

# Co-creating Ecosystem-based Fisheries Management Solutions

Reykjavik

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## PARTNER 7: What is CSIC?



MINISTERIO  
DE ECONOMÍA  
Y COMPETITIVIDAD

- Área 1. Humanidades y Ciencias Sociales.....
- Área 2. Biología y Biomedicina.....  
Arbol CSIC
- Área 3. Recursos Naturales.....
- Área 4. Ciencias Agrarias.....
- Área 5. Ciencia y Tecnologías Físicas.....
- Área 6. Ciencia y Tecnología de Materiales.....
- Área 7. Ciencia y Tecnología de Alimentos.....
- Área 8. Ciencia y Tecnologías Químicas.....

**CSIC is a public agency and the largest research body in Spain (third in Europe) with a core role in the implementation of science and technological policies at the national level.**

**CSIC produces 20% of Spain's international publications and 45% of the public patents through 126 research institutes and a staff of about 13000 professionals.**

## Marine sciences

### CSIC main research lines:

- Marine geology
- Physical, chemical and biological Oceanography
- Marine biodiversity
- Marine ecology
- Marine microbiology
- Biogeochemical cycles and fluxes
- Dynamics of marine populations
- Pathology of marine aquaculture species
- Physiology and molecular biology in aquaculture
- Sustainable Management of the coastal area
- Sustainable fisheries

Institutional Sector	N. Doc	%
Universities	4774	69,21
Consejo Superior de Investigaciones Científicas	2338	33,89
Other OPIs	424	6,15
Inst. Español Oceanografía (IEO)	(353)	(5,12)
Inst. Nac. Invest. Tecnol. Alim. (INIA)	(31)	(0,45)
Inst. Tec. Geominero (ITGE)	(27)	(0,39)
Inst. Salud Carlos III (ISCIII)	(9)	(0,13)
C. Inv. Energ. Medioamb. Tecn. (CIEMAT)	(8)	(0,12)
C. Estud. Exp. Obras Pub. (CEDEX)	(5)	(0,07)
Inst. Nac. Téc. Aeroespacial (INTA)	(3)	(0,04)
Administration	339	4,91
Administración Autonómica	(265)	(3,84)
Administración Central	(64)	(0,93)
Administración periférica (ayunt., diput.)	(11)	(0,16)
Companies	181	2,62
Privadas	(147)	(2,13)
Corporaciones empresariales	(21)	(0,30)
Públicas	(14)	(0,20)
Fundations	101	1,46
Health Sector	49	0,71
Corporations	5	0,07
Multi-sectorial	5	0,07
Science and Technological Campus	2	0,03
Internacional Bodies	2	0,03
Others	63	0,91

Marine sciences  
CSIC in SPAIN

Marine sciences  
CSIC in EUROPE

CSIC : Top 30 of World  
Research Institutions in  
Oceanography  
~ DFO after UK and Germany  
Institutions in Europe

Thomson Reuters Essential  
Science Indicators:  
January 2000-December 2010

# Who we are in MAREFRAME?



## Instituto de Ciencias Marinas de Andalucía (Cádiz)



**Javier Ruiz (Research Scientist)**  
**Modelling Physical-Biological interactions**

P-B coupling at different scales  
Small pelagic and jellyfish modeling  
Coastal ecosystems

**PIs**

EUROCEANS, SESAME,  
ECOKNOWS, PERSEUS,...

A Bayesian model for anchovy: the combined pressure of man and environment. Fisheries Oceanography

Recruiting at the edge: kinetic energy inhibits anchovy populations in the western Mediterranean. PLoS ONE, 2013

The Guadalquivir estuary: a hot spot for environmental and human conflicts. Submitted to Springer-Verlag.

## Estación Biológica de Doñana (Seville)



**Renaud de Stephanis**

(Postdoc)

**Marine Mammals**

Population dynamics

Trophic interactions

**Founder of CIRCE**

<http://www.circe.info/>

Main meal for sperm whales: plastics debris. Mar Pollut Bull. 2013

Genetic differentiation among North Atlantic killer whale populations. Mol Ecol. 2011

Summer spatial distribution of cetaceans in the Strait of Gibraltar in relation to the oceanographic context. MEPS 2008.



**Margarita Rincón**

(Ph D Student)

**Bayesian Modelling**

Bayesian models of fish population-dynamics with embedded environment

Embedding anchovy survival in the environment: A Bayesian state-space size-structured population dynamics model. TBS



# What do we do in MAREFRAME?

