárez, Universidad de las Islas Baleares, Spain*

10:50-11:00h. S01.6. [Multidecadal variability of tropical cyclones in the North Atlantic.](#)

*Carmen Ferrero Martín, University of Cádiz, Spain*

11:00-11:10h. S01.7. [Vulnerability Assessment applied on case studies from Western and Eastern Mediterranean Small-scale and Industrial Fishing \(NAFO area\).](#)

*Mauro Gómez Murciano, Department of Marine Science and Applied Biology, Alicante University, Spain*

11:10-11:30h. Discussion time





## S02. The Sea as Resources Source

### Fishing Resources



Wednesday, October 02  
Lynn Mangulis Room

12:00-12:10h. S02.1. <a href="#">Ecology of the stalked barnacle, <i>Pollicipes pollicipes</i> (Gmelin, 1970): reproduction, recruitment and relation with the environmental conditions.</a> <i>Salvador Román del Valle, Dept Ecoloxía e Bioloxía Animal, Facultade de Ciencias do Mar, Universidade de Vigo, Vigo, Spain</i>
12:10-12:20h. S02.2. <a href="#">Connectivity patterns of the blackspot seabream (<i>Pagellus boquaraveo</i>) in the Alboran Sea.</a> <i>Irene Nadal Arizo, Physical Oceanography Group, University of Málaga</i>
12:20-12:30h. S02.3. <a href="#">Volatility of blackspot seabream (<i>Pagellus boquaraveo</i>) landings in the Strait of Gibraltar.</a> <i>Víctor Sanz Fernández, Dept. de Ciencias Agroforestales, Escuela Técnica Superior de Ingeniería, Campus de la Rábida, Universidad de Huelva, Huelva, Spain</i>
12:30-12:40h. S02.4. <a href="#">Fish and macroinvertebrate communities in the surf zone of sandy beaches on the Gulf of Cádiz coast (SW Spain): Seasonal, diel and environmental pattern variations.</a> <i>Carlos Rodríguez García, Departamento de Biología, Facultad de Ciencias del Mar y Ambientales, Universidad de Cádiz, Puerto Real, Cádiz, Spain.</i>
12:40-12:50h. S02.5. <a href="#">Analysis on distribution and growth of the clam <i>Donax trunculus</i> (Linnaeus, 1758) on five beaches of the Cádiz coast.</a> <i>Sara Palma-Pedraza, Departamento de Biología, Facultad de Ciencias del Mar y Ambientales, Universidad de Cádiz, España</i>
12:50-13:00h. S02.6. <a href="#">Identification and evaluation of the status of elasmobranch species captured in the state of Ceará (Brazil).</a> <i>Jesica Sarmiento Carbajal, Departamento de Biología, Facultad de Ciencias del Mar y Ambientales, Universidad de Cádiz, Puerto Real, Cádiz, Spain</i>
13:00-13:10h. S02.7. <a href="#">Reproductive aspects of <i>Peprilus medius</i> (Peters, 1869) captured in the coasts of Manabí, Ecuador.</a> <i>Klever Mendoza Nieto, Biology Laboratory, Faculty of Marine Sciences, Laica University "Eloy Alfaro" of Manabí. Av. Circunvalación, Manta-Ecuador.</i>
13:10-13:20h. S02.8. <a href="#">The beginnings of the tuna industry in Ecuador 1926-1956.</a> <i>Eduardo Pico-Lozano, Universidad Laica Eloy Alfaro de Manabi; Universidad de Cádiz</i>
13:20-13:30h. S02.9. <a href="#">Ethnography and fishing: popular culture surrounding tuna fishing with the traditional almadraba technique.</a> <i>Mercedes Soto Melgar, Universidad de Granada</i>
13:30-13:40h. S02.10. <a href="#">Reproductive biology of the striped red mullet, <i>Mullus surmuletus</i>, and implications for its management.</a> <i>Joaquim Tomàs Ferrer, Universitat de les Illes Balears</i>
13:40-14:00h. Discussion time



## S03. The Integrated Sea Management Marine Pollution



Wednesday, October 02  
M<sup>a</sup> Ángeles Alvariño  
Room

12:00-12:10h. S03.1. <a href="#">Plastic inputs into the ocean through the Guadalquivir river.</a> <i>Rocío Quintana Sepúlveda, Universidad de Cádiz</i>
12:10-12:20h. S03.2. <a href="#">Aerosol dry deposition events in the western Mediterranean.</a> <i>Helena Guerra Alcaide, Universidad de Cádiz</i>
12:20-12:30h. S03.3. <a href="#">Effects of micro- and nano- plastics in N<sub>2</sub> fixing bacteria associated with the Mediterranean seagrasses <i>Posidonia oceanica</i>.</a> <i>Xabier López, Universitat de les Illes Balears</i>
12:30-12:40h. S03.4. <a href="#">Microplastics present in the seawater surfaces of Los Gigantes in the southwest of Tenerife, Canary Islands.</a> <i>Carmen Meléndez Díez, Proyecto FarFalle</i>
12:40-12:50h. S03.5. <a href="#">Effects of sewage discharge on macrofaunal communities nearby the underwater sewage duct of Trieste (northern Adriatic Sea) on spatial scale.</a> <i>Seyed Ehsad Vesal, Department of Life Science, University of Trieste, Trieste. Italy</i>
12:50-13:00h. S03.6. <a href="#">Response to abiotic stress produced by heavy metals in the microalga <i>Chlorella sorokiniana</i>.</a> <i>Antonio León Vaz, Universidad de Huelva</i>
13:00-13:10h. S03.7. <a href="#">Water quality monitoring of coastal water in La Herradura Bay (Granada, South-Western Mediterranean).</a> <i>Miguel María Granados Fernández, Departamento de Ecología y Geología, Universidad de Málaga</i>
13:10-13:20h. S03.8. <a href="#">Pump-underway ship intake: an opportunity for Marine Strategy Framework Directive (MSFD) monitoring needs. First observations of microplastics on oceanic and coastal waters off the Canary Islands (Subtropical NE Atlantic).</a> <i>Tania Montoto Martínez, Research group on Environmental Technologies, Management and Biogeochemistry. University of Las Palmas de Gran Canaria (ULPGC)</i>
13:20-13:30h. S03.9. <a href="#">Ballast water management: how bacteria from different sources respond to UVc radiation?</a> <i>Javier Moreno-Andrés, Department of Environmental Technologies, INMAR-Marine Research Institute, University of Cádiz</i>
13:30-14:00h. Discussion time





16:00-16:10h. S04.1. [Oceanographic interpretation of planktonic foraminifera assemblages sampled in a transect from Mediterranean Sea to Atlantic Ocean \(MEDWAVES cruise, 2016\).](#)

*Albert Fuster Prohens, Càtedra "Guillem Colom Casanovas", Universitat de les Illes Balears, Palma de Mallorca, Spain*

16:10-16:20h. S04.2. [Circulation patterns on the continental shelf of the Gulf of Cádiz from measures of HF coastal radars.](#)

*Sara Sirviente Alonso, Universidad de Cádiz*

16:20-16:30h. S04.3. [Spatial-temporal variability of the Almería-Orán front using remote sensing.](#)

*Sara Miquel Fernández, Universidad de Cádiz*

16:30-16:40h. S04.4. [Study of sub-mesoscale processes in Cape Trafalgar.](#)

*Marina Bolado Penagos, Departamento de Física Aplicada, Facultad de Ciencias del Mar y Ambientales, Universidad de Cádiz, Puerto Real, Cádiz, Spain*

16:40-16:50h. S04.5. [Dependence of wind-driven northwest African upwelling on large-scale features in CMIP5 models.](#)

*Antonio Castaño Tierno, Department of Physics of the Earth and Astrophysics, Universidad Complutense de Madrid, Madrid, Spain. Institute of Geosciences (IGEO), Madrid, Spain*

16:50-17:00h. S04.6. [Life and death on Tagoro submarine volcano \(Canary Islands, Spain\): eight years monitoring the nutrient release, oxygen levels, and fluorescence anomalies.](#)

*Alba González Vega, Instituto Español de Oceanografía, Centro Oceanográfico de Canarias, Santa Cruz de Tenerife, Spain*

17:00-17:10h. S04.7. [Postglacial transgressive deposit associated to the retreating Guadiana river mouth under rapid sea-level changes.](#)

*Álvaro Carrión-Torrente, Instituto Andaluz de Ciencias de la Tierra, CSIC-Universidad de Granada, Granada, Spain*

17:10-17:20h. S04.8. [Geometry, geomorphology and stratigraphic architecture of subaqueous storm fans in the Galician margin.](#)

*Natalia Martínez-Carreño, Instituto Español de Oceanografía, Centro Oceanográfico de Málaga, Spain*

17:20-17:30h. S04.9. [Magnetic signals at Easter Island during the 2010 and 2015 Chilean tsunamis compared with numerical models.](#)

*Carlos Torres Echeverría, Departamento de Geofísica, Universidad de Concepción, Chile*

17:30-17:40h. S04.10. [Photogrammetric techniques to obtain fine scale 3D models of the bedforms from submarine video imagery.](#)

*Raúl Jiménez Romero, Dept. Ciencias de la Tierra, Facultad de Ciencias del Mar y Ambientales, Universidad de Cádiz*

17:40-18:00h. Discussion time



16:00-16:10h. S05.1. [Usefulness of semi-automatic image analysis for the assessment of zooplankton community structure in a highly dynamic area of the Alboran Sea \(SW Mediterranean\).](#)

*Nerea Valcárcel Pérez, Instituto Español de Oceanografía, C. O. Málaga*

16:10-16:20h. S05.2. [Associated epifauna to syngnathids populations in the Cíes Islands Archipelago \(National Atlantic Islands Park\).](#)

*Sara Campos Rosende, Universidade de Santiago de Compostela (USC)*

16:20-16:30h. S05.3. [Differential space distribution of the \*Balaenoptera\* genus at the east tropical Atlantic Ocean.](#)

*M<sup>a</sup> del Camino García Ramos, Universidade da Coruña*

16:30-16:40h. S05.4. [Effects of non-native species over the settlement process of the European spiny lobster \*Palinurus elephas\*.](#)

*Anabel Muñoz Caballero, Instituto Español de Oceanografía, Centro Oceanográfico de Baleares, Palma, Spain*

16:40-16:50h. S05.5. [Malacofauna associated with the sedimentary bottom in the Cerro-Gordo submarine cave \(Granada\).](#)

*Lidia Pino de la Torre, Animal Biology Department, University of Málaga*

16:50-17:00h. S05.6. [Syngnathids in the Cíes Islands \(National Park of the Atlantic Islands\): Distribution and trophic structure of the habitat.](#)

*Arturo Jiménez Solís, Universidad de Vigo*

17:00-17:10h. S05.7. [Morphological changes in the gills of mussels \*Mytilus galloprovincialis\* caused by the pea crab \*Afropinnotheres monodi\*.](#)

*Marta Pérez-Miguel, ICMAN-CSIC*

17:10-17:20h. S05.8. [Stranding records of the loggerhead turtle \*Caretta caretta\* \(Linnaeus, 1758\) at the Balearic Islands in the last 25 years.](#)

*Maria Febrer-Serra, Interdisciplinary Ecology Group. University of the Balearic Islands. Palma, Balearic Islands, Spain*

17:20-17:30h. S05.9. [Pathogens and parasites in \*Donax trunculus\* L., 1758 from the littoral of Málaga.](#)

*Noemí López García, Departamento de Biología Animal, Universidad de Málaga, Málaga, Spain*

17:30-17:40h. S05.10. [New records of Bryozoans from Alboran Sea.](#)

*Raquel Rodríguez Aporta, Universidad de Málaga*

17:40-18:00h. Discussion time





10:00-10:10h. S06.1. [Effect of density on the growth and mortality of the Pacific oyster \*Crassostrea gigas\* cultured in waters of the Basque coast \(SE Bay of Biscay\).](#)

*Ainhoa Juez Zabala, AZTI-Tecnalia, Pasaia, Gipuzkoa*

10:10-10:20h. S06.2. [Nutritional evaluation and antioxidant properties of \*Anemonia sulcata\* and its symbiont microalgae \*Symbiodinium\*.](#)

*Gloria Perazzoli, Departamento de Anatomía y Embriología, Facultad de Medicina. Instituto de Biopatología y Medicina Regenerativa, Centro de Investigación Biomédica. Universidad de Granada*

10:20-10:30h. S06.3. [Impact on the intestinal microbiota of \*Sparus aurata\* fed with diets supplemented with the microalgae \*Nannochloropsis gaditana\*.](#)

*Isabel M. Cerezo Ortega, Departamento de Microbiología, Facultad de Ciencias, Universidad de Málaga*

10:30-10:40h. S06.4. [Transcription of genes involved in the intestinal integrity and permeability of \*Sparus aurata\* fed on a diet supplemented with 5% of wet hydrolysed \*Nannochloropsis gaditana\*.](#)

*Daniel Di Zeo, Departamento de Microbiología, Facultad de Ciencias, Universidad de Málaga*

10:40-10:50h. S06.5. [Intestine fatty acid composition of \*Sparus aurata\* fed on a diet supplemented with wet hydrolysate microalgae \*Nannochloropsis gaditana\*.](#)

*Jorge García Márquez, Departamento de Microbiología, Facultad de Ciencias, Universidad de Málaga*

10:50-11:00h. S06.6. [Advances in immunonutrition.](#)

*Marian Ponce, Nutrition Laboratory, IFAPA Centro El Toruño, Junta de Andalucía*

11:00-11:10h. S06.7. [Synergistic effect of overexpression of genes involved in TAG biosynthesis and substrate supply on the lipid profile of \*Chlamydomonas reinhardtii\*.](#)

*Rocío Rengel, Laboratory of Biochemistry and Molecular Biology, University of Huelva, Huelva*

11:10-11:30h. Discussion time



10:00-10:10h. S07.1. [Carbon fluxes variability in oligotrophic Mediterranean systems.](#)

*Lara Silvia García Corral, Department of Biology, Geology, Physics and Inorganic Chemistry, Rey Juan Carlos University*

10:10-10:20h. S07.2. [Biodiversity of halophilic microorganisms inhabiting Odiel solar salterns in Huelva, Spain.](#)

*Patricia del Rocío Gómez Villegas, Universidad de Huelva*

10:20-10:30h. S07.3. [Nanoplankton dominance in the phytoplankton community of an eutrophic, estuarine ecosystem \(Guadalhorce river, Southern Spain\).](#)

*Jorge Juan Montes-Pérez, Departamento de Ecología y Geología, Universidad de Málaga, Málaga, Spain*

10:30-10:40h. S07.4. [Optimization of Ultra Violet C radiation procedures to eliminate cyanobacteria from ballast waters.](#)

*Alejandro Ortega Moreno, Universidad de Cádiz*

10:40-10:50h. S07.5. [A \*Mesodinium rubrum\* \(ciliate\) red tide in the Alboran Sea.](#)

*Teresa Conejo-Orosa, Ecology and Geology Department, University of Málaga*

10:50-11:00h. S07.6. [Dynamic of the carbon cycle in the estuary of the Guadalete River.](#)

*Irene Pérez Guevara, Universidad de Cádiz*

11:00-11:30h. Discussion time





12:00-12:10h. S08.1. [Antitumor activity of functional extracts from \*Anemonia sulcata\* and its symbiont microalga \*Symbiodinium\*.](#)

*Laura Cabeza Montilla, Departamento de Anatomía y Embriología, Facultad de Medicina. Instituto de Biopatología y Medicina Regenerativa, Centro de Investigación Biomédica. Universidad de Granada*

12:10-12:20h. S08.2. [Evidence of mycobacterial presence in \*Pinna nobilis\* infected by \*Haplosporidium pinnae\* maintained under quarantine conditions.](#)

*Montserrat López Sanmartín, IFAPA Agua del Pino, Cartaya, Huelva, Spain*

12:20-12:30h. S08.3. [Incidence and control of \*Neobenedenia melleni\* in greater amberjack \*Seriola dumerili\* in breeding facilities in Tenerife.](#)

*Andrea Villena, Departamento de Biología Animal, Edafología y Geología, Universidad de La Laguna, Santa Cruz de Tenerife, España.*

12:30-12:40h. S08.4. [Screening for UV absorbing compounds in red macroalgae: Cosmeceutical applications.](#)

*Julia Vega Sánchez, Department of Ecology and Geology, University of Málaga*

12:40-12:50h. S08.5. [Seagulls as a reservoirs of ARG \(antibiotic resistance genes\).](#)

*Dayana Ayelen Jarma, INMAR (Instituto Universitario de Investigación Marina), Universidad de Cádiz*

12:50-13:00h. S08.6. [Fucoidan extracted from brown seaweed \*Sargassum muticum\* using green technologies and potential applications in the biomedical field.](#)

*Noelia Flórez Fernández, Department of Chemical Engineering, Science Faculty, University of Vigo, Ourense, Spain; Centre for Biomedical Research, University of Algarve, Faro, Portugal; Centre for Marine Sciences, University of Algarve, Faro, Portugal*

13:00-13:10h. S08.7. [Synthesis and evaluation of the antioxidant activity of marine analogue phthalides.](#)

*Belén Parra-Torrejón, Department of Organic Chemistry, Faculty of Marine and Environmental Sciences, University of Cádiz*

13:10-13:20h. S08.8. [Clonation of one Toxin-Antitoxin System from a Cyanobacteria \*Halotheca\* sp. PCC 7418.](#)

*Carlos Enrique Payá, Universidad de Las Islas Baleares*

13:20-13:30h. S08.9. [Determination of ultraviolet filters and stabilisers in market fish.](#)

*Sandra Gimeno Monforte, Instituto Universitario de Estudios Ambientales y Recursos Naturales (i-UNAT), Universidad de Las Palmas de Gran Canaria, Las Palmas de Gran Canaria, Spain*

13:30-14:00h. Discussion time



## S09. Engineering and the Sea

### The Sea Cultural Value



Thursday, October 03  
M<sup>a</sup> Ángeles Alvariño  
Room

12:00-12:10h. S09.1. [Numerical simulation of a stationary collision of flowing and evolution of entropy.](#)

*Santiago Pavón Quintana, Navigation Sciences and Techniques and Ship-Building Department, School of Naval and Oceanic Engineering, University of Cádiz*

12:10-12:20h. S09.2. [Simulation of water flow and contaminant dispersion at coastal areas: Application to the Seaport of Málaga.](#)

*Javier Fernández-Pato, University of Zaragoza, Hydronia-Europe*

12:20-12:30h. S09.3. [Multihop based Scalable Routing Protocol \(MSRP\) for Underwater Acoustic Sensor Networks.](#)

*Jitander Kumar, Department of Ingeniería de Comunicaciones, University of Málaga, Spain*

12:30-12:40h. S09.4. [Wave energy farms as coastal defense elements under global warming.](#)

*Rafael J. Bergillos, Hydraulic Engineering Area, Department of Agronomy, University of Córdoba, Córdoba, Spain*

12:40-12:50h. S09.5. [Methodologies for the detection and study of submarine groundwater discharges \(SGD\) in the Gulf of Cádiz.](#)

*Alejandro Román Vázquez, Departamento de Ciencias de la Tierra, Universidad de Cádiz*

12:50-13:00h. S09.6. [Assessing littoral dynamics by drone aerophotogrammetry.](#)

*Alejandro Delgado del Pino, School of Industrial Engineering, University of Málaga*

13:00-13:10h. S09.7. [AS DE GUIA: Inclusive science and oceanic culture outreach for youth in social exclusion risk.](#)

*Francesca Luculano, Asociación Noctiluca*

13:10-13:20h. S09.8. [Use of aquatic resources as possible sound artefacts or musical instruments and their symbolism during the prehistory.](#)

*Marina Zafra Granados, Universidad de Cádiz*

13:20-13:30h. S09.9. [Landscapes of salt in Huelva.](#)

*Laura del Valle Mesa, Universidad de Huelva*

13:30-14:00h. Discussion time





16:00-16:10h. S10.1. [Natural seawater  \$\text{HCO}\_3^-\$  enrichment impairs nitrate homeostasis in \*Zostera marina\* L. leaves.](#)

*Jordi Díaz García, Department of Botanic and Plant Physiology, University of Málaga, Málaga, Spain*

16:10-16:20h. S10.2. [Absence of thermal tolerance variability and niche underfilling of two key macroalgae species.](#)

*Sandra Hernández, University Rey Juan Carlos*

16:20-16:30h. S10.3. [Dispersion and effect on native fish communities by the invasive alga \*Halimeda incrassata\*.](#)

*Antoni Vivó Pons, Universitat de les Illes Balears, Palma de Mallorca, Spain*

16:30-16:40h. S10.4. [An Artificial Neural Network to infer the vertical phytoplankton biomass profile from surface data.](#)

*Michela Sammartino, Institute of Marine Sciences - Italian National Research Council (ISMAR-CNR), Rome, Italy*

16:40-16:50h. S10.5. [How do seagrasses face herbivory? A case of study in Cádiz bay.](#)

*Isabel Casal Porras, Department of Biology (Ecology Area), University of Cádiz, Cádiz, Spain*

16:50-17:00h. S10.6. [A shifting balance: Responses of mixotrophic marine algae to cooling and warming under UVR.](#)

*Marco J. Cabrerizo, Department of Ecology and Animal Biology, Faculty of Marine Sciences, University of Vigo, Vigo, Spain*

17:00-17:10h. S10.7. [First occurrence of the alien large benthic foraminifera \*Parasorites orbitoloides\* \(Hofker, 1930\) and \*Euthymonacha polita\* \(Chapman, 1900\) in the Western Mediterranean: their effects on the large-benthic foraminifera community.](#)

*Beatriz Alvira Romero, Càtedra "Guillem Colom Casasnovas", Universitat de les Illes Balears, Palma de Mallorca, España*

17:10-17:20h. S10.8. [Understanding the biogeographical patterns of marine invertebrates in the remote Azores Archipelago and surrounding NE Atlantic Ocean.](#)

*Lara Baptista, CIBIO-InBIO, Azores Pole, University of the Azores, Portugal*

17:20-18:00h. Discussion time



## S11. The Integrated Sea Management



Thursday, October 03  
M<sup>a</sup> Ángeles Alvareño  
Room

16:00-16:10h. S11.1. <a href="#">United Nations Global Goals for sustainable development.</a> <i>Luis Macua, CIFAL Málaga</i>
16:10-16:20h. S11.2. <a href="#">Maritime Spatial Planning and Marine Environment Protection in Spain.</a> <i>Constanza Sánchez García, University of Málaga</i>
16:20-16:30h. S11.3. <a href="#">A legal approach on marine spatial planning: reflections from Spain.</a> <i>M<sup>a</sup> Remedios Zamora Roselló, Public Law Department, University of Málaga</i>
16:30-16:40h. S11.4. <a href="#">Assessing the present health of the Marine Social-Ecological system in Moorea, French Polynesia.</a> <i>María Dolores Castro Cadenas, National Center for Scientific Research, CRIOBE, USR 3278 CNRS-EPHE-UPVD, Perpignan, France</i>
16:40-16:50h. S11.5. <a href="#">Understanding cross-border interactions in the European Macaronesia for transboundary marine spatial planning.</a> <i>Víctor Cordero Penín, University of Cádiz</i>
16:50-17:00h. S11.6. <a href="#">Neptunus Project: providing opportunities for the transition to the circular economy of the seafood sector in the Atlantic Area.</a> <i>Israel Ruiz Salmón, Departamento de Ingenierías Química y Biomolecular, Universidad de Cantabria, Santander</i>
17:00-17:10h. S11.7. <a href="#">Coastal planning in Spain.</a> <i>Esther Rando Burgos, Public Law Department, Universidad de Málaga</i>
17:10-17:20h. S11.8. <a href="#">The “Cachucho”, Marine Protected Area and Special Conservation Area.</a> <i>Noelia Pérez Nogueira, University of Salamanca</i>
17:20-17:30h. S11.9. <a href="#">Ecosystem services and urban development in the Bay of Cádiz.</a> <i>María de Andrés, Universidad de Cádiz</i>
17:30-17:40h. S11.10. <a href="#">MarSP: Cross-border cooperation in the Macaronesian region.</a> <i>Claudia Millán Caravaca, University of Cork</i>
17:40-17:50h. S11.11. <a href="#">Blue energy and marine spatial planning. What is going on in southern Europe.</a> <i>Pablo Quero García, Research Group of Integrated Coastal Zone Management (GIAL), University of Cádiz, Spain.</i>
17:50-18:00h. Discussion time.





II Congreso de Jóvenes Investigador<sup>as</sup> del Mar

## POSTER

*Session 1: Odd numbers, Wednesday, October 02. 18:00-19:00*

*Session 2: Pair numbers, Thursday, October 03. 18:00-19:00*



**The Sea as a Resources Source**

P01. [Microalgae biomass cultivated in agro-industrial wastewater as potential ingredient for feeding Siberian sturgeon \*Acipenser baerii\*. Effect on digestive enzymes.](#)

Antonio Jesús Vizcaíno Torres, Departamento de Biología y Geología, Escuela Superior de Ingeniería, Universidad de Almería, Almería, España

P02. [Physiological recovery in two rajidae species: a new tool to manage bottom trawling discards.](#)

Cristina Barragán-Méndez, University of Cádiz

P03. [In vitro protein hydrolysis of \*Ulva compressa\* and \*Ulva rigida\* by the digestive enzymes of turbot \*Psetta maxima\*.](#)

Alba Galafat, Departamento de Biología y Geología, Universidad de Almería, España

P04. [Morphometric differentiation between juveniles of bluefin tuna and little tunny caught in Western Mediterranean Sea.](#)

Jairo Castro Gutiérrez, Departamento de Biología Animal, Universidad de Málaga, Málaga.

P05. [Macroalgae as an alternative source of fish feed: Biochemical composition and antimicrobial activity.](#)

Jorge García Márquez, Departamento de Microbiología, Facultad de Ciencias, Universidad de Málaga

P06. [Genome and Phylogenetic Analysis of Genes belonging to the Immune System of the flatfish \*Solea senegalensis\*.](#)

Aglaya García Angulo, Área de Genética, Facultad de Ciencias del Mar y Ambientales, Universidad de Cádiz

P07. [Study of the intestinal microbiota of \*Solea senegalensis\* specimens after the administration of the probiotic \*Shewanella putrefaciens\* SpPdp11 by Next Generation Sequencing.](#)

Marta Domínguez-Maqueda, Departamento de Microbiología, Facultad de Ciencias, Universidad de Málaga

P08. [\*Phaeodactylum tricornutum\* culture: lipid productivity.](#)

Cristina Pérez de Mora, Departamento de Ecología, Facultad de Ciencias, Universidad de Málaga

P09. [Effects of probiotic \*Shewanella putrefaciens\* Pdp11 on \*Solea senegalensis\* infected with \*Vibrio harveyi\*.](#)

Isabel María Cerezo Ortega, Departamento de Microbiología, Facultad de Ciencias, Universidad de Málaga





P10. [Functional value of \*Nannochloropsis gaditana\*. Effect of a treatment to disrupt its cell wall.](#)

*Rosario Martínez Martínez, Departamento de Fisiología, Facultad de Farmacia, Instituto de Nutrición y Tecnología de los Alimentos, Centro de Investigación, Deporte y Salud, Universidad Granada*

P11. [First nutritional characterization of mysid \*Mesopodopsiss labberi\* at the Guadalquivir estuary.](#)

*Pablo Cárdenas Camacho. Instituto de Investigación y Formación Agraria y Pesquera IFAPA-Centro IFAPA "El Toruño" Consejería de Agricultura, Pesca y Desarrollo Sostenible - Junta de Andalucía*

P12. [Evaluation of enzyme additives on the nutritional use of feeds with a high contents of plant ingredients for juveniles of \*Muqil cephalus\*.](#)

*Francisca Purificación Martínez Antequera, Department of Biology and Geology, University of Almería.*

P13. [Analysis of the distribution and growth of the clam \*Scrobicularia plana\* and the razor clam \*Solen marginatus\* in the Bay of Cádiz.](#)

*Anyell Caderno Peña, Departamento de Biología, Facultad de Ciencias del Mar y Ambientales, Universidad de Cádiz.*

P14. [Spawning season for Atlantic bonito \*Sarda sarda\* in the Alboran Sea.](#)

*Samar Saber Rodríguez, Instituto Español de Oceanografía, Centro Oceanográfico de Málaga*

P15. [Tidal dynamics effect on the connectivity patterns of the blackspot seabream \*Pagellus bogaraveo\* in the Alboran.](#)

*Irene Nadal Arizo, Physical Oceanography Group, University of Málaga*

### Health and the Sea

P16. [Identification and antimicrobial properties of cultivable bacteria associated with seaweeds from Cantabrian Coast.](#)

*Susana Rubiño Campoy, IRTA-Monells (Food Safety Programme) Monells, Girona, Spain*

P17. [Development of a DNA vaccine against Phdp and evaluation of different nanoparticles as delivery systems.](#)

*Marian Ponce, Nutrition Laboratory, IFAPA Centro El Toruño, Junta de Andalucía*

P18. [Antioxidant properties of algae of the genus \*Cystoseira\* from the coasts of Cádiz.](#)

*María Mena Rodríguez, Department of Organic Chemistry, Faculty of Marine and Environmental Sciences, University of Cádiz*



P19. [Antitumoral and antioxidant activities of sulfated polysaccharides from \*Durvillaea antarctica\*](#).

*Virginia Casas Arrojo, University of Málaga*

P20. [Laminaria ochroleuca brown seaweed as a rich edible source with high valuable compounds](#).

*Noelia Flórez Fernández, Department of Chemical Engineering, Science Faculty, University of Vigo, Ourense, Spain; Centre for Biomedical Research, University of Algarve, Faro, Portugal; Centre for Marine Sciences, University of Algarve, Faro, Portugal*

### Engineering and the Sea

P21. [Characterization of offshore wind in Spain and Europe](#).

*Marina Garrido Cabezas, Department of Ecology and Geology, Faculty of Sciences, University of Málaga*

P22. [Sunfish buoy \(International Patent for Oceanographic Buoy\): a naval Engineering and oceanography combination](#).

*Daniel José Coronil Huertas, Navigation Sciences and Techniques and Ship-Building Department, School of Naval and Oceanic Engineering, University of Cádiz*

### The Integrated Sea Management

P23. [Study and ecosystem analysis of the coast of Tenerife: municipality of Granadilla de Abona](#).

*Rodrigo Barroso-Bolaños. Department of Biomedicine, Biotechnology and Public Health, Area of Biochemistry and Molecular Biology. University of Cádiz*

P24. [Study of the immune response in \*Mitylus galloprovincialis\* against ecotoxic particles of polystyrene nanoplastic](#).

*Marta Vila Spinola, University of Huelva*

P25. [A new selective marker gene for the genetic transformation of microalgae](#).

*Ana María Molina Márquez, Laboratory of Biochemistry. Faculty of Experimental Sciences. University of Huelva, Huelva, Spain.*

P26. [Cross-Border Approach for Maritime Spatial Planning: Stakeholders engagement in a pilot transboundary Marine Protected Area between Spain and Portugal](#).

*Mónica Campillos Llanos, Instituto Español de Oceanografía*

P27. [Fishing for Litter at the port of Fnideq NW Morocco](#).

*Soria Azaaouaj, Department of Geology, Applied and Marine Geosciences, Geotechnics (LR3G) Laboratory, Faculty of Science, University of Abdelmalek Esaadi.*





### The Sea Knowledge

P28. [King crabs and squat lobsters in deep waters off Mozambique \(Indian Ocean\).](#)

*Isabel Muñoz de los Reyes, Instituto Español de Oceanografía (Cádiz)*

P29. [When the microclimate does matter: Differences in the demographic, morphometric and reproductive variables of \*Fucus quiryi\* from two nearby populations.](#)

*Andrea Nieves Fernández Fernández, Departamento de Botánica y Fisiología Vegetal, Facultad de Ciencias, Universidad de Málaga*

P30. [Aquatic environment determines the carbon acquisition and assimilation potential in seagrasses and submerged freshwater angiosperms.](#)

*Concepción Iñiguez Moreno, Research Group on Plant Biology under Mediterranean Conditions, Universitat de les Illes Balears–INAGEA, Palma, Balearic Islands, Spain*

P31. [Oxidative stress response in \*Posidonia oceanica\* meadows by the phosphorus and iron loading in the water column and sediment.](#)

*Víctor Fernández-Juárez, Universidad de las Islas Baleares*

P32. [Influence of tectonics and erosive processes in the physiographical configuration of the middle shelf of the gulf of Cádiz \(NE sector\).](#)

*Olga Sánchez Guillamón, Instituto Español de Oceanografía, Centro Oceanográfico de Málaga*

P33. [Morphological features of the Mallorca Channel, Balearic Islands \(Central Western Mediterranean\).](#)

*Olga Sánchez Guillamón, Instituto Español de Oceanografía, Centro Oceanográfico de Málaga*

P34. [Mares de Andalucía, the first oceanographic campaign from CEIMAR.](#)

*Leonardo José Pozzo Pirota, Ecology and Geology Department, University of Málaga*

P35. [Extreme Environmental Conditions: the study of a Mediterranean hypersaline coastal lagoon.](#)

*Carlos Maximiliano Szkope-Cobo, Ecology and Geology Department, University of Málaga*

P36. [Interactive effects of temperature and salinity in the seagrass \*Cymodocea nodosa\*.](#)

*José Miguel Gil Fernández, University of Málaga*

P37. [Analysis of molluscan assemblages from different habitats of the Gazul mud volcano \(Gulf of Cádiz\).](#)

*Olga Utrilla Ojeda, Departamento de Biología Animal, Universidad de Málaga*



P38. [Ecophysiological and molecular involvement of extracellular-regulated protein kinases \(ERK 1/2\) in the response of \*Dunaliella viridis\* to heat stress.](#)

*Belén González Pastor, Department of Ecology, Faculty of Sciences, University of Málaga*

P39. [Physiological responses of adults and juveniles of \*Cystoseira tamariscifolia\* to projected warming scenarios along Alboran sea populations.](#)

*Ana Campos Cáliz, Departamento de Botánica y Fisiología Vegetal, Facultad de Ciencias, Universidad de Málaga.*

P40. [Submarine geomorphology of the continental Caribbean margin adjacent of Urabá Gulf.](#)

*Juan Manuel Vidal Pérez, University of Cádiz, College of Naval and Oceanic Engineering. School of Marine, Nautical and Radio-electronic Engineering*

P41. [Crustal structure of the cayos basin, western region of the colombian caribbean sea.](#)

*Bismarck Jigena Antelo, University of Cádiz, College of Marine, Nautical and Radioelectronic Engineering*

P42. [Obtaining and maintaining sea bass monoclonal cellular lines \*Dicentrarchus labrax\*: improving gene-transfer techniques.](#)

*Rodrigo Barroso-Bolaños, Department of Biomedicine, Biotechnology and Public Health, Area of Biochemistry and Molecular Biology, University of Cádiz*

P43. [Phytoplanktonic seasonal cycle in Alboran Sea.](#)

*Elena Pérez de Rubín Jiménez, University of Málaga; Instituto Español de Oceanografía*

P44. [Molecular studies on \*Plocamium cartilagineum\* complex \(Plocamiales, Rhodophyta\) suggest cryptic diversity in the Antarctic region.](#)

*Nerea Sanchis Collado. Institut Botànic de Barcelona; Laboratori de Botànica, Facultat de Farmàcia i Ciències de l'Alimentació, Institut de Recerca de la Biodiversitat (IRBio) & Centre de Documentació de Biodiversitat Vegetal (CeDocBiV), Universitat de Barcelona.*

P45. [Effects of marine heatwaves and acidification on Mediterranean reefs: the response of benthic invertebrates associated to the coralline algae \*Ellisolandia elongate\*.](#)

*Mar Santos, Univeristeit Gent and Università di Pavia*

P46. [Spatio-temporal distribution and population structure of \*Parapenaeus longirostris\* and \*Nephrops norvegicus\* in the northern Alboran Sea.](#)

*Cristina Ciércoles Antonell, Facultad de Ciencias, Universidad de Málaga*

P47. [Evidences of sexual segregation of blackmouth catshark \*Galeus melastomus Rafinesque, 1810\* \(Chondrichthyes: Scyliorhinidae\) in the Porcupine Bank, north-east Atlantic.](#)

*Lola Riesgo, Instituto Español de Oceanografía, C.O. de Cádiz*





P48. [Motivations and concerns of early career marine scientists.](#)

Javier Moreno-Andrés, Department of Environmental Technologies, INMAR-Marine Research Institute, University of Cádiz

P49. [Trophic differentiation between juvenile bluefin tuna and Atlantic bonito in bay of Málaga \(Alboran sea, SW Mediterranean\).](#)

Ignacio Baro Zamorano, Instituto Español de Oceanografía (IEO), Centro Oceanográfico de Málaga

P50. [Bacterial symbiosis in the bivalve \*Cardita calyculata\* \(L., 1758\).](#)

Juan Diego Castro Claros, Departamento de Biología Animal, Universidad de Málaga

P51. [Impact of heatwaves in shallow aquatic systems: Changes in O<sub>2</sub>, N<sub>2</sub>O and CH<sub>4</sub> fluxes in the sediment-water interface.](#)

Valle Pérez-Rodríguez. Department of Biology, Microbial Ecology and Biogeochemistry laboratory, University of Cádiz

P52. [Marine lobsters off Mozambique \(Indian Ocean\).](#)

Isabel Muñoz de los Reyes, Instituto Español de Oceanografía (Cádiz)

P53. [Global-change impacts on the metabolism of phytoplankton from coastal environments.](#)

Marco J. Cabrerizo, Department of Ecology and Animal Biology, Faculty of Marine Sciences, University of Vigo

P54. [Unraveling the true identity of the hermit crab \*Diogenes pugilator\* \(Crustacea: Decapoda: Diogenidae\) and study of the associated species complex.](#)

Bruno Almón Pazos, Instituto Español de Oceanografía, Centro Oceanográfico de Vigo, Vigo, Spain

P55. [Trophic plasticity in \*P. lividus\*: herbivory, detritivory and omnivory as a function of resource availability and habitat features.](#)

Judith Camps Castellà, IRTA-Aquatic Ecosystems, Sant Carles de la Ràpita, Tarragona, Spain

P56. [Warmer winters in Kongsfjorden will compromise the survival of interannalseaweds.](#)

Manuel Macías Andrade, Department of Ecology and Geology, University of Málaga

P57. [Island shelf and slope geomorphology of La Palma Island \(Southern sector\).](#)

Ayanta Velazco Martínez, Facultad de Ciencias del Mar, Universidad de Las Palmas de Gran Canaria

P58. [Understanding the biogeographic limits of the intertidal canopy-forming seaweed \*Fucus serratus\*.](#)

Ana García García, University Rey Juan Carlos



## LUIS LUBIÁN AWARD

Due to his tireless and important work in support to the young marine researchers, we want to keep the special prize within the flash-talk modality, in tribute to Dr. Luis Lubián, scientist of the Spanish National Research Council (CSIC), in this 2nd edition of the Congress.

Doctor in Biology from the University of Seville, he started his scientific career at the Deputation de Cádiz (in 1977) and then, at the Spanish National Research Council (CSIC, 1978). In 1987, he obtained his position as Senior Scientist at the Institute of Marine Sciences of Andalusia, where he worked until his retirement in June of 2017, being Director of this Institute between 1991 and 1998.

From the beginning, his research was focused on various aspects related to marine microalgae (taxonomy, cultivation, production of products of interest, ecotoxicology and physiology of carbon fixation). In the eighties, he created the Collection of Marine Microalgae Cultures of the Institute of Marine Sciences of Andalusia, which currently has more than a hundred taxa. In 1982 he described the species *Nannochloropsis gaditana*, widely used today in biotechnology and gastronomy. His research activity led him to participate in well-known oceanographic campaigns, such as several Antarctic campaigns aboard the Oceanographic Ship "Hespérides", or as the Malaspina Expedition, in addition of being director of more than a dozen Doctoral Theses and being author of many research papers in high impact journals.



It has been an invaluable support for the research on oceanography and marine biology for the University of Cádiz. This support became much stronger since the creation of the Faculty of Marine Sciences. In that long time he collaborated with generosity and great professionalism in common projects of oceanography and ecophysiology of phytoplankton, participating in innumerable campaigns. He was professor in bachelor's degrees, masters and doctorate courses, leaving us his scientific stamp along with his example of nobility, chivalry and elegance.





## ADDITIONAL AWARDS

- The **ICMAN-CSIC** will reward the best **flash talk** with a Tablet.
- The EUROMARINE working group **OYSTER** will grant three prizes of 100€, 60€ y 40€ to the first, second and third best **poster** in all the thematic areas.
- The Spanish Aquaculture Society **SEA** will reward the best **flash talk** in the Aquaculture session with a free registration for the next National Aquaculture Congress (XVIII CNA 2021).
- The **Malaga Science Academic** will reward the **acesit** and **second best posters** in all the scientific areas, paying more attention in those related to the **Malaga** and **Andalusian topics** with prizes of 300 € and 150 €, respectively.



## II Congreso de Jóvenes Investigadores del Mar

Del 1 al 4 de octubre de 2019 - Málaga



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